

7/23/01 - 9/7/01
Am
In progress

Septic Pump test - clean only
(anytime)

PERMIT

P 515238

A 513183

SEWAGE DISPOSAL SYSTEM

HOWARD COUNTY HEALTH DEPARTMENT

BUREAU OF ENVIRONMENTAL HEALTH

ISSUE DATE 5/10/2001

410-313-2640

APPROVAL DATE 9/17/01

INDEXED

7/19/01
Layout
11:00
8/3/01 - 10:00
Pump Test

9/14/01
Disconnection
From Old House
AM
Cell Phone - 410-320-6498

Paul D Kneeland (Emory Burchert-contractor)
410-437-1784

IS PERMITTED TO INSTALL ALTER

ADDRESS 12990 Brighton Dam Road, Clarksville, MD 21029 PHONE

SUBDIVISION Kneeland Property LOT NUMBER 2 ADDRESS 12990 Brighton Dam Road

PROPERTY OWNER Paul Kneeland PROPERTY OWNER'S ADDRESS Manekin LLC, 7061 Columbia Gateway Drive

SEPTIC TANK CAPACITY 1250 GALLONS - compartmented

PUMP CHAMBER CAPACITY 1250 GALLONS

NUMBER OF BEDROOMS 4

SQUARE FEET PER BEDROOM

05-365171

LINEAR FEET OF TRENCH REQUIRED

7/25/01 11:45
Left msg-OK to use
1/2 hsp pump, but if
not sufficient at
time of pump test
then must be replace
w/ 3/4 hsp, JLC

TRENCHES: Trenches to be ~~feet wide~~ feet wide. Inlet ~~feet below original grade~~ feet below original grade. Bottom maximum depth ~~feet below original grade~~ feet of stone below distribution box.

LOCATION:

SEE APPROVED SAND MOUND DESIGN PLANS.

A Single compartment septic tank was used - This is acceptable if a screen (Soda filter)
(as required for 2500 ft of Reservoir) is used in septic tank to improve quality of effluent going into percolator 9/7/01

PLANS APPROVED Amy McMillen DATE 4/2/2001

PERMIT VOID AFTER 2 YEARS

NOTE: CONTRACTOR RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS

NOTE: TOP OF SEPTIC TANKS ARE TO BE NO DEEPER THAN 3.0 FEET BELOW FINISH GRADE

NOTE: WATERTIGHT SEPTIC TANKS REQUIRED

NOTE: CLEANOUT REQUIRED EVERY 70 FEET OF SEWER LINE AND/OR AT 90° SWEEPS IN LINES FROM HOUSE TO DRAIN FIELDS, 90° ELBOWS ARE NOT ACCEPTABLE

NOTE: ALL PARTS OF SEPTIC SYSTEMS (I.E. TANK, DISTRIBUTION BOX, DRAINFIELDS) TO BE 100 FEET FROM ANY WATER WELL UNLESS OTHERWISE SPECIFICALLY AUTHORIZED

NOTE: NO ABSORPTION TRENCH TO EXCEED 100 FEET IN LENGTH UNLESS SPECIFICALLY AUTHORIZED

NOTE: ALL PIPE FROM HOUSE TO SEPTIC TANK MUST BE CAST IRON OR SCHEDULE 35/40 PVC OR ABS

NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

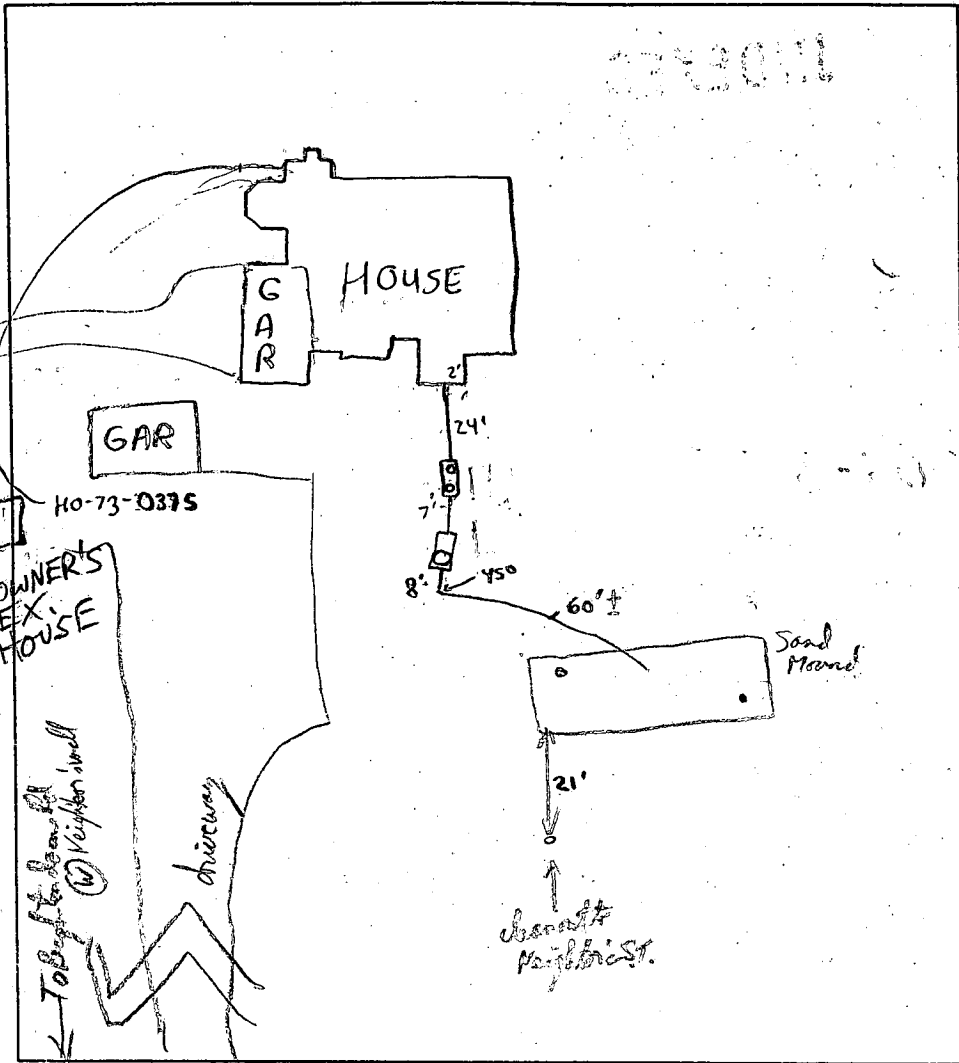
NOTE: IF PUMPED SEPTIC SYSTEM REQUIRED, (1) SEPTIC PUMP DETAIL TO BE PROVIDED BY INSTALLER PRIOR TO ISSUANCE OF SEPTIC PERMIT (2) PUMP PERFORMANCE TEST IS NECESSARY PRIOR TO HEALTH DEPARTMENT APPROVAL OF SEPTIC PERMIT

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM
PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT
CALL 410-313-2640 FOR INSPECTION OF SEPTIC SYSTEM

A 513183

NOT TO SCALE

073011



TRENCH DATA

TRENCH WIDTH	NA
TRENCH INLET DEPTH	NA
TRENCH BOTTOM DEPTH	NA
DEPTH OF STONE	NA
NUMBER OF TRENCHES	NA
TOTAL TRENCH LENGTH	NA
ABSORBENT AREA	NA
DISTRIBUTION BOX LEVEL	NA
BAFFLE IN DISTRIBUTION BOX	NA

SEPTIC TANK DATA

SEPTIC TANK	1500 TS (only one chamber)
MANHOLE RISER	NA
6 INCH INSPECTION PORT	on front on rear

PUMP CHAMBER DATA

PUMP CHAMBER GALLONS	1500 T.S.
MANHOLE RISER	on rear
ALARM	OPERATIONAL
PUMP PERFORMANCE TEST	Pump OK

PRE-CONSTRUCTION INSPECTION: Layout for primary Sand Mound is OK. Needs vegetative cover removed, & discussed

procedures in construction. Plan to finish S.T. construction next week. However, S.T. areas have no protective fence and about 15-20 ft
on NW side of one bedroom. S.M. has been tracked & graded by bulldozer - No longer usable for S.T. - Need to protect area &
INSPECTION COMMENTS: find a contractor to remove for construction replacement S.T. - called ALM to place

a stop work order on this house construction fully until S.T. ^{problem} been has been corrected P/P 7/9/01

Sand looks good & has cert. from AA county. Field was tilled Sunday, & told Contractor needed to roughen into furrows,

surface too smooth now. Well to that by fence main also. P/P 7/16/01 from long haul, S.T. protected, FIT in OK, S.T. set OK to cover P/P 7/16

S.T. has 10 ft, Sand covered by end of till log P/P 7/16/01 S.T. bed being built panel & PC set. P/P 7/17/01

7/20/01 Bed complete - filter cloth installed - clay cap in progress. P/P

8/3/01 - PUMP OK, EFFLUENT COMING THROUGH LATERAL - TURN UPS, ALARM NOT OPERATIONAL

PITLESS ADAPTER NEEDS INSP. SAND MOUND, ISSUES UNRESOLVED (SRN)

INSPECTOR Appilly **REPAIR AREA** DATE SYSTEM APPROVED 9/17/01

8/27/01 - NO ONE PRESENT, HOLD FINAL, CALLED CONTRACTOR, & LEFT MESSAGE - (SRN)

9/7/01 ALARM OK (M) 9/17/01 P/P - old well dis connected from old house (to be demolished) EMORY BURCHERT
old well connected to New House OK. Septic dis connected (cut at House construction) from old House.
This old septic to be used again for lot 1 (a new house). and revised perc cert plans acceptable P/P 9/17/01.

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: WILLOUGHBY PLUMB Telephone #: 410-781-7051
Address: 6203 PATRICK DR
SLYKESVILLE, MD

Client circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Chris Wiloughby License# 6992
*A licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.

Name of Property Owner: PAUL RUEBLAND Telephone #: _____
Subdivision: CLARKSVILLE Lot #: 2 Well Tag #: HO-13-0375
Site Address: 12990 BRIGHTON DR
CLARKSVILLE, MD 21029

Submersible Pump Data
Make: JACOZZI Pitless Adapter Make: HARVARD Well Cap and Electric Conduit
Model #: _____ Depth: 48" (36" min) Two piece watertight cap:
Pump Capacity: _____ GPM NSF approved: _____ Screened, vented well cap:
Well Yield: 50 GPM - 7.12 GPM Conduit min 1 1/2" R.G.:
Depth of well encountered at time of pump installation: 740 (feet) Conduit secured to well cap:
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque wrenches or Cable guards are required - must circle one
Safety rope, if used, attached to inside of well casing with eye bolt

Floors to house
Type: PRESTINE House Connection
PSI: 1" (150 psi min) PVC sleeved to undisturbed soil at wall penetration:
Depth of supply line: 2 (36" min) Approximate length of sleeve: 12
Sleeve caulked and sealed properly:

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative/responsible for installation: Chris Wiloughby Pres date: 9/19/01

For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: 9/14/01 Date Insp. Approved: 9/17/01 (RJP) SRK
Inspection Date: Pitless adapter and water supply line at least 36" below grade
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly
Safety rope installed inside of well casing
Correct well tag attached properly and casing 8" above finished grade
Water supply line sleeved adequately at house connection
Adequate ground observed below pitless adapter

WELL COMPLETION REPORT

DATE OF WELL COMPLETION: Sept 15 1961
WELL NO.: 42-73-1370
OWNER: Rowell
POST OFFICE: Wadsworth

STREET OR RFD: _____
CITY: _____
STATE: _____

WELL LOG

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WAVED SLARING.

DESCRIPTION OF ADDITIONAL TESTS (IF ANY)	FEET		DEPTH (FEET)
	FROM	TO	
<u>TOP SOIL</u>	<u>0</u>	<u>3</u>	
<u>SANDY</u>	<u>3</u>	<u>65</u>	
<u>GRAY SLAG</u>	<u>65</u>	<u>200</u>	<input checked="" type="checkbox"/>
<u>GRAY ROCK</u>	<u>200</u>	<u>220</u>	
<u>GRAY SLAG</u>	<u>220</u>	<u>240</u>	<input checked="" type="checkbox"/>

DRILLING RECORD

WELLS LOG SHOULD BE OBTAINED (CIRCLE APPROPRIATE BOX)

TYPE OF MUD (CIRCLE BOX)

CEMENT BENTONITE CLAY

NO. OF CEMENT 29 NO. OF POUNDS 2916

GALLONS OF WATER 170

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 TO 30

CASING RECORD

CASING TYPES (CIRCLE APPROPRIATE CODE BELOW)

STEEL CONCRETE

PLASTIC OTHER

NEEDS CEMENT NOMINAL DIAMETER TOP OF MAIN CASING (NEAREST INCH) TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)

ST 6 20

OTHER CASING (IF USED)

DIAMETER (INCH) DEPTH (FEET)

FROM TO

SCREEN RECORD

SCREEN TYPE (CIRCLE APPROPRIATE CODE BELOW)

STEEL BRASS WOOD

PLASTIC OTHER

DEPTH (NEAREST WHOLE FOOT)

FROM TO

0 0 6 8 240

DIAMETER OF SCREEN (NEAREST INCH)

FROM TO

GRAVEL SIZE

OF WELL GRAVEL WAS A FLOODING SEAL (CIRCLE BOX)

GRILLER

GRILLER (CIRCLE BOX)

PUMPING RATE

WELLS NUMBER (TO NEAREST FOOT) 11

PUMPING RATE (GALLONS PER MINUTE TO NEAREST GALLON) 60

METHOD USED TO MEASURE PUMPING RATE BUCKET

WATER LEVEL (DISTANCE FROM LAND SURFACE)

DEPTH TO PUMPING 30 (NEAREST FOOT)

WATER LEVEL 240 (NEAREST FOOT)

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)

RECIPROCATING CENTRIFUGAL TURBINE

OTHER (DESCRIBE BELOW)

PUMP INSTALLER

TYPE OF PUMP (CIRCLE APPROPRIATE LETTERS - SEE ABOVE: A, C, J, P, R, S, T, W)

DRILLER WILL INSTALL PUMP (CIRCLE APPROPRIATE BOX)

EFFICIENCY:

GALLONS PER MINUTE (TO NEAREST GALLON) 31 50

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (NEAREST FOOT) 45 47

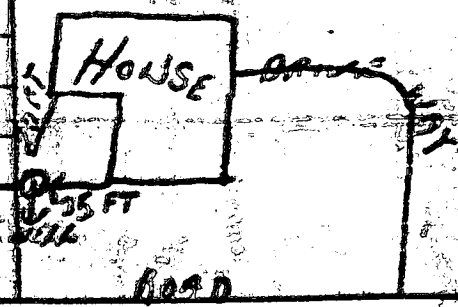
CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

ABOVE LAND SURFACE 2 (NEAREST FOOT)

BELOW

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).



CIRCLE APPROPRIATE BOXES

WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

ELECTRIC LOG OBTAINED

TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE CAPTIONED "CERTIFICATE OF WELL TITLE", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

WELL OWNER NAME: J. T. Trubey

DATE: _____

SIGNATURE: J. T. Trubey

B 7 03164

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO-94-2893

fill in this form completely

Date Received (APA) 11/01/00

OWNER INFORMATION

Jameson Builders, 10176 Baltimore National Pike Suite, Ellicott City MD 21042

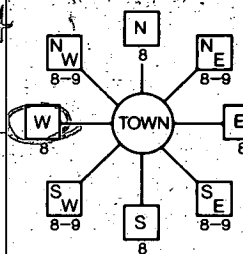
LOCATION OF WELL

Howard County, Kneeland Property, Clarksville

DRILLER INFORMATION

Michael Barlow MW D355, Michael Barlow Well Drilling Sect, 522 Underwood Lane Bel Air Md 21014

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Brighton Dam Rd, 1250, DISTANCE FROM ROAD

WELL INFORMATION, APPROX. PUMPING RATE 5, AVERAGE DAILY QUANTITY NEEDED 500

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, GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard County, A513183, DATE ISSUED 12/13/00, EXP. DATE 12/12/01

APPROXIMATE DEPTH OF WELL 200 FEET, APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered), JETTED, Jetted & DRIVEN, AIR-ROTARY, AIR-PERCUSSION, ROTARY (Hydraulic Rotary), CABLE, REVERSE-ROTARY, DRIVE-POINT

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

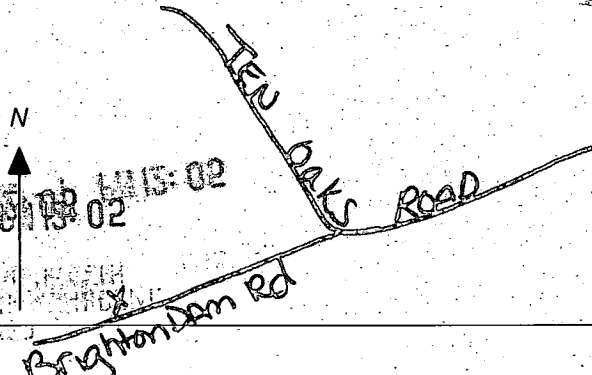
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

- SOURCES OF DRILLING WATER, 1., 2., 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

8059, 49050

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



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

APPROP. PERMIT NUMBER, PERMIT No. HO-94-2893

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

B 1 03103

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND PERMIT TO DRILL WELL

STATE PERMIT NUMBER

W514630 please print or type

HO-04-2804 fill in this form completely

Date Received (APA) 11/01/00

OWNER INFORMATION

Jamesstown Builders, 10176 Baltimore National Pike, Ellicott City MD 21042

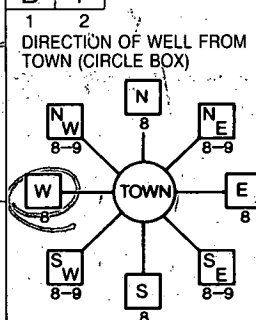
LOCATION OF WELL

Howard County, Kneeland Property, Clarksville

DRILLER INFORMATION

MICHAEL BARLOW M W0355, MICHAEL BARLOW Well Drilling Inc, 522 Underwood Lane Bel Air Md 21014

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Brighton Dam Rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) 1250 FT

WELL INFORMATION, APPROX. PUMPING RATE 0 GAL. PER MIN., AVERAGE DAILY QUANTITY NEEDED 000 GAL. PER DAY

TAX MAP: BLK: PARCEL

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION, FARMING, INDUSTRIAL, PUBLIC WATER SUPPLY WELL, TEST, OBSERVATION, MONITORING, GEO-THERMAL 4-300' BORE'S

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard COUNTY NAME, A 513198 COUNTY NO., STATE SIGNATURE, DATE ISSUED 12/12/01, CO SIGNATURE, EXP. DATE

APPROXIMATE DEPTH OF WELL 300 FEET, APPROXIMATE DIAMETER OF WELL 6 INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X, SOURCES OF DRILLING WATER

METHOD OF DRILLING (circle one)

BORED (or Augered), JETTED, Jetted & DRIVEN, AIR-ROTARY, AIR-PERCussion, ROTARY (Hydraulic Rotary), CABLE, REVerse-ROTary, DRive-POINT

WRITE THE BOX NUMBER FROM THE MAP HERE

800, 490

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

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



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

APPROP. PERMIT NUMBER 54, PERMIT No. HO-04-2804

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED



HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

March 9, 2001

To: Fred Ward Associate, Inc.
C/o Robert Vogel
7125 Riverwood Drive
Suite C Columbia, Maryland 21046-2354

RE: Kneeland Property
Sand Mound Design Plan
Brighton Dam Road
Tax Map 34 Parcel 299

Dear Mr. Vogel:

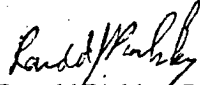
The above referenced plan is not yet ready for signature. The following comments should identify areas of the plan needing further clarification:

- 1) The house location was moved across the stream/wet land to a site much closer to the primary sand mound site. Revised calculations for the dose and pump sizing would be expected but no new calculations were provided with the revised plan.
- 2) Language change is needed in the Sequence of Construction.
 - a) Under Tank Installation... note #9 and Fill Placement... note #3 and elsewhere, change the wording so "all work must be from the up slope or sides of the sand mounds." "Positively No Trafficking is permitted on the down slope side or over the replacement sand mound areas or their down slopes."
 - b) The entire sewage disposal area is to be fenced off so no trafficking can occur during house construction phase.
 - c) Under Fill Placement note #2 change spelling of last word, first line to "sanitarian."
- 3) In Lateral (detail) – show a schematic of the actual Lateral Design, explicitly show:
 - a) The total # of perforations in each lateral and
 - b) The total length of each lateral (here or in Mound Layout/ Central Manifold Distribution Network Detail).
- 4) In Mound Layout Detail show the total sand mound length.

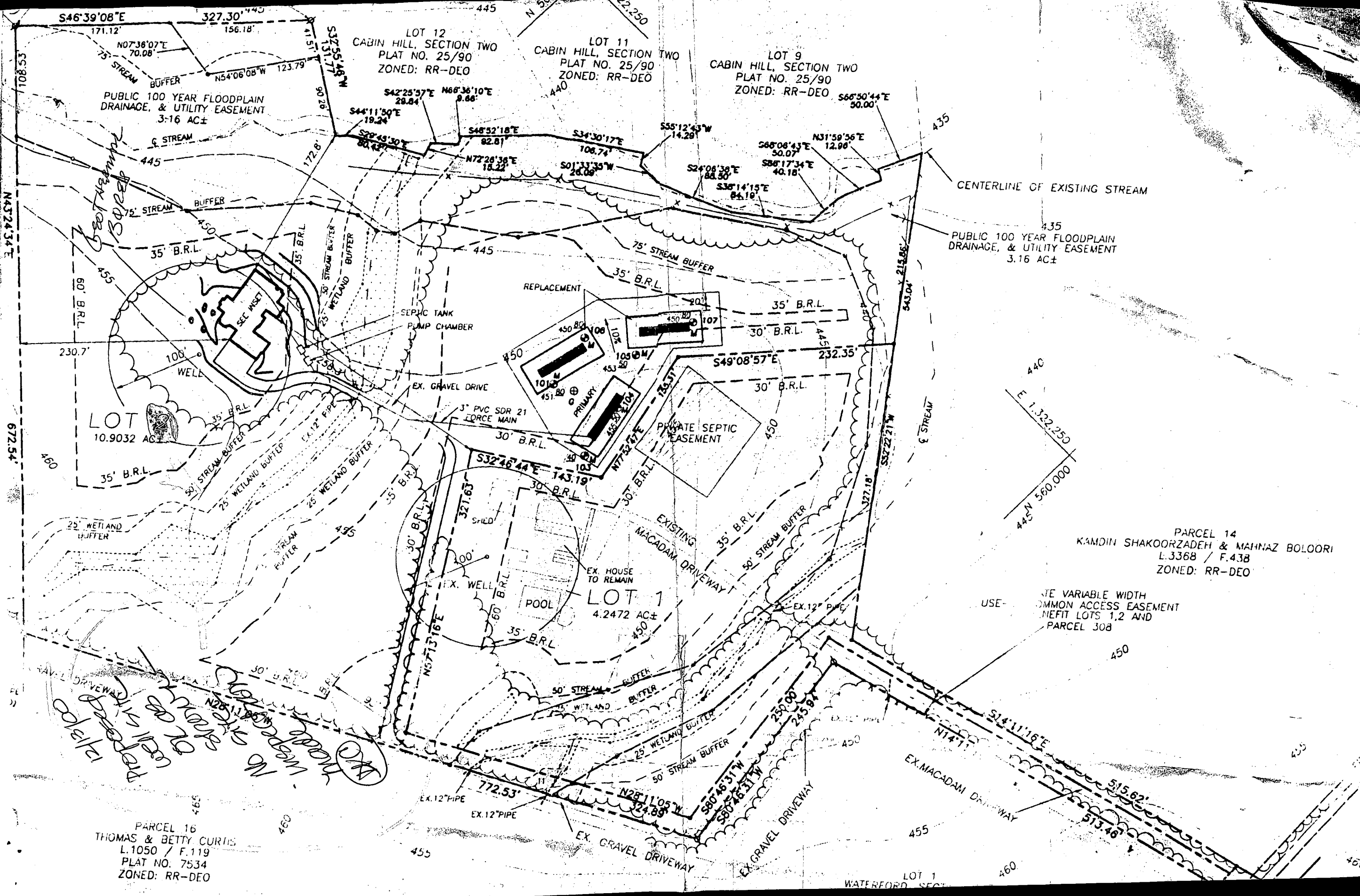
- 6) Since this plan is for a 4 bedroom house and a single pump is proposed, and as the interior dimensions give in the detail seem to suggest, specify a pump chamber at least 1250 gal in size.
- 7) Somewhere in the plan or attached calculations and specifications, or sequence of construction, mention should be made of the need for a control box and alarm. The alarm should be on a separate electric circuit and the control box should be of weatherproof make and located on the outside of the house so it is visible from the pump chamber to facilitate the required pump test inspection.
- 8) Since the revised house location suggests, and wording in Tank Installation – Note 7 so directs, uniform slope of the force main from sand mound back to the pump chamber, the Hydrolic Profile should be revised accordingly to show this uniform slope (it has a dip in the present detail).
- 9) Since you're doing the rest of these revisions, please include circles representing the 3 lateral pipes (cross section) within the gravel bed and show the 6 inch minimum between lateral invert and bottom of gravel bed.

If you have any questions, please call me at 410-313-2640.

Respectfully yours,


Ronald Pinkley, R.S.

CC: Paul Kneeland
File



LOT 12
CABIN HILL, SECTION TWO
PLAT NO. 25/90
ZONED: RR-DEO

LOT 11
CABIN HILL, SECTION TWO
PLAT NO. 25/90
ZONED: RR-DEO

LOT 9
CABIN HILL, SECTION TWO
PLAT NO. 25/90
ZONED: RR-DEO

PUBLIC 100 YEAR FLOODPLAIN
DRAINAGE, & UTILITY EASEMENT
3.16 AC±

CENTERLINE OF EXISTING STREAM

PUBLIC 100 YEAR FLOODPLAIN
DRAINAGE, & UTILITY EASEMENT
3.16 AC±

PARCEL 14
KAMDI SHAKOORZADEH & MAHNAZ BOLOORI
L.3368 / F.438
ZONED: RR-DEO

USE-
VARIABLE WIDTH
COMMON ACCESS EASEMENT
IN BENEFIT LOTS 1, 2 AND
PARCEL 308

PARCEL 16
THOMAS & BETTY CURTIS
L.1050 / F.119
PLAT NO. 7534
ZONED: RR-DEO

LOT 1
WATERFORD SECT

Handwritten notes:
 12/13/04
 No stream or other
 well in parcel
 12/13/04
 No stream or other
 well in parcel
 12/13/04
 No stream or other
 well in parcel



MARYLAND DEPARTMENT OF THE ENVIRONMENT
2500 Broening Highway • Baltimore, Maryland 21224
(410) 631-3000

Parris N. Glendening
Governor

Jane T. Nishida
Secretary

FAX COVER SHEET

TO: Steve Krug PHONE: 410-313-1775
Environmental Health FAX: 410-313-2648
Howard County

FROM: Denise Swatzbaugh PHONE: 410-631-3784
GROUNDWATER PERMITS PROGRAM FAX: 410-631-3163 Please call when faxing
Fax Machine is in another room!

REFERENCE: HO-73-0375

DATE: 9-21-2001

Number of pages you should receive including cover sheet: 3

IF the transaction is not completed or any other difficulties arise, please contact me.

Date: 05071974 HO-73-0375

WELL COMPLETION REPORT

COMPLETION

Completion Code: 04151974

Depth: 240

Number of Stages: 0

Hydraulic Fracturing:

CASING

Casing Type: ST

Casing Diameter: 6

Casing Grade: 70

Casing Weight: 102

WELL TESTS

Flow Rate: 1

Pressure: 50

Temperature: 90

Wellbore Diameter: 240

Well Completion: A

ISOLATION

Isolation: Y

Isolation Type: CM

Isolation Depth: 0

Isolation Length: 30

SCREENS

Screen	Type	Top	Bottom
1	HD	60	240
2			
3			

Screen Diameter:

WELL LOGS

Well Log Type: N

Well Log Depth:

Well Log Diameter:

Well Log Weight:

Well Log Length:

Flowing: Isolation: Log Hole: Cased: Slotted:

Abandon Code:

Top soil 0-3

Sandy 3-65

Gray Slag 65-200 ✓

Mica Rock 200-220

Gray Slag 220-240 ✓

MIDLEVEL WMA FACE SURVEILLANCE

07161973 HO730375 HO-73-0375

HOWELL, PETER

HO HOWARD COUNTY

CLARKSVILLE MD

DAYTON 1 MI S

EASTERDAY, LOUIS F MWD0042

GREEN BRIDGE W 500 FT

5 600

07131973

D

100 AIR-ROT

510000 900000

N

173984 400025

39.233831 78.9997 0

03/22/2001 12:25 3018292667

EASTERDAY



EASTERDAY Well & Pump, Inc.

9265 Brown Church Road, Mt. Airy, Maryland 21771
301-831-5170



March 22, 2001

Ms. Kimberly Clark
Howard County Health Department
3525 H Ellicott Mills Dr
Ellicott City, Md 21043

RE: 12990 Brighton Dam Rd
Clarksville, Md 21029
Building Permit: B00126854
Well Tag # HO-73-~~3095~~ 0375

Dear Ms. Clark:

On Friday March 9, 2001, we conducted a yield test of the existing well. We found the well to be 252 ft deep with a static water level of 25 ft pouncing 12GPM. We found the well casing and well in satisfactory to support a new house. The yield test was forwarded to Mr. Kneeland.

If you need further information please feel free to call our office.

Sincerely,

Sandi Sandifer
Service Dept.

SKS

3/23/01 Based on info provided by Easterday well installed under permit # HO-73-0375 may be maintained for use as potable water supply to proposed house on lot 2. (DK)

Page 1 of 1
Date 3-9-01

Review _____

FIELD DATA SHEET
HYDROGEOLOGIC AREA (7) WELL YIELD TEST

Maryland Well Permit No. H0-73-0375 Election District _____
Location of Property (road) 12990 Brighton Dam Rd Choksville, MD 21021
Subdivision _____ Lot _____ Block _____ Plat _____ Sec. _____
Well Driller L.F. Easterday, Inc. Owner Paul Kneeland
Depth of Well 252'
Distance of Measuring Point (M.P.) above ground 3'
Static Water Level (S.W.L.) below M.P. 6'

I. High Rate Pumping -- reservoir drawdown

Time pump started _____ Pumping rate _____
Total time _____ to reach pumping water level _____ ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes.

TIME	WATER LEVEL Below M.P.	PUMPING RATE Time to fill 5 gal. bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per min.)
9:30	6'	25 sec	N/A	12 gpm
9:45	8.5'	25		12 gpm
10:00	12'	25		12 gpm
10:15	14'	25		}
10:30	17'	25		
10:45	20'	25		
11:00	23'	25		
11:15	25'	25		
11:30	27'	25		
11:45	29'	25		
12:00	31'	25		
12:15	33'	25		
12:30	35'	25		
		Tested by: <u>Dorcas E. Wilson</u>		

APPLICATION

PERCOLATION TESTING

A 513119-B

P _____

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

DISTRICT _____

DATE 11-12-99

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 ~~PETER & SANDRA RODWELL~~

ADDRESS ~~12990 BRIGHTON DAM ROAD~~ PHONE _____

AGENT OR PROSPECTIVE BUYER PAUL & SUSANNE KNEELAND

ADDRESS 6485 BELLEVUE DRIVE PHONE (410) 290-1450

PROPERTY LOCATION:

SUBDIVISION N/A DEED (L.023/F.437) LOT NO. 2

ROAD AND DESCRIPTION 2500' ± WEST OF INTERSECTION OF TEN OAKS ROAD & BRIGHTON DAM ROAD

TAX MAP 023 PARCEL # 437

SIZE OF LOT 3 AC TYPE BLDG. SINGLE FAMILY
(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. [Signature]
(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



FREDERICK WARD ASSOCIATES, INC.

7125 Riverwood Drive, Suite C, Columbia, Maryland 21046-2354
410-290-9550 • Toll Free Outside MD: 888-879-8599 • Fax 410-720-6226

ENGINEERS
ARCHITECTS
SURVEYORS

LETTER OF TRANSMITTAL

TO: Howard County Health Dept.

DATE	<u>9/14/01</u>	JOB NO.	<u>201915300</u>
ATTENTION	<u>Ron Pinkley</u>		
RE:	<u>Kneeland Property</u>		

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- > Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
<u>1</u>			<u>Sand Mound Design Plan</u>
			<u>Revised Plan OK</u>
			<u>Repair Sand Mound was Moved 15ft to street,</u>
			<u>out of compressed by Heavy Tractor Soils.</u>
			<u>RJP 9/18/01</u>

THESE ARE TRANSMITTED as checked below:

- > For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ 19____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

* Relocation Replacement Mounds

COPY TO _____

SIGNED: Megan Pigneri

If enclosures are not as noted, kindly notify us at once.

4-12' Loled
on 10,000 ft.

APPLICATION

Fill out in triplicate.
Make \$30.00 check payable:
Howard County Health Dept. - Sanitation
P.O. Box 476
E.C. 21043

SEWAGE DISPOSAL TESTING

A 21480

P _____

STATE OF MARYLAND - DEPARTMENT OF HEALTH AND MENTAL HYGIENE

HOWARD COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH SERVICES

DISTRICT 5th

DATE 4/30/75

P. O. BOX 476, ELLICOTT CITY, MARYLAND 21043
TELEPHONE: 465-5000, EXT. 356

Release
~~9/30/75~~ ~~9/20/75~~ ~~9/19/75~~ ~~9/19/75~~ ~~9/19/75~~ ~~9/19/75~~
10/1/75 9:30
10/23/75 9:30 A.M.
9:30 A.M. 9:30 - Test

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 Peter A. & SANDRA M. ROWELL

ADDRESS 12990 Brighton Dam Rd PHONE 596-5120
CLARKSVILLE MD 21029

PROPERTY LOCATION:
SUBDIVISION N/A LOT NO. N/A

ROAD AND DESCRIPTION 12990 Brighton Dam Rd CLARKSVILLE MD 21029
5 ACRES

SIZE OF LOT 5 ACRES TYPE BLDG. Residence - 3
NUMBER OF BEDROOMS

IF NOT SINGLE RESIDENCE DESCRIBE _____

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE.

SIGNATURE OF APPLICANT *Peter Rowell*

APPROVED BY _____ FOR _____ DATE _____
(KIND OF SYSTEM)

REJECTED BY R. Monefeld FOR Any DATE 10/23/75
(KIND OF SYSTEM)

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR REJECTION OR HOLDING _____

THIS IS NOT A PERMIT

INDICATE NORTH. - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	

REMARKS _____

TYPE OF SOIL _____

TESTED BY _____ ALSO PRESENT: _____

APPLICATION

A 21480

SEWAGE DISPOSAL TESTING

P _____

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: 465-5000, EXT. 356

DISTRICT 5th

DATE 4/30/75

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 Peter A. & Sandra M. Rowell

ADDRESS 12990 Brighton Dam Rd PHONE 596 5120
CLARKSVILLE, MD 21029

PROPERTY LOCATION:

SUBDIVISION _____ LOT NO. _____

ROAD AND DESCRIPTION 12990 Brighton Dam Rd CLARKSVILLE, MD 21029
5 ACRES

SIZE OF LOT 5 ACRES TYPE BLDG. Residence - 3
NUMBER OF BEDROOMS

IF NOT SINGLE RESIDENCE DESCRIBE _____

THE SYSTEM INSTALLED UNDER THIS APPLICATION IS ACCEPTABLE ONLY UNTIL PUBLIC FACILITIES BECOME AVAILABLE.

SIGNATURE OF APPLICANT 

APPROVED BY _____ FOR _____ DATE _____
(KIND OF SYSTEM)

REJECTED BY _____ FOR _____ DATE _____
(KIND OF SYSTEM)

HOLD PENDING FURTHER TESTS _____ DATE _____

REASONS FOR REJECTION OR HOLDING _____

THIS IS NOT A PERMIT

	0 Hi			

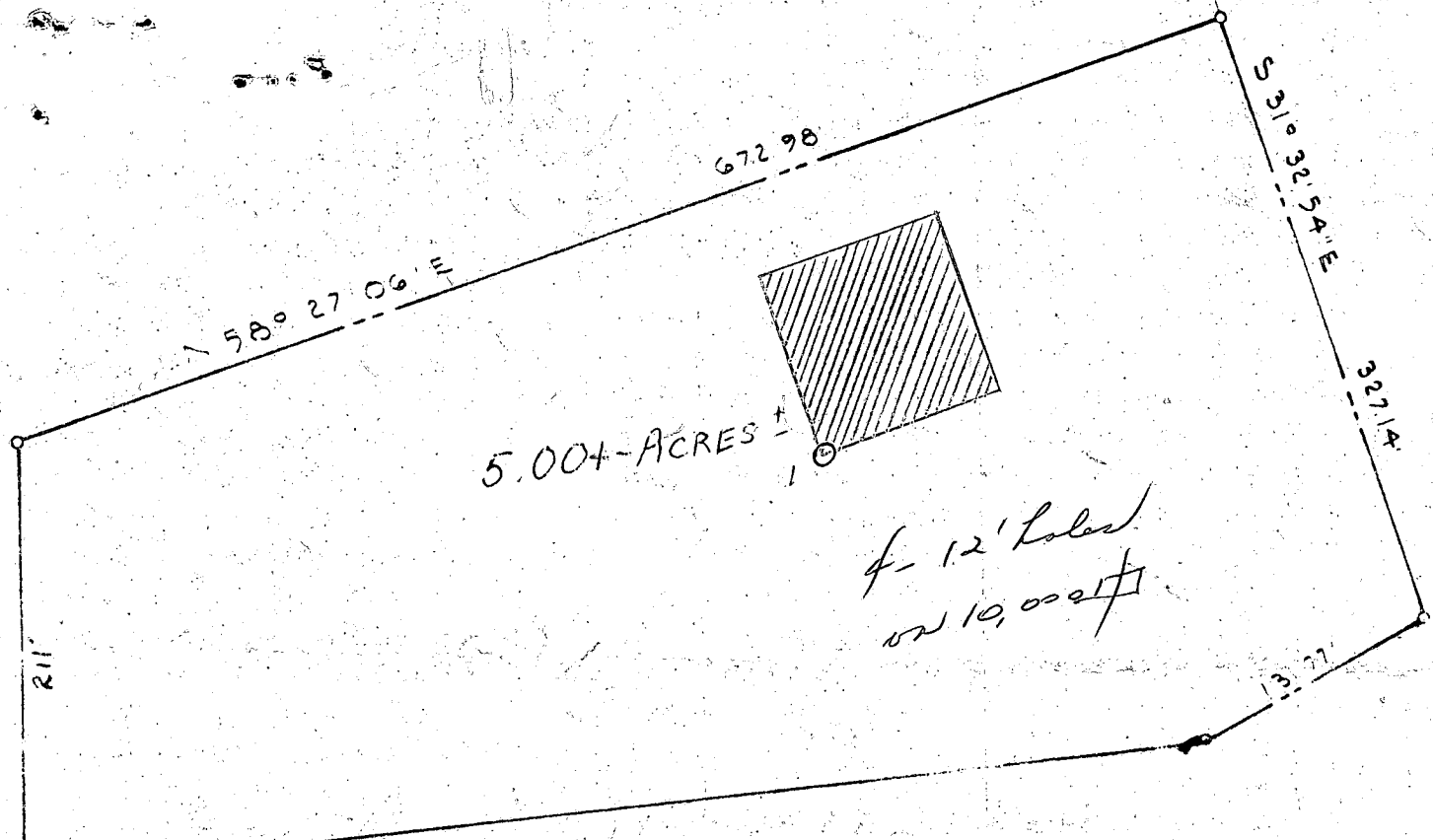
INDICATE NORTH. - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
10/23/75	1	10	water	at	5'		X

REMARKS _____

TYPE OF SOIL gray clay below 5' (Brown clay above)

TESTED BY R. Myonesfeld ALSO PRESENT: J. Fyock



5.004-ACRES ±

4- 12' holes
on 10,000 ft

772.67'

N 13° 09' 01" W

561.67'

Peter U. Louse
had 15 acres now
will
return 10 acres

New house
& septic system
on 10 acres

PROPERTY OF
PETER A. + SANDRA M. ROWELL
12990 BRIGHTON DAM RD.
CLARKSVILLE, HOWARD COUNTY, MARYLAND

[Handwritten signature]

N 84° 08' 39" W 243.89'

511.10'

SAND MOUND CONSTRUCTION SEQUENCE
(REF: MDE DESIGN AND CONSTRUCTION OF SAND MOUND SYSTEMS, JUNE 1991, MDE)

TANK INSTALLATION AND SITE PREPARATION

1. CONTRACTOR SHALL CONTACT THE HEALTH DEPARTMENT, (410) 313-2640, 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
2. LOCATE AND ROPE OFF THE ENTIRE SEWAGE DISPOSAL AREA TO PREVENT DAMAGE TO THE AREA DURING CONSTRUCTION ACTIVITY ON THE SITE. VEHICULAR TRAFFIC OVER THE DISPOSAL AREA SHOULD BE PROHIBITED TO AVOID SOIL COMPACTION.
3. INSTALL SEPTIC TANK(S) AND PUMPING CHAMBER(S) AND PUMP AS SHOWN ON THE DRAWINGS. CALL FOR INSPECTION.
4. STAKE OUT THE INITIAL AND RECOVERY MOUND PERIMETERS IN THEIR PROPER ORIENTATION AS SHOWN IN THE DRAWINGS. REFERENCE STAKES OFFSET FROM THE MOUND CORNER STAKES ARE RECOMMENDED. LOCATE THE UPSLOPE EDGE OF THE ABSORPTION BED WITHIN THE MOUND AND DETERMINE THE GROUND ELEVATION AT THE HIGHEST LOCATION. REFERENCE THIS ELEVATION TO A BENCHMARK FOR FUTURE USE. THIS IS NECESSARY TO DETERMINE THE BOTTOM ELEVATION OF THE ABSORPTION BED.
5. EXCESS VEGETATION SHOULD BE CUT AND REMOVED. TREES SHOULD BE CUT AT GROUND LEVEL AND STUMPS LEFT IN PLACE.
6. DETERMINE THE LOCATION WHERE THE FORCE MAIN FROM THE PUMPING CHAMBER WILL CONNECT TO THE DISTRIBUTION NETWORK MANIFOLD WITH THE GROUND.
7. INSTALL THE FORCE MAIN FROM THE PUMPING CHAMBER TO THE PROPER LOCATION WITHIN THE MOUND. PIPE SHOULD BE LAID WITH UNIFORM SLOPE BACK TO THE CHAMBER SO THAT IT DRAINS AFTER DOSING. CUT AND STUB OFF PIPE ONE FOOT BELOW EXISTING GRADE WITHIN THE PROPOSED PERIMETER OF THE INITIAL MOUND. BACKFILL TRENCH AND COMPACT TO PREVENT SEEPAGE ALONG THE TRENCH.
8. CONTACT HEALTH DEPARTMENT PRIOR TO PLOWING OF SOILS FOR INSPECTION.
9. PLOW THE SOIL WITHIN THE PERIMETER OF THE MOUND TO A DEPTH OF ABOUT EIGHT INCHES IF THE SOIL IS NOT TOO MET. MOLDBOARD OR CHISEL PLOWS MAY BE USED. PLOWING SHOULD BE DONE ALONG THE CONTOUR, THROWING SOIL UPSLOPE. USE A 2-BOTTOM OR LARGER MOLDBOARD PLOW. IN WOODED AREAS WITH STUMPS, ROUGHENING THE SURFACE TO A DEPTH OF FOUR TO SIX INCHES WITH BACKHOE TEETH MAY BE SATISFACTORY. HOWEVER, ALL WORK MUST BE DONE FROM THE UPSLOPE OR SIDES OF THE MOUND. ROTOTILLING MAY BE USED ON SOILS WITH USDA TEXTURES OF SAND. AFTER PLOWING, ALL FOOT AND VEHICULAR TRAFFIC SHALL BE KEPT OFF THE PLOWED AREA.

NOTE:
THE SAND MOUND LAYOUT INSPECTION MAY BE COMBINED WITH THE SEPTIC TANK/PUMP CHAMBER INSPECTION.

FILL PLACEMENT

1. RELOCATE AND EXTEND THE FORCE MAIN SEVERAL FEET ABOVE THE GROUND SURFACE.
2. SAND MATERIAL TO BE BETWEEN 0.25 AND 0.50 MM WITH A UNIFORMITY COEFFICIENT OF 3.5 OR LESS. SANITARIAN TO APPROVE MATERIAL PRIOR TO PLACEMENT.
3. PLACE THE APPROVED SAND FILL MATERIAL ON THE UPSLOPE EDGE(S) OF THE PLOWED AREA. KEEP DELIVERY TRUCKS OFF THE PLOWED AREA. NO TRAFFIC PERMITTED ON THE DOWNSLOPE SIDE. FILL SHOULD BE PLACED AND SPREAD IMMEDIATELY AFTER PLOWING. MOVE THE FILL MATERIAL INTO PLACE USING A SMALL TRACK-TYPE TRACTOR WITH A BLADE. WORK FROM THE END AND UPSLOPE SIDE. ALWAYS KEEP A MINIMUM OF SIX INCHES OF MATERIAL BENEATH THE TRACKS OF THE TRACTOR TO MINIMIZE COMPACTION OF THE NATURAL SOIL. THE FILL MATERIAL SHOULD BE WORKED IN THIS MANNER UNTIL THE HEIGHT OF THE FILL REACHES THE ELEVATION OF THE TOP OF THE ABSORPTION BED.
4. WITH THE BLADE OF THE TRACTOR, FORM THE ABSORPTION BED. HAND LEVEL THE BOTTOM OF THE BED AND CHECK IT FOR PROPER ELEVATION. THE BED SHOULD BE LEVEL FOR PROPER FUNCTIONING OF THE MOUND. CALL FOR INSPECTION.
5. SHAPE THE SIDES OF THE SAND FILL TO DESIGN SLOPE (I.E., 3:1 OR FLATTER).

BED AND DISTRIBUTION NETWORK

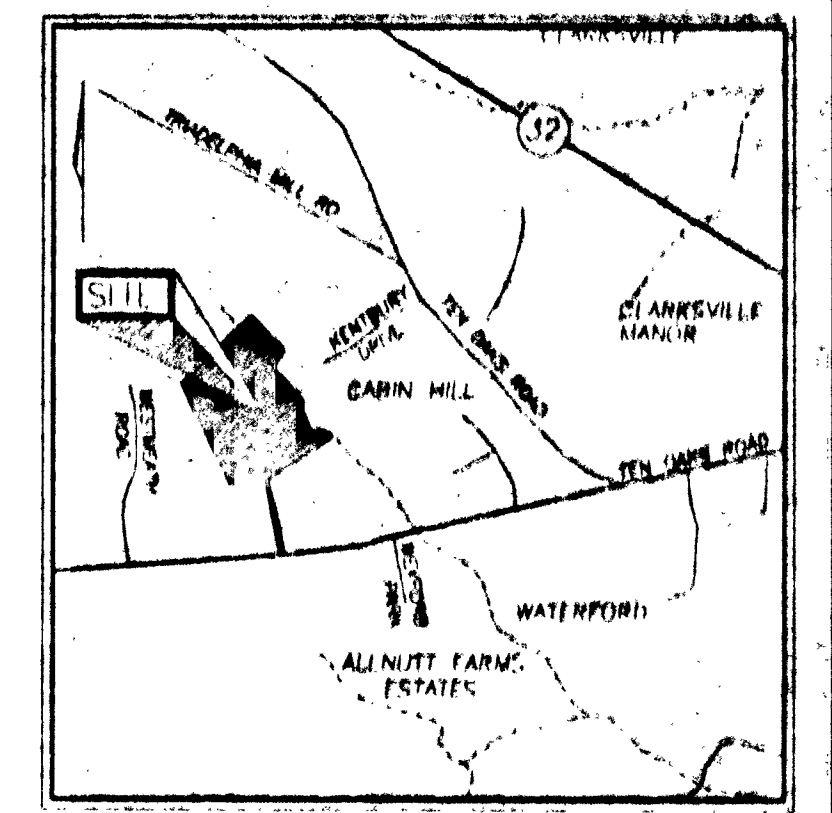
1. CAREFULLY PLACE THE COARSE AGGREGATE IN THE BED. DO NOT CREATE RUTS IN THE BOTTOM OF THE BED. LEVEL THE AGGREGATE TO A MINIMUM DEPTH OF SIX INCHES.
2. THE DISTRIBUTION NETWORK IS ASSEMBLED IN PLACE SETTING THE MANIFOLD TO ENSURE DRAINING THE LATERALS BETWEEN DOSES. THE LATERALS SHOULD BE LAID LEVEL WITH THE HOLES DIRECTED DOWNWARD. CALL FOR INSPECTION. TEST THE PUMPING CHAMBER AND DISTRIBUTION NETWORK WITH CLEAN WATER.
3. PLACE ADDITIONAL AGGREGATE TO A DEPTH OF AT LEAST TWO INCHES OVER THE CROWN OF THE PIPE.
4. PLACE THE APPROVED GEOTEXTILE FABRIC OVER THE AGGREGATE BED. THE FABRIC MAY EXTEND BEYOND THE BED OVER THE SAND FILL.

COVER MATERIAL

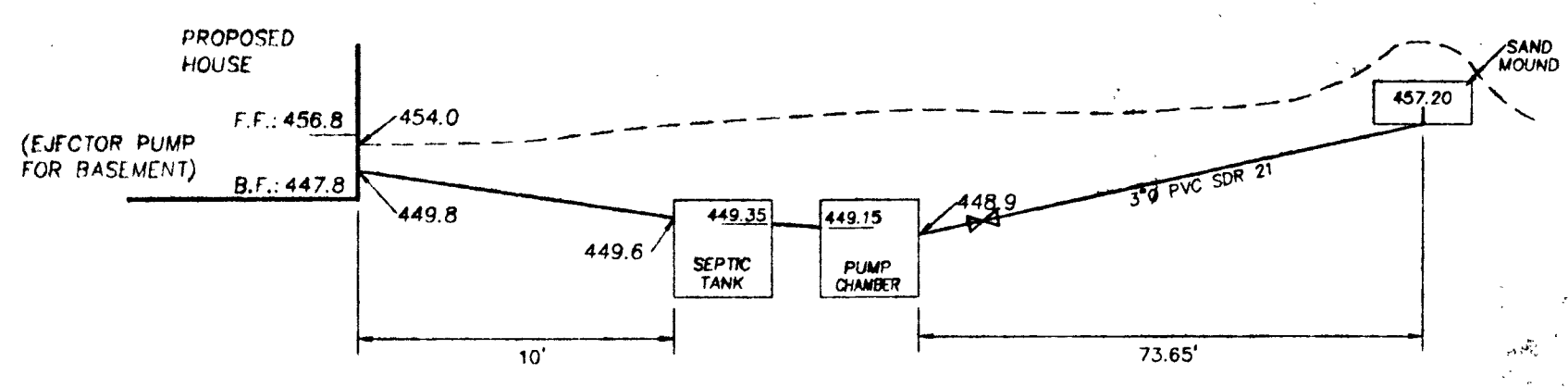
1. PLACE A FINER TEXTURED SOIL MATERIAL SUCH AS SANDY CLAY LOAM, CLAY LOAM, OR SILT LOAM ON TOP OF THE FABRIC OVER THE BED. THE MINIMUM DEPTH OF THE CAP SHALL BE SIX INCHES AT THE OUTER EDGES OF THE BED AND 12 INCHES ALONG THE CENTER.
2. PLACE A MINIMUM OF SIX INCHES OF GOOD QUALITY TOPSOIL OVER THE ENTIRE MOUND SURFACE INCLUDING THE SIDESLOPES. CALL FOR FINAL INSPECTION.

VEGETATION

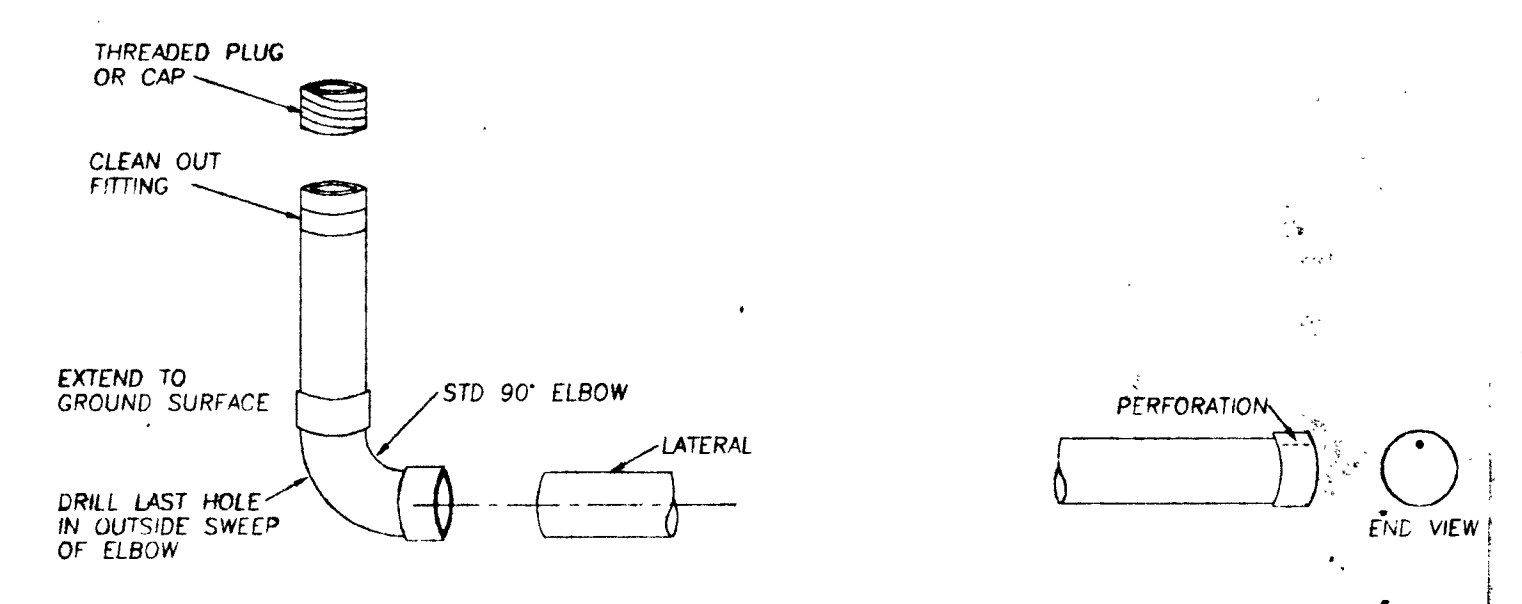
1. FERTILIZE, LIME, SEED, AND MULCH THE ENTIRE SURFACE OF THE MOUND. GRASS MIXTURES ADAPTED TO THE AREA SHOULD BE USED.
2. CONSULT THE COUNTY EXTENSION AGENT OR SOIL CONSERVATION SERVICES FOR RECOMMENDATIONS.



VICINITY MAP
SCALE: 1"=200'

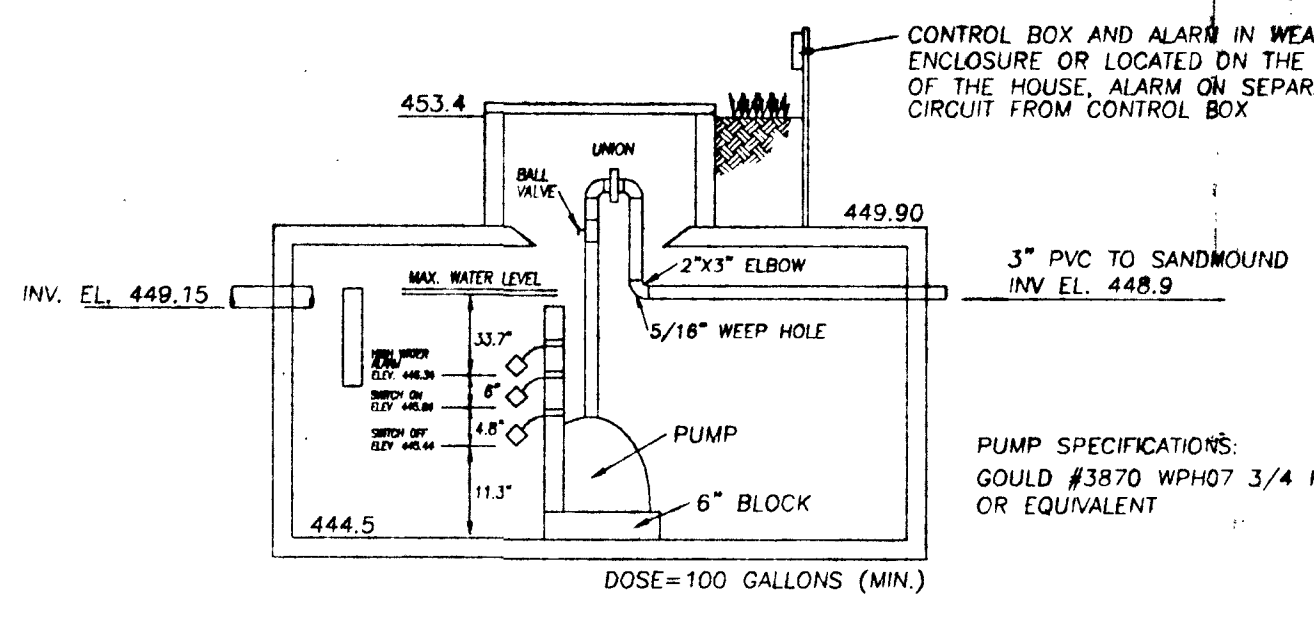


HYDRAULIC PROFILE
N.T.S.

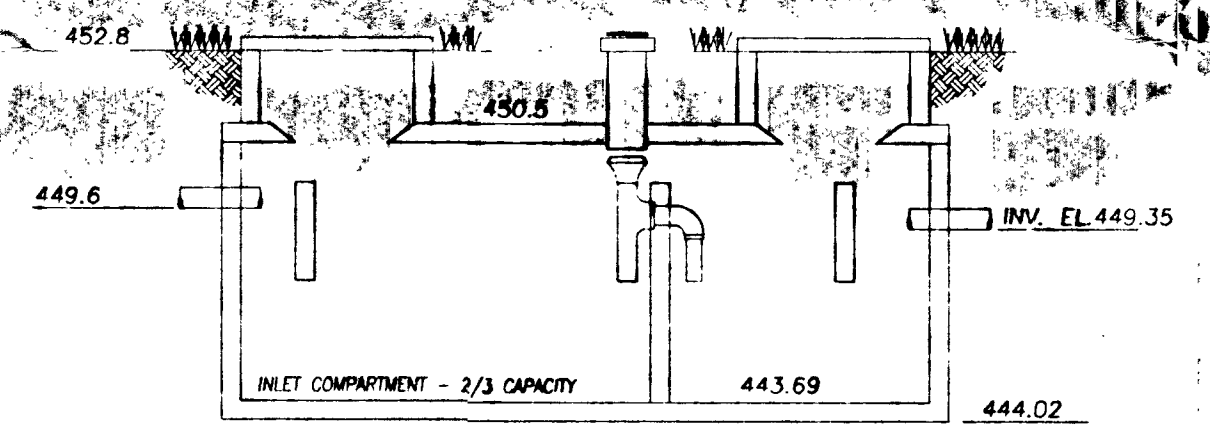


LATERAL END TURN-UP
USE ON LATERALS FARTHEST FROM PUMP
N.T.S.

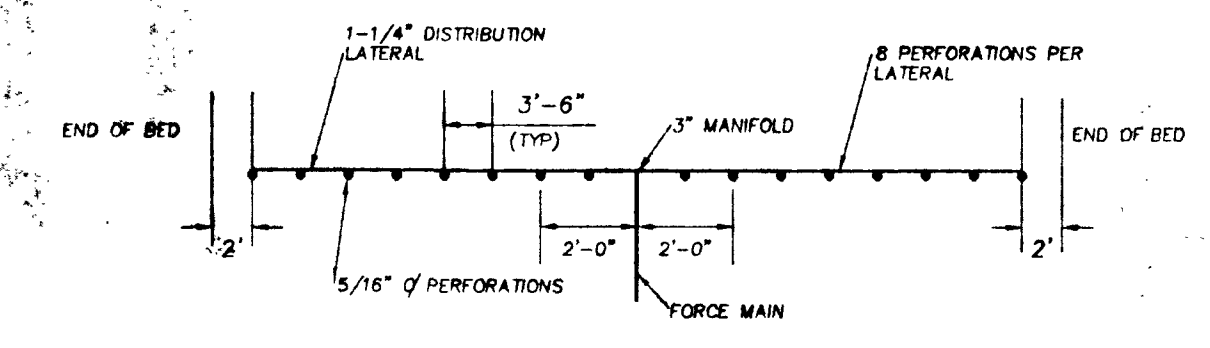
LATERAL END CAP
USE ON LATERALS NOT EQUIPPED WITH TURN-UP
N.T.S.



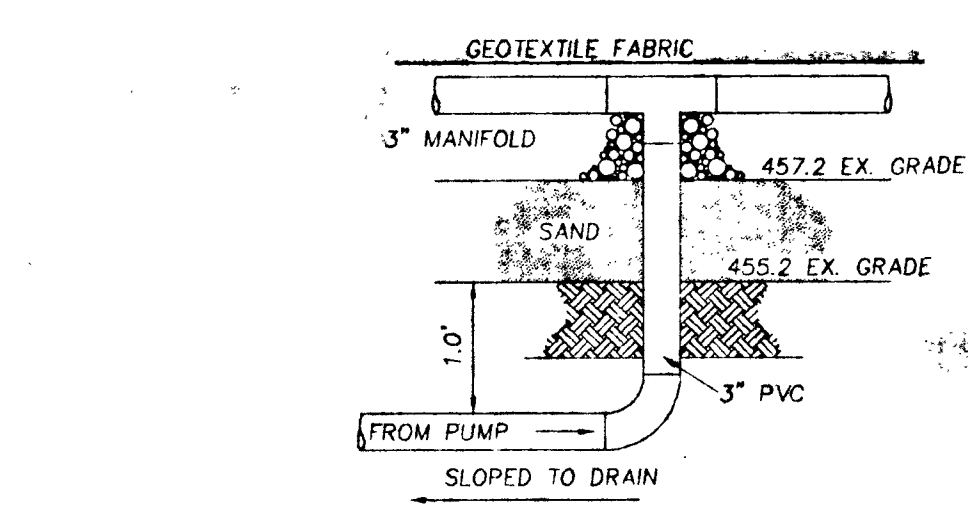
1.250 GALLON PUMP CHAMBER (TOP SEAM)
N.T.S.



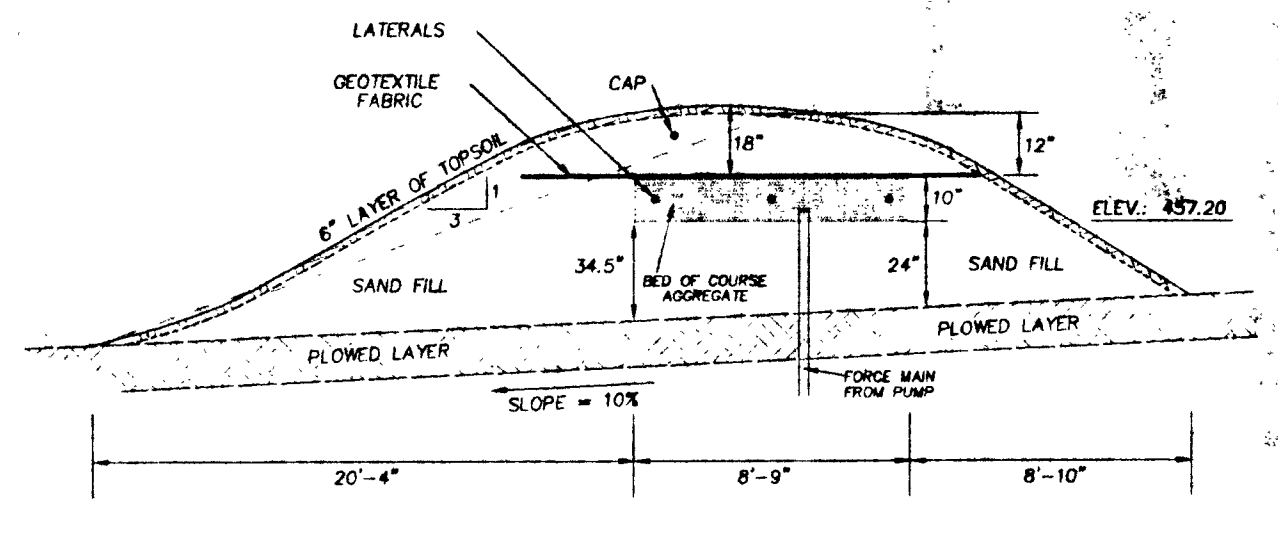
1.500 GALLON SEPTIC TANK (TOP SEAM)
N.T.S.



LATERAL DETAIL - TYPICAL
N.T.S.

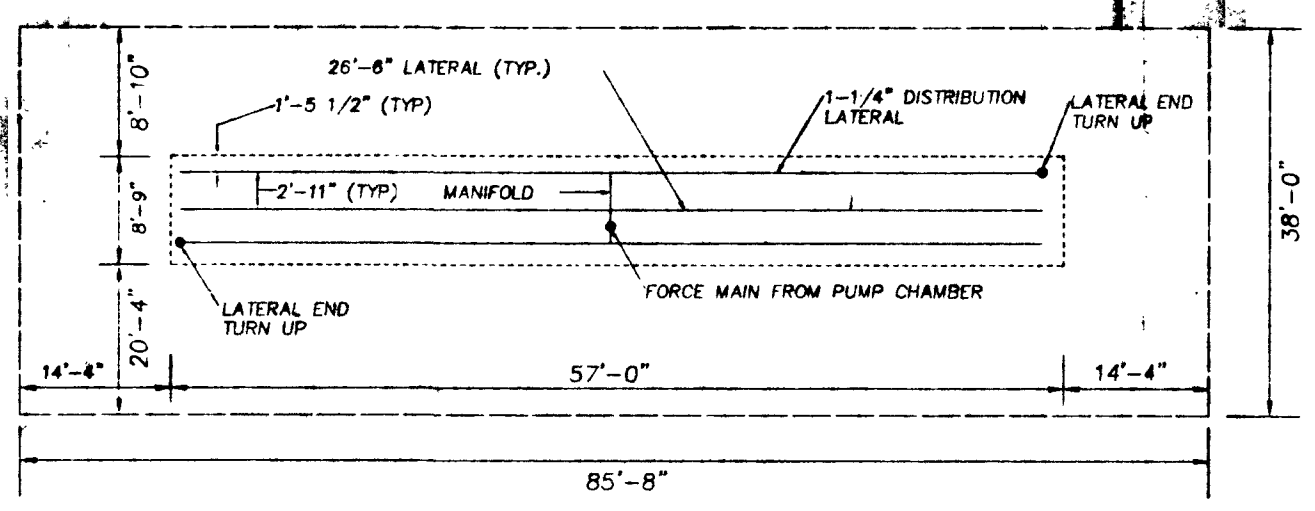


SUPPLY LINE/MANIFOLD DETAIL
N.T.S.

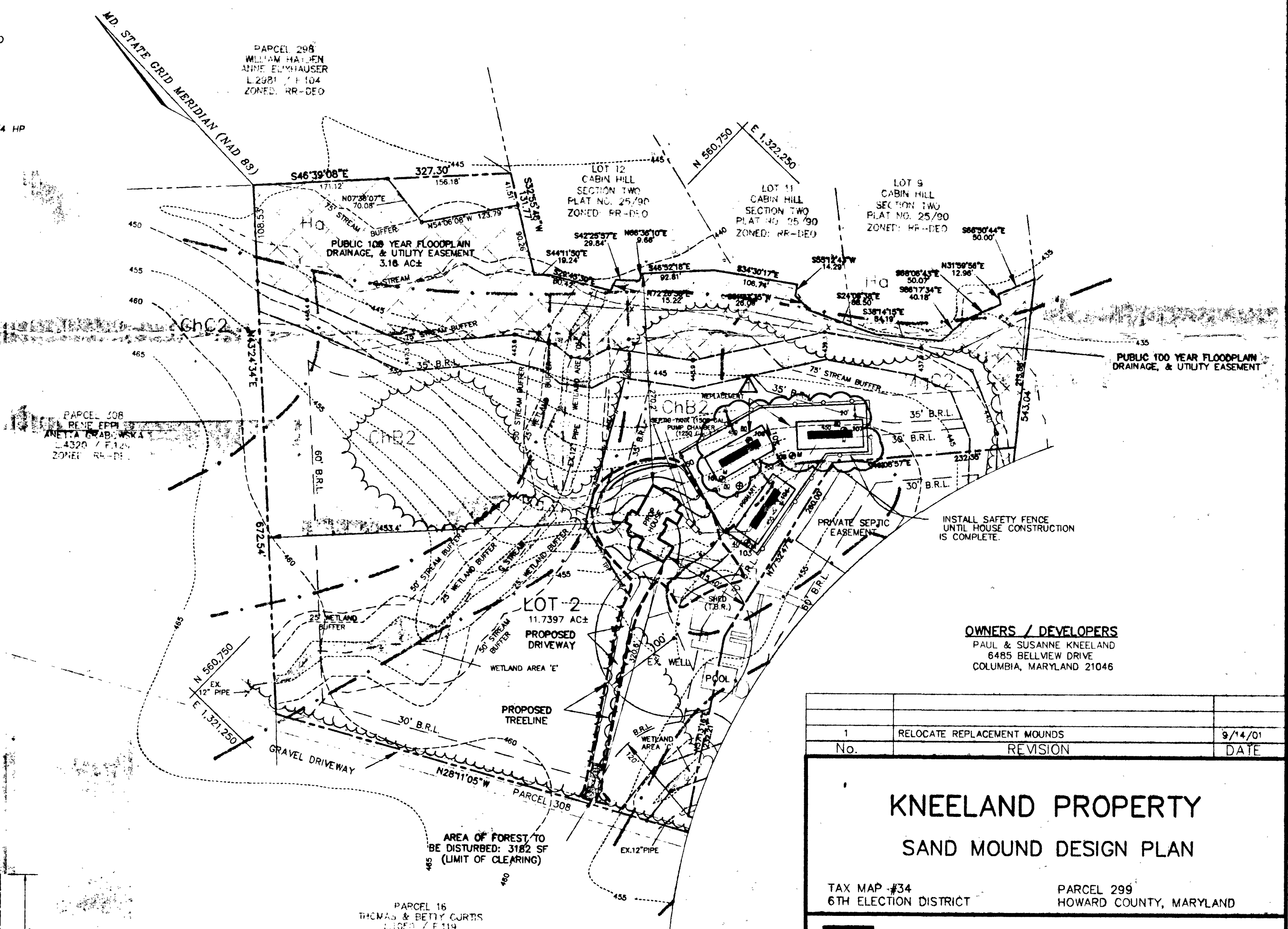


SAND MOUND CROSS SECTION
N.T.S.

NOTE:
4 BEDROOM SINGLE FAMILY DWELLING USED FOR DAILY DESIGN FLOW
SITE SLOPE OF 10% USED FOR CALCULATIONS



MOUND LAYOUT
CENTRAL MANIFOLD DISTRIBUTION NETWORK
N.T.S.



SITE PLAN
SCALE: 1"=100'

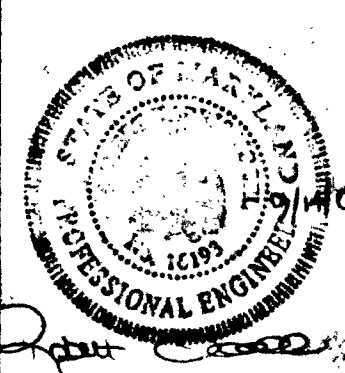
APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS
COUNTY HEALTH OFFICER _____ DATE _____

1	RELOCATE REPLACEMENT MOUNDS	9/14/01
No.	REVISION	DATE

**KNEELAND PROPERTY
SAND MOUND DESIGN PLAN**

TAX MAP #34 PARCEL 299
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS ARCHITECTS SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6228
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia



DESIGN BY: M.D.M.
DRAWN BY: M.D.M.
CHECKED BY: R.H.V.
DATE: 9/17/01
SCALE: AS SHOWN
W.O. NO.: 2019153.0

1 SHEET OF 1

M:\PROJECTS\01\2525\ENHANCED\WFLAN.DWG P11 9/14/01 10:45:30 2001 E-3

SAND MOUND CONSTRUCTION SEQUENCE
(REF: MDE DESIGN AND CONSTRUCTION OF SAND MOUND SYSTEMS, JUNE 1991, MDE)

TANK INSTALLATION AND SITE PREPARATION

1. CONTRACTOR SHALL CONTACT THE HEALTH DEPARTMENT, (410) 313-2640, 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
2. LOCATE AND ROPE OFF THE ENTIRE SEWAGE DISPOSAL AREA TO PREVENT DAMAGE TO THE AREA DURING CONSTRUCTION ACTIVITY ON THE SITE. VEHICULAR TRAFFIC OVER THE DISPOSAL AREA SHOULD BE PROHIBITED TO AVOID SOIL COMPACTION.
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5. SHAPE THE SIDES OF THE SAND FILL TO DESIGN SLOPE (I.E., 3:1 OR FLATTER).

BED AND DISTRIBUTION NETWORK

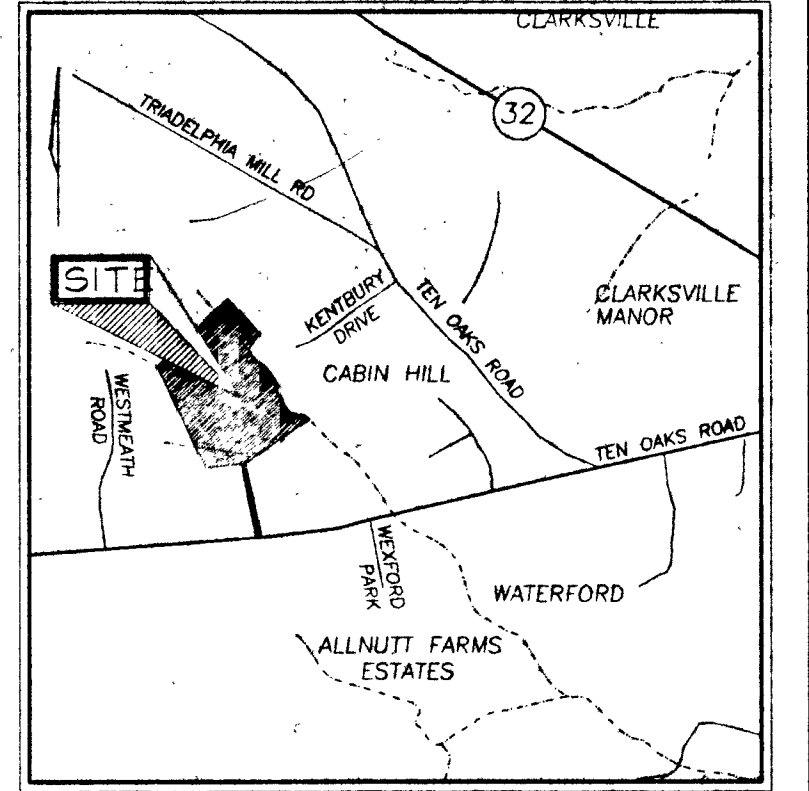
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COVER MATERIAL

1. PLACE A FINER TEXTURED SOIL MATERIAL SUCH AS SANDY CLAY LOAM, CLAY LOAM, OR SILT LOAM ON TOP OF THE FABRIC OVER THE BED. THE MINIMUM DEPTH OF THE CAP SHALL BE SIX INCHES AT THE OUTER EDGES OF THE BED AND 12 INCHES ALONG THE CENTER.
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VEGETATION

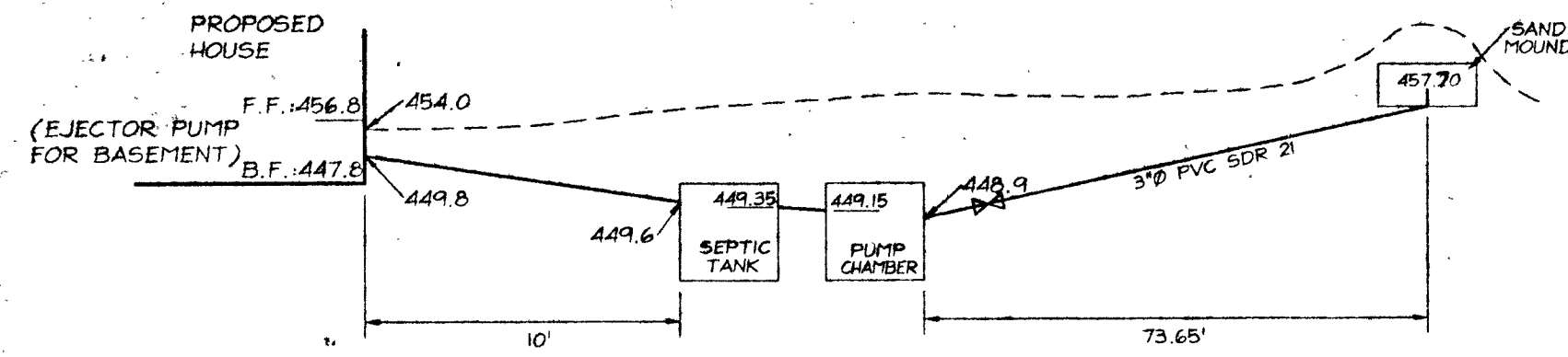
1. FERTILIZE, LIME, SEED, AND MULCH THE ENTIRE SURFACE OF THE MOUND. GRASS MIXTURES ADAPTED TO THE AREA SHOULD BE USED.
2. CONSULT THE COUNTY EXTENSION AGENT OR SOIL CONSERVATION SERVICES FOR RECOMMENDATIONS.



VICINITY MAP
SCALE: 1"=2000'

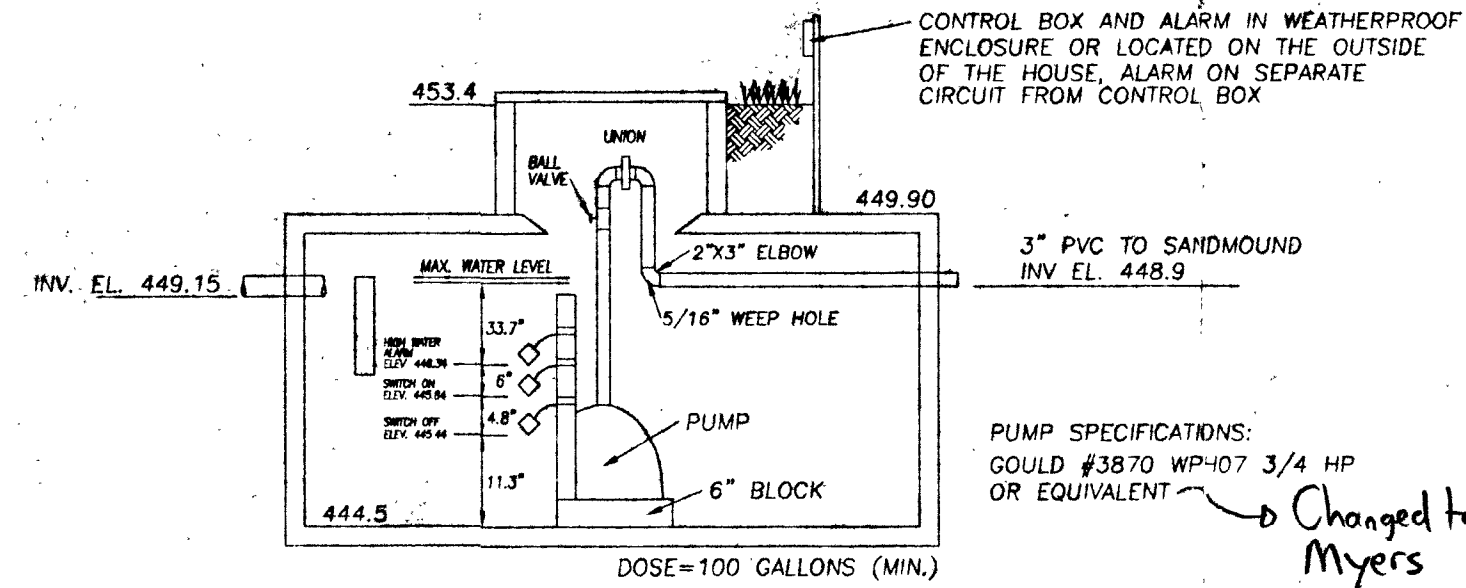
Approved Septic System Plan
Howard County Health Department

Amey W. Mead 4/18/01
Signature Date

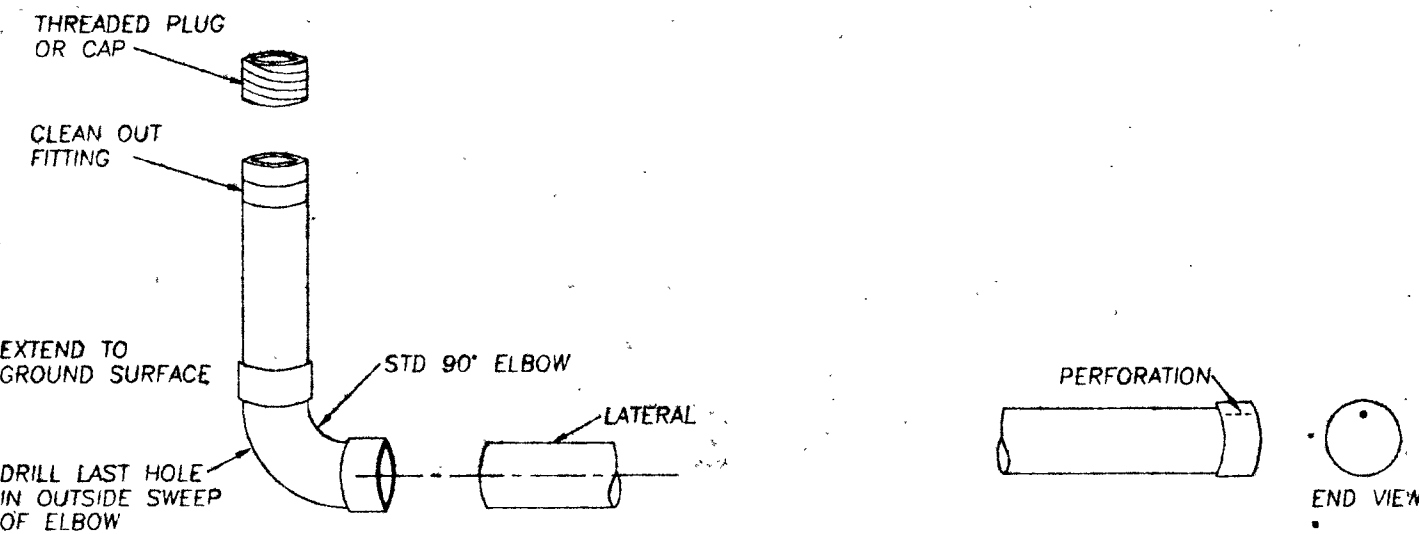


HYDRAULIC PROFILE
N.T.S.

NOTE:
THE SAND MOUND LAYOUT INSPECTION MAY BE COMBINED WITH THE SEPTIC TANK/PUMP CHAMBER INSPECTION.

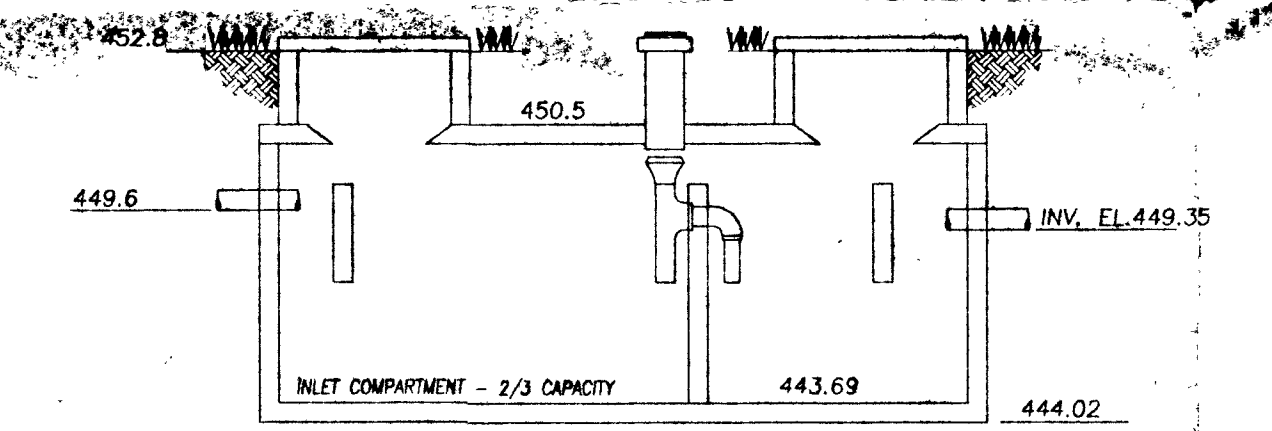


1,250 GALLON PUMP CHAMBER (TOP SEAM)
N.T.S.

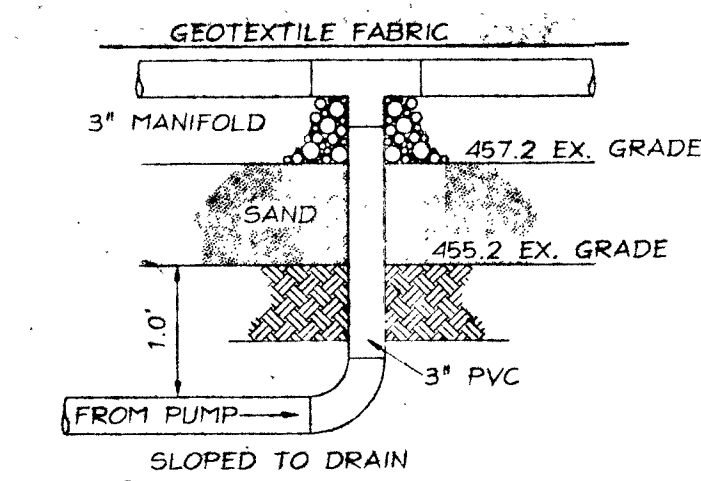


LATERAL END TURN-UP
USE ON LATERALS FARTHEST FROM PUMP
N.T.S.

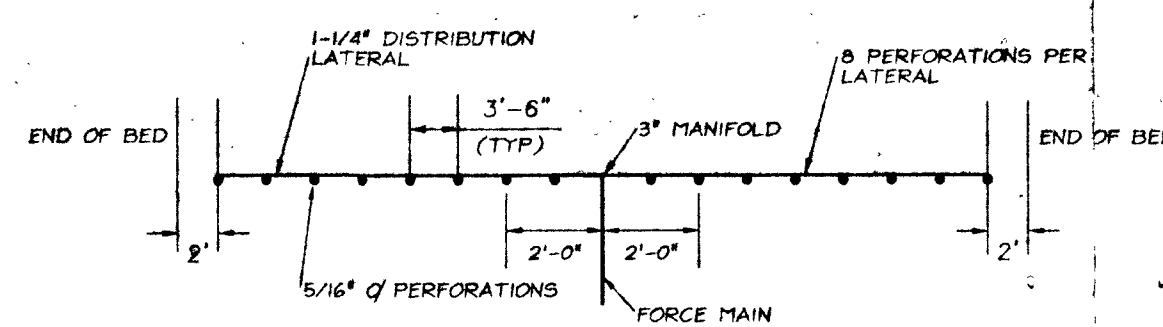
LATERAL END CAP
USE ON LATERALS NOT EQUIPPED WITH TURN-UP
N.T.S.



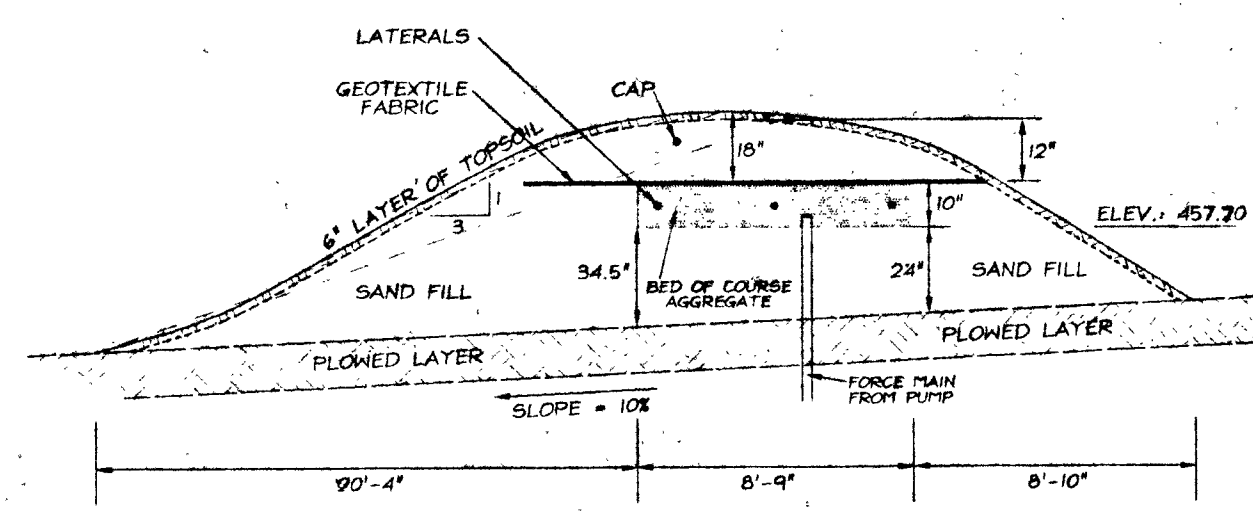
1,500 GALLON SEPTIC TANK (TOP SEAM)
N.T.S.



SUPPLY LINE/MANIFOLD DETAIL
N.T.S.

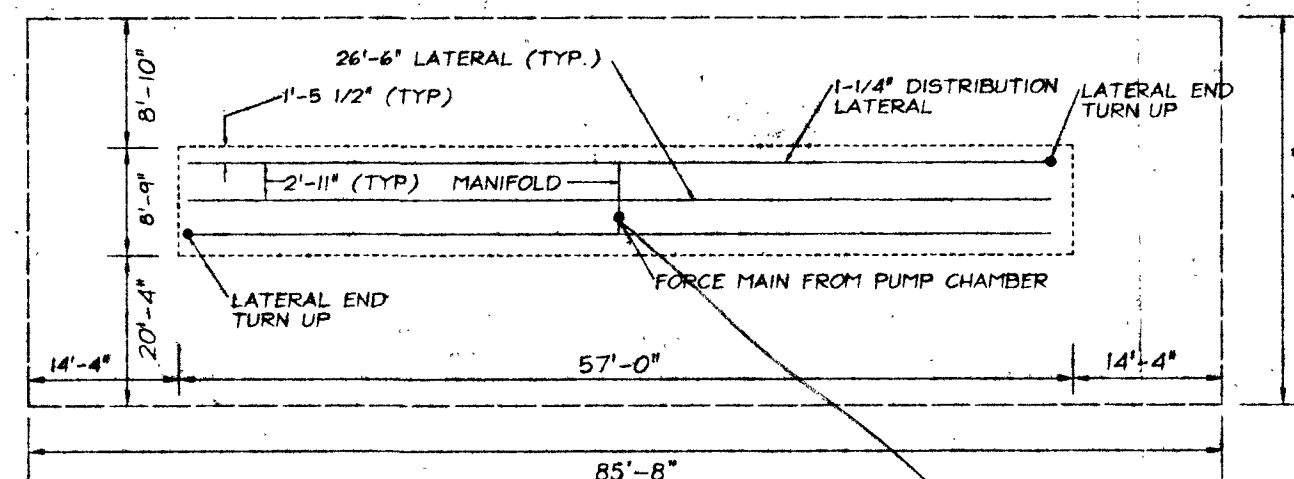


LATERAL DETAIL - TYPICAL
N.T.S.

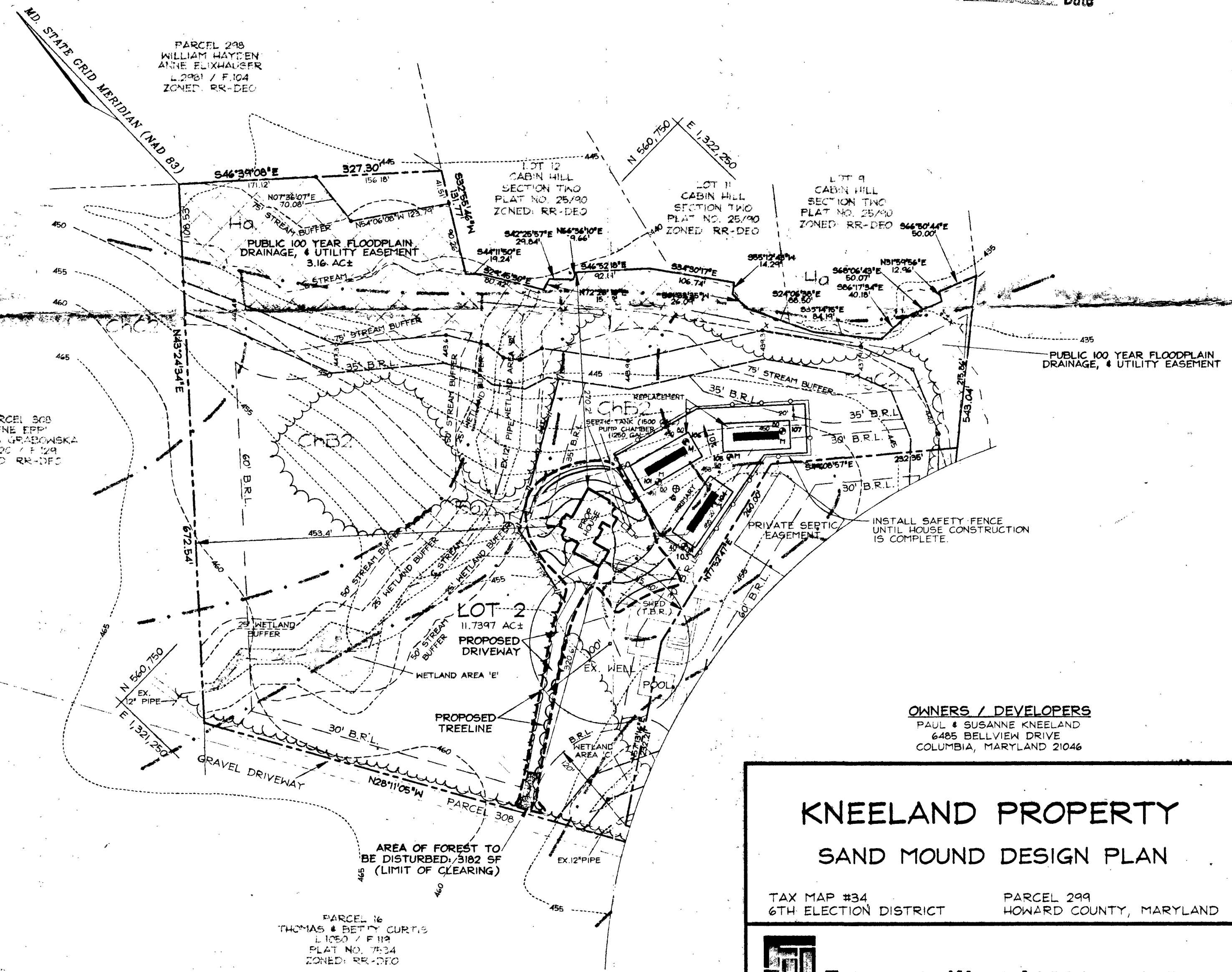


SAND MOUND CROSS SECTION
N.T.S.

NOTE:
4 BEDROOM SINGLE FAMILY DWELLING USED FOR DAILY DESIGN FLOW
SITE SLOPE OF 10% USED FOR CALCULATIONS



MOUND LAYOUT
CENTRAL MANIFOLD DISTRIBUTION NETWORK
N.T.S.



SITE PLAN
SCALE: 1"=100'

APPROVED FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS

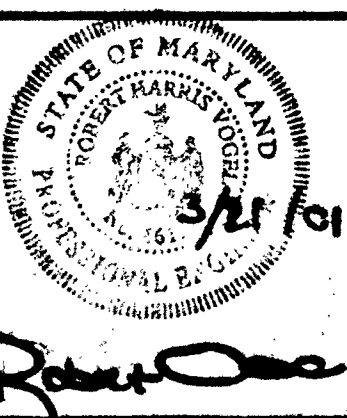
COUNTY HEALTH OFFICER _____ DATE _____

**KNEELAND PROPERTY
SAND MOUND DESIGN PLAN**

TAX MAP #34 PARCEL 299
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

DESIGN BY: M.D.M.
DRAWN BY: M.D.M.
CHECKED BY: R.H.V.
DATE: MARCH 21, 2001
SCALE: AS SHOWN
W.O. NO.: 2019153.9



SHEET OF 1



HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

September 25, 2001

MEMORANDUM

TO: Paul Kneeland

FROM: Steven R. Krieg, R.S. *Steven R. Krieg*
Howard County Health Department
Bureau of Environmental Health
Well and Septic Program

RE: Kneeland Property- Older Existing Dwelling
12990 Brighton Dam Road

This is to advise that the Howard County Health Department recommends issuance of the demolition permit for the above referenced property.

The well and septic system which previously served the existing dwelling have been properly disconnected and their status clarified. If any other wells or septic systems are found during site work, please notify this office.

SRK

cc: DILP

To
File: I disagree with Mr Vogel's
opinion - I witness the heavy tractor
that tracked over the edge of the drain
area. It is Not usable by my
decree. If ~~they~~ wish to appeal
that decision it must be in challenging
the official decree. Apr 9/17/01

~~From~~ From front to back



HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

January 9, 2001

Vogel & Associates
C/o Robert Vogel
3691 Park Avenue, Suite 101
Ellicott City, Maryland 21043

Re: Sand Mound Design Plan
Kneeland Property
Brighton Dam Road
Tax Map 34 Parcel 299


Dear Mr. Vogel:

Thank you for the prompt response to my comments on your earlier submittal. After careful review, I find the revised calculations satisfactory. While the accompanying plan has incorporated the main ideas previously discussed, there are some minor corrections suggested below:

- ① site plan - House location completely changed. Needs to read in new set of base pump calculations, secondary.
- ② Again used large, H.C.
- ③
- The new numbers found in the attached calculations should be included in the new plan (i.e. the dose, number of perforations per lateral, and new elevations for high water alarm and on/off float settings)
- In the Sequence of Construction, tank installation note 7—described instruction does not correspond with illustration on Hydraulic Profile, adjust accordingly
- The sand mound layout inspection may be combined with septic tank/pump chamber inspection (installer's option).
- There are several other minor typing errors or word omissions in the remaining sequence which you might wish to correct.

If you have any questions, please call me at 410-313-2640. Otherwise the final revised plan plus two copies may be submitted for signature.

Respectfully yours,


Ronald J. Pinkley, R.S.

Cc: P. Kneeland
file

Rev 2/15/01

Rev 12/13/00

Rev 10/7/00 1/5

KUBERAD - SAND MOUND DESIGN

VORCEL ASSOCIATES

• DOSE:

DESIGN FLOW/G

$$600 \text{ GPD} / 6 = 100 \text{ GPD}$$

OR

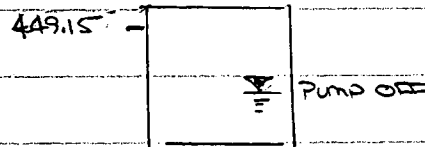
FORCE MAIN + MANIFOLDS + (5 x LATERAL)

$$(100 \times 0.071) + (5 \times 0.085)(7.1) = 12.2 \text{ CF} = 86.2 \text{ GALLONS}$$

USE 100 GALLONS AS MINIMUM DOSE

• PUMP CHAMBER (TO SEM)

$$600 \text{ GALLONS} + 100 \text{ GALLONS} = 700 \text{ GALLONS ABOVE HIGH WATER ALARM}$$



SIZE: 1000 GALLON

$$55'' \times 92'' \quad 1/1 \\ 4.58' \times 7.67' = 35.13 \text{ CF}$$

$$700 \text{ GALLONS} / (7.00 \text{ GALLONS/CF}) = 98.9 \text{ CF}$$

$$98.9 \text{ CF} / 35.13 \text{ CF} \text{ (per depth of pump chamber)}$$

$$2.81'$$

$$\therefore 449.15' - 2.81' = \text{HIGH WATER ALARM} = 446.34'$$

$$6'' \text{ BETWEEN ALARM AND SWITCH ON} \Rightarrow 445.84'$$

Pump ON TO Pump OFF

$$\Rightarrow 100 \text{ GALLONS} / 7.00 \text{ GALLONS/CF} = 14.1 \text{ CF}$$

$$14.1 \text{ CF} / 35.1 \text{ CF (depth of pump chamber)} = 0.40' = 4.8''$$

$$\text{Pump OFF} \Rightarrow 445.44'$$

TWTH
-pm-

KUBERN - Sand Mould DESIGN

R Vogel 10/7/00

Vogel Associates

• PUMP DESIGN.

DETERMINE FLOW

$$8 \text{ DEEPS/LOT} \times 6 \text{ LOT} \times 1.63 \text{ GPM/DEEP}$$

$$78.2 \text{ Gpm}$$

STATIC HEAD

$$457.6 - 444.50 = 13.1'$$

FRICTION HEAD

$$2-45^\circ \text{ BENDS} = 12'$$

$$EQ = 100' + 12' = 112' \quad 3" \text{ } \phi \text{ PIPE @ } 78.2 \text{ GPM}$$

$$\text{Friction Loss} = 1.32' / 100 \text{ LF}$$

$$(1.32)(1.12) = 1.48 \text{ FRICTION LOSS}$$

TOTAL DESIGN HEAD =

$$13.1' - 1.48' + 2.0' \text{ (TO END OF LATERAL)}$$

$$16.6'$$

78.2 GPM @ 20.6 HEAD

OK

Gould # 3870

WPH07 3/4 HD

TABLE 3.1

EQUATIONS FOR CALCULATING SAND MOUND DIMENSIONS

Design Flow $4 \times 150 = 600$

$$\text{Absorption bed ft.}^2 (A \times B) = \frac{\text{Design flow}}{1.2 \text{ gpd/ft.}^2} = \frac{500}{1.2} \text{ ft.}^2$$

$$\text{Bed length (B)} = \underline{57} \text{ ft. (21 ft. to 101 ft. dependent on site)}$$

$$\text{Bed width (A)} = \frac{\text{Bed } 500 \text{ ft.}^2}{B \ 57 \text{ ft.}} = \underline{8.77} \text{ ft. (15 ft. or less)}$$

$$\text{Upslope sand fill depth (D)} = 48 \text{ in.} - Z \text{ in.} = \underline{24} \text{ in. (12 in. min.)}$$

$$\text{Downslope sand fill depth (E)} = [12 A \times \frac{0.10}{10.524} \% \text{ slope}] + D \text{ in.} = \underline{34.524} \text{ in.}$$

$$\text{Cap + topsoil at bed center (H)} = \underline{18} \text{ in.}$$

$$\text{Cap + topsoil at bed edge (G)} = \underline{12} \text{ in.}$$

$$\text{Total Bed Depth (F)} = \underline{10} \text{ in.}$$

$$\text{Sideslope setback (K)} = \frac{(24 + 34.524)}{(29.262 + 28)} \times 3 = \underline{171.8} \text{ in.}$$

$$\text{Upslope setback (J)} = (22 \text{ in.} + D) \times 3 \times \text{upslope corr. factor} = \underline{106.26} \text{ in.}$$

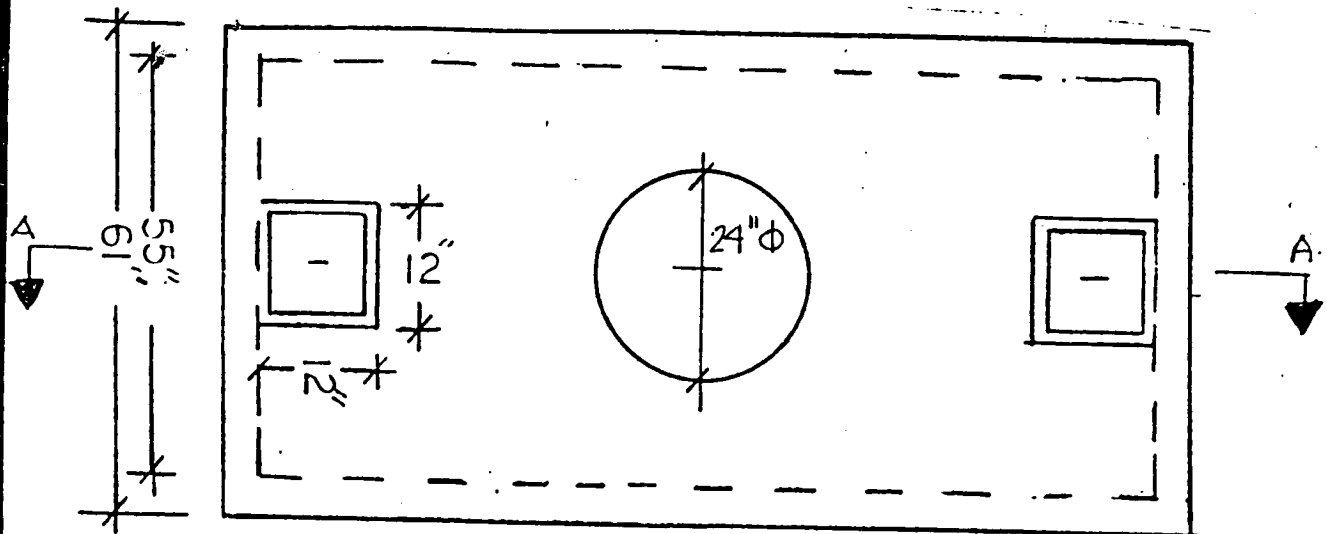
$$\text{Downslope setback (I)} = (22 \text{ in.} + E) \times 3 \times \text{downslope corr. factor} = \underline{244.18} \text{ in.}$$

$$\text{Total Width of Mound (W)} = 12A + J + I = \underline{455.68} \text{ in. (38')}$$

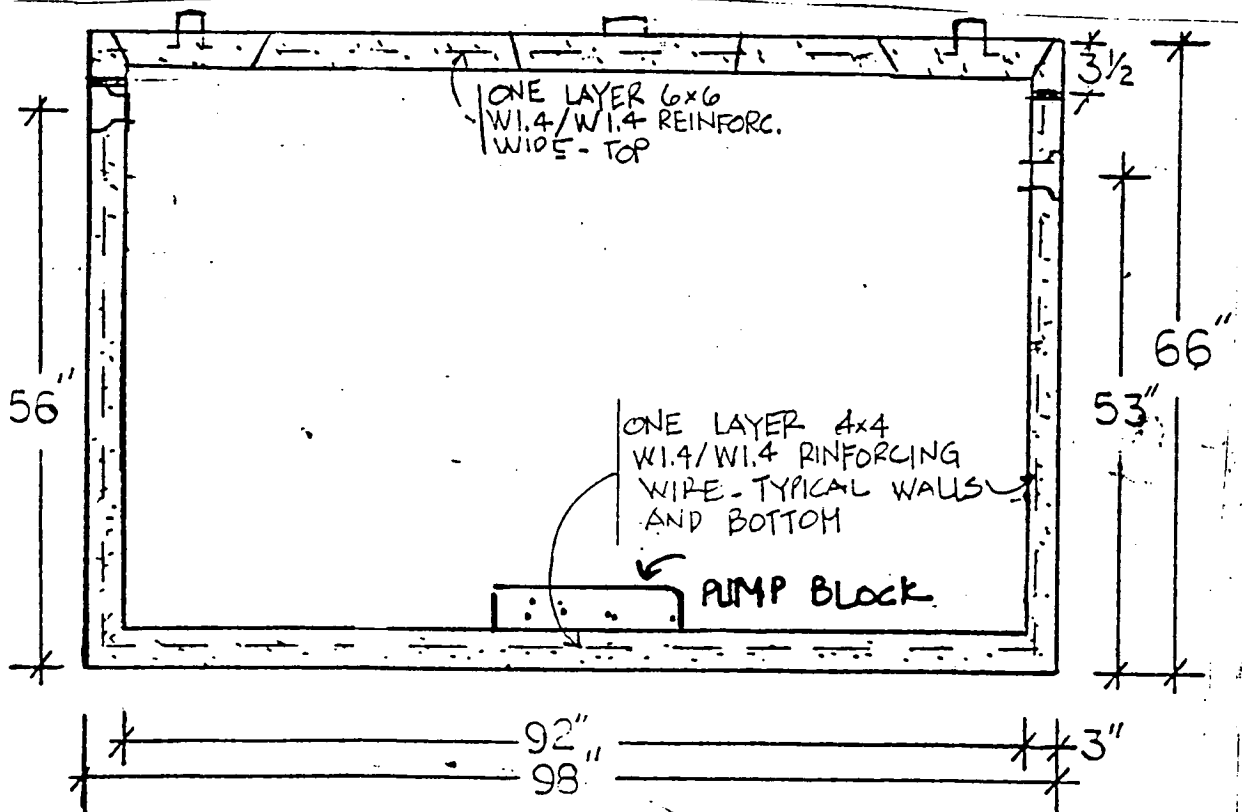
$$\text{Total Length of Mound (L)} = 12B + K + K = \underline{1027.6} \text{ in. (85.6')}$$

NOTE: PORTLAND TYPE I/II
4000 PSI CONCRETE.

4/5



PLAN-VIEW



SECTION: A-A

NOTE: This product is not designed, manufactured, or recommended to be installed under a vehicle traffic area.

C. R. Semler, Inc.
Smithsburg MD

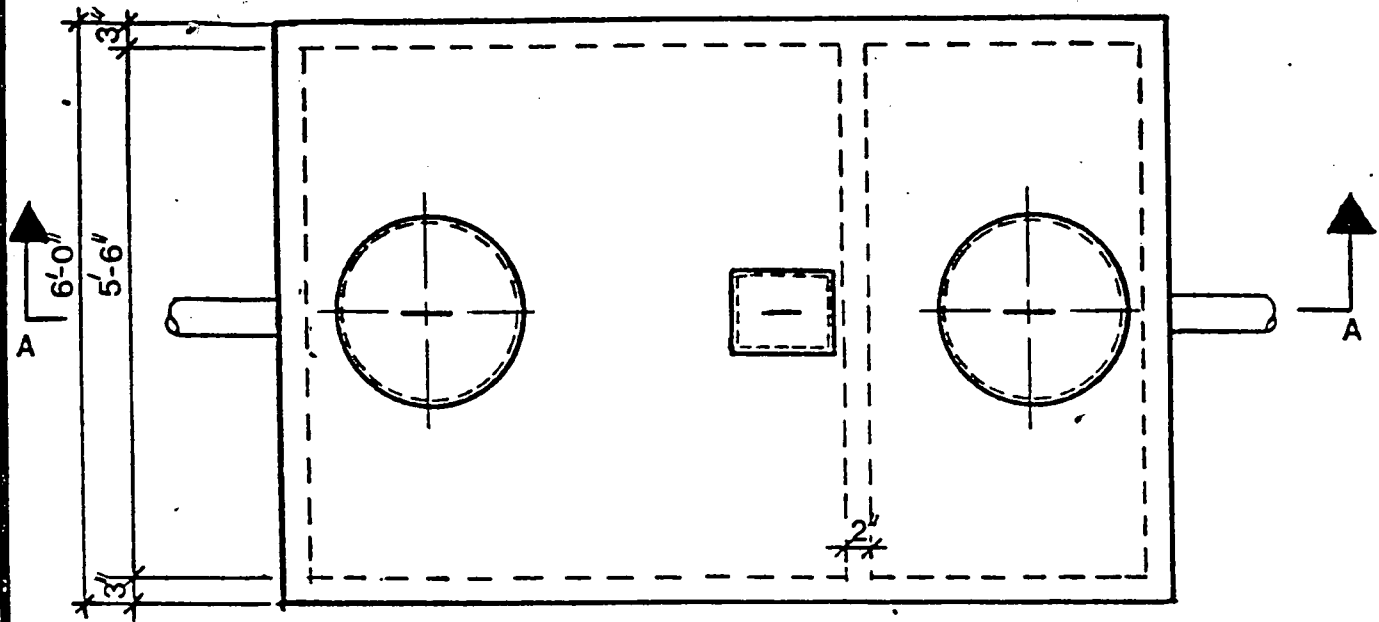
1,000 GALLON - SINGLE COMPARTMENT
TOP SEAM - ~~SEAM~~ PUMP
Scale: N.T.S. CHAMBER

2-24-89
Page-

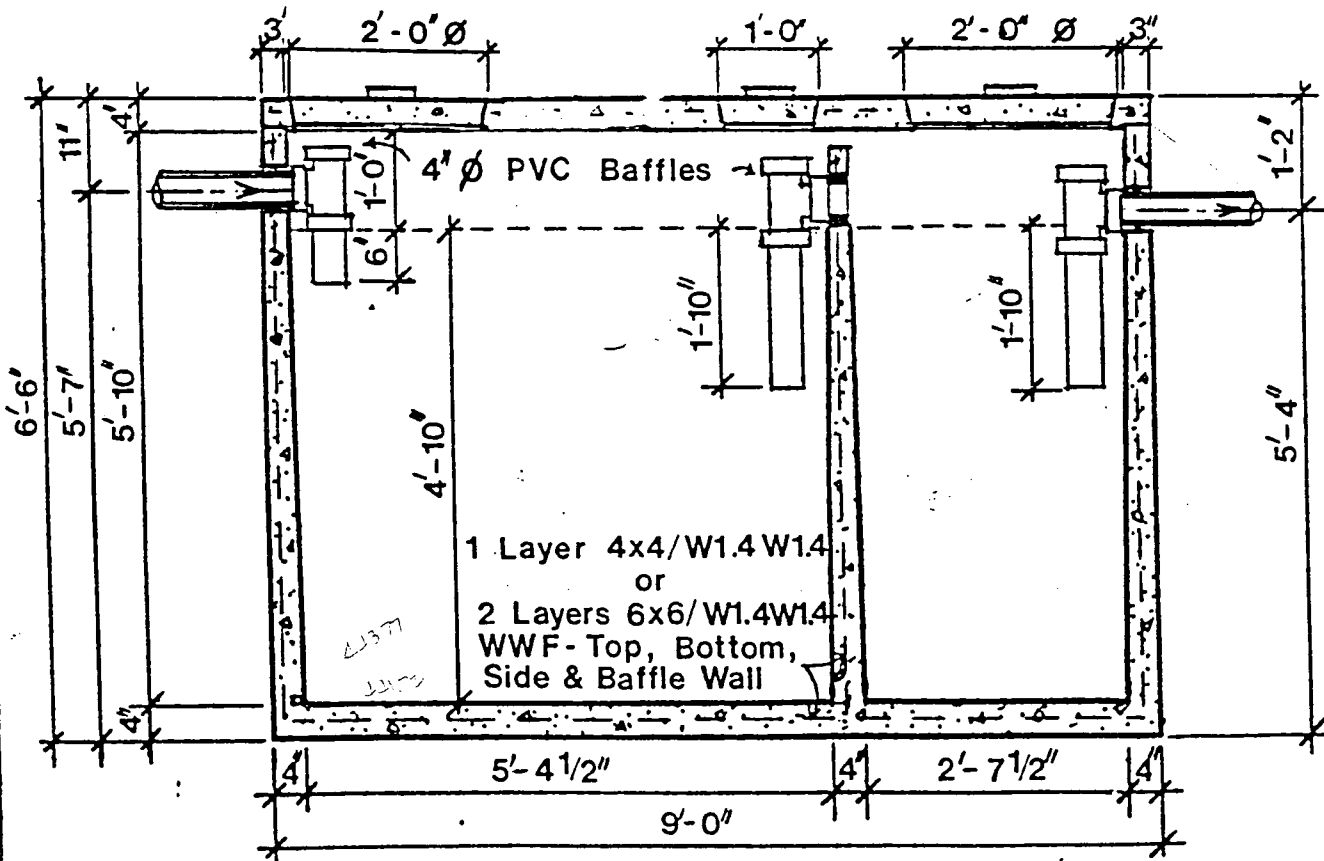
REV. 5-5-89

Note: Portland Type I/II
4000 psi min Concrete.

5/5



PLAN VIEW



SECTION: A-A

NOTE: This product is not designed,
manufactured, or recommended to be
installed under a vehicle traffic area.

C.R. Semler, Inc.
Smithsburg, MD

1500 Gallon Top Seam Septic Tank
Two Compartment
1/2" = 1'-0"

12-28-89

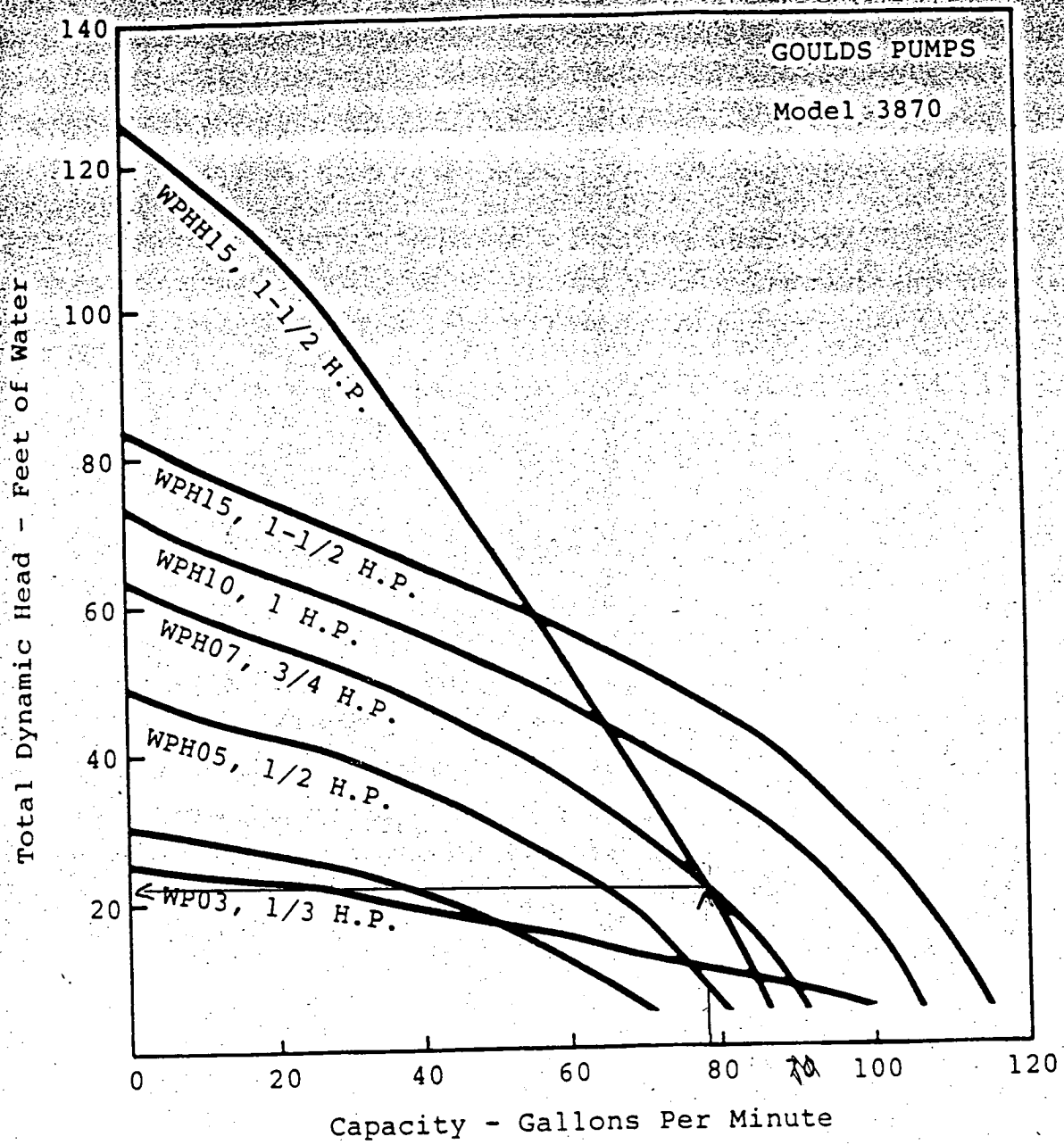
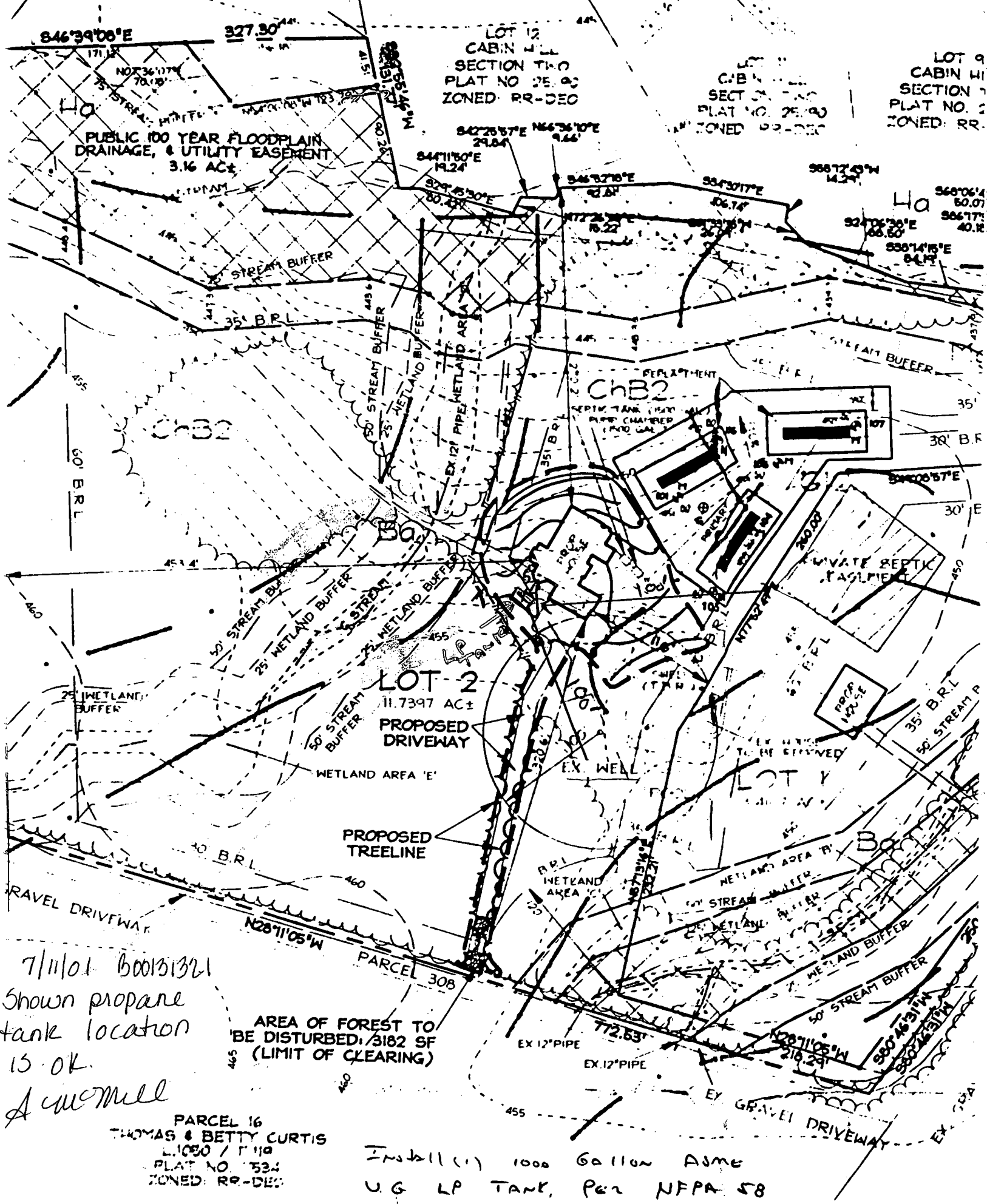


FIGURE 4.7 - EFFLUENT PUMP CURVES



7/11/01 000151321
 Shown propane tank location is OK.
 A. Curmill

AREA OF FOREST TO BE DISTURBED: 3182 SF (LIMIT OF CLEARING)

PARCEL 16
 THOMAS & BETTY CURTIS
 L1050 / P119
 PLAT NO. 534
 ZONED RR-DEC

Install (1) 1000 Gallon ASME U.G. LP TANK, Per NFPA 58



HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

May 8, 2000

Mr. and Mrs. Paul Kneeland
6485 Bellview Drive
Columbia, Maryland 21046

RE: Percolation test results

Proposal: Subdivision
Property ID: Kneeland Property
Brighton Dam Road
Tax Map: 34 Parcel #299

Dear Mr. and Mrs. Kneeland:

Sand mound percolation testing conducted Thursday, April 6, 2000 on the above referenced property indicated limited satisfactory soil conditions. A copy of the test results is enclosed.

At this time, a registered engineer should submit a sand mound Percolation Certification Plan for review showing the following:

- Locations of all excavated test holes
- Locations of all existing structures
- Locations of existing wells and septic systems on the property as well as all those within 100 feet of property boundaries
- Locations of streams/swales/ springs and any other relevant landscape features
- Field-matched one foot contour intervals in the proposed sand mound sewage disposal area
- Footprints for three sand mounds with the correct topographical orientation
- Designation of the percent slope used in the sand mound calculations (cannot exceed 12%)
- A typical cross-sectional diagram of the primary sand mound. Specify the number of bedrooms (i.e., the daily design flow) for which this sand mound design is intended.
- Typical language in the general notes describing the sewage disposal easement. Specify this septic area is suitable for sand mound type septic systems only. Please include the actual size of the proposed sand mound sewage disposal area.
- Add a general note specifying a sand mound detail construction plan is to be submitted for review and approval by the Howard County Health Department prior to issuance of a building permit for the lot.

This plat should be submitted within sixty days to allow field verification if necessary. If you have any questions or concerns regarding this matter, please contact me at the address below or by calling (410) 313-2640.

Sincerely,

Donna K. Soe, R.S.

Water and Sewerage Program

Cc: Vogel & Associates – Mr. Dave Martin

Bureau of Environmental Health

3525-H Ellicott Mills Drive • Ellicott City, Maryland 21043-4544

Water and Sewerage, Permits (410) 313-1771 • Community Environmental Health Program (410) 313-1773

Director (410) 313-2640 TDD(410) 313-2323 TOLL FREE - 1-877-4MD-DHMH

March 26, 2001

Ms. Amy McMillen
Howard County Health Department
3525 H Ellicott Mills Drive
Ellicott City, MD 21043-4544

RE: Kneeland Property
Sand Mound Design
12990 Brighton Dam Road
Clarksville, MD 21029
Building Permit #B00126854

Dear Ms. McMillen:

Enclosed are two (2) copies of Frederick Ward Associates, Inc. transmittals and a copy of Mr. Pinkley's letter to Frederick Ward Associates, Inc. dated March 9, 2001. Mr. Vogel met with Mr. Pinkley on Tuesday March 20, 2001 to review Mr. Pinkley's comments. Frederick Ward Associates, Inc. has corrected and made all necessary changes per Mr. Pinkley's letter and Tuesday's meeting. I'm asking if Mr. Pinkley could review this information at his earliest convenience. As I have mentioned before we have been working with Mr. Pinkley since October 2000 on the Sand Mound Design and approval.

If for any reason more information or corrections are needed, could a meeting be held to review any new corrections/comments?

I appreciate your help in this matter. I may be reached at (410) 290-1456.

Sincerely,



Paul Kneeland

cc: Rob Vogel (Frederick Ward Associates, Inc.)

2001 MAR 29 PM 12:09



HOWARD COUNTY HEALTH DEPARTMENT

Diane L. Matuszak, M.D., M.P.H., County Health Officer

March 9, 2001

To: Fred Ward Associate, Inc.
C/o Robert Vogel
7125 Riverwood Drive
Suite C Columbia, Maryland 21046-2354

RE: Kneeland Property
Sand Mound Design Plan
Brighton Dam Road
Tax Map 34 Parcel 299

Dear Mr. Vogel:

The above referenced plan is not yet ready for signature. The following comments should identify areas of the plan needing further clarification:

- 1) The house location was moved across the stream/wet land to a site much closer to the primary sand mound site. Revised calculations for the dose and pump sizing would be expected but no new calculations were provided with the revised plan.
- 2) Language change is needed in the Sequence of Construction.
 - a) Under Tank Installation... note #9 and Fill Placement... note #3 and elsewhere, change the wording so "all work must be from the up slope or sides of the sand mounds." "Positively No Trafficking is permitted on the down slope side or over the replacement sand mound areas or their down slopes."
 - b) The entire sewage disposal area is to be fenced off so no trafficking can occur during house construction phase.
 - c) Under Fill Placement note #2 change spelling of last word, first line to "sanitarian."
- 3) In Lateral (detail) – show a schematic of the actual Lateral Design, explicitly show:
 - a) The total # of perforations in each lateral and
 - b) The total length of each lateral (here or in Mound Layout/ Central Manifold Distribution Network Detail).
- 4) In Mound Layout Detail show the total sand mound length.

Bureau of Environmental Health

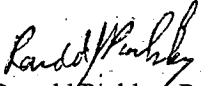
3525-H Ellicott Mills Drive • Ellicott City, Maryland 21043-4544

Water and Sewerage, Permits (410) 313-1771 Community Environmental Health Program (410) 313-1773
(410) 313-2640 TDD(410) 313-2323 TOLL FREE - 1-877-4MD-DHMH

- 6) Since this plan is for a 4 bedroom house and a single pump is proposed, and as the interior dimensions give in the detail seem to suggest, specify a pump chamber at least 1250 gal in size.
- 7) Somewhere in the plan or attached calculations and specifications, or sequence of construction, mention should be made of the need for a control box and alarm. The alarm should be on a separate electric circuit and the control box should be of weatherproof make and located on the outside of the house so it is visible from the pump chamber to facilitate the required pump test inspection.
- 8) Since the revised house location suggests, and wording in Tank Installation - Note 7 so directs, uniform slope of the force main from sand mound back to the pump chamber, the Hydrolic Profile should be revised accordingly to show this uniform slope (it has a dip in the present detail.).
- 9) Since you're doing the rest of these revisions, please include circles representing the 3 lateral pipes (cross section) within the gravel bed and show the 6 inch minimum between lateral invert and bottom of gravel bed.

If you have any questions, please call me at 410-313-2640.

Respectfully yours,


Ronald Pinkley, R.S.

CC: Paul Kneeland
File

2001 MAR 29 PM 12:09