

10/18/94 (A.M.)  
10/26/94 AM  
10/21/94  
10:00 A.S.A.P.

Needs interceptor drain  
or ditch in section 10/25/94

Needs house connection  
[10/21 P.C.O.]  
[10/18 = (P.C.O.)]

# PERMIT

03-313484 P 50220

## SEWAGE DISPOSAL SYSTEM DEPARTMENT OF HEALTH AND MENTAL HYGIENE

A 38649

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
313-2640

DISTRICT 3rd

DATE 8/17/94

DATE SYSTEM APPROVED 4/28/94

INSPECTOR [Signature]

INDEXED  
(No inspection discussed)  
Dave Troop  
Mr. Bob Evans 10/14/94 @ home

Islander Enterprises, Inc. IS PERMITTED TO INSTALL  ALTER

ADDRESS 6812 North Point Road, Baltimore, Maryland 21219 PHONE 477-3303

SUBDIVISION Willow Highlands LOT 24 ROAD 13342 Pipes Lane

PROPERTY OWNER Richard Springer

ADDRESS

SEPTIC TANK CAPACITY 1250 GALLONS

NUMBER OF BEDROOMS 4

220 SQUARE FEET PER BEDROOM

LINEAR FEET OF TRENCH REQUIRED 293

TRENCHES - Trench to be 3 feet wide. Inlet 2.5 feet below original grade. Bottom maximum depth 4.5 feet below original grade. Effective area begins at 2.5 feet below original grade. 2 feet of stone below distribution pipe.

LOCATION - Start the first trench 115 feet from the front (354') line and 175 feet from the right (327') lot line as seen when facing the lot from Pipes Lane. Run trenches on contour away from Driveway Entrance.

NOTES - No trench to exceed 100 feet in length. Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank. OK 5/20/94 DKS

OK to 10/14 move S.T. down hill & d. lots to get gravity flow

PLANS APPROVED BY Sid Abel/Mark Rifkin (just in) REVISED 11/10/94 DATE 12/29/93

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

BLDG. PERMIT SIGNED AND RETURNED 4/18/95 Serial # 54052 deck

PERMIT VOID AFTER TWO YEARS

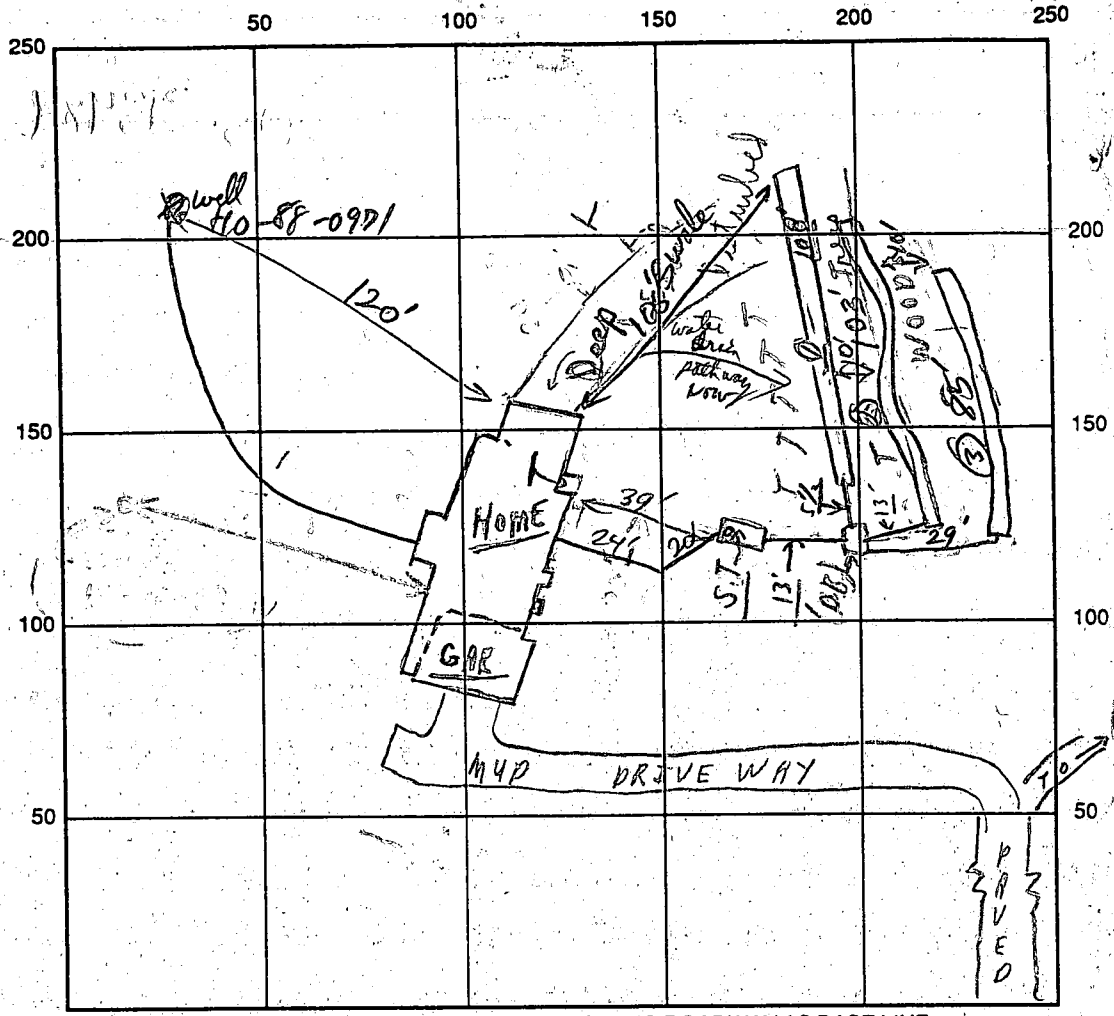
NOTE: INSTALL STAND PIPE ON SEPTIC TANK AND DRY WELL STAND PIPES MUST BE 6 INCHES IN DIAMETER CAST IRON. CONCRETE OR TERRA COTTA OR PVA OR ABS ACCEPTED. IF TOP OF SEPTIC TANK IS DEEPER THAN 3 FEET. MANHOLE TO GRADE REQUIRED.

NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

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

580219

see builder about walk + drain from features patio that



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

SEPTIC TANK LEVEL OK CLEANOUTS S.T. No

DISTRIBUTION BOX LEVEL OK (Boffles No)

DRAIN FIELD/TITLE DEPTH 4 1/2 FT. TRENCH WIDTH 3 FT. INLET DEPTH 2 1/2 FT.

EFFECTIVE GRAVEL DEPTH 2 FT. TOTAL LENGTH 293 FT. 82' + head

NUMBER OF TRENCHES 3 ONE SIDEWALL BOTTOM AREA 211 SQ. FT.

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

ABSORBENT AREA — SQ. FT.

REMARKS: OK on 10/14/94 <sup>(10/18/94 NOTE)</sup> in 5' diameter blow + make trench. then three  
due to excavation at upper part of home; very narrow  
sections T and old hole farther distance from house  
due to <sup>new</sup> usual and disturbed area 82' [10/18/94] look on #0 trench  
to continue; partial [10/18/94 (A.M.)] + No house connection; [P.M.] partial  
10/18/94 (P.M.) No change, call; on 10/21/94 2 trenches to cover as all areas @  
10/14 No W.P.I. - call on do where needed; partial call; 10/24/94  
10/18 No W.P.I. - C. Be

DATE SYSTEM APPROVED 10/28/94 INSPECTOR [Signature]

1 Trench left to check!! Trench is ok to cover. We'll need to see surb, ramp, curbs  
drain to insure this drainage does not cross opt. lines. PIP 10/26/94 house connection OK  
(Have Troop) EDK Blotz Contractor says grading of angle is complete as requested  
Verbal OK per C/P/Ref

# APPLICATION

PERCOLATION TESTING

A 38649

P \_\_\_\_\_

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
P.O. BOX 476 ELLICOTT CITY, MARYLAND 21043  
TELEPHONE: 461-9933

DISTRICT 3

DATE 12-16-1986

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 WILLOW SPRINGS LIMITED PARTNERSHIP  
16801 WESLEY CHAPEL ROAD  
ADDRESS MONKTON, MARYLAND 21111 PHONE 347-8700

PROSPECTIVE BUYER \_\_\_\_\_  
ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

PROPERTY LOCATION: Highlands  
SUBDIVISION WILLOW SPRINGS GOLF COURSE LOT NO. 24  
ROAD AND DESCRIPTION N/S U.S. RTE 70 N AT LIVE STOCK ROAD

TAX MAP 9 & 15 PARCEL # 151 & 11  
SIZE OF LOT 3.0 Ac. ± TYPE BLDG. S.F.D.  
(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.

Willow Springs Golf Course Partner  
By Thomas C. [Signature]  
(SIGNATURE OF APPLICANT)

APPROVED BY Sidney Abel FOR Standard Tech DATE 8-7-89

REJECTED BY \_\_\_\_\_ FOR \_\_\_\_\_ DATE \_\_\_\_\_

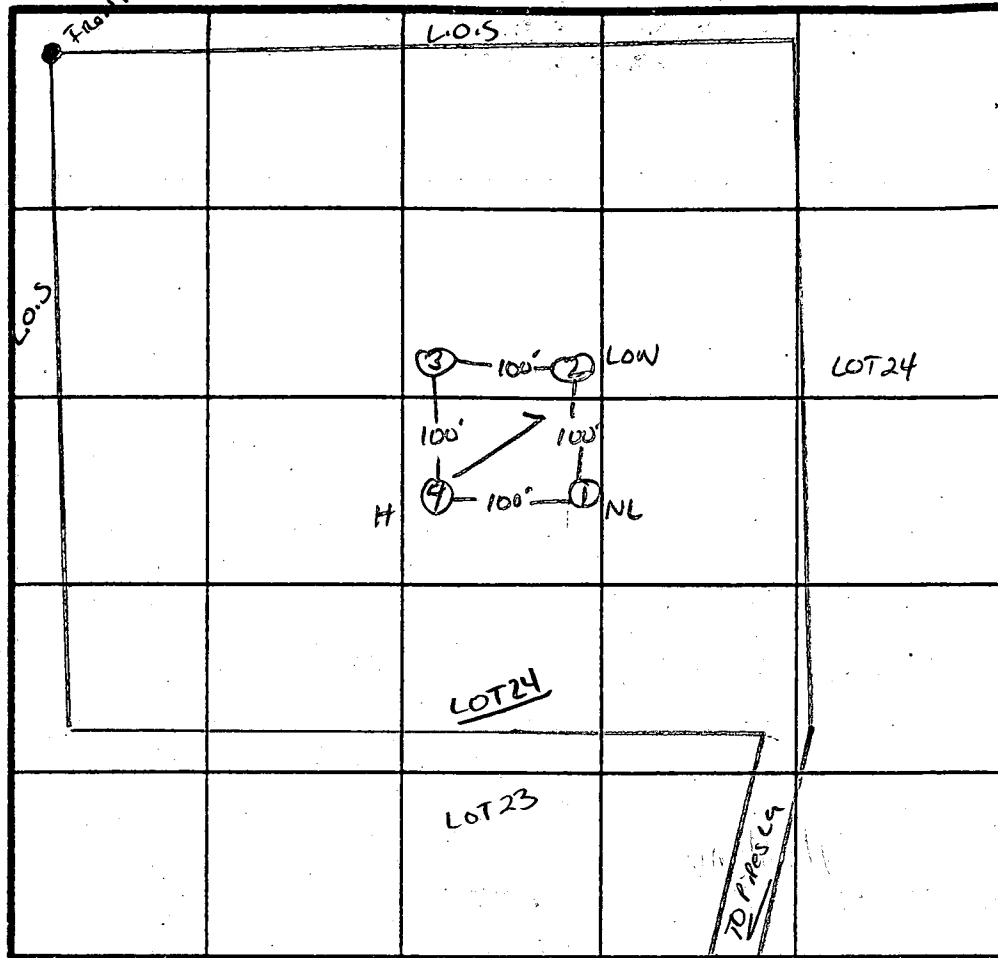
HOLD PENDING FURTHER TESTS \_\_\_\_\_ DATE \_\_\_\_\_

REASONS FOR REJECTION OR HOLDING 4-21-87 PPRC SAYS FACTORY HOLD FOR SUBDIVISION PLAN. S.C.H.

# THIS IS NOT A PERMIT

A36849

12



X PERC S MIN  
 2.20  
~~1.80~~ 4/BR  
 INLET ~~3.5~~ 2.5  
 BOTTOM ~~5.5~~ 4.5  
 5.0

① - ④  
 SOIL PROFILE  
 0  
 6" A1-3  
 yellow BR  
 SANDS: 11  
 LOAM  
 3.5-4" N 90% CLAY  
 K1000 PERCS  
 yellow BR.  
 SAND LOAM  
 15-20%  
 FN 155  
 ↑ing to  
 40-58%  
 AT BOTTOM  
 Hole #1

12-13"

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1' DROP		TIME
			START	STOP	START	STOP	
4/21/87	1S 1V	4.5" 13"	12:46	12:49	12:49	12:52	3 MIN
	2S 2V	5" 12.5"	12:55	12:59	12:59	1:08	9 MIN
	3S 3M	4.5" 7.5"	1:11	1:13	1:13	1:16	3 MIN
	3V	13"					4 MIN
	4V	12"					

REMARKS Holes Per PLAT/SHALLOW SYST only  
 TYPE OF SOIL Chestnut  
 TESTED BY S. Abel ALSO PRESENT D. Ketterman/Dave

EH-12-1079

# APPLICATION

PERCOLATION TESTING

A 38649  
P \_\_\_\_\_

HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
P.O. BOX 476 ELLICOTT CITY, MARYLAND 21043  
TELEPHONE: 461-9933

DISTRICT \_\_\_\_\_  
DATE \_\_\_\_\_

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 \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

PROSPECTIVE BUYER \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

PROPERTY LOCATION:

SUBDIVISION Willow Highlands LOT NO. 24 Retest

ROAD AND DESCRIPTION Pipes Lane

TAX MAP \_\_\_\_\_ PARCEL # \_\_\_\_\_

SIZE OF LOT \_\_\_\_\_ TYPE BLDG. \_\_\_\_\_  
(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 OF APPLICANT)

APPROVED BY \_\_\_\_\_ FOR \_\_\_\_\_ DATE \_\_\_\_\_

REJECTED BY \_\_\_\_\_ FOR \_\_\_\_\_ DATE \_\_\_\_\_

HOLD PENDING FURTHER TESTS \_\_\_\_\_ DATE \_\_\_\_\_

REASONS FOR REJECTION OR HOLDING 26-91 recommend shallow system. AFN

HD-216

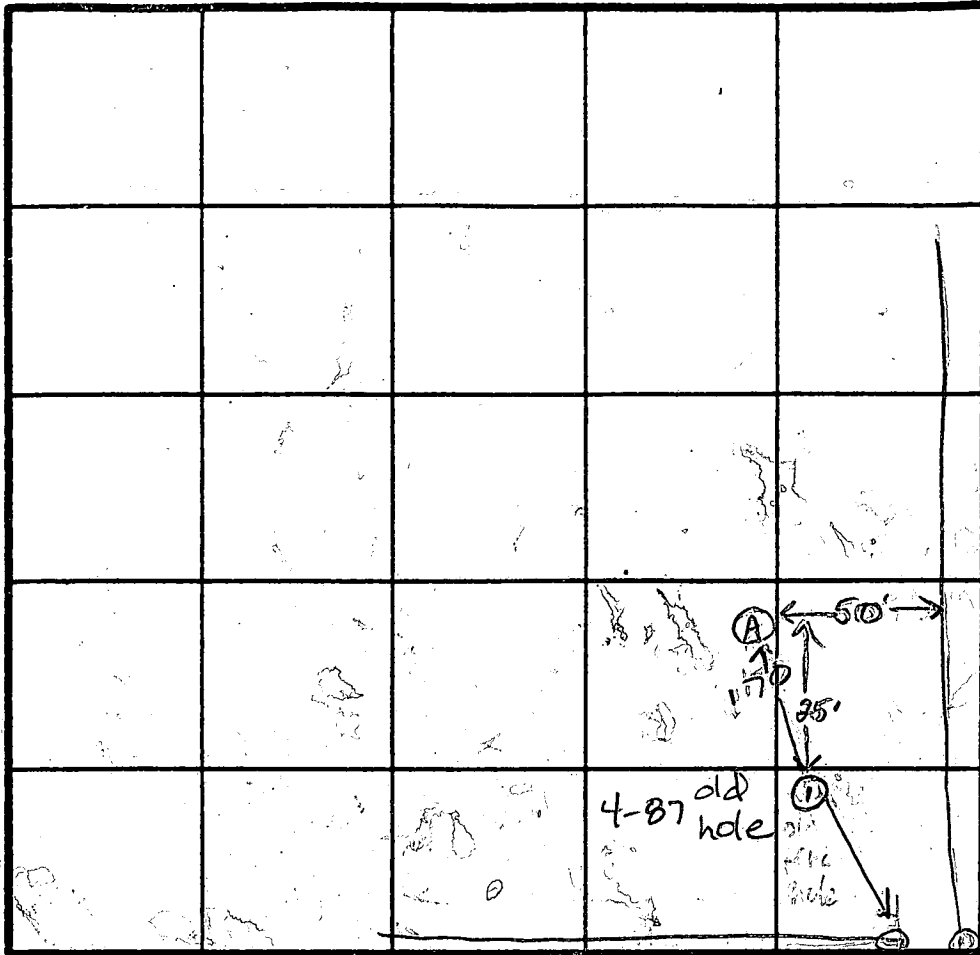
# THIS IS NOT A PERMIT

A 386H9

(A)

SOIL PROFILE

0-4.5 Br scl  
 4.5-6.5 Rd sa sll  
 6.5-14.0 Br sa sl  
 some  
 relict  
 structure  
 of weathered  
 separate  
 apparent  
 traces of  
 mottling  
 at 9.5 ft  
 Bottom



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

Lot-23

Lot-26

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
2-6-91	A	14.0 V	Mottles at 9.5 ft		Dry		
			Dry after 1 hour				

To Pipes Lane  
 ↓

REMARKS Recommend shallow system, Bottom at 4.5 ft.

TYPE OF SOIL \_\_\_\_\_

TESTED BY Jane E. Nadeau

ALSO PRESENT D. Ketterman, Jr.

B 1 **7973** SEQUENCE NO. (DP USE ONLY)  
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

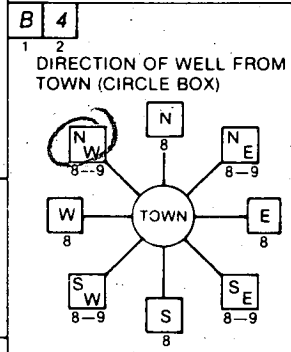
STATE OF MARYLAND  
 PERMIT TO DRILL WELL  
 please print or type

STATE PERMIT NUMBER  
**40-98-0971**  
 fill in this form completely

Date Received (APA) **062989**  
 OWNER INFORMATION  
 WILLOW SP LIMITED  
 16801 WESTLEY CH RD  
 MOUNTAIN VIEW MD 21111

B 3 LOCATION OF WELL  
 HOWARD COUNTY  
 WILLOW HIGHLANDS SUBDIVISION  
 SECTION 44 LOT 24  
 WEST FRIENDSHIP NEAREST TOWN  
 MILES FROM TOWN (enter 0 if in town) 1 MI

DRILLER INFORMATION  
 Ralph Mayne  
 RALPH MAYNE (well drilling)  
 9120 Brown Church Rd. Mt Airy  
 Ralph Mayne 6/13/89



PIPES LA NEAR WHAT ROAD  
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
 600 DISTANCE FROM ROAD  
 ENTER FT or MI FF

B 2 WELL INFORMATION  
 APPROX. PUMPING RATE (GAL. PER MIN.) 5  
 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL  
 HOWARD COUNTY NAME A 38649 COUNTY NO.  
 STATE SIGNATURE DATE ISSUED 080489  
 CO SIGNATURE Chris Williams 2/4/90  
 NORTH GRID 541000 EAST GRID 0807000

USE FOR WATER (CIRCLE APPROPRIATE BOX)  
 HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)  
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOV. OTHER (REQUIRES APPROPRIATION PERMIT)  
 PUBLIC OR PRIVATE WATER COMPANY (REQUIRES APPROPRIATION PERMIT AND STATE HEALTH DEPARTMENT APPROVAL)  
 TEST, OBSERVATION, MONITORING (MAY REQUIRE APPROPRIATION PERMIT)

APPROXIMATE DEPTH OF WELL 150 FEET  
 APPROXIMATE DIAMETER OF WELL 6" INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X  
 SOURCES OF DRILLING WATER  
 1. well  
 WRITE THE BOX NUMBER FROM THE MAP HERE  
  
 DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

METHOD OF DRILLING (circle one)  
 BORED (or Augered) JETTED Jetted & DRIVEN  
 AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)  
 CABLE REVERSE-ROTARY DRIVE-POINT  
 other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)  
 THIS WELL WILL NOT REPLACE AN EXISTING WELL  
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED  
 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY  
 THIS WELL WILL DEEPEM AN EXISTING WELL  
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)  
 APPROP. PERMIT NUMBER GAP  
 FORCE CW PERMIT NO. 40-98-0971

SPECIAL CONDITIONS  
 COUNTY

C1 1093 SEQUENCE NO. (DENV USE ONLY)  
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND  
 WELL COMPLETION REPORT  
 FILL IN THIS FORM COMPLETELY  
 PLEASE PRINT OR TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.  
 COUNTY NUMBER A-38649

ST/CO USE ONLY  
 DATE RECEIVED 002799  
 DATE WELL COMPLETED 092589

Depth of Well 22 205 26  
 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL"  
 11-99-0977

OWNER William S. Leonard last name first name TOWN W. P. ...  
 STREET OR RFD ... SECTION ... LOT 24

**WELL LOG**  
 Not required for driven wells

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

DESCRIPTION (Use additional sheets if needed)	FEET		Check if water bearing
	FROM	TO	
Top Soil	0	2	
Sandy	2	20	✓
Sand Stone	20	25	
MICKA	25	85	
Strat Stone	85	90	✓
MICKA	90	205	

**GROUTING RECORD**  
 WELL HAS BEEN GROUTED (Circle Appropriate Box) YES  NO   
 TYPE OF GROUTING MATERIAL CEMENT  BENTONITE CLAY   
 NO. OF BAGS 75 NO. OF POUNDS 1500  
 GALLONS OF WATER 90  
 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 45 ft.

**CASING RECORD**  
 casing types insert appropriate code below  
 ST CO STEEL CONCRETE  
 PL OT PLASTIC OTHER  
 MAIN CASING TYPE PL  
 Nominal diameter top (main) casing (nearest inch) 6  
 Total depth of main casing (nearest foot) 80

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

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

**C2**  
 DEPTH (nearest ft.)  
 1 HO 83 205  
 2  
 3  
 SLOT SIZE 1 2 3  
 DIAMETER OF SCREEN (NEAREST INCH) from to

**C3**  
**PUMPING TEST**  
 HOURS PUMPED (nearest hour) 3  
 PUMPING RATE (gal. per min. to nearest gal.) 4  
 METHOD USED TO MEASURE PUMPING RATE Bucket  
 WATER LEVEL (distance from land surface) BEFORE PUMPING 25 WHEN PUMPING 60  
 TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

**PUMP INSTALLED**  
 DRILLER 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)

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

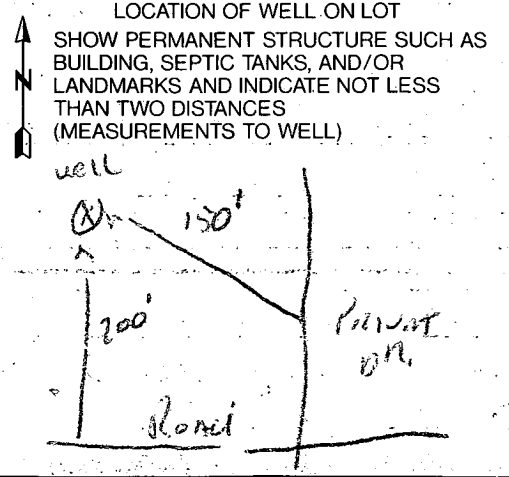
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS IDENT. NO. 273  
 DRILLERS SIGNATURE [Signature]

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

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





HOWARD COUNTY HEALTH DEPARTMENT  
 Bureau of Environmental Health  
 3525-H Ellicott Mills Drive  
 Ellicott City, MD 21043  
 461-9933

APPLICATION FOR PITLESS ADAPTER, WELL PUMP AND PRESSURE TANK INSTALLATION

New Installation X Replacement \_\_\_\_\_  
 Receipt # -0-  
 Date 8/29/94  
 Name of Installer DONALD N. FACKETT T/A ISLANDER ENTERPRISES, INC. Telephone 477-3303  
 License Number 15285  
 Certified Well Pump Installer \_\_\_\_\_ Well Driller \_\_\_\_\_ Registered Plumber X  
 Name of Property Owner RICHARD SPRINGER Telephone 410-544-4746  
 Subdivision WILLOW HIGHLANDS Lot # 24 Well Tag # H0-88-0971  
 Site Address 13242 PIPES LANE

**Pump**  
 1. Type  
 a. Deep well jet \_\_\_\_\_  
 b. Shallow well jet \_\_\_\_\_  
 c. Submersible X  
 2. Make JACUZZI  
 3. Model # JT554513PS2  
 4. Capacity 5 GPM  
 5. Pump exceeds well capacity Yes X No \_\_\_\_\_  
 6. If Yes, is low pressure cutoff switch installed? Yes X No \_\_\_\_\_  
 7. What methods are used to protect the pump and electrical wiring from vibrations? Torque arrestors X Cable guards X Other TAPE

**Motor**  
 1. Horsepower 1/2  
 2. RPM 1750  
 3. Voltage \_\_\_\_\_  
 a. 110 \_\_\_\_\_  
 b. 220 \_\_\_\_\_  
 c. 230 X

**Pitless Adapter**  
 1. Make HARBARD  
 2. Model # P-800  
 3. Depth 4'

**Tank**  
 1. Capacity 80 GALLON  
 2. Pressure relief valve? YES  
 pitless adapter + water line OK @ 3 1/2 ft - OK cover 8/10/26/94

**Piping**  
 1. Type CRESSLINE  
 2. Size 1"  
 3. NSF and/or BOCA Code approved YES  
 4. Depth of supply line 4

**Well data**  
 1. Depth 205 ft.  
 2. Yield 4 GPM  
 3. Static water level \_\_\_\_\_ ft.  
 4. Will water supply be disinfected by installer? NO

I understand that it is my responsibility to notify the Howard County Health Department when the installation is ready for inspection (otherwise this permit is null and void).

All information given above is true to the best of my knowledge.

Signature of Applicant: \_\_\_\_\_

Date: \_\_\_\_\_

Note: A sticker indicating approval/status of the installation will be placed on the well casing at the time of the inspection.

HD-215 (Note: @ No work) 10/14/94 supposed to be R.S.A.P. CBS

**ENGINEER'S CERTIFICATE**

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*Earl Collins* 12-22-93  
SIGNATURE OF ENGINEER DATE

**DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

*[Signature]* 12-23-1993  
SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S. SOIL CONSERVATION DISTRICT DATE

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: DISTRICT HOWARD SOIL CONSERVATION DIST. DATE

**SEQUENCE OF CONSTRUCTION**

- OBTAIN GRADING PERMIT.
- INSTALL SEDIMENT CONTROLS AS SHOWN ON PLAN.
- PERFORM NECESSARY GRADING AND STABILIZE THE SITE.
- AFTER THE SITE IS STABILIZED AND PERMISSION IS GRANTED FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROLS AND STABILIZE ANY REMAINING DISTURBED AREAS.

**TEMPORARY SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

**SEEDBED PREPARATION**

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING IF NOT PREVIOUSLY LOOSENED.

**SOIL AMENDMENTS**

APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER @ 100 LBS./1000 SQ. FT.

**SEEDING**

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1 1/2 BUSHEL PER ANNUAL RYE @ 2 LBS./1000 SQ.FT. FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS./ACRE OF WEEPING LOVEGRASS @ 7 LBS./1000 SQ.FT. FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28. PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

**MULCHING**

APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES, ON SLOPES 8 FEET OR HIGHER, USE 340 GALLONS PER ACRE (6 GAL./1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1986 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

**PERMANENT SEEDING NOTES**

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

**SEEDBED PREPARATION**

LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

**SOIL AMENDMENTS**

APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (2 LBS./1000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (4 LBS./1000 SQ.FT.) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (3 LBS./1000 SQ.FT.) AND 500 LBS. PER ACRE (11.5 LBS./1000 SQ.FT.) OF 10-20-20 FERTILIZER.

**SEEDING**

FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS./ACRE (1.4 LBS./1000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - USE SOD; OPTION (3) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEEDED.

**MULCHING**

APPLY 1 1/2 TO 2 TONS PER ACRE (90 TO 100 LBS./1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES, ON SLOPES 8 FEET OR HIGHER USE 340 GALLONS PER ACRE (6 GAL./1000 SQ.FT.) FOR ANCHORING.

**MAINTENANCE**

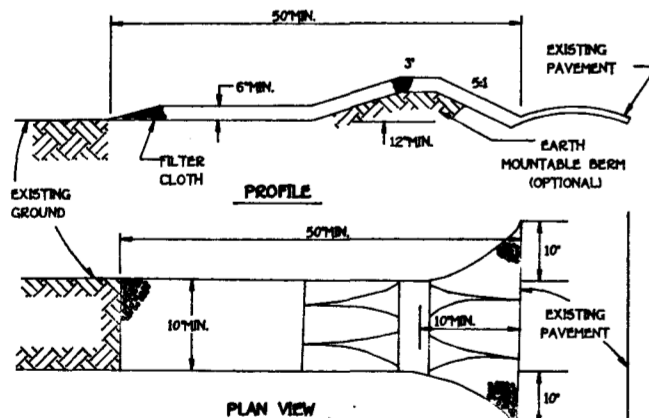
INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

\* FOR PUBLIC PONDS SUBSTITUTE CHELSEA CROWN VETCH AT 15 LBS./ACRE AND KENTUCKY 31 TALL FESCUE AT 40 LBS./ACRE AS THE SEEDING REQUIREMENT. OPTIMUM SEEDING DATE FOR THIS MIXTURE IS MARCH 1 TO APRIL 30.

**SEDIMENT CONTROL NOTES**

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (992-2437).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL GREATER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS (SEC. 51) SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 7 SITE ANALYSIS:
 

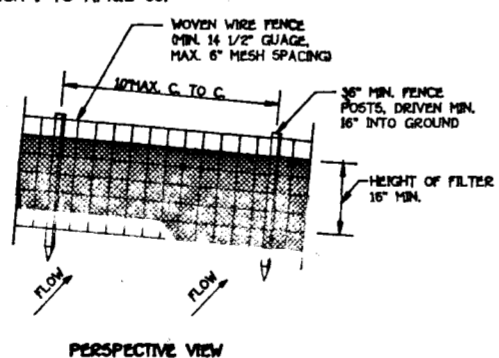
TOTAL AREA OF SITE	ACRES
AREA DISTURBED	0.42
AREA TO BE ROOFED OR PAVED	0.11
AREA TO BE VEGETATIVELY STABILIZED	0.31
TOTAL CUT	100
TOTAL FILL	100
OFFSITE WASTE/BORROW AREA LOCATION	CU.YDS.
ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.	
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DOW SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.



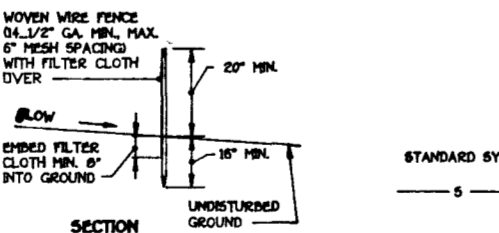
**CONSTRUCTION SPECIFICATIONS**

- STONE SIZE - USE # 2 STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 3:1 SLOPES WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND FOR CLEANOUT OF ANY TRAPERS USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE - 2 NOT TO SCALE



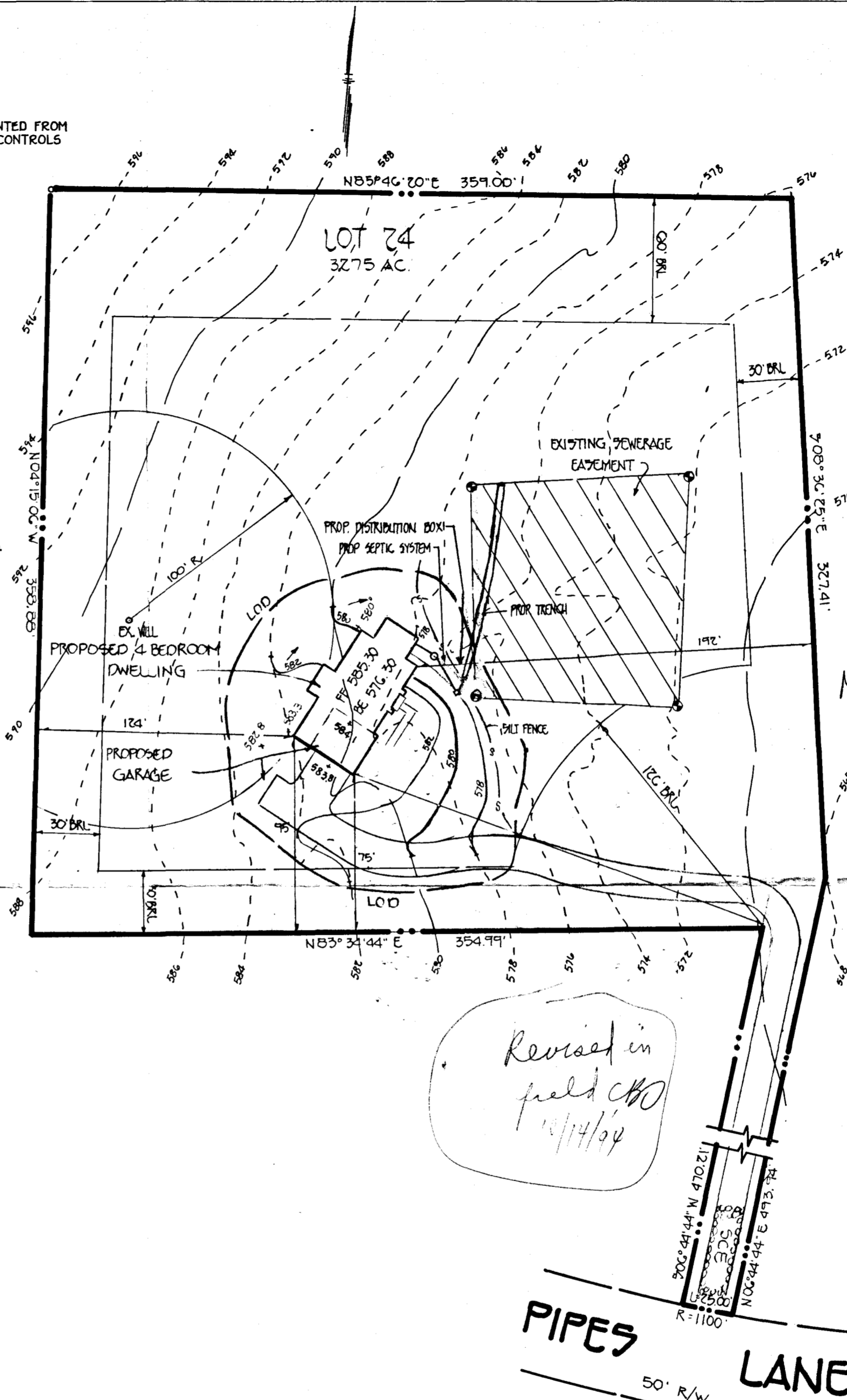
**PERSPECTIVE VIEW**



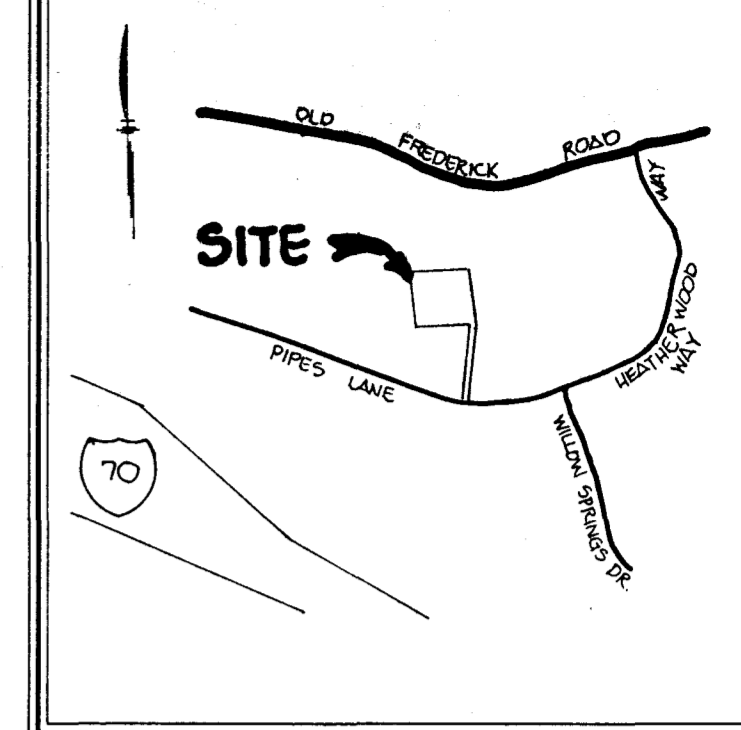
**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OF STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "MULCH" DEVELOPS IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
- FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING
- FILTER CLOTH: FILTER X, HERRMANN 100% STABILIZED T18 ON APPROVED EQUAL
- PREPARED UNIT: GEOPAF ENVIRONMENTAL OR APPROVED EQUAL

SILT FENCE NOT TO SCALE



*Revised in field CBO 12/14/93*



VICINITY MAP SCALE: 1"=200'

**GENERAL NOTES**

- SEPTIC EASEMENT SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT
- PROPOSED 1500 GALLON SEPTIC TANK
- FIRST FLOOR ELEVATION: 585.3
- BASEMENT ELEVATION: 576.3
- INVERT OF SEPTIC SYSTEM AT HOUSE: 575.0
- INVERT IN AT SEPTIC TANK: 574.80
- INVERT OUT AT SEPTIC TANK: 574.50
- PROPOSED GRADE OVER SEPTIC TANK: 576.2
- INVERT AT DISTRIBUTION BOX: 574.90
- EXISTING GROUND OVER DISTRIBUTION BOX: 576.50
- LENGTH OF TRENCH TO BE DETERMINED AT TIME OF SEPTIC PERMIT ISSUANCE. INV. TRENCH = 574.00
- CONTRACTOR / BUILDER TO VERIFY ELEVATIONS IN FIELD BEFORE BEGINNING ANY CONSTRUCTION.

*MINIMUM 18" FINISHED COVER OVER S.T. BP 52134 4BR REVISED BP PLAN OK MR 12/29/93*

PIPES LANE 50' R/W

PLAN TO ACCOMPANY APPLICATION FOR BUILDING PERMIT  
**WILLOW HIGHLANDS**  
LOT 24

TAX MAP 9 & 15 PARCELS 11,45 & 151  
3RD ELECTION DIST. HOWARD COUNTY, MARYLAND  
SCALE: 1" = 50' DATE: DECEMBER 23, 1993

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
9171 BALTIMORE NATIONAL PIKE, SUITE 100  
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