12/2/97
WPI + C.O.

PERMIT

SEWAGE DISPOSAL SYSTEM

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

P 59231
A 48740
DISTRICT 3rd
DATE 11/25/97
DATE SYSTEM APPROVED 12/2/97
INSPECTOR M. Rifkin

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
~~XXXXXXXXX~~ 410-313-2640

INDEXED

WTC Inc. IS PERMITTED TO INSTALL X ALTER ____

ADDRESS 1820 Gillis Falls Rd., Woodbine, 21797 PHONE 410-489-4457

SUBDIVISION W. Friendship Estates LOT 81 ROAD 3308 Velvet Valley Drive

PROPERTY OWNER Mr. and Mrs. Richard Duff

ADDRESS ____

SEPTIC TANK CAPACITY 1250 GALLONS

NUMBER OF BEDROOMS 4

180 SQUARE FEET PER BEDROOM

LINEAR FEET OF TRENCH REQUIRED 240

TRENCHES - Trench to be 3 feet wide. Inlet 4 feet below original grade. Bottom maximum depth 6 feet below original grade. Effective area begins at 4 feet below original grade. 2 feet of stone below distribution pipe.

LOCATION - Begin trenches 160 feet up the right (320.79') lot line and 10 feet off that same lot line as seen when facing the lot from Velvet Valley Drive. Run trenches on contour toward the left lot line.

NOTES - No trench to exceed 100 feet in length. Provide 6" - 8" diameter cleanout and cap to grade or above on septic tank. 9/29/97 OK ALM

PLANS APROVED BY Amy McMillen/Glen Savage DATE 09/24/97

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

BLDG. PERMIT SIGNED AND RETURNED ~~2-3-98~~ 3/9/98

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

PERMIT VOID AFTER TWO YEARS

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

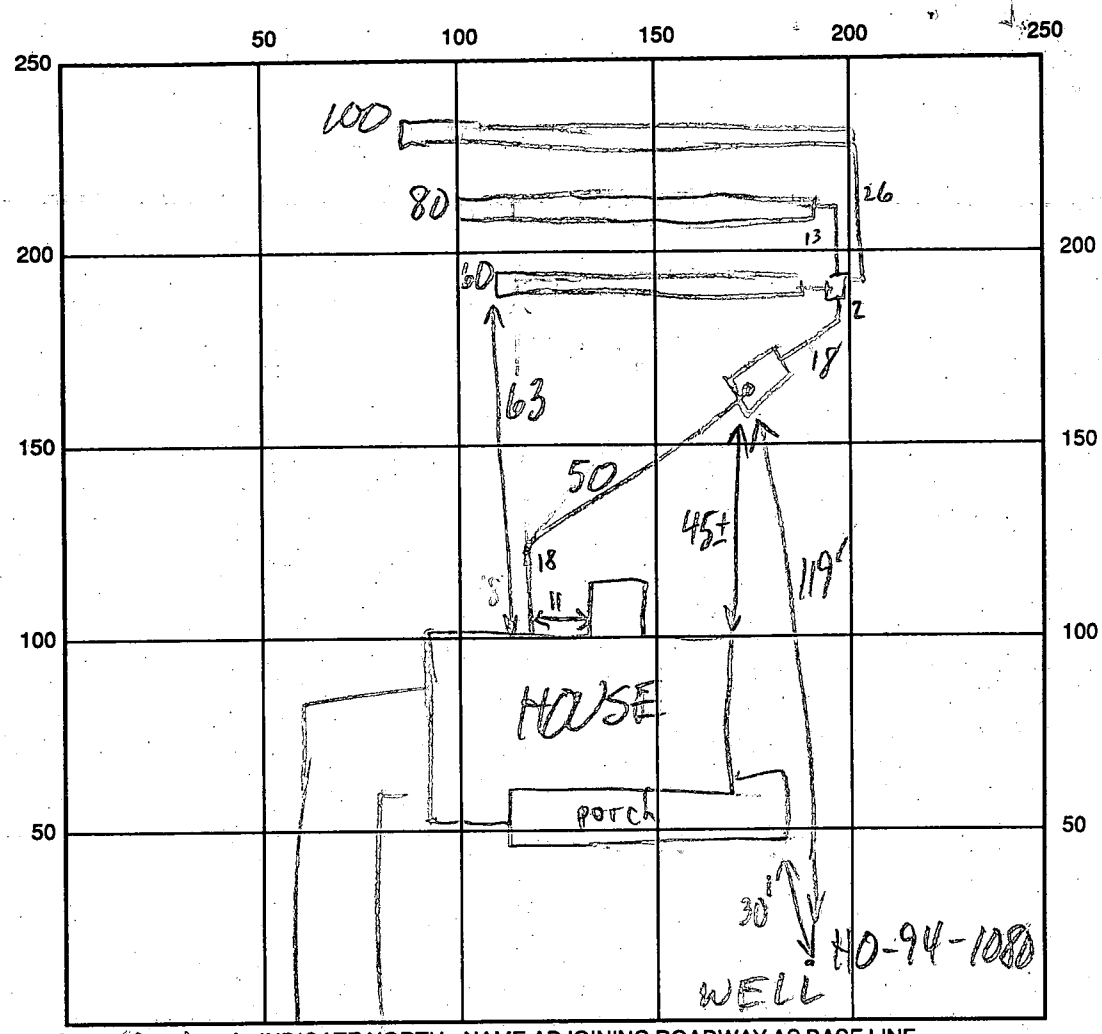
NOTE: DISTRIBUTION BOXES MUST HAVE BAFFLES

A 48740

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

*CALL 461-9933 FOR INSPECTION OF SEPTIC SYSTEM.

HD-260(6-90)



VELVET VALLEY DR INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE

SEPTIC TANK LEVEL 1250 GAL CLEANOUTS S.T. - OK

DISTRIBUTION BOX LEVEL OK - BAFFLE IN

DRAIN FIELD/TITLE DEPTH 6 FT. TRENCH WIDTH 3 FT. INLET DEPTH 4 FT.

EFFECTIVE GRAVEL DEPTH 2 FT. TOTAL LENGTH ①60 ②80 ③100 FT.

①180 ②240 ③300

NUMBER OF TRENCHES 3 ONE SIDEWALL/BOTTOM AREA _____ SQ. FT.

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

ABSORBENT AREA 720 SQ. FT.

REMARKS: 12/2/97 OK TO COVER ALL

12/2/97 WPI OK. 2 PC CAP OK (MR)

DATE SYSTEM APPROVED 12/2/97 INSPECTOR M. Rifkin

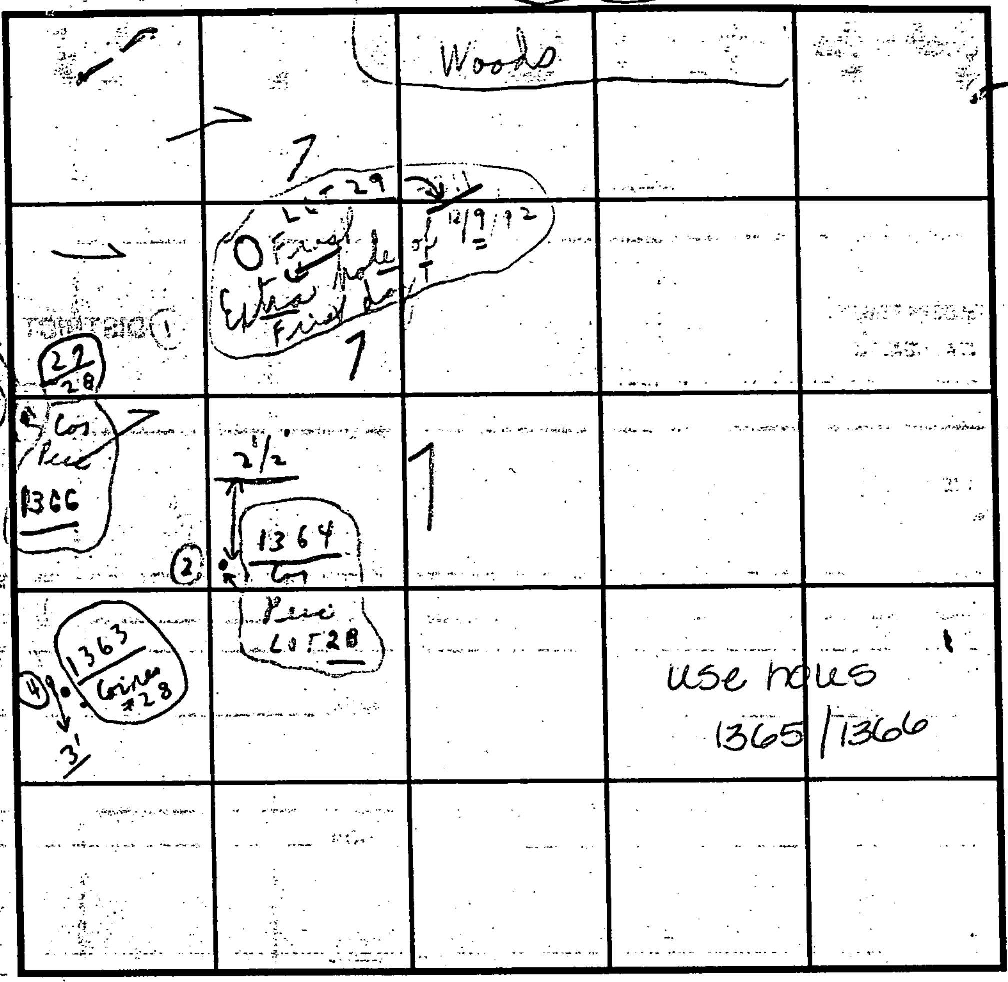
Some of 22 Lot 7 Lot 28 New 95

48741
COUNTY #

SOIL PROFILE

0'

High
③ 5½'



SOIL PROFILE

0'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME
12/15/92	#①	4'4"	9:37	9:39	9:39	9:43	4 min
Tues	#1366	12½'	Loam - Lighter) 10% Sand [illegible]				
Kildish	#②	6'	9:39	9:40	9:40	9:41	1 min
Loam	#1364	12'		(No stone - Loam all			
	#1365	13'	10:30	10:32	10:32	10:35	3 min
	#③	8' →	10:30	10:33	10:33	10:37	4 min
	#④	0' to 6' ± Clay		Loam 6' to 10'-10"			
	#1363	10'-10"	Hard in bottom	(Visual similar to ②)			

REMARKS Tests in open field (Shallow system to 6' only

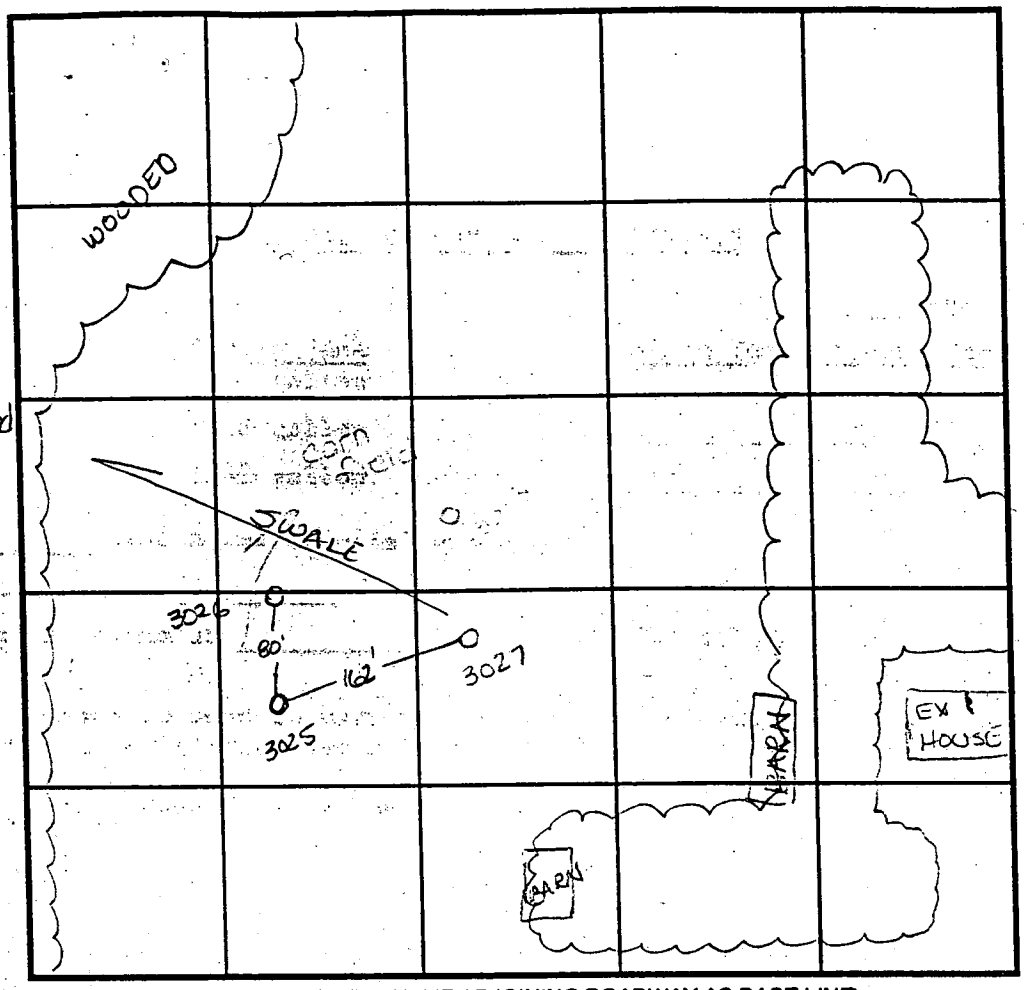
TYPE OF SOIL Loam

TESTED BY C.K.A. ALSO PRESENT O.K. Jr. Kelpie Mauch

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME 4 min TRENCH WIDTH 3'

INLET DEPTH 4.5 MAXIMUM BOTTOM DEPTH 6.5 SQ. FT/BEDROOM 180 ft²

LOT 80



SOIL PROFILE

0'

ILE

5'

rk
c'd
brn
CSiL

4'

yellow
& red
spotted
SiL
very decayed
saprolite

10'

very light
pink
SiSL

11'

3026

bright
red
CSiL

4'

yellow
and red
spotted
SiL

6'

lgt pink
SiSL
10% o
decayed
pink &
yellow
shale

11'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME
3-15-95	3025	5' / VII'	11:10 15	11:11	11:11	11:12 30	1½ min
	3025	repour	11:13	11:14 45	11:14 45	11:17	2¼ min
	3026	5' / VII'	12:22 30	12:26	12:26	12:36	10 min

REMARKS _____

TYPE OF SOIL _____

TESTED BY Amy McMillen ALSO PRESENT Olan McHerman

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

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

LOT 81

COUNTY #

SOIL PROFILE

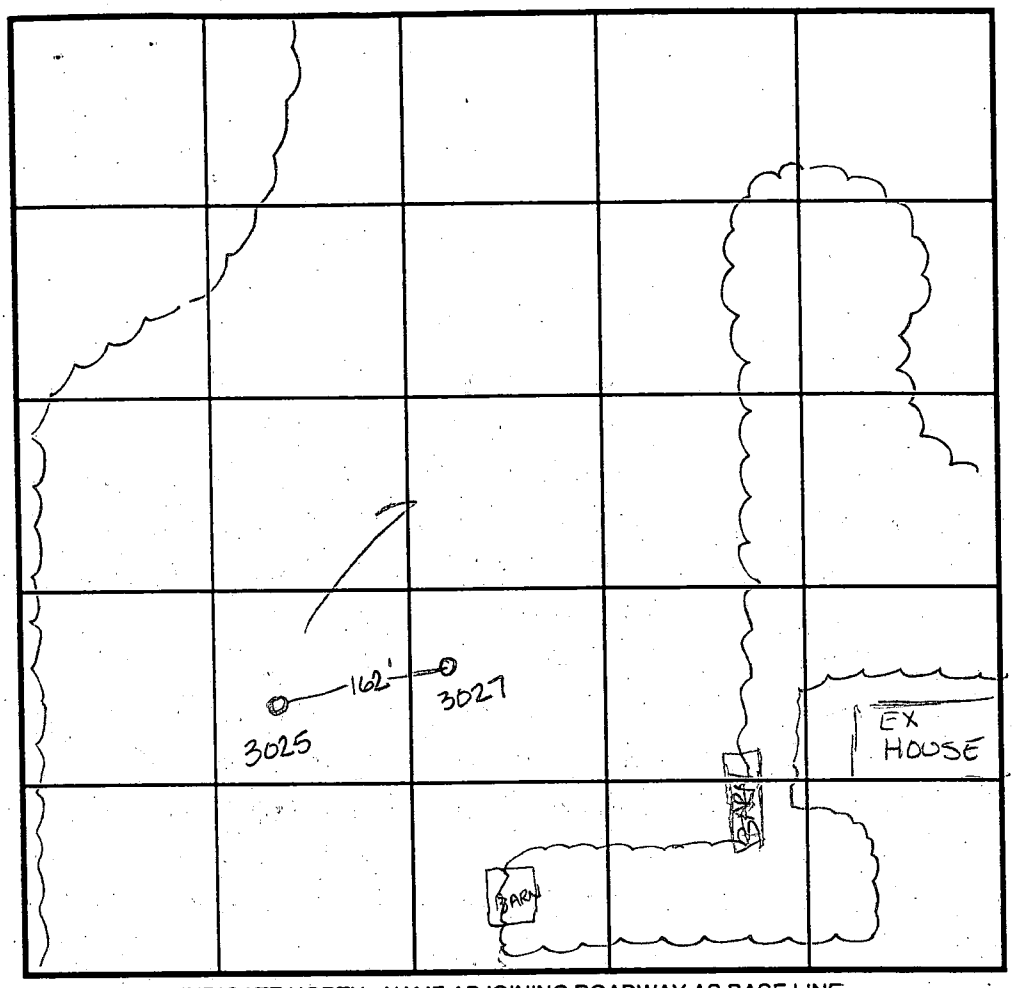
0' 3027

bright red CSiL

4'

brn red SiL some sand 5% rock frags yellow spots from rock

11'



SOIL PROFILE

0'

INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET START	PRE-WET STOP	TEST - 1" DROP START	TEST - 1" DROP STOP	TIME
3-15-95	3027	4.5' / 11'	11.01	11.02 (15)	11.02 (15)	11.04 (30)	2 1/4 min

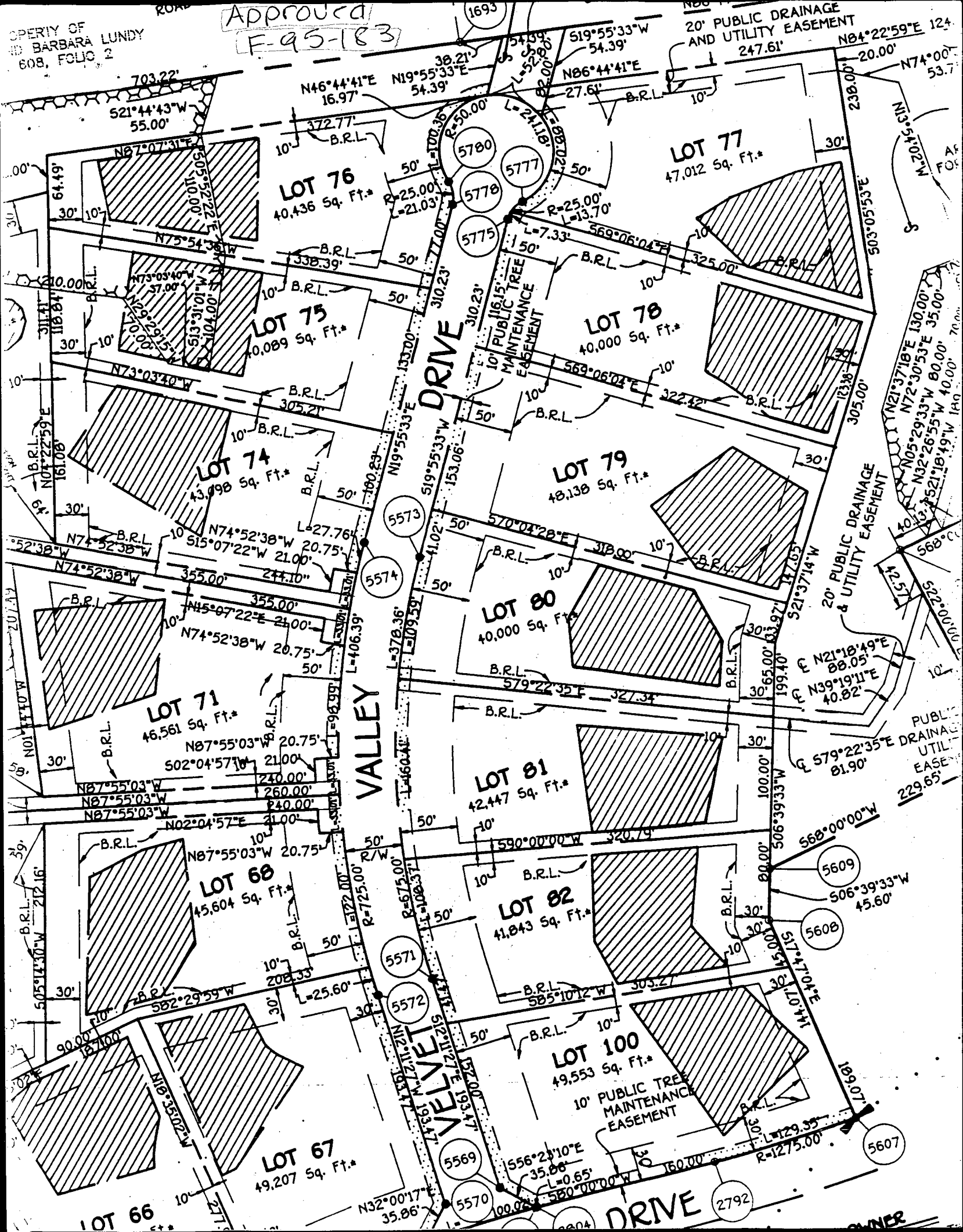
REMARKS _____

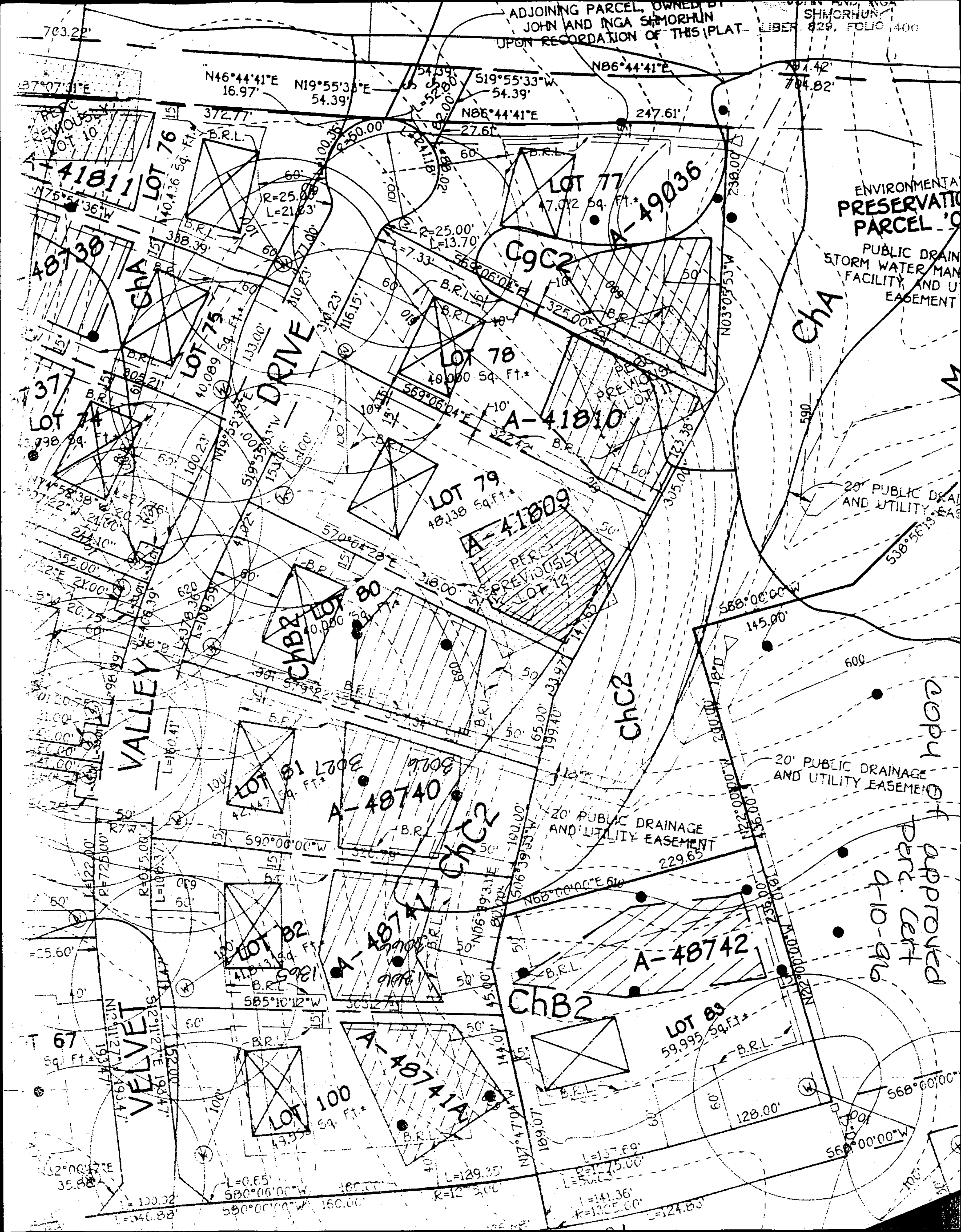
TYPE OF SOIL _____

TESTED BY _____ ALSO PRESENT _____

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

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


Approved
F-95-183
OPERTY OF
D BARBARA LUNDY
608, FOLIO 2
LOT 76
40,436 Sq. Ft.±
LOT 77
47,012 Sq. Ft.±
LOT 75
40,089 Sq. Ft.±
LOT 78
40,000 Sq. Ft.±
LOT 74
43,998 Sq. Ft.±
LOT 79
48,138 Sq. Ft.±
LOT 80
40,000 Sq. Ft.±
LOT 71
46,561 Sq. Ft.±
LOT 81
42,447 Sq. Ft.±
LOT 68
45,604 Sq. Ft.±
LOT 82
41,843 Sq. Ft.±
LOT 100
49,553 Sq. Ft.±
LOT 67
49,207 Sq. Ft.±
LOT 66
DRIVE
VALLEY
VELVET
DRIVE
10' PUBLIC TREE MAINTENANCE EASEMENT
20' PUBLIC DRAINAGE AND UTILITY EASEMENT
20' PUBLIC DRAINAGE & UTILITY EASEMENT
10' PUBLIC TREE MAINTENANCE EASEMENT
5780
5777
5778
5775
5573
5574
5571
5572
5569
5570
5609
5608
5607
2792
B.R.L.
R/W



ADJOINING PARCEL, OWNED BY
JOHN AND INGA SHMORHUN
UPON RECORDATION OF THIS PLAT
LIBER 829, FOLIO 400
N46°44'41"E
16.97'
N19°55'33"E
54.39'
S19°55'33"W
54.39'
N86°44'41"E
247.61'
372.77'
LOT 76
A-41811
PREVIOUSLY LOT 10
LOT 77
47,012 Sq. Ft.±
A-49036
CgC2
ENVIRONMENTAL
PRESERVATION PARCEL
PUBLIC DRAIN
STORM WATER MAN
FACILITY AND U
EASEMENT
ChA
LOT 75
40,089 Sq. Ft.±
DRIVE
LOT 78
40,000 Sq. Ft.±
S69°06'04"E
A-41810
PREVIOUSLY LOT 11
LOT 74
48738
LOT 79
48,138 Sq. Ft.±
A-41809
PREVIOUSLY LOT 12
S70°04'28"E
318.00'
20' PUBLIC DRAINAGE AND UTILITY EASEMENT
S38°56'13"W
S68°00'00"W
145.00'
600
LOT 80
40,000 Sq. Ft.±
ChB2
VALLEY
ChC2
LOT 81
A-48740
20' PUBLIC DRAINAGE AND UTILITY EASEMENT
S90°00'00"W
229.65
N68°00'00"E
ChC2
LOT 82
A-48741
A-48742
ChB2
LOT 83
59,995 Sq. Ft.±
S85°10'12"W
A-48741A
LOT 100
VELVET
LOT 67
128.00'
S68°00'00"W
S80°00'00"W
160.00'
N32°00'17"E
35.88'
B.R.L.
approved Perc Cert 9-10-96

Approved Septic System Plan
Howard County Health Department

B00108024

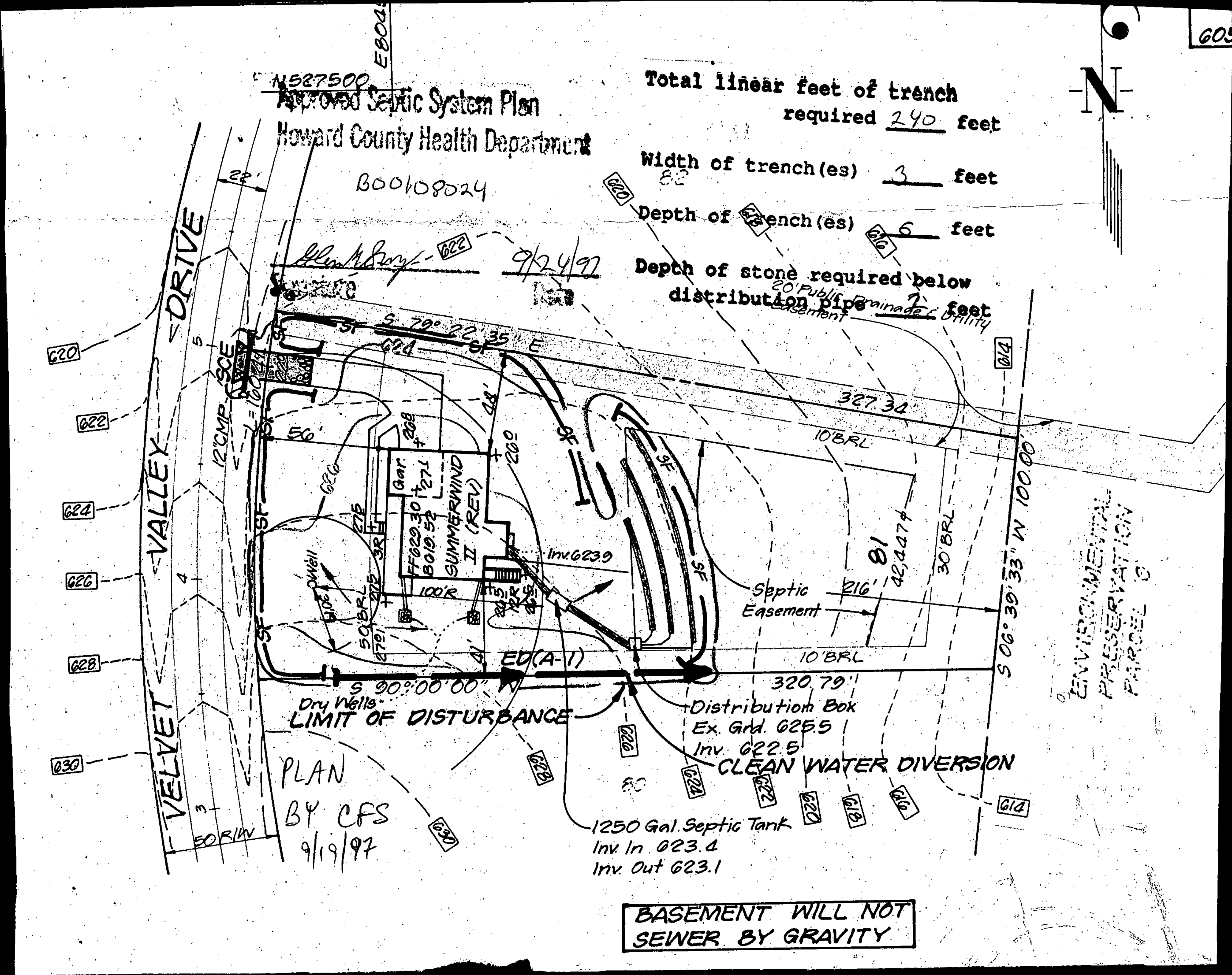
Glen M. [illegible] — Signature   9/24/97 — Date

Total linear feet of trench required 240 feet

Width of trench(es) 3 feet

Depth of trench(es) 6 feet

Depth of stone required below distribution pipe 2 feet



N527500
E804
VELVET VALLEY DRIVE
50' R/W
22'
12"CMP
SCE
L=160
SF
S 79° 22' 35" E
327.34'
56'
44'
41'
Well
50'BRL
10'BRL
30'BRL
Gar.
FF629.30
B019.52
SUMMERWIND II (REV)
100'R
3R
12R
Inv.623.9
EU(A-1)
S 90°00'00"
320.79'
Dry Wells
LIMIT OF DISTURBANCE
Distribution Box
Ex. Grd. 625.5
Inv. 622.5
CLEAN WATER DIVERSION
1250 Gal. Septic Tank
Inv. In 623.4
Inv. Out 623.1
Septic Easement
216'
81
42,447 sf
20' Public Drainage & Utility Easement
S 06° 39' 33" W 100.00'
ENVIRONMENTAL PRESERVATION PARCEL 'C'
PLAN BY CFS 9/19/97
BASEMENT WILL NOT SEWER BY GRAVITY
620
622
624
626
628
630
614
616
618
605
N

STATE USE INDUSTRIES
JESSUP, MD.20794

EMERGENCY/TEMP NO. IF ANY

B 1 3058 — SEQUENCE NO. (DP USE ONLY)
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please print or type.

STATE PERMIT NUMBER: HO-94-1080
fill in this form completely

Date Received (APA): 03 04 97

OWNER INFORMATION
Dorsey Builders Inc
Last Name / Owner / First Name
13090 Old Frederick
Street or RFD
Sykesville MD 21784
Town / State / Zip

DRILLER INFORMATION
MSD / MGD / MWD: MWD
Driller's Name: Perry Harley
17 License No. 80
Firm Name: Harley Drilling & Pump Systems
Address: Box 160 Woodbine, MD 21797
Signature: Perry Harley Date: 3-1-97

WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.): 3
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 600

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

APPROXIMATE DEPTH OF WELL: 700 FEET
APPROXIMATE DIAMETER OF WELL: 6" NEAREST INCH

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 DEEPENED 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 DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE)

Not to be filled in by driller (OEP USE ONLY)
APPROP. PERMIT NUMBER: GAP
FORCE [R] WRITE INITIALS IN BOX — PERMIT No. HO-94-1080

LOCATION OF WELL
8 COUNTY: HOWARD
23 SUBDIVISION: WESTFRIENDSHIP
SECTION 2 — LOT 81
52 NEAREST TOWN: WESTFRIENDSHIP
MILES FROM TOWN (enter 0 if in town): 2 MI

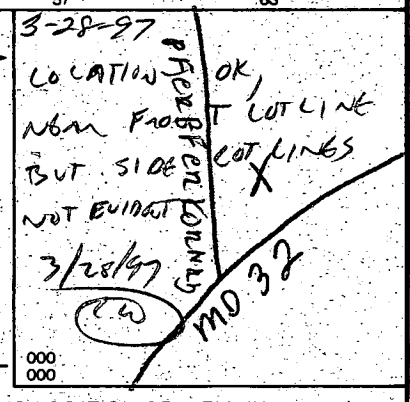
DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
NW 8-9 | N 8 | NE 8-9 | W 8 | TOWN | E 8 | SW 8-9 | (S) 8 | SE 8-9

NEAR WHAT ROAD: ~~Velvet Valley Drive~~ ~~MD 32~~
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH (N) / WEST [W] 32 [E] EAST / [S] SOUTH
DISTANCE FROM ROAD: 600
ENTER (FT) OR MI: FT

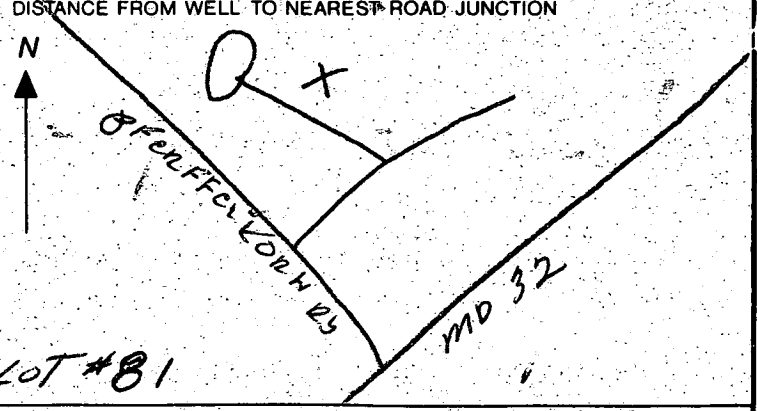
TAX MAP: 15 BLK: PARCEL 533 32,42

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
Howard — COUNTY NAME
13-A-48740 — COUNTY NO.
STATE SIGNATURE
INSERT S
DATE ISSUED: 03/18/97
CO SIGNATURE
EXP. DATE: 3/18/98
NORTH GRID: 528000
EAST GRID: 080400

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1. well
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 804
N 528



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



SPECIAL CONDITIONS
NOTE = APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED =

COUNTY

C 1 | SEQUENCE NO. (MDE 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 B-A 48740

ST/CO USE ONLY
DATE Received MM 5 DD 14 YY 97

DATE WELL COMPLETED MM 3 DD 28 YY 97

Depth of Well 100 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-94-1080

OWNER Dorsey Builders (last name / first name)

STREET OR RFD Valley Drive TOWN West Friendship

SUBDIVISION West Friendship Estates SECTION II LOT 84

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 FROM	FEET TO	check if water bearing
TOPSOIL	0	2	
BROWN SHEL MICA	3	55	
WHITE FINE SAND STONE BLUE ROCK	56	100	~
GOT WATER @			80
			95

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED: yes [Y] no [N]

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

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

DRILLERS LIC. NO.: MSD 143

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO.: M__ D___

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

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box): yes [Y] (44) no [N] (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] (45-46) BENTONITE CLAY [BC]

NO. OF BAGS 11 NO. OF POUNDS (45-46) 1034

GALLONS OF WATER 66

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 65 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60-61)	6 4 (63-64)	6 0 (66-70)

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	depth (feet) to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 (1-2)

DEPTH (nearest ft.)

EACH SCREEN			
1	40 (8-9)	66 (11-15)	100 (17-21)
2			
3			

SLOT SIZE 1 ____ 2 ____ 3 ____

DIAMETER OF SCREEN ____ (NEAREST INCH) (56-60)

from	to

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING | LOG INDICATOR | OTHER DATA

C 3 (1-2)

PUMPING TEST
HOURS PUMPED (nearest hour) 3 (8-9)

PUMPING RATE (gal. per min.) 14 (11-15)

METHOD USED TO MEASURE PUMPING RATE Submersible

WATER LEVEL (distance from land surface)

BEFORE PUMPING 30 (17-20) ft.

WHEN PUMPING 50 (22-25) ft.

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)

[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)

[J] jet (27) [S] submersible (27)

PUMP INSTALLED
DRILLER WILL INSTALL PUMP (CIRCLE) (YES or NO): YES [NO]

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31-35)

PUMP HORSE POWER (37-41)

PUMP COLUMN LENGTH (nearest ft.) (43-47)

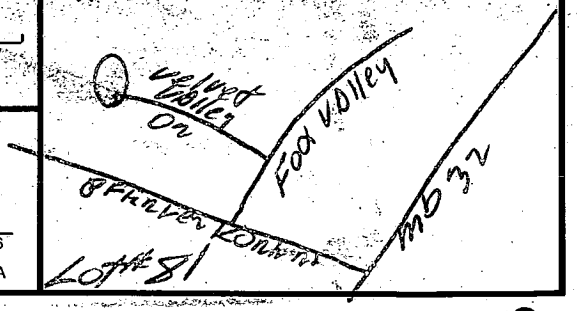
CASING HEIGHT (circle appropriate box and enter casing height)

[+] (49) above LAND SURFACE

[–] (49) below

2 (nearest foot) (50-51)

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)



COUNTY

WEST FRIENDSHIP

LOT 81

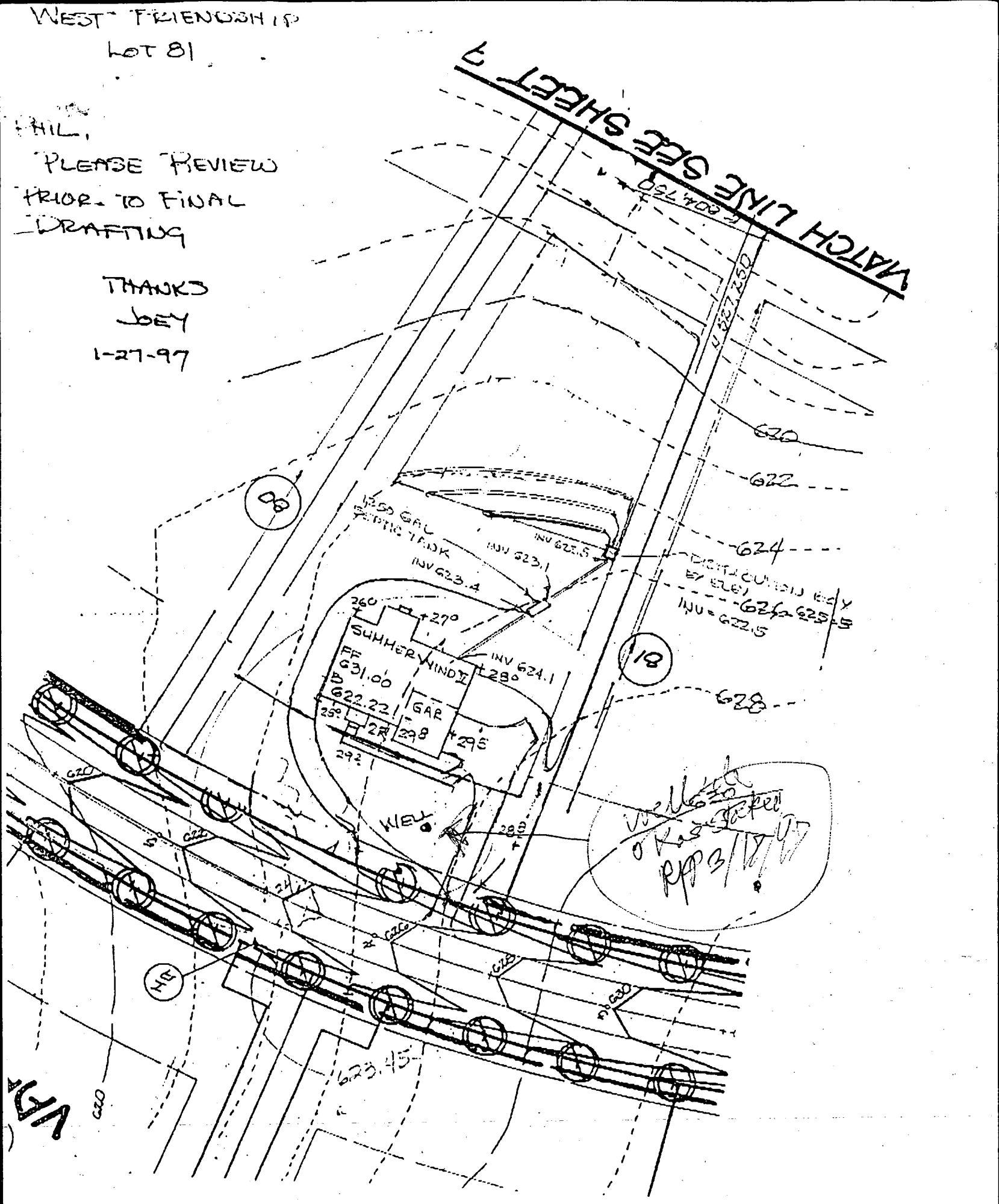
PHIL,

PLEASE REVIEW PRIOR TO FINAL DRAFTING

THANKS

JOEY

1-27-97



Jan-27-97 11:36A P.01