

LAYOUT 6/21/04 1-2 PM INSP 4 8/9/04 - 11 AM Permit
INSP 2 6/23/04 INSP 5 _____
INSP 3 6/24/04 PM INSP 6 _____

ISSUE DATE: 6/15/2004

APPROVAL DATE: 8/9/04

PERMIT INDEXED

P 520421

A 511371-F

ON-SITE SEWAGE DISPOSAL SYSTEM HOWARD COUNTY HEALTH DEPARTMENT BUREAU OF ENVIRONMENTAL HEALTH

05-436931

Van Sant Plumbing & Heating IS PERMITTED TO INSTALL ALTER

ADDRESS: 3 North Main St, Mt Airy PHONE NUMBER: 800-682-6726

SUBDIVISION: Koandah Garden Estates LOT NUMBER: 24

ADDRESS: 6808 Koandah Gardens Court PROPERTY OWNER: M/I Homes of D.C., LLC

SEPTIC TANK CAPACITY (GALLONS): 1500 OUTLET BAFFLE FILTER REQUIRED

PUMP CHAMBER CAPACITY (GALLONS): 1500 COMPARTMENTED TANK REQUIRED

NUMBER OF BEDROOMS: 5

SQUARE FEET PER BEDROOM: 210

LINEAR FEET OF TRENCH REQUIRED: 291 HOUSE SERVED BY PUBLIC WATER

TRENCHES:	Trench to be 3.0 feet wide. Inlet 3.5 feet below original grade. Bottom maximum depth 4.5 feet below original grade. Effective area begins at 3.5 feet below original grade. 1.0 feet of stone below distribution pipe.
LOCATION:	Place the distribution box at the highest useable portion of the SDA.
NOTES:	Maintain 2' edge to edge trench separation. <u>Make sure enough area left for 2 standard repairs.</u>

PLANS APPROVED: Kevin Bell Reviewed by: MW DATE: 3/4/04

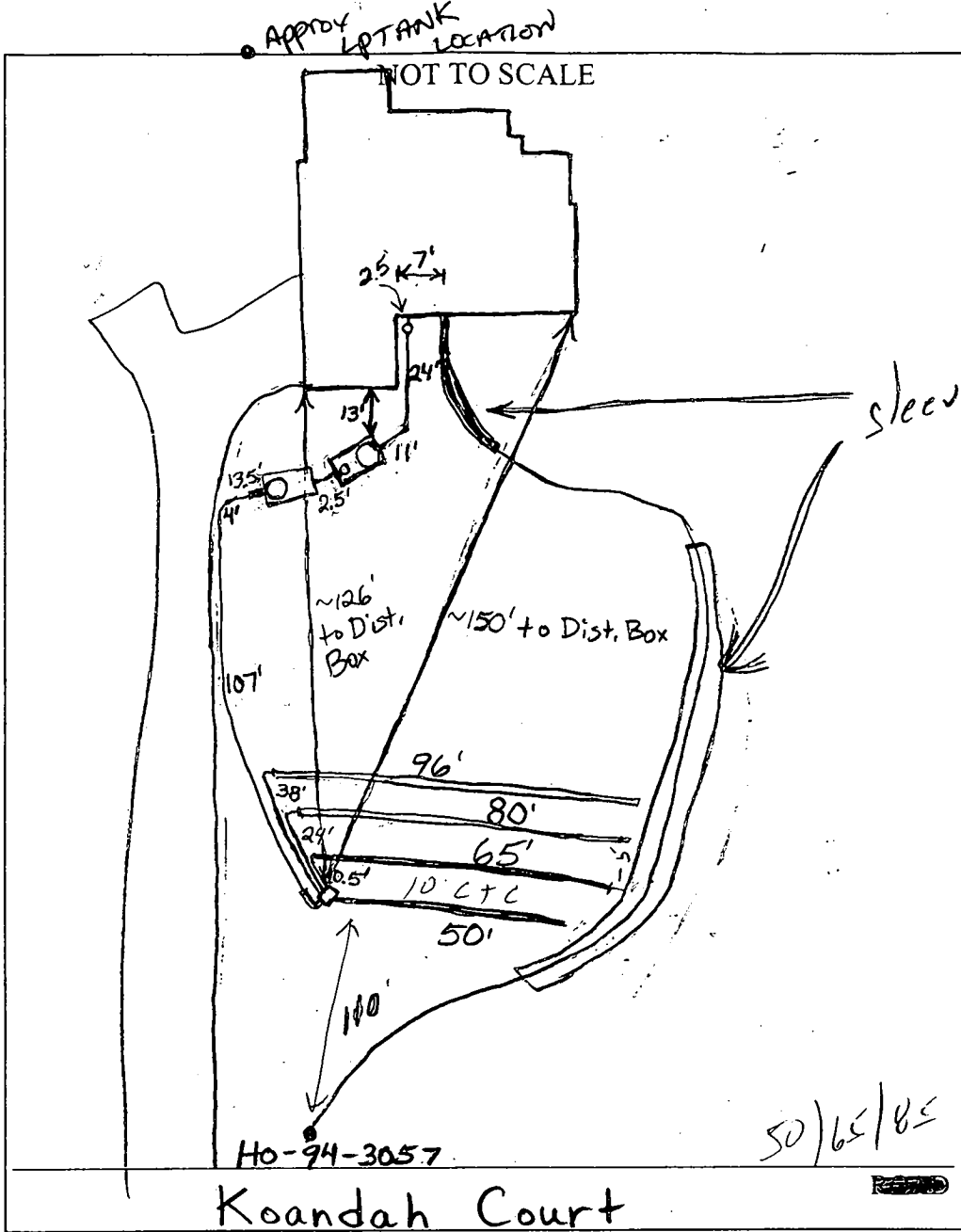
NOTES: PERMIT VOID AFTER 2 YEARS
CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS
WATERTIGHT SEPTIC TANKS REQUIRED
ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL UNLESS SPECIFICALLY AUTHORIZED
MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS UNLESS SPECIFICALLY AUTHORIZED
CONTRACTOR RESPONSIBLE FOR COMPLIANCE WITH APPLICABLE REGULATIONS, GUIDELINES AND THE TERMS OF THIS 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 ALL 410-313-2640 FOR INSPECTION OF SEPTIC SYSTEM

**BUILDING PERMIT SIGNED
AND RETURNED**

8/18/04
3/22/05 300149000 1000 gal US Propane Tank
000152811-DECK + GAZEBO

AS11371-F



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3	3.5	4.5
NUMBER OF TRENCHES		3
TOTAL LENGTH		291
ABSORPTION AREA		873 + 15' Sidewall
DISTRIBUTION BOX LEVEL		Levelers
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		Yes

SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	✓
2 Comp. CAPACITY	1500 GAL
SEAM LOC	Top
TANK LID DEPTH	1'-1.5'
BAFFLES	Yes
BAFFLE FILTER	No
MANHOLE LOC	Front
6" PORT LOC	Rear
WATERTIGHT TEST	No
SEPTIC TANK 2 LEVEL	✓
CAPACITY	1500 GAL
SEAM LOC	Top
TANK LID DEPTH	1'-1.5'
BAFFLES	Front Tee
BAFFLE FILTER	No
MANHOLE LOC	Rear
6" PORT LOC	
WATERTIGHT TEST	No

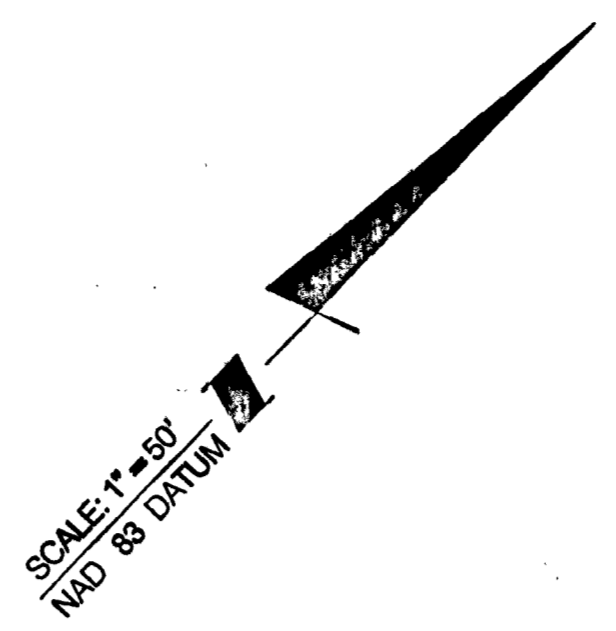
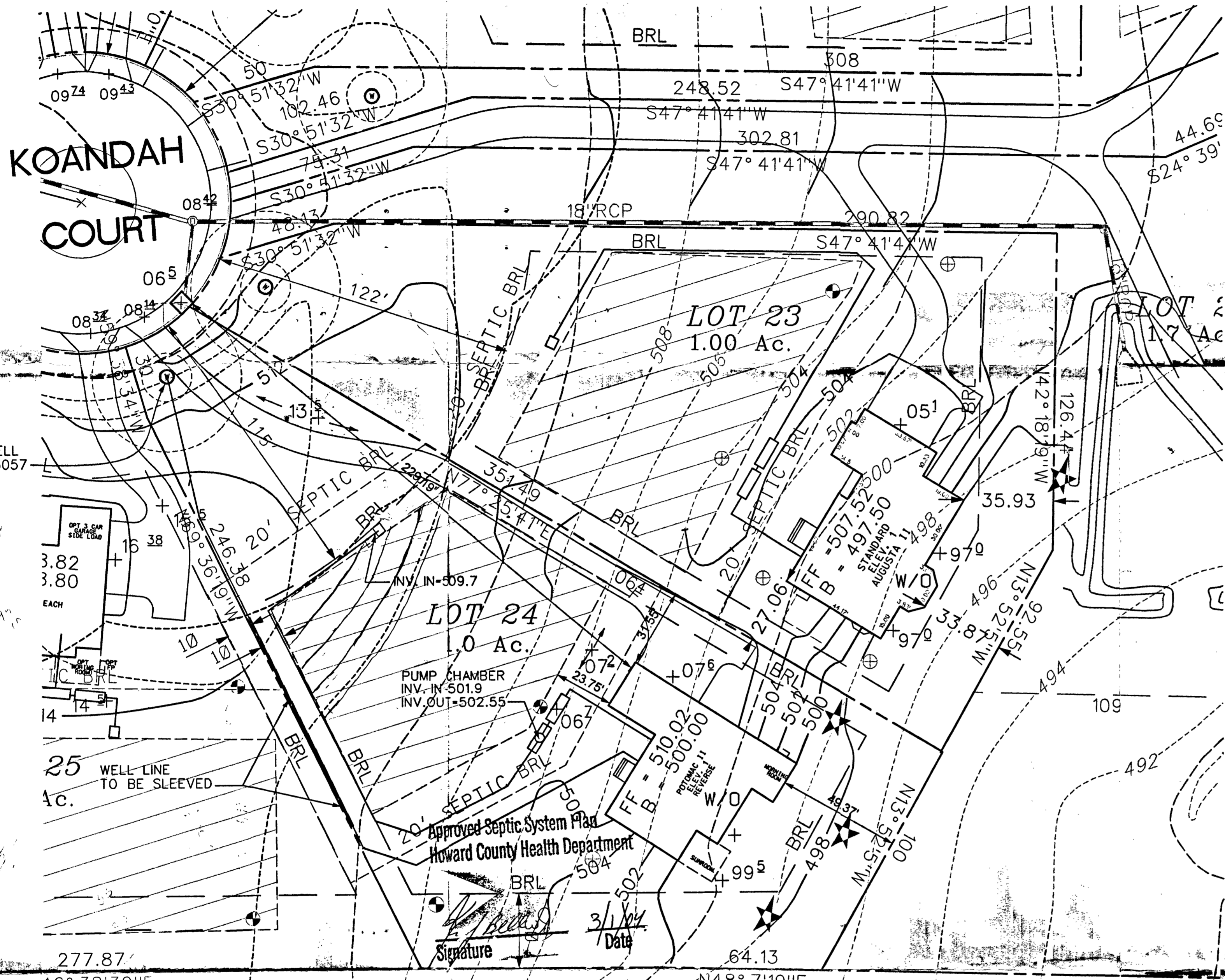
50' | 65' | 85'

PRE-CONSTRUCTION 6/21/04 To install as per building permit plan.

INSTALLATION getting longer as you go downhill. O.K. to space trenches 10' center to center, since some area will be lost during initial installation. Install pump line near driveway and well line on opposite side of easement. Sleeve well line if within 10' of the septic easement. (BB) 6/23/04 - 2 trenches installed (SG) 6/24/04 Tanks set. House connection made. (BA) 6/25/04 O.K. to cover everything. Need pump and alarm test. (BB) 8/9/04 - Pump & Alarm tests OK. (BB) 8/9/04

FINAL INSPECTOR *[Signature]* DATE OF APPROVAL 8/9/04

E 811.100
N 491.350

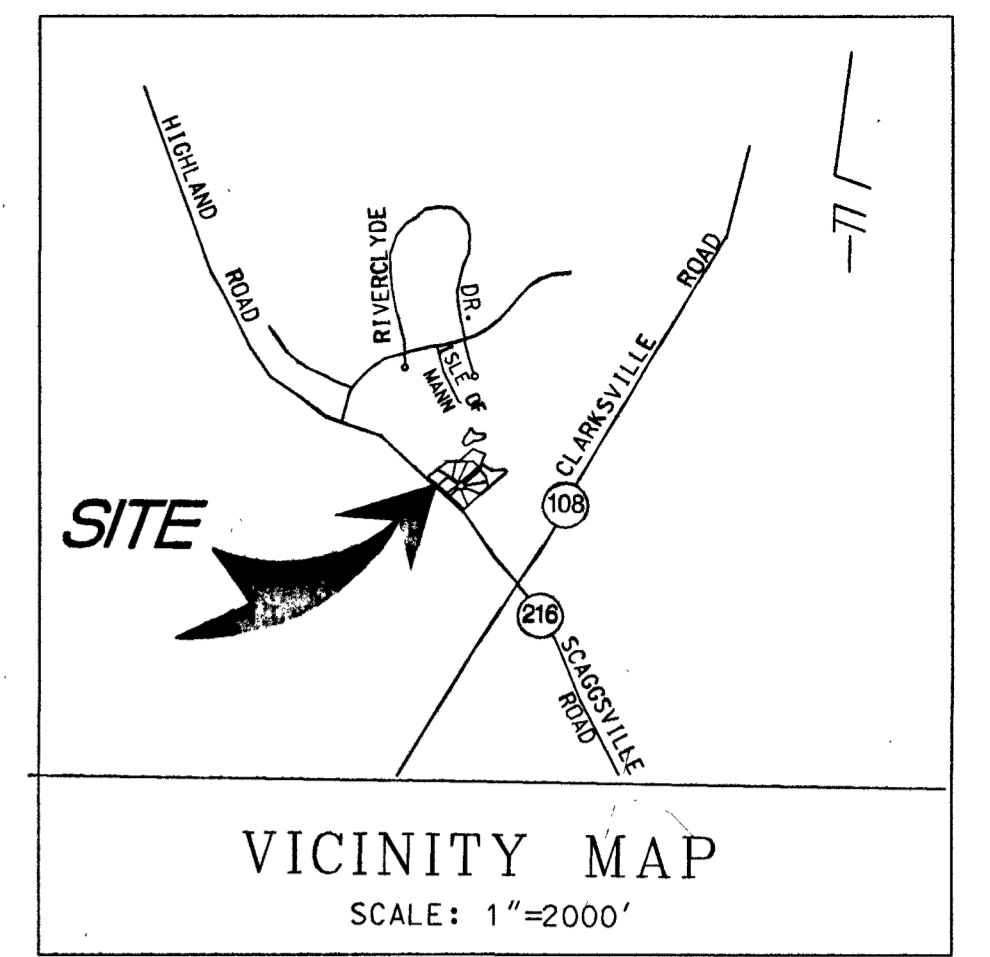


GENERAL NOTES
 ZONING RR-DEO
 MINIMUM LOT SIZE 1 AC.
 PROPOSED WATER SYSTEM - PRIVATE- WELL
 PROPOSED SEWER SYSTEM - PRIVATE- SEPTIC

ON-SITE TOPOGRAPHY OBTAINED FROM SHANABERGER & LANE - FEBRUARY 1987
 UPDATED IN 1998 & JUNE 2000

OFF-SITE TOPOGRAPHY FROM HOWARD COUNTY
 1"=200' AERIAL PHOTOGRAMETRY WITH 5' CONTOUR INTERVAL

THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF 10,000 SQUARE FEET AS REQUIRED BY THE MD DEPT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY



THE EXISTING WELL SHOWN ON THIS PLAN, IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER EX: HO-94-3057 HAS BEEN FIELD LOCATED BY LOIEDERMAN SOLTESZ ASSOCIATES, INC PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN

30' BLDG SETBACK LINE
 100' SEPTIC FIELD SETBACK LINE

SEPTIC TEST LOCATIONS AS SET BY OTHERS

TOPOGRAPHY HAS NOT BEEN FIELD VERIFIED BY LSA
 ULTIMATE LOCATION OF SEPTIC TRENCHES AND ELEVATION OF DISTRIBUTION SYSTEMS TO BE DETERMINED AT BUILDING PERMIT TIME FOR EACH LOT.

- BUILDING SETBACKS**
- FRONT 50'
 - SIDE 10'
 - REAR 30'
 - FROM ARTERIAL 75'
- WELL SETBACKS**
- FROM BUILDING 30'
 - FROM SEPTIC FIELD 100'
- SEPTIC SETBACKS**
- FROM WELLS 100'
 - FROM BUILDING 20'

Lot No.	Lowest Plumbing Elev.	SEPTIC SYSTEM					PERCOLATION TEST DATA						
		Inv. In	Inv. Out	Finish Grade Over Tank	Length of Inital System	Length of Total System	No. of Bedrooms	Test Site	Average Time (Min)	Depth of Test (Feet)	Test Site	Average Time (Min)	Depth of Test (Feet)
24	507.5	504.17	503.87	506.67	210	1000'	5	175	18	3.5'	176	12	3.5'

- ** EJECTOR PUMP REQUIRED FOR BASEMENT PLUMBING.
- ** GRINDER PUMP REQUIRED BETWEEN TANK AND BEGINNING OF SEPTIC TRENCH

OWNER/DEVELOPER
 M/I Homes
 5101-B Mountville Road
 Frederick, MD 21703
 Attn: John Berger

Loiederman Soltesz Associates, Inc.

1390 Piccard Drive, Rockville, Maryland 20850
 301-948-2750
 301-948-9067

1266 Forbes Boulevard, Gaithersburg, Maryland 20878
 301-774-3553
 301-774-3554

7 North Market Street, Suite No. 300, Frederick, Maryland 21701
 301-694-1240
 301-694-1241

401 Post Office Road, Suite No. 102, Frederick, Maryland 21702
 301-694-2100
 301-694-2101

12500 Fair Lakes Circle, Suite No. 160, Fairfax, Virginia 22033
 703-431-6850
 703-431-6652

NO.	REVISIONS	BY	DATE
6	REVISED PER HEALTH DEPARTMENT COMMENTS	GHS	02/25/04
5	REVISED HOUSE ON LOT 24 TO A POTOMAC II		
4	REVISED GRADES 504506 BETWEEN LOTS 23 & 24 AT HEALTH DEPT'S REQUEST	SOS	12/31/03
3	REVISED SEPTIC FIELD TO TWO CHAMBER TANK W DIST. BOX	SOS	12/16/03
2	REVISED HOUSE ON LOT 25 TO A PEBBLE BEACH	SOS	02/24/03
1	PROVIDED JOINT DRIVEWAY FOR LOTS 21,22 & 23	SOS	02/23/03

Copyright ADC The Map People
 Permitted Use Number 2102194

Page _____ Grid _____

Tax Map _____ Zoning Category _____

W-NPCPC 200' Sheet

WSSC 200' Sheet

MISS UTILITY NOTE

INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITY CROSSINGS BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

SITE DEVELOPMENT PLAN

KOANDAH GARDENS ESTATES
 LOT24
 PLAT - M.D.R. #15632
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

PROJECT NO. 711-08-00

P:\0710800\ENGINEER\SITE\SD24.BIT

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: Von Sant Plbg & Htg Telephone #: 301-829-0444
Address: 311 Main St
Mt Airy, MD 21771

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Larry Von Sant License# 6936

*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: M. J. Thomas Telephone #: _____
Subdivision: Konrad's Gardens Lot #: 24 Well Tag #: HO-99-3051
Site Address: 6202 Konrad's Gardens Ct

Submersible Pump Data

Make: Goulds 1HP
Model #: SGS10
Pump Capacity _____ GPM
Well Yield: _____ GPM

Pitless Adapter

Make: Wenger
Model #: 510X
Depth: 42 (36" min)
NSF approved: yes

Well Cap and Electric Conduit

Two piece watertight cap: ✓
Screened, vented well cap: ✓
Cap secured to casing: ✓
Conduit min 18" B.G.: ✓
Conduit secured to well cap: ✓

Depth of well encountered at time of pump installation: 25 (feet)
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestor or Cable guards are required - Must circle one

Safety rope, if used, attached to inside of well casing with eye bolt NO

Piping to house

Type: Polyethylene
PSI: 200 (160 psi min)
Depth of supply line: 2 (36" min)

House Connection

PVC sleeved to undisturbed soil at wall penetration: 5 ft
Approximate length of sleeve: 15 ft
Sleeve caulked and sealed properly: yes

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]
Signature of company representative responsible for installation

8.9.04
date

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

Date Insp. Requested: _____ Date Insp. Approved: 6/23/04 (50)
Inspection Data: 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 grout observed below pitless adapter ✓

B 1	8494	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND PERMIT TO DRILL WELL please print or type	STATE PERMIT NUMBER HO -94 -3057 <small>fill in this form completely</small>
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OWNER INFORMATION

Date Received (APA) 3/15/01

8 MM DD YY 13

15 Last Name Sandborn Owner First Name James 34

36 4967 Ten Oaks Rd Street or RFD 55

57 Duxton Town 70 md State 72 21036 Zip 76

LOCATION OF WELL

B 3 Howard COUNTY 8

23 Koondah Gardens Estate SUBDIVISION 42

SECTION 44 LOT 24

52 Highland NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 0 M I

DRILLER INFORMATION

Driller's Name Joseph L Mayne License No. MSD 024 81

Firm Name Joseph L Mayne Well Drilling

Address 5512 Ridge Rd Mt. Airy Md 21111

Signature Joseph L Mayne Date 3/15/001

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

11 Koondah Ct. NEAR WHAT ROAD 30

OFF NE side of MD Route 216 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 20 37 DISTANCE FROM ROAD FT 38 39

TAX MAP: 34 BLK: 23 PARCEL 78

WELL INFORMATION

APPROX. PUMPING RATE 5 GAL. PER MIN. 8 12

AVERAGE DAILY QUANTITY NEEDED 500 GAL. PER DAY 14 20

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 NAME COUNTY NO. A511371K

STATE SIGNATURE _____ INSERT S → 41

DATE ISSUED 3/29/01 Ronald Pinkley 3/29/02

43 MM DD YY 48 CO SIGNATURE EXP DATE

NORTH GRID 491 000 EAST GRID 0810 000

50 55 57 63

APPROXIMATE DEPTH OF WELL 300 FEET 24 28

APPROXIMATE DIAMETER OF WELL 6 INCH 30 37

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

- well
-
-

WRITE THE BOX NUMBER FROM THE MAP HERE

E 810

N 4921

000
000

4/20/01 gradent beg @ B.O

NO INSP - other insp do not allow

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other _____

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

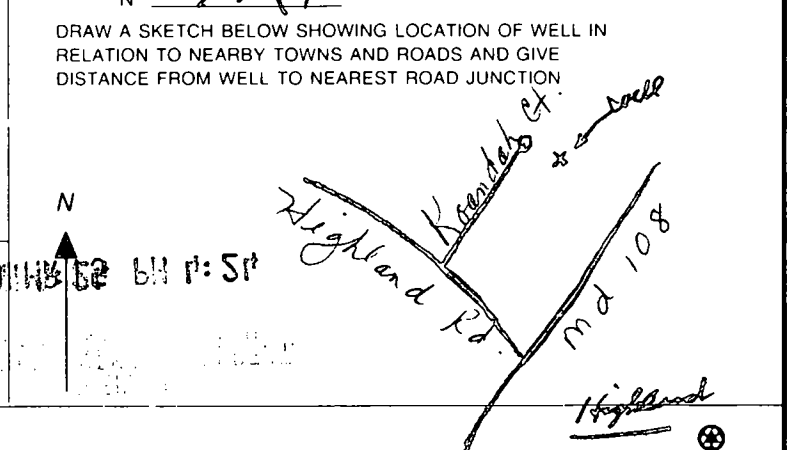
THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39 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

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52



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

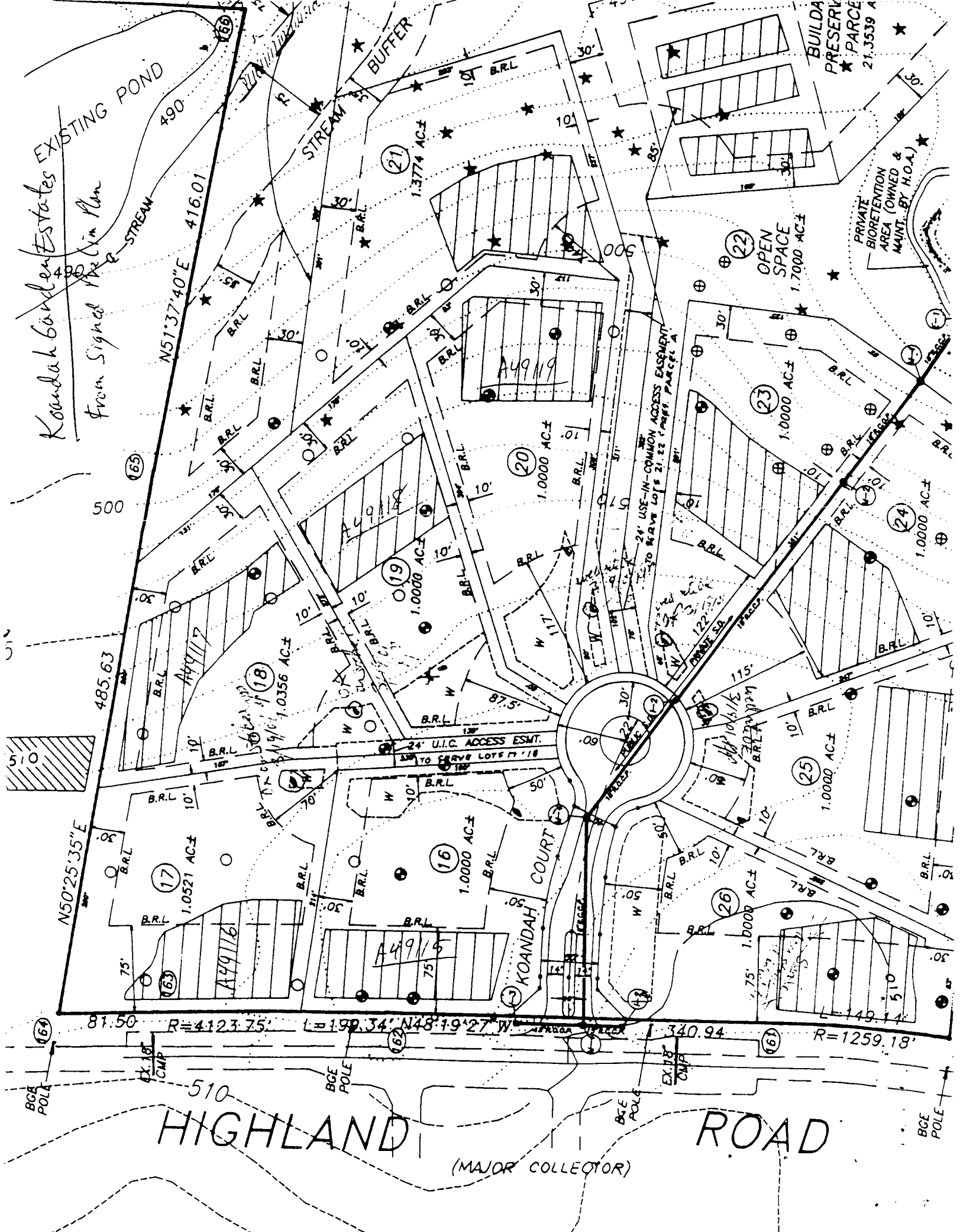
APPROX. PERMIT NUMBER HO 20 0 LG 00 6 (CO)

PERMIT No HO-94-3057

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITY SHOULD USE SEPARATE SHEET IF NEEDED

Koandah Garden Estates
From Signed Master Plan



HIGHLAND ROAD
(MAJOR COLLECTOR)

EXISTING POND

STREAM

BUFFER

BUILDING PRESERVATION PARCELS

PRIVATE BIOTENTION AREA (OWNED & MAINT. BY H.O.A.)

500

485.63

N50°25'35"E

87.50 R=4123.75' L=199.34' N48°19'27"W

510

BCE POLE

EX. 18" CMP

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.7000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

21,3539 A

21,3539 A

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21,3539 A

21,3539 A

21,3539 A

87.50 R=4123.75' L=199.34' N48°19'27"W

510

BCE POLE

EX. 18" CMP

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

1.7000 AC±

1.0000 AC±

1.0000 AC±

1.0000 AC±

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21,3539 A

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21,3539 A

KOANDOAH GARDENS
Phase I
Septic Disposal Areas (SDA)

SDA 1 (11,700 sf)

Test	Yr.	Depth	Minutes
11	4/93	36"	12
12	4/93	48"	11
13	4/93	54"	4
14	4/93	42"	22

Lot 17

SDA 2 (11,875 sf)

Test	Yr.	Depth	Minutes
2	4/93	42"	4
17	4/93	62"	16
18	4/93	42"	9
178	1/97	8'6"	no test - water

SDA 3 (11,300 sf)

Test	Yr.	Depth	Minutes
8	4/93	54"	6
7	4/93	48"	10
183	1/97	12'	no test - water
182	1/97	48"	7 (adj. area)

Lot 19

SDA 4 (10,000 sf)

Test	Yr.	Depth	Minutes
181	1/97	11'	no test
180	1/97	42"	4
6	4/93	42"	3

Lot 20

SDA 5 (10,000 sf) *Needs W.S. eval.*

Test	Yr.	Depth	Minutes
21A	7/99	42"	5 ✓
21B	7/99	40"	29 ✓ (No clock time recorded)
A2D	7/99	33"	10
21C	7/99	38"	15.5 ✓
21D	7/99	39"	10 ✓
A2C	<i>water level @ 8ft on 7/9/99 (Summer drought year)</i>		
A2E	42"		15 min

SDA 6 (10,230 sf) *Needs W.S. eval*

Test	Yr.	Depth	Minutes
22D	7/99	42"	28 ✓
22B	7/99	39"	7 ✓
22C	7/99	38"	7 ✓
22A	7/99	40"	2.5 ✓

water @ 10' in July drought year - very dry soil @ 6"

SDA 7 (10,440 sf) *Needs W.S. eval*

RATG: 20 mpi *area @ Head of Sewer*

Test	Yr.	Depth	Minutes
23A	7/99	38"	58 min Fail
23B	7/99	39"	45 Fail regular perc. test
23C	7/99	40"	11 ✓
195	1/97	48"	3
23A	<i>water table @ 8 1/2 ft on 7/9/99 (drought year same)</i>		
	<i>Fail @ 38 (37 mpi) + 44 (55 mpi)</i>		

SDA 8 (10,080 sf) *Needs W.S. eval*

area @ Head of Sewer

Test	Yr.	Depth	Minutes
24A	7/99	41"	14 ✓
24B	7/99	47"	2 ✓
196	1/97	24"	2
175	1/97	42"	18
176	1/97	43"	12
see 23A	<i>water table @ 8 1/2' in July</i>		

Lot 24

SDA 9 (10,010 sf)

Test	Yr.	Depth	Minutes
170	1/97	42"	5
171	1/97	48"	9
172	1/97	42"	7
173	1/97	36"	18
174	1/97	48"	11

SDA 10 (10,080 sf)

Test	Yr.	Depth	Minutes
168	1/97	48"	7
169	1/97	36"	5
169A	1/97	36"	4

Lot # 2

Kroschka Garden Review 8/17/99 continued from 8/10/99

in 1/2/99 Plan	on Jan 99 Post Date	Test Date	Test #	Rate - Depth (mpi) -	Visual Hole Depth	P/F	Remarks
25 DA10	23	1/2/99	168	7 @ 4'	12'	P	dry
			169	5 @ 3' 2 @ 7'	12'	P	"
			170	5 @ 3 1/2'	12'	P	"
			171 (190)	9 @ 4'	12'	P	"
			169A	4 @ 3'	NA	P	"
Burnt Orange CL to 5' OK @ 8' CL to 5' OK @ 8' (No data assume same as 168/169) OK @ 8'							
Lot 25 OK as proposed							
24 DA9	22	1/2/99	172	7 @ 3 1/2'	12'	P	dry
			173	8 @ 3' 3 @ 7'	12'	P	"
			174	4 @ 4'	11'	P	"
Brown CL to 4' Typical (see 172) Typical (see 172)							
Lot 24 OK as proposed							
23 24 DA8	21	1/2/99	175	18 @ 3 1/2'	12'	P	"
			176	12 @ 4'	11'	P	"
			196 (21A)	2 @ 2' 2 @ 5'	10'	?	Water @ 10'
			24				
			24A				
SCL to 3' OK @ 8' NA OK @ 8' Brn CL to 2'; Brn SCL to 4' Tan/gray/brn SL to orange (4'-10')							
22 DA7	20	1/2/99	195 (20A) from above 196	3 @ 4' 2 @ 2'	8 1/2'	F	Water @ 8 1/2'
			197	slow @ 5 1/2'	10 1/2'	F	Water @ 10 1/2'
			198	No Test	11'		dry @ 11'
			23C				
			23B				
Sub-Bn CL to 6' Scaly clay to water table only 35' from 191 = water @ 11'							
21	20	1/2/99	191 (High)	4 @ 2' 2 @ 6'	11'		Water @ 11'
			192	2 @ 3 1/2' some @ 4'	8 1/2'	F	Water @ 8 1/2'
			23A				
			23B				
wrong ci to 3 1/2' dark brn silt; white gray low chrome pebbles; blk/or matter @ 8' questionable U.T. dark orange brn clay to 3'; dark brn mudst & black banking @ 3' Dry & Filled - Not Tested - Water 195 (20A)							
what some locations as 23B+23C 2 layers holes one at head of sink, lower than							

Grandah Gardens lot 22 + 23

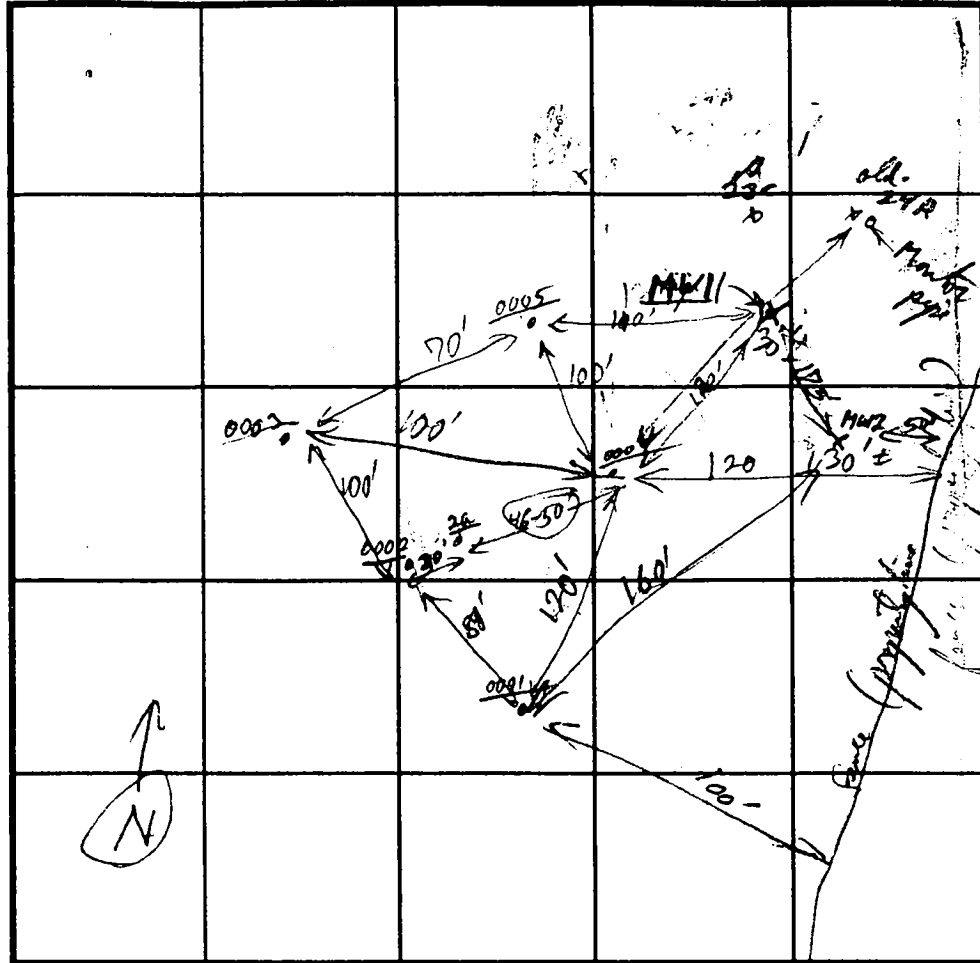
COUNTY #

SOIL PROFILE

0' 0003, 0001
 Str Brn
 - Red Brn
 22' CL
 Red SL
 3' 3 1/2"
 Micoln
 SL Spandit
 (Massic)
 6' 7"
 Neutral Brn
 Mic SL
 12'

depth 16' 5" punch
 topsoil 0002
 Red CL
 4 1/2'
 Neutral Brn
 Mic SL
 12'

0004
 Dark Brn L Spandit
 8'
 Red CL
 ↓
 h Red loam
 5 1/2'
 Neutral Brn
 h SL
 6 1/2'



SOIL PROFILE

0' Topsoil
 Red Brn - Red
 CL
 4 1/2'
 yel Red + mottled
 yel
 SIL v damp
 8 1/2'
 mgt blk Mn Strain + brown
 at transition
 Dark Brn
 thin loam
 = c 2' blk mottled
 Mn Strain
 grey, dark Brn,
 Neutral Red Brn
 damp - wet
 ESL (M20) massive
 13' 4"
 water seeps out coming
 at bottom of core
 (wet interval 12')

Highland Rd INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

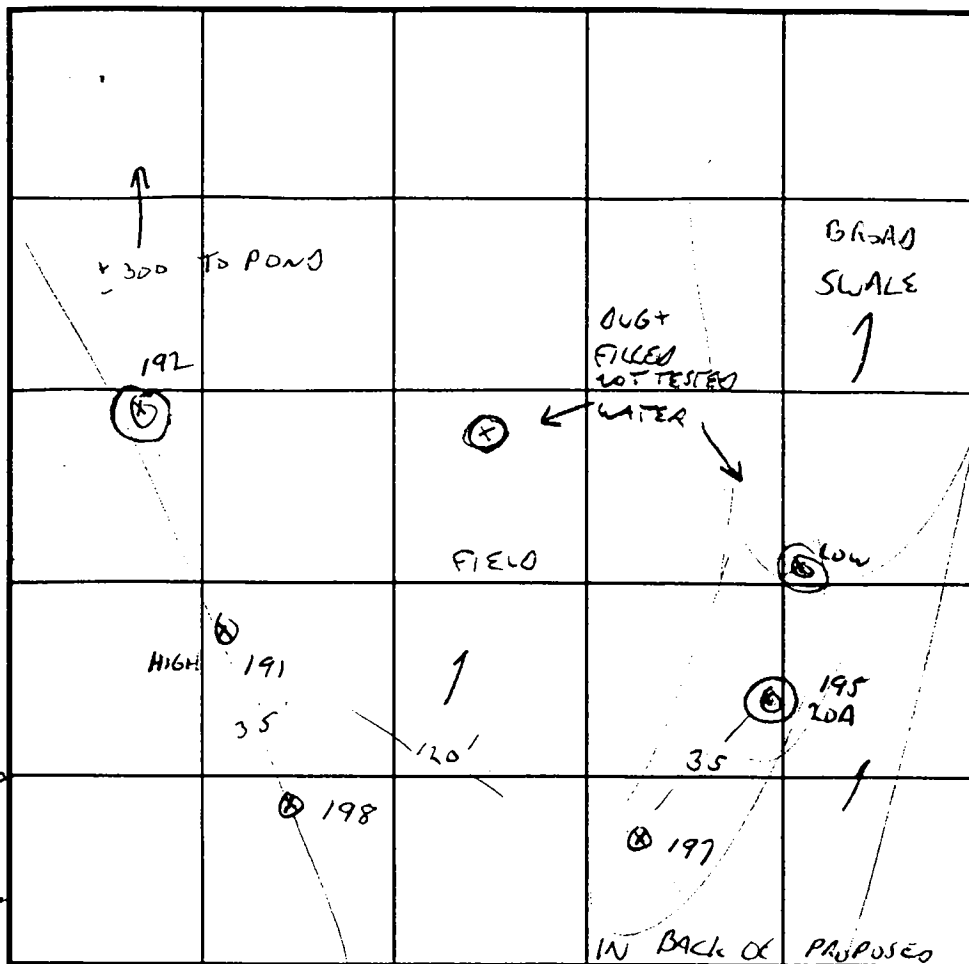
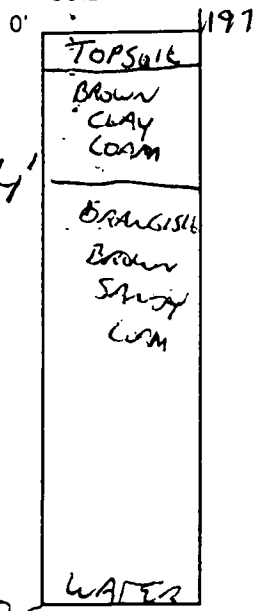
DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
1/7/00	0001	1/2' 3'	12:09:00	12:13:00	12:13	12:22:00	9 min
	0002	1/2' 3'	12:15:00	12:32:30	12:32:30	1:12:00	40 min
	0002a	5'	12:38:30	12:44:00	12:44	12:51:00	7 min
	0003	1/2' 3'	12:20:00	12:34:30	12:34:30	pulled @ 12:55 only 1/2" drop = 26 min	F @ 3'
	0003a	5 1/2'	1:10:30	1:25:00	1:25:00	1:46:00	21 min
	0004	4 1/2'	1:13:00	pulled @ 1:32	No Movement		Fail
	0005	6' 6'	1:40:00	1:56:00	1:56:00	2:36	40 min
		4'	3:04:00	3:14:00	3:14:00	3:28:00	14 min
		13 1/4"	carrying + water @ 12' quickly				
		13 1/4"	water @ 13' (wet interval @ 12') (see profile)				

REMARKS _____
 TYPE OF SOIL _____
 TESTED BY J. Purley ALSO PRESENT Jeff Olson, Mr. Sanderson
 TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____
 INLET DEPTH _____ MAXIMUM BOTTOM DEPTH _____ SQ. FT./BEDROOM _____

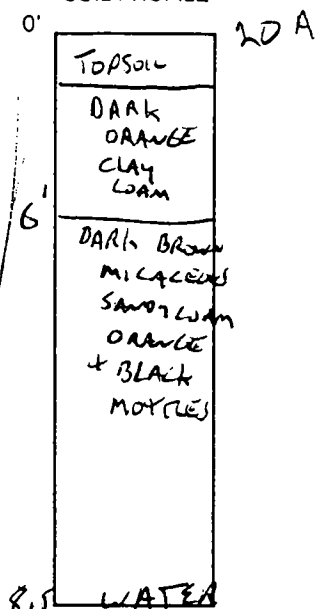
A57612

COUNTY #

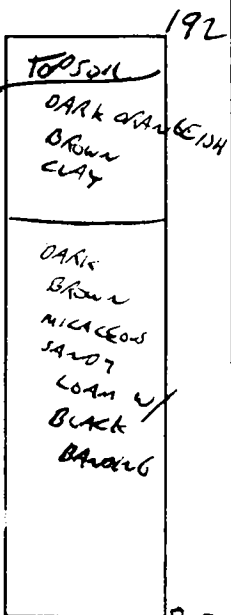
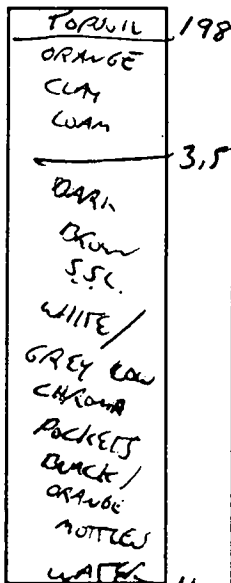
SOIL PROFILE



SOIL PROFILE



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.



DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
1/2/97	195 20A	4 8.5	12:47	12:48	12:49	12:52	3 MIN
		8.5 WATER					
	191	2 / 11V	12:53	12:57	12:57	101	4 MIN
		6	12:53	12:54	12:54	12:56	2 MIN
	192	3.5 / 9.5V	12:57	102	1:02	1:24	22 MIN
		4	102	... NO NOT USED	124	124	
		8. QUESTIONABLE WATER TABLE					
	197	5.5 / 16.5V	3:32	SLOW			
		SANDY CLAY TO WATER TABLE					
	198	DRY AT 11'					

REMARKS LOT 20 WATER TABLE CONCERN

TYPE OF SOIL _____

TESTED BY G. SAVAGE ALSO PRESENT R. DEMIT, OWNER

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

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

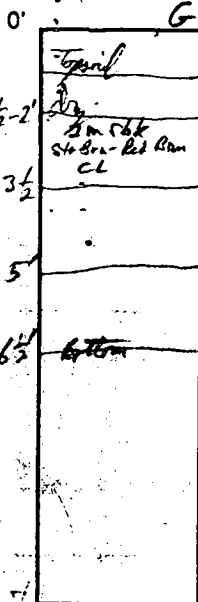
A511371

Koondah Gardens

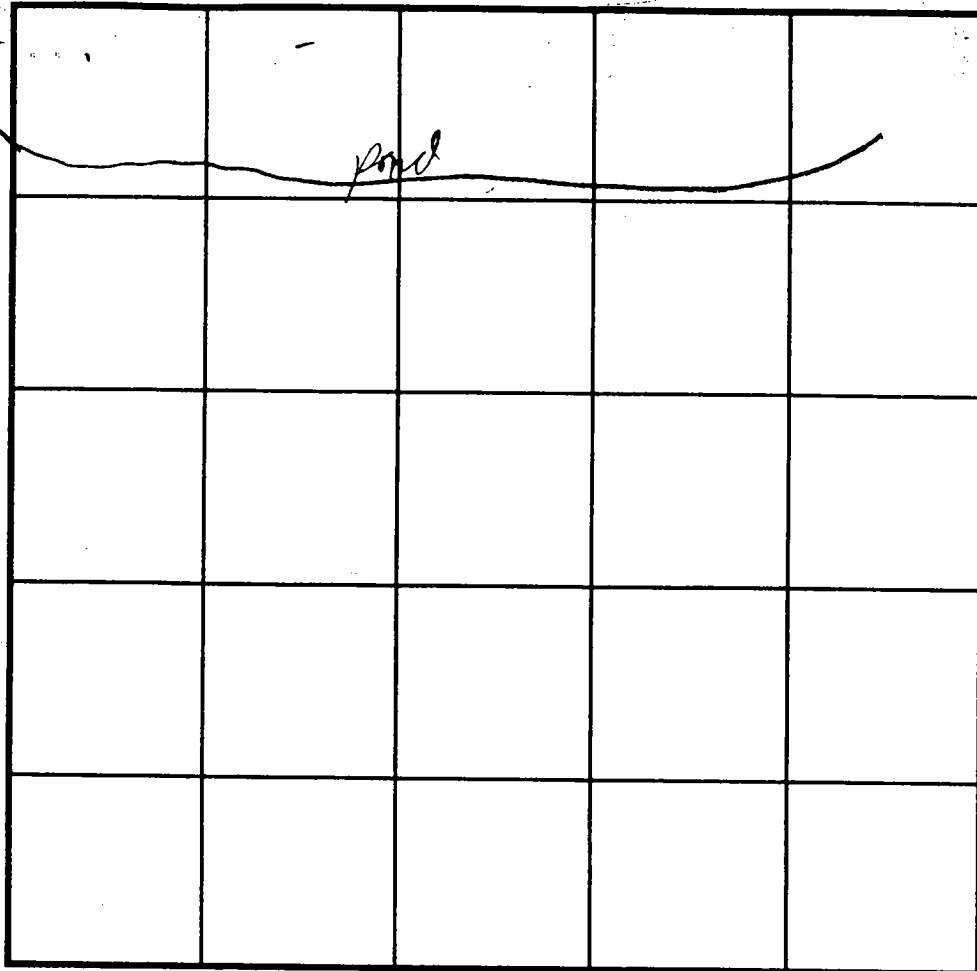
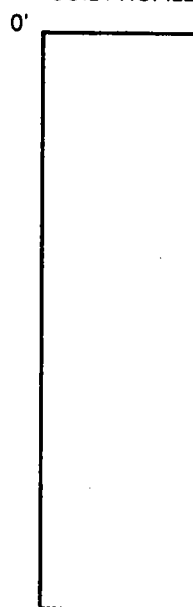
LOT 24

COUNTY #

SOIL PROFILE



SOIL PROFILE



INDICATE NORTH - NAME ADJOINING ROADWAY AS BASE LINE.

DATE	TEST NO.	DEPTH	PRE-WET		TEST - 1" DROP		TIME
			START	STOP	START	STOP	
7-8-99	24A	41"	1:59	2:06	2:06	2:20	14
7-8-99	24B	47"	2:15	2:16:15	2:16:15	2:18:15	2
9/9/99	Lot 24 (Hole E)	42 1/2"	10:34:40	10:54:00	10:54:00	11:09	15 mpt
	Lot 24 (Hole G)	41 1/2"	11:12	11:39	11:39	12:05	26 mpt
	F	3 1/4'	2:33:00	3:18	3:18	3:32	Fail

REMARKS: Water level in pond is 18" ± below Normal Levels - Heavy spring seeps in pond stone line.

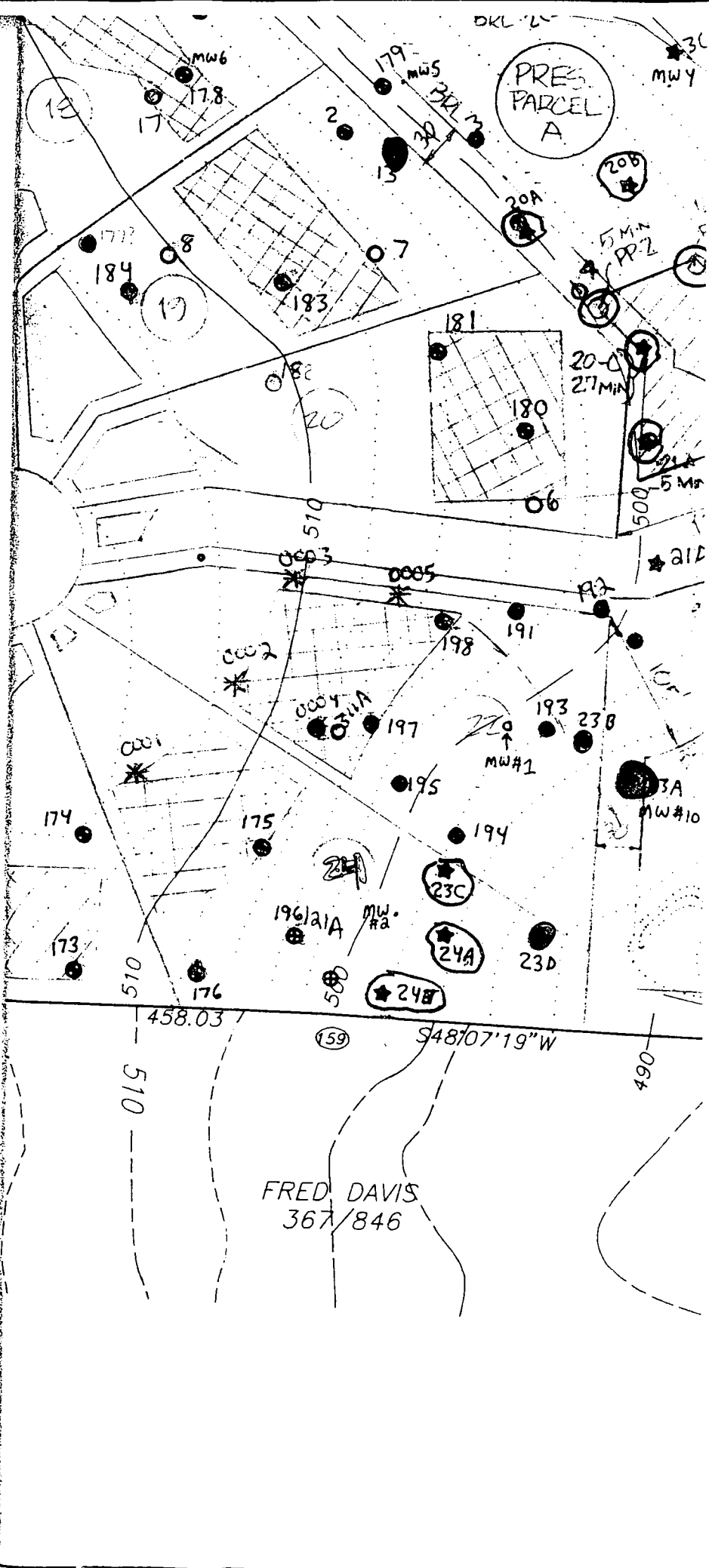
TYPE OF SOIL _____

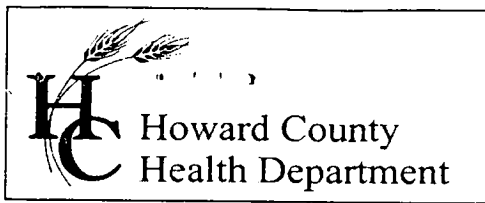
TESTED BY _____ ALSO PRESENT _____

TRENCH DESIGN DATA: AVERAGE PERCOLATION TIME _____ TRENCH WIDTH _____

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

Signed Pac Cert
7/11/00





3525 H Ellicott Mills Drive, Ellicott City, MD 21043
(410) 313-1771 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Pennv E. Borenstein, M.D., M.P.H., Health Officer

August 9, 2004

M/I Homes of D.C. LLC
5101 Mountville Road, Suite B
Frederick, MD 21703

SENT VIA FACSIMILE 307-874-0015

RE: 6808 Koandah Gardens Court
Highland, MD 20777
BP #: B00146062
Well Permit # HO-94-3057

Dear Sirs:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 08/09/2004. Final approval of the well line connection to the dwelling was approved on 06/23/2004.**

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking. The water sample results were found to be in compliance with COMAR water quality standards.

INTERIM CERTIFICATE OF POTABILITY

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-94-3057. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

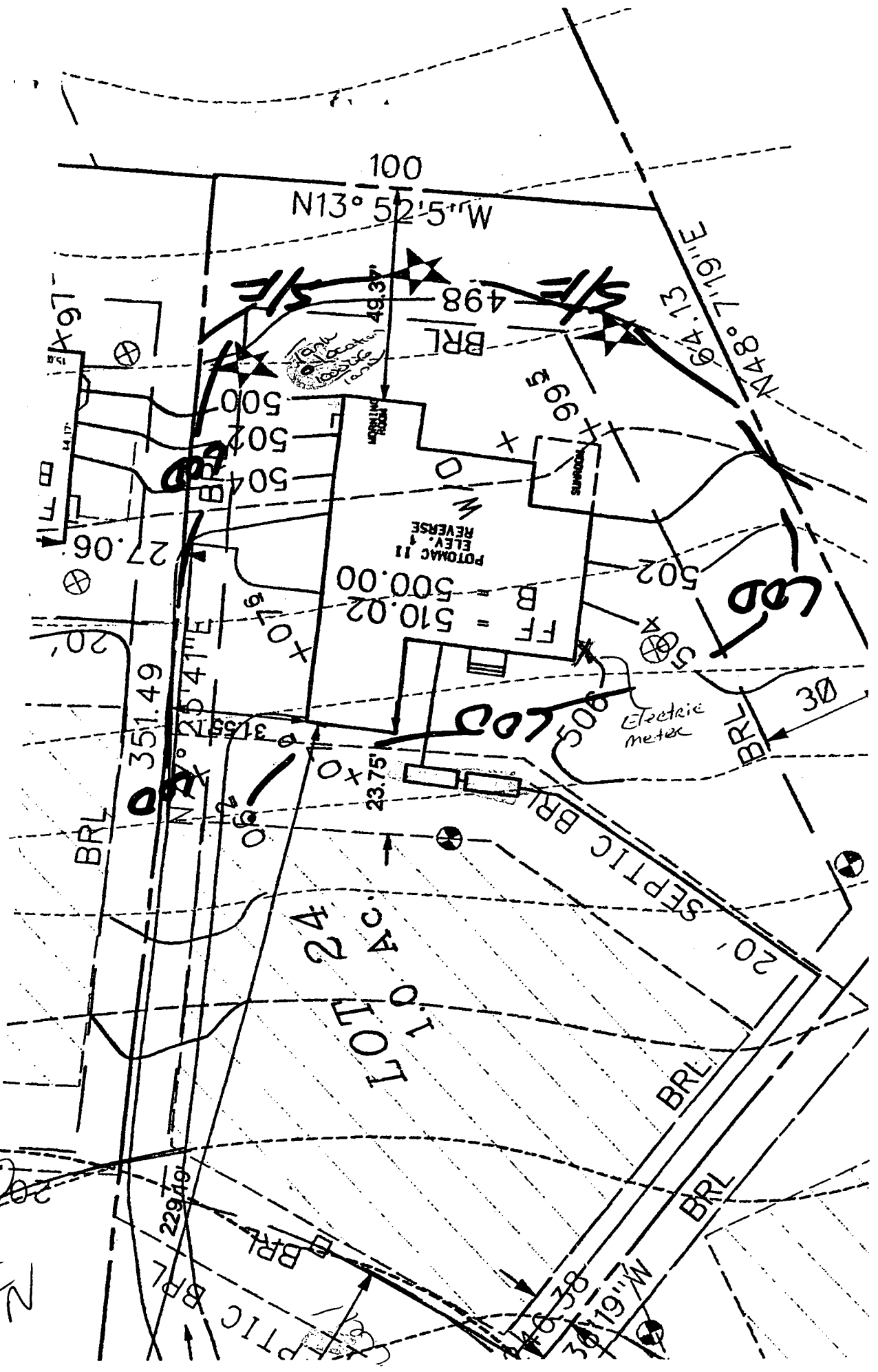
Date of Water Samples: 07/29/2004 & 08/04/2004
Date of Well Completion: 04/27/2001

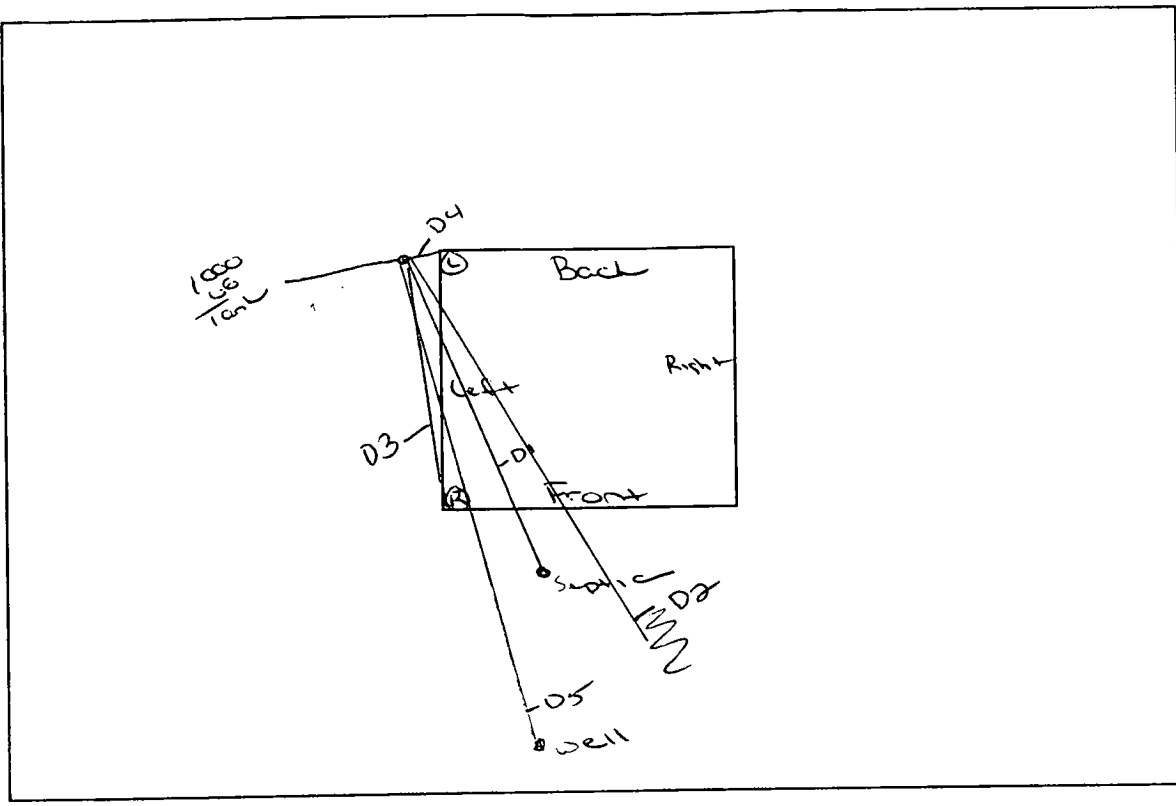
Approving Authority,

Kacie Noonan, R. S.
Well & Septic Program

cc: Building Inspector's Office
Community Health Services
File

8/18/04
30014900
OK
NY





CUSTOMER NAME: Ms Homes - Lot 24

ADDRESS: 6808 Koadah Garden Est
Highland, MO 64777

SCALE: 1" = 75ft

D1 - TANK TO SEPTIC 115

D2 - TANK TO SEPTIC EASEMENT 120

D3 - TANK TO HOUSE- RIGHT 80

D4 - TANK TO HOUSE - LEFT 30

D5 - TANK TO WELL 300

TANK SIZE 1000

TANK DIMENSIONS 18 x 4

FLOOD CERTIFICATION

The house as shown on this property lies within Zone C, area of minimal flooding, as indicated on Federal Emergency Management Agency maps entitled "FIRM, Flood Insurance Rate Map"

PARCEL A

S13°52'05"E

100.00

S48°07'20"W
64.42

FRED DAVIDS
4940/461

S46°38'30"W
96.91

30' BRL

(42')

SEE INSET

30' BRL

(94')

351.49

(31')

N77°25'41"E

10' BRL

PRIVATE SEWER
ESM'T PLAT 15632

10' BRL

246.38

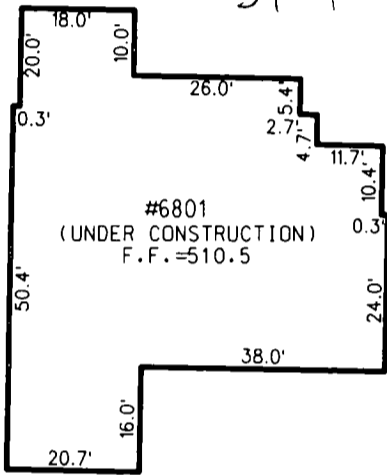
115' BRL

N69°36'19"W

25

LOT 24
1.0000 AC.

WALL CHECK
OK MR
5/17/04



INSET

1" = 30'



PUBLIC 10' FREE MAINTENANCE EASEMENT

Ex. Well
Tag No.:
HO-94-3057

KOANDAH GARDENS
(PUBLIC ACCESS PLACE)

PERMIT # B00146062

Building setbacks as shown or noted on approved site development plan.

Front: 115'
Side: 10'
Rear: 30'

PLEASE NOTE:

- 1) DIMENSIONS SHOWN WITHIN "()" ARE COMPUTED TO AN ACCURACY OF PLUS OR MINUS ONE FOOT.
- 2) NO TITLE REPORT WAS FURNISHED. THIS PROPERTY IS SUBJECT TO ALL APPLICABLE EASEMENTS, RIGHTS-OF-WAY, COVENANTS AND THOSE DOCUMENTS WHICH THE UNDERSIGNED HAS NOT BEEN PROVIDED.
- 3) THIS PLAT IS A BENEFIT TO A CONSUMER ONLY INsofar AS IT IS REQUIRED BY A LENDER OR A TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH CONTEMPLATED TRANSFER, FINANCING OR REFINANCING.
- 4) THIS PLAT IS NOT TO BE RELIED UPON FOR THE CONSTRUCTION OF FENCES, GARAGES, BUILDINGS OR FUTURE IMPROVEMENTS.
- 5) THIS PLAT DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING OR REFINANCING.

Job No.: 711-08

Scale: 1" = 40'

WALL CHECK DRAWING

Date: APRIL 20, 2004

Drawn: JB43

Checked: GLB

FINAL LOCATION DRAWING

Date:

Drawn:

Checked:

Project Directory
S:07110800

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF THAT THIS PLAT OF THE PROPERTY SHOWN ABOVE, DESCRIBED AS: LOT 24 AS SHOWN ON A PLAT OF SUBDIVISION TITLED: KOANDAH GARDENS ESTATES AS RECORDED IN PLAT BOOK --- AS PLAT NO. 15632 AMONG THE LAND RECORDS OF Howard COUNTY, MARYLAND, WAS PREPARED UNDER MY SUPERVISION AND THAT THE EXISTING VISIBLE IMPROVEMENTS AS SHOWN HEREON WERE LOCATED BY RECOGNIZED SURVEYING PRACTICES AND UNLESS OTHERWISE INDICATED, NO OTHER VISIBLE EVIDENCE WAS OBSERVED OF APPARENT ENCROACHMENTS ACROSS THE PROPERTY LINES.

SIGNATURE: Gerald L. Bennett DATE: APRIL 20, 2004

PRINTED NAME: Gerald L. Bennett TITLE: Professional Land Surveyor MD. REG. NO.: 10743

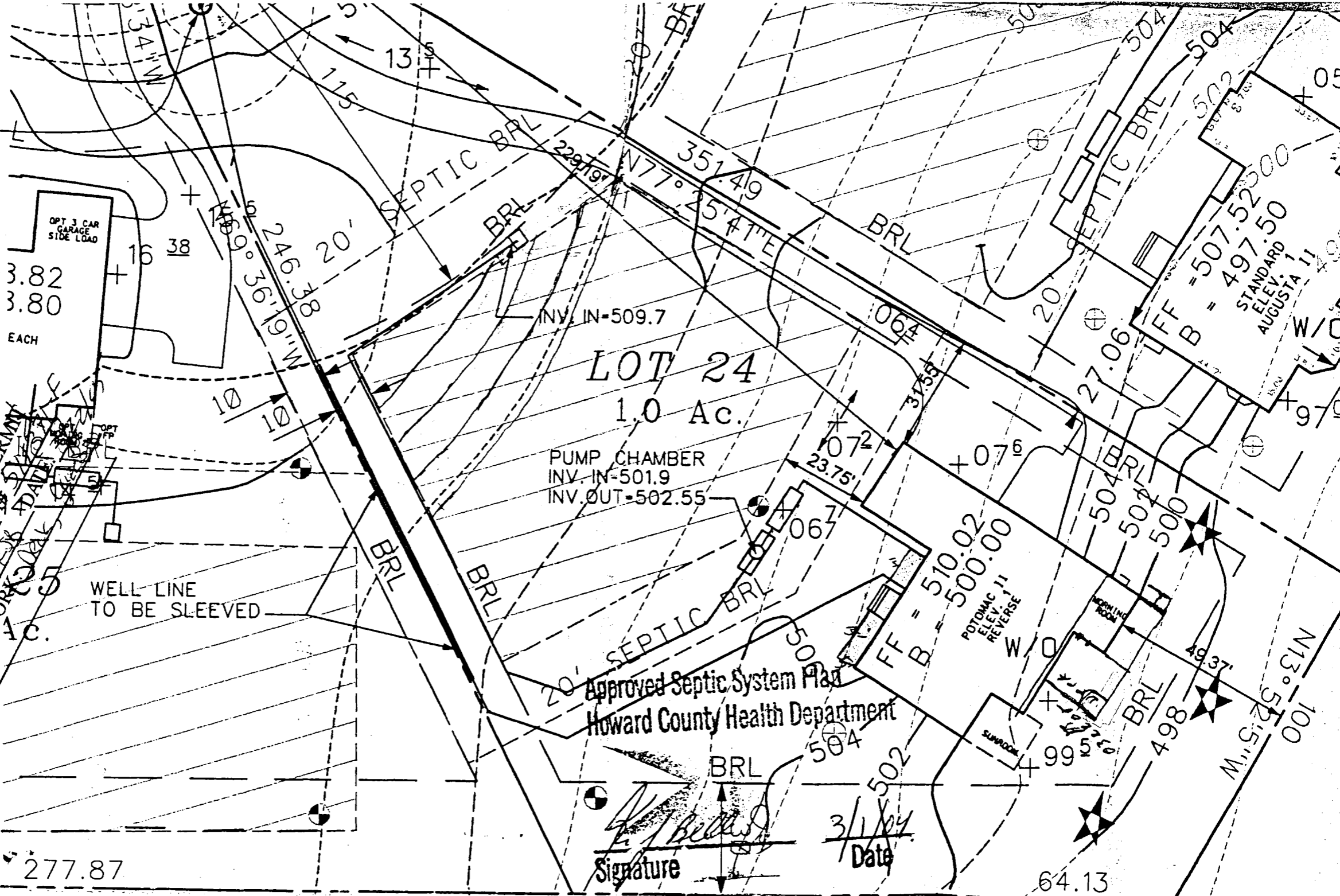
ROCKVILLE OFFICE

1390 Piccard Drive, Suite 100 Rockville, MD 20850 t.301.948.2750 f.301.948.9067
Engineering Planning Surveying Environmental Sciences www.LSAssociates.net



Loiederman
Soltz Associates, Inc.

EXISTING WELL
EX. HO-94-3057



OPT 3 CAR GARAGE SIDE LOAD
 3.82
 3.80
 EACH

LOT 24
 1.0 Ac.

PUMP CHAMBER
 INV. IN=501.9
 INV. OUT=502.55

Approved Septic System Plan
 Howard County Health Department

[Signature]
 Signature

3/1/04
 Date

APPROVED
 WALK-THRU BUILDING PERMIT
 BP# 622151511
 APP. SAN # 11
 DESC. OF WORK
 A# 11
 DATE 3/1/04
 C. 5

WELL LINE
 TO BE SLEEVED

277.87

64.13