



**MAOSE REPORT FOR
SITE CERTIFICATION
JULY 7, 2022**

Location of Property: Take Route 229 N to left on Black Hill Rd. Go 8/10 mile to right on Quail Ridge Dr. Follow to end, turn left onto Holly Springs Road. Go 5/10 mile and property is on left just before Holly Dr.	County of : Culpeper Tax Map # 6-51 5.0351 acre parcel
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Owner or Applicant and information: Printz Brothers LC 46448 Montgomery Place Sterling, VA 20165 cell phone David Printz: (703)-969-8255 email: dprintz@bciva.com	Prepared by MAOSE: Ann B. Walker, MAOSE # 1940 0001045 Cedar Mountain Soils, LLC 11189 Winston Road Culpeper, VA 22701 office phone: (540)-825-4706 email: cedarmountainsoils@vabb.com
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<p style="text-align: center;"><u>Contents/Index of this report</u></p> <p>Pg. 1 Soil Summary Report Site A1 Installation Area Pg. 2 Soil Profile Description Report Site A1 Installation Area Pg. 3 Design Calculations Site A1 Installation Area Pg. 4 Soil Summary Report Site A2 Reserve Area Pg. 5 Soil Profile Description Report Site A2 Reserve Area Pg. 6 Design Calculations Site A2 Reserve Area Pg. 7 Sanitary Site Sketch Pg. 8 Survey Plat</p>	
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Certification Statement: I hereby certify that the evaluations and/or designs contained herein were conducted in accordance with the Sewage Handling and Disposal Regulations (12 VAC5-610), the Private Well Regulations (12 VAC5-630-10), and other applicable policies of the Virginia Department of Health. Furthermore, I certify that my evaluation and/or design contained herein complies with all applicable laws, regulations, and policies implemented by the Virginia Department of Health. I recommend a site certification be approved.	
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Cedar Mountain Soils, LLC
 11189 Winston Road
 Culpeper, VA 22701
 (540)-825-4706

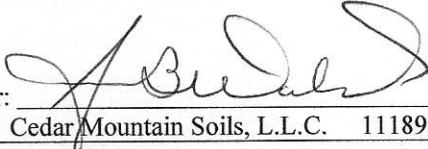
SOIL SUMMARY REPORT "Site A1" Drainfield Install Area

General Information

Date: March 21, 2022 Culpeper County Health Department
 Owner: Printz Brothers LC c/o David Printz
 Owner's Address: 46448 Montgomery Place, Sterling, VA 20165
 Phone #: (703)-969-8255 Email: dprintz@bciva.com
 Location: Holly Springs Road approximately 1/2 mile past intersection with Quail Ridge Drive
 Tax Map: 6-51 Subdivision: _____ Block/Sec: _____ Lot: _____ Acreage: 5.0351

SOIL INFORMATION SUMMARY

1. Position in landscape satisfactory Yes No ____
 Description and vegetation: upland convex backslope, mixed species and sizes of trees, some undergrowth
2. Slope 10 %
3. Depth to rock or impervious strata: Max. _____ Min. _____ None
4. Depth to seasonal or perched water table No Yes _____ Inches
5. Free water present No Yes _____ range in inches
6. Soil percolation rate estimated No _____ Yes Texture group III Estimated rate mpi 55
7. Permeability test performed No Yes _____
8. Observation Methods: SP

Name, title and signature of evaluator: 
 Ann B. Walker, MAOSE, LPSS Cedar Mountain Soils, L.L.C. 11189 Winston Road, Culpeper, VA 22701 (540)-825-4706

Site approved: This site to be used at 30-36" deep.
 Site disapproved

Reasons for rejection:

1. _____ Position in landscape subject to flooding or periodic saturation
2. _____ Insufficient depth of suitable soil over hard rock
3. _____ Insufficient depth of suitable soil to seasonal water table
4. _____ Rates of absorption too slow
5. _____ Insufficient area of acceptable soil for required drainfield, and/or reserve area
6. _____ Proposed system too close to well
7. _____ Other _____

SOIL PROFILE DESCRIPTION REPORT - Site A1 Install Page 2 of 8

Date of evaluation: March 21, 2022

Tax Map#/Location: T.M. # 6-51, Holly Springs Road approximately ½ mile past intersection w/ Quail Ridge Dr

Ann B. Walker, MAOSE, LPSS, Cedar Mountain Soils, L.L.C. 11189 Winston Road Culpeper, VA 22701 (540)-825-4706

Hole	Horizon	Depth Inches	Description of color, texture, etc.	Texture Group
1	A	0-4	10YR 4/3 brown sandy loam, few fine gravels	IIB
	E	4-9	10YR 5/4 yellowish brown loam, few fine gravels	IIB
	Bt	9-39	2.5YR 5/8 red clay loam	III
	C	39-60	2.5YR 5/8 red sandy loam with common parent colors: 10YR 6/8 brownish yellow, 10YR 7/6 yellow, 10YR 5/4 yellowish brown	IIB
2	A	0-3	10YR 5/4 yellowish brown loam, many fine, medium, course, very course roots	IIB
	E	3-9	10YR 5/8 yellowish brown gritty loam, many fine, medium, course and very course roots	IIB
	Bt	9-36	2.5YR 4/6 red clay loam, few very fine mica flakes, common course, medium and very course roots	III
	C	36-66	2.5YR 4/6 red heavy loam, common very fine mica flakes, few medium and course roots to depth, 10YR 4/4 dark yellowish brown parent colors	IIB
	A	0-2	7.5YR 3/3 dark brown loam	IIB
3	BA	2-5	7.5YR 5/6 strong brown light clay loam	III
	Bt	5-33	2.5YR 4/8 red clay loam, few very fine mica flakes	III
	C	33-61	Multi-colored sandy loam: 10YR 4/6 dark yellowish brown, 5YR 5/8 yellowish red 7.5YR 5/4 brown, white, black (parent/mineral) with red clay films and fine quartz gravels	IIB
	A	0-3	10YR 4/4 dark yellowish brown loam	IIB
4	BA	3-9	7.5YR 5/6 strong brown light clay loam	III
	Bt1	9-24	2.5YR 4/8 red clay loam, few fine mica flakes, few medium and course roots	III
	Bt2	24-44	2.5YR 4/8 red clay loam with 10YR 4/6 dark yellowish brown, 7.5YR 5/6 strong brown parent colors, few white mineral streaks, fine and medium roots	IIB
	C	44-60	10YR 4/6 dark yellowish brown sandy loam with 7.5YR 5/6 strong brown parent colors, few white mineral streaks, few fine roots, few firm areas, common fine mica	IIB
	A	0-3	10YR 5/4 yellowish brown loam	IIB
5	E	3-7	10YR 5/8 yellowish brown loam	IIB
	Bt1	7-27	2.5YR 4/8 red clay loam	III
	Bt2	27-46	2.5YR 4/8 red light clay loam with few 7.5YR 6/8 reddish yellow parent colors	III
	C	46-68	2.5YR 4/8 red loam, w/ 7.5YR 6/8 parent colors, few hard fragments & clay films	IIB



A.a. Estimated Percolation Rate (minutes per inch).....	55 mpi
b Recommended trench bottom (inches).....	30-36"
c. Depth to restrictive feature or to <u>limit of evaluation</u> if none encountered.....	60"
d. Minimum separation distance required	18"
e. Separation distance in inches provided in design (Ac-Ab).....	24"
f. Minimum trench bottom due to slope (for primary installation area)	19"
g. Is the slope greater than 10% in primary installation area?.....	no
h. If Ag is Yes, does greater than 24 inches to rock exist below Ab?.....	n/a
i. If yes to Ah, add 1 foot to the minimum center to center spacing beginning at 20% slope and continue for each 10% slope increase above 20%..... If no to Ah, add 1 ft. to the minimum center-to-center spacing beginning at 10% slope and continue for each 10% slope increase above 10%. (Report the value, in feet, of the increase in center to center spacing above the minimum).....	n/a
B. Trench bottom sq. feet required: (designed for 4 bedroom system) Per bedroom (or 100 gals.) from Table 4.6 based on <input checked="" type="checkbox"/> gravity chart from Regs.....	412 X 4 BR= 1648 min. sq.ft required
C. Maximum daily flow in gallons per day (gpd) usage proposed.....	600 gpd
D. Sq. footage reduction allowed when using Gravelless Absorption System per GMP # 135	N/A
E. Length of trench.....	100'
Length of available area.....	100'
F. Width of trench.....	3'
G. Number of trenches.....	6
H. Center-to-center spacing	9'
I. a. Width required (H(G-1) + F).....	48'
b. Width of available area.....	48'+
J. Square footage in design (E * F * G).....	1800 sq.ft
K. Soil texture group: <input type="checkbox"/> I <input type="checkbox"/> IIA <input type="checkbox"/> IIB <input checked="" type="checkbox"/> III <input type="checkbox"/> IV	100%
Is a reserve area required? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Percent required:
Pretreatment required for primary installation site? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	Percent available.....
Type of use.....	residential
Number of septic tanks.....	1
Minimum size of septic tank required (600 gallons per day x 2 days).....	1200
Class of well.....	IIIB

NOTES: 100%+ reserve area is available in separate site A2 with pre-treated drip dispersal.



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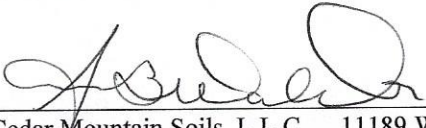
SOIL SUMMARY REPORT "Site A2" Drainfield Reserve Area

General Information

Date: March 21, 2022 Culpeper County Health Department
 Owner: Printz Brothers LC c/o David Printz
 Owner's Address: 46448 Montgomery Place, Sterling, VA 20165
 Phone #: (703)-969-8255 Email: dprintz@bciva.com
 Location: Holly Springs Road approximately 1/2 mile past intersection with Quail Ridge Drive
 Tax Map: 6-51 Subdivision: _____ Block/Sec: _____ Lot: _____ Acreage: 5.0351

SOIL INFORMATION SUMMARY

1. Position in landscape satisfactory Yes No
 Description and vegetation: upland backslope, mixed species and sizes of trees
2. Slope 14 %
3. Depth to rock or impervious strata: Max. _____ Min. 31" None _____
4. Depth to seasonal or perched water table No Yes _____ Inches
5. Free water present No Yes _____ range in inches
6. Soil percolation rate estimated No _____ Yes Texture group III Estimated rate mpi 50-55
7. Permeability test performed No Yes _____
8. Observation Methods: SP

Name, title and signature of evaluator: 
 Ann B. Walker, MAOSE, LPSS Cedar Mountain Soils, L.L.C. 11189 Winston Road, Culpeper, VA 22701 (540)-825-4706

Site approved: This reserve site to be used at 6" deep with pre-treated drip dispersal if needed.
 Site disapproved

Reasons for rejection:

1. _____ Position in landscape subject to flooding or periodic saturation
2. _____ Insufficient depth of suitable soil over hard rock
3. _____ Insufficient depth of suitable soil to seasonal water table
4. _____ Rates of absorption too slow
5. _____ Insufficient area of acceptable soil for required drainfield, and/or reserve area
6. _____ Proposed system too close to well
7. _____ Other _____



SOIL PROFILE DESCRIPTION REPORT – Site A2 Reserve Page 5 of 8

Date of evaluation: March 21, 2022
 Tax Map#/Location: T.M. # 6-51 Holly Springs Road approximately ½ mile past intersection w/ Quail Ridge Dr

Ann B. Walker, MAOSE, LPSS, Cedar Mountain Soils, L.L.C. 11189 Winston Road Culpeper, VA 22701 (540)-825-4706

Hole	Horizon	Depth Inches	Description of color, texture, etc.	Texture Group
1	A	0-3	7.5YR 4/3 brown loam	IIB
	BA	3-12	7.5YR 5/8 strong brown heavy loam	IIB
	Bt	12-43	2.5YR 4/8 red clay loam, few very fine mica flakes	III
	C	43-56	2.5YR 4/8 red fine sandy loam with few red clay flows, common very fine mica,	IIB
	R	56+	10YR 3/4 dark yellowish brown & 10YR 3/3 dark yellowish brown parent colors hard rock at 56"	
2	A	0-7	7.5YR 4/4 brown loam	IIB
	Bt	7-27	5YR 5/6 yellowish red sandy clay loam	IIB
	C1	27-50	2.5YR 4/6 red heavy loam, few channers, fine, medium and course roots	IIB
	C2	50-72	5YR 4/6 yellowish red fine sandy loam, few very fine mica, few red clay flows,	IIB
			few firm areas, parent colors: 7.5YR 4/6, 10YR 3/4 and 3/6	
3	A	0-6	7.5YR 4/4 brown loam	IIB
	BA	6-10	5YR 5/8 yellowish red light clay loam	III
	Bt	10-20	2.5YR 4/8 red clay loam	III
	C	20-31	2.5YR 4/8 red heavy loam with common fine mica, 10YR 3/6 dark yellowish brown	IIB
	Cr	31	parent colors and common channers very channery loam and pit walls hard in numerous places	
4	A	0-3	7.5YR 3/4 dark brown loam	IIB
	BA	3-7	7.5YR 5/4 brown loam	IIB
	Bt1	7-13	7.5YR 4/6 strong brown light clay loam	III
	Bt2	13-36	2.5YR 4/8 red light clay loam	III
	C	36-63	2.5YR 4/8 red heavy loam, few fine mica, parent colors: 10YR 3/4 and 3/6	IIB
			Noted a firm, hard area of parent material rock on step of pit at 31"	
5	A	0-4	7.5YR 5/4 brown loam, many fine, medium, course, very course roots	IIB
	BA	4-13	7.5YR 5/6 strong brown heavy loam, many fine, medium, course, very course roots	IIB
	Bt	13-35	2.5YR 4/8 red clay loam, common fine, medium and course roots	III
	C1	35-55	2.5YR 4/8 red loam, red clay flows, few medium and course roots, parent colors:	IIB
			5YR 6/6 and 7/6 reddish yellow, 7.5YR 4/6 strong brown	
	C2	55-74	Multi-colored (5YR 6/6 and 7/6, 7.5YR 4/6, white mineral streaks) course sandy loam, many fine quartz fragments, few medium roots to depth	IIB



- A.a. Estimated Percolation Rate (minutes per inch).....
- b Recommended tubing installation depth (inches).....
- c Depth to restrictive feature or to limit of evaluation if none encountered.....
- d. Minimum separation distance required with pre-treatment.....
- e. Separation distance in inches provided in design (Ac-Ab).....
- B. Daily flow in gallons per day (gpd).....
- C. Loading Rate: *using multi-colored Health Department loading rate chart (see portion below):
TL-3 effluent drip loading rate at 55 mpi = (600 gpd/31) loading rate requires min. area footprint.....
- D. Minimum area footprint required / 2 = Minimum amount of linear tubing required.....
- E. Length of runs available.....
- F. Width of designated area available up and downslope.....
- G. Total square footage of area available: (E. x F.)
(30 tubing runs at 70 feet long would yield 2100 feet of tubing in a 4200 square foot area)
- H. Soil texture group: I IIA IIB III IV
- I. Pretreatment required? yes no Type of Pre-treatment?.....
- J. Is a reserve area required? Yes No Percent required:
Percent available:
- Type of use.....
- Class of well:

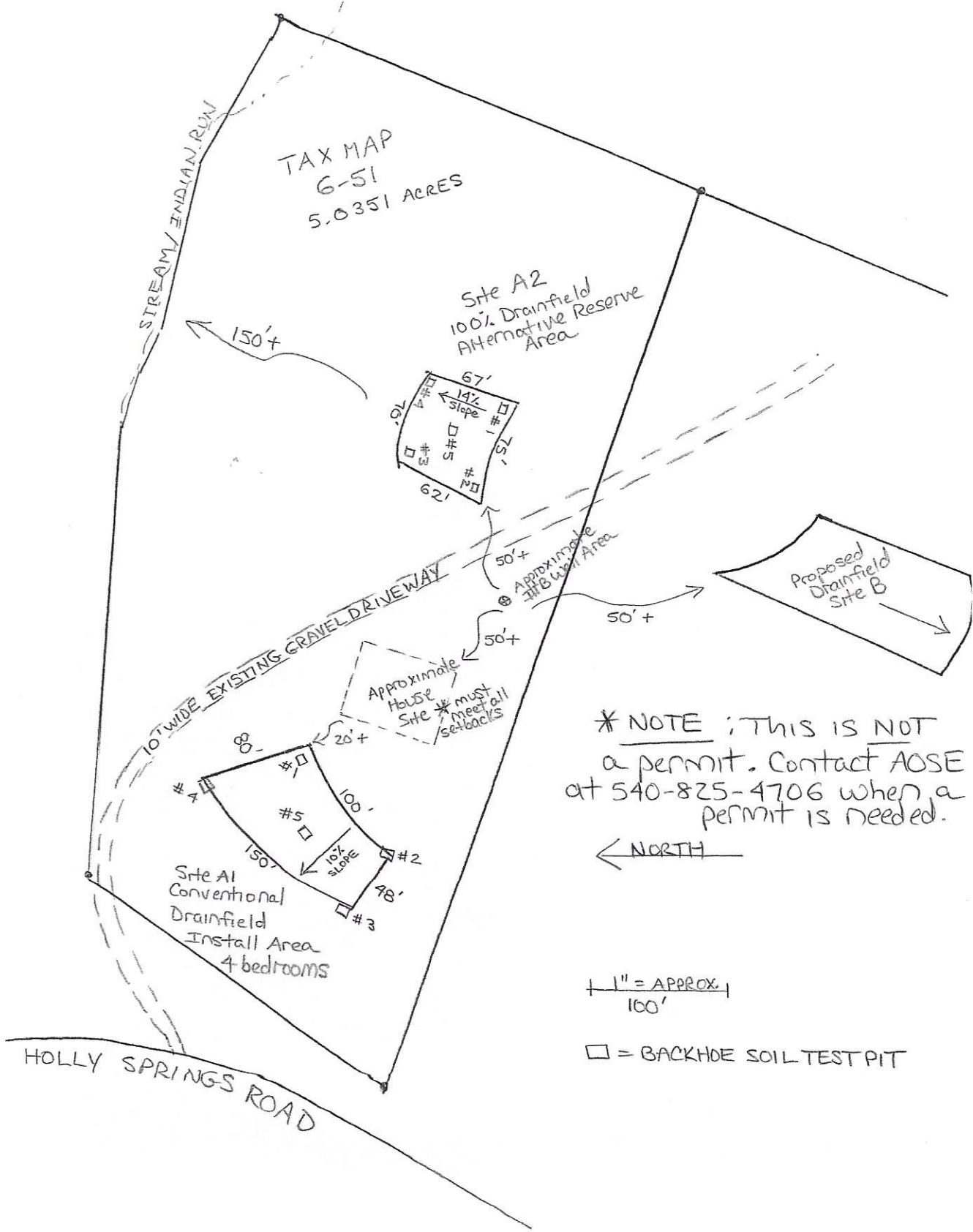
50-55mpi
6"
31"
12"
25"
600 gpd/4 bedroom
1935 sq.ft.
1935/2= 968
70'
60'
4200'

TL-3
100%
100%+ alternative residential
IIIB

TL-3 Effluent					
Soil Texture	Ksat (cm/day)	Pressure trench loading gpd/sqft.	Gravity trench loading gpd/sqft.	Drip loading gpd/sqft.	Pad loading gpd/sqft.
Sand and Loamy Sand	>17	3.0	3.00	1.00	1.66
		2.67	2.67	0.89	1.66
		2.33	2.33	0.78	1.66
Sandy Loam	15 to 17	2.0	2.00	0.67	1.66
		1.75	1.75	0.58	1.33
		1.5	1.41	0.50	1.11
Loam and Sandy Clay Loam	10 to < 15	1.38	1.22	0.46	0.95
		1.25	1.05	0.42	0.83
		1.13	0.91	0.38	0.74
		1.0	0.77	0.33	0.67
Silt Loam, Clay Loam, & Silty Clay Loam	4 to < 10	0.94	0.71	0.31	0.61
		0.89	0.64	0.30	0.55
		0.83	0.57	0.28	0.51
		0.78	0.51	0.26	0.48
		0.72	0.46	0.24	0.44
		0.67	0.40	0.22	0.42
		0.61	0.35	0.20	0.39
		0.56	0.30	0.19	0.37
Sandy Clay, Silty Clay & Clay	<4	0.5	0.25	0.17	0.35
		0.46	0.23	0.15	0.33
		0.43	0.21	0.14	0.32
		0.39	0.19	0.13	0.30
		0.35	0.18	0.12	0.29
		0.32	0.16	0.11	0.28

Soil Texture	Ksat (cm/day)
Sand and Loamy Sand	>17
Sandy Loam	15 to 17
Loam and Sandy Clay Loam	10 to < 15
Silt Loam, Clay Loam, & Silty Clay Loam	4 to < 10
Sandy Clay, Silty Clay & Clay	<4

Site Sketch/Sanitary Survey



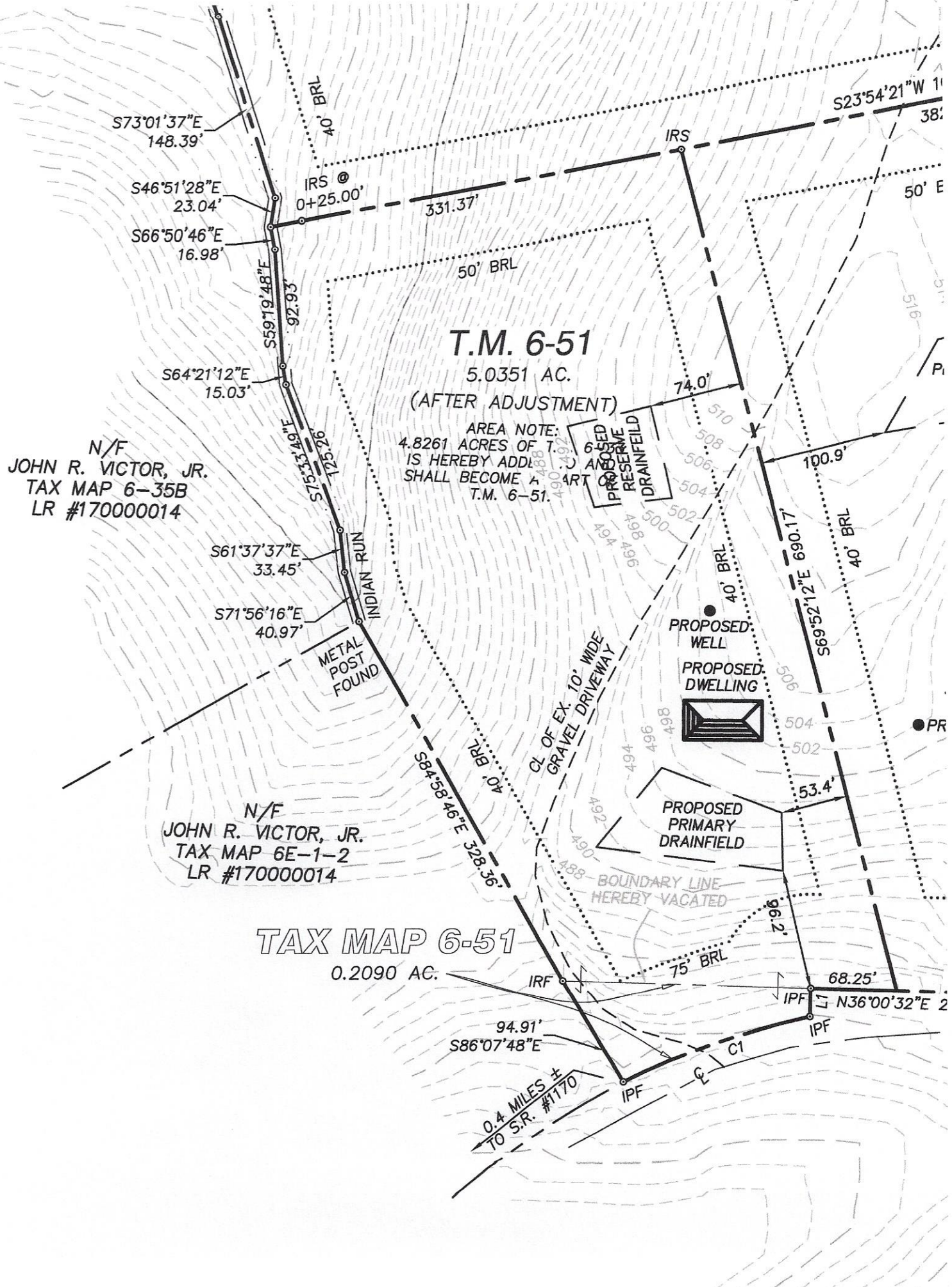
* NOTE ; THIS IS NOT
 a permit. Contact AOSE
 at 540-825-4706 when a
 permit is needed.

← NORTH

1" = APPROX. 100'

□ = BACKHOE SOIL TEST PIT

HOLLY SPRINGS ROAD



S73°01'37"E
148.39'

S46°51'28"E
23.04'

S66°50'46"E
16.98'

S64°21'12"E
15.03'

S61°37'37"E
33.45'

S71°56'16"E
40.97'

T.M. 6-51

5.0351 AC.

(AFTER ADJUSTMENT)

AREA NOTE:
4.8261 ACRES OF T.M. 6-51
IS HEREBY ADDED AND
SHALL BECOME A PART
OF T.M. 6-51.

N/F
JOHN R. VICTOR, JR.
TAX MAP 6-35B
LR #170000014

N/F
JOHN R. VICTOR, JR.
TAX MAP 6E-1-2
LR #170000014

TAX MAP 6-51

0.2090 AC.

94.91'
S86°07'48"E

0.4 MILES ±
TO S.R. #1170

PROPOSED WELL

PROPOSED DWELLING

PROPOSED PRIMARY DRAINFIELD

BOUNDARY LINE HEREBY VACATED

IRF

IPF

N36°00'32"E 2

IRS

40' BRL

50' BRL

40' BRL

40' BRL

40' BRL

75' BRL

S23°54'21"W 11
38'

50' E

74.0'

100.9'

690.17'

53.4'

96.2'

68.25'

CL OF EX. 10' WIDE GRAVEL DRIVEWAY

INDIAN RUN

METAL POST FOUND

PROPOSED RESERVE DRAINFIELD

PR

516

P

510

508

506

504

502

500

498

496

494

492

490

488

486

484

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