

1" = 150'

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PRELIMINARY
G. MCALARY ~ MINOR DIVISION
MCALARY AND THE
DISTRICT REVO

MARY A. JAMES, et ux
L.R. 04001145
T.M. 21-2261

DEBORAH GRANTER
L.R. 100001845
T.M. 21-1-5

RONALD LEE SURREY, JR., et ux
D.B. #30, P. 427
T.M. 21-1-6

WILLIAM K. JAMES, et ux
L.R. 030001901
T.M. 21-1-7

WILLIAM C. WEBBER, et ux
L.R. 100004108
T.M. 21-1-8

W. J. BROWN
L.R. 040001318
T.M. 21-2261

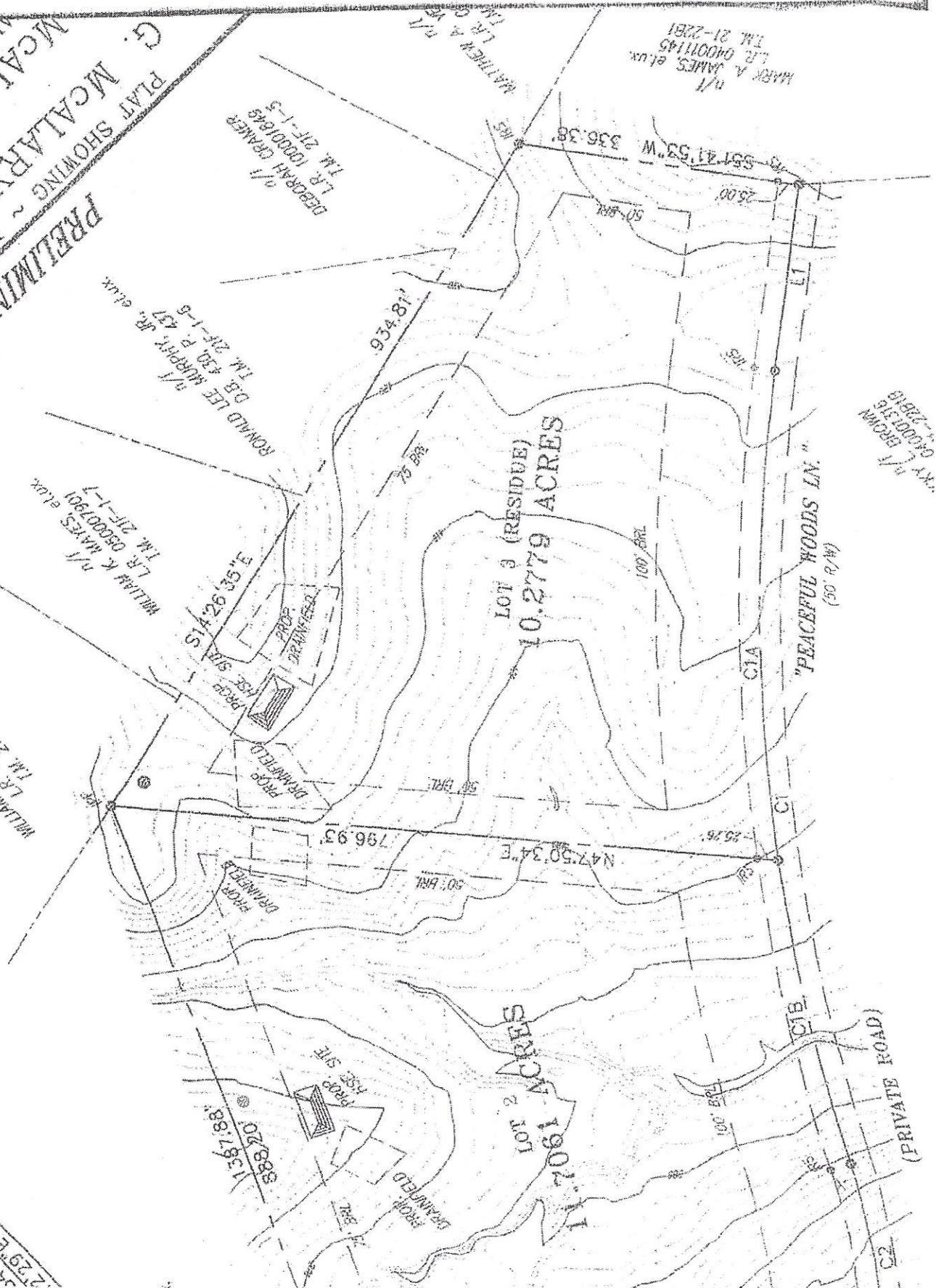
LOT 3 (RESIDUE)
10.2779 ACRES

LOT 2
11.7061 ACRES

"PEACEFUL WOODS LN."
(50' R/W)

(PRIVATE ROAD)

| | | | |
|-------|------|--------|------|
| 221.2 | 34°W | 307.05 | 8.07 |
| 229°E | | | |

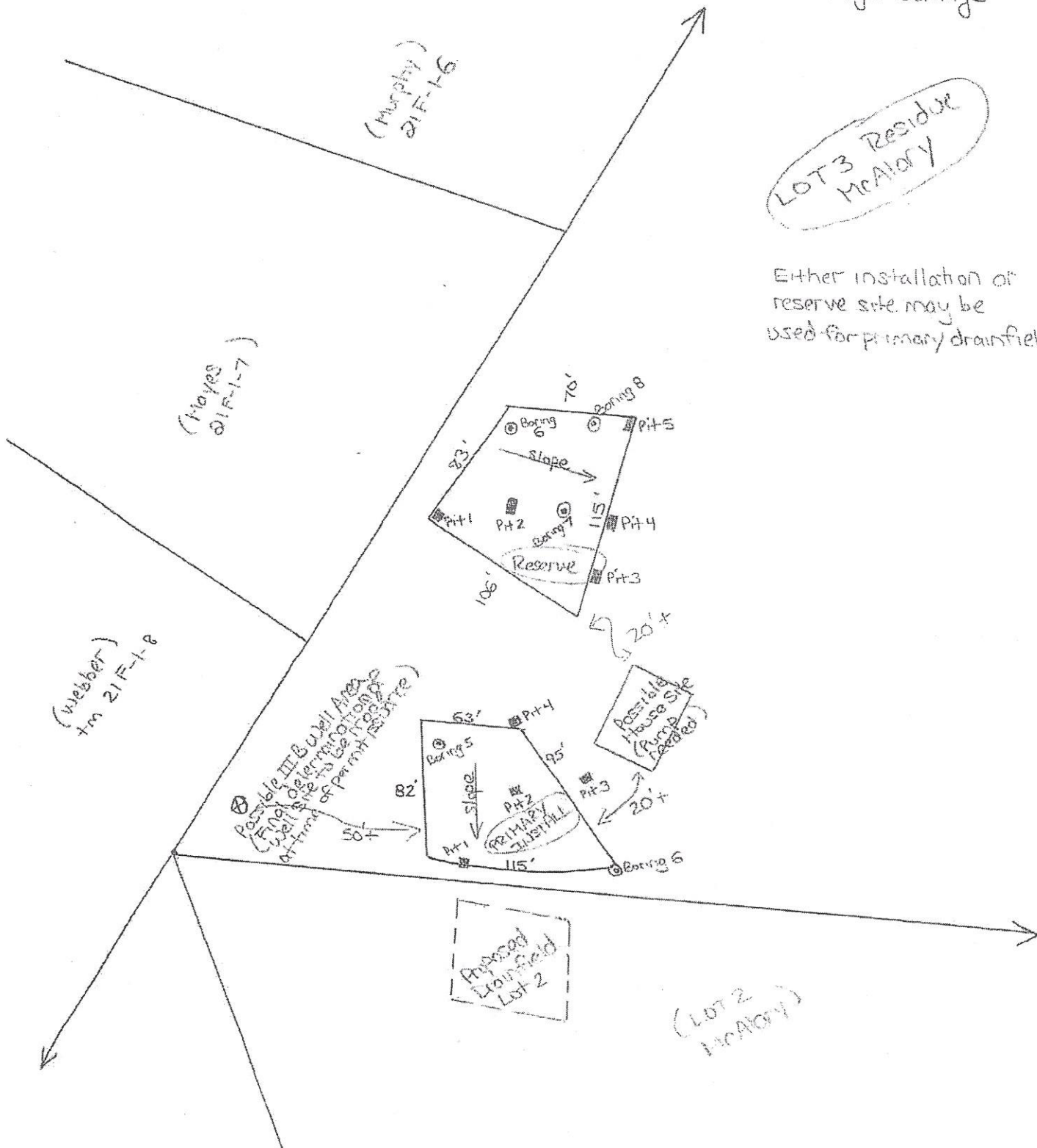


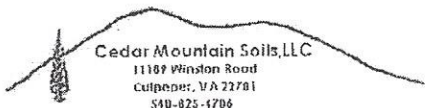
Site Sketch/200' Sanitary Survey

■ = Backhoe pits
 ○ = Auger Borings

LOT 3 Residue
 McAlroy

Either installation of
 reserve site may be
 used for primary drainfield.





Cedar Mountain Soils, LLC
11189 Winston Road
Culpeper, VA 22701
540-825-4706

ABBREVIATED DESIGN CALCULATIONS (reserve area) Page 8 of 10

- A. a. Estimated Percolation Rate (minutes per inch).....a. 50-55
b. Recommended trench bottom (inches).....b. 24"
c. Depth to restrictive feature or to limit of evaluation if none encountered.....c. 42"
d. Minimum separation distance required (may be impacted by perc rate).....d. 18"
e. Separation distance in inches provided in design (Ac-Ab).....e. 18"
f. Minimum trench bottom due to slope (for reserve area)f. 21"
g. Is the slope greater than 10% in reserve area?.....g. yes
h. If Ag is Yes, does greater than 24 inches to rock exist below Ab?.....h. no
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).....i. +1

- B. Trench bottom square feet required:
Per bedroom from Table 4.6 based on ☒ gravity chart from Regs. ☐ LPD chart from Regs..... 376-412

- C. Number of bedrooms..... 4

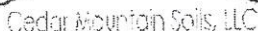
Area Calculations

- D. Length of trench..... 85'
Length of available area..... 85'±
E. Width of trench..... 3 feet
F. Number of trenches..... 6
G. Center-to-center spacing (reserve)..... 10'min
H. a. Width required (G(F-1) + E)..... 53'
b. Width of available area..... 68'±
I. Total square footage required (B * C)..... 1504-1648
J. Square footage in design (D * E * F)..... 1530

- K. Soil texture group: ☐ I ☐ IIA ☒ IIB ☒ III ☐ IV
Is a reserve area required? ☒ Yes ☐ No
Percent required: 100%
Percent available..... 100% in other area

- L. Type of use..... residential
M. Daily flow in gallons per day..... 600gpd
N. Number of septic tanks..... 1
O. Minimum size of septic tank required (600gallons per day x 2 days)..... 1200 = gal. tank
P. Pretreatment required? ☐ yes ☒ no
Q. Class of well..... IIIB
Distance between septic tank and well: >50' Distance between absorption area and well: >50'

*It is also possible to install 7, 80 foot trenches on 10 foot centers in this area (1680 square feet) rather than 6, 85' trenches on 10 foot centers (1530) if desired.



SOIL PROFILE DESCRIPTION REPORT - Reserve area (continued)

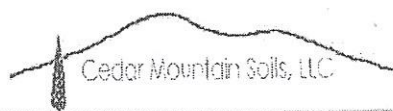
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Date of evaluation: February 11, 2011 CMS # 651

Tax Map#/Location: 21 22B1 proposed lot 3 Residue

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

[illegible]



SOIL PROFILE DESCRIPTION REPORT – Reserve area

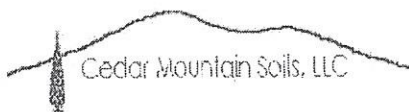
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Date of evaluation: February 11, 2011 CMS # 651

Tax Map#/Location: 21 22B1 proposed lot 3 Residue

Ann B. Walker, OSE, CPSS, 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 4/4 brown loam, many fine, medium, coarse, very coarse roots | IIB |
| | B | 3-23 | 2.5YR 4/8 red clay loam, moderate, medium subangular blocky structure, common medium, coarse and very coarse roots | III |
| | C | 23-45+ | 5YR 4/6 yellowish red fine sandy loam with 10YR 5/8 yellowish brown parent colors and 2.5YR 4/8 red clay flows, few very fine mica | IIB |
| 2 | A | 0-3 | 7.5YR 3/3 dark brown loam | IIB |
| | B | 3-14 | 5YR 4/6 yellowish red clay loam | III |
| | C1 | 14-38 | 10YR 5/8 yellowish brown loose fine sandy loam with thin clay flows | IIB |
| | C2 | 38-49+ | 5YR 4/6 yellowish red throughout 2.5Y 5/4 light olive brown fine sandy loam, few thin yellowish red clay flows, coarse roots throughout entire pit to depth | IIB |
| 3 | A | 0-2 | 7.5YR 4/4 brown loam, many fine, medium, coarse, very coarse roots | IIB |
| | B | 2-18 | 5YR 4/6 yellowish red clay loam, strong subangular blocky structure, common medium and coarse roots | III |
| | C | 18-44 | 7.5YR 4/6 strong brown fine sandy loam, few blacks, few channers, few medium roots to depth, with 10YR 5/8 yellowish brown parent color inclusions | IIB |
| 4 | A | 0-3 | 7.5YR 4/4 brown loam | IIB |
| | B | 3-20 | 5YR 4/6 yellowish red clay loam | III |
| | C | 20-42 | 7.5YR 5/6 strong brown fine sandy loam, fine and medium roots to 42 inches, few channers, few very fine mica flakes, few blacks-parent, | IIB |
| | Cr | 42 | Cr, harder with depth | |
| 5 | A | 0-3 | 7.5YR 4/4 brown loam | IIB |
| | B | 3-22 | 7.5YR 4/6 strong brown clay loam, few white quartz, < 2" size | III |
| | C | 22-47 | 10YR 4/4 dark yellowish brown loam, with few 7.5YR 4/6 strong brown clay flows, few channers and few medium roots to depth | IIB |



SOIL SUMMARY REPORT

CMS # 651

General Information—Reserve Area

Date: February 11, 2011 Culpeper Health Department
Owner: Brian and Susan McAlary Telephone: (630)-789-6886
Address: 15 W. 652 82nd Street Burr Ridge, IL 60527
Agent: Mrs. Kimberlee Whitehead (owners daughter) 10541 Alum Springs Road Culpeper, VA 22701 phone: 540-219-1682
Location: Route 633 Alum Springs Road, property across from Matts Lane
Tax Map: 21 22B1 proposed Lot 3 Residue Subdivision: McAlary land division Lot: 3 residue

SOIL INFORMATION SUMMARY

1. Position in landscape satisfactory Yes x No
Description and vegetation upland, wooded with some thick undergrowth, convex sideslope off ridgetop
2. Slope 14 %
3. Depth to rock or impervious strata: Max. Min. 42" pit # 4 None
4. Depth to seasonal or perched water table No x Yes Inches
5. Free water present No x Yes range in inches
6. Soil percolation rate estimated No Yes x Texture group III Estimated rate mpi 50-55 approx.
7. Permeability test performed No x Yes If yes, note type of test performed and attach
8. Observation Method: SP & BA

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

x Site approved: If required, reserve drainfield to be placed at 24"

 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

- A. a. Estimated Percolation Rate (minutes per inch).....a. 50-55
b. Recommended trench bottom (inches).....b. 24"
c. Depth to restrictive feature or to limit of evaluation if none encountered.....c. 42"
d. Minimum separation distance required (may be impacted by perc rate).....d. 18"
e. Separation distance in inches provided in design (Ac-Ab).....e. 18"
f. Minimum trench bottom due to slope (for primary installation area).....f. 19"
g. Is the slope greater than 10% in primary installation area?.....g. yes
h. If Ag is Yes, does greater than 24 inches to rock exist below Ab?.....h. no
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).....i. -1

B. Trench bottom square feet required:
Per bedroom from Table 4.6 based on ☒ gravity chart from Regs. ☐ LPD chart from Regs. 376-412

C. Number of bedrooms..... 4

Area Calculations

D. Length of trench..... 63' & 84'

Length of available area..... 63' & 84'+
*(install 4, 63' long trenches=756 sq.ft + install 3, 84' long trenches=756 sq.ft for total of 1512 sq.ft)

E. Width of trench..... 3 feet

F. Number of trenches..... 7
*(install 4, 63' long trenches=756 sq.ft + install 3, 84' long trenches=756 sq.ft for total of 1512 sq.ft)

G. Center-to-center spacing (primary installation)..... 10' min

H. a. Width required (G(F-1) + E)..... 63'

b. Width of available area..... 63'+

I. Total square footage required (B * C)..... 1504-1648

J. Square footage in design (D * E * F)..... 1512

K. Soil texture group: ☐ I ☐ IIA ☒ IIB ☒ III ☐ IV

Is a reserve area required? ☒ Yes ☐ No

Percent required: 100%

Percent available..... 100% in other area

L. Type of use..... residential

M. Daily flow in gallons per day..... 600gpd

N. Number of septic tanks..... 1

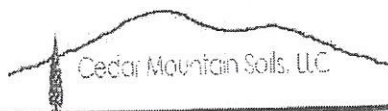
O. Minimum size of septic tank required (600gallons per day x 2 days)..... 1200+ gal. tank

P. Pretreatment required? ☐ yes ☒ no

Q. Class of well..... IIB

Distance between septic tank and well: >50' Distance between absorption area and well: >50'

*System will require a splitter box sending 1/2 of effluent to a small box with 4, 63' long lines (756 sq.ft) and the other 1/2 of effluent to a small box with 3, 84' long lines (756 sq.ft) to split flow equally for a total of 1512 square feet.



SOIL PROFILE DESCRIPTION REPORT – installation area

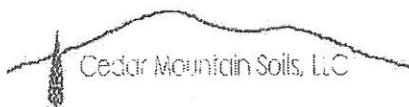
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Date of evaluation: February 11, 2011, CMS # 651

Tax Map#/Location: 21 22B1 proposed lot 3 Residue

Ann B. Walker, OSE, CPSS, 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 4/4 brown loam | IIIB |
| | B1 | 3-22 | 5YR 4/6 yellowish red clay loam, strong, medium subangular blocky structure, many roots | III |
| | B2 | 22-32 | 5YR 4/6 yellowish red light clay loam, few blacks & 7.5YR 5/8 strong brown parent colors | III |
| | C | 32-49 | 7.5YR 5/8 strong brown fine sandy loam, few blacks, few very fine mica flakes, few coarse and medium roots to depth | IIIB |
| 2 | A | 0-2 | 7.5YR 4/4 brown loam | IIIB |
| | B | 2-22 | 5YR 4/6 yellowish red clay loam | III |
| | C | 22-48 | 7.5YR 5/8 strong brown loam, friable, with blacks and 7.5YR 7/8 reddish yellows (parent) | IIIB |
| 3 | A | 0-3 | 7.5YR 4/4 brown loam | IIIB |
| | B | 3-18 | 7.5YR 4/6 strong brown clay loam with common medium roots, moderate, medium subangular blocky structure | III |
| | C | 18-42 | 7.5YR 4/6 strong brown fine sandy loam, few fine mica, few channers | IIIB |
| | Cr | 42+ | harder with depth | |
| 4 | A | 0-2 | 7.5YR 4/4 brown loam | IIIB |
| | B | 2-21 | 5YR 4/6 yellowish red clay loam | III |
| | C | 21-46+ | 7.5YR 5/8 strong brown fine sandy loam, few blacks, yellowish browns, brownish yellows (parent), noted some channers one side of pit wall, noted fine & medium roots to depth | IIIB |
| 5 | A | 0-5 | 7.5YR 4/4 brown loam | IIIB |
| | B | 5-26 | 5YR 4/6 yellowish red clay loam | III |
| | C | 26-48+ | 5YR 4/6 yellowish red heavy loam | IIIB |
| 6 | A | 0-8 | 7.5YR 4/4 brown loam | IIIB |
| | B | 8-20 | 7.5YR 4/6 strong brown light clay loam | III |
| | C | 20-48 | 10YR 5/8 yellowish brown soft, loose fine sandy loam, few fine mica | IIIB |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



SOIL SUMMARY REPORT

CMS # 651

General Information—Primary Installation Area

Date: February 11, 2011 Culpeper Health Department
Owner: Brian and Susan McAlary Telephone: (630)-789-6886
Address: 15 W. 652 82nd Street Burr Ridge, IL 60527
Agent: Mrs. Kimberlee Whitehead (owners daughter) 10541 Alum Springs Road Culpeper, VA 22701 phone: 540-219-1682
Location: Route 633 Alum Springs Road, property across from Matts Lane
Tax Map: 21 22B1 proposed Lot 3 Residue Subdivision: McAlary land division Lot: 3 residue

SOIL INFORMATION SUMMARY

1. Position in landscape satisfactory Yes x No _____
Description and vegetation upland, wooded with some thick undergrowth, convex sideslope off sloping ridgetop
2. Slope 10 1/2%
3. Depth to rock or impervious strata: Max. _____ Min. 42" pit # 3 None _____
4. Depth to seasonal or perched water table No x Yes _____ Inches
5. Free water present No x Yes _____ range in inches
6. Soil percolation rate estimated No _____ Yes x Texture group III Estimated rate mpi approx. 50-55
7. Permeability test performed No x Yes _____ If yes, note type of test performed and attach
8. Observation Method: SP & BA

Name, title and signature of evaluator: [Signature]
Ann B. Walker, OSE, CPSS, Cedar Mountain Soils, L.L.C., 11189 Winston Rd. Culpeper, VA 22701 (540)-825-4706

x Site approved: Primary drainfield to be placed at 24" in site designated on plat
If required, reserve drainfield to be placed at other site as shown on plat
____ 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 _____



Cedar Mountain Soils, LLC
11189 Winston Road
Culpeper, VA 22701
540-825-4706

Page 1 of 10

OSE REPORT for

LOT DIVISION/OR CERTIFICATION LETTER

| | |
|---|--|
| Location of Property: Route 633 Alum Springs Road (land across from Matt's Lane) | Lot: 3 Residue, 10.2779 acres, Subdivision: McAlary lot division, County of Culpeper Tax Map # 21 22B1 Proposed Lot 3 (residue) Now Tax Map: 21-22B1A |
|---|--|

| | |
|--|---|
| Applicant or Client and Address: Brian and Susan McAlary 15 W. 652 82 nd Street Burr Ridge, IL 60527 | Prepared by OSE: Ann B. Walker, OSE # 1940 000013 Cedar Mountain Soils, LLC 11189 Winston Road Culpeper, VA 22701 |
|--|---|

| | |
|------------------------------|---------------------------|
| Date of Report: May 23, 2011 | OSE Job #: CMS 651 |
| Revision Date: | Health Department I.D. #: |

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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 VAC5-615), 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 lot division or certification letter be approved.

Ann B. Walker
6-8-11