



SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: (540) 381-0309

MEMORANDUM

TO: Claudia B. Light

FROM: David Hall PSS, OSE

DATE: 5/19/2025

SUBJECT: Soil & Site Evaluation on TM#: 77-23G (Phadettia Rd) in Floyd Co. VA

On 4/16/2025 we evaluated the subject property, 1.68 acres located on Phadettia Rd in Floyd Co, to determine its suitability for a septic system serving a proposed 2 BR home.

The attached report details our findings and recommendations & includes a survey map showing the approximate location of the proposed drainfield, house & well site. The proposed drainfield area is staked in the field with white PVC pipes, pink ribbon, & orange flags. These stakes must be left in place & the drainfield area must not be disturbed.

This evaluation is for preliminary planning purposes only. A permit to construct the septic system is required prior to installation. When you are ready to begin the permitting process we will be happy to prepare that for you. Give us a call to discuss the next steps & cost. At a minimum the proposed house site will have to be staked off on the property & we will need to make a permit site visit. Any modifications needed can be made at that time. This site could potentially be done for a 3BR house with backhoe pits dug, but not guaranteed.

Please don't hesitate to call if you have any questions. Thank you for having us do this work for you.

SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
 111 N. Franklin Street, Christiansburg, VA 24073
 Phone: (540) 381-0309 Fax: (540) 381-9430
 E-mail: setec@soilandenvironmentaltechnology.com

General Information

Date: 5/19/2025
 Applicant: Claudia B. Light
 Address: 1922 Wilshire Dr, Irving, TX 75061
 Directions to the Property: US-221 S (6.2 mi), L on Rte 727/Union School Rd (4.7 mi), L on Rte 799/Conner Grove Rd (2.6 mi), R on Rte 602/Phadettia Rd, +/- 0.5 miles to property on right

Floyd County Health Department

Phone #: (540) 239-2585 (Matt Gallimore - Agent)

Floyd, VA 24091

Tax Map ID: 77-23G

PRN: 5485 (1.68 acres)

Soil Information Summary

1. Position in landscape satisfactory Yes ☒ No ☐ Describe: Sideslope
2. Slope 16 %
3. Depth to rock\impervious strata: Max. >60" Min. 46" None
4. Depth to seasonal water table (gray mottling or gray color) No ☒ Yes ☐
5. Free water present No ☒ Yes ☐ range in inches
6. Soil percolation rate estimated Yes ☒ No ☐ Texture group 2
Estimated rate 30 Min/inch
7. Percolation test performed Yes ☐ No ☒ Number of percolation test holes
Depth of percolation test holes
Average percolation rate

Name and title of evaluator: David Hall

PSS/AOSE

Signature:



- X** Site Approved: Gravelless absorption trenches dispersing septic tank effluent to be placed at 28" depth at site designated. Site provides a total of 420 square feet of absorption area for the drainfield. At time of evaluation this site does not require a reserve.

Site Disapproved:

Reason for rejection: (check all that apply)

- 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 (Specify)

PROFILE DESCRIPTION SOIL EVALUATION REPORT

Date of Evaluation: 4/16/2025

Floyd County Health Department

x See application sketch

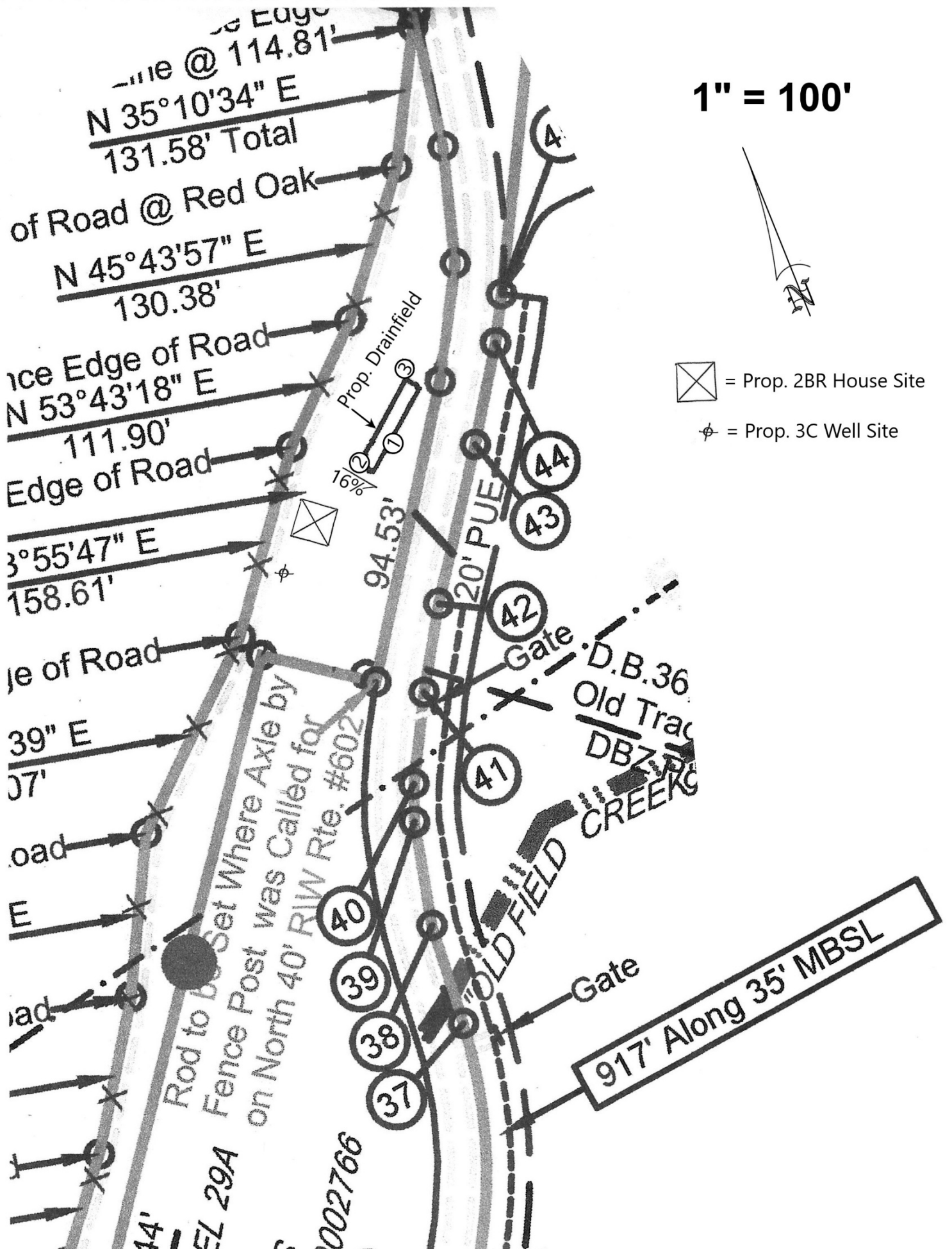
See construction permit

Applicant: Claudia B. Light**PRN:** 5485**Tax Map#:** 77-23G (1.68 ac on Phadettia Rd)

Hole #	Horizon	Depth (in)	Description	Texture Group
Auger 1	A	0-8	Brown (7.5YR 4/3) Loam	2
	BA	8-18	Brown (7.5YR 4/4) Loam	2
	Bt	18-40	Strong Brown (7.5YR 4/6) Loam	2
	C	40-60	Reddish Yellow (7.5YR 6/8) Gravelly Loam	2
Auger 2	A	0-8	Very Dark Brown (7.5YR 2.5/3) Loam	2
	Bt	8-24	Strong Brown (7.5YR 4/6) Loam	2
	C	24-46	Strong Brown (7.5YR 5/8) Loam; common Mn & Reddish Yellow (7.5YR 6/8) Lithochromic Mottles	2
	AR	46	Loose Rock	-
Auger 3	A	0-8	Very Dark Brown (7.5YR 2.5/3) Loam	2
	Bt	8-24	Strong Brown (7.5YR 4/6) Loam	2
	C	24-60	Strong Brown (7.5YR 5/8) Loam; common Mn & Reddish Yellow (7.5YR 6/8) Lithochromic Mottles	2

DRAINFIELD RECOMMENDATIONS, DESIGN BASIS, & AREA CALCULATIONS**Applicant:** Claudia B. Light**PRN:** 5485**Tax Map#:** 77-23G (1.68 ac on Phadettia Rd)

Main DF		Reserve DF	
Type of system	Gravity Gravelless	Reserve Area Required	No
EPR	30	Type of Reserve	N/A
Slope %	16	EPR	N/A
# Bedrooms	2	Slope %	N/A
Gallons/Day	300	Gallons/Day	N/A
Width of Trench (ft.)	3	Width of Trench (ft.)	N/A
Total Square Ft. of Gravelless Trench Bottom Required per BR	200	Total Square Ft. of Trench Bottom Required	N/A
Total Square Ft. of Gravelless Trench Bottom per BR in Design	210	Total Square Ft. of Trench Bottom in Design	N/A
Total Square Ft. of Gravelless Trench Bottom Required	400	# Lines of Reserve	N/A
Total Square Ft. of Gravelless Trench Bottom in Design	420	Line Length (ft.)	N/A
# Lines Installed	2	Installed <24" from Rock or Other Impervious Strata	N/A
Length of Line Installed (ft.)	70	Centers (ft.)	N/A
Installed <24" from Rock or Other Impervious Strata	Yes	Width Required (ft.)	N/A
Centers (ft.)	10	Width in Design (ft.)	N/A
Width Required (ft.)	13	Installation Depth (inches into natural soil)	N/A
Installation Depth (inches into natural soil)	28	Amount of Backfill Required (inches)	N/A
Amount of Backfill Required (inches)	N/A	Type of Well Recommended	3B
		Amount of Casing & Grout (ft.)	50' min



OSE Report for Subdivision

Property Identification:

County: Floyd
Subdivision: Claudia B Light Sub. / Lot Line Revision
Lots: Revised TM#:77-29, Lot 1, Lot 2, Lot 3,
Revised TM#:77-31A, & Revised TM#:77-44A
Tax Map IDs: 77-29, 77-31A & 77-44A
Acreage: +/- 51 total acres

Directions to the Property:

US-221 S (6.2 mi), L on Rte 727/Union School Rd (4.7 mi), L on Rte 799/Conner Grove Rd (2.6 mi), R on Rte 602/Phadettia Rd, +/- 0.5 miles to property on left

Applicant, Address & Phone Number:

Claudia B. Light
1922 Wilshire Dr
Irving, TX 75061
(540) 239-2585
(Matt Gallimore - Agent)

Agent, Address, & Phone Number:

Blue Ridge Land & Auction
P.O. Box 234
Floyd, VA 24091
(540) 239-2585

Date of this report:

5/19/2025

Contents of this report: (EACH LOT HAS REPORT PAGES 1-4)

OSE Cover Page & Certification Statement	Primary/Reserve Design Specifications	Page 3
INDIVIDUAL REPORTS FOR EACH LOT (PAGES 1-4)	Plat w/ Drainfield, Boring Locations, & Slope	Page 4
Soil Information Summary	Page 1	Copy of Subdivision Plat
Soil Profile Descriptions	Page 2	

Certification Statement:

I hereby certify that the evaluations and/or designs contained herein were conducted in accordance with the *applicable provisions of the* Sewage Handling and Disposal Regulations (12 VAC5-610), the Private Well Regulations (12 VAC5-630), The Regulations for Alternative Onsite Sewage Systems (12VAC5-613) and all other applicable laws, regulations and policies implemented by the Virginia Department of Health. I further certify that I currently possess any professional license required by the laws and regulations of the Commonwealth that have been duly issued by the applicable agency charged with licensure to perform the work contained herein. The potential to both conventional and alternative onsite sewage systems has been discussed with the owner/applicant.

The work attached to this cover page has been conducted under an exemption to the practice of engineering, specifically the exemption in Code of Virginia Section 54.1-402.A.11

I recommend a **subdivision** be approved.

OSE

David Hall #1127



The property lines and building location and proposed sewage disposal area are clearly marked and the property is sufficiently visible to see the topography. I give permission to the Virginia Department of Health to enter onto the property described during normal business hours for the purpose of processing this application and to perform quality assurance checks of evaluations and designs certified by a private sector Onsite Soil Evaluator or Professional Engineer as necessary until the sewage disposal system and/or private water supply has been constructed and approved.

Signature of Owner/Agent

Date

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 Subdivision: Claudia B Light Sub/Lot Line Revision
 Tax Map ID: 77-29 (17.809 acre portion)

Floyd County Health Department
 Phone #: (540) 239-2585 (Matt Gallimore - Agent)

Soil Information Summary

1. Position in landscape satisfactory Yes ☒ No ☐ Describe: Sideslope
2. Slope 17 %
3. Depth to rock/imperious strata: Max. >60" Min. 50" None
4. Depth to seasonal water table (gray mottling or gray color) No ☒ Yes ☐
5. Free water present No ☒ Yes ☐ range in inches
6. Soil percolation rate estimated Yes ☒ Texture group 2
 No ☐ Estimated rate 40 Min/inch
7. Percolation test performed Yes ☐ Number of percolation test holes
 No ☒ Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: David Hall

PSS/AOSE

Signature:



Site Approved: Absorption trenches dispersing septic tank effluent to be placed at 30" depth at site designated. Site provides a total of 960 square feet of absorption area for the primary drainfield and 960 square feet for 100% reserve.

Site Disapproved:

Reason for rejection: (check all that apply)

- 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 (Specify)

PROFILE DESCRIPTION SOIL EVALUATION REPORT

Date of Evaluation: 4/15/2025

Floyd County Health Department

x See application sketch

See construction permit

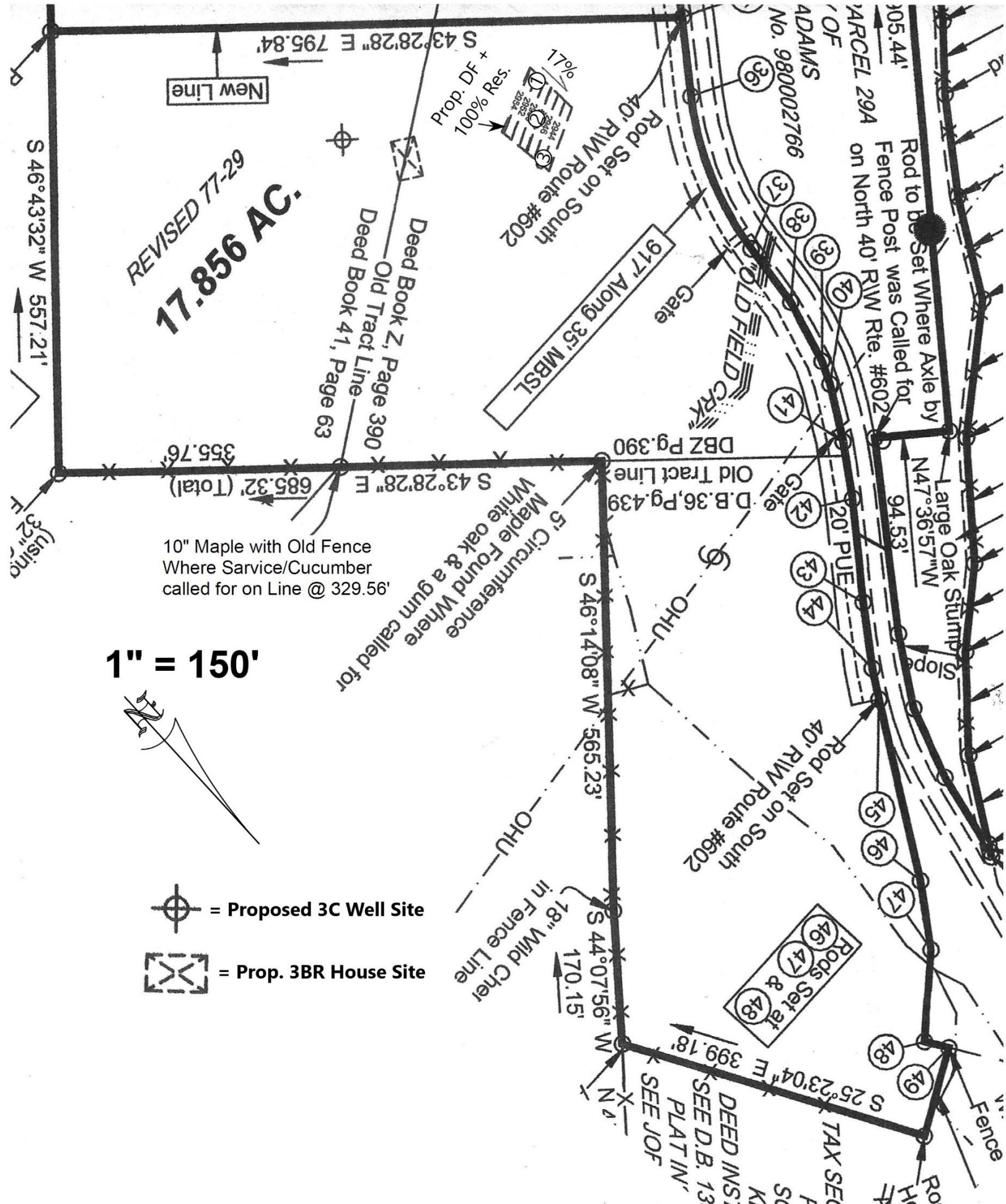
Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** Revised TM#: 77-29 (17.809 acres on Phadettia Rd)

Hole #	Horizon	Depth (in)	Description	Texture Group
Auger 1	Ap	0-8	Brown (10YR 4/3) Loam	2
	BA	8-22	Dark Yellowish Brown (10YR 4/4) Loam	2
	Bt1	22-38	Dark Yellowish Brown (10YR 4/6) Sandy Clay Loam	2
	Bt2	38-60	Yellowish Red (5YR 4/6) Sandy Clay Loam	2
Auger 2	Ap	0-8	Brown (10YR 4/3) Loam	2
	BA	8-24	Dark Yellowish Brown (10YR 4/4) Loam	2
	Bt1	24-48	Dark Yellowish Brown (10YR 4/6) Sandy Clay Loam	2
	Bt2	48-60	Yellowish Red (5YR 4/6) Gravelly Sandy Clay Loam	2
Auger 3	Ap	0-8	Brown (10YR 4/3) Loam	2
	BA	8-18	Dark Yellowish Brown (10YR 4/4) Loam	2
	Bt	18-40	Strong Brown (7.5YR 4/6) Sandy Clay Loam	2
	BC	40-50	Strong Brown (7.5YR 4/6) Gravelly Sandy Clay Loam	2
	AR	50	Grinding on Rock	-

Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** Revised TM#: 77-29 (17.809 acres on Phadettia Rd)

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS, & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Main DF		100% Reserve DF	
Type of system	Gravity	Reserve Area Required	Yes
EPR	40	Type of Reserve	Gravity
Slope %	17	EPR	40
# Bedrooms	3	Slope %	17
Gallons/Day	450	Gallons/Day	450
Width of Trench (ft.)	3	Width of Trench (ft.)	3
Total Square Ft. of Trench Bottom Required per BR	314	Total Square Ft. of Trench Bottom Required	942
Total Square Ft. of Trench Bottom per BR in Design	320	Total Square Ft. of Trench Bottom in Design	960
Total Square Ft. of Trench Bottom Required	942	# Lines of Reserve	4
Total Square Ft. of Trench Bottom in Design	960	Line Length (ft.)	80
# Lines Installed	4	Installed <24" from Rock or Other Impervious Strata	Yes
Length of Line Installed (ft.)	80	Centers (ft.)	10
Installed <24" from Rock or Other Impervious Strata	Yes	Width Required (ft.)	40
Centers (ft.)	10	Width in Design (ft.)	40
Width Required (ft.)	33	Installation Depth (inches into natural soil)	30
Installation Depth (inches into natural soil)	30	Amount of Backfill Required (inches)	N/A
Amount of Backfill Required (inches)	N/A	Type of Well Recommended	3C
		Amount of Casing & Grout (ft.)	20' min.



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 Subdivision: Claudia B Light Sub/Lot Line Revision Lot: 1
 Tax Map ID: 77-29 (10.381 acre portion)

Soil Information Summary

1. Position in landscape satisfactory Yes ☒ No ☐ Describe: Sideslope
2. Slope 24 %
3. Depth to rock/imperious strata: Max. >84" Min. 72" None
4. Depth to seasonal water table (gray mottling or gray color) No ☒ Yes ☐
5. Free water present No ☒ Yes ☐ range in inches
6. Soil percolation rate estimated Yes ☒ Texture group 2
 No ☐ Estimated rate 30 Min/inch
7. Percolation test performed Yes ☐ Number of percolation test holes
 No ☒ Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: David Hall

PSS/AOSE

Signature:



Site Approved: Absorption trenches dispersing septic tank effluent to be placed at 48" depth at site designated. Site provides a total of 810 square feet of absorption area for the primary drainfield and 810 square feet for 100% reserve.

Site Disapproved:

Reason for rejection: (check all that apply)

- 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 (Specify)

PROFILE DESCRIPTION SOIL EVALUATION REPORT

Date of Evaluation: 4/15/2025

Floyd County Health Department

x See application sketch

See construction permit

Applicant: Claudia B. Light

Subdivision: Claudia B Light Sub/Lot Line Revision

Lot: 1 (10.381 acres on Phadettia Rd)

Hole #	Horizon	Depth (in)	Description	Texture Group
Auger 1	Ap	0-8	Brown (10YR 4/3) Gravelly Loam	2
	Bt	8-35	Yellowish Red (5YR 4/6) Sandy Clay Loam	2
	BC	35-72	Reddish Yellow (5YR 6/8) Loam	2
Auger 2	Ap	0-4	Brown (10YR 4/3) Gravelly Loam	2
	BA	4-12	Brown (7.5YR 5/4) Gravelly Loam	2
	Bt	12-30	Strong Brown (7.5YR 5/6) Sandy Clay Loam	2
	BC	30-72	Strong Brown (7.5YR 5/6) Gravelly Loam/Sandy Loam	2
Auger 3	Ap	0-4	Brown (10YR 4/3) Gravelly Loam	2
	BA	4-14	Brown (7.5YR 5/4) Gravelly Loam	2
	Bt	14-45	Strong Brown (7.5YR 4/6) Sandy Clay Loam	2
	C	45-84	Reddish Yellow (7.5YR 6/6) Sandy Loam w/ many mica flakes	2

Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** 1 (10.381 acres on Phadettia Rd)

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS, & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Main DF		100% Reserve DF	
Type of system	Gravity	Reserve Area Required	Yes
EPR	30	Type of Reserve	Gravity
Slope %	24	EPR	30
# Bedrooms	3	Slope %	24
Gallons/Day	450	Gallons/Day	450
Width of Trench (ft.)	3	Width of Trench (ft.)	3
Total Square Ft. of Trench Bottom Required per BR	260	Total Square Ft. of Trench Bottom Required	780
Total Square Ft. of Trench Bottom per BR in Design	270	Total Square Ft. of Trench Bottom in Design	810
Total Square Ft. of Trench Bottom Required	780	# Lines of Reserve	3
Total Square Ft. of Trench Bottom in Design	810	Line Length (ft.)	90
# Lines Installed	3	Installed <24" from Rock or Other Impervious Strata	No
Length of Line Installed (ft.)	90	Centers (ft.)	11
Installed <24" from Rock or Other Impervious Strata	No	Width Required (ft.)	33
Centers (ft.)	11	Width in Design (ft.)	33
Width Required (ft.)	25	Installation Depth (inches into natural soil)	48
Installation Depth (inches into natural soil)	48	Amount of Backfill Required (inches)	N/A
Amount of Backfill Required (inches)	N/A	Type of Well Recommended	3C
		Amount of Casing & Grout (ft.)	20' min.

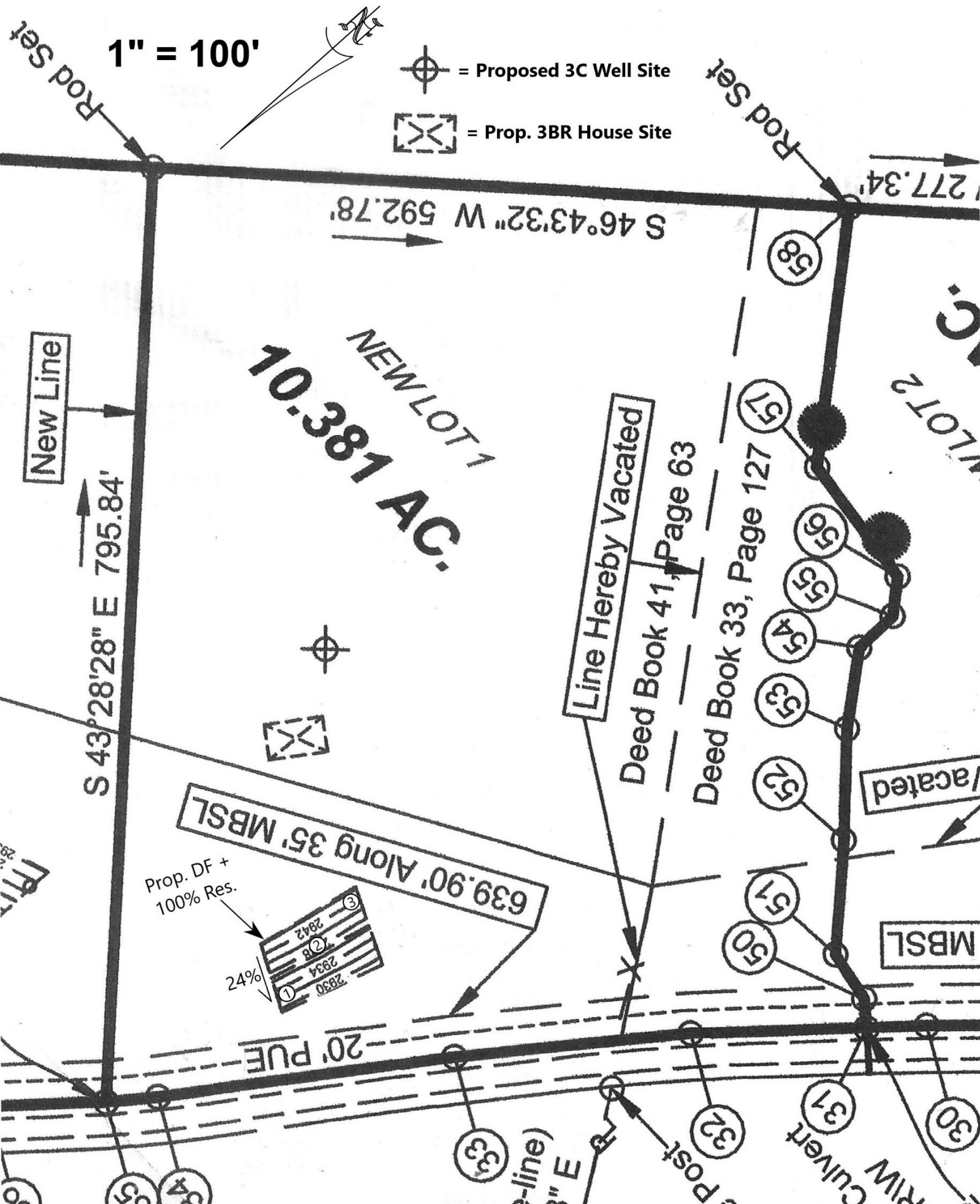
1" = 100'



= Proposed 3C Well Site



= Prop. 3BR House Site



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 Subdivision: Claudia B Light Sub/Lot Line Revision Lot: 2
 Tax Map ID: 77-29 & 77-31A (5.184 acre portion)

Soil Information Summary

1. Position in landscape satisfactory Yes ☒ No ☐ Describe: Sideslope
2. Slope 32 %
3. Depth to rock/imperious strata: Max. >72" Min. 60" None
4. Depth to seasonal water table (gray mottling or gray color) No ☒ Yes ☐
5. Free water present No ☒ Yes ☐ range in inches
6. Soil percolation rate estimated Yes ☒ Texture group 2
 No ☐ Estimated rate 35 Min/inch
7. Percolation test performed Yes ☐ Number of percolation test holes
 No ☒ Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: David Hall

PSS/AOSE

Signature:



Site Approved: Gravelless absorption trenches dispersing septic tank effluent to be placed at 30" depth at site designated. Site provides a total of 675 square feet of absorption area for the primary drainfield and 675 square feet for 100% reserve.

Site Disapproved:

Reason for rejection: (check all that apply)

- 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 (Specify)

PROFILE DESCRIPTION SOIL EVALUATION REPORT

Date of Evaluation: 4/15/2025

Floyd County Health Department

x See application sketch

See construction permit

Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** 2 (5.184 acres on Phadettia Rd)

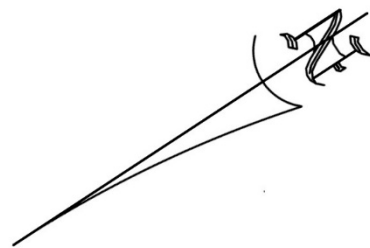
Hole #	Horizon	Depth (in)	Description	Texture Group
Auger 1	A	0-2	Very Dark Brown (10YR 2/2) Loam	2
	Bt	2-24	Dark Yellowish Brown (10YR 3/6) Loam	2
	BC	24-35	Dark Olive Brown (2.5Y 3/3) Loam	2
	C	35-75	Very Dark Grayish Brown (2.5Y 3/2) Sandy Loam w/ many mica flakes	2
Auger 2	A	0-2	Dark Brown (7.5YR 3/4) Loam	2
	BA	2-12	Brown (7.5YR 4/4) Loam	2
	Bt1	12-36	Strong Brown (7.5YR 5/6) Loam	2
	Bt2	36-50	Yellowish Red (5YR 4/6) Loam	2
	C	50-60	Yellowish Red (5YR 4/6) Loam; few Brownish Yellow (10YR 6/8) Lithochromic Mottles & Mn concretions	2
Auger 3	A	0-4	Dark Brown (10YR 3/3) Loam	2
	Bt	4-20	Dark Yellowish Brown (10YR 4/6) Loam	2
	BC1	20-48	Dark Yellowish Brown (10YR 4/4) Loam w/ many mica flakes	2
	BC2	48-60	Dark Yellowish Brown (10YR 4/4) Gravelly Loam w/ many mica flakes; few Red (10R 4/8) & Strong Brown (7.5YR 5/8) Lithochromic Mottles	2



Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** 2 (5.184 acres on Phadettia Rd)

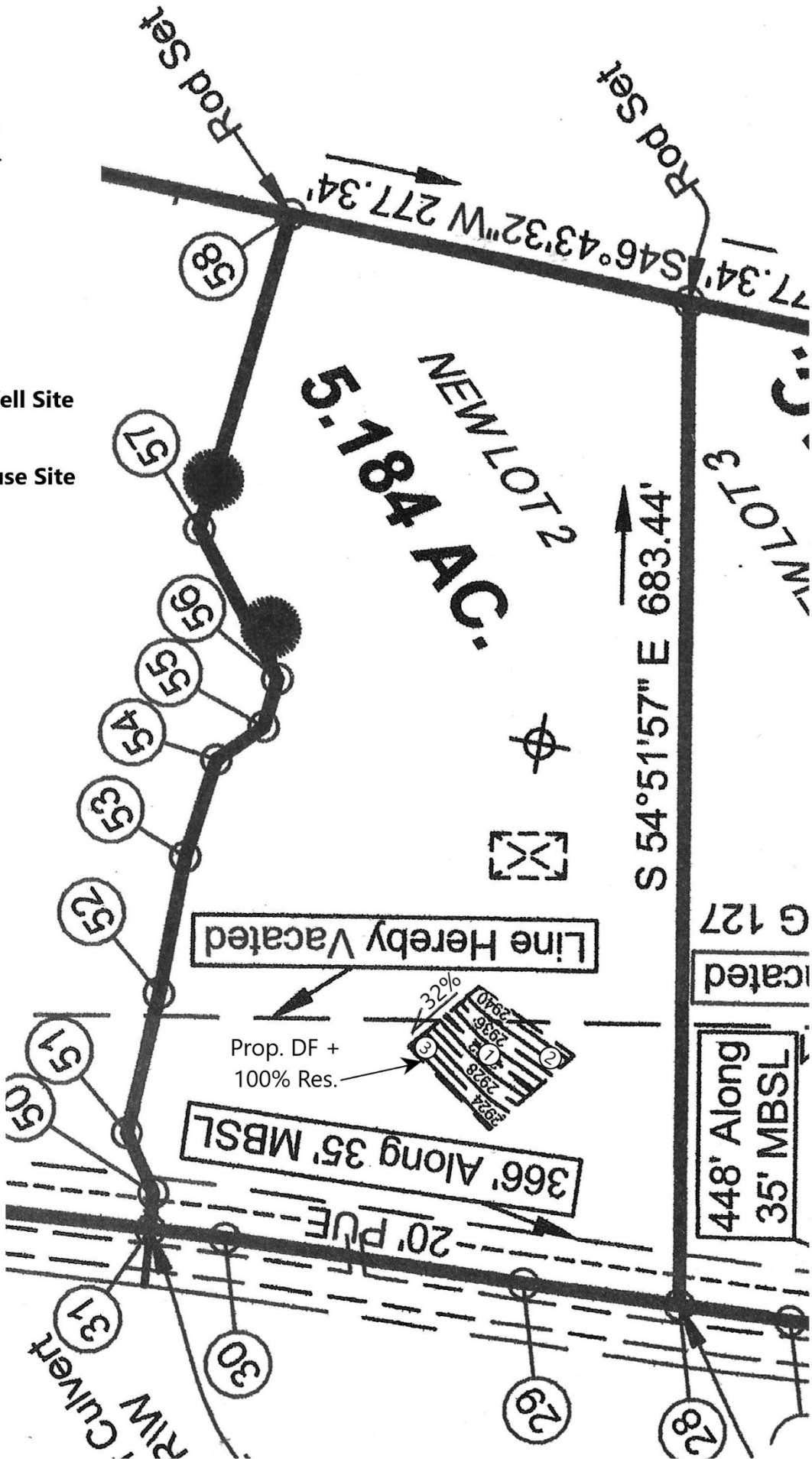
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AND WELL RECOMMENDATION & SPECIFICATIONS**

Main DF		100% Reserve DF	
Type of system	Gravity Gravelless	Reserve Area Required	Yes
EPR	35	Type of Reserve	Gravity Gravelless
Slope %	32	EPR	35
# Bedrooms	3	Slope %	32
Gallons/Day	450	Gallons/Day	450
Width of Trench (ft.)	3	Width of Trench (ft.)	3
Total Square Ft. of Gravelless Trench Bottom Required per BR	215	Total Square Ft. of Gravelless Trench Bottom Required	645
Total Square Ft. of Gravelless Trench Bottom per BR in Design	225	Total Square Ft. of Gravelless Trench Bottom in Design	675
Total Square Ft. of Gravelless Trench Bottom Required	645	# Lines of Reserve	3
Total Square Ft. of Gravelless Trench Bottom in Design	675	Line Length (ft.)	75
# Lines Installed	3	Installed <24" from Rock or Other Impervious Strata	No
Length of Line Installed (ft.)	75	Centers (ft.)	12
Installed <24" from Rock or Other Impervious Strata	No	Width Required (ft.)	36
Centers (ft.)	12	Width in Design (ft.)	36
Width Required (ft.)	27	Installation Depth (inches into natural soil)	30
Installation Depth (inches into natural soil)	30	Amount of Backfill Required (inches)	N/A
Amount of Backfill Required (inches)	N/A	Type of Well Recommended	3C
		Amount of Casing & Grout (ft.)	20' min.

1" = 100'



-  = Proposed 3C Well Site
-  = Prop. 3BR House Site



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 Tax Map ID: 77-29 & 77-31A (4.998 acre portion)

Soil Information Summary

1. Position in landscape satisfactory Yes ☒ No ☐ Describe: Sideslope
2. Slope 16 %
3. Depth to rock/imperious strata: Max. >60" Min. 48" None
4. Depth to seasonal water table (gray mottling or gray color) No ☒ Yes ☐
5. Free water present No ☒ Yes ☐ range in inches
6. Soil percolation rate estimated Yes ☒ Texture group 2
 No ☐ Estimated rate 40 Min/inch
7. Percolation test performed Yes ☐ Number of percolation test holes
 No ☒ Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: David Hall

PSS/AOSE

Signature:



Site Approved: Gravelless absorption trenches dispersing septic tank effluent to be placed at 30" depth at site designated. Site provides a total of 720 square feet of absorption area for the primary drainfield and 720 square feet for 100% reserve.

Site Disapproved:

Reason for rejection: (check all that apply)

- 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 (Specify)

PROFILE DESCRIPTION SOIL EVALUATION REPORT

Date of Evaluation: 4/24/2025

Floyd County Health Department

x See application sketch

See construction permit

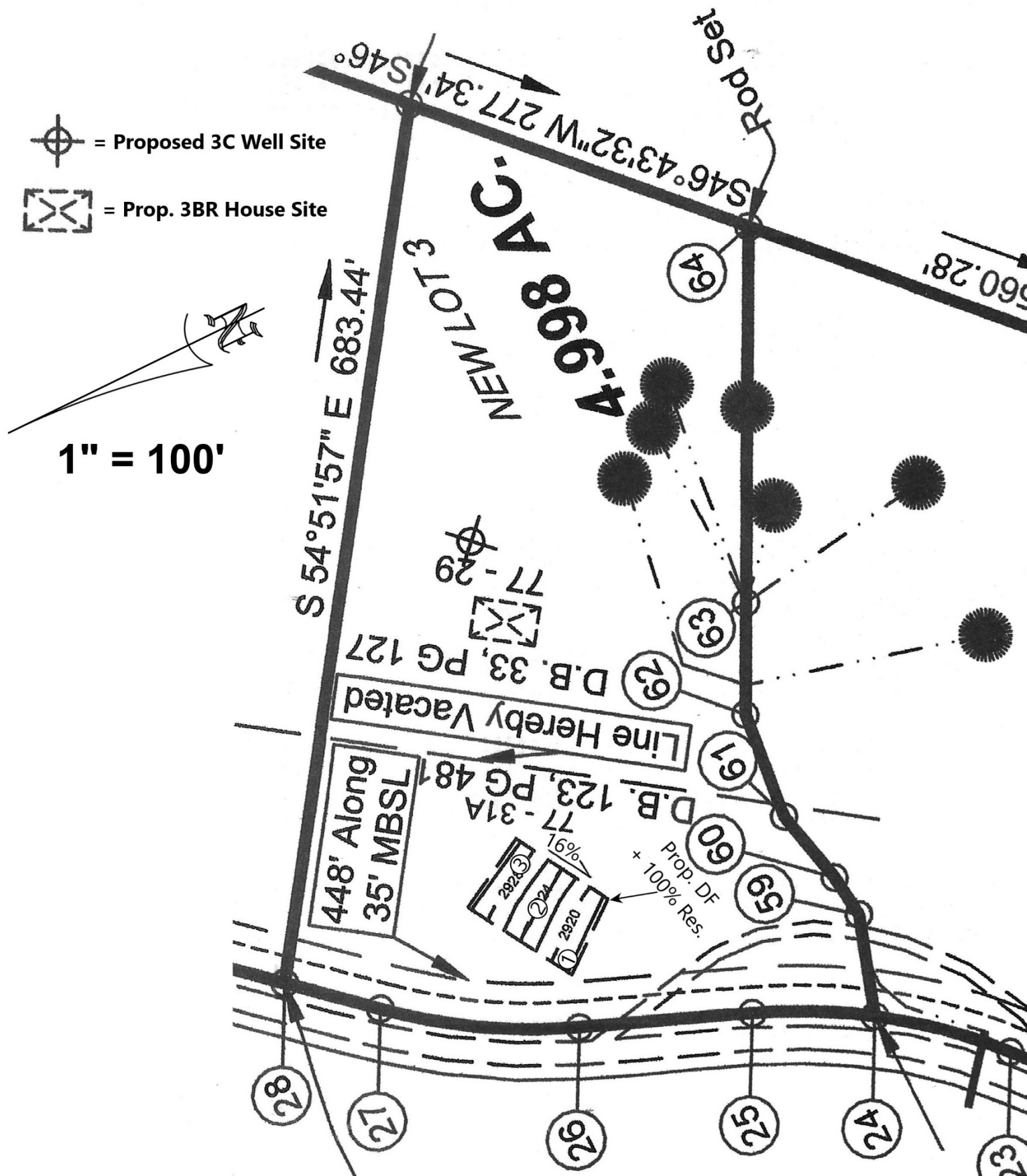
Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** 3 (4.998 acres on Phadettia Rd)

Hole #	Horizon	Depth (in)	Description	Texture Group
Auger 1	A	0-1	Dark Yellowish Brown (10YR 3/4) Silt Loam	3
	BA	1-15	Dark Yellowish Brown (10YR 4/4) Loam	2
	Bt	15-30	Dark Yellowish Brown (10YR 4/6) Loam	2
	C	30-60	Strong Brown (7.5YR 4/6) Loam w/ many mica flakes	2
Auger 2	A	0-3	Dark Yellowish Brown (10YR 3/4) Loam	2
	Bt	3-24	Brown (10YR 4/3) Loam	2
	BC	24-36	Dark Olive Brown (2.5Y 3/3) Loam	2
	C	36-60	Dark Olive Brown (2.5Y 3/3) Sandy Loam	2
Auger 3	A	0-3	Dark Olive Brown (2.5Y 3/3) Loam	2
	BA	3-12	Olive Brown (2.5Y 4/3) Gravelly Loam	2
	Bw	12-30	Dark Yellowish Brown (10YR 4/4) Gravelly Loam	2
	2C	30-48	Strong Brown (7.5YR 4/6) Gravelly Sandy Loam	2
	AR	48	Loose rock	-

Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** 3 (4.998 acres on Phadettia Rd)

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS, & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Main DF		100% Reserve DF	
Type of system	Gravity Gravelless	Reserve Area Required	Yes
EPR	40	Type of Reserve	Gravity Gravelless
Slope %	16	EPR	40
# Bedrooms	3	Slope %	16
Gallons/Day	450	Gallons/Day	450
Width of Trench (ft.)	3	Width of Trench (ft.)	3
Total Square Ft. of Gravelless Trench Bottom Required per BR	236	Total Square Ft. of Gravelless Trench Bottom Required	708
Total Square Ft. of Gravelless Trench Bottom per BR in Design	240	Total Square Ft. of Gravelless Trench Bottom in Design	720
Total Square Ft. of Gravelless Trench Bottom Required	708	# Lines of Reserve	4
Total Square Ft. of Gravelless Trench Bottom in Design	720	Line Length (ft.)	60
# Lines Installed	4	Installed <24" from Rock or Other Impervious Strata	Yes
Length of Line Installed (ft.)	60	Centers (ft.)	10
Installed <24" from Rock or Other Impervious Strata	Yes	Width Required (ft.)	40
Centers (ft.)	10	Width in Design (ft.)	40
Width Required (ft.)	33	Installation Depth (inches into natural soil)	30
Installation Depth (inches into natural soil)	30	Amount of Backfill Required (inches)	N/A
Amount of Backfill Required (inches)	N/A	Type of Well Recommended	3C
		Amount of Casing & Grout (ft.)	20' min.



SETEC

SOIL AND ENVIRONMENTAL TECHNOLOGY, INC
111 N. Franklin Street, Christiansburg, VA 24073
Phone: (540) 381-0309 Fax: (540) 381-9430
E-mail: setec@soilandenvironmentaltechnology.com

General Information

Date: 5/19/2025
 Applicant: Claudia B. Light
 Address: 1922 Wilshire Dr, Irving, TX 75061
 Directions to the Property: US-221 S (6.2 mi), L on Rte 727/Union School Rd (4.7 mi), L on Rte 799/Conner Grove Rd (2.6 mi), R on Rte 602/Phadettia Rd, +/- 0.9 miles to property on left
 Subdivision: Claudia B Light Sub/Lot Line Revision Lot: Revised TM#: 77-31A
 Tax Map ID: 77-29 & 77-31A (6.816 acre portion)

Soil Information Summary

1. Position in landscape satisfactory Yes ☒ No ☐ Describe: Sideslope
2. Slope 13 %
3. Depth to rock/imperious strata: Max. >89" Min. 84" None
4. Depth to seasonal water table (gray mottling or gray color) No ☒ Yes ☐
5. Free water present No ☒ Yes ☐ range in inches
6. Soil percolation rate estimated Yes ☒ Texture group 2
 No ☐ Estimated rate 45 Min/inch
7. Percolation test performed Yes ☐ Number of percolation test holes
 No ☒ Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: David Hall

PSS/AOSE

Signature:



Site Approved: Gravelless absorption trenches dispersing septic tank effluent to be placed at 60" depth at site designated. Site provides a total of 840 square feet of absorption area for the primary drainfield and 840 square feet for 100% reserve.

Site Disapproved:

Reason for rejection: (check all that apply)

- 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 (Specify)

PROFILE DESCRIPTION SOIL EVALUATION REPORT

Date of Evaluation: 4/15/2025

Floyd County Health Department

x See application sketch

See construction permit

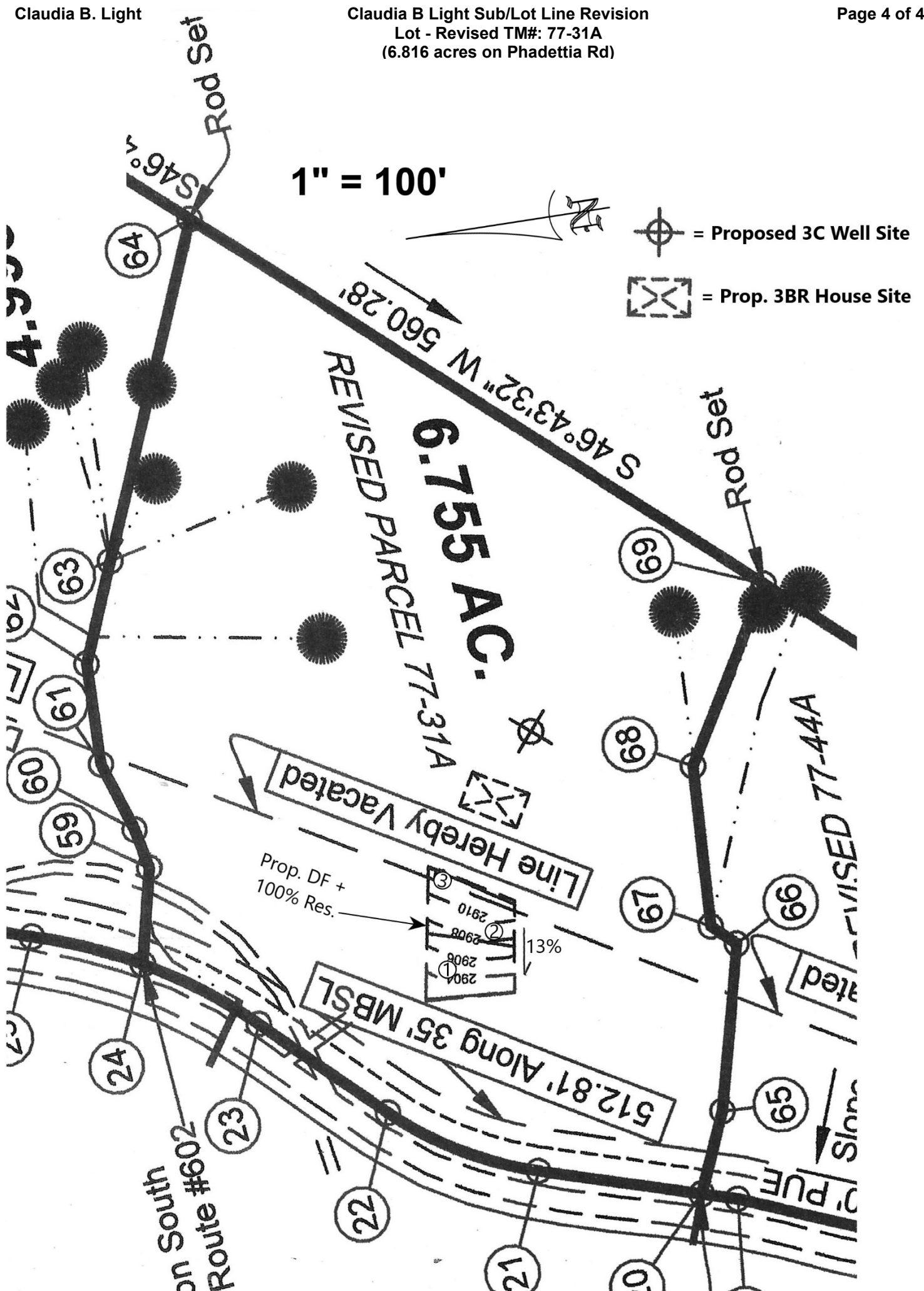
Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** Revised TM#: 77-31A (6.816 acres on Phadettia Rd)

Hole #	Horizon	Depth (in)	Description	Texture Group
Auger 1	A	0-5	Dark Brown (7.5YR 3/3) Loam	2
	Bt	5-21	Brown (7.5YR 4/4) Loam	2
	BC	21-30	Strong Brown (7.5YR 4/6) Loam; common Mn	2
	C	30-87	Strong Brown (7.5YR 5/6) Loam w/ many mica flakes; common Mn	2
Auger 2	A	0-5	Dark Brown (7.5YR 3/4) Loam	2
	BA	5-15	Strong Brown (7.5YR 4/6) Loam	2
	Bt	15-35	Strong Brown (7.5YR 4/6) Clay Loam	3
	BC	35-48	Strong Brown (7.5YR 4/6) Loam; few Mn	2
	C	48-84	Strong Brown (7.5YR 5/8) Loam w/ many mica flakes	2
Auger 3	A	0-5	Dark Brown (7.5YR 3/3) Loam	2
	Bt1	5-25	Strong Brown (7.5YR 4/6) Loam	2
	Bt2	25-45	Strong Brown (7.5YR 5/8) Loam; common Mn	2
	BC	45-66	Strong Brown (7.5YR 4/6) Loam; common Mn	2
	C	66-89	Strong Brown (7.5YR 4/6) Loam w/ many mica flakes; few Mn	2

Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** Revised TM#: 77-31A (6.816 acres on Phadettia Rd)

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS, & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Main DF		100% Reserve DF	
Type of system	Gravity Gravelless	Reserve Area Required	Yes
EPR	45	Type of Reserve	Gravity Gravelless
Slope %	13	EPR	45
# Bedrooms	3	Slope %	13
Gallons/Day	450	Gallons/Day	
Width of Trench (ft.)	3	Width of Trench (ft.)	3
Total Square Ft. of Gravelless Trench Bottom Required per BR	258	Total Square Ft. of Gravelless Trench Bottom Required	774
Total Square Ft. of Gravelless Trench Bottom per BR in Design	280	Total Square Ft. of Gravelless Trench Bottom in Design	840
Total Square Ft. of Gravelless Trench Bottom Required	774	# Lines of Reserve	4
Total Square Ft. of Gravelless Trench Bottom in Design	840	Line Length (ft.)	70
# Lines Installed	4	Installed <24" from Rock or Other Impervious Strata	No
Length of Line Installed (ft.)	70	Centers (ft.)	10
Installed <24" from Rock or Other Impervious Strata	No	Width Required (ft.)	40
Centers (ft.)	10	Width in Design (ft.)	40
Width Required (ft.)	33	Installation Depth (inches into natural soil)	60
Installation Depth (inches into natural soil)	60	Amount of Backfill Required (inches)	N/A
Amount of Backfill Required (inches)	N/A	Type of Well Recommended	3C
		Amount of Casing & Grout (ft.)	20' min.



SETEC

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General Information

Date: 5/19/2025
 Applicant: Claudia B. Light
 Address: 1922 Wilshire Dr, Irving, TX 75061
 Directions to the Property: US-221 S (6.2 mi), L on Rte 727/Union School Rd (4.7 mi), L on Rte 799/Conner Grove Rd (2.6 mi), R on Rte 602/Phadettia Rd, +/- 1 mile to property on left
 Subdivision: Claudia B Light Sub/Lot Line Revision Lot: Revised TM#: 77-44A
 Tax Map ID: 77-29, 77-31A, & 77-44A (6.38 acre portion)

Soil Information Summary

1. Position in landscape satisfactory Yes ☒ No ☐ Describe: Sideslope
2. Slope 16 %
3. Depth to rock/imperious strata: Max. >60" Min. 42" None
4. Depth to seasonal water table (gray mottling or gray color) No ☒ Yes ☐
5. Free water present No ☒ Yes ☐ range in inches
6. Soil percolation rate estimated Yes ☒ Texture group 3
 No ☐ Estimated rate 46 Min/inch
7. Percolation test performed Yes ☐ Number of percolation test holes
 No ☒ Depth of percolation test holes
 Average percolation rate

Name and title of evaluator: David Hall

PSS/AOSE

Signature:



Site Approved: Absorption trenches dispersing septic tank effluent to be placed at 24" depth at site designated. Site provides a total of 1125 square feet of absorption area for the primary drainfield and 675 square feet for reserve 100%. The reserve will require TL-2 pretreatment.

Site Disapproved:

Reason for rejection: (check all that apply)

- 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 (Specify)

PROFILE DESCRIPTION SOIL EVALUATION REPORT

Date of Evaluation: 4/15/2025

Floyd County Health Department

x See application sketch

See construction permit

Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** Revised TM#: 77-44A (6.38 acres on Phadettia Rd)

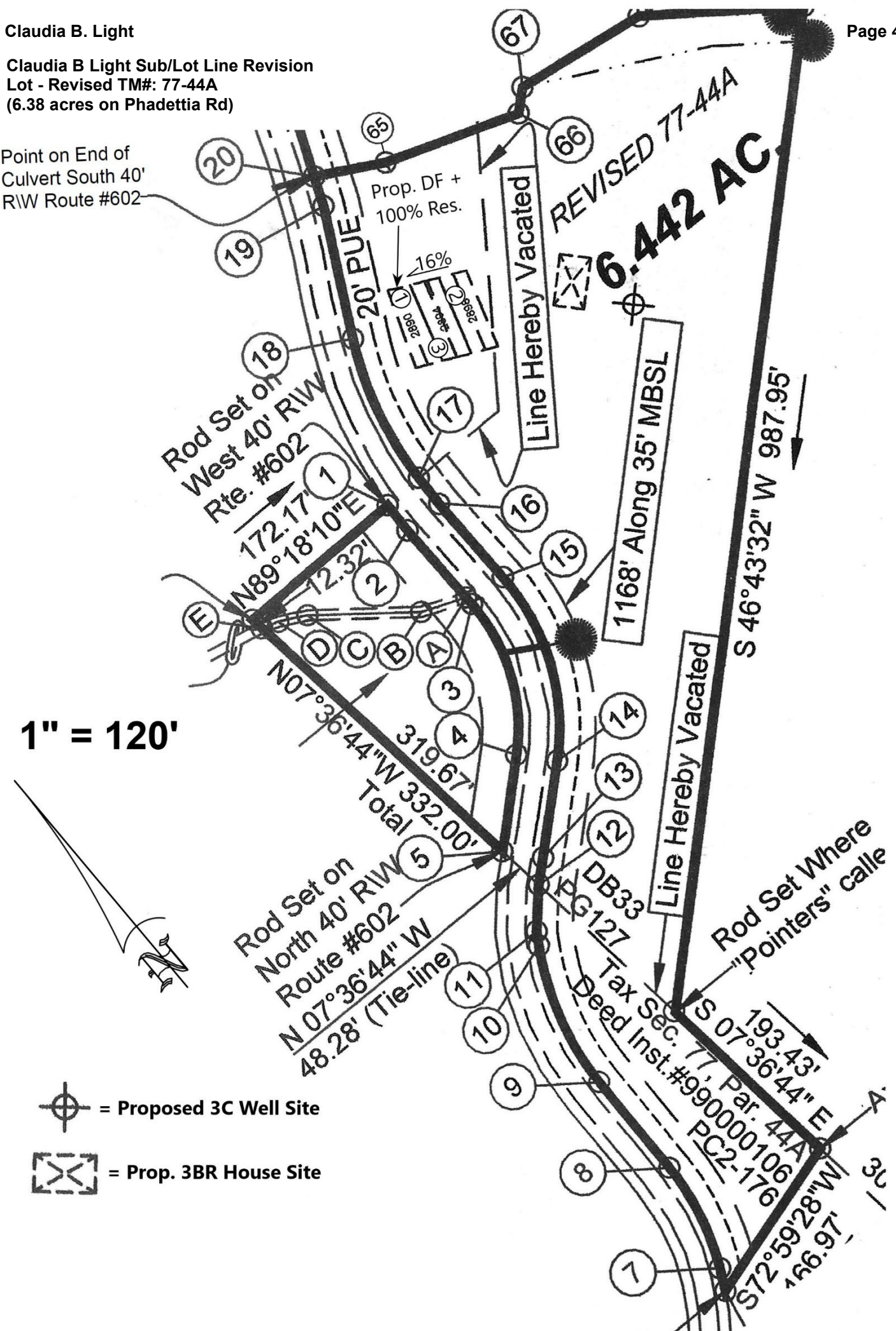
Hole #	Horizon	Depth (in)	Description	Texture Group
Auger 1	A	0-2	Dark Brown (7.5YR 3/3) Loam	2
	BA	2-30	Brown (7.5YR 4/4) Loam	2
	Bt	30-42	Strong Brown (7.5YR 4/6) Clay Loam	3
	AR	42	Loose Rock	-
Auger 2	A	0-2	Dark Brown (10YR 3/3) Loam	2
	BA	2-18	Dark Yellowish Brown (10YR 3/6) Loam	2
	Bt1	18-30	Strong Brown (7.5YR 4/6) Clay Loam	3
	Bt2	30-60	Yellowish Red (5YR 4/6) Clay Loam; few Yellowish Brown (10YR 5/8) Lithochromic Mottles	3
Auger 3	A	0-2	Dark Brown (10YR 3/3) Loam	2
	BA	2-18	Dark Yellowish Brown (10YR 3/6) Loam	2
	Bt1	18-30	Strong Brown (7.5YR 4/6) Clay Loam	3
	Bt2	30-54	Yellowish Red (5YR 4/6) Clay Loam; few Yellowish Brown (10YR 5/8) Lithochromic Mottles	3
	AR	54	Loose Rock	-

Applicant: Claudia B. Light**Subdivision:** Claudia B Light Sub/Lot Line Revision**Lot:** Revised TM#: 77-44A (6.38 acres on Phadettia Rd)

**DRAINFIELD RECOMMENDATIONS, DESIGN BASIS, & AREA CALCULATIONS
AND WELL RECOMMENDATION & SPECIFICATIONS**

Main DF		100% Reserve DF	
Type of system	Gravity	Reserve Area Required	Yes
EPR	46	Type of Reserve	TL-2 Pretreatment into Conventional Lines
Slope %	16	EPR	46
# Bedrooms	3	Design Loading Rate (gpd/ft ²)	0.667
Gallons/Day	450	Slope %	16
Width of Trench (ft.)	3	Gallons/Day	450
Total Square Ft. of Trench Bottom Required per BR	351	Width of Trench (ft.)	3
Total Square Ft. of Trench Bottom per BR in Design	375	Total Square Ft. of Trench Bottom Required	636
Total Square Ft. of Trench Bottom Required	1052	Total Square Ft. of Trench Bottom in Design	675
Total Square Ft. of Trench Bottom in Design	1125	# Lines of Reserve	3
# Lines Installed	5	Line Length (ft.)	75
Length of Line Installed (ft.)	75	Installed <24" from Rock or Other Impervious Strata	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Centers (ft.)	10
Centers (ft.)	10	Width Required (ft.)	30
Width Required (ft.)	43	Width in Design (ft.)	30
Installation Depth (inches into natural soil)	24	Installation Depth (inches into natural soil)	24
Amount of Backfill Required (inches)	N/A	Amount of Backfill Required (inches)	N/A
		Type of Well Recommended	3C
		Amount of Casing & Grout (ft.)	20' min.

Point on End of
Culvert South 40'
R\W Route #602-



PLAT SHOWING A
"LOT LINE REVISION" AND "LOT SUBDIVISION" AND "PARCELS OF RECORD"

54.248 AC. TOTAL

PROPERTY OF

CLAUDIA B. LIGHT

"LOT LINE REVISIONS"

(REVISED 77-29) 17.809 AC. TRACT

(REVISED 77-31A) 6.755 AC. TRACT

(REVISED 77-44A) 6.442 AC. TRACT

"LOT SUBDIVISIONS"

(NEW LOT 1) 10.381 AC. TRACT

(NEW LOT 2) 5.184 AC. TRACT

(NEW LOT 3) 4.998 AC. TRACT

"PARCELS OF RECORD"

TAX SECTION 77, PARCEL 23G
1.680 AC. TRACT

A PORTION OF 77-29
NORTH OF RTE #602 0.952 AC. TRACT

LOCATED ON VIRGINIA SECONDARY ROUTE #602

"PHADETTIA ROAD SW"

BURKS FORK MAGISTERIAL DISTRICT

FLOYD COUNTY, VIRGINIA

SCALE: 1" = 200' DATE: 2 MAY 2025

L. J. QUESENBERRY, LICENSED LAND SURVEYOR

521 SOUTH MAIN STREET HILLSVILLE VIRGINIA 24343

PHONE & FAX: (276)-728-7471 *E-MAIL: queseberrysurveying@gmail.com

THE RECORDATION OF THIS PLAT DOES NOT CONSTITUTE A CONVEYANCE OF LAND. ANY LOT, PARCEL OR TRACT OF LAND THAT IS INTENDED FOR SALE AND/OR CONVEYANCE MUST BE CONVEYED BY A DEED AND SAID DEED MUST BE RECORDED IN FLOYD COUNTY, VIRGINIA CIRCUIT COURT CLERK'S OFFICE.

[A] - (45) is a total of 550.88' along R/W Rte. #602 as Deed Book 91, Page 155 calls for, Giving Adjoiner their Road Frontage

PARCEL OF RECORD
1.680 AC.

TAX SECTION 77, PARCEL 23G

PROPERTY OF

CLEO C. LIGHT-DECEASED

DEED BOOK 135, PAGE 522

(SEE DEED BOOK 135, PAGE 525 FOR PLAT)

TAX SECTION 77, PARCEL 23
PROPERTY OF
CARROLL FLOYD LAND, L.L.C.
DEED INSTRUMENT No. 180000314
PLAT INSTRUMENT No. 180000312

Axle Found in Fence Edge of Road @ Red Oak

Axle Found in Fence Edge of Road

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