

Date: 4/10/07 Applicant: Lobolly Mill, LLC Address: 119 Norfolk Ave Roanok Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke Cour Telephone e, VA 24011 Address: Lot: 1	nty Health Department No: 540-985-6444
	Soil Information Summ	•
1. Position in landscape satisfactory	Yes x No Descri	be: Sideslope
2. Slope 22 %		
3. Depth to rock\impervious strata:	Max. > 60" Min. 40"	None
4. Depth to seasonal water table (gray a	mottling or gray color) No	x Yes inches
5. Free water present No x	Yes range in a	inches
· · · · · · · · · · · · · · · · · · ·	Yes x Texture group 3 No Estimated rate 75	Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate	28
Name and title of evaluator: Charles N	Nelson\David Hall\Bill Evans	Soil Scientist
Signature:		
Site Approved:	Department Use	depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of E	valuation:	4/10/07		Roanoke County	Health Department Identification No.	
x See a	pplication s	sketch	See construct	tion permit		
Applican	it:		Subdivsion:	Loblolly Mill	Lot: 1	
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	Ap	0-3		owish Brown (10YR 4/4	·	2
	AB	3-10	Yellowish	Brown (10YR 5/6) loan	m	2
	Bt	10-36	Yellowish loam	Red (5YR 5/8) & Stron	ng Brown (7.5YR 5/8) clay	3
	BC	36-48	loam; com	mon Gray (10YR 6/1)	ng Brown (7.5YR 5/8) clay weathered rock fragments; parent material mottles	3
	С	48-60	Yellowish loam; man	Red (5YR 5/8) & Stron y Gray (10YR 6/1) wea Brownish Yellow (10YF	ng Brown (7.5YR 5/8) thered rock fragments;	2
2	Ар	0-4	Dark Yell	owish Brown (10YR 4/4	4) loam	2
-	AB	4-16		Brown (10YR 5/6) silt		3
	Bt	16-36		own (7.5YR 5/6) gravel		3
	Ы	10-30	coarse frag		ly sifty clay loani, 20%	5
	BC	36-60		-	ellowish Red (5YR 5/8)	3
3	Ap	0-5	Dark Yell	owish Brown (10YR 4/4	4) loam	2
2	Bt	5-22		5 wn (15 YR 5/8) gravel		3
	C	22-40	-	own (7.5YR 5/8) gravel	•	3
	C	22-40		YR $8/1$) weathered rock		5
	AR	40	white (10	TR 0/1) weathered for	Tragments	
	7110	10				
4	Ap	0-3	Dark Yell	owish Brown (10YR 4/4	4) loam	2
	Bt1	3-18		own (7.5YR 5/8) silty cl		3
	Bt2	18-36	Yellowish		lish Yellow (7.5YR 6/8)	3
	С	36-46	clay loam Strong Bro coarse frag	own (7.5YR 5/6) very g gments	ravelly silt loam; 35%	3
	AR	46	· · · · ·			
5	Ар	0-4	Dark Yell	owish Brown (10YR 4/4	4) loam	2
	AB	4-12		Brown (10YR 5/6) loan		2
	Bt	12-36			ng Brown (7.5YR 5/8) clay	3
	Di	12 50	loam			5
	BC	36-50	Yellowish loam; com	mon Gray (10YR 6/1)	ng Brown (7.5YR 5/8) clay weathered rock fragments;	3
	С	50-60	Yellowish loam; man	Red (5YR 5/8) & Stror y Gray (10YR 6/1) wea Brownish Yellow (10YF	thered rock fragments;	2

Lot:

1

Applicant:

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

Type of system (Main DF)	Advance	ed Secondary Treatment into Conventional Lines	
EPR	75	Reserve Area Required	Yes
Slope %	22	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. of Trench Bottom Required (Reserve DF)	600
Gallons/Day	600	Total Square Ft.of Trench Bottom in Design (Reserve DF)	600
Width of Trench (ft.)	3	# Lines of Reserve	2
Loading Rate (gal/sq. ft.)	0.59	Line Length (ft.)	100
Absorption Area Increase	N/A	Installed < 24" from Rock or Other Impervious	Yes
Total Square Ft. of Trench Bottom Required (Main DF)	1017	Strata Centers (ft.) (Reserve DF)	11
Total Square Ft. of Trench Bottom in Design (Main DF)	1200	Width Required (ft.) (Reserve DF)	22
Total Square Ft. of Trench Bottom Required per BR	255	Width in Design (ft.) Reserve DF)	22
Total Square Ft. of Trench Bottom per BR in Design	300	Installation Depth (inches into natural soil) (Reserve DF)	20
# Lines Installed	4	Backfilling Recommended	Yes
Length of Line Installed (ft.)	100	Amount of Backfill (inches) (Reserve DF)	4
Installed <24" from Rock or Other	Yes		
Impervious Strata Centers (ft.)	11		
Width Required (ft.) (Main DF)	36	Type of Well Recommended	3B
Installation Depth (inches into natural soil) (Main DF)	20	Amount of Casing and Grout (ft.)	50
Backfilling Recommended	Yes		
Amount of Backfill (inches) (Main DF)	4		

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.



	alth Department -6444
Soil Information Summary	
1. Position in landscape satisfactory Yes x No Describe: Sideslo	pe
2. Slope 28 %	
3. Depth to rock\impervious strata: Max. 34" Min. 27" None	
4. Depth to seasonal water table (gray mottling or gray color) No x Yes	inches
5. Free water present No x Yes range in inches	
6. Soil percolation rate estimatedYesxTexture group3NoEstimated rate60	Min/inch
 Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate 	
Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil S	cientist
Signature:	
Site Approved: Department Use depth at sit	e designated on permit.

Site Disapproved:

- 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 over 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:

Date of E	Evaluation:	3/29/07		Roanoke County	Health Department Identification No.	
x See a	application s	ketch	See construct	ion permit		
Applicar	nt:		Subdivsion:	Loblolly Mill	Lot: 2	
Hole #	Horizon	Depth	Description	n		Texture Group
1	А	0-5	Dark Yello	wish Brown (10YR 4/3	3) loam	2
	Bt	5-20	Yellowish	Brown (10YR 5/6) silt	loam	3
	С	20-42	Yellowish fragments	Brown (10YR 5/6) grav	velly loam; 20% coarse	3
	AR	42	C			
2	А	0-4	Dark Yello	wish Brown (10YR 4/3	3) sandy loam	2
	Bw	4-20	Brownish `	Yellow (10YR 6/6) san	dy loam	2
	BC	20-27		Yellow (10YR 6/6) loan		2
	С	27-30		Yellow (10YR 6/6) gra		2
	R	30				
3	А	0-3	Dark Yello	wish Brown (10YR 4/3	3) loam	2
	Bw	3-18	Brownish `	Yellow (10YR 6/6) silt	loam	3
	С	18-28	Brownish fragments	Yellow (10YR 6/6) gra	velly silt loam; 20% coarse	3
	R	28	C			
4	А	0-3		owish Brown (10YR 4/4		3
	Bw1	3-18	Brownish `	Yellow (10YR 6/8) silt	loam	3
	Bw2	18-27	Yellowish fragments	Brown (10YR 5/6) gra	velly silt loam; 30% coarse	3
	R	27				

Applicant:

blolly Mill Lot:

2

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

Type of system (Main DF)	Advance	d Secondary Treatment into Drip Irrigation*	
EPR	60	Reserve Area Required	Yes
Slope %	28	Type of Reserve	Same
# Bedrooms	3	Total Square Ft. Required (Reserve DF)	1300
Gallons/Day	450	Total Square Ft. in Design (Reserve DF)	1300
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.74	Line Length (ft.)	65
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	2426	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	2600	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	810	Width Required (ft.) (Reserve DF)	20
Total Square Ft. per BR in Design	868	Width in Design (ft.) Reserve DF)	20
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	65	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	40		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

**This system will have to be designed by a professional engineer; see his design concerning items marked

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- **3.**) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 3/29/07 and 4/18/08 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roanol	ke, VA 24011	General Information Roanoke County Telephone	Health Department No: 540-985-6444
Owner: Location: Subdivision: Loblolly Mill	Ac	ddress: Lot: 3	
 Position in landscape satisfactory Slope 34 % 	Soil Yes x	Information Summa No Descrit	nry be: Sideslope
3. Depth to rock\impervious strata:	Max.	Min.	None X
4. Depth to seasonal water table (gray	mottling or gray	v color) No x	Yes inches
5. Free water present No x	Yes	range in i	nches
6. Soil percolation rate estimated		ture group 2 imated rate 45	Min/inch
7. Percolation test performed Yes No	x Depth of p	f percolation test holes percolation test holes percolation rate	S
Name and title of evaluator: Charles	Nelson\David H	all\Bill Evans	Soil Scientist
Signature:			

Department Use

depth at site designated on permit.

Site Approved:

Site Disapproved:

- 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 over 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:

Date of	Evaluation:	3/29/07 and 4/	18/08	Roanoke County	Health Department Identification No.	
x See	application s	sketch	See construc	tion permit		
Applica	int:	Sı	ıbdivsion:	Loblolly	Lot: 3	
Hole #	Horizon	Depth	Descriptio	on		Texture Group
1	Ар	0-2	Dark Yell	owish Brown (10YR 4/3	3) loam	2
	BĂ	2-24		Brown (10YR 5/8) loai	·	2
	Bt	24-42	Yellowish	Brown (10YR 5/6) san	dy clay loam	2
	С	42-60	Strong Br	own (7.5YR 5/8) sandy	loam	2
2	Ap	0-2		owish Brown (10YR 4/3	·	2
	BA	2-20		Brown (10YR 5/8) loan		2
	Bt	20-40	-	own (7.5YR 5/8) light s		2
	С	40-60	Reddish Y	Cellow (7.5YR 6/6) sand	ly loam	2
3	Ap	0-2		owish Brown (10YR 4/3	·	2
	BA	2-24	0	own (7.5YR 5/8) sandy		2
	Bt	24-45	U	own (7.5YR 5/6) light s		2
	С	45-60	Reddish Y 6/6) sandy		Brownish Yellow (10YR	2
4	Ар	0-2	Dark Yell	owish Brown (10YR 4/3	3) loam	2
	BĂ	2-24		own (7.5YR 5/8) sandy	·	2
	Bt	24-30		own (7.5YR 5/6) light s		2
	С	30-60		ellow (7.5YR 6/6) and	Brownish Yellow (10YR	2

3

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

Type of system (Main DF)	Gravity		N
EPR	45	Reserve Area Required	No
Slope %	34	Type of Reserve	NA
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	NA
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	NA
Width of Trench (ft.)	3	# Lines of Reserve	NA
Loading Rate (gal/sq. ft.)	NA	Line Length (ft.)	NA
Absorption Rate Increase Total Square Ft. of Trench Bottom Required (Main DF)	50% 1376	Absorption Rate Increase Installed < 24" from Rock or Other Impervious Strata	NA NA
Total Square Ft. of Trench Bottom in Design (Main DF)	1440	Centers (ft.) (Reserve DF)	NA
Total Square Ft. of Trench Bottom Required per BR	344	Width Required (ft.) (Reserve DF)	NA
Total Square Ft. of Trench Bottom per BR in Design	360	Width in Design (ft.) Reserve DF)	NA
# Lines Installed	8	Installation Depth (inches into natural soil) (Reserve DF)	NA
Length of Line Installed (ft.)	60	Backfilling Recommended	NA
Installed <24" from Rock or Other Impervious Strata	No	Amount of Backfill (inches) (Reserve DF)	NA
Centers (ft.)	11		
Width Required (ft.) (Main DF)	80		
Installation Depth (inches into natural soil) (Main DF)	33	Type of Well Recommended	3B
Backfilling Recommended	No	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	NA		

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

3.) Water softener backwash shall not be discharged into the septic system.

4.) Install the drainfield when the soil is dry.

5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 6/20/06 Applicant: Loblolly Mill LLC Address: 119 Norfolk Ave., Roar Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 985-6444 noke VA. 24011 Address: Lot: 4
	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 18 %	
3. Depth to rock\impervious strata:	Max. 28" Min. 18" None
4. Depth to seasonal water table (gray	y mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	YesxTexture group2NoEstimated rate45Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of H	Evaluation:	6/20/06		Roanoke County	Health Department Identification No.	
x See	application s	ketch	tion permit			
Applica	nt:		Subdivsion:	Loblolly Mill	Lot: 4	
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	А	0-2	Dark yello	wish brown (10YR 4\4) sandy loam	2
	BA	2-10	Yellowish	brown (10YR 5\4) loar	n	2
	Bw	10-22		brown (10YR 5\8) loar		2
	AR	22	Augar refu	ısal		
2	А	0-2	Dark yello	wish brown (10YR 4\4) sandy loam	2
	BA	2-10	Yellowish	brown (10YR 5\4) loar	n	2
	Bw	10-22	Yellowish	brown (10YR 5\8) loar	n	2
	AR	18	Augar refu	ısal		
3	А	0-1	Dark yello	wish brown (10YR 4\4) sandy loam	2
	BA	1-10	Yellowish	brown (10YR 5\4) loar	n	2
	Bw	10-20	Yellowish	brown (10YR 5/6) loar	n	2
	С	20-28	Brownish fragments	yellow (10YR 6\6) grav	velly loam; 15% coarse	2
	AR	28	Augar refu			

Lot:

4

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

Type of system (Main DF)	Advanced	Secondary Treatment into Drip Irrigation*	
EPR	45	Reserve Area Required	No
Slope %	18	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
Loading Rate (gal/sq. ft.)	0.99	Line Length (ft.)	N/A
Absorption Rate Increase	17%	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. Required (Main DF)	2128	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. in Design (Main DF)	2400	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	532	Width in Design (ft.) Reserve DF)	N/A
Total Square Ft. per BR in Design	600	Installation Depth (inches into natural soil) (Reserve DF)	N/A
# Lines Installed	**	Backfilling Recommended	N/A
Length of Line Installed (ft.)	100	Amount of Backfill (inches) (Reserve DF)	N/A
Installed <24" from Rock or Other Impervious Strata	Yes		
Centers (ft.)	**		
Width Required (ft.) (Main DF)	24	Type of Well Recommended	3B
Installation Depth (inches into natural soil) (Main DF)	2	Amount of Casing and Grout (ft.)	50
Backfilling Recommended	Yes		
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 6/20/06 Applicant: Loblolly Mill LLC Address: 119 Norfolk Ave., Roar Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 985-6444 noke VA 24011 Address: Lot: 5
	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 18 %	
3. Depth to rock\impervious strata:	Max. 36" Min. 21" None
4. Depth to seasonal water table (gra	y mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	Yes xTexture group2NoEstimated rate45Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of E	valuation:	6/20/06		Roanoke County	Health Departi Identification I		
x See a	pplication s	ketch	See construct	ion permit			
Applican	it:		Subdivsion:	Loblolly	Lot:	5	
Hole #	Horizon	Depth	Description	n			Textu re Grou
1	A BA Bt AR	0-2 2-14 14-21 21	Yellowish	wish brown (10YR 4\4) brown (10YR 5\4) sand brown (10YR 5\8) loar	ly loam		p 2 2 2
2	A BA Bt AR	0-2 2-14 14-21 21	Yellowish	wish brown (10YR 4\4) brown (10YR 5\4) sand brown (10YR 5\8) loar	ly loam		2 2 2
3	A BA Bt C R	0-2 2-15 15-30 30-36 36	Yellowish Strong bro Strong bro	wish brown (10YR 4\4) brown (10YR 5/6) loar wn (7.5YR 5\8) sandy o wn (7.5YR 5\8) loam; y ered parent material mo	n clay loam w/common Yello	ow (10YR	2 2 2 2

Applicant:

Loblolly Mill Lot:

5

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

Type of system (Main DF)	Advanc	ed Secondary Treatment into Drip Irrigation*	
EPR	45	Reserve Area Required	No
Slope %	18	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
Loading Rate (gal/sq. ft.)	0.99	Line Length (ft.)	N/A
Absorption Rate Increase	17%	Installed < 24" from Rock or Other Impervious	N/A
Total Square Ft. Required (Main DF)	2128	Strata Centers (ft.) (Reserve DF)	N/A
Total Square Ft. in Design (Main DF)	2295	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	532	Width in Design (ft.) Reserve DF)	N/A
Total Square Ft. per BR in Design	573	Installation Depth (inches into natural soil) (Reserve	N/A
# Lines Installed	**	DF) Backfilling Recommended	N/A
Length of Line Installed (ft.)	85	Amount of Backfill (inches) (Reserve DF)	N/A
Installed <24" from Rock or Other Impervious Strata	Yes		
Centers (ft.)	**		
Width Required (ft.) (Main DF)	27	Type of Well Recommended	3B
Installation Depth (inches into natural soil) (Main DF)	2	Amount of Casing and Grout (ft.)	50
Backfilling Recommended	Yes		
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- **3.**) Water softener backwash shall not be discharged into the septic system.
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- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 6/14/06 Applicant: Loblolly Mill LLC Address: 119 Norfolk Ave., Roa Owner: Location: Subdivision: Loblolly Mill	General Information Health Department Roanoke County Health Department Telephone No: 985-6444 noke VA. 24011 Address: Lot: 6
1 Decision in landscare estisfactore	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 24 %	
3. Depth to rock\impervious strata:	Max. 28" Min. 19" None
4. Depth to seasonal water table (gra	y mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	YesxTexture group3NoEstimated rate50Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charle	s Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.
Site Approved.	deput at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of E	Evaluation:	6/14/06		Roanoke County	Health Departmer Identification No.	
x See a	application s	ketch	See construct	tion permit		
Applican	nt:		Subdivsion:	Loblolly Mill	Lot: 6	
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	А	0-4	Dark yello	wish brown (10YR 4\4) silt loam	2
	Bw	4-27	•	brown (10YR 5\8) silt	,	3
	AR	27				
2	А	0-4	Dark yello	wish brown (10YR 4\4) silt loam	2
	Bw	4-19	Yellowish	brown (10YR 5\8) silt	loam	3
	AR	19				
3	А	0-6	Dark yello	wish brown (10YR 4\4) loam	2
	Bw	6-28	10yr5610y	r56 gravelly loam; 30%	coarse fragments	2
	AR	28				

Applicant:

Lot: 6

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

Type of system (Main DF)	Advanced S	Secondary Treatment into Drip Irrigation*	
EPR	50	Reserve Area Required	Yes
Slope %	24	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1485
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1485
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	55
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	2690	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	2970	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	672	Width Required (ft.) (Reserve DF)	27
Total Square Ft. per BR in Design	742	Width in Design (ft.) Reserve DF)	27
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	55	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	54		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 6/14/06 and 4/15/08 Applicant: Loblolly Mill LLC Address: 119 Norfolk Ave., Roan Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 985-6444 noke VA. 24011 Address: Lot: 7
	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 22 %	
3. Depth to rock\impervious strata:	Max. 36" Min. 26" None x
4. Depth to seasonal water table (gra	y mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	Yes xTexture group2NoEstimated rate45Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of E	valuation:	6/14/06		Roanoke County	Health Department Identification No.	
x See a	pplication s	sketch	See construct	tion permit		
Applican	it:		Subdivsion:	Loblolly Mill	Lot: 7	
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	A BA Bt1 C	0-4 4-14 14-36 36+	Yellowish Strong bro	wish brown (10YR 4\4 brown (10YR 5/6) loan wn (7.5YR 5/6) clay lo red (5YR 5\8) gravelly	n	2 2 3 3
2	Ap BA	0-3 3-14		wish brown (10YR 4\4 brown (10YR 5/6) grav		2 2
	Bt1	14-20		wn (7.5YR 5/6) very g	ravelly loam; 35% coarse	2
	Bt2	20-26	-	wn (7.5YR 5 8) very g	ravelly loam; 45% coarse	2
3	Ap	0-3	Dark yello	wish brown (10YR 4\4) loam	2
	BĂ	3-14		brown (10YR 5/6) grav		2
	Bt1	14-20	0	wn (7.5YR 5/6) very g	ravelly loam; 35% coarse	2
	Bt2	20-26	U	wn (7.5YR 5 8) very g	ravelly loam; 45% coarse	2
4	Ap	0-3		owish Brown (10YR 4/-		2
	Bw	3-16		Brown (10YR 5/4) gra		2
	C AR	16-30 @30	Y ellowish	Red (5YR 5/6) gravelly	y siit ioam	3 NA

Applicant:

Lot: 7

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

Type of system (Main DF)	Advance	d Secondary Treatment into Drip Irrigation*	
EPR	45	Reserve Area Required	No
Slope %	22	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
Loading Rate (gal/sq. ft.)	0.99	Line Length (ft.)	N/A
Absorption Rate Increase	33%		
Total Square Ft. Required (Main DF)	2420	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. in Design (Main DF)	3850	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	605	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. per BR in Design	963	Width in Design (ft.) Reserve DF)	N/A
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	N/A
Length of Line Installed (ft.)	55	Backfilling Recommended	N/A
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	N/A
Centers (ft.)	**		
Width Required (ft.) (Main DF)	70		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- **3.**) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 11/27/07 & 1/23/08 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roano Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 540-985-6444 ke, VA 24011 Address: Lot: 8
1. Position in landscape satisfactory	Soil Information SummaryYesxNoDescribe: Sideslope
2. Slope 23 %	
3. Depth to rock\impervious strata:	Max. 35" Min. 21" None
4. Depth to seasonal water table (gray	mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	YesxTexture group2NoEstimated rate45Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of I	Evaluation:	11/27/07 & 1/2	23/08	Roanoke County	Health Departi Identification I		
x See	application s	sketch	See construc	tion permit			
Applica	nt:	Su	ıbdivsion:	Loblolly	Lot:	8	
Hole #	Horizon	Depth	Descriptio	n			Texture Group
1	Ap	0-3	Brown (10)YR 4/3) loam			2
	Bw	3-20	Yellowish	Brown (10YR 5/4) loan	m; 10% coarse f	ragments	2
	С	20-32		Brown (10YR 5/6) gra			2
	R	32	C				
2	Ap	0-3	Dark Yell	owish Brown (10YR 4/4	4) loam		2
	Bw	3-20		Brown (10YR 5/4) loan			2
	BC	20-30		Brown (10YR 5/6) gra		coarse	2
	С	30-35		Brown (10YR 5/6) ver	y gravelly loam;	35%	2
	R	35		-			
3	Ар	0-4	Dark Yell	owish Brown (10YR 4/4	4) loam		2
	BÂ	4-15		Brown (10YR 5/6) loan			2
	Bt	15-21		own (7.5YR 5/6) loam			2
	AR	21	C				
4	Ар	0-5	Dark Yell	owish Brown (10YR 4/4	4) loam		2
	BÂ	5-20	Yellowish fragments	Brown (10YR 5/6) gra	velly loam; 20%	coarse	2
	Bt	20-32	-	own (7.5YR 5/6) loam			2
	R	32	C				
5	Ар	0-3	Dark Yelle	owish Brown (10YR 4/4	4) loam		2
	Bt	3-12		own (7.5YR 5/8) loam			2
	С	12-22		own (7.5YR 5/8) gravel	ly loam; 25% co	oarse	2
	R	22	C				

Lot:

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Applicant:

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

Type of system (Main DF)	Advance	d Secondary Treatment into Drip Irrigation*	
EPR	45	Reserve Area Required	No
Slope %	23	Type of Reserve	NA
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	NA
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	NA
Width of Trench (ft.)	3	# Lines of Reserve	NA
Loading Rate (gals./ft. ²)	0.99	Line Length (ft.)	NA
Absorption Rate Increase	33%	Absorption Rate Increase	NA
Total Square Ft. Required (Main DF)	2420	Installed < 24" from Rock or Other Impervious Strata	NA
Total Square Ft. in Design (Main DF)	2600	Centers (ft.) (Reserve DF)	NA
Total Square Ft. Required per BR	605	Width Required (ft.) (Reserve DF)	NA
Total Square Ft. per BR in Design	650	Width in Design (ft.) Reserve DF)	NA
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	NA
Length of Lines Installed (ft.)	30, 50	Backfilling Recommended	NA
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	NA
Centers (ft.)	**		
Width Required (ft.) (Main DF)	45, 25		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 11/27/07 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roar Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 540-985-6444 Noke, VA 24011 Address: Lot: 13
 Position in landscape satisfactory Slope 31 % 	Soil Information SummaryYesxNoDescribe: Sideslope
 Stope 51 % Depth to rock\impervious strata: 	Max. 32" Min. 25" None
4. Depth to seasonal water table (gra	ay mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	Yes xTexture group2NoEstimated rate45Min/inch
7. Percolation test performed Yea No	1
Name and title of evaluator: Charle	es Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of E	Evaluation:	11/27/07		Roanoke County	Health Department Identification No.	
x See a	application s	ketch	See construct	ion permit		
Applicar	nt:	S	bubdivsion:	Loblolly	Lot: 13	
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	А	0-2	Brown (10	YR 5/3) loam		2
1	Bw	2-20		· · · · · · · · · · · · · · · · · · ·	n; 10% coarse fragments	2
	BC	20-25			velly loam; 25% coarse	2
	20	20 20	fragments	210 m (10 11 0, 0) gru	, <u></u>	-
	С	30-32	-	Yellow (10YR 6/6) ver	v gravelly loam: 35%	2
			coarse frag		j 8 j ,	
	R	32	e e e			NA
2	А	0-2		wish brown (10YR 4\4		2
	Bw	2-20		brown (10YR 5/6) grav	velly loam; 20% coarse	2
			fragments			
	С	20-25		Brown (10YR 5/6) ver	y gravelly loam; 35%	2
		27	coarse frag	gments		
	R	25				NA
3	А	0-2	Dark Vello	owish Brown (10YR 4/.	3) sandy loam	2
5	Bw	2-18			m; 10% coarse fragments	2
	C	18-28		. , , , , , , , , , , , , , , , , , , ,	velly loam; 30% coarse	$\frac{2}{2}$
	C	10 20	fragments	blown (1011C 5/0) giu	verig tourin, 50% course	2
	R	28	inuginientis			NA
4	А	0-2	Dark Yello	owish Brown (10YR 4/	3) loam	2
	Bw	2-18	Yellowish	Brown (10YR 5/8) loan	m; 10% coarse fragments	2
	С	18-25	Yellowish fragments	Brown (10YR 5/8) gra	velly loam; 25% coarse	2
	R	25				NA

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Applicant:

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

Type of system (Main DF)	Secondar	ry Treatment into Drip Irrigation*	
EPR	45	Reserve Area Required	No
Slope %	31	Type of Reserve	NA
# Bedrooms	3	Total Square Ft. Required (Reserve DF)	NA
Gallons/Day	450	Total Square Ft. in Design (Reserve DF)	NA
Width of Trench (ft.)	**	# Lines of Reserve	NA
LPD Rate (ft. ² /Bedroom)	279	Line Length (ft.)	NA
Absorption Rate Increase	50%	Absorption Rate Increase	NA
Total Square Ft. Required (Main DF)	3767	Installed < 24" from Rock or Other Impervious Strata	NA
Total Square Ft. in Design (Main DF)	7200	Centers (ft.) (Reserve DF)	NA
Total Square Ft. Required per BR	1256	Width Required (ft.) (Reserve DF)	NA
Total Square Ft. per BR in Design	2400	Width in Design (ft.) Reserve DF)	NA
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	NA
Length of Line Installed (ft.)	80	Backfilling Recommended	NA
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	NA
Centers (ft.)	**		
Width Required (ft.) (Main DF)	90		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 6/15/06 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roanol Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 540-985-6444 ke, VA 24011 Address: Lot: 14
	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 33 %	
3. Depth to rock\impervious strata:	Max. 27" Min. 22" None
4. Depth to seasonal water table (gray	mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	YesxTexture group2NoEstimated rate45Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of E	Evaluation:	6/15/06	Roanoke County Health Department Identification No.	
x See a	application s	sketch	See construction permit	
Applicar	nt:	S	Subdivsion: Loblolly Lot: 14	
Hole #	Horizon	Depth	Description	Texture Group
1	А	0-2	Brown (10YR 4\3) sandy loam	2
	Bw	2-18	Yellowish brown (10YR 5\8) loam	2
	С	18-27	Yellowish brown (10YR 5\8) gravelly loam; 30% coars fragments	e 2
	R	27	C C	
2	А	0-2	Brown (10YR 4\3) sandy loam	2
	Bw	2-16	Brownish yellow (10YR 6\6) gravelly loam: 15% coarse fragments	
	С	16-24	Yellowish brown (10YR 5\8) gravelly loam; 30% coars fragments	e 2
	R	24		
3	А	0-1	Brown (10YR 4\3) loam	2
	Bw	1-22	Brownish yellow (10YR 6\6) loam	2
	R	22		
4	А	0-2	Brown (10YR 4\3) sandy loam	2
	Bw	2-18	Brownish yellow (10YR 6\6) gravelly loam: 15% coarse fragments	
	С	18-24	Yellowish brown (10YR 5\8) gravelly loam; 30% coars fragments	e 2
	R	24	-	

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

Type of system (Main DF) EPR	Seconda 45	ry Pretreatment into Drip Irrigation* Reserve Area Required	No
	-		
Slope %	33	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
LPD Rate (gal/sq. ft.)	279	Line Length (ft.)	N/A
Absorption Rate Increase	50%		
Total Square Ft. Required (Main DF)	5022	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. in Design (Main DF)	5100	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	1255	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. per BR in Design	1275	Width in Design (ft.) Reserve DF)	N/A
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	N/A
Length of Line Installed (ft.)	100	Backfilling Recommended	N/A
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	N/A
Centers (ft.)	**		
Width Required (ft.) (Main DF)	51		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 6/22/06 & 11/29/07 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roanoke, VA Owner: Location: Subdivision: Loblolly Mill	General Information Health Department Roanoke County Health Department Telephone No: 540-985-6444 A 24011 Address: Lot: 15
	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 32 %	
3. Depth to rock\impervious strata:	Max. 38" Min. 20" None
4. Depth to seasonal water table (gray mottl	ing or gray color) No x Yes inches
5. Free water present No x Yes	range in inches
6. Soil percolation rate estimated Yes No	x Texture group 3 Estimated rate 50 Min/inch
7. Percolation test performed Yes No x	Number of percolation test holes Depth of percolation test holes Average percolation rate
Name and title of evaluator: Charles Nelso	n\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of	of Evaluation:	6/22/06 &	11/29/07	Roanoke County	Health Department Identification No.	
x S	ee application s	sketch	See construct	ion permit		
Appli	cant:		Subdivsion:	Loblolly	Lot: 15	
Hole	# Horizon	Depth	Description	n		Texture Group
1	А	0-2	Dark yello	wish brown (10YR 4\4) sandy loam	2
	BA	2-10		yellow (10YR 6\6) silt		3
	Bw	10-20		brown (10YR 5/6) silt		3
	BC	20-30	Strong bro	wn (7.5YR 5/6) silt loa	m; 10% coarse fragments	3
	С	30-33	Strong bro	wn (7.5YR 5/6) gravell	y silt loam; 20% coarse	3
			fragments			
	R	33				
2	А	0-2	Dark yello	wish brown (10YR 4\4) sandy loam	2
	BA	2-10	•	yellow (10YR 6\6) silt	•	3
	Bw	10-20		brown (10YR 5/6) silt		3
	BC	20-30	Strong bro	wn (7.5YR 5/6) silt loa	m; 10% coarse fragments	3
	С	30-32			y silt loam; 20% coarse	3
	R	32	fragments			
	K	52				
3	А	0-3	Dark brow	n (10YR 3\3) sandy loa	am	2
-	Bw	3-18			elly silt loam; 15% coarse	3
			fragments			
	С	18-38	Yellowish	brown (10YR 5\8) grav	velly silt loam; 25% coarse	3
	R	38	fragments			
	K	50				
4	А	0-2	Dark vello	wish brown (10YR 4\4) sandy loam	2
•	Bw	2-18	•	yellow (10YR $6/6$) grav	•	2
			fragments	,	,,	
	С	18-20	-	yellow (10YR 6\6) grav	velly loam; 30% coarse	2
			fragments			
	R	20	C			
5	А	0-2	Dark Yello	owish Brown (10YR 4/4	4) loam	2
5	Bw	2-12		Brown (10YR 5/6) silt		3
	BC	12-27		```	velly silt loam; 20% coarse	3
	DC	12 21	fragments	210 m (10 1 K 5/ 0) glu	, eng she iouni, 2070 course	2
	С	27-38	Yellowish	Brown (10YR 5/8) ver	y gravelly loam; 35%	2
	R	38	coarse frag	gments		

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

Type of system (Main DF) EPR	Advance 50	ed Secondary Treatment into Drip Irrigation* Reserve Area Required	Yes
Slope %	32	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1540
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1540
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	70
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious	Yes
Total Square Ft. in Design (Main DF)	3080	Strata Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	22
Total Square Ft. per BR in Design	770	Width in Design (ft.) Reserve DF)	22
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	70	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	44		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



Date: 6/21/06 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roand Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 540-985-6444 ke, VA 24011 Address: Lot: 16
	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 47 %	
3. Depth to rock\impervious strata:	Max. 27" Min. 23" None
4. Depth to seasonal water table (gray	w mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	YesxTexture group3NoEstimated rate50Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

- 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 over 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:

Date of E	Evaluation:	6/21/06		Roanoke County	Health Department Identification No.	
x See a	application s	ketch	See construct	ion permit		
Applicar	nt:		Subdivsion:	Loblolly	Lot: 16	
Hole #	Horizon	Depth	Description	n		Texture Group
1	А	0-2	Dark vello	wish brown (10YR 4\4) loam	2
	Bw	2-16	•	brown (10YR 5\8) silt		3
	С	16-27			velly silt loam; 15% coarse	3
			fragments			
	R	27	C			
2	А	0-2	Dark yello	wish brown (10YR 4\4) loam	2
	Bw	2-26	Yellowish fragments	brown (10YR 5/6) grav	velly loam; 20% coarse	2
	R	26	maginentis			
3	А	0-1	Dark yello	wish brown (10YR 4\4) sandy loam	2
	Bw	1-20		brown (10YR 5\8) silt	loam; 10% coarse	3
			fragments			
	С	20-23		brown (10YR 5\8) grav	velly silt loam; 30% coarse	3
			fragments			
	R	23				

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Applicant:

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

Type of system (Main DF) EPR	Advance 50	d Secondary Treatment into Drip Irrigation* Reserve Area Required	Yes
Slope %	47	Type of Reserve	Same
# Bedrooms	3	Total Square Ft. Required (Reserve DF)	1300
Gallons/Day	450	Total Square Ft. in Design (Reserve DF)	1300
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	100
Absorption Rate Increase	67%	Absorption Rate Increase	67%
Total Square Ft. Required (Main DF)	2533	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	2600	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	844	Width Required (ft.) (Reserve DF)	13
Total Square Ft. per BR in Design	866	Width in Design (ft.) Reserve DF)	13
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	2
Length of Line Installed (ft.)	100	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	10
Centers (ft.)	**		
Width Required (ft.) (Main DF)	26		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



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

Date: 6/21/06 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roand Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Roanoke County Health Department Telephone No: 540-985-6444 oke, VA 24011 Address: Lot: 17
	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 18 %	
3. Depth to rock\impervious strata:	Max. 36" Min. 21" None
4. Depth to seasonal water table (gray	v mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	YesxTexture group2NoEstimated rate45Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

Reason 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 over 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:

Date of E	Evaluation:	6/21/06		Roanoke County	Health Departmen Identification No.	
x See a	application s	ketch	See construct	tion permit		
Applicar	nt:		Subdivsion:	Loblolly	Lot: 1	7
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	А	0-1	Dark brow	vn (7.5YR 4\4) loam		2
	BA	1-12		n (7.5YR 4\4) gravelly	loam; 15% coarse	2
	Bt	12-36	Yellowish	red (5YR 5\6) loam		2
	AR	36				
2	А	0-1	Dark brow	vn (7.5YR 4\4) loam		2
	BA	1-12	Dark brow fragments	rn (7.5YR 4\4) gravelly	loam; 15% coarse	2
	Bt	12-36	U	red (5YR 5\6) loam		2
	AR	36				
3	А	0-3	Dark brow	rn (7.5YR 4∖4) loam		2
	Bw	3-18	Yellowish	brown (10YR 5\8) loan	n	2
	C	18-21	Brownish fragments	yellow (10YR 6\6) grav	velly loam; 25% coa	arse 2
	R	21	-			

Applicant:

blolly Mill Lot:

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

Type of system (Main DF)	Advance	d Secondary Treatment into Drip Irrigation*	
EPR	45	Reserve Area Required	No
Slope %	18	Type of Reserve	N/A
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	N/A
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	N/A
Width of Trench (ft.)	**	# Lines of Reserve	N/A
Loading Rate (gal/sq. ft.)	0.99	Line Length (ft.)	N/A
Absorption Rate Increase	17%		
Total Square Ft. Required (Main DF)	2127	Installed < 24" from Rock or Other Impervious Strata	N/A
Total Square Ft. in Design (Main DF)	2500	Centers (ft.) (Reserve DF)	N/A
Total Square Ft. Required per BR	531	Width Required (ft.) (Reserve DF)	N/A
Total Square Ft. per BR in Design	625	Width in Design (ft.) Reserve DF)	N/A
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	N/A
Length of Line Installed (ft.)	50	Backfilling Recommended	N/A
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	N/A
Centers (ft.)	**		
Width Required (ft.) (Main DF)	50		
Installation Depth (inches into natural soil) (Main DF)	2	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	10		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



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

Date: 6/21/06 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roand Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 540-985-6444 oke, VA 24011 Address: Lot: 18
1. Position in landscape satisfactory	Soil Information SummaryYesxNoDescribe: Sideslope
2. Slope 11 %	
3. Depth to rock\impervious strata:	Max. > 50" Min. 48" None
4. Depth to seasonal water table (gra	y mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	Yes xTexture group3NoEstimated rate65Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charle	s Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

Reason 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 over 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:

Date of E	valuation:	6/21/06		Roanoke County	Health Department Identification No.	
x See a	application s	sketch	See construct	ion permit		
Applicar	it:		Subdivsion:	Loblolly	Lot: 18	
Hole #	Horizon	Depth	Description	n		Texture Group
1	А	0-2	Dark brow	n (7.5YR 4\4) loam		2
	AB	2-16	Brown (7.5	5YR 5\4) loam		2
	Bt	16-40		red (5YR 5\8) clay loan	m; strong medium	3
	С	40-50	0	blocky structure red (5YR 5\8) gravelly	clay loam; 25% coarse	3
2	А	0-1	Dark brow	n (7.5YR 4\4) loam		2
	BA	1-12	Brown (7.5	5YR 5\4) loam		2
	Bt	12-50		red (5YR 5\8) clay loan nedium subangular bloo	m; 10% coarse fragments; cky structure	3
3	А	0-1	Dark brow	n (7.5YR 4\4) loam		2
	BA	1-12	Brown (7.5	5YR 5\4) loam		2
	Bt	12-48		red (5YR 5\8) clay loan nedium subangular bloo	m; 10% coarse fragments; ckv structure	3
	R	48			,	

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Applicant:

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

Type of system (Main DF)	Advanced	Secondary Treatment intoConventional Lines	
EPR	65	Reserve Area Required	Yes
Slope %	11	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. of Trench Bottom Required (Reserve DF)	450
Gallons/Day	600	Total Square Ft. of Trench Bottom in Design (Reserve DF)	450
Width of Trench (ft.)	3	# Lines of Reserve	3
Loading Rate (gal/sq. ft.)	0.68	Line Length (ft.)	50
Absorption Rate Increase	N\A		
Total Square Ft. of Trench Bottom Required (Main DF)	882	Installed < 24" from Rock or Other Impervious Strata	No
Total Square Ft. of Trench Bottom in Design (Main DF)	900	Centers (ft.) (Reserve DF)	9
Total Square Ft. of Trench Bottom Required per BR	220	Width Required (ft.) (Reserve DF)	27
Total Square Ft. of Trench Bottom per BR in Design	225	Width in Design (ft.) Reserve DF)	27
# Lines Installed	6	Installation Depth (inches into natural soil) (Reserve DF)	24
Length of Line Installed (ft.)	50	Backfilling Recommended	No
Installed <24" from Rock or Other Impervious Strata	No	Amount of Backfill (inches) (Reserve DF)	N/A
Centers (ft.)	9		
Width Required (ft.) (Main DF)	48		
Installation Depth (inches into natural soil) (Main DF)	24	Type of Well Recommended	3B
Backfilling Recommended	No	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	N/A		

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.



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

Date: 6/20/06 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roand Owner: Location: Subdivision: Loblolly Mill	General Information Roanoke County Health Department Telephone No: 540-985-6444 ke, VA 24011 Address: Lot: 19
-	
1. Position in landscape satisfactory	Soil Information Summary Yes x No Describe: Sideslope
1. Toshion in andscape substactory	
2. Slope 17 %	
3. Depth to rock\impervious strata:	Max. > 50" Min. 36" None
4. Depth to seasonal water table (gray	mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	Yes x Texture group 3
	No Estimated rate 65 Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
-	

Department Use

depth at site designated on permit.

Site Approved:

Site Disapproved:

Reason 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 over 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:

Date of E	valuation:	6/20/06		Roanoke County	Health Department Identification No.	
x See a	pplication s	sketch	See construct	tion permit		
Applican	ıt:		Subdivsion:	Loblolly Mill	Lot: 19	
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	А	0-1	Dark brow	n (7.5YR 4\4) loam		2
	BA	1-18	Brown (7.	5YR 5\4) loam		2
	Bt1	18-30		own (7.5YR 5\8) clay lo r blocky structure	am; strong medium	3
	Bt2	30-50		red (5YR 5\8) clay; mo	oderate medium subangular	4
2	А	0-1	Dark brow	n (7.5YR 4\4) loam		2
	BA	1-18		5YR 5\4) loam		2
	Bt1	18-30	Strong bro	own (7.5YR 5\8) clay lo r blocky structure	am; strong medium	3
	Bt2	30-50		red (5YR 5\8) clay; mo	oderate medium subangular	4
3	А	0-1	Dark brow	/n (7.5YR 4\4) loam		2
	BA	1-12		5YR 5\4) loam		2
	Bt1	12-24		own (7.5YR 5/6) clay lo	am; (light)	3
	Bt2	24-36	Strong bro		am; w/common Yellow	3
	R	36		-		

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Applicant:

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

Type of system (Main DF)	Secondary	Treatment into Conventional Lines	
EPR	65	Reserve Area Required	Yes
Slope %	17	Type of Reserve	Same
# Bedrooms	3	Total Square Ft. of Trench Bottom Required (Reserve DF)	750
Gallons/Day	450	Total Square Ft. of Trench Bottom in Design (Reserve DF)	900
Width of Trench (ft.)	3	# Lines of Reserve	3
Loading Rate sq. ft./gal	N/A	Line Length (ft.)	100
Absorption Rate Increase	N/A		
Total Square Ft. of Trench Bottom Required (Main DF)	1488	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. of Trench Bottom in Design (Main DF)	1500	Centers (ft.) (Reserve DF)	10
Total Square Ft. of Trench Bottom Required per BR	496	Width Required (ft.) (Reserve DF)	30
Total Square Ft. of Trench Bottom per BR in Design	500	Width in Design (ft.) Reserve DF)	30
# Lines Installed	5	Installation Depth (inches into natural soil) (Reserve DF)	18
Length of Line Installed (ft.)	100	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	10		
Width Required (ft.) (Main DF)	43		
Installation Depth (inches into natural soil) (Main DF)	18	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.



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

Date: 6/20/06 Applicant: Lobolly Mill, LLC Address: 119 Norfolk Ave Roano Owner: Location:	Address:
Subdivision: Loblolly Mill	Lot: 20
1. Position in landscape satisfactory	Soil Information SummaryYesxNoDescribe: Sideslope
2. Slope 14 %	
3. Depth to rock\impervious strata:	Max. > 50" Min. 30" None
4. Depth to seasonal water table (gray	mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	YesxTexture group3NoEstimated rate65Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.

Site Disapproved:

Reason 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 over 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:

Date of E	Evaluation:	6/20/06		Roanoke County	Health Departmen Identification No.	
x See a	application s	sketch	See construct	tion permit		
Applicar	nt:		Subdivsion:	Loblolly Mill	Lot: 2	0
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	BA	0-8	Brown (7.	5YR 5\4) loam		2
	Bt	8-20	Yellowish	red (5YR 5\8) silty clay r blocky structure	y loam; strong med	
	BC	20-32		red (5YR 5\8) silty clay weathered parent mat		ellow 3
	С	32-36	Yellowish coarse frag	red (5YR $5\8$) gravelly gments	silty clay loam; 30	% 3
	R	36		-		
2	Ар	0-1	Dark brow	n (7.5YR 4\4) loam		2
	BÂ	1-10		5YR 5\4) loam		2
	Bt	10-27	Yellowish	red (5YR 5\8) silty clay r blocky structure	y loam; strong med	ium 3
	С	27-30		red (5YR 5\8) silty clay b) weathered parent mat		ellow 3
	R	30		, 1		
3	BA	0-10	Strong bro	own (7.5YR 5/6) loam		2
	Bt	10-40	Yellowish	red (5YR 5\8) silty clay r blocky structure	y loam; strong med	
	BC	40-50	Yellowish	red (5YR 5\8) silty clay ered parent material mo		v (10YR 3

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Applicant:

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

Type of system (Main DF)	Advanced	Secondary Treatment into Conventional Lines	
EPR	65	Reserve Area Required	Yes
Slope %	14	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. of Trench Bottom Required (Reserve DF)	480
Gallons/Day	600	Total Square Ft. of Trench Bottom in Design (Reserve DF)	480
Width of Trench (ft.)	3	# Lines of Reserve	2
Loading Rate (gal/sq. ft.)	0.68	Line Length (ft.)	80
Absorption Rate Increase	N/A		
Total Square Ft. of Trench Bottom Required (Main DF)	882	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. of Trench Bottom in Design (Main DF)	960	Centers (ft.) (Reserve DF)	10
Total Square Ft. of Trench Bottom Required per BR	221	Width Required (ft.) (Reserve DF)	20
Total Square Ft. of Trench Bottom per BR in Design	240	Width in Design (ft.) Reserve DF)	20
# Lines Installed	4	Installation Depth (inches into natural soil) (Reserve DF)	18
Length of Line Installed (ft.)	80	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	10		
Width Required (ft.) (Main DF)	33		
Installation Depth (inches into natural soil) (Main DF)	18	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

	General Information
Date	
	blicant: Loblolly Mill, LLC. Telephone No: 540-985-6444
Add Owi	Iress: 119 Norfolk Ave Roanoke, VA 24011 ner: Address:
	ation:
	division: Loblolly Mill Lot: 21
	Soil Information Summary
1.	Position in landscape satisfactory Yes x No Describe: Sideslope
2.	Slope 34 %
3.	Depth to rock\impervious strata: Max. 40" Min. 24" None
4.	Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5.	Free water present No x Yes range in inches
6.	Soil percolation rate estimatedYesxTexture group3NoEstimated rate50Min/inch
7.	Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate
Nan	ne and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist
Sigr	nature:
	Department Use
	Site Approved: depth at site designated on permit
	Site Disapproved:
Rea	son 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 over 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:

Date of E	valuation:	6/21/06		Roanoke County	Health Department Identification No.	
x See application sketch See construction permit						
Applican	ıt:	:	Subdivsion:	Loblolly Mill	Lot: 21	
Hole #	Horizon	Depth	Description	1		Texture Group
1	А	0-1	Dark yellow	wish brown (10YR 4\4) loam	2
	Bw	1-18	Yellowish	brown (10YR 5/6) silt	loam	3
	BC	18-26	Yellowish fragments	brown (10YR 5/6) grav	velly silt loam; 15% coarse	3
	С	26-36	Brownish y fragments	vellow (10YR 6\6) grav	velly silt loam; 30% coarse	3
	R	36	-			
2	А	0-2	Dark vellov	wish brown (10YR 4\4) loam	2
	BA	2-12	•	vellow (10YR 6\6) silt		3
	Bw	12-27		brown (10YR 5/6) silt		3
	С	27-40			ly silt loam; 20% coarse	3
	R	40	C			
3	А	0-1	Dark yellow	wish brown (10YR 4\4) loam	2
	Bw	1-18		brown (10YR 5\8) silt		3
	С	18-24			velly silt loam; 30% coarse	3
	R	24	C			

Applicant:

Ch diisio	L ab 1 alla MC11	T at a
Subdivision:	Loblolly Mill	Lot:

21

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

Type of system (Main DF)	* A dwamaa	d Secondary Treatment into Drip Irrigation	
EPR	* Advanced 50	Reserve Area Required	Yes
LIK	50	Reserve Area Required	105
Slope %	34	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1520
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1520
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	95
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)		Installed < 24" from Rock or Other Impervious	Yes
		Strata	
Total Square Ft. in Design (Main DF)	3040	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	16
Total Square Ft. per BR in Design	760	Width in Design (ft.) Reserve DF)	16
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	95	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	32		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

General InformationDate: $6/21/06 \& 11/29/07$ Roanoke CountyHealth DepartmentApplicant:Lobiolly Mill, LLC.Telephone No:540-985-6444Address:119 Norfolk Ave Roanoke, VA 24011Address:Location:
Subdivision:Loblolly MillLot:22
Soil Information Summary1. Position in landscape satisfactoryYes xNoDescribe: Sideslope
2. Slope 30 %
3. Depth to rock\impervious strata: Max. > 50 " Min. 27" None
4. Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5. Free water present No x Yes range in inches
6. Soil percolation rate estimatedYesxTexture group3NoEstimated rate50Min/inch
 Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate
Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist
Signature:
Department Use Site Approved: depth at site designated on permit
Site Disapproved:
 Reason for rejection: Position in landscape subject to flooding or periodic saturation. Insufficient depth of suitable soil over hard rock. Insufficient depth of suitable soil over water table. Rates of absorption too slow. Insufficient area of acceptable soil for required drainfield, and/or reserve area

- 6 Proposed system too close to well
- 7 Other Specify:

Dat	e of Evalua	ation:	6/21/06 & 11	/29/07	Roanoke County	Health Departn Identification N		
Х	x See application sketch See construction permit							
Ap	plicant:		S	Subdivsion:	Loblolly Mill	Lot:	22	
Но	le # Ho	rizon	Depth	Descriptio	n			Texture Group
	1	А	0-2	Brown (10	OYR 4/3) loam			2
		BA	2-12		Brown (10YR 5/4) grav	velly silt loam; 1	5% coarse	3
	Η	Зw	12-24	-	Brown (10YR 5/6) grav	velly silt loam; 3	0% coarse	3
		С	24-30		Brown (10YR 5/6) verg	y gravelly silt loa	am; 40%	3
		R	30					
	2	А	0-2	Dark brow	n (7.5YR 4∖4) loam			2
		BA	2-14		5YR 5\4) loam			2
		Bw	14-25		ellow (7.5YR 6\6) silt lo	oam		3
		С	25-48		wn (7.5YR 5/6) gravell		coarse	3
		R	48	C				
	3	А	0-2	Dark brow	n (7.5YR 4\4) loam			2
		3A	2-12		ellow (7.5YR 6\6) silt lo	oam		3
	H	Bw	12-38		wn (7.5YR 5/6) silt loa			3
		С	38-50	Dark brow	(7.5YR 4\6) gravelly parent material mottle	silt loam; comm		3
	4	А	0-2	Brown (10)YR 4/3) loam			2
		3A	2-12		Brown (10YR 5/6) silt	loam		3
	H	Зw	12-30		Brown (10YR 5/8) silt		se	3
		C	30-40	-	Brown (10YR 5/8) verg	y gravelly silt loa	am; 35%	3
		R	40					
:	5	А	0-2	Dark Yello	owish Brown (10YR 4/4	4) loam		2
		Зw	2-15		Brown (10YR 5/6) silt	,	se	3
		С	15-27	-	Brown (10YR 5/6) gra	velly silt loam; 3	0% coarse	3
		R	27	2				

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

Type of system (Main DF)	Advanced 9	Secondary Pretreatment into Drip Irrigation*	
EPR	50	Reserve Area Required	Yes
Slope %	30	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1550
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1550
Width of Trench (ft.)	3	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	50
Absorption Rate Increase	50%	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. Required (Main DF)	3034	Centers (ft.) (Reserve DF)	**
Total Square Ft. in Design (Main DF)	3100	Width Required (ft.) (Reserve DF)	31
Total Square Ft. Required per BR	758	Width in Design (ft.) Reserve DF)	31
Total Square Ft. per BR in Design	775	Installation Depth (inches into natural soil) (Reserve DF)	6
# Lines Installed	**	Backfilling Recommended	Yes
Length of Line Installed (ft.)	50	Amount of Backfill (inches) (Reserve DF)	6
Installed <24" from Rock or Other Impervious Strata	Yes		
Centers (ft.)	**		
Width Required (ft.) (Main DF)	62	Type of Well Recommended	3B
Installation Depth (inches into natural soil) (Main DF)	6	Amount of Casing and Grout (ft.)	50
Backfilling Recommended	Yes		
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

Date: 6/21/06 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roanol Owner: Location:	General Information Roanoke County Health Department Telephone No: 540-985-6444 ke, VA 24011 Address:
Subdivision: Loblolly Mill	Lot: 23
	Soil Information Summary
1. Position in landscape satisfactory	Yes x No Describe: Sideslope
2. Slope 35 %	
3. Depth to rock\impervious strata:	Max. 36" Min. 22" None
4. Depth to seasonal water table (gray	mottling or gray color) No x Yes inches
5. Free water present No x	Yes range in inches
6. Soil percolation rate estimated	Yes xTexture group3NoEstimated rate50Min/inch
7. Percolation test performed Yes No	Number of percolation test holesx Depth of percolation test holesAverage percolation rate
Name and title of evaluator: Charles	Nelson\David Hall\Bill Evans Soil Scientist
Signature:	
Site Approved:	Department Use depth at site designated on permit.
Site Disapproved:	
 Insufficient depth of suitable so Insufficient depth of suitable so Rates of absorption too slow. 	oil over water table. soil for required drainfield, and\or reserve area

- Insufficient area of acceptable soil forProposed system too close to well
- 7 Other Specify:

Date of E	valuation:	6/21/06	Roanoke Coun	ty Health Department Identification No.	
x See a	application s	ketch	See construction permit		
Applican	it:		ubdivsion: Loblolly Mill	Lot: 23	
Hole #	Horizon	Depth	Description		Texture Group
1	А	0-2	Dark brown (7.5YR 4\4) loam		2
	BA	2-14	Brown (7.5YR 5\4) silt loam		3
	Bt	14-22	Strong brown (7.5YR 5\8) silt	loam	3
	С	22-24	Strong brown (7.5YR 5\8) grav fragments		2
	R	24	C		
2	А	0-2	Dark brown (7.5YR 4\4) loam		2
	BA	2-15	Reddish yellow (7.5YR 6\6) si	lt loam	3
	Bt	15-30	Strong brown (7.5YR 5/6) silt		3
	С	30-36	Strong brown (7.5YR 5/6) gra fragments		3
	R	36	C		
3	А	0-2	Dark brown (7.5YR 4\4) loam		2
	BA	2-14	Brown (7.5YR 5\4) silt loam		2 3
	Bt	14-22	Strong brown (7.5YR 5\8) silt	loam	3
	С	22-26	Strong brown (7.5YR 5\8) grav fragments		2
	R	26	C		
4	А	0-2	Dark brown (7.5YR 4\4) loam		2
	Bw	2-18	Reddish yellow (7.5YR 6\6) si		3
	С	18-22	Strong brown (7.5YR 5/6) grav fragments		2
	R	22	C		

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

Type of system (Main DF)	*Advanced	Secondary Treatment into Drip Irrigation	
EPR	50	Reserve Area Required	Yes
Slope %	35	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1550
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1900
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	100
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3100	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	16
Total Square Ft. per BR in Design	775	Width in Design (ft.) Reserve DF)	19
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	4
Length of Line Installed (ft.)	100	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	8
Centers (ft.)	**		
Width Required (ft.) (Main DF)	31		
Installation Depth (inches into natural soil) (Main DF)	4	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	8		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

Date: 8/29/06 Applicant: Loblolly Mill, LLC. Address: 119 Norfolk Ave Roanok Owner: Location:	Address:	e No: 540-985-6444
Subdivision: Loblolly Mill	Lot:	25
1. Position in landscape satisfactory	Soil Information Summary Yes x No Desc	ribe: Sideslope
2. Slope 36 %		
3. Depth to rock\impervious strata:	Max. >50" Min. 18"	None
4. Depth to seasonal water table (gray	mottling or gray color) No	x Yes inches
5. Free water present No x	Yes range in	n inches
1	Yes x Texture group 3 No Estimated rate 50	Min/inch
7. Percolation test performed Yes No	Number of percolation test ho x Depth of percolation test hole: Average percolation rate	
Name and title of evaluator: Charles I	Nelson\David Hall\Bill Evans	Soil Scientist
Signature:		
Cite America I	Department Use	denth of site designs to down as much
Site Approved:		depth at site designated on permit.
Site Disapproved:		
 Reason for rejection: Position in landscape subject to Insufficient depth of suitable so Insufficient depth of suitable so Rates of absorption too slow. Insufficient area of acceptable so 	il over hard rock.	

- 5 Insufficient area of acceptable soil for required drainfield, and\or reserve area
- 6 Proposed system too close to well
- 7 Other Specify:

Date of]	Evaluation:	8/29/06	Roanoke County Health Department Identification No.	
x See				
Applica	nt:	S	Subdivsion: Loblolly Mill Lot: 25	
Hole #	Horizon	Depth	Description	Texture Group
1	А	0-2	Dark Yellowish Brown (10YR 4/4) silt loam	3
	BA	2-15	Brownish Yellow (10YR 6/6) silt loam	
	Bt1	15-30	Yellowish Brown (10YR 5/8) silt loam	3 3
	Bt2	30-50	Strong Brown (7.5YR 5/6) silty clay loam; few Yellow (10YR 7/8) parent material mottles	3
2	А	0-2	Dark Yellowish Brown (10YR 4/4) silt loam	3
	BA	2-12	Brownish Yellow (10YR 6/6) silt loam	
	Bt1	12-36	Strong Brown (7.5YR 5/6) silt loam	3 3 3
	Bt2	36-50	Yellowish Red (5YR 5/8) silty clay loam; few Yellow (10YR 7/8) parent material mottles	3
3	А	0-2	Dark Yellowish Brown (10YR 4/4) loam	2
-	Bw	2-16	Yellowish Brown (10YR 5/6) silt loam	3
	С	16-24	Strong Brown (7.5YR 5/6) gravelly silt loam; 20% shale fragments	3
	R	24		
4	А	0-2	Dark Yellowish Brown (10YR 4/4) loam	2
	Bw	2-15	Yellowish Brown (10YR 5/6) loam	2
	С	15-18	Strong Brown (7.5YR 5/6) gravelly loam; 20% coarse fragments	2
	R	18	-	

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

Type of system (Main DF)	*Advanced	Secondary Treatment into Drip Irrigation	
EPR	50	Reserve Area Required	Yes
Slope %	36	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1600
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1600
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	100
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3200	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	16
Total Square Ft. per BR in Design	800	Width in Design (ft.) Reserve DF)	16
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	100	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	32		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

General Information
Date:6/13/06Roanoke CountyHealth Department
Applicant: Loblolly Mill, LLC Telephone No: 540-985-6444 Address 110 No Selle Acce Researche MA 24011 Telephone No: 540-985-6444
Address: 119 Norfolk Ave. Roanoke, VA 24011 Owner: Address:
Location:
Subdivision: Loblolly Mill Lot: 26
Soil Information Summary
1. Position in landscape satisfactory Yes x No Describe: Sideslope
2. Slope 34 %
3. Depth to rock\impervious strata: Max. 53" Min. 25" None
4. Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5. Free water present No x Yes range in inches
6. Soil percolation rate estimatedYesxTexture group3NoEstimated rate50Min/inch
 Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate
Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist
Signature:
Department Use
Site Approved: depth at site designated on permi
Site Disapproved:
Reason for rejection:
1 Position in landscape subject to flooding or periodic saturation.
2 Insufficient depth of suitable soil over hard rock.
 Insufficient depth of suitable soil over water table. Rates of absorption too slow.
 Kates of absorption too slow. Insufficient area of acceptable soil for required drainfield, and/or reserve area

- 5 Insufficient area of acceptable soil t 6 Proposed system too close to well
- 7 Other Specify:

Date of I	Evaluation:	6/13/06	Roanoke County Health Department Identification No.	
x See	application s	ketch	See construction permit	
Applica	nt:	S	ubdivsion: Loblolly Lot: 26	
Hole #	Horizon	Depth	Description	Texture Group
1	А	0-4	Dark yellowish brown (10YR 4\4) loam	2
	Bt1	4-33	Strong brown (7.5YR 5\8) silt loam	3
	BC	33-45	Reddish yellow (7.5YR 6\8) gravelly silt loam; 30% coarse fragments	3
	С	45-53	Yellowish red (5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	53		
2	А	0-4	Dark yellowish brown (10YR 4) loam	2
	Bt	4-33	Strong brown (7.5YR 5\8) silt loam	3
	BC	33-45	Reddish yellow (7.5YR 6\8) gravelly silt loam; 30% coarse fragments	3
	С	45-53	Yellowish red (5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	50		
3	А	0-2	Dark yellowish brown (10YR 4\4) loam	2
	BA	2-12	Strong brown (7.5YR 5\8) silt loam	2 3
	Bt	12-20	Yellowish red (5YR 5\8) silty clay loam	3
	C	20-25	Strong brown (7.5YR 5\8) very gravelly silt loam; 40% coarse fragments	3
	R	25		

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

Type of system (Main DF)	*Advanced	Secondary Treatment into Drip Irrigation	
EPR	50	Reserve Area Required	Yes
Slope %	25	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1540
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1540
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	55
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)		Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3080	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	28
Total Square Ft. per BR in Design	770	Width in Design (ft.) Reserve DF)	28
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	55	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	56		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

	General Information
Date	
	licant:Loblolly Mill, LLC.Telephone No:54-985-6444ress:119 Norfolk Ave Roanoke, VA 24011Telephone No:54-985-6444
Owr	
	ation:
Subo	division:Loblolly MillLot:27
	Soil Information Summary
1.	Position in landscape satisfactory Yes x No Describe: Sideslope
2.	Slope 36 %
3.	Depth to rock\impervious strata: Max. 32" Min. 22" None
4.	Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5.	Free water presentNoxYesrange in inches
6.	Soil percolation rate estimatedYesxTexture group3NoEstimated rate50Min/inch
7.	Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate
Nam	he and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist
Sign	ature:
	Department Use Site Approved: depth at site designated on permit
	She Approved. deput at she designated on permit
	Site Disapproved:
Reas	son for rejection:
1	Position in landscape subject to flooding or periodic saturation.
2 3	Insufficient depth of suitable soil over hard rock. Insufficient depth of suitable soil over water table.
4	Rates of absorption too slow.
5	Insufficient area of acceptable soil for required drainfield, and\or reserve area

- 5 Insufficient area of acceptable soil t 6 Proposed system too close to well
- 7 Other Specify:

Date of E	Evaluation:	6/13/06		Roanoke County	Health Department Identification No.	
x See a	application s	ketch	See constructi	ion permit		
Applicar	nt:	S	Subdivsion:	Loblolly Mill	Lot: 27	
Hole #	Horizon	Depth	Description	1		Texture Group
1	А	0-2	Dark yellow	wish brown (10YR 4\4)) silt loam	3
	Bw	2-15	Strong brow	wn (7.5YR 5\8) silt loa	m	3
	С	15-22	Strong brov fragments	wn (7.5YR 5\8) gravell	y silt loam; 45%coarse	3
	R	22	C			
2	А	0-3	Dark yellow	wish brown (10YR 4\4) silt loam	3
	Bt1	3-16		wn (7.5YR 5\8) silt loa		3
	Bt2	16-24	-	red (5YR 5\8) gravelly		3
	С	24-32		wn (7.5YR 5\8) very gi ments	avelly silt loam; 40%	3
	R	32				
3	А	0-2	Dark yellow	wish brown (10YR 4\4) silt loam	3
	Bt1	2-18		red (5YR 5\8) silt loam		
	Bt2	18-25	Red (2.5YI	R 5 8 silty clay loam		3 3
	С	25-30		R 5 8 very gravelly silt	t loam; 45% coarse	3

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

Type of system (Main DF)	*Advanced	Secondary Treatment into Drip Irrigation	
EPR	50	Reserve Area Required	Yes
Slope %	25	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1650
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1650
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	50
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious	Yes
Total Square Ft. in Design (Main DF)	3300	Strata Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	759	Width Required (ft.) (Reserve DF)	33
Total Square Ft. per BR in Design	825	Width in Design (ft.) Reserve DF)	33
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	50	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	66		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

	General Information
Date	5 1
	licant: Loblolly Mill, LLC. Telephone No: 54-985-6444
Add Own	ress: 119 Norfolk Ave Roanoke, VA 24011 her: Address:
	ation:
	livision: Loblolly Mill Lot: 28
	Soil Information Summary
1.	Position in landscape satisfactory Yes x No Describe: Sideslope
2.	Slope 32 %
3.	Depth to rock/impervious strata: Max. 39" Min. 24" None
4.	Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5.	Free water present No x Yes range in inches
6.	Soil percolation rate estimatedYesxTexture group3NoEstimated rate50Min/inch
7.	Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate
Nam	e and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist
Sign	ature:
	Department Use Site Approved: depth at site designated on permit.
	Site Disapproved:
Reas	son for rejection:
1	Position in landscape subject to flooding or periodic saturation.
2	Insufficient depth of suitable soil over hard rock.
3 4	Insufficient depth of suitable soil over water table. Rates of absorption too slow.
4 5	Insufficient area of acceptable soil for required drainfield, and\or reserve area
5	insufficient area of acceptable son for required drainfield, and/or reserve area

- 5 Insufficient area of acceptable soil6 Proposed system too close to well
- 7 Other Specify:

Date of E	Evaluation:	6/13/06		Roanoke County	Health Department Identification No.	
x See a	application s	ketch	See construct	tion permit		
Applicar	nt:		Subdivsion:	Loblolly Mill	Lot: 28	
Hole #	Horizon	Depth	Descriptio	n		Texture Group
1	А	0-3	Dark brow	vn (10YR 3\3) silt loam		3
	Bw	3-15	Strong bro	own (7.5YR 5\8) silt loa	m	3
	BC	15-33	Strong bro fragments	own (7.5YR 5\8) gravell	y silt loam; 30% coarse	e 3
	С	33-39	Yellowish fragments	red (5YR 5\8) very gra	velly silt loam; 40% co	arse 3
	R	39	C			
2	А	0-4		wish brown (10YR 4\4		3
	Bt	4-18		own (7.5YR 5\8) silt loa		3 3
	С	18-24	Strong bro coarse frag	own (7.5YR 5\8) very gr gments	ravelly silt loam; 35%	3
	R	24				
3	А	0-3	•	wish brown (10YR 4\4		3
	Bt	3-20		own (7.5YR 5\8) silt loa		3
	С	20-26	Strong bro coarse frag	own (7.5YR 5\8) very gr gments	ravelly silt loam; 35%	3
	R	26				

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

Type of system (Main DF)	Advanced	Secondary Treatment into Drip Irrigation*	
EPR	50	Reserve Area Required	Yes
Slope %	32	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1540
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1540
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	70
Absorption Rate Increase	50%	Absorption Rate Increase	50%
Total Square Ft. Required (Main DF)	3034	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	3080	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	758	Width Required (ft.) (Reserve DF)	22
Total Square Ft. per BR in Design	770	Width in Design (ft.) Reserve DF)	22
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	70	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	44		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

	General Information
Date	5 1
	icant: Lobolly Mill, LLC Telephone No: 540-985-6444
Addı	
Own Loca	
	livision: Loblolly Mill Lot: 29
	Soil Information Summary
1.	Position in landscape satisfactory Yes x No Describe: Sideslope
2.	Slope 22 %
3.	Depth to rock\impervious strata: Max. 43" Min. 25" None
4.	Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5.	Free water present No x Yes range in inches
6.	Soil percolation rate estimatedYesxTexture group3NoEstimated rate50Min/inch
7.	Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate
Nam	e and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist
Sign	ature:
	Department Use
	Department Use Site Approved: depth at site designated on permit.
	Site Disapproved:
Reas	on 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 over water table.
4	Rates of absorption too slow.
5	Insufficient area of acceptable soil for required drainfield, and\or reserve area

- 5 Insufficient area of acceptable soil for req 6 Proposed system too close to well
- 7 Other Specify:

Date of H	Evaluation:	6/13/06		Roanoke County	Health Department Identification No.	
x See a	application s	ketch	See construc	tion permit		
Applicar	nt:		Subdivsion:	Loblolly Mill	Lot: 29	
Hole #	Horizon	Depth	Descriptio	'n		Texture Group
1	А	0-2	Dark brow	vn (10YR 3\3) silt loam		3
	Bt	2-18		red (5YR 5\8) silt loam		3
	BC	18-25	Strong bro	own (7.5YR 5\8) very gr	ravelly silt loam;	3
			40% coarse	e fragments		
	R	25				
2	А	0-3	Dark brow	vn (10YR 3\3) silt loam		3
	Bw	3-25	Yellowish	brown (10YR 5\8) silt	loam	3
	С	25-31	Yellowish coarse frag	•	y gravelly silt loam; 35%	3
	R	31	·	-		
3	А	0-3		vn (10YR 3\3) silt loam		3
	BA	3-18		brown (10YR 5/6) silt		3
	Bt	18-34	-	own (7.5YR 5\8) silt loa	m	3 3
	Bc	34-43	Red (2.5Y	R 4/6) silty clay loam		3
	R	43				

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

Type of system (Main DF)	Advanced	Secondary Treatment into Drip Irrigation*	
EPR	50	Reserve Area Required	Yes
Slope %	22	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	2000
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	2000
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	80
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	2690	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. in Design (Main DF)	4000	Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	672	Width Required (ft.) (Reserve DF)	25
Total Square Ft. per BR in Design	1000	Width in Design (ft.) Reserve DF)	25
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	7
Length of Line Installed (ft.)	80	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	5
Centers (ft.)	**		
Width Required (ft.) (Main DF)	50		
Installation Depth (inches into natural soil) (Main DF)	7	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	5		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

SETE

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

	General Information
Date	6/13/06 and 4/15/08 Roanoke County Health Department
	icant: Loblolly Mill, LLC. Telephone No: 540-985-6444
Add	ess: 119 Norfolk Ave, Roanoke, VA 24011
Owr	
Loca	
Subo	ivision: Loblolly Mill Lot: 30
	Soil Information Summary
1.	Position in landscape satisfactory Yes x No Describe: Sideslope
2.	Slope 20 %
3.	Depth to rock\impervious strata: Max. >58" Min. 22" None
4.	Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5.	Free water present No x Yes range in inches
6.	Soil percolation rate estimatedYesxTexture group3NoEstimated rate50Min/inch
7.	Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate
Narr	e and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist
Sign	iture:
	Department Use
	Site Approved: depth at site designated on permit.
	Site Disapproved:
Reas	on 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 over water table.
4 5	Rates of absorption too slow.
3	Insufficient area of acceptable soil for required drainfield, and/or reserve area

- 5
- 6 Proposed system too close to well
- 7 Other Specify:

Date of H	Evaluation:	6/13/06 and 4/	/15/08	Roanoke County	Health Departm Identification N		
x See a	application s	ketch	See construc	tion permit			
Applicar	nt:	Sı	ubdivsion:	Loblolly Mill	Lot:	30	
Hole #	Horizon	Depth	Descriptio	on			Texture Group
1	А	0-3	Dark Yell	owish Brown (10YR 4/3	3) silt loam		3
-	Bt	3-20		Brown (10YR 5/4) silt	,		3
	С	20-36		own (7.5YR 5/6) gravel		coarse	3
	AR	@36	U				NA
2	Ар	0-4	Dark brow	vn (10YR 3\3) silt loam			3
	Bw	4-30	Strong bro fragments	own (7.5YR 5\8) gravell	y silt loam; 20%	coarse	3
	C	30-58	0	brown (10YR 5\8) grav	velly silt loam; 40)% coarse	3
3	Ар	0-3	Dark Yell	owish Brown (10YR 4/3	3) silt loam		3
	Bt	3-24	Yellowish	Brown (10YR 5/4) silt	loam		3
	С	24-44	Yellowish fragments	Brown (10YR 5/8) grav	velly silt loam; 20	0% coarse	3
	AR	@44	C				NA
4	А	0-3	Dark Yell	owish Brown (10YR 4/3	3) silt loam		3
	Bt	3-15	Yellowish	Brown (10YR 5/6) silt	loam		3
	С	15-22	Yellowish fragments	Brown (10YR 5/6) gra	velly silt loam; 25	5% coarse	3
	AR	@22	-				NA

Applica	int:
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Subdivision: Loblolly Mill Lot: 30

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

Type of system (Main DF)	Advanced S	Secondary Treatment into Conventional Lines	
EPR	50	Reserve Area Required	Yes
Slope %	20	Type of Reserve	Advanced Secondary Treatment into Drip Irrigation
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	341
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1610
Width of Trench (ft.)	3	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	70
Absorption Rate Increase	33%	Absorption Rate Increase	33%
Total Square Ft. Required (Main DF)	674	Installed < 24" from Rock or Other Impervious	Yes
Total Square Ft. in Design (Main DF)	840	Strata Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	169	Width Required (ft.) (Reserve DF)	23
Total Square Ft. per BR in Design	210	Width in Design (ft.) Reserve DF)	23
# Lines Installed	4	Installation Depth (inches into natural soil) (Reserve DF)	8
Length of Line Installed (ft.)	70	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	4
Centers (ft.)	11		
Width Required (ft.) (Main DF)	36		
Installation Depth (inches into natural soil) (Main DF)	18	Type of Well Recommended	3B
Backfilling Recommended	No	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	NA		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

- 2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.
- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.
- 6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

<u>SETEC</u>

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

	General Information
Date	6/13/06 Roanoke County Health Department
	cant: Loblolly Mill, LLC. Telephone No: 540-985-6444
Add	
Owi	
Loca	
Sub	vision: Loblolly Mill Lot: 31
	Soil Information Summary
1.	Position in landscape satisfactory Yes x No Describe: Sideslope
2.	Slope 24 %
3.	Depth to rock\impervious strata: Max. 50" Min. 27" None
4.	Depth to seasonal water table (gray mottling or gray color) No x Yes inches
5.	Free water present No x Yes range in inches
6.	Soil percolation rate estimatedYesxTexture group3NoEstimated rate55Min/inch
7.	Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate
Nan	and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist
Sigr	ture:
	Department Use
	Site Approved: depth at site designated on permit.
	Site Disapproved:
Rea	on 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 over 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:

Date of I	Evaluation:	6/13/06	R	oanoke County	Health Department Identification No.	
x See	application s	ketch	See construction per	mit		
Applica	nt: .		Subdivsion: Loble	olly	Lot: 31	
Hole #	Horizon	Depth	Description			Texture Group
1	Ap	0-6	Dark yellowish bi	own (10YR 4\4`) silt loam	3
	Bw1	6-20	Yellowish brown	• • • • • • •		3
	Bw2	20-40	Yellowish red (5)	· /		3
	R	40	× ×			
2	Ap	0-3	Dark yellowish bi	3		
	Bw	3-19	Yellowish brown	(10YR 5/6) silt	loam	3 3 3
	С	19-28	Yellowish red (5)	(R 5 8) silt loam	l	3
	R	28				
3	Ap	0-3	Dark yellowish bi	rown (10YR 4\4)) silt loam	3
	Bw	3-18	Yellowish brown	(10YR 5/6) silt	loam	3 3
	С	18-27	Yellowish red (5)	(R 5 8) silt loam	L	3
	R	27				
4	Ap	0-4	Dark yellowish bi	rown (10YR 4\4)) silt loam	3
	Bw1	4-18	Yellowish brown	(10YR 5/6) silt	loam	3 3
	Bw2	18-40	Yellowish red (5)	(R 5\8) silt loam	L	
	С	40-50	Strong brown (7.5 fragments	5YR 5\8) gravell	y silt loam; 20% coarse	3
	R	50	0			

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

Type of system (Main DF)	Advanced S	Secondary Treatment into Drip Irrigation*	
EPR	50	Reserve Area Required	Yes
Slope %	24	Type of Reserve	Same
# Bedrooms	4	Total Square Ft. Required (Reserve DF)	1350
Gallons/Day	600	Total Square Ft. in Design (Reserve DF)	1350
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	75
Absorption Rate Increase Total Square Ft. Required (Main DF)	33% 2690	Absorption Rate Increase Installed < 24" from Rock or Other Impervious	33% Yes
Total Square Ft. in Design (Main DF)	2700	Strata Centers (ft.) (Reserve DF)	**
Total Square Ft. Required per BR	672	Width Required (ft.) (Reserve DF)	18
Total Square Ft. per BR in Design	675	Width in Design (ft.) Reserve DF)	18
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	8
Length of Line Installed (ft.)	75	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	4
Centers (ft.)	**		
Width Required (ft.) (Main DF)	36		
Installation Depth (inches into natural soil) (Main DF)	8	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	4		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.

1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.
- 5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.

<u>SETEC</u>

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

General InformationDate:3/29/07 and 4/15/08Roanoke CountyHealth DepartmentApplicant:Loblolly Mill, LLC.Telephone No:540-985-6444Address:119 Norfolk Ave Roanoke, VA 24011Address:Location:									
Subdivision:Loblolly MillLot:34									
Soil Information Summary1. Position in landscape satisfactoryYes x NoDescribe: Sideslope									
2. Slope 26 %									
3. Depth to rock\impervious strata: Max. 45+" Min. 30" None									
4. Depth to seasonal water table (gray mottling or gray color) No x Yes inches									
5. Free water present No x Yes range in inches									
6. Soil percolation rate estimatedYesxTexture group3NoEstimated rate50Min/inch									
 Percolation test performed Yes Number of percolation test holes No x Depth of percolation test holes Average percolation rate 									
Name and title of evaluator: Charles Nelson\David Hall\Bill Evans Soil Scientist									
Signature:									
Department Use Site Approved: depth at site designated on permit.									
Site Disapproved:									
 Reason for rejection: Position in landscape subject to flooding or periodic saturation. Insufficient depth of suitable soil over hard rock. Insufficient depth of suitable soil over water table. Rates of absorption too slow. Insufficient area of acceptable soil for required drainfield, and/or reserve area 									

- 5 Insufficient area of acceptable soil for required drainfield, and\or reserve area
- 6 Proposed system too close to well
- 7 Other Specify:

Date of	Evaluation:	3/29/07 and	1 4/15/08	Roanoke County	Health Departi Identification		
x See	application s	ketch	See construc	tion permit			
Applica	ant: Loble LLC.	olly Mill,	Subdivsion:	Loblolly	Lot:	34	
Hole #	Horizon	Depth	Descriptio	on			Texture Group
1	А	0-4	Brown (7.	5YR 4/4) loam			2
	BA	4-15	Yellowish	Brown (10YR 5/4) loa	m		2 3
	Bt	15-32	Strong Br	own (7.5YR 5/6) clay lo	am		
	AR	@32					NA
2	Ap	0-2	Dark Yell	owish Brown (10YR 4/4	4) sandy loam		2
	BA	2-15		Brown (10YR 5/4) san	2		2
	Bw	15-27	Yellowish	Brown (10YR 5/8) loa	m		2
	С	27-30	Yellowish	Brown (10YR 5/8) gra	velly loam		2
	AR	@30					NA
3	Ap	0-3	Dark Yell	owish Brown (10YR 4/4	4) loam		2
	BA	3-15	Brownish	Yellow (10YR 6/6) loa	m		2 3
	Bt	15-45+	Reddish Y	Cellow (5YR 6/8) clay lo	bam		3
4	Ap	0-4	Dark Yell	owish Brown (10YR 4/4	4) loam		2
	BA	4-20	Yellowish	Brown (10YR 5/6) loa	m		2
	Bt	20-32	Strong Br	own (7.5YR 5/6) clay lo	am		3
	AR	@32					NA

Applicant:	Loblolly Mill, LLC.	Subdivision:	Loblolly Mill	Lot: 34	
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DRAINFIELD RECOMMENDATIONS, DESIGN BASIS & AREA CALCULATIONS AND WELL RECOMMENDATION & SPECIFICATIONS

Type of system (Main DF)	* Advance	d Secondary Treatment into Drip Irrigation	
EPR	50	Reserve Area Required	Yes
Slope %	26	Type of Reserve	Same
# Bedrooms	3	Total Square Ft. of Trench Bottom Required (Reserve DF)	1009
Gallons/Day	450	Total Square Ft. of Trench Bottom in Design (Reserve DF)	1500
Width of Trench (ft.)	**	# Lines of Reserve	**
Loading Rate (gal/sq. ft.)	0.89	Line Length (ft.)	60
Total Square Ft. of Trench Bottom Required (Main DF)	2017	Installed < 24" from Rock or Other Impervious Strata	Yes
Total Square Ft. of Trench Bottom in Design (Main DF)	2700	Centers (ft.) (Reserve DF)	**
Total Square Ft. of Trench Bottom Required per BR	672	Width Required (ft.) (Reserve DF)	25
Total Square Ft. of Trench Bottom per BR in Design	900	Width in Design (ft.) Reserve DF)	25
# Lines Installed	**	Installation Depth (inches into natural soil) (Reserve DF)	6
Length of Line Installed (ft.)	60	Backfilling Recommended	Yes
Installed <24" from Rock or Other Impervious Strata	Yes	Amount of Backfill (inches) (Reserve DF)	6
Centers (ft.)	**		
Width Required (ft.) (Main DF)	45		
Installation Depth (inches into natural soil) (Main DF)	6	Type of Well Recommended	3B
Backfilling Recommended	Yes	Amount of Casing and Grout (ft.)	50
Amount of Backfill (inches) (Main DF)	6		

*This system will have to be designed by a professional engineer; see his design concerning items marked **.1.) Do not store any construction materials, excavated dirt, or any type of heavy machinery on the drainfield.

2.) Do not run any tile, footer, or gutter drains into or onto the drainfield area.

- 3.) Water softener backwash shall not be discharged into the septic system.
- 4.) Install the drainfield when the soil is dry.

5.) The drainfield site shall not be graded prior to installation of the system.

6.) All trees within the proposed drainfield area shall be hand cleared with their stumps left intact.