APPROVED AUG 2 0 2015

GRAVITY PPBPS SYSTEM FOR WASTEWATER TREATMENT

Owner/Applicant: Lindey Dellinger

Address: 208 Morgan Bluff Rd
Mooresville, NC 28117
Phone: 704.309.6101
County: Iredell
Location: 208 Morgan Bluff Rd-Lot 21 of Pirate's Cove

Source of Wastewater Flow: 4 Bedroom Single Family Residence
Estimated Daily Wastewater Production: 480 gpd
System Flow: NA

Design Specifications

Drainfield Size: 258
Loading Rate: 0.3
Depth of Gravel in Trench: NA
Gravel Size: NA
Trench Depth: 30 in.
Trench Width: 36 in.
Septic Tank Size: 1000
Pump Tank Size: NA

Estimated Supply Line Length: 44
Supply Line Diameter: 3 in. SCH 40 PVC
Supply Line Volume: 7.60
Dosing Volume: N/A
Supply Manifold: N/A
Supply Manifold Length: N/A
Supply Manifold Volume: N/A

Recommended Float Controls: N/A

Recommended Control Panel: N/A

Pressure Head: N/A
Friction Head: N/A
Elevation Head: N/A
Total Dynamic Head: N/A

Threaded Union: N/A
Gate Valves: N/A

Check Valves: N/A
Anti-Siphon Hole: N/A
Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services

APPROVED AUG 2 0 2015

Morgan Bluff Rd-Lot 21 of Pirate's Cove
GRAVITY PPBPS

DESIGN FLOW:	480
SOIL APPLICATION RATE:	0.3
TOTAL AREA TRENCH BOTTOM:	774
TOTAL LATERAL LENGTH:	258
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	258.00
SUPPLY LINE LENGTH:	20
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	N/A

APPROVED AUG 2 0 2015

208 Morgan Bluff Rd-Lot 21 of Pirate's Cove

Project #:01-2035

LAYOUT FOR 4 BEDROOM HOME

8/14/2015

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	DESIGN LINE LENGTH
TBM							
INSTR. 1 HOUSE CNR							
P. TANK							
1	BLUE					50	50
2	**RED**					**63**	**60**
3	**ORANGE**					**140**	**140**
4A	**RED**					**58**	**58**
4B	RED					80	80
5	BLUE					38	38
6	RED					42	42
7	BLUE					39	38
8	YELLOW	*EXISTING BED; (82'X5' WIDE) 2BR (with Line 4A)*				*112*	*82*
					Total	622	588

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
Existing Bed	**82' x 5'**		**Conv. Bed**		**Bed**	**GRAVITY**
** System* (upgrade only)	*258*	*0.3*	*ACCP.*	*0.300*	*25%RED*	*GRAVITY*
Repair TS-I Pret.	248	0.3	MOD.	0.300	PPBPS	LOW PRESSURE

Notes: **Lot recorded prior to January 1, 1983. Exempt from Repair Requirement for 2 bedroom

**All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

...NSIONS OF ALL IMPROVEMENTS SHOWN ON
PLAT SHOULD NOT BE SCALED OR RELIED
N FOR DESIGN OR CONSTRUCTION WITHOUT
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TAL COPIES OF THIS FILE ARE FOR REFERENCE
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DRAIN. & UTILITY EASEMENT MAY EXIST ALONG EACH LOT LINE.

RTION OF THIS PROPERTY IS LOCATED IN A 100 YEAR FLOOD PLAIN

'ORTION OF THE RESIDENTIAL STRUCTURE IS LOCATED IN THE FLOOD PLAIN.

PB 6-99

APPROVED AUG 2 0 2015

LAKE NORMAN
ANY DOCKS, PIERS OR OTHER IMPROVEMENTS BUILT ON LAKE ARE NOT SHOWN ON THIS SURVEY PLAT.

PB 6-99

#4 PIN

5.64'

S 81°12'05"E

206.80'

212.44'

15' SETBACK LINE

1" PIPE

GRAVEL

1.5' OFF LINE

C1

FRAME SHED

40' SETBACK LINE

#4 PIN

S 70°0

WELL

3.40' LINE

N 07°14'00"E

119.80'

B5

B4

B3

B2

B1

3 ORANGE 50'

1 BLUE 50'

4A RED 80'

STEP DOWNS

EXISTING BED

2 RED 63'

4B RED 80' (REPAIR)

EARTHEN DAM GROUP IV MATERIAL

DROP BOX

30' OF BED LOST

STAIRS

EX TANK

Pump & Crush Old Tank Set New Tank

21

PB 6-99

0.866 AC. ±

APPROX. 760' CONTOUR

WOODEN PRIVACY FENCE JUST ONTO LOT #20

15' SETBACK LINE

228.55'

S 41°36'00"W

5 BLUE 38'

6 RED/ORANGE 42'

7 BLUE 38'

N 33°58'00"W

166.40'

APPROX. FLOOD LINE

18" CEDAR TREE

20

PB 6-99

LAKE NORMAN
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DEDMON SURVEYS

40 0 40 80 120

LEGEND:

BOUND
SANITA
NATUR
UNDER
OVERH
UNDER
WATER
FENCE

CP = COMPUTED POINT
R/W = RIGHT-OF-WAY
E/P = EDGE OF PAVEMEN
C/L = CENTERLINE
ℓ = UTILITY POLE

CALCULATIONS

APPROVED AUG 2 0 2015

Location	208 Morgan Bluff Rd	
Project Number	01-2035	
Lot No:	21	
Total No. of Bedrooms	4	
Design Flow for Upgrade (2 BR)	240	$^{gal}/_{day}$
LTAR	0.3	$^{gal}/_{ft^2\ day}$
PPBPS? (YES OR NO)	NO	
Supply Line Length	20	ft.
Supply Line Volume	7.6	gal.
Required Feet of Line (Upgrade)	258	ft.
Amount of Line from Layout	258	ft.
Gallons per Minute	NA	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	N/A	gal.
# of Panels	N/A	
Dosing Volume	N/A	gal.
Tank Draw Down	N/A	
Pump Run Time	N/A	minutes
Elevation Head	N/A	ft.
Pressure Head	N/A	ft.
Friction Factor	N/A	ft./100 ft. *(From the interpolater.)*
Friction Head	N/A	ft.
Total Dynamic Head (+15%)	N/A	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet 1 of 2
PROPERTY ID #: 4648051595
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Lindey Dellinger
ADDRESS: 1633 N Carolina 16 Business, Stanley NC 28164
PROPOSED FACILITY: Single-Family SFR PROPOSED DESIGN FLOW (.1949): 480 gpd
LOCATION OF SITE: 208 Morgan Bluff Rd, Mooresville NC 28117
WATER SUPPLY: ☐ Private ☐ Public ☒ Well ☐ Spring ☐ Other
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut

APPLICATION DATE 9/14
DATE EVALUATED: 9/14
PROPERTY SIZE: ~ 8 1/2 AC
PROPERTY RECORDED:
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	7%	0-12	BR Cl wmsbk	F SS SP		47"	PS		PS .3
		12-23	RBC wmsbk	F SS SP					
		23-47	RYCl wmsbk	Fr SSSP-f CSAP					
2	10%	0-6	Bcl wfsbk	F SS SP		48"	PS		PS .3
		6-25	RC mmsbk/stk	Fr SS SP					
		25-48	RYCl wmsbk	Fr SSSP-f CSAP					
3	10%	0-5	Bcl wfsbk	Fr SS SP		48"	PS		PS .3
		5-30	RC mmsbk/Atk	F SS SP					
		30-44	RYCl wmsbk	Fr SSSP-f CSAP					
		44-48	RYCl wmsbk	Fr SS SP-f CSAP					
4	10%	0-5	Bcl wfsbk	Fr SS SP		44"	PS		PS .3
		5-30	RC mmsbk/Atk	F SS SP					
		30-44	RYCl wmsbk	Fr SSSP-f CSAP					
		44-48	UARL. MASS	Fr SS SP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	Accepted w/ Existing Bed (Hybrid)	Accepted w/ TSI
Site LTAR	0.3	0.3

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Ashley Rollins
OTHER(S) PRESENT:

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

Sheet 2 of 2

PROPERTY ID #: 4648051575.00
DATE OF EVALUATION:
COUNTY:

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
B		0-6	BCl wmsbk	Fr SS SP					
5	13%	6-32	RBC wmsbk/ABK	FS SP		48"	PS		PS
		32-48	RYCl wmsbk	Fr SS SP-f SAP					.3
A	LSS	0-10	BR C/CL WFSBK	Fr SS SP SEP					
1	12-13%	10-38	R C WFSBK	Fr SS SP SEP					
	ALP	38-48	YR CL WFSBK	Fr SS SP SEP	Com SAP	48"	-	-	PS
									.3
A	LSS	0-6	RB C/CL WFSBK	Fr SS SP SEP					
2	7-8%	6-24	R C WFSBK	Fr SS SP SEP					
	ALP	24-40	YR CL WFSBK	Fr SS SP SEP	Com SAP	40"	PS	—	PS
		40-48	Var L Sap Mass	Fr SS SP SEP	Com SAP				.3
A	HS	0-4	B CL WFSBK	Fr SS SP SEP					
3	8%	4-22	R C WFSBK	Fr SS SP SEP		48"	—	—	PS
	ALP	22-48	YR C WFSBK	Fr SS SP SEP	Com SAP				.3-
									.225
		0-4	B CL WFSBK	Fr SS SP SEP					
1	FSS	4-28	R C WFSBK	Fr SS SP SEP					
1	15%	28-44	YR CL WFSBK	Fr SS SP SEP	Com SAP	44"	PS	—	PS
	ALP	44-48	RYL Sap M	Fr SS SP SEP	Com SAP				
									.3-.225

COMMENTS:

ERVED
O VERIFY ALL SETBACKS AND ZONING
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| C1 | 60.00' | 59.35' | 56.96' | S 20°12'48" |

PB 6-99

#4 PIN
5.64'
S 81°12'05"E
206.80'
212.44'
R/W
1" PIPE
15' SETBACK LINE
N 07°14'00"E
119.80'
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3 ORANGE 140'
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EXISTING BED
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5 BLUE 38'
6 RED/ORANGE 42'
7 BLUE 38'
GRAVEL
1.5' OFF LINE
C1
FRAME SHED
40' SETBACK LINE
METAL F
#4 PIN
TIE 44.05'
S 70°01'51"E
WELL
3.40' ACROSS LINE
EX. TANK
SPLITTER OR DISTRIBUTION BOX
15' SETBACK LINE
WOODEN PRIVACY FENCE JUST ONTO LOT #20
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APPROX. 760' CONTOUR
APPROX. FLOOD LINE
18" CEDAR TREE

21
PB 6-99
0.866 AC.+-

20
PB 6-99

MORC
BLUFF
60'

Deck and Stair location
Site plan has to be revised and ST to be moved, See house plan. MP

LEGEND:
BOUNDARY LINE
SANITARY SEWER I
NATURAL GAS LINE
UNDERGROUND PC
OVERHEAD UTILITIE
UNDERGROUND TE
WATER LINE
FENCE (TYPE NOTI
CP = COMPUTED POINT (UNMARKED)
R/W = RIGHT-OF-WAY
E/P = EDGE OF PAVEMENT
C/L = CENTERLINE
ϕ = UTILITY POLE

)MON SURVEYS

40 0 40 80 120