

North Carolina Onsite Wastewater Contractor Inspector Certification Board Authorized Onsite Wastewater Evaluator Permit Option for Non-Engineered Systems Notice of Intent (NOI) to Construct

New Expansion Repair Relocation Relocation of Repair Area
Owner or Legal Representative Information:
Name: JSJ Builders Inc
Mailing address: 1135 Robeson St. City: Fayetteville State: NC Zip: 28305
Phone: 910-483-0796 Email: kevinshortridge@gmail.com
WAS THE WAS THE
Authorized Onsite Wastewater Evaluator Information: Name: John Kase Certification #: 10060E Mailing address: PO Box 9321 City: Fayetteville State: NC Zip: 28311 Phone: 910-539-5439 Email: john@southeasternsoil.com
Name: John Kase Certification #: 10060E Certification #: 10060E Certification Number 10060E
Mailing address: PO Box 9321 City: Fayetteville State: NC Zip: 28311
Phone: 910-539-5439 Email: john@southeasternsoil.com
Site Location Information:
Site address: 423 Black Duck Lane, Lillington, NC 27546
Tax parcel identification number or subdivision lot, block number of property:
Parcel # 010527001255 Ducks Landing S/D Lot 100 County: Harnett
. Groot in Groot, Total David Landing G.D. Let 100
System Information: Wastewater System Type: Illb-Pump to Accepted Trenches with 25% reduction Daily Design Flow: 480 GPD Saprolite System: Yes No Subsurface Operator Required: Yes No Water Supply Type: Private Well Public Water Supply Spring Other:
Facility Type:
Residential 4 # Bedrooms 8 Maximum # of Occupants
Business Type of Business and Basis for Flow:
Public Assembly Type of Public Assembly and Basis for Flow:
Required Attachments: V Plat or Site Plan Evaluation of Soil and Site Features by Licensed Soil Scientist
Attest: On this the 2 day of June, 2025 by signature below I hereby attest that the information required to be included with this NOI to Construct is accurate and complete to the best of my knowledge. Furthermore, I hereby attest that I have adhered to the laws and rules governing onsite wastewater systems in the state of North Carolina. This NOI shall expire on 2 day of June, 2030.
Signature of Authorized Onsite Wastewater Evaluator: john kase
Signature of Owner or Legal Representative:
Disclosure: The owner may apply for a building permit for the project upon submitting a complete NOI to Construct and the fee required (if any) to the local health department. An onsite wastewater system authorized by an authorized onsite wastewater evaluator shall be transferable to a new owner with the consent of the authorized onsite wastewater evaluator.
Local Health Department Receipt Acknowledgement: Signature of Local Health Department Representative: Date:

Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321
Fayetteville, NC 28311
Phone/Fax (910) 822-4540
Email mike@southeasternsoil.com

June 1, 2025

Kevin Shortridge JSJ Builders, Inc. 1135 Robeson Street Fayetteville, NC 28305

Re: Soil/site evaluation for subsurface waste disposal (GS 130A-335(A2)/SL 2022-11), 423 Black Duck Lane, Lillington, NC 27546, Parcel Number 010527001255, Lot 100, Ducks Landing Subdivision, Harnett County, North Carolina

Dear Mr. Shortridge,

A soil/site evaluation has been conducted on the aforementioned property at your request. The purpose of the investigation was to determine if soils were suitable or provisionally suitable for a subsurface waste disposal system (conventional, accepted and innovative) to serve a proposed single-family residence (4-bedroom home). All ratings and determinations were made in accordance with "Laws and Rules for Wastewater Treatment and Dispersal Systems, 15A NCAC 18E". This LSS evaluation is being submitted to meet the requirements of GS 130A-335(a2)/SL 2022-11.

The soil evaluation was completed on May 28, 2025. Hand auger borings were advanced under moist soil conditions. The site essentially lies on a linear slope landscape (5% slope). Soil borings conducted in most of this area consisted of 26 or more inches of loamy sand/sandy loam underlain by clay loam and clay to 48 or more inches below the soil surface. Soil wetness and/or parent material (greater than 50%) was not observed shallower than 37 inches below the soil surface in the initial system and 37 inches in the repair system. All other soil characteristics were suitable to at least 48 inches.

Based on soil borings and site conditions, the site would be designated Suitable for a Pump System to Pressure Manifold with Accepted 25% reduction subsurface waste disposal drainfield (0.4 gal/day/ft2 LTAR; initial system). There is enough suitable soil area to allow for Pump System to Pressure Manifold with Accepted 25% reduction subsurface subsurface septic system repair (0.4 gal/day/ft2). A map showing the approximate location of the site and proposed septic layout accompanies this report. If gravity flow cannot be achieved then a design revision may be required for a pump system. [Note: No grading, rutting or other soil disturbance can occur in or near the proposed septic area. Any grading can alter the findings of this report and render the site unusable. As such, we recommend the builder protect the proposed septic areas with rope, flagging, fencing, etc.]

Design Summary

- <u>Initial System</u>: Pump System to Pressure Manifold with Accepted 25% reduction trenches (300', see septic layout detail)
- 480 gal/day flow rate (4BR)
- 22" maximum trench depth as measured on the downhill side
- 0.4 gpd/ft2 LTAR
- Pump to produce 21.3 gpm at 12.9 TDH
- Pump dose 129 gallons (6.4" drawdown-pending final pump tank gallons/inch)
- 1000-gallon septic tank and pump tank (each certified watertight)
- Repair System: Pump System to Pressure Manifold with Accepted 25% reduction trenches (300', see septic layout design detail)
- 22" maximum trench depth as measured on the downhill side
- 0.4 gpd/ft2 LTAR
- No grading, rutting or filling in septic areas
- No vertical cuts (greater than 2') within 15' of septic lines/areas
- Keep tanks and drainlines 10' from property lines
- Keep supply line 5 or more feet from property lines
- Install in dry soil conditions
- Maintain natural contours when clearing the lots
- Direct gutter water away from septic system

During site construction, it is important not to impact and suitable or provisionally suitable soil areas with activities such as excavation or filling. Only the vegetation should be removed in the areas of the proposed septic drainfields to prevent any disturbance of naturally occurring soil. We recommend all lot clearing activity be delayed until the local health department issues a permit.

To the extent possible, we have identified the soil types that will impact the flow of wastewater on this site and have provided a professional opinion as to the best septic system layout. This report does not guarantee that the proposed septic system will properly function for any specific length of time.

John Kase

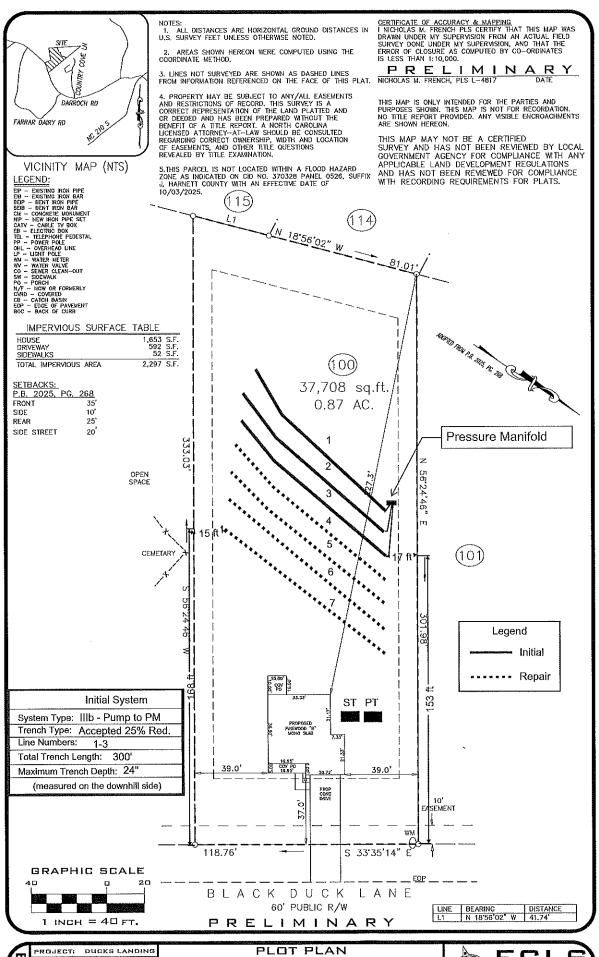
Sincerely

NC Licensed Soil Scientist #1323

NC Authorized Wastewater Evaluator #10060E

NC REHS #1785







DWG DATE:

FOR

JSJ BUILDERS

BLACK DUCK LANE LOT 100 DUCKS LANDING SUBDIVISION ANDERSON CREEK TWP., HARNETT CO., NC P.B. 2025, PG. 268



SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOC., INC.

Initial

Repair

PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET

SUBDIV	ISION: Duck	s Landing		LOT 100
INITIAL	SYSTEM: Acc	epted 25% Reduction		REPAIR: Accepted 25% Reduction
DISTRIB	BUTION: Press	sure Manifold		DISTRIBUTION Pressure Manifold
BENCHI	VIARK:	100.0		LOCATION H2O METER 8.5
NO. BEI	DROOMS: 4			LTAR 0.4 GPD/FT^2
	TANK SIZE 10	000 Gallons		PUMP TANK SIZE 1000 Gallons
LINE	FLAG (ELEVATION(F	T) LENGTH(FT)
1	Blue	•	106	114
2	Whi	te	105.5	109
3	Red		104.9	108
ALL ALVANDA III .		4000-000-00-00-00-00-00-00-00-00-00-00-0		Total- 331
4	Blue		104.4	110
5	Yell		103.8	111
<u>6</u> 7	Whi Gre		103.3 102.5	112 111 Not Used
				Total- 323
ву Јо	hn Kase			DATE 5/28/2025
TYPICA	L PROFILE			THERE SHALL BE NO GRADING,
0-30	LS - GR	VFR/NS/NP		CUTTING, LOGGING OR OTHER SOIL
30-40	SCL - SBK	FR/SS/SP		DISTURBANCE IN SEPTIC AREA
40-46	CL - SBK	FR/SS/P		HEALTH DEPARTMENT USE ONLY.
46	10YR7/2			DESIGNS DO NOT GURANTEE FUNCTIONALITY

SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOCIATES, INC. RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit #

Ducks Landing Lot 100

of BDR:

Daily Flow: 4

480

ìn

ft

ft

ft

gals,

H20 Meter

gal/day

L.T.A.R.: 0.4000

gal/day/sq.ft

Septic Tank:

1200

gals

Pump Tank:

3.00

1200

gals

900

System Type: Accepted

imber of Taps:

3

Length of Trenches:

300

ft(See Tap Chart for Details) in

pth of Trenches:

24

Manifold Length:

36

Sq. Foot:

mifold Diameter:

4in sch 80pvc

Tap Configuration: 6 in spacing

ft

side(s) of manifold

pply Line: length:

200

Diameter:

2

1

ction Loss + Fitting Loss:

in sch 40pvc

Elevation Head:

9.50

ft(supply line length + 70' for fittings in pump tank)

sign Head: tal Head:

14.50

is = 100.00

2

Pump to Deliver:

21.33

gals/min at

Design Head:

14.50

ft head

sing Volume:

awdown:

Benchmark

129

129

8.5

gals divided by

20

gals/in =

6.4

inches

nplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined type of pump tank used. A septic tank filter is required.

TAP CHART

Genomiana	0.0	100.00	THE INCIDE					_		
np tank elev.		6	102.50	Pump elev.	97.50		Manifold elev.	107.00		
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	# of Panels (PPBPS)
1	Red	2.50	106.00	100	1/2in SCH 40	7.11	160,00	300	0.5333	
2	White	3.00	105.50	100	1/2in SCH 40	7.11	160.00	300	0,5333	
3	Pink :	3.60	104.90	100	1/2in SCH 40	7.11	160.00	300	0.5333	
			108,50			0	0.00	0	#DIV/0!	
			108,50			0	0.00	0	#DIV/0!	
	1.		108.50			0	0.00	0	#DIV/0!	
			108.50	N 1 N		0	0.00	0	#DIV/0!	
			108.50			0	0.00	0	#DIV/0!	
			108.50			0	0.00	0	#DIV/0!	
	3.3 5343		108.50	The State St	in a subbase released has	0	0.00	0	#DIV/0!	
			Total Feet =	300	gal/min =	21.33		LTAR =	0.4000	
			Feet Required =	300	Velocity =	2.04		(Itar + 5%)	0.4200	
al # of Panels (P	PBPS)			Des. Flow	480			(Itar w/25% red)	0.5333	
of Dose Vol.		66		Pump Run=	22,50			(Itar + 5%)	0.5600	
se Volume		129		Tank Gal/IN	20					
se Pump Time		6.03		Elev. Head	9.50					
⊮down in Inche ⊭mments:	s 	6.4								

SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOCIATES, INC. PRESSURE MANIFOLD DESIGN - REPAIR SYSTEM

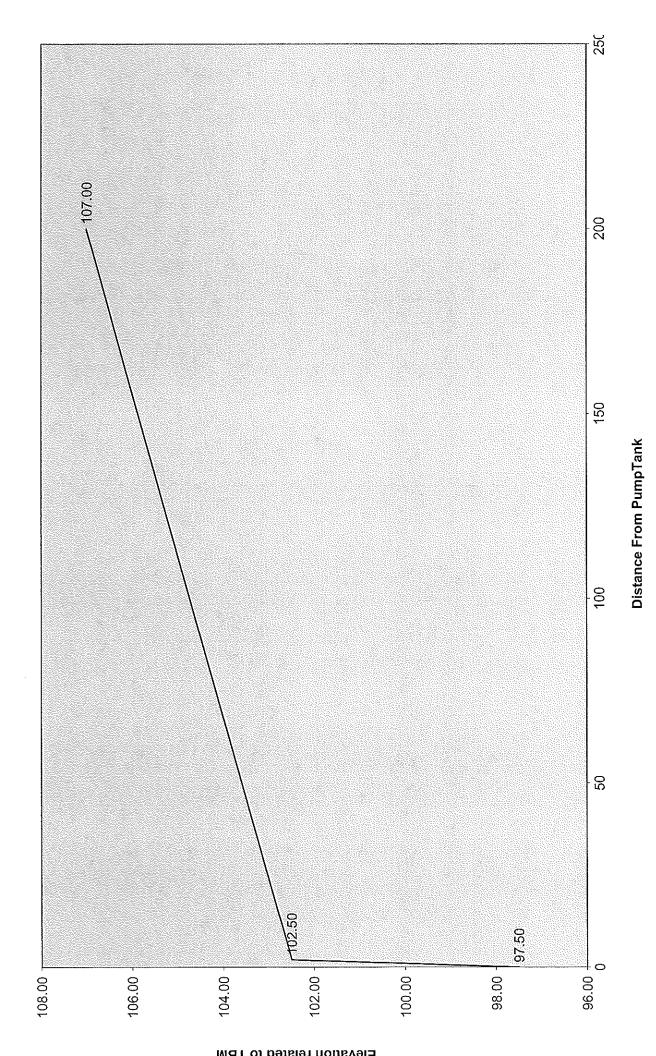
L.T.A.R.: 0.4000 gal/day/sq.ft # of BDR: gal/day Daily Flow: 480 Septic Tank: 1200 gals Pump Tank: 1200 gals Sq. Foot: 900 System Type: Accepted ft(See Tap Chart for Details) Length of Trenches: 300 Number of Taps: 3 Depth of Trenches: <u>22</u> in Manifold Length: 36 in side(s) of manifold Tap Configuration: 6 in spacing 1 Manifold Diameter: 4in sch 80pvc Supply Line: length: 200 ft Diameter: 2 in sch 40pvc ft(supply line length + 70' for fittings in pump tank) Friction Loss + Fitting Loss: 3.00 Design Head: 2 ft Elevation Head: 7.90 Pump to Deliver: gals/min at 12.90 ft head Total Head: 12.90 ft 21.33 **Dosing Volume:** 129 gals,

Drawdown: 129 gals divided by 20 gals/in = 6.4 inches

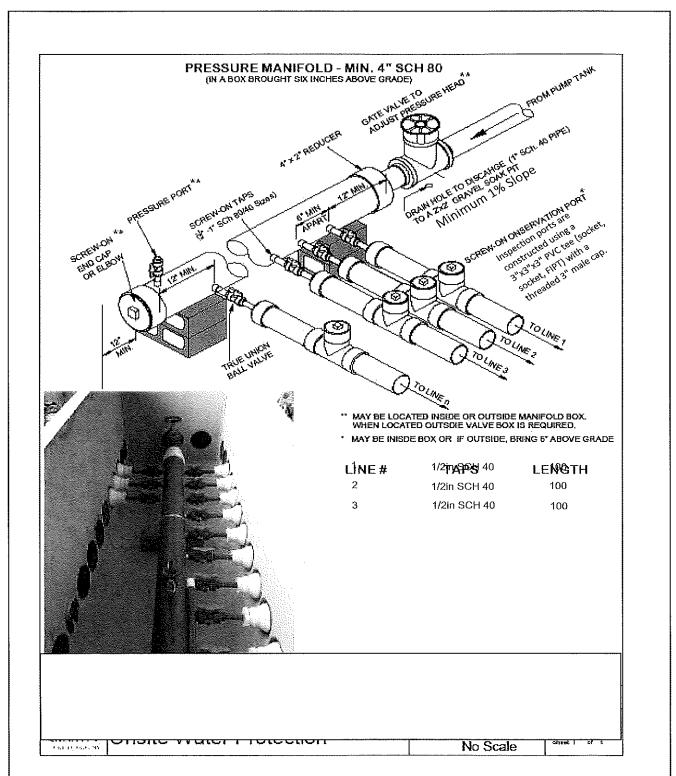
Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

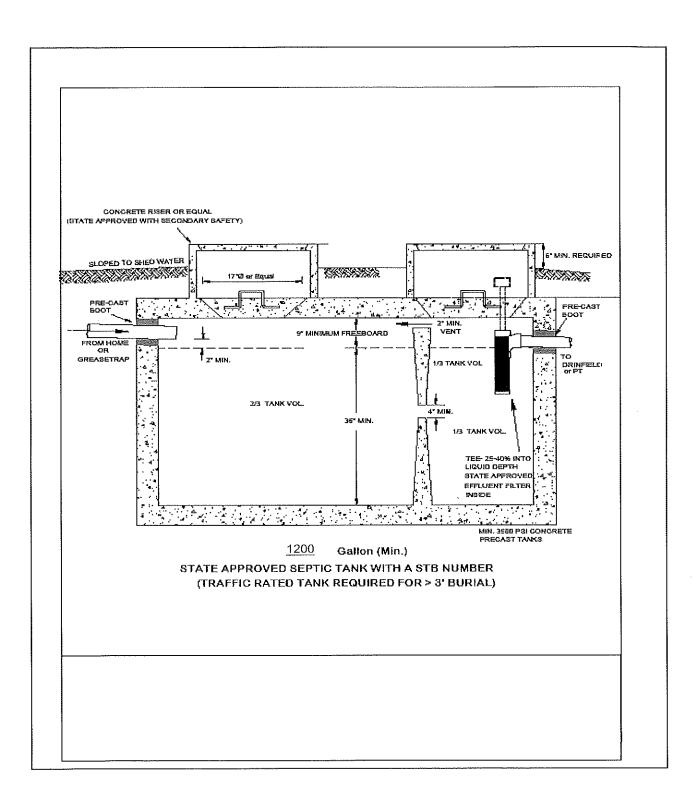
TAP CHART

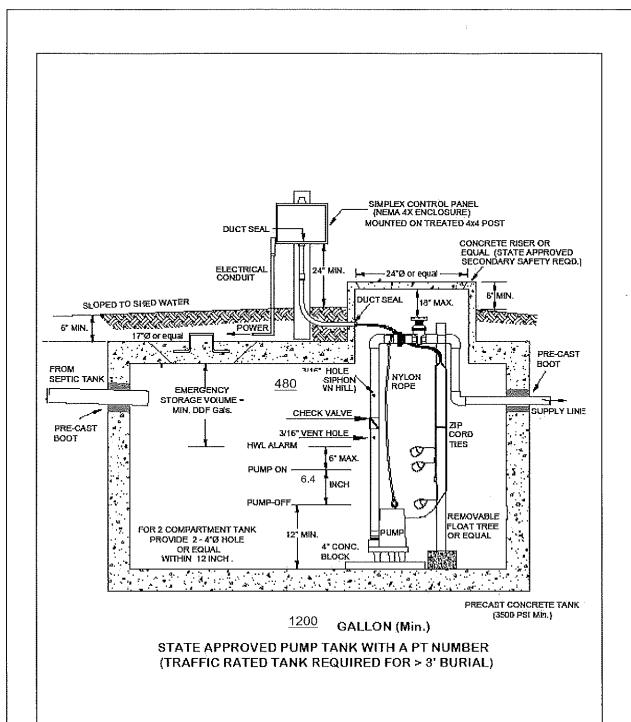
Benchmark Pump tank elev. line 5 6 7	8.5 color Blue Yellow White	is = 100.00 <u>6</u> rod read 4.10 4.70 5.20	H20 Meter 102.50 Elevation 104.40 103.80 103.30 108.50 108.50 108.50 108.50 108.50	Pump elev. length 100 100	97.50 hole size 1/2in SCH 40 1/2in SCH 40 1/2in SCH 40	flow/tap 7.11 7.11 7.11 0 0 0	Design Head: Manifold elev. gal/day 160.00 160.00 0.00 0.00 0.00 0.00 0.00	2 105.40 trench area 300 300 0 0 0 0	LINE LTAR 0.5333 0.5333 0.5333 #DIV/0! #DIV/0! #DIV/0! #DIV/0! #DIV/0!	# of Panels (PPBPS)
			108.50 Total Feet ≕	300	gal/min =	0 21.33	0.00	0 LTAR =	#DIV/0I 0.4000	
			Feet Required =		Velocity ≔	2.04		(Itar + 5%)	0.4200	
Total # of Panels	(PPBPS)			Des. Flow	<u>480</u>			(ltar w/25% red)	0.5333	
% of Dose Vol.		66		Pump Run=	22.50			(Itar + 5%)	0.5600	
Dose Volume		129		Tank Gal/IN	<u>20</u>					
Dose Pump Time	•	6.03		Elev. Head	7,90					
Drawdown in Inc Comments:	hes	6.4								



	Line 1	Line 2	Line 3	Line 4	Line 5	Line 6	Line 7	Line 8	Line 9	Line 10
Taps	1/2in SCH 40	1/2in SCH 40	1/2in SCH 40							
Flow	7.11	7.11	7.11	0	0	0	0	0	0	0







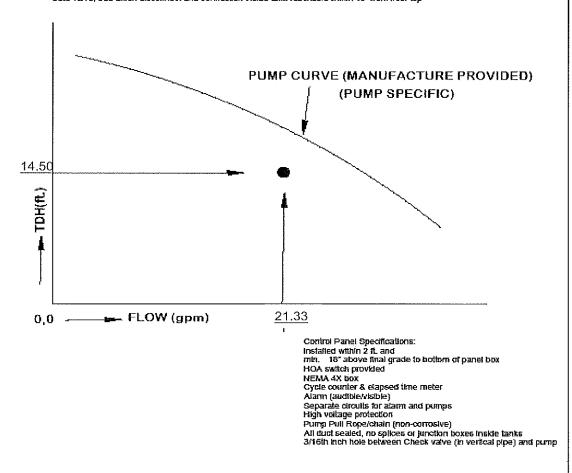
PUMP CURVE AND SPECIFICATIONS

Pump and Control Panel Specification Required: Pump:

Pump to be UL or equal listed

TOH and Pumping rate catcs & curve Dose volume

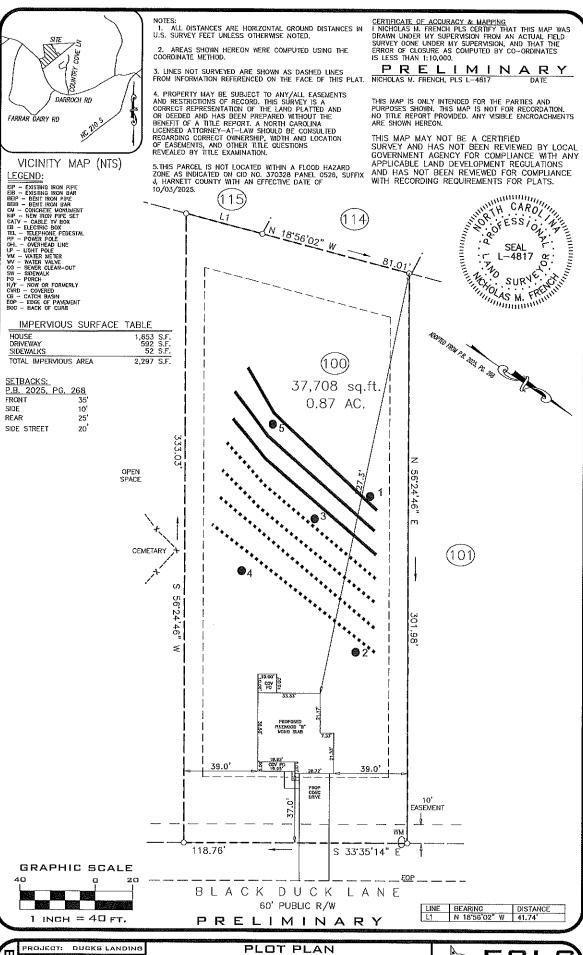
Dose votume
3 floats system in a float tree or bracket of non-corrosive material
Highwater alarm within 6" from "on" float
Off float at min. 12" from bottom of tank or to submerge pump
(Manufacture may certify/specify pumps suitability tater than 12" if unsubmerged)
Supply Line Profile when variation in ground profile of more than 5'
Ethicent Pump should handle min. 1/2 "solids"
Gate valve, true union disconnect and connection inside tank reachable within 16" from riser top



SOUTH	EASTERN SOIL ASSOCIA	L & ENVIRONMENTAL TES. INC.	SOI	L/SITE EVALUATI	ON SHEET		Sheet #:		1
OWNER.	/APP. NAME:	JSJ Builders Inc.			SUBDIV./LOT#	Ducks La	anding Lo		
-	ON OF SITE:	423 Black Duck Lane, L	illington						
COUNTY	/ :	Harnett	PROPERTY ID #:	#010527001255			/ALUATE		5/28/2025
PROPOS	SED FACILITY:	SFR	PROPOSED DESIGN		480 GPD		RTY SIZE	0.87 ac	
		Public		WATER SUPPLY		10'			
	WASTEWATE	R:	Domestic		EVALUATION MET	HOD:		Auger	
R O	.0502		SOIL MORPH	HOLOGY		OTHER LE FACT	ORS		.0509
F L E	LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	.0503 STRUCTURE/ TEXTURE	.0503 CONSISTENCE/ MINERALOGY	.0504 SOIL WETNESS/ COLOR	,0505 SOIL DEPTH	.0506 SAPRO CLASS	.0507 RESTR HORIZ	PROFILE CLASS & LTAR
#		0-28	LS - GR	VFR/NS/NP					
	SS	28-34	SCL-SBK	FRIABLE/SS/SP			мот	Now	
1	5% .0502(d)	34-44	CL - SBK	FRIABLE/S/P		48	NOT OBSER VED	NOT OBSE RVED	S - 0.45
	.0502(d) SLOPE CORRECTION	44	CL - SBK	FRIABLE/S/P	10YR7/2				
	1.8"								
	ı	0-30	LS-GR	VFR/NS/NP	•				
	5%	30-40	SCL - SBK	FR/SS/SP					
2	.0502(d) SLOPE	40-46	CL - SBK	FRIABLE/S/P		48	N.O.	N.O.	S - 0.5
	CORRECTION	46	CL - SBK	FRIABLE/S/P	10YR7/2				
	1.8"								
	L	0-26	LS - GR	VFR/NS/NP		-			
	1%	26-37	CL - SBK	FRIABLE/S/P	40VD7/0	_	N.O.		S-0,4
3	.0502(d) SLOPE CORRECTION	37	CL - SBK	FRIABLE/S/P	10YR7/2		N.O.	N.O.	5-0,4
	0.4"	0-30	LS-GR	VFR/NS/NP					
	<u>L</u>	30-38	SCL - SBK	FR/SS/SP		1			
4	5%	38-40	CL - SBK	FRIABLE/S/P			N.O.	N.O.	S-0.5
	.0502(d) SLOPE CORRECTION	40	CL - SBK	FRIABLE/S/P	10YR7/2				
	1.8"								
DESCR		INITIAL SYSTEM	REPAIR SYSTEM	SITE CLASSIFIC		Suitable			
Available		Suitable	Suitable	EVALUATED BY		John Ka	se		10 80 II SON -
System		25% Reduction	25% Reduction	OTHER(S) PRES	DENT	<u> </u>		\$\\Z	一個系統
Site LTA		0.400	0.400				-	MAG	
	m Trench	22"	22" No	-				WAT	
	e System:	No	, 	aido of transh				11:31	ご言/』//一
Comme	nts:	Trench bottoms depth i	measure on downslope	aine oi tieticii"					ADE CO

	SOUTHEASTE		SOIL	/SITE EVALUATION	ON SHEET		Project		0
		JSJ Builders Inc.				T=	Sheet #		2
		423 Black Duck Lar	as Lillington	;	SUBDIV./LOT#	IDUCKS L	anding Lo	ot 100	
COUN		Harnett	PROPERTY ID #:	#010527001255	·	IDATE E	VALUATI	=D:	5/30/2025
	OSED FACILITY		PROPOSED DESIGN		480 GPD		RTY SIZE		0/00/2020
	R SUPPLY:	Public	<u> </u>	WATER SUPPLY		10'	TO TABLE	0.01	
	OF WASTEWAT	<u> </u>	Domestic	.1	EVALUATION ME			Auger	<u> </u>
P			SOIL MORPI			OTHER			
R O			(.503	5)	PROF	ILE FAC	TORS		
F L E	.502 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	.503 STRUCTURE/ TEXTURE	.503 CONSISTENCE / MINERALOGY	.504 SOIL WETNESS/ COLOR		.506 SAPRO CLASS	.0507 RESTR HORIZ	PROFILE CLASS & LTAR
#	-	0-26	LS-GR	VFR/NS/NP					
	L	26-38	SCL-SBK	FR/SS/SP					
5	5%	38	AUGER REFUSAL			38	N.O.	N.O.	S-0,5
	.0502(d) SLOPE CORRECTION								
	1.8"								
	.0502(d) SLOPE CORRECTION								
	.0502(d) SLOPE CORRECTION								
	.0502(d) SLOPE CORRECTION								
Comm	ents:								

			Standa	tandard Abbreviations	iations		
LANDSCAPE POSITION GROUP SOIL TEXTURE	GROUP	SOIL TEXTURE	CONVENTION AL LTAR	SAPROLITE	LPP LTAR	MINERALOGY/ CONSISTENCE	STRUCTURE
CC (Concave Slope)		S (Sand)	0.0	0.6 - 0.8	0 7 0	SEXP (Slightly Expansive)	G (Single Grain)
CV (Convex Slope)	-	LS (Loamy Sand)	2.0 - 0.0	0.5 - 0.7	4.0	EXP (Expansive)	M (Massive)
D (Drainage Way)							GR (Granular)
FP (Flood Plain)	=	SL (Sandy Loam)	80 90	0.4 - 0.6	0 0	MOIST	SBK (Subangular Blocky)
FS (Foot Slope)	=	L (Loam)		0.2 - 0.4	4.0 - 0.0	VFR (Very Friable)	WSBK (Weak Subangular Blocky)
H (Head Slope)						FR (Friable)	ABK (Angular Blocky)
L (Linear Slope)		SiL (Silt Loam)		0.1 - 0.3		FI (Firm)	PL (Platy)
N (Nose Slope)		SCL (Sandy Clay Loam)		0.05 - 0.15*		EFI (Extremely Firm)	PR (Prismatic)
R (Ridge/Summit)	=	CL (Clay Loam)	0.3 - 0.6		0.15 - 0.3		MA-RCF
S (Shoulder Siope)	-	SiCL (Silty Clay Loam)		N/A		WET	AR (Auger Refusal)
T (Terrace)		Si (Silt)				NS (Non-Stick)	The state of the s
TS (Toe Slope)						SS (Slightly Sticky)	OTHER
		SC (Sandy Clay)				S (Sticky)	NO (Not Observed)
	≥	SiC (Silty Clay)	0.1 - 0.4	A/N	0.05 - 0.2	VS (Very Sticky)	***************************************
		C (Clay)				NP (Non-plastic)	
						SP (Slightly Plastic)	
	O (Organic)	ic)	N/A	N/A	N/A	P (Plastic)	
						VP (Very Plastic)	A CONTRACTOR OF THE CONTRACTOR
NOTES:							
SAPROLITE*	*Sandy c	lay loam saprolite can only	y be used with a	ivanced pretre	atment in a	*Sandy clay loam saprolite can only be used with advanced pretreatment in accordance with 15A NCAC 18E .1200	E.1200.
HORIZON DEPTH	In inches	n inches below natural soil surface					
DEPTH OF FILL	In inches	n inches from land surface					
RESTRICTIVE HORIZON	Thicknes	RESTRICTIVE HORIZON Thickness and depth from land surface	face				
SAPROLITE	S (suitab	S (suitable) or U (unsuitable)		Line of the state		The state of the s	
SOIL WETNESS	Inches fr	Inches from land surface to free water or in	iter or inches froi	n land surface	to soil color	s with chroma 2 or less - reco	iches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION	S (Suitab	S (Suitable) or U (Unsuitable)					, in the state of
Long-term Acceptance Rate (LTAR): gal/day/ft2	te (LTAR): gal/day/ft2					The state of the s
Marian de la companya							



	,,			
m	PROJECT:	DUCKS	LANDING	Γ
	DRAWN BY:		ViH]
	SURVEYED	EY:		1
l to	FIELD WOR	K1		1
(n)	STAG BWD		-16-2026	
_	The second second second	Service for more planted and when	Territoria - Carro partir a	***

FOR

JSJ BUILDERS

BLACK DUCK LANE
BLACK DUCK LANE
LOT 100 DUCKS LANDING SUBDIVISION
ANDERSON CREEK TWP., HARNETT CO., NO
P.B. 2025, PG. 268

