

Central Carolina Soil Consulting, PLLC

1900 South Main Street, Suite 110

Wake Forest, NC 27587

919-569-6704

CCSC Job# 1799

Checklist of required items for Zest Lane, Lots 1-3 Review with Respect to On-Site Sewage Disposal Systems.

- A** Lots 2 and 3 on Zest Lane, contain at least 40,000ft² of suitable soils and meet the minimum lot requirements set forth in Section V of the Sewage Regulations in Wake County.
- 1) Soil Map
 - a) Soil suitability units marked on attached detailed soils map.
 - b) Square footage of each soil unit is outlined on the attached soils map.
 - c) Delineation of unsuitable topography that would prohibit the use of an onsite subsurface wastewater system is included with the soil unit "UN" on the attached detailed soils map.
 - d) Topographic map with 2' contours included on attached soils map.
 - 2) Report
 - a) When the evaluation was conducted no road construction or installation of utilities had started. The evaluation was conducted under moist soil conditions.
 - b) Hand auger borings were used to evaluate the site.
 - c) The upland soils formed from felsic crystalline parent material such as gneiss or schist.
 - d) Soil descriptions are attached to this document.

- e) The proposed use for this subdivision will be 3 to 4-bedroom homes served by individual wells.
- f) The Section V and VI Certifications are attached to the surveyor's mylars.
- g) N/A

B Lot 1 on Zest Lane, does not contain 40,000ft² of provisionally suitable soils and does not meet the minimum lot requirements set forth in Section V of the Sewage Regulations in Wake County, but are considered to conform to Section VI of the Sewage Regulations

- 1) Site plan for lot 1 is attached and drawn to the appropriate scale.
 - a) Delineation of soil units attached on detailed soils map.
 - b) Location of building envelope attached on each Section VI site plan.
 - c) Location of existing and proposed accessory structures attached on each Section VI site plan.
 - d) Location of existing well sites and/or drain fields on adjacent properties shown on attached soils map and/or appropriate site plan.
 - e) Horizontal setback requirements shown on mylars or detailed soils map.
 - f & g) Delineation of initial and repair wastewater disposal system shown on attached Section VI site plans.
 - h) Ground elevations of nitrification lines, distribution method and tap charts provided with site plans.
 - i) Proposed well sites shown on attached site plans.

2) Soil Report

- a) Soil report for site is attached, which includes the proposed long-term acceptance rates for the subdivision.
- b) The proposed systems in the subdivision will mostly be conventional depth (gravity, pump to D-Box or pressure manifold). There may be small inclusions of soils that will support LPP (low pressure pipe) systems of Subsurface Drip Systems.



Zest Lane
Lots 1-3
Wake County, NC
Provisionally Suitable Soils Calculations

Lot Number	Provisionally Suitable Soils (ft ²)	Total Soils (ft ²)
1	19,818	150,567
2	41,109	71,377
3	101,748	113,941

**CCSC SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM**

Sheet:
Property ID:
Lot #:
File #:
AppID:

Owner:

Applicant:

Address:

Date Evaluated:

Proposed Facility: Single Family

Design Flow (.1949)

Property Size:

Location of Site: Zest Lane, Lots 1-3

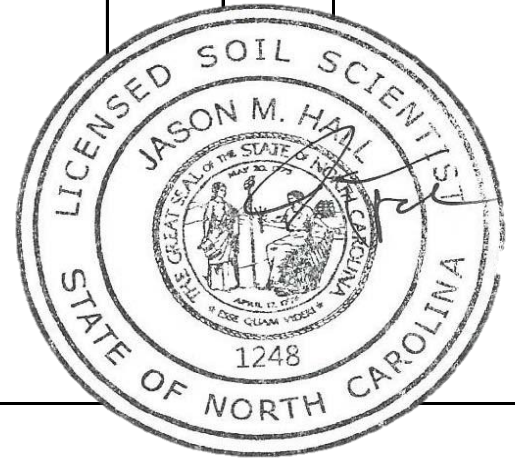
Property Recorded:

Water Supply: ☒ Public ☐ Individual ☐ Well ☐ Spring ☐ Other

Evaluation Method: ☒ Auger Boring ☐ Pit ☐ Cut

Type of Wastewater: ☒ Sewage ☐ Industrial Process ☐ Mixed

P R O F I L E #	.1940 Landscape Position/ Slope%	Horizon Depth (IN.)	SOIL MORPHOLOGY .1941		b PROFILE FACTORS				Profile Class & LTAR
			.1941 Structure/ Texture	.1941 Consistence Mineralogy	.1942 Soil Wetness/ Color	.1943 Soil Depth (IN.)	.1956 Sapro Class	.1944 Restr Horiz	
1	LS, ~13%	A, 0-3	SG, SL	VFR, NS, NP					
		Bt1, 3-9	SBK, CL	FR, SS, SP					
		Bt2, 9-32	SBK, C	FI, SS, SP		PS			PS, .3
		BC, 32-35	SBK, CL	FR, SS, SP		PS			PS, .3
		C, 35-38+	SG, L	FR, NS, NP		UN	pits needed	UN	UN
2	LS, ~13%	A, 0-3	SG, SL	VFR, NS, NP					
		Bt1, 3-8	SBK, CL	FR, SS, SP					
		Bt2, 8-25	SBK, C	FI, SS, SP		PS			PS, .3
		BC, 25-28	SBK, CL	FR, SS, SP		PS			PS, .3
		C, 28-32+	SG, L	FR, NS, NP			pits needed		



Description	Initial System	Repair System
Available Space (.1945)	Yes	Yes
System Type(s)	Accepted	Accepted
Site LTAR	.3	.3

Other Factors (.1946):

Soil Evaluation By: Jason Hall

Others Present:

Site Classification (.1948):

Site Evaluation By:

Others Present:

COMMENTS:

Sheet:
FILE #:

<u>Landscape Position</u>	<u>Group</u>	<u>Texture</u>	<u>.1955 LTAR</u>	<u>Structure</u>
R-Ridge	I	S-Sand	1.2 - 0.8	SG-Single Grain
SS-Shoulder Slope		LS-Loamy Sand		M-Massive
LS-Linear Slope	II	SL-Sandy Loam L-Loam	0.8 - 0.6	CR-Crumb
FS-Foot Slope				GR-Granular
NS-Nose Slope				SBK-Subangular Blocky
HS-Head Slope	III	SI-Silt SICL-Silty Clay Loam	0.6 - 0.3	ABK-Angular Blocky
CC-Concave Slope				PL-Platy
CV-Convex Slope				PR-Prismatic
T-Terrace				
FP-Flood Plain	IV	CL-Clay Loam	0.4 - 0.1	
		SCL-Sandy Clay Loam		
		SC-Sandy Clay		
		SIC-Silty Clay C-Clay		

Consistence

Moist

VFR-Very Friable
FR-Friable
FI-Firm
VFI-Very Firm
EFI-Extremely Firm

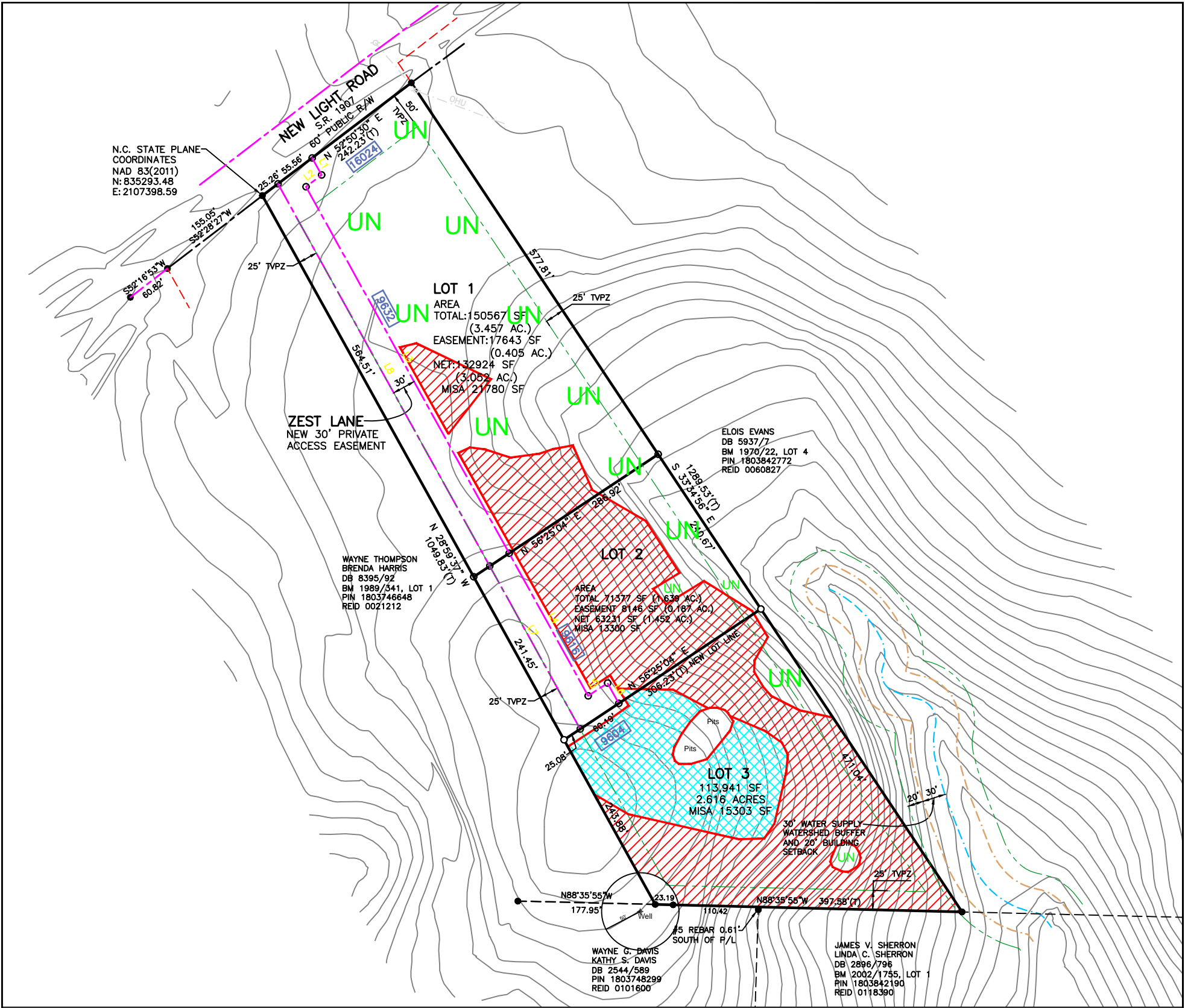
Consistence

Wet

NS-Non-Sticky
SS-Slightly Sticky
S-Sticky
VS-Very Sticky
NP-Non-Plastic
SP-Slightly Plastic
P-Plastic
VP-Very Plastic

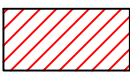
Mineralogy

SEXP-Slightly Expansive
EXP-Expansive

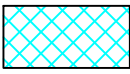


*Soil borings flagged in the field and GPS located.
*Not a survey.
*Septic system setbacks listed below for new lots.
1) 10' from property lines.
2) 50' from wells for primary systems (100' if in saprolite).
3) 50' from wells for repair systems (100' if in saprolite).
4) 50' from surface waters (streams, ponds, lakes).
*Any mechanical disturbances such as grading, cutting and filling of the suitable soil areas can render areas unsuitable for future septic systems.
*See accompanying report for additional information.
*Base map acquired from Johnston County GIS website.
*Due to soil variability, CCSC cannot guarantee that the areas shown as suitable will be permitted by the local Health Department.
*The preliminary (approximate) soil lines cannot be used as legal descriptions for purposes of a land transfer or legal documentation.
*Additional field work may be required for a septic permit (septic system field layout/design)

Legend



Areas contain soils with 30 inches or more of provisionally useable material and have potential for conventional or modified conventional septic systems. There will be inclusions of soils in these areas that may only be suitable for LPP septic systems.

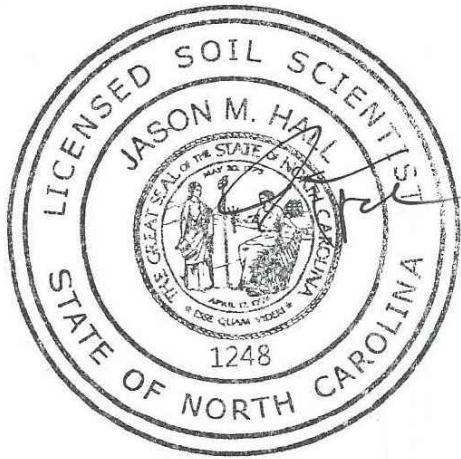


Areas contain soils with 24 to 29 inches or more of provisionally useable material and have potential LPP or ultra-shallow conventional septic systems. These areas will contain small areas of soil with greater than 30 inches of suitable soil material that can be used for conventional septic systems.

UN

Areas unsuitable for septic.

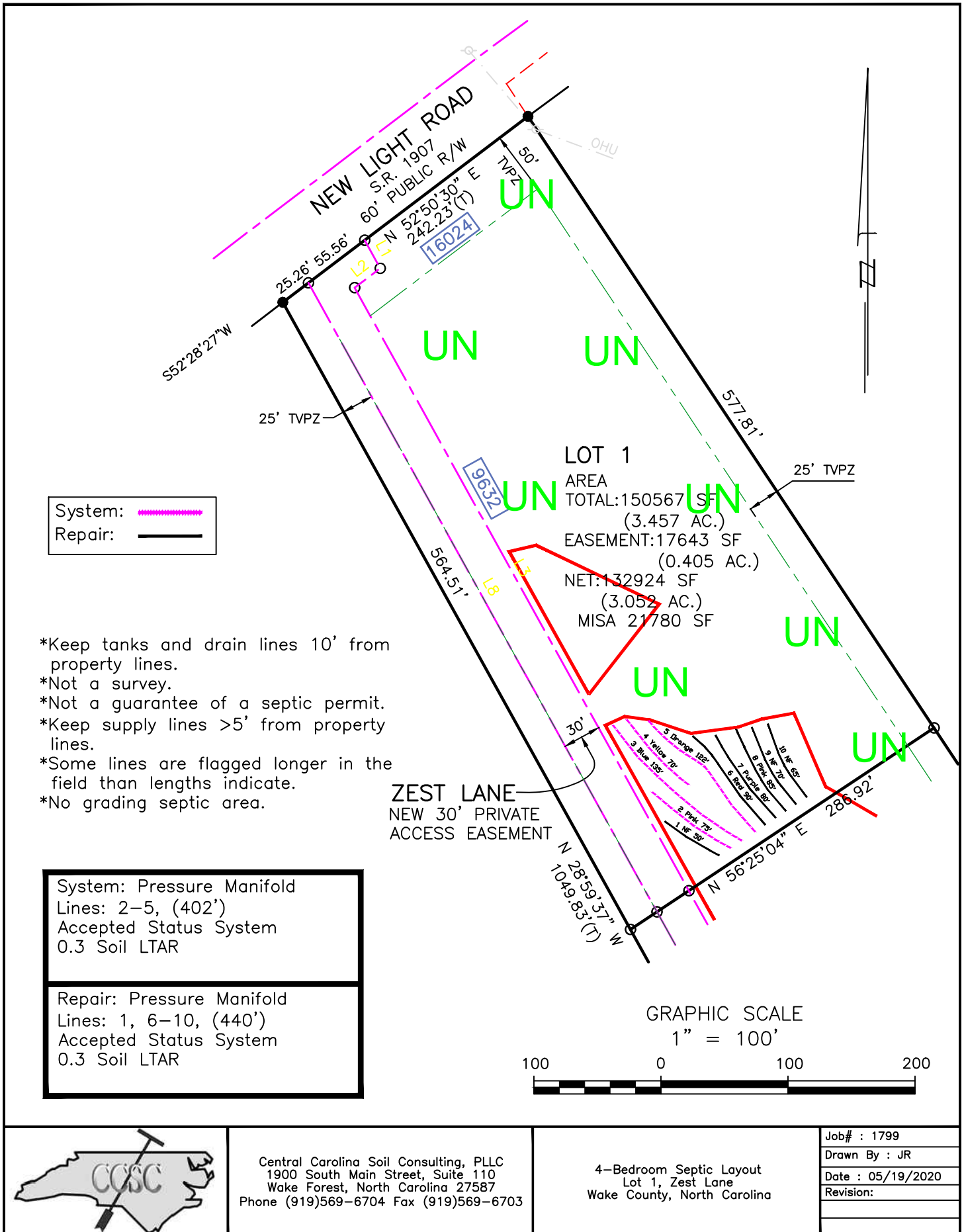
GRAPHIC SCALE
1" = 150'



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Soils Evaluation
Lots, 1-3
Zest Lane
Wake County, North Carolina

Job# : 1799
Drawn By : JR
Date : 06/11/2020



Zest Lane, Lot 1 TAP CHART

Bench Mark		is = 100.00		Location of BM		Elevation Head			3.70	
Pump tank elev.		100.00		Pump elev.		94.60		Manifold elev.		98.30
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	
2	Pink	2.70	97.30	75	1/2in SCH 40	7.11	87.02	225	0.3867	
3	Blue	3.30	96.70	135	3/4in SCH 40	12.5	152.98	405	0.3777	
4	Yellow	3.90	96.10	70	1/2in SCH 40	7.11	87.02	210	0.4144	
5	Orange	4.40	95.60	122	3/4in SCH 40	12.5	152.98	366	0.4180	
		total	feet =	402	gal/min =	39.22	LTAR =		0.3000	
							LTAR + %5		0.3150	
% of Dose Vol.		75	Des. Flow		480	(ltar W/ INOV)		0.4000		
Dose Volume		195.98	Pump Run=		12.24	(ltar W/ INOV + 5%		0.4200		
Dose Pump Time		5.00	Tank Gal/IN		19.65					
Drawdown in Inches		9.97								

Zest Lane, Lot 1 Repair TAP CHART

Bench Mark		is = 100.00	Location of BM		Elevation Head				4.00
Pump tank elev.		100.00	Pump elev.	94.60	Manifold elev.				98.60
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	NF	2.40	97.60	50	1/2in SCH 80	5.48	59.75	150	0.3984
6	Red	5.40	94.60	90	3/4in SCH 80	10.1	110.13	270	0.4079
7	Purple	6.70	93.30	80	1/2in SCH 40	7.11	77.53	240	0.3230
8	Pink	8.00	92.00	85	1/2in SCH 40	7.11	77.53	255	0.3040
9	NF	9.30	90.70	70	1/2in SCH 40	7.11	77.53	210	0.3692
10	NF	10.60	89.40	65	1/2in SCH 40	7.11	77.53	195	0.3976
		total	feet =	440	gal/min =	44.02	LTAR =		0.3000
							LTAR + %5		0.3150
% of Dose Vol.		75	Des. Flow		480	(ltar W/ INOV)		0.4000	
Dose Volume		214.50	Pump Run=		10.90	(ltar W/ INOV + 5%		0.4200	
Dose Pump Time		4.87	Tank Gal/IN		19.65				
Drawdown in Inches		10.92							