		Permit #:
NC DEPARTMENT OF HEALTH AND HUMAN SERVICES	Division of Public Health	cretary y Secretary for Health ssistant Secretary for Public Health
	(a2) Construction Authorization	
IMPROVEMEN	T PERMIT FOR G.S. 130A-33	35(a2)
County: PIN/Lot Identifier: Issued To:		
Property Location:		
Subdivision (if applicable)	Lot #:	Block: Section:
LSS Report Provided: Yes No		
If yes, name and license number of LSS:		
New Expansion Proposed Structure:	System Relocation	Change of Use
Number of bedrooms: Number of Occupants:		
		trial process
Proposed Design Daily Flow: GPD Pro		
Proposed Wastewater System Type*:		
Proposed Wastewater System Type*:		
*Please include system classification for proposed wastewater	system types in accordance with 15	A NCAC 18A .1961 Table V(a)
Saprolite System (initial): Yes No Saprolite Sys	tem (repair): 🗌 Yes 🔲 No	
Fill System (Initial):       Yes       No       If yes, specify:       New         Fill System (repair):       Yes       No       If yes, specify:       New         Usable Soil Depth (Initial):       Usable Soil Depth (Initial):       Usable Soil Depth (Initial):	Existing (when adding more than	
Max. Trench Depth (Initial)*: Max. Trench	Depth (Repair) <sup>‡</sup> :	$^{\ddagger}$ Measured on the downhill side of the trench
Artificial Drainage Required: Yes No If yes, please sp	ecify details:	
Type of Water Supply: Private well Public well	Shared well 🗌 Municipal Supply	Spring Other:
Drainfield location meets requirements of Rule .1945: Yes Permit valid for: Five years [site plan submitted pursuant t		
Permit conditions:		
Licensed Soil Scientist Print Name:		
Licensed Soil Scientist Signature: Xlex Xdan	mæ	Date:
The LSS evaluation is being submitted *See	pursuant to and meets the requiren e attached site sketch*	nents of G.S. 130A-335(a2).
NC DEPARTMENT OF HEALTH A	ND HUMAN SERVICES • DIVISION	OF PUBLIC HEALTH
LOCATION: 5605 Six MAILING ADDRESS: 1632	Forks Road, Building 3, Raleigh, NC Mail Service Center, Raleigh, NC 27 • TEL: 919-707-5854 • FAX: 919-845-	27609 699-1632

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER



# This Section for Local Health Department Use Only

Initial submittal received: \_\_\_\_\_\_ by \_\_\_\_\_

Date Initials

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

Incomplete (If box is checked, information in this section is required.)

The following items are missing:

Copies of this were sent to the LSS and the Applic	cant on		
15-0	Date		
State Authorized Agent:		Date:	
Complete			
State Authorized Agent:		Date:	

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This permit is subject to revocation if the site plan, plat, or the intended use changes. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: \_\_\_\_\_

\*See attached site sketch\*



Permit #: \_

### **Re-submittal of Improvement Permit**

LHD USE ONLY: This IP resubmittal received:		by
	Date	Initials

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

I, \_\_\_\_\_\_\_hereby attest that the information required to be included with this re-submittal Licensed Soil Scientist (Print Name) is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

Signature of Licensed Soil Scientist

Date

The section below is for Local Health Department use after submittal of items noted as missing above.

#### LHD Follow-up Completeness Review of Improvement Permit

The review for completeness of this Improvement Permit re-submittal was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

Date

Incomplete (If box is checked, information in this section is required.)

The following items are missing:

Copies of this were sent to the LSS and the Applicant on \_\_\_\_

State Authorized Agent: \_\_\_\_\_

Complete

State Authorized Agent: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_



Permit #: \_\_\_\_

#### CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County:
PIN/Lot Identifier:
Issued To:
Property Location:
AOWE/PE Plans/Evaluations Provided: Yes No If yes, name and license number of AOWE/PE:
Facility Type:
New       Expansion       Repair       System Relocation       Change of Use
Basement? Yes No Basement Fixtures? Yes No
Type of Wastewater System*(Initial)(Repair)
*Please include system classification for proposed wastewater system types in accordance with 15A NCAC 18A .1961 Table V(a)
Design Daily Flow: GPD Wastewater Strength: 🗌 domestic 🗌 high strength 🗌 industrial process
Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? 🗌 Yes 🗌 No (if yes, please provide engineering documentation)
Installation Requirements/Conditions
Septic Tank Size: gallons Total Trench/Bed Length: feet Trench/Bed Spacing: feet on center
Trench/Bed Width: inches LTAR: gpd/ft <sup>2</sup>
Soil Cover: inches Slope Corrected Maximum Trench/Bed Depth <sup>‡</sup> : inches <i>* Measured on the downhill side of the trench</i>
Aggregate Depth:inches above pipeinches below pipeinches total
Pump Tank Size (if applicable): gallons Requires more than 1 pump? 🗌 Yes 🔲 No
Pump Requirements:ft. TDH vs GPM Grease Trap Size (if applicable): gallons
Distribution Method: Serial D-Box or Parallel Pressure Manifold(s) LPP Other:
Artificial Drainage Required: Yes 🗌 No 🗌 If yes, please specify details:
Legal Agreements (If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)
Multi-party Agreement Required [.1937(h)]: Yes No
Easement, Right-of-Way, or Encroachment Agreement Required [.1938(j)]: 🗌 Yes 🔲 No
Declaration of Restrictive Covenants: Yes No
Pre-Construction Conference Required: Yes 🗌 No 🗌
Conditions:
turnin .
The construction and installation requirements of Rules .1950, .1952, .1954, .1955, .1956, .1957, .1958, and .1959 are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached system layout.
AOWE/PE Print Name: Expiration Date:
AOWE/PE Signature: Date:
This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

\*See attached site sketch\*



Permit #:

### This Section for Local Health Department Use Only

Initial submittal received: \_\_\_\_\_\_ by

Date Initials

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This

Construction Authorization is determined to be:

Incomplete (If box is checked, information in this section is real	quired.)		
The following items are missing:			
Copies of this were sent to the AOWE/PE and the Applicant on	Date	AV781	
State Authorized Agent:		Date:	
Complete		518	
State Authorized Agent:		Date of Issuance:	

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: \_\_\_\_\_

\*See attached site sketch\*



Permit #:

# **Re-submittal of Construction Authorization**

	LHD USE ONLY: This CA resubmittal received:		by		
		Date	,	Initials	
The following i	items are being resubmitted pursuant to G.S. 130A-33:	5(a5) for issuance	of the Const	ruction Authori	zation:
		anna an			
I, Authorized O	hereby attest that hereby hereby attest that hereby	t the information	required to	be included with	n this re-submittal
is accurate and	complete to the best of my knowledge and that the p	proposed Constru	ction Author	ization meets a	ll applicable
federal, State, a	and local laws, regulations, rules, and ordinances.				
Sianatu	re of Authorized On-Site Wastewater Evaluator	<u>.</u>	Date		
Signatu			Dute		
	The section below is for Local Health Department use	after submittal of	items noted a	s missing above.	
LHD Follow-	up Completeness Review of Construction Au			$\geq 1$	
	1 4 905/10 6				
	completeness of this Construction Authorization re-su on Authorization is determined to be:	ubmittal was conc	ducted in acc	ordance with G	.S. 130A-335(a5).
Incomplete	(If box is checked, information in this section is requir	red.)			
The following it	tems are missing:				
	SSE OUAN	N VIDER	19		
Copies of this v	vere sent to the AOWE/PE and the Applicant on	Date	_		
State Authorize	ed Agent:		(	Date:	
Complete					
State Authorize	ed Agent:		ĺ	Date:	

# Adams Soil Consulting, PLLC 1676 Mitchell Road Angier, NC 27501 919-414-6761 alexadams@bcsoil.com

October 18, 2023 Project #479

"The LSS/LG evaluation(s) attached to this application is to be used to issue an Improvement Permit in accordance with G.S. 130A-335(a2) and (a3)."

"The plans or evaluations attached to this application are to be used to issue a Construction Authorization in accordance with G.S. 130A-335 (a2), (a5), and (a6)"

"This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5)."

RE: 345 Castle Pone Way – Fuquay-Varina. NC (Harnett County) -Lot #43 – Prince Place Subdivision for Davidson Homes

To whom it may concern:

Adams Soil Consulting (ASC) conducted a preliminary soil evaluation on the above referenced parcel to determine the areas of soils which are suitable for subsurface wastewater disposal systems (conventional & LPP). The soil/site evaluation was performed using hand auger borings during moist soil conditions based on the criteria found in the State Subsurface Rules, 15ANCAC 18A .1900 "Laws and Rules for Sewage Treatment and Disposal Systems". From this evaluation, ASC is providing the attached 4-bedroom septic design.

The suitable soils found on the subject property were relatively consistent in the initial and repair areas. The area designated for the initial/primary septic system (see attached septic plan) was found to contain soils with greater than 24 inches in depth before a restrictive horizon was encountered.

Please find the attached wastewater soil/site evaluation forms for specific soil properties found in the initial and repair areas as well as assigned soil long term acceptance rate (LTAR). Numerous soil borings were made throughout the property and representative soil profile descriptions for the primary septic field and repair area are provided. A location sketch for profile descriptions is also attached. The initial and primary septic fields were sized based on a flow rate of 480 gallons/day and utilizing Accepted Status. Any unauthorized site disturbance, filling, soil removal, or layout changes may result in the permit being revoked.

The septic installer contractor shall install the primary and repair (if needed) system on contour, see attached site plan for the primary system and repair locations. No underground utilities, water lines, or sprinkler systems shall be placed into the initial or repair septic areas. Installation must meet all state and local county regulations for septic system installation. The trenches must be installed in the same location as the site plan. If the installation is in question at the time of installation call me (Alex Adams) at 919-414-6761.

This report discusses the location of provisionally suitable soils identified on the property and does not guarantee the future function of any waste water disposal system installed.

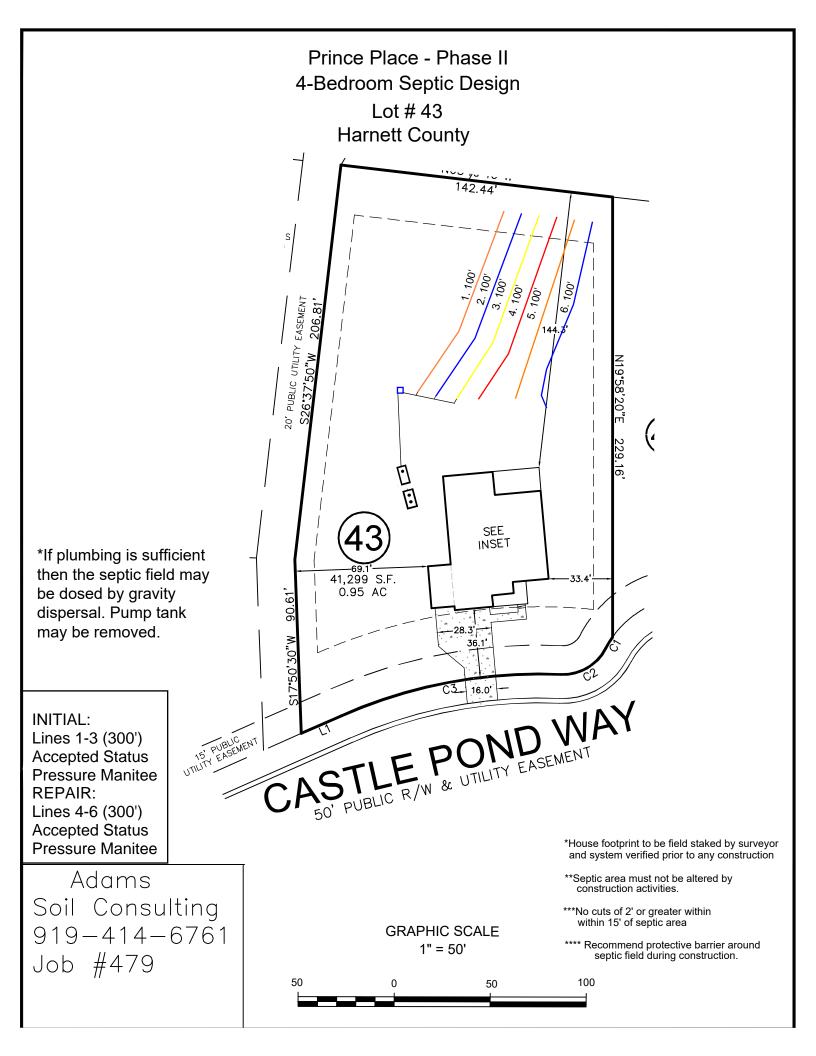
If you have any questions regarding the findings on the attached map or in this report, please feel free to contact me anytime.

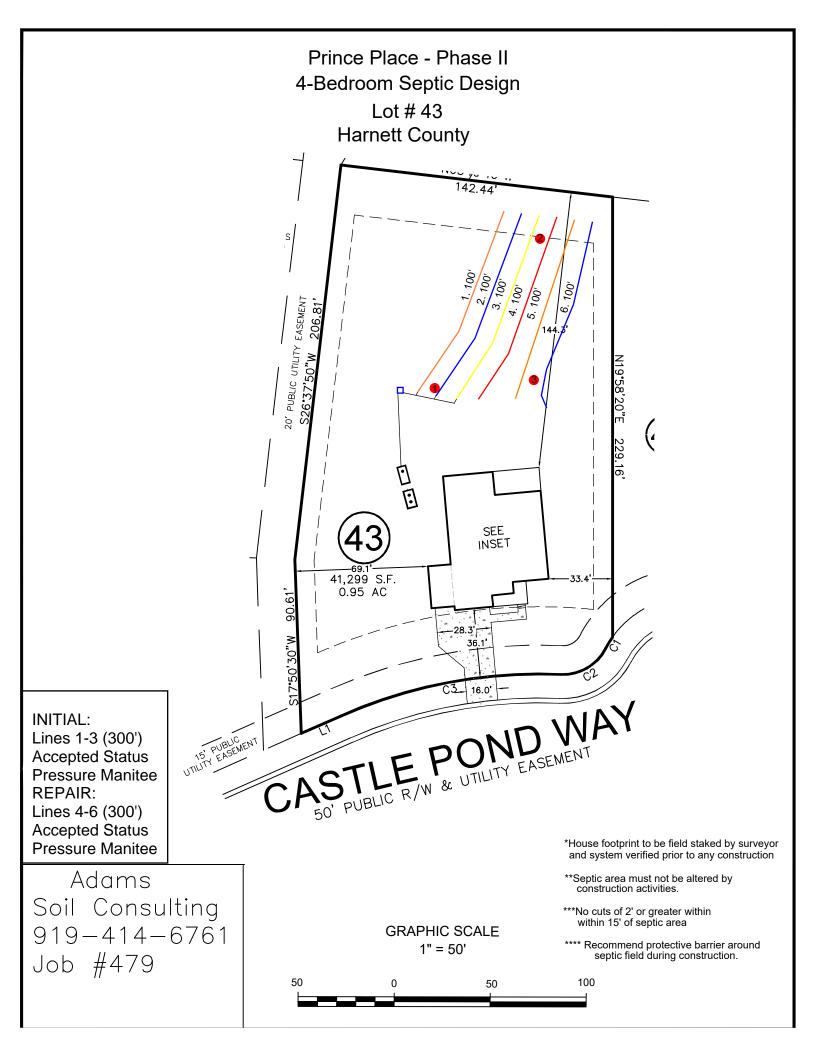
Sincerely,

Alex Adams NC Licensed Soil Scientist #1247 AOWE Certification: 10021E









#### SOIL/SITE EVALUATION for ON-SITE WASTEWATER SYSTEM (Complete all fields in full)

OWNER: Davidson HomesAADDRESS:DPROPOSED FACILITY: Single Family, 4-bedroomPROPOSED DESIGN FLOW (.1949): 480gpdLOCATION OF SITE: 345 Castle Pond Way, Fuquay Varina, NC, 27526PHWATER SUPPLY:Public WaterEVALUATION METHOD:Auger BoringTYPE OF WASTEWATER:Sewage

APPLICATION DATE: DATE EVALUATED: 10-2-2023 PROPERTY SIZE: .95 Acres

P R O F I L LANDSCAPE		HORIZON	ZON MORPHOLOGY PROFILI		OTE ROFILE 1					
E POSITION/ # SLOPE %	POSITION/	POSITION/	DEPTH (IN.)	.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPT H	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
	Linear	0-36	GR/S	VFR/SEXP/NS	N.O	46"	N.O	N.O	PS/.6	
1	Slope/5%	36-46	SBK/CL	FR/SEXP/SS						
	Linear	0-32	GR/S	VFR/SEXP/NS	N.O	46"	N.O	N.O	PS/.4	
2	Slope/5%	32-46	SBK/CL	FR/SEXP/SS						
	Linear	0-32	GR/S	VFR/SEXP/NS	N.O	46"	N.O	N.O	PS/.4	
3	Slope/5%	32-46	SBK/CL	FR/SEXP/SS						
4										

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM	OTHER FACTORS (.1946):
Available Space (.1945)	S	S	SITE CLASSIFICATION (.1948): PS
System Type(s)	Type III B	Type III B	EVALUATED BY:A. Adams OTHER(S) PRESENT:
Site LTAR	0.4	0.4	

#### **RESIDENTIAL PRESSURE MANIFOLD DESIGN**

Lot 43- Prince Place Phase II									
# of BDR: <u>4</u>	Daily Flow:	<u>480</u>	gal/day	L.T.A.R.:	<u>0.4000</u>	gal/day/sq.ft			
Septic Tank: 1000	gals	Pump Tank:	<u>1000</u>	gals	Sq. Foot:	<u>900</u>	System Type:	Accepted	
Number of Taps:	<u>3</u>	Length o	f Trenches:	<u>300</u>	ft(See Tap	o Chart for Det	ails)		
Depth of Trenches:	<u>28</u>	in	Mar	nifold Length:	<u>36</u>	in			
Manifold Diameter:	<u>4in sch 80pv</u>	<u>'C</u>	Tap Config	juration: 6 in s	pacing	<u>1</u>	side(s) of man	ifold	
Supply Line: length:	<u>50</u>	ft		Diameter:	<u>2</u>	in sch 40pvc			
Friction Loss + Fitting L	oss:	<u>1.33</u>	ft(supply li	ne length + 70	' for fitting	gs in pump tan	k)		
Design Head:	<u>2</u>	ft	Elevation H	lead:	<u>10.00</u>	ft			
<b>Total Head:</b> <u>13.33</u>	ft		Pur	mp to Deliver:	<u>21.33</u>	gals/min at	<u>13.33</u>	ft head	
Dosing Volume:	<u>137</u>	gals,							
Drawdown: 137	gals divided	l by	<u>21.4</u>	gals/in =	<u>6.4</u>	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	0	is = 100.00	set at				Design Head:	2					
Pump tank elev.		9	91.00	Pump elev.	86.00		Manifold elev.	96.00					
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	# of Panels (PPBPS)	Spacing of Panels (in)		
4	Orange	5.00	95.00	100	1/2in SCH 40	7.11	160.00	300	0.5333				
5	Blue	5.70	94.30	100	1/2in SCH 40	7.11	160.00	300	0.5333				
6	Yellow	6.50	93.50	100	1/2in SCH 40	7.11	160.00	300	0.5333				
			Total Feet =	300	gal/min =	21.33		LTAR =	0.4000				
			Feet Required =	300	Velocity =	2.04		(ltar + 5%)	0.4200				
Total # of Panels (F	PBPS)		-	Des. Flow	480			(Itar w/25% red)	0.5333				
% of Dose Vol.		70		Pump Run=	22.50			(ltar + 5%)	0.5600				
Dose Volume		137		Tank Gal/IN	21.4								
Dose Pump Time		6.40		Elev. Head	10.00								
Drawdown in Inche	es	6.4											
Comments:													

