ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # AP321600

SEPTIC: IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4637 --16 --3561 ✓

APPLICANT/OWNER: John + Alicia Gibson | APPLICANT ADDRESS: 306 Armor Street Davidson NC 28036

SITE ADDRESS: 135 Holt Lane Mooresville NC 28117 ✓ | PHONE: 843-452-0015 | ALT. PHONE -

SITE DIRECTIONS: Hwy 150 to McCrary Woods Rd to Holt Lane. | SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: McCrary Woods ✓ | SECTION: - | LOT # 35 ✓ | LOT AREA: .95Ac | DESIGN FLOW: 480 | L.T.A.R.: .30

Septic Tank	1000 (gal)	STB	760	Date	1/22/23	☑ New System ☐ Repair ☐ Expansion	System Type: I II (III) IV V VI	☑ Residence	No. Bedrooms 4
Pump Tank	1000 (gal)	PT	363	Date	1/12/23	System Description:	Horizontal Panel Block 50% Reduction	☐ Business	No. Persons 8
Pump Make		Model		Serial #		Repair System Description:	Horizontal Panel Blocks 50% Reduction	☐ Other	No. Employees
# Nitrification Fields	1	# Lines	7	Linear Ft	270	Maintenance Agreement Required:	☐ YES ☒ NO	☐ Slab	☐ Crawl Space
Trench Width	36 in	Trench Bottom Depth(Low side)	25 in	Gravel Depth	-		☐ GRAVITY ☒ PRESSURE	☑ Basement w/plumbing	☐ Basement w/o plumbing

Water Supply: ☑ Private ☐ Public ☐ Community

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to Section 11 . (C) of S.L. 2018-114 using the signed and sealed LSS Evaluation by:

AWT Inc

LSS # 1227

Dated Oct 8, 2021

AS BUILT SKETCH

FOR SEPTIC FINAL INSPECTION CALL: 704-664-3703 between 8am-9am the day the inspection is needed. Be sure to speak with an inspector to confirm your time.

- Drainage ditch & steep cut beside tanks must be eliminated
- Riser 6" above grade, control panel 12" above grade corrected 6/20/23 DW

↓

slope made more gradual, ditch filled

- Lines 1-6 Tanks OW 3/16/23
- Lines SB 3/20/23
- manifold, alarm, PH, electrical, floats 6/19/23 DW

Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. **CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION**

☐ **IMPROVEMENT PERMIT** *with plat valid without expiration.* ☑ **IMPROVEMENT PERMIT** *with site plan valid for 60 mos.* ☑ **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: [signature] Date: 11/18/21 Installed by: Groundbreakers

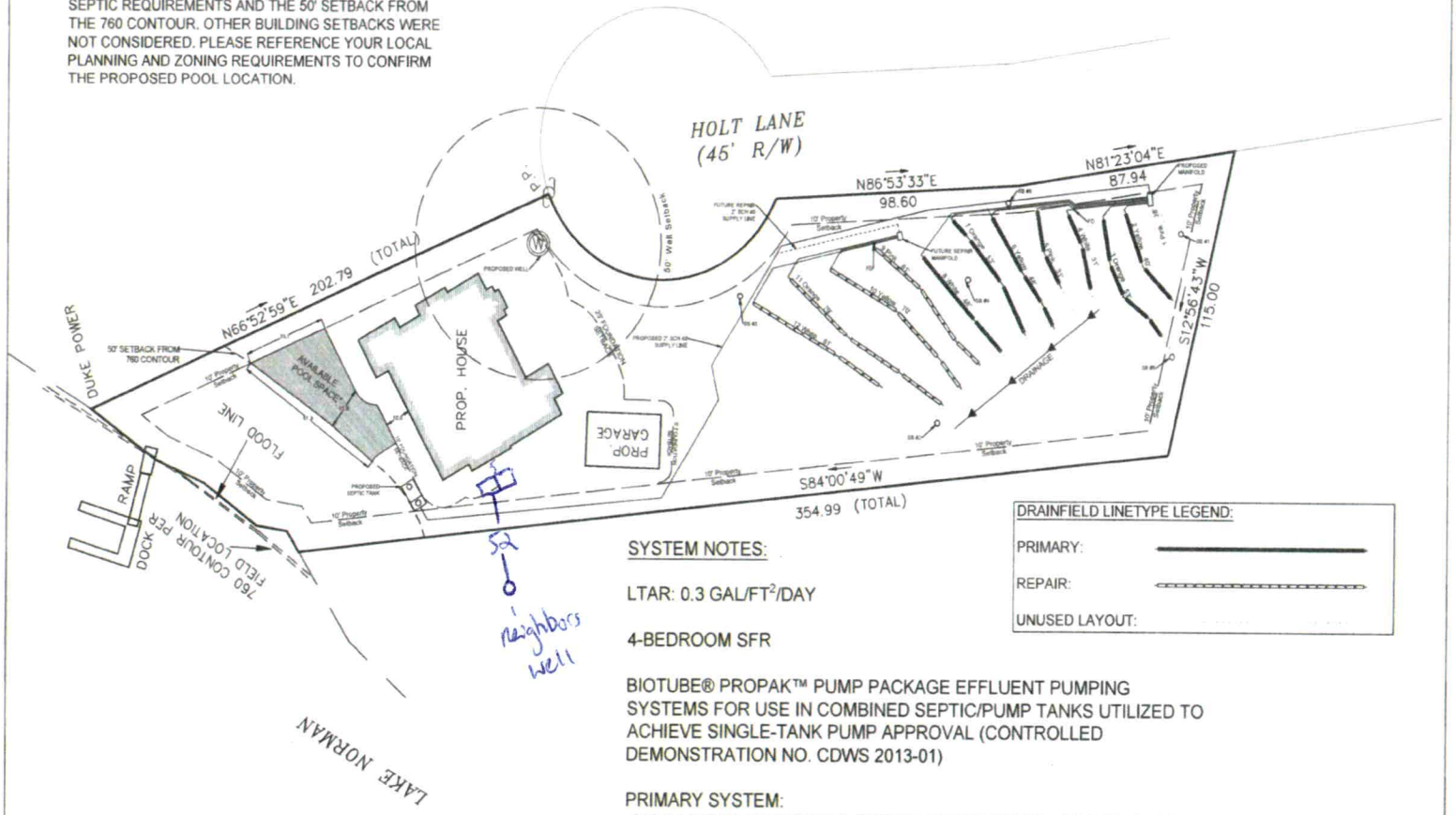
IMPROVEMENT PERMIT by: Benjamin A Betts Date: 10/11/2021 OPERATION PERMIT by: D Wiebers Date: 6/20/23

AUTHORIZATION TO CONSTRUCT by: Benjamin A Betts Date: 11/19/2021 Existing System Inspected by: Date:

FOR SEPTIC FINAL INSPECTION: CALL 704-664-3703 between 8am-9am the day the inspection is needed.

Tanks 10' from P/L

*THE AVAILABLE POOL SPACE WAS CONFIRMED FROM SEPTIC REQUIREMENTS AND THE 50' SETBACK FROM THE 760 CONTOUR. OTHER BUILDING SETBACKS WERE NOT CONSIDERED. PLEASE REFERENCE YOUR LOCAL PLANNING AND ZONING REQUIREMENTS TO CONFIRM THE PROPOSED POOL LOCATION.



SCALED FOR 11" X 17" SHEET

SYSTEM NOTES:

LTAR: 0.3 GAL/FT^2/DAY

4-BEDROOM SFR

BIOTUBE® PROPAK™ PUMP PACKAGE EFFLUENT PUMPING SYSTEMS FOR USE IN COMBINED SEPTIC/PUMP TANKS UTILIZED TO ACHIEVE SINGLE-TANK PUMP APPROVAL (CONTROLLED DEMONSTRATION NO. CDWS 2013-01)

PRIMARY SYSTEM:
-302.5 LINEAR FT PUMP TO PRESSURE MANIFOLD w/ PANEL BLOCK DRAINFIELD (50% REDUCTION TAKEN)

REPAIR SYSTEM:
-270.7 LINEAR FT PUMP TO PRESSURE MANIFOLD w/ PANEL BLOCK DRAINFIELD (50% REDUCTION TAKEN)

DRAINFIELD LINETYPE LEGEND:

PRIMARY: ———

REPAIR: - - - - - - - -

UNUSED LAYOUT: . . . . . .

AWT
Engineers and Soil Scientists
AgriWaste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0669
www.agriwaste.com

Owner Information:
John and Alicia Gibson
306 Armour Street
Davidson, NC 28036

Property Information:
135 Holt Lane
Mooresville, NC 28117
Iredell County
PIN: 4637163561.000

For Review Only

GENERAL NOTES

BOUNDARY INFORMATION TAKEN FROM PROPERTY SURVEY PERFORMED BY JON ALLEN & ASSOCIATES, P.A.

ALLOCATION OF SEPTIC COMPONENTS (EXISTING AND PROPOSED) TAKEN FROM ENGINEERS SURVEY.

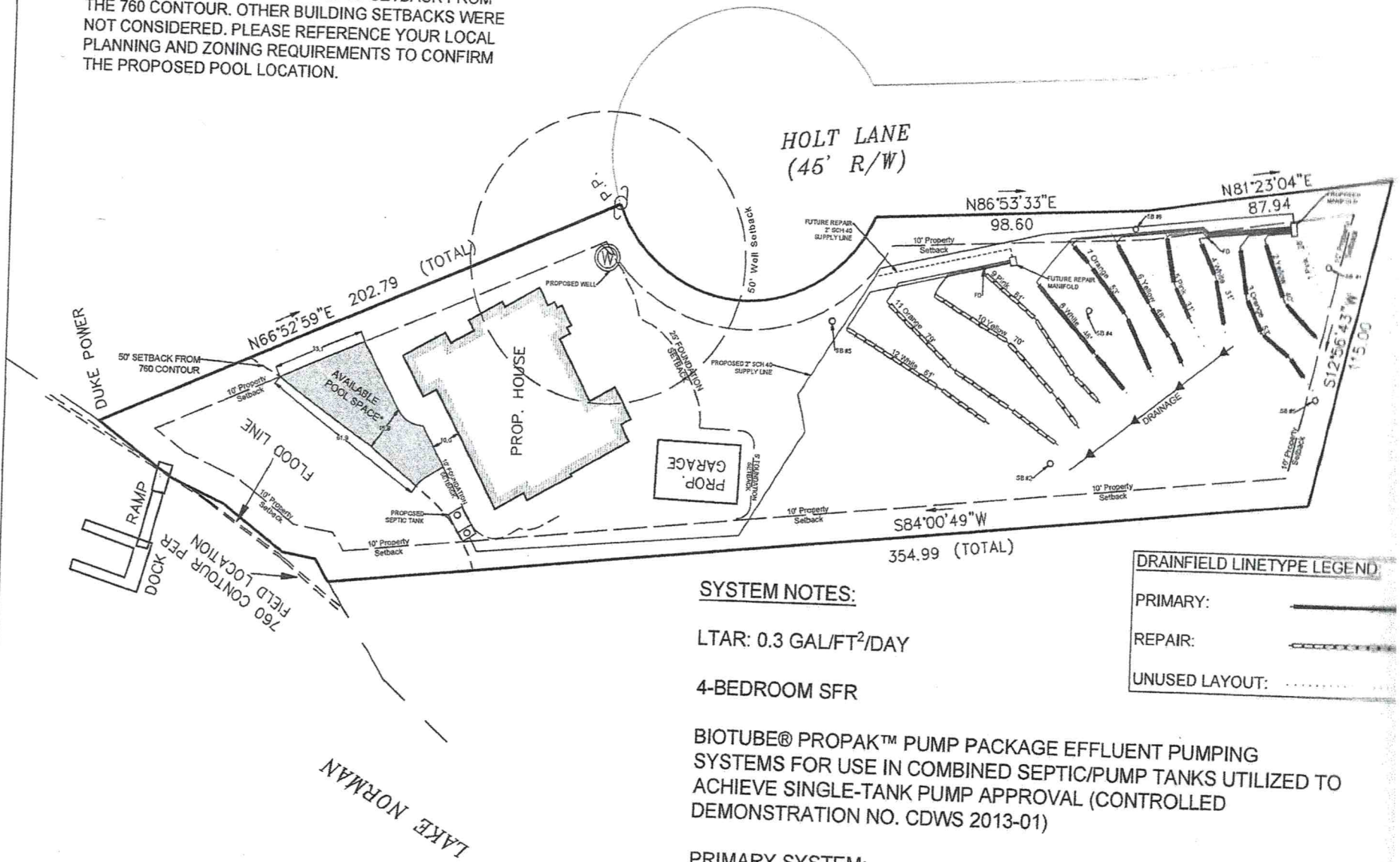
DRAWING DOES NOT REPRESENT A SURVEY PRODUCT.

SHEET TITLE
Property Layout

PROJECT CONTACT:	
T. Hackney	919-618-1491
DRAWN BY: G. Rhodes	CREATED ON: 8/10/2021
REVISED BY: T. Davis	REVISED ON: 10/7/2021
RELEASED BY:	RELEASED ON:

DRAWING NUMBER
WW-1

*THE AVAILABLE POOL SPACE WAS CONFIRMED FROM SEPTIC REQUIREMENTS AND THE 50' SETBACK FROM THE 760 CONTOUR. OTHER BUILDING SETBACKS WERE NOT CONSIDERED. PLEASE REFERENCE YOUR LOCAL PLANNING AND ZONING REQUIREMENTS TO CONFIRM THE PROPOSED POOL LOCATION.



SCALED FOR 11" X 17" SHEET

SYSTEM NOTES:

LTAR: 0.3 GAL/FT^2/DAY

4-BEDROOM SFR

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DRAINFIELD LINETYPE LEGEND:

PRIMARY: ———

REPAIR: - - - - -

UNUSED LAYOUT: .....

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www.agriwaste.com



Soil Suitability for Domestic Sewage Treatment and Disposal Systems
135 Holt Lane, Mooresville, NC 28117
(PIN: 4637-16-3561; Iredell County)

PREPARED FOR: Alicia & John Gibson, Client

PREPARED BY: Jeff Vaughan, Ph.D., Licensed Soil Scientist
Trevor Hackney, Environmental Scientist

DATE: October 8, 2021

Soil suitability for domestic sewage treatment and disposal systems was evaluated on August 8, 2021 for the property located at 135 Holt Lane, Mooresville, NC. Trent Bostic and Trevor Hackney of Agri-Waste Technology, Inc. (AWT) conducted the soil evaluation. This evaluation was done to facilitate permitting for a septic system. This report and attached documents were prepared to meet the requirements for a Licensed Soil Scientist evaluation to meet SL 2018-114 (c).

A drawing of the site plan, septic layout, and boring locations is included in Attachment 1. Profile descriptions for each boring are included in Attachment 2. Additional documentation about the property is included in Attachment 3.

The total property area is approximately 0.95 acres. The property is completely wooded. The water supply for the property will be served by a private well. Due to the house location and desired pool on the property the septic tank and pump tank will operate out of the same tank (See Single Pump Approval CDWS 2013-01).

Soil Suitability for Domestic Sewage Treatment and Disposal Systems
The drawing in Attachment 1 details the property boundaries (Don Allen & Associates), soil boring locations, and layout of drain field trenches (Completed by AWT). Six soil borings were assessed on the property. Soil borings were examined to determine soil suitability for on-site sewage disposal systems in accordance with 15A 18A .1900 Rules for Sewage Treatment and Disposal Systems. These borings were advanced with a hand auger. All soil borings advanced were provisionally suitable for a conventional style trench.

Horizontal Panel Block Pressure Manifold Design (Primary)

Designed by: TD
Revised: 10/7/2021

Site Information

Project: Gibson Property
Site Address: 135 Holt Lane
Mooresville, NC 28117
County: Iredell

Design Information

Estimated Daily Flow:	480	gal/day
L.T.A.R. (from Iredell Co.):	0.3	gal/day/ft^2
L.T.A.R. + 5%:	0.315	gal/day/ft^2
Trench Width:	3	ft.
Line Length Required:	533	ft. (Conventional)
Line Length w/ 50% Reduction:	267	ft. (Panel Block)
L.T.A.R. Reduced:	0.600	gal/day/ft2
L.T.A.R. Reduced + 5%:	0.630	gal/day/ft2

DRAINFIELD INFO. - **Primary**

Proposed Type of System/Distribution: ***Pump to Manifold using Horizontal Panel Block***

Line No.	Flag Color	Line Length (ft.)	Number Of Panels		Flow (gpm)	Flow/Foot (gpm/ft)	Line L.T.A.R.
2	Yellow	39.5	9	1/2in SCH 80	5.48	0.139	0.541
3	Orange	52.5	12	1/2in SCH 40	7.11	0.135	0.528
4	White	30.8	7	SPLIT 1/2in SCH 40	3.56	0.116	0.451
5	Pink	30.8	7	SPLIT 1/2in SCH 40	3.56	0.116	0.451
6	Yellow	48.2	11	1/2in SCH 40	7.11	0.148	0.575
7	Orange	52.5	12	1/2in SCH 40	7.11	0.135	0.528
8	White	48.2	11	1/2in SCH 40	7.11	0.148	0.575
TOTAL		**302.5**			**41.04**		0.521

Determination of Dose Volume - Primary System

Total Run Time	11.70	min
Volume per Panel	3.6	gal
Number of Panels	69	
Dose Volume	248	gal/dose
Runtime/Dose (min)	6.05	min
Volume/depth	28.17	gal/in
Estimated Drawdown	8.82	in

Manifold Box

Number of Taps =	6		
Manifold Length =	4.5	ft.	(approximate)

PUMP DESIGN

System (initial/repair): **Primary**

Project: Gibson Property
Site Address: 135 Holt Lane
Mooresville, NC 28117
County: Iredell

Friction Losses

Suction Head =	0	ft.	*(submersible = 0)*
Elev. Difference (highest point from pump) =	39.30	ft.	
Design Pressure At Outlet =	2	ft.	

Supply Line - *2" Schedule 40 PVC* (accounts for 10' of pipe within Tank)

Pipe Diameter (ID) =	2.047	in.	Flow =	41.04 gpm
Pipe Length =	373	ft.	Velocity =	4.00 ft/sec
Pipe Length for Fittings =	37.3	ft.		
Est. Friction Loss per 100' =		2.93	ft/100 ft.	
Estimated Friction Loss =		12.01	ft.	
Friction Loss - Taps/Special Fittings =		3.5	ft.	
TOTAL =		**56.81**	**ft.**	

Flow for Vent Hole

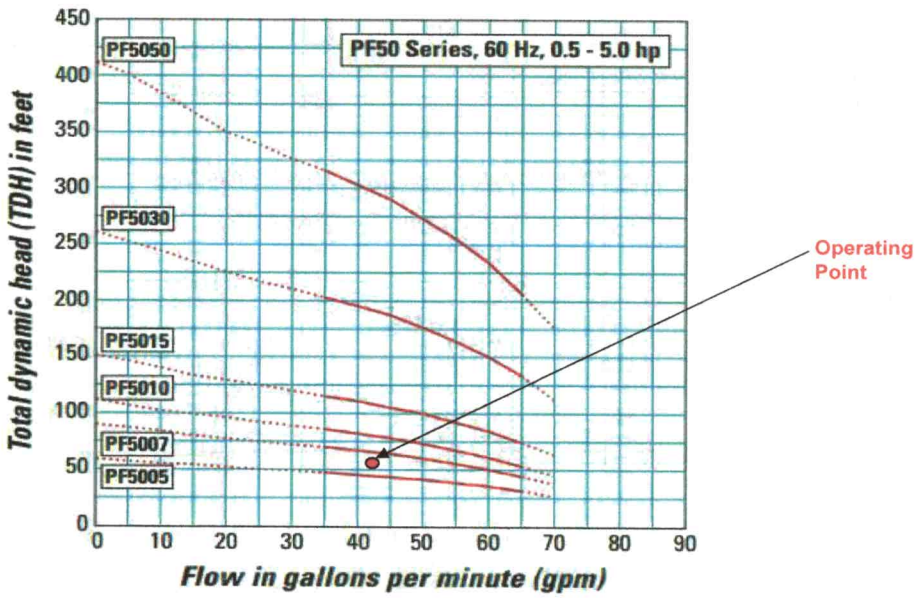
Hole Diameter =	1/8	in.
Hole Flowrate =	1.39	gpm

Flow = 42.43 gpm

TDH = 56.81 ft.

Pump Selection

Manufacturer: **Orenco**
Model: **PF5007 1 2**
Horsepower: **3/4**



PROPERTY ID #: _4637-16-3561__
COUNTY: Iredell Co.__

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

CLIENT: _____John and Alicia Gibson_____ APPLICATION DATE_____
ADDRESS:____ _____135 Holt Lane, Mooresville, NC. 28117 DATE EVALUATED: __8/6/21 _
PROPOSED FACILITY: _Single Family Residence___PROPOSED DESIGN FLOW (.1949): ___480 GPD____ PROPERTY SIZE: ___0.95 ac.____
LOCATION OF SITE: 135 Holt Lane, Mooresville, NC. 28117_____ PROPERTY RECORDED: _____
WATER SUPPLY: ☐ Private ☐ Public ☒ Well ☐ Spring ☐ Other _____
EVALUATION METHOD: ☒ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
SB 1	8%	0-8"	SCL; GR	SS; SP; Fr		40+"			Provisionally Suitable 0.3
		8-32"	C; SBK	SS; SP; FI					
		32-40+"	CL; WSBK	SS; SP; Fr					
SB 2	13%	0-15"	C; SBK	SS; SP; FI		32"		Saprolite	Provisionally Suitable 0.3
		15-32"	C; WSBK	SS; SP; Fr					
		32+"	CL; MA	SS; SP; Fr					
SB 3	9%	0-8"	SCL; Gr	SS; SP; Fr		32"		Saprolite	Provisionally Suitable 0.3
		8-24"	C; SBK	SS; SP; FI					
		24-32"	CL;WSBK	SS; SP; Fr					
		32+"	CL; MA	SS; SP; Fr					
SB 4	11%	0-4"	SCL; Gr	SS; SP; Fr		41+"			Provisionally Suitable 0.3
		4-30"	C; SBK	SS; SP; FI					
		30-41+"	CL; WSBK	SS; SP; Fr					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	Provisionally Suitable	Provisionally Suitable
System Type(s)	Conventional Innovative 50% Reduction	Conventional Innovative 50% Reduction
Site LTAR	0.3 GPD/Ft^2	0.3 GPD/Ft^2

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____

EVALUATED BY: ___Trent Bostic_____
OTHER(S) PRESENT: _____Trevor Hackney_____

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

PROPERTY ID #: _4637-16-3561_
DATE OF EVALUATION: ___8/6/21__
COUNTY: _ Iredell Co.__

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
SB 5	9%	0-7"	SCL; Gr	SS; SP; Fr		48+"			Provisionally Suitable 0.3
		7-23"	C; SBK	SS; SP; FI					
		23-48+"	CL; WSBK	SS; SP; Fr					
SB 6	7%	0-3"	SCL; Gr	SS; SP; Fr		46+"			Provisionally Suitable 0.3
		3-33"	C; SBK	SS; SP; FI					
		33-46+"	CL; WSBK	SS; SP; Fr					

COMMENTS:_____

Engineers and Soil Scientists

Agri-Waste Technology, Inc.
501 N. Salem Street, Suite 203
Apex, North Carolina 27502
919-859-0669
www.agriwaste.com

September 2nd, 2021

To: Applicant- 135 Holt Ln– Iredell County PIN 4637163561.000, Mooresville, NC 28117

Re: Site/Soil Investigation for 135 Holt Ln– PIN 4637163561.000 in Mooresville (Iredell County, NC)

I, John and Alicia Gibson (applicant name, print), acknowledge that "the LSS Evaluation attached to this application is to be used to produce design and construction features for permitting in accordance with SL 2018-114 Section 11.(c)."

Applicant Signature: _____

Date: 09.02.2021

Sincerely,

Chris McGee, LSS
Soil Scientist
Agri-Waste Technology, Inc.

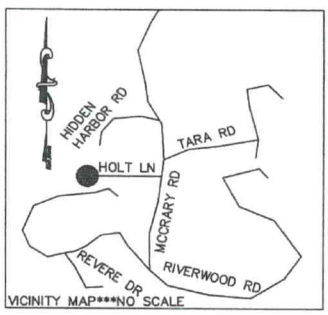
DAS DON ALLEN & ASSOCIATES, P. A.
"Since 1971"
Commercial * Residential * Mortgage Surveys * Multi-Family
Construction Staking * Subdivision Design * Topographical
131 Crosslake Park Drive – Suite 102 * Mooresville * NC * 28117
(704) 664-7029 (704) 664-8041 Fax

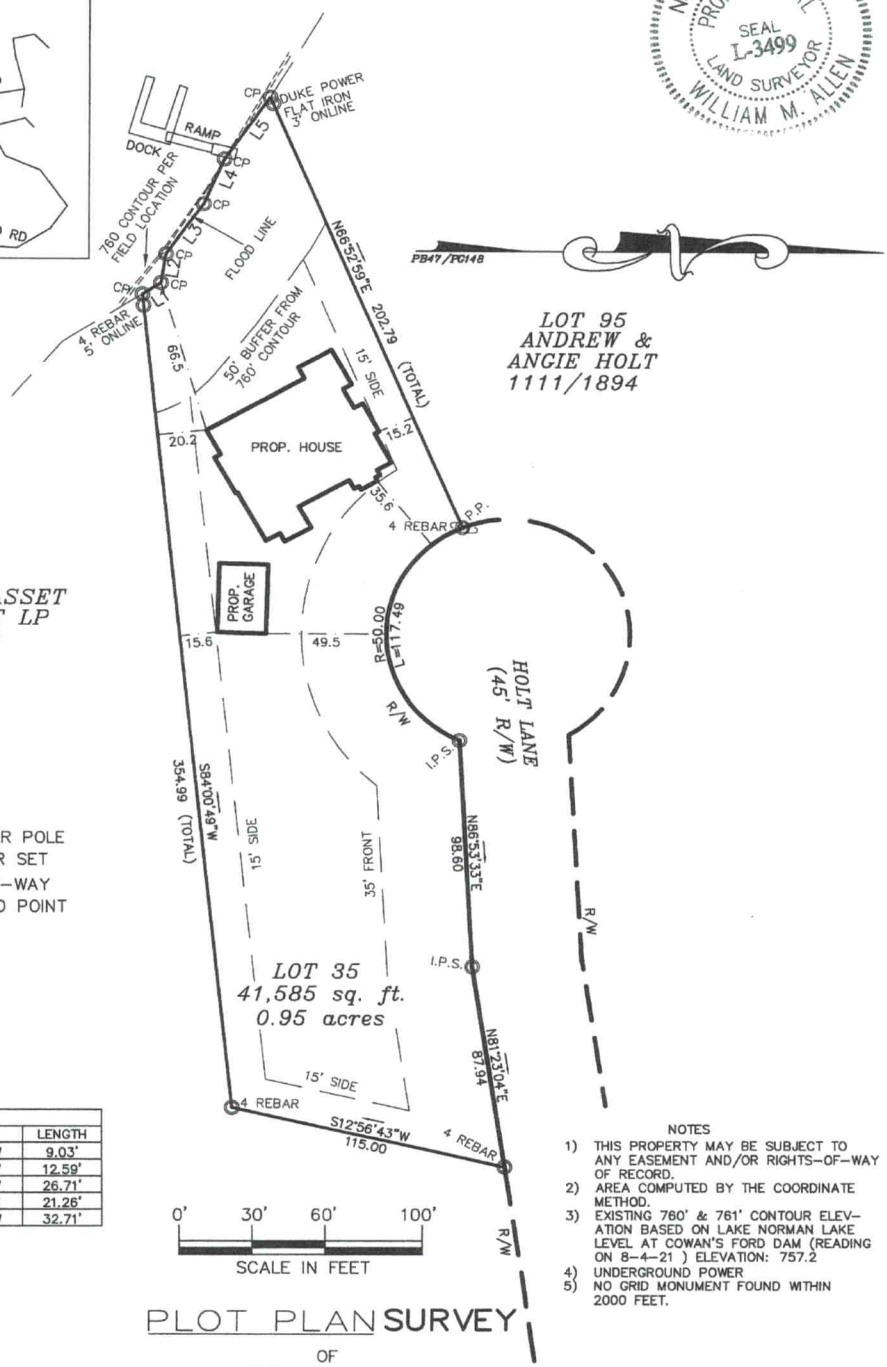
I, certify that this map was drawn under my supervision from an actual survey made under my supervision recorded in deed book 1760, page 1609, and/or plat book 47, page 148, that the ratio of precision is 1':10,000, that this map was prepared in accordance with the General Statutes of North Carolina Chapter 89C.

my hand and seal on the 5, day of AUGUST, A.D. 20 21.

WILLIAM M. ALLEN, PLS

NORTH CAROLINA PROFESSIONAL SEAL L-3499 LAND SURVEYOR WILLIAM M. ALLEN





LEGEND
= P.P. = POWER POLE
I.P.S. = #4 REBAR SET
R/W = RIGHT-OF-WAY
CP = COMPUTED POINT

LINE TABLE		
LINE	BEARING	LENGTH
L1	N 32°36'59" W	9.03'
L2	N 81°03'36" W	12.59'
L3	N 54°25'10" W	26.71'
L4	N 66°41'10" W	21.26'
L5	N 55°02'30" W	32.71'

NOTES
1) THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENT AND/OR RIGHTS-OF-WAY OF RECORD.
2) AREA COMPUTED BY THE COORDINATE METHOD.
3) EXISTING 760' & 761' CONTOUR ELEVATION BASED ON LAKE NORMAN LAKE LEVEL AT COWAN'S FORD DAM (READING ON 8-4-21) ELEVATION: 757.2
4) UNDERGROUND POWER
5) NO GRID MONUMENT FOUND WITHIN 2000 FEET.

PLOT PLAN SURVEY

OF
135 HOLT LANE
LOT 35 MCCRARY WOODS, PH. 2

SCALE 1" = 60'
TOWN OF MOORESVILLE , IREDELL CO., N.C.
ACQUIRED BY: JOHN & ALICIA GIBSON

FIELD BOOK:
FILE: MCCRARY WOODS 35 P2
DC FILE:
TAX MAP NO: 4637163561

NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

CONTROLLED DEMONSTRATION WASTEWATER SYSTEM APPROVAL

CONTROLLED DEMONSTRATION NO. CDWS 2013-01

Issued To: Jason Churchill, Government Relations Representative
Orenco Systems, Inc.
814 Airway Ave.
Sutherlin, OR 97479
800-714-4073; Fax: 541-459-2884
http://www.orenco.com/

For: Biotube® ProPak™ Pump Package Effluent Pumping Systems for Use in Combined Septic/Pump Tanks

Approval Date: October 31, 2013

In accordance with General Statute 130A-343 and 15A NCAC 18A .1969, a proposal by Orenco Systems, Inc., Sutherlin, OR for approval of the Biotube® ProPak™ Pump Package for use in combined septic/pump tanks has been reviewed and the system has been found to meet the standards of a Controlled Demonstration system when all of the following conditions are met.

I. General

A. Scope of this Controlled Demonstration Approval includes:
   1. Use, design, and construction requirements for the Biotube® ProPak™ Pump Package system.
   2. Operation, maintenance, and monitoring of the Biotube® ProPak™ Pump Package system.
   3. Proposal for evaluation of this Controlled Demonstration system.

B. This Controlled Demonstration is limited to 50 residential systems with daily design flows up to 720 gallons per day (six bedrooms). The intent of this Controlled Demonstration is to gain field experience sufficient to qualify this system for Innovative Approval, pursuant to Rule .1969(g).

II. System Description

A. This Controlled Demonstration system approval is for a septic tank effluent pumping system that includes a pump vault with associated pumping equipment, placed in the outlet end of a two-compartment septic/pump tank with liquid levels hydraulically shared between the two compartments.

B. The pump vault is equipped with internal effluent filter cartridges that protect downstream treatment components including the soil absorption system, by preventing solids larger than 1/16-th inch from leaving the tank.

C. The approved pumping systems include the following components:
- Pump vault with Orenco Biotube filter cartridges
- Orenco 4" turbine "high head" effluent pump with stainless steel motor parts
- Float switch assembly
- Control panel
- Discharge plumbing assembly
- External splice box

D. The filter cartridges are constructed of an array of small-diameter filter tubes, a design that maximizes the filter surface area to volume ratio. The filter tube array is mounted between end pieces made of PVC. The filter tubes are a meshwork design (not slotted), constructed of polypropylene. To comply with G.S.130A-335.1(a)(2), filter cartridges for systems permitted under this approval shall be constructed with openings approximately 1/16-inch in diameter.

E. Biotube ProPak pump packages feature a molded polyethylene Biotube Pump Vault Unit (PVU) that houses the 4" turbine effluent pump, and contains a Biotube filter cartridge, float switch assembly, and discharge plumbing assembly. The pump vault is designed so that the filter cartridge can be removed for cleaning without pulling the pump or vault out of the tank. Effluent enters through inlet holes around the perimeter of the PVU, then flows through the filter cartridge and down through the vault base to the pump, which resides in an external flow inducer compartment molded into the PVU. The PVU is suspended from the tank access opening on PVC support pipes, or may rest on the bottom of the tank depending on the tank dimensions.

F. For this Controlled Demonstration, each Biotube Propak pump vault will be equipped with a 12-inch diameter, 18-inch tall Biotube filter cartridge providing 14.5 ft^2 of total filter surface area and 4.4 ft^2 of open flow area.

G. Biotube filter cartridges have a flow area equal to approximately 30 percent of the total filter surface area. The filter flow area is defined as the combined area of all the openings in the filter surface.

H. The manufacturer shall warranty the pump against material and workmanship defects for a period of at least 5 (five) years.

III. Siting Criteria

The Orenco Biotube® ProPak™ Pump Package Effluent Pumping System and associated drainfields shall be sited and sized in accordance with the 15A NCAC 18A .1900.

IV. System Sizing

The system sizing criteria shall be based upon the long term acceptance rate specified in the appropriate portion of the rules or Innovative and Experimental approval for the type of ground absorption system to be used.

V. Special Site Evaluation

A special site evaluation is not required for the system unless a requirement of an Innovative and Experimental approval for the type of ground absorption system to be used.

VI. Design Criteria

A. The Controlled Demonstration shall be limited to residential systems with a maximum of 6 bedrooms (design flow of 720 gallons per day).

B. Septic/pump tanks in which effluent pumping systems are installed pursuant to this Controlled Demonstration approval shall be tanks that have been approved by the Department for use as septic tanks pursuant to 15A NCAC 18A.1953, and shall comply with minimum standards for design and construction of septic tanks pursuant to Rule .1954, except that an effluent filter shall not be required because the pump vault filter cartridge is intended to provide an equivalent function. A list of approved tank manufacturers and models selected and approved by Orenco for use under this Controlled Demonstration approval is incorporated as an attachment to this approval.

C. The following minimum tank capacities shall apply:
   1. No tank shall be used that has an approved nominal septic tank capacity less than 1,500 gallons. (The nominal septic tank capacity is specified by the tank manufacturer, and typically corresponds to the approximate liquid volume when the tank is used as a conventional septic tank with gravity discharge.)
   2. A minimum approved nominal septic tank capacity of 2,000 gallons shall be used for any system designed for residences with 5 or 6 bedrooms, or with 4 bedrooms in Group IV soils with a Long Term Acceptance Rate (LTAR) of less than 0.3 gpd/ft^2 for conventional systems, less than 0.25 gpd/ft^2 for conventional systems with 25% drainfield area reduction, less than 0.3 gpd/ft^2 for conventional systems with 50% drainfield area reduction using T&J panels, or less than 0.2 gpd/ft^2 for any low-pressure pipe (LPP) distribution system.
   3. A minimum of 24 hours of emergency storage capacity in the septic/pump tank is required. The available freeboard space in both compartments of the tank (from the high-level alarm activation level up to the tank ceiling) shall be considered emergency storage space. Additional emergency storage may be needed in situations where operator response time may be more than 12 hours.
   4. The minimum liquid capacity of the septic/pump tank (defined as the combined volume of both compartments below the pump OFF level) shall meet or exceed the requirements for septic tanks as required in 15A NCAC 18A.1952(b).
   5. In addition to the above specified minimum emergency storage and minimum liquid capacities, the tank shall provide sufficient additional capacity to contain the minimum dose volumes per Rule .1952(a), or Rule .1957(a)(6)(B) for low-pressure pipe systems.

D. The pump vault inlet holes shall be positioned in the clear zone (typically 60-80% of the minimum liquid level).

E. The maximum drawdown during a dosing event shall not exceed 20% of the tank's liquid capacity.

F. The pump controls shall be set so that the minimum liquid (pump-off) level is at least eight inches above the top of the flow-through ports in the tank partition, to minimize any potential for carryover of scum to the second compartment.

G. Two watertight, approved manholes or risers, with secure cover, shall be provided in the tank top, one at the tank inlet and one providing access to the pump compartment. The tank inlet opening shall be a minimum of 17 inches in diameter or 15 inches by 15 inches; the pump tank access opening shall be a minimum of 21 inches by 21 inches or 24 inches in diameter. The openings shall extend to at least six inches above finished grade. The outlet-end manhole shall be located to allow maintenance of the pump vault.

H. All systems must be equipped with a pump cycle counter, pump elapsed time meter, and high water alarm event counter.

I. For LPP dispersal systems, the system shall conform to all design requirements of 15A NCAC 18A .1957(a) except that lateral lines may use 1/8-inch diameter orifices throughout the pressure distribution network. In addition, for LPP systems the design pump flow rate shall be sufficient to deliver at least 5 (five) feet of static pressure head at the distal end of all lateral lines. LPP system orifices shall be protected by orifice shields or other means such as sleeving.

J. A reserve area will be set aside with sufficient space for placement of a separate pump tank if the Controlled Demonstration system must be replaced with a conventional two-tank system.

K. The manufacturer will provide design guidance to aid designers in tank sizing, float settings, pump vault selection, and LPP system design to assure equal distribution of effluent in the drainfield.

VII. Installation and Testing

A. A pre-construction conference shall be required to be attended by the system designer, Orenco manufacturer's representative, Orenco certified installer, and local health department (LHD), prior to beginning construction of the Biotube® ProPak™ Pump Package effluent pumping system.

B. All Biotube® ProPak™ Pump Package effluent pumping system shall be installed according to directions provided by the manufacturer in the installation manual and instructions found on Orenco Systems, Inc. CAD drawings of each system. Additionally, all Biotube® ProPak™ Pump Package effluent pumping system and components used with, but not manufactured by Orenco Systems, Inc., shall be installed in accordance with all applicable regulations and manufacturer instructions.

C. All individuals/companies installing Biotube® ProPak™ Pump Package effluent pumping system shall be in possession of all necessary permits and licenses before attempting any portion of a new or repair installation. The company/individual must at a minimum be a Level II installer (or higher if required based on the ground absorption system being used, for example an LPP requires a Level III installer) and Orenco Systems, Inc. certified.

D. Watertightness of the tanks shall be tested by either of the following protocols: 24-hour hydrostatic test or a vacuum test.
   1. Hydrostatic Test[1, 2]
      a. Temporarily seal the inlet and outlet pipes.
      b. Fill tank with clean water to a point at least two inches above the pipe connections or the seam between the tank and the riser, whichever is highest.
      c. Measure the water level.
      d. Allow the tank to sit for 24 hours.
      e. Re-measure the water level.
      f. If the water level change is ½-inch or less or one percent of the liquid tank capacity, the tank passes the leak test.
      g. If the water level change is greater than ½-inch, any visible leaks can be repaired and the tank may be topped off with water and allowed to sit for a minimum of one hour.
      h. The tank passes the leak test if there are no visible leaks (flowing water or dripping in a steady stream) and no measureable drop in water level after one hour. Otherwise, the tank fails the leak test.
   2. Vacuum Test[3]–
      a. Temporarily seal the inlet and outlet pipes.
      b. A vacuum of four (4) inches of mercury should be pulled on the tank and held for five (5) minutes.
      c. During the testing, the tank manufacturer or their representative can seal the tank if it is found to be leaking.
      d. If the tank is repaired, the vacuum must be brought back up to four inches and held for five minutes.

E. Specified site preparation steps and construction specifications for the ground absorption system shall be strictly adhered to, including specified depth of trenches in relation to site limiting conditions, cover material specifications (if needed), trench installation method, etc.

F. Prior to Operation Permit issuance, the designer of record and the manufacturer or manufacturer's representative shall provide an acceptance letter to the LHD verifying satisfactory installation and start-up measures.

VIII. Operation, Maintenance, Monitoring, Sampling, Evaluation, and Reporting

A. Biotube® ProPak™ Pump Package effluent pumping systems shall be classified, at a minimum, as a Type IIIb system in accordance with Table V(a) of Rule .1961(b). Management and inspection shall be in accordance with Rule .1961.

B. All Biotube® ProPak™ Pump Package effluent pumping systems shall be maintained in accordance with manufacturer's recommendations. The septic tank will be pumped as needed and in accordance with the Orenco Systems, Inc. operation and maintenance instructions. However, at a minimum, the septic tank will be pumped whenever the solids level exceeds 25% of the tank's total liquid working capacity or the scum layer is more than four inches thick.

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[1] Victor D'Amato and Ishwar Devkota, *Development of Prefabricated Septic and Pump Tank Construction and Installation Standards for North Carolina.*
[2] National Precast Concrete Association, *Best Practices Manual Precast Concrete On-Site Wastewater Tanks*, Second Edition, October 2005, 24.
[3] National Precast Concrete Association, *Best Practices Manual Precast Concrete On-Site Wastewater Tanks*, Second Edition, October 2005, 24.

C. Evaluation Protocol

1. The manufacturer shall enter into a contract for an evaluation of the performance of the controlled demonstration wastewater system with an independent laboratory, consultant, or other entity (together hereinafter referred to as "independent evaluator") that has expertise in the evaluation of wastewater systems and that is approved by the Department. The performance evaluation shall consist of two basis phases: data collection and a final evaluation report. The manufacturer may elect to use one or more separate independent evaluators for quality assurance of data collection (including sampling and site/system monitoring) and lab analysis, subject to Department approval. In such case the independent evaluator compiling the final report shall verify the quality assurance and proper methodology for all data collected and analyzed as part of this study. For purposes of this study, quality assurance during the collection of site and system data requires reasonably thorough documentation (such as written checklists and date stamped photography) and the presence of either an independent evaluator or a state or local regulatory official. Qualified system installers and operators in responsible charge (ORCs) may qualify as independent evaluators for purposes of data collection, subject to quality assurance requirements and Department approval.
2. The first 39 installed systems shall be evaluated prior to Orenco applying to the On-Site Water Protection Branch for reclassification to Innovative Approval. The 39 test systems must include at least 14 systems with delivery rates less than 20 gpm, 14 systems with delivery rates between 20 and 30 gpm, and 10 systems with delivery rates between 31 and 40 gpm. Up to 11 additional systems may be installed as reserve sites, to allow for the possibility that some systems may, by mutual agreement between Orenco and the On-Site Water Protection Branch, be deemed unsuitable as test sites (for example, due to atypical usage or other anomalies). No more than 3 of the reserve units installed may have delivery rates greater than 30 gpm, unless authorized by the On-Site Water Protection Branch.
3. The Controlled Demonstration study evaluation period shall be determined by the startup date of the 39th primary test system installed and shall run for an additional 12 months from that date, so that every primary test system is operational for a minimum of 12 months. In the event that any reserve installation is required to be included as a substitute for a primary system, the 12 month minimum shall not apply, but any reserve installation shall be operational for a minimum of 3 months before sampling.
4. The installer shall obtain written permission from the system owner prior to installation, to allow access to the system for sampling and monitoring purposes. At startup, the installer and independent evaluator shall record the startup date, and pump elapsed time and pump cycle counts, shall conduct a drawdown test to measure the pump delivery rate, and shall measure residual head at the distal end of each lateral or at the pressure manifold.

D. Sampling and Evaluation Requirements

1. The independent evaluator responsible for final reporting and On-Site Water Protection Branch shall be notified in advance of all proposed sampling site locations and date.
2. All systems installed subject to this Controlled Demonstration approval shall be sampled at least once and analyzed for BOD_5 and Total Suspended Solids (TSS). Samples will be pump vault effluent samples. Samples will be collected by an independent licensed operator in consultation with the independent evaluator designated by Orenco with the approval of the On-Site Water Protection Branch.
3. Samples will be taken after the system has been in operation and use for at least 12 months. In the event that any reserve installation is required to be included as a substitute for a primary system, the 12 month minimum shall not apply. The reserve installation shall be operational for at least three months before sampling.

4. Chain of custody shall be documented for all samples, and analytical results will be reported to the On-Site Water Protection Branch.
5. Effluent samples shall be pump vault effluent collected from a sampling tap on the drainfield force main. The preferred location of the tap is in the pump tank discharge assembly. The effluent sample shall be taken after the pump has run for 30 continuous seconds through the discharge assembly. The sampling tap must also be purged prior to the sample being taken.
6. The licensed operator will record the pump elapsed time meter, pump cycle counter, and high water alarm event counter readings at the time of sample collection.
7. A total of three visits shall be made to each site of the 39 sites evaluated: at start-up, after the system has been in use for at least three months but no more than nine months, and the final visit after the system has been in operation for at least 12 months.
8. When the samples are collected during the interim visit and at the conclusion of the 1-year evaluation period, the licensed operator designated in paragraph D.2 above will visit each installed system and take the following actions:
   a. Measure and record the static pressure head at the distal end of LPP laterals or at the pressure manifold as applicable.
   b. Measure and record sludge and scum levels in each compartment of the septic/pump tank.
   c. Determine whether the filter cartridges need cleaning. The determination will be made by allowing the pump to run for about 30 seconds, then observing the difference between liquid levels inside and outside the pump vault. If the difference is more than 2 (two) inches, the ORC will clean the filter cartridges. The ORC will record the observations and whether the filter cartridges required cleaning.
   d. Conduct a drawdown test to verify that the pump delivery rate is approximately the same as when originally measured at startup.
   e. Record the pump elapsed time meter, pump cycle counter, and high water alarm event counter readings at the beginning (before activating the pump) and at the conclusion of the site visit.
   f. Record any and all maintenance performed during the visit.
   g. If a water meter is present, take water meter readings. A water meter is not required to be installed for this system but is strongly encouraged.
   h. Fill out the Orenco ProPak Inspection Form.
9. The BOD_5 and TSS data from the 39 test sites will be evaluated by averaging the results and comparing with a "control" data set obtained from the On-Site Water Protection Branch, representing effluent data from septic tanks installed in North Carolina, equipped with effluent filters. The Controlled Demonstration testing will be accepted as satisfactory if the average of the collected sampling data does not exceed the control data mean plus 20% (307 mg/L for BOD and 58.6 mg/L for TSS).

E. Reporting Requirements
   1. Interim reports are due by January 31 and July 31 of each year, and shall include all data gathered through December 31 and June 30 of the previous six-month period respectively. These reports shall be provided to the Department based upon the monitoring data and observations made from the Controlled Demonstration systems installed pursuant to this approval.
   2. A final written evaluation report summarizing the sampling and monitoring results shall be developed by an independent evaluator, approved by both the North Carolina On-Site Water Protection Branch and Orenco Systems, and submitted along with any recommendations for changes as identified during the demonstration period. Copies of all field reports shall be submitted with the final report.

IX. Responsibilities and Permitting

A. Orenco will make available a computer-based design application (ProPak Select Design Tool for North Carolina). Program will be modified to include recommendations made by the On-Site Water Protection Branch.

B. Each system design shall be reviewed and accepted by an Orenco-authorized designer, who has been trained by Orenco to use the ProPak Select Design Tool for North Carolina, and authorized by Orenco in writing on the basis of such training.

C. Orenco shall review and approve each system's tank and overall design on a project specific basis during this Controlled-Demonstration. Also, at the request of the LHD, a Regional Engineer will review the design.

D. Orenco shall identify qualified service persons for each region where systems are installed and provide contact information to homeowners to minimize response time for service calls.

E. Prior to the installation of a Biotube® ProPak™ Pump Package effluent pumping systems at a site, the owner or owner's agent shall fill out an application at the LHD for the proposed use of this system. The LHD shall issue an Improvement Permit or Authorization to Construct or amend a previously issued Authorization to Construct allowing for the use of a Biotube® ProPak™ Pump Package effluent pumping systems.

F. The Improvement Permit and Authorization to Construct shall contain all conditions the site approval is based upon, including the proposed use of the Controlled Demonstration system. The operation permit will include all conditions specified in the Improvement Permit and Authorization to Construct.

G. Training by the manufacturer shall be provided, upon request, to local health departments to facilitate proper review, inspection, and permitting of these systems. It is recommended that local authorized environmental health practitioners attend a design training session offered by the manufacturer/authorized representative prior to permitting the system.

X. Repair of Systems

The provisions of 15A NCAC 18A .1961(l) shall govern the use of Biotube® ProPak™ Pump Package Effluent pumping systems for repairs to existing malfunctioning wastewater systems.

Approved by:_____ Date:_____

RECEIVED SEP 20 2021

APPLICATION MUST BE FILLED OUT COMPLETELY & BE LEGIBLE OR IT WILL NOT BE PROCESSED

Iredell County Health Department – Environmental Health Division

PAGE 1: *APPLICATION FORM* AP-321600 $500.00

Application For: ( ) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
(x) Septic Improvement Permit ( ) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repair

THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED. APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS.

Page 2: *Site Plan Worksheet* form MUST accompany this application

The following optional attachments may also be submitted: (x) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) beside whichever is submitted if applicable ( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information: (PRINT CLEARLY)

Applicant Name: John and Alicia Gibson Address: 306 Armour Street, Davidson, NC Zip: 28036

Applicant Email: agibson@covechurch.org Phone: 843.452.0015 Alt. Phone: 704.756.4060

Owner Name: _____ Address: _____ Zip: _____

Owner Email: _____ Phone: _____ Alt. Phone: _____

Property Information:

Street Address: 135 Holt Lane, Mooresville, NC 28117

Subdivision Name: McCrary Woods Section/Phase: _____ Lot Number: 35

Driving Directions: HWY 150 to McCrary Woods Rd to Holt Lane

Site Development Information: *(check or complete ALL that apply*

CHECK FOUNDATION TYPE

(x) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition
( ) Repair to failing septic system ___ Tank ___ Drain lines Describe Problem: _____

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: 8
(x) Swimming Pool
( ) Other Addition/Structure: _____

( ) Crawl Space Foundation
( ) Concrete Slab Foundation
(x) Basement with Plumbing
( ) Basement without Plumbing

Non-Residential Site Development: Type of Business: _____
Square Footage of Building: _____ Max. Number of Employees: _____ Max. Number of Seats/Beds/Other: _____

Water Supply: ( ) Replacement Well – Reason: _____
( ) Multi-connection Well Number of Houses: _____ Number of Persons: _____

(x) New Well ( ) Existing Well ( ) Community Well ( ) City Water ( ) Other Public Water

Desired Septic System Type: *(you may rank in order of preference)* Year existing system installed: _____
( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other: _____

Please answer the following to the best of your ability:

( ) Yes (x) No Does the site contain any jurisdictional wetlands?
( ) Yes (x) No Is any non-domestic sewage (i.e. industrial) to be generated?
( ) Yes (x) No Is the site subject to approval by any other public agency?

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

Signature: _____ 9-16-21
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

Package ID: 122858527645BF2F7A7B28E356C1F81E

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

(Check and sign only ONE of the options below)

☐ **1. * APPLICANT AND OWNER ARE THE SAME. *** (*Sign here*) _____

Applications for permits require the "signature of the owner or owner's legal representative" (15A NCAC 18A .1937). If the owner does not sign the application himself or herself, they can submit any one of the following documents to designate their legal representative: *Power of Attorney; Real Estate Contract; Estate executor; Bankruptcy trustee; Court ordered guardianship*
In the absence of the above documentation, the property owner may provide the local health department with documentation that designates a legal representative. A property owner may:
Complete this form to document his or her legal representative, or provide his or her own form that contains the information in this form. If there are multiple property owners, then all property owners must sign the form that designates a legal representative.
By signing a form that designates a legal representative for purposes of 15A NCAC 18A .1937, the property owner authorizes that representative to act on their behalf in matters pertaining to the application and permitting process, including signing or receiving any application, document or permit. The owner retains full responsibility to meet all permit conditions specified by the local health department.

☐ **2.** I, _____, am the legal owner(s) of the property located at _____, identified as PIN (Parcel Identification Number)_____, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) _____, _____, to act as an agent on my behalf in applying for/signing/obtaining any of the documents described below.

- Application for Improvement Permit (IP) / Authorization to Construct (AC)
- Improvement Permit (IP) / Authorization to Construct (AC)
- Application for soil-site evaluation (new/repair)
- Application/permit for private drinking water well/well abandonment
- Application for Compliance Inspection

I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

_____ _____
Signature of Owner(s) Date

Mooresville - Environmental Health
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

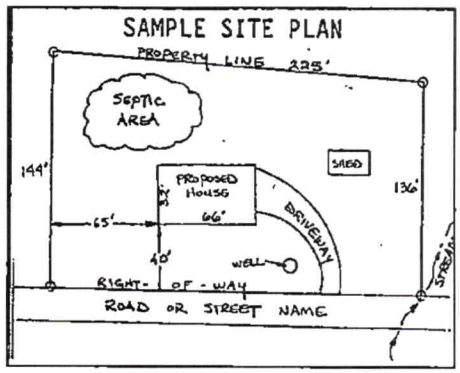
Statesville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 2: *SITE PLAN WORKSHEET*

SEE THE "SAMPLE SITE PLAN" BELOW. *INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!*



Place an (X) beside each item as you complete the site plan:

- (x) Property Line measurements are clearly identified
- (x) All proposed structures are indicated
- (x) Front and side setbacks from property line
- (x) Preferred driveway location and well location
- (x) Area you prefer your septic system to be placed
- (x) North arrow, or other sufficient indicator of direction

Circle N/A on the following if appropriate:

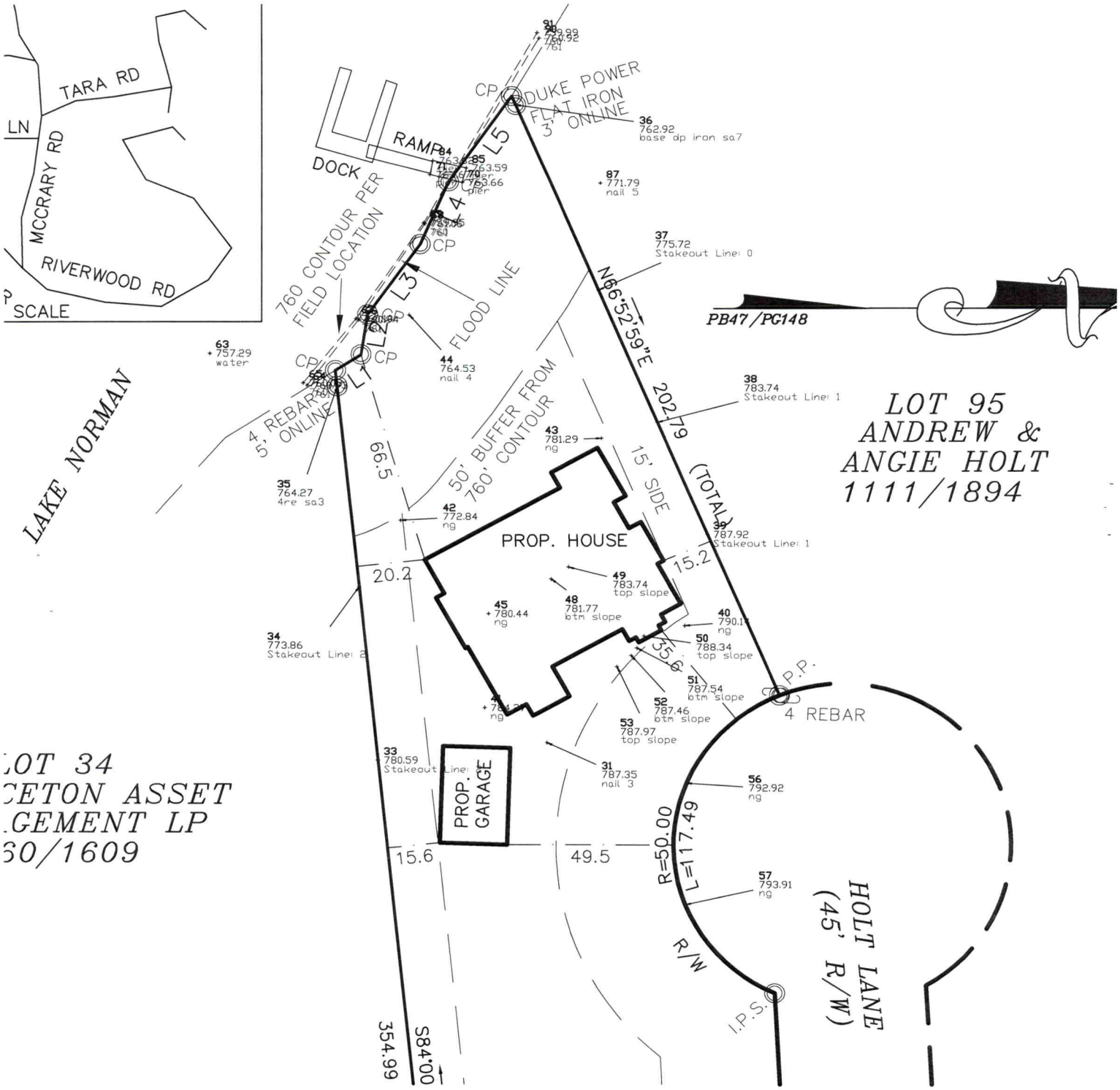
Location of septic systems and wells within 100' of your property	N/A
Location of easements and rights of ways on your property	N/A
Location of any designated wetlands on the property	N/A

USE THIS SPACE TO DRAW YOUR SITE PLAN

Show: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

Signature: _____ 09.03.21

Property owner or owner's legal representative signature (SIGNATURE REQUIRED) — DATE


TARA RD
LN
MCCRARY RD
RIVERWOOD RD
SCALE
DUKE POWER
FLAT IRON
3' ONLINE
RAMP
DOCK
760 CONTOUR PER
FIELD LOCATION
FLOOD LINE
L1
L2
L3
L4
L5
CP
N66°52'59"E 202.79 (TOTAL)
PB47/PG148
LOT 95
ANDREW &
ANGIE HOLT
1111/1894
LAKE NORMAN
4' REBAR
5' ONLINE
50' BUFFER FROM
760' CONTOUR
66.5
15' SIDE
PROP. HOUSE
20.2
15.2
35.6
PROP.
GARAGE
15.6
49.5
R=50.00
L=117.49
R/W
HOLT LANE
(45' R/W)
P.P.
4 REBAR
I.P.S.
S84°00
354.99
LOT 34
CETON ASSET
GEMENT LP
60/1609
63 +757.29 water
44 764.53 nail 4
35 764.27 4re sa3
34 773.86 Stakeout Line: 2
33 780.59 Stakeout Line: 2
42 772.84 ng
43 781.29 ng
45 +780.44 ng
48 781.77 btm slope
49 783.74 top slope
50 788.34 top slope
51 787.54 btm slope
52 787.46 btm slope
53 787.97 top slope
31 787.35 nail 3
36 762.92 base dp iron sa7
87 +771.79 nail 5
37 775.72 Stakeout Line: 0
38 783.74 Stakeout Line: 1
39 787.92 Stakeout Line: 1
40 790.1 ng
56 792.92 ng
57 793.91 ng

SQUARE FOOTAGE
APPROXIMATE (PER A.N.S.I. Z765)

HEATED/COOLED	4,160 SF
LOWER LEVEL	861 SF
FIRST FLOOR	2,482 SF
SECOND FLOOR	960 SF
NON H/C	
UNFIN BASEMENT	447
UNFIN STORAGE	78
BASEMENT PATIO	1,718
FRONT PORCH	179
COVERED PORCH	350
SCREENED PORCH	288
BALCONY	331
TOTAL UNDER ROOF	7,433 SF

PROVIDED SQ. FOOTAGE CALCULATIONS FOR THIS HOUSE WERE MADE BASED ON PLAN DIMENSIONS AND ARE APPROXIMATE. PROVIDED SQ. FOOTAGE DOES NOT INCLUDE ANY AREAS OUTSIDE THE HOUSE & GARAGE.

NOTE:
ALL STRUCTURAL ELEMENTS ARE TO FIELD VARIFIED BY CONTRACTOR.
ANY SUPERVISING MAY BE SUBJECT TO CHANGE. VERIFY WITH CLIENT AND ARCHITECT.
ALL DOOR & WINDOW SIZES ARE NOTED AS ROUGH OPENINGS. FOR EXACT DIMENSIONS REFER TO DWGS.
* STRUCTURAL ENGINEER(S) PLANS ARE BY MAKER. REFER TO SHEET SCHEDULE

ORIGINAL PLAN CREATED BY PLANTATION DESIGN
ALTERED BY
4G DESIGN BUILD

DATE	DESCRIPTION
09.17.2021	INITIAL PLAN DESIGN
11.01.2021	PLAN CHANGES
11.09.2021	FINALIZED FLOOR PLANS, ADDED ELEVATIONS

GIBSON RESIDENCE
135 HOLT LANE
MOORESVILLE, NC 28117

4G Signature FLOOR PLANS
468 Pinewille Rd Statesville, NC 28677 980-635-0060 www.Build4G.com

BANK

A-103
FLOOR PLAN
11.09.2021
GIBSON - 135 HOLT LANE

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Acknowledgement Of Plans Submittal ONLY!
Date 11/16/21
Date 11/16/21

SQUARE FOOTAGE
APPROXIMATE (PER A.N.S.I. Z765)

HEATED/COOLED	4,189 SF
LOWER LEVEL	891 SF
FIRST FLOOR	2,482 SF
SECOND FLOOR	990 SF
NON HC	
UNFIN BASEMENT	447
UNFIN STORAGE	78
BASEMENT PATIO	1,718
FRONT PORCH	179
COVERED PORCH	350
SCREENED PORCH	238
BALCONY	331
TOTAL UNDER ROOF	7,433 SF

FINISHED SQ. FT. AREAS ARE APPROXIMATE CALCULATIONS PER THE HEATED FLOOR AREAS SHOWN ON PLAN. FINISHED SQUARE FOOTAGE DOES NOT INCLUDE GARAGE, PORCHES OR BASEMENT UNLESS OTHERWISE NOTED. FINISHED SQ. FT. AREAS ARE ROUNDED TO THE NEAREST WHOLE NUMBER.

NOTES:
PLAN DIMENSIONS ARE TO FOUNDATIONS UNLESS OTHERWISE NOTED.
ANY MATERIALS MAY BE SUBJECT TO SUBSTITUTION DUE TO SUPPLY AVAILABILITY WITH CLIENT AND DESIGNER'S APPROVAL.
ACTUAL DOOR & WINDOW SIZES ARE NOTED ON FLOOR PLANS. FOR ADDITIONAL DETAILS REFER TO DWG'S.
* STRUCTURAL ENGINEERED PLANS ARE REQUIRED FOR THIS ITEM.
# REFER TO SCHEDULE.

ORIGINAL PLAN CREATED BY: 4G DESIGN BUILD
FLOOR PLAN UPDATED & REVISED BY: 4G DESIGN BUILD
ALTERED BY:

DATE	DESCRIPTION
09.17.2021	INITIAL PLAN DESIGN
11.01.2021	PLAN CHANGES
11.09.2021	FINALIZED FLOOR PLANS, ADDED ELEVATIONS

GIBSON RESIDENCE
135 HOLT LANE
MOORESVILLE, NC 28117

4G Signature FLOOR PLANS
488 Pinnville Rd Statesville, NC 28677 980-635-0060 www.Build4G.com

BANK

Acknowledgement Of Plans Submittal ONLY!
Date 11/18/21
Date 11/18/21

A-102
FLOOR PLAN
11.09.2021
GIBSON - 135 HOLT LANE

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SQUARE FOOTAGE
APPROXIMATE (PER A.N.S.I. Z765)

HEATED/COOLED	4,369 SF
LOWER LEVEL	891 SF
FIRST FLOOR	2,482 SF
SECOND FLOOR	996 SF
NON HC	
UNFIN BASEMENT	447
UNFIN STORAGE	78
BASEMENT PATIO	1,718
FRONT PORCH	179
COVERED PORCH	350
SCREENED PORCH	298
BALCONY	331
TOTAL UNDER ROOF	7,433 SF

FINISHED SQ ARE PER THE CALCULATIONS PER THIS HOUSE. THERE MAYBE SMALL ON PLAN DIMENSIONS ONLY AND MAY VARY FROM THE FINISHED SQ ARE PER THE PLOT OF THE HOUSE AS BUILT.

NOTE:
PLAN DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
ANY MATERIALS MAY BE SUBJECT TO CHANGE WHERE NECESSARY DUE TO AVAILABILITY AND SELECTION LAG.
ACTUAL DOOR & WINDOW SIZES ARE NOTED ON FLOOR PLANS. FOR FIGURES REFER TO SPECS.

* STRUCTURAL ENGINEERED PLANS ARE REQUIRED. REFER TO SHEET SCHEDULE.

HOUSE DIMENSIONS

DATE	DESCRIPTION
09.17.2021	INITIAL PLAN DESIGN
11.01.2021	PLAN CHANGES
11.09.2021	FINALIZED FLOOR PLANS, ADDED ELEVATIONS

A-101
FLOOR PLAN
11.09.2021
GIBSON - 135 HOLT LANE

GIBSON RESIDENCE
135 HOLT LANE
MOORESVILLE, NC 28117

4G Signature FLOOR PLANS
468 Pineville Rd Statesville, NC 28677 980-635-0060 www.Build4G.com

BANK

Acknowledgement Of Plans Submittal ONLY!
Date 11/18/21
Date 11/18/21

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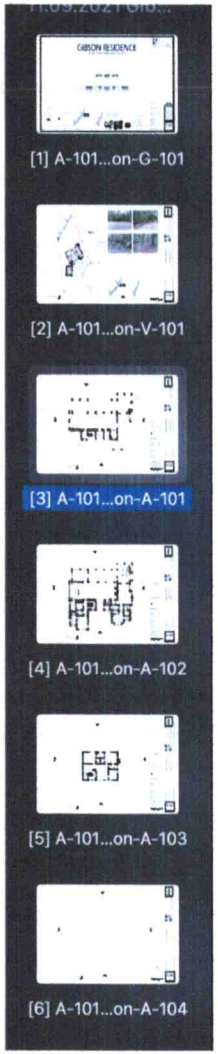
Acknowledgement Of Plans Submittal ONLY!

Date 11/18/21

Date

Acknowledgement Of
Plans Submittal ONLY!
Date

Acknowledgement Of
Plans Submittal ONLY!
Date



1
A-202

63'-5"

12'-0"
8'-4"
8'-1½"
3'-0"
15'-9½"
8'-4½"
8'-0"
8'-1"
PATIO
10" CLG
13'-9"
3'-0"
11'-6"
3'-0"
2'-11½"
3'-0"
4'-3½"
3068
3068
3068
1'-0"
ENTRY
10" CLG
6'-1"
3'-7"
UNFIN STORAGE
10" CLG
LAUNDRY
10" CLG
W
D
14'-7½"
7'-9"
6'-1"
10'-8"
3068
23'-8"
24'-0"
8'-0"
UNFINISHED
BASEMENT
27'-3"

Signature FLOOR PLANS
488 PINEVILLE RD
STATESVILLE, NC 28677
980-635-0060
www.Build4G.com

GIBSON RESIDENCE

135 HOLT LANE, MOORESVILLE, NC 28117



FINISHED SQUARE FOOTAGE CALCULATIONS FOR THIS HOUSE WERE MADE BASED ON PLAN DIMENSIONS ONLY AND MAY VARY FROM THE FINISHED SQUARE FOOTAGE OF THE HOUSE AS BUILT.

BANK

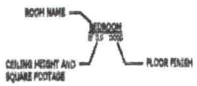
KEYS & SYMBOLS

DOOR & WINDOW SIZE KEY
2060 = 2'-0" WIDE X 6'-0" HIGH

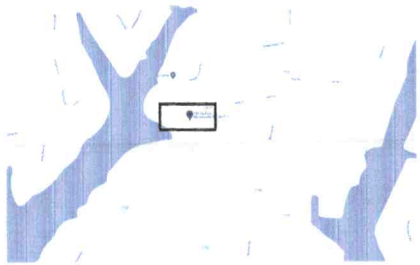
P-2060/60S = FIXED WINDOW
2'-0" WIDE X 6'-0" HIGH
80" HEADER HEIGHT







* OTHER KEYS & SYMBOLS MAY BE FOUND WITH THE CORRESPONDING PLANS (ROOF, ELECTRICAL, ETC)



VICINITY MAP

PROJECT SCOPE

- SPLIT LEVEL HOME - 4 BEDROOMS - 5.5 BATHROOMS
- CAROLINA ROOM - LARGE PARTIALLY SCREENED IN PORCH
- BONUS ROOM, BATH & LAUNDRY ON LOWER LEVEL
- UNFINISHED BASEMENT STORAGE
- PARTIAL OPEN-AIR BASEMENT SPACE WITH IN-GROUND POOL
- DETACHED GARAGE (PLANS SEPARATE)



SHEET SCHEDULE

ARCHITECTURAL

G-101	TITLE SHEET
V-101	SITE
A-101	LOWER LEVEL FLOOR PLAN
A-102	FIRST FLOOR PLAN
A-103	SECOND FLOOR PLAN
A-104	ROOF PLAN
A-201	EXTERIOR ELEV
A-202	EXTERIOR ELEV CONT.
A-203	EXTERIOR ELEV CONT.
A-204	EXTERIOR ELEV CONT.
A-205	ENLARGED PLANS & INT ELEV
E-101	ELECTRICAL PLAN
E-102	ELECTRICAL PLAN CONT.

SQUARE FOOTAGE

APPROXIMATE (PER A.N.S.I. Z765)

HEATED/COOLED	4,363 SF
LOWER LEVEL	891 SF
FIRST FLOOR	2,482 SF
SECOND FLOOR	990 SF
NON H/C	
UNFIN BASEMENT	447
UNFIN STORAGE	78
BASEMENT PATIO	1,718
FRONT PORCH	179
COVERED PORCH	350
SCREENED PORCH	298
BALCONY	331
TOTAL UNDER ROOF	**7,433 SF**

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G-101
TITLE SHEET
11.09.2021
GIBSON - 135 HOLT LANE

IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 119588

IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM

PIN # 4637-16-3561

APPLICANT: McCrary Partners LLC APPLICANT ADDRESS: PO Box 3608 Mooresville NC 28117

SITE ADDRESS: 135 Holt Ln Mooresville NC 28117 PHONE: ALT. PHONE:

SITE DIRECTIONS: Hwy 150 W, TL on McCrary Rd, TR on Holt, Lot on L @ end

SUBDIVISION: McCrary Woods SECTION: 2 LOT # 35 LOT AREA: 0.95 ac DESIGN FLOW: 480 gpd L.T.A.R.: 0.3

Septic Tank 1000 (gal) STB Date

Pump Tank 1000 (gal) PT Date

Pump Make Model Serial #

Nitrification Fields 1 # Lines 3 Linear Ft: 270

Trench Width 24" Max. Trench Bottom Depth 36" Gravel Depth N/A

☑ New System ☐ Repair ☐ Expansion System Type: I II III ☑ IV V VI

System Description: LP PPBPS

Repair System Description: LP PPBPS

Maintenance Agreement Required: ☑ YES ☐ NO

☐ GRAVITY ☑ PRESSURE

☐ Residence ☐ Business ☐ Other ☐ Slab ☐ Crawl Space ☑ Basement w/plumbing ☐ Basement w/o plumbing

No. Bedrooms 4 No. Persons 8 No. Employees

Water Supply ☑ Private ☐ Public ☐ Community

Comments / Conditions:

INITIAL SITE SKETCH

See Plan By
Kathleen Saunders, LSS
@
The Oak Group
Approved by ICPHD

AS BUILT SKETCH

Revoked

---IMPROVEMENT PERMIT ONLY---

DO NOT ISSUE BUILDING PERMIT!

FLOOR PLAN STILL NEEDED!

Permit can be suspended or revoked if any false information is supplied toward securing the permit / any unauthorized changes are made to the site / any unauthorized changes are made in the installation of the system. **CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION**

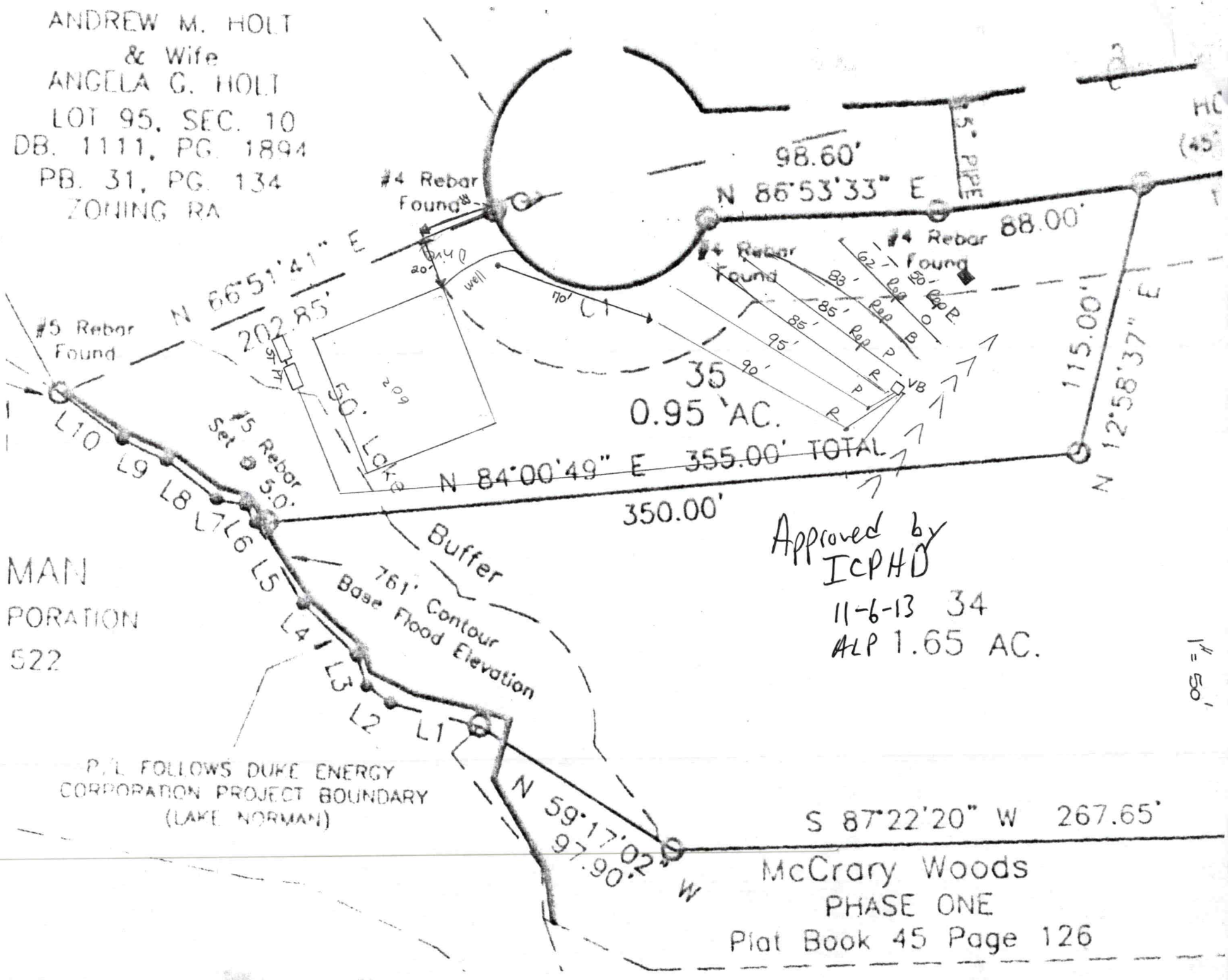
☑ **IMPROVEMENT PERMIT** ***with plat*** *valid without expiration.* ☐ **IMPROVEMENT PERMIT** ***with site plan*** *valid for 60 mos.* ☐ **AUTHORIZATION TO CONSTRUCT** *valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.*

Owner / Applicant Signature: Kathleen Saunders Date: 11-13-13 Installed by:

IMPROVEMENT PERMIT by: Date: 11-6-13 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: Date: Existing System Inspected by: Date:

Health Dept. Copy - WHITE Applicant (Final Approval) - YELLOW Applicant (Conditional Approval) - PINK


ANDREW M. HOLT
& Wife
ANGELA G. HOLT
LOT 95, SEC. 10
DB. 1111, PG. 1894
PB. 31, PG. 134
ZONING RA
#4 Rebar Found
N 66°51'41" E
202.85'
#5 Rebar Found
98.60'
N 86°53'33" E
#4 Rebar Found
#4 Rebar Found
88.00'
115.00'
N 12°58'37" E
110' C1
well
septic
209
50' Lake
35
0.95 AC.
#5 Rebar Set @ 5.0'
L10 L9 L8 L7 L6 L5 L4 L3 L2 L1
N 84°00'49" E 355.00' TOTAL
350.00'
Buffer
761' Contour
Base Flood Elevation
P.L. FOLLOWS DUKE ENERGY
CORPORATION PROJECT BOUNDARY
(LAKE NORMAN)
N 59°17'02" W
97.90'
S 87°22'20" W 267.65'
McCrary Woods
PHASE ONE
Plat Book 45 Page 126
Approved by
ICPHD
11-6-13 34
ALP 1.65 AC.
1" = 50'
MAN
PORATION
522

Lot 35 McCrary Woods Subdivision Fast Track Septic System Information

Number of Bedrooms	4
Basement or Crawl	**Basement with Plumbing**
Design Flow (gpd)	480
LTAR (gpd/ft2)	0.3
Primary System Type	**LP PPBPS**
No. Lines	3 (See Table)
Total Linear Feet	270
Trench Width	2' min.
Trench Spacing	8' min.
Min. Trench Depth (low side)	36"
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	305' of 2" SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	30 gpm
Elevation head	Approx. 26.1'
Pressure head	3.0'
Friction head	4.9'
20% Contingency	6.8'
Total Head	40.8'
Pump Requirements	30 gpm @ 43.13' of head To be designed by installer.
Maximum Dosing Volume	216 gal -2.2 doses/day @ design flow*
Volume of water pumped per dose	Calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Pump Run per dose	approx. 7.2 min.
Check Valve	Yes
Siphon Break hole	No
Repair System	**LP PPBPS**
Total Linear Feet	280
Repair LTAR	0.3

***Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.**

Table 1: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading Elev. (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	Red	LPPPBPS	90 endfed	10.6	20	20	1 per panel	5/32"
2	System	Pink	LPPPBPS	95 endfed		21	21	1 per panel	5/32"
3	System	Red	LPPPBPS	85 endfed		19	19	1 per panel	5/32"
4	Repair	Pink	LPPPBPS	85					
5	Repair	Blue	LPPPBPS	83					
6	Repair	Orange	LPPPBPS	62					
7	Repair	Pink	LPPPBPS	50	3.0				
						Total: 60	Total: 60 (1 in each panel turned up)		
				Total System: 270'					
				Total Repair: 280'					

Tank	Pink	1000 gal (2 compartment)	23.1
Pump Tank	Pink	1000 gal.	
House	Blue	Left Front	18.0

Note: **Use LTAR from existing, non expired permit**
Uses 50' well radius specified on existing permit

10-24-13
Pd. #195.00
Redraw

IREDELL COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

PAGE 1: *APPLICATION FORM*

Application For: ( ) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
(X) Septic Improvement Permit ( ) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repair

THE ABOVE PERMIT DOCUMENTS WILL BECOME INVALID IF INFORMATION PROVIDED ON THIS APPLICATION IS FALSIFIED OR CHANGED, OR IF THE SITE IS ALTERED. THE IMPROVEMENT PERMIT IS VALID FOR EITHER 60 MONTHS OR WITHOUT EXPIRATION DEPENDING UPON DOCUMENTATION SUBMITTED APPLICATION WITH SITE PLAN 60 MONTHS, APPLICATION WITH COMPLETE, SCALED PLAT WITHOUT EXPIRATION. SEE 15A NCAC 18A .1937(f) FOR DETAILS.

Page 2: *Site Plan Worksheet* form MUST accompany this application Non-Expiring

The following optional attachments may also be submitted: (X) Survey Plat, scaled no more than 1 inch = 60 feet
Place an (X) *beside whichever is submitted if applicable* ( ) Custom Site Plan, scaled no more than 1 inch = 60 feet

Applicant Information:

Applicant Name: McCrary Partners LLC **Address:** PO Box 3608 Mooresville 28117 **Phone:**

Owner Name: Same **Address:** Kathleen Saunders, LSS 704-578-4951 **Phone:**

Property Information:

Street Address:

Subdivision Name: McCrary Woods **Section/Phase:** 2 **Lot Number:** 35

Driving Directions: Hwy 150 W, L McCrary, R Holt, Lot on L near end

Site Development Information: ***(check or complete ALL that apply)***

(X) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition

Maximum Number of Bedrooms: 4
Maximum Number of Occupants: 8
( ) Swimming Pool
( ) Other Addition/Structure:

( ) Crawl Space Foundation
( ) Concrete Slab Foundation
(X) Basement with Plumbing
( ) Basement without Plumbing

Non-Residential Site Development:
Type of Business:
Square Footage of Building:
Maximum Number of Employee:
Maximum Number of Seats/Beds/Other:

Water Supply:

(X) New Well ( ) Existing Well ( ) Community Well ( ) City Water ( ) Other Public Water

Desired Septic System Type: ***(you may rank in order of preference)*** **Year existing system installed:**
( ) No Preference ( ) Alternative ( ) Conventional ( ) Innovative ( ) Modified Conventional ( ) Other:

Please answer the following to the best of your ability:
( ) Yes (X) No Does the site contain any jurisdictional wetlands?
( ) Yes (X) No Is any non-domestic sewage (i.e. industrial) to be generated?
( ) Yes (X) No Is the site subject to approval by any other public agency?

I have read this application and certify that the information provided herein is true, complete, and correct. Authorized county and state officials are granted right of entry to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that I am solely responsible for the proper identification and labeling of all property lines and corners and making the site accessible so that a complete site evaluation can be performed.

Signature: Kathleen Saunders
Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

10-23-13
DATE

EMAIL

IREDELL COUNTY HEALTH DEPARTMENT

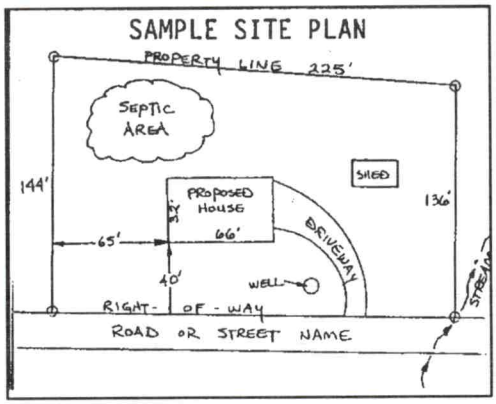
ENVIRONMENTAL HEALTH DIVISION

PAGE 2: *SITE PLAN WORKSHEET*

SEE THE "SAMPLE SITE PLAN" BELOW. *INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!*

Place an (X) beside each item as you complete the site plan:

- (X) **Property Line measurements are clearly identified**
- (X) **All proposed structures are indicated**
- (X) **Front and side setbacks from property line**
- (X) **Preferred driveway location and well location**
- (X) **Area you prefer your septic system to be placed**
- (X) **North arrow, or other sufficient indicator of direction**



Circle N/A on the following if appropriate:

- **Location of septic systems and wells within 100' of your property** (N/A)
- **Location of easements and rights of ways on your property** (N/A)
- **Location of any designated wetlands on the property** (N/A)

USE THIS SPACE TO DRAW YOUR SITE PLAN

Show: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site

Please see Attached

Signature: Kathleen Sanders

Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

10-23-13

DATE

375

IREDELL COUNTY HEALTH DEPARTMENT

STATESVILLE 704-878-5305 MOORESVILLE 704-664-5281

IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM INSPECTION

PERMIT# 119588 PIN# 4637 16 6015.035 DATE 11/15/07

OWNER OR CONTRACTOR McCRARY PARTNERS PHONE: Business 799-9770 Home

ADDRESS PO Box 3608 MOORESVILLE NC 28117

LOCATION 150 WEST - TL McCRARY - TR HOLT LN - AT END OF LT

SUBDIVISION McCRARY WOODS BLOCK / SECTION LOT 35 LOT AREA .95AC SITE CLASS A5 DESIGN FLOW 480GPD L.T.A.R. .36-00/FT

Septic Tank: 1000 Gallons; STB Date

Pump Tank: 1000 Gallons; PT Date

Pump Make: Model Serial No.

Nitrification Field: No Fields 1 Square Feet 540 Linear Feet 270

No Lines 3@90' Trench Width 24" Max Trench Bottom Depth 36" Gravel Depth N/A

☑ New System ☐ Repair System Type: I, II, III, IV, V, VI

System Description: LP PANEL

Repair System Description: SAME

Maintenance Agreement Required: ☑ Yes ☐ No

☑ House/Mod. Home No. Bedrooms 4

☐ Mobile Home No. Bathrooms 4

☐ Business No. Employees

☐ Other

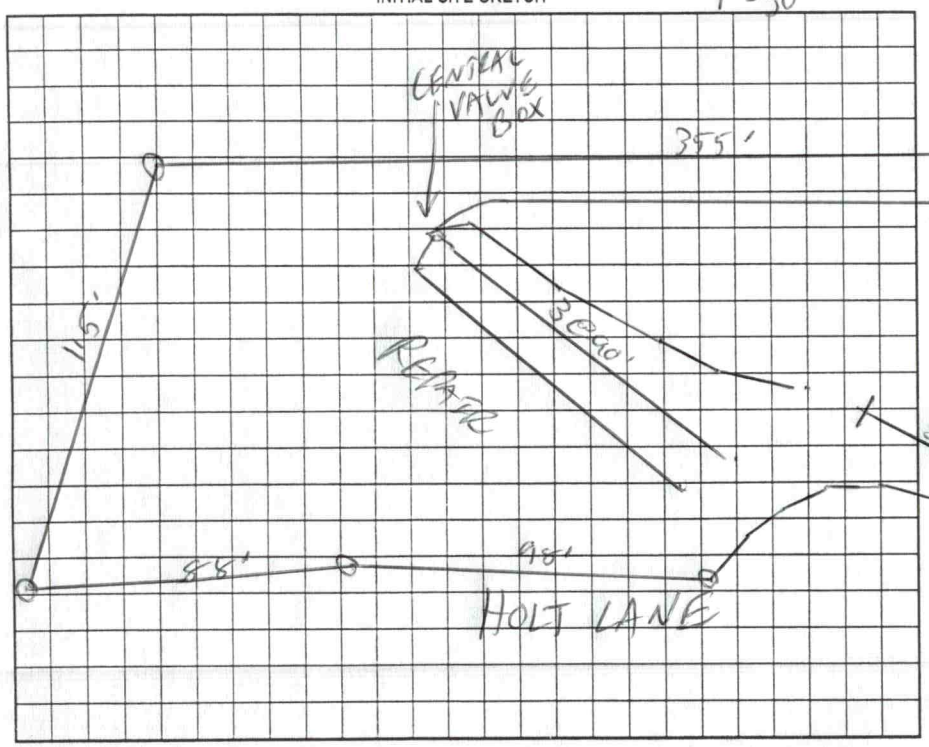
☐ Slab ☑ Crawl Space ☐ Basement w/plumbing ☐ Basement wo/plumbing

Water Supply: ☑ Individual ☐ Public ☐ Community

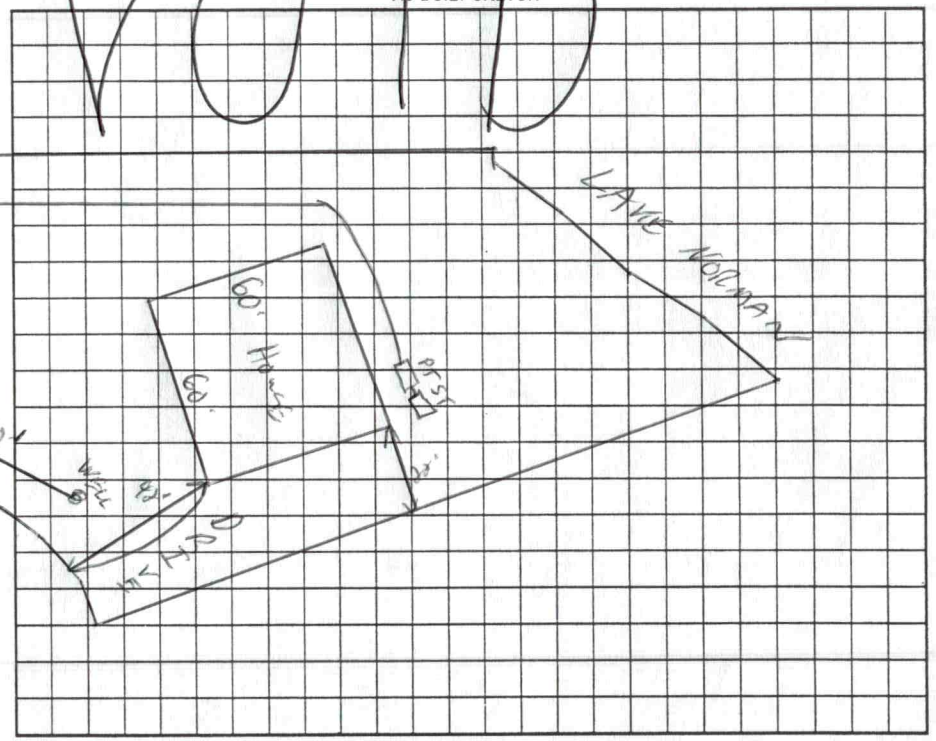
Comments:/Conditions: ROAD NOT FINISHED AT TIME OF EVALUATION.

Comments:/Conditions:

INITIAL SITE SKETCH 1"=50'



AS BUILT SKETCH



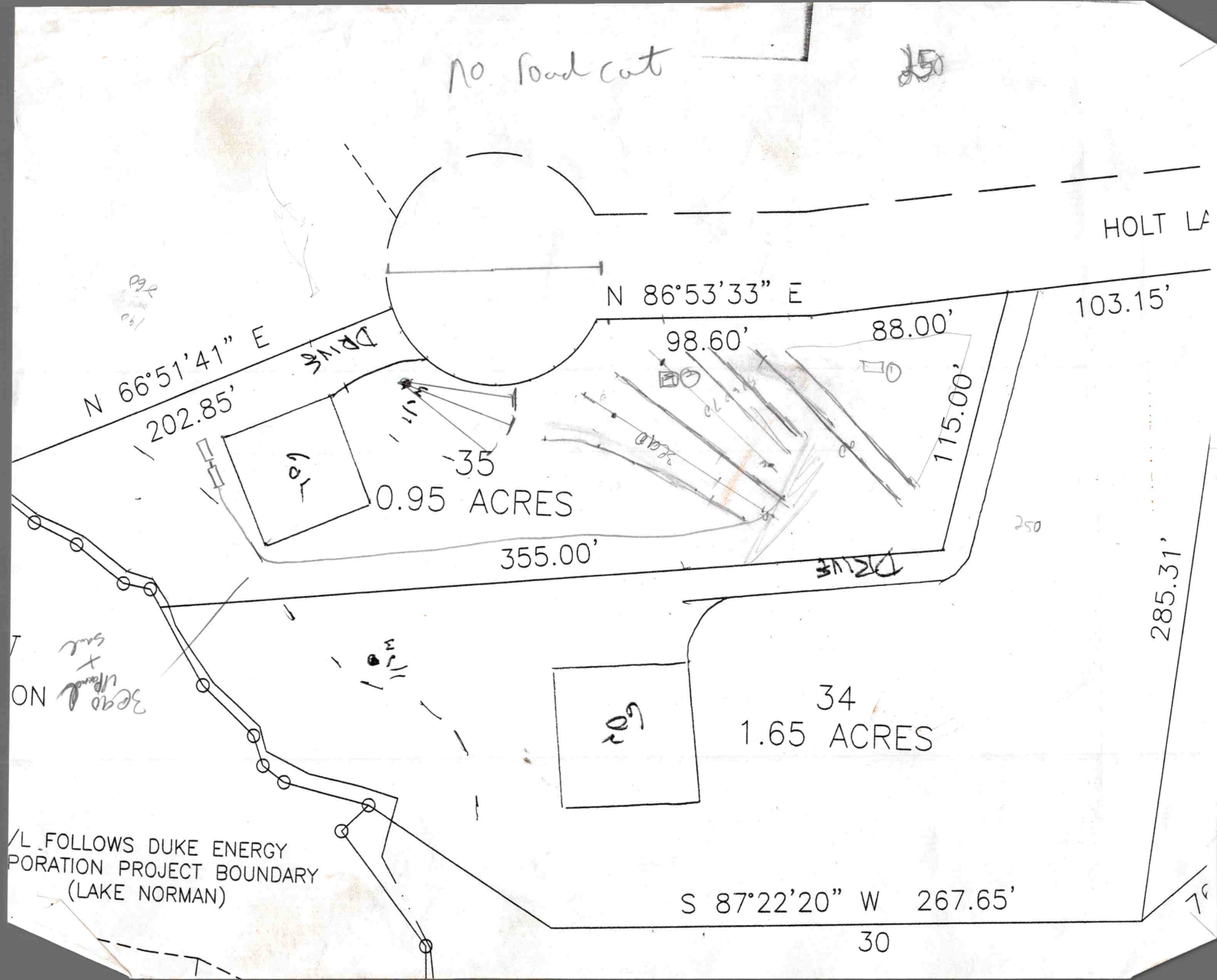
Permit can be suspended or revoked if any false information is supplied toward securing the permit/any unauthorized changes are made to the site/any unauthorized changes are made in the installation of the system. Improvement Permit with plat valid without expiration. Improvement Permit with site plan valid for sixty months. Authorization to Construct is valid for a period equal to that of Improvement Permit – not to exceed sixty months.

Signed: date 11-22-07 Installed by:

Improvement Permit by: date 11/15/07 Operation Permit by: date

Authorization to Construct by: date Existing System Inspection by: date

HEALTH DEPT. COPY: WHITE OWNER COPY (FINAL): YELLOW OWNER COPY (INITIAL): PINK


No road cut
HOLT LA
N 86°53'33" E
103.15'
88.00'
98.60'
115.00'
N 66°51'41" E
202.85'
35
0.95 ACRES
355.00'
285.31'
34
1.65 ACRES
FOLLOWS DUKE ENERGY
PORATION PROJECT BOUNDARY
(LAKE NORMAN)
S 87°22'20" W 267.65'
30

IREDELL COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
Application For Improvement Permit

ALL items on this application form must be completed before Health Department can begin work. One application must be completed by the property owner or agent for each (proposed) site.

PERSONAL INFORMATION: 704 719 9770

Applicant	Phone #	Mailing Address	City	State	Zip Code
McCrary Partners, LLC		PO Box 3608	Mooresville	NC	28117
Current Property Owner		Mailing Address	City	State	Zip Code
same		same	same	same	same

PROPERTY INFORMATION:

(Proposed) Subdivision Name	(Proposed) Lot #	(Proposed) Block/Section #	State Road #
McCrary Woods	35		1168

(Proposed) Water Supply: Public, Private Well	**Preliminary Plat Approval Date** (DEVELOPERS ONLY)	Tax Map #
Private Well		4637166015

Specific Directions to Property HWY 150 West, Lt. on McCrary Road
Property on both sides of McCrary at end of Road.

TYPE OF FACILITY: (use check (X) or number as appropriate)

House X Mobile Home _____ Commercial _____ No. Bedrooms 4 No. Baths _____

No. Persons or Employees (commercial only) _____ Basement _____ Basement with Plumbing _____

Crawl Space X Concrete Slab _____ Garbage Disposal _____ Jaccuzi or spa _____

COVENANT AND SIGNATURE:

I hereby make application to the Iredell County Health Department for a soils/site evaluation of the property described above. This evaluation is to be conducted for the sole purpose of obtaining a septic system Improvement Permit. I hereby authorize Iredell County Health Department representatives to go onto the above property for purposes of conducting this evaluation. I understand that, by state law, any Improvement Permit issued on the above property may be voided if substantial changes are made to the designated sewage system site. The issuance of an Improvement Permit by the Iredell County Health Department does not relieve me from compliance with all other relevant state/local laws or regulations. As owner or authorized agent, I covenant that the contents of this application are true and represent the maximum facilities intended to be placed on this property to my knowledge to date.

I understand that any Improvement Permit issued on the above property is valid for five (5) years from the issuance date and is subject to revocation if the above described site plans or intended use changes.

3/16/04 DATE Samuel A Mallon SIGNATURE OF OWNER/AUTHORIZED AGENT

IREDELL COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
Application For Improvement Permit
Site Plan Form

INSTRUCTIONS TO APPLICANT: (Items in Parentheses are to be performed by DEVELOPERS ONLY)

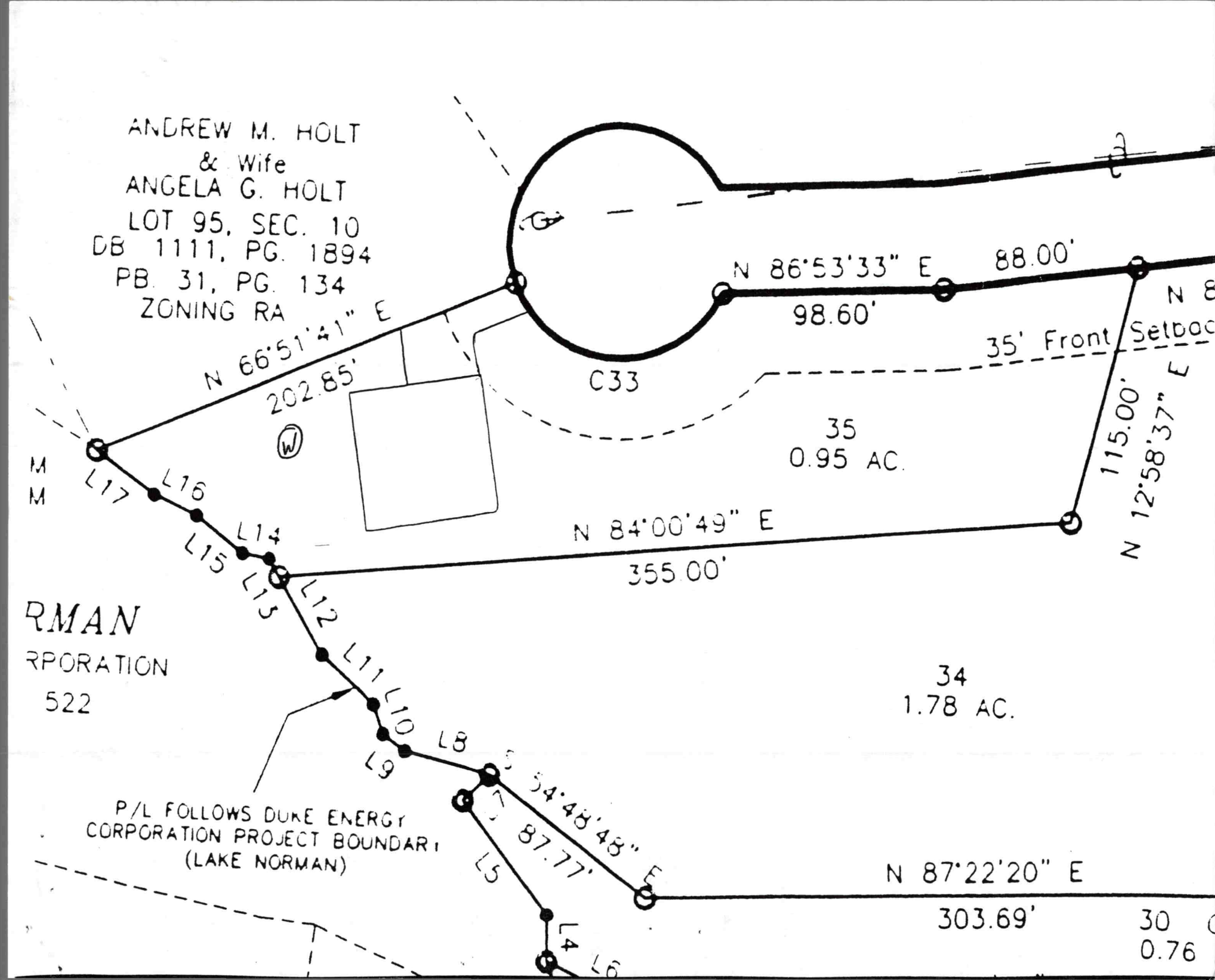
All property corners must be staked and flagged with dimensions matching those shown on an approved final (preliminary) plat (**and** proposed house dimensions must be staked and flagged) before the Iredell County Health Department can begin review work on this proposed site. An application for an Improvement Permit is considered complete **only** when this site plan form is completed, signed, and attached to the application form.

As Close To Scale As Is Possible: 1. Draw in the proposed lot showing **all** proposed lot dimensions and orientation to proposed streets or roads. 2. Draw in the proposed structure showing dimensions and distances to property lines (include decks, walkways, etc.). E. Draw in the proposed driveway location. 4. Draw in all wells, both existing and proposed, including those on adjacent property (if known). 5. Draw in any other structure ie. sheds, outbuildings, pools, etc. which will occupy space on the proposed lot.

*See Attached

I hereby convenant that the above representation is correct to the best of my knowledge and ability.

3/16/021 Date Samuel G Ballew SIGNATURE OF OWNER/AUTHORIZED AGENT


ANDREW M. HOLT
& Wife
ANGELA G. HOLT
LOT 95, SEC. 10
DB 1111, PG. 1894
PB. 31, PG. 134
ZONING RA
N 66°51'41" E
202.85'
W
C33
N 86°53'33" E
98.60'
88.00'
35' Front Setbac
115.00'
N 12°58'37" E
35
0.95 AC.
N 84°00'49" E
355.00'
L17
L16
L15
L14
L15
L15
L12
L11
L10
L9
L8
L7
L5
L4
L6
S 54°48'48" E
87.77'
N 87°22'20" E
303.69'
34
1.78 AC.
30
0.76
RMAN
RPORATION
522
P/L FOLLOWS DUKE ENERGY
CORPORATION PROJECT BOUNDARY
(LAKE NORMAN)

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

Sheet ____
PROPERTY ID #: ____
COUNTY: ____

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: _____ APPLICANT: _____
ADDRESS: _____ APPLICATION DATE: _____ DATE EVALUATED: _____
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): _____ PROPERTY SIZE: _____
LOCATION OF SITE: McCrary Woods lot 35 PROPERTY RECORDED: _____
WATER SUPPLY: ❑ Private ❑ Public ❑ Well ❑ Spring ❑ Other _____
EVALUATION METHOD: ❑ Auger Boring ❑ Pit ❑ Cut
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	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1		0-15	RC MFSSK	fr SSSP	Wavy Boundary				PS -3
		15-52	R/RCL MNSSK	fr SSSP	faint SAP				
2		0-54	RC SM/MSK	fr SP	few YBS				PS .25 -3
3									
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
e Space (.1945)		
(s)		
AR		

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____

EVALUATED BY: _____
OTHER(S) PRESENT: _____