IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 | Mooresville Office (704) 660-3625 | PERMIT # 235148 ~~223644~~

BA

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

PIN # 4624094303

APPLICANT: John Davenport & Gary Bivaldi | APPLICANT ADDRESS: 1112 Bellegrove Pl Charlotte, NC 28270

SITE ADDRESS: 640 Stonemarker Mooresville, NC | PHONE: 704 661-4049 | ALT. PHONE:

SITE DIRECTIONS: Brawley School Rd TR Stonemarker on lake side # 640

SUBDIVISION: Cha TU | SECTION: 6 | LOT # 169 | LOT AREA: 1.08 Ac | DESIGN FLOW: 480gpd | L.T.A.R.: .3

Septic Tank	1000 (gal)	STB	760	Date	2-13-19	☒ New System	☐ Repair	☐ Expansion	System Type: I II III (IV) V VI	☒ Residence	No. Bedrooms 4
Pump Tank	1000 (gal)	PT	363	Date	1-26-19	System Description:			LP PPBPS	☐ Business	No. Persons 8
Pump Make	Geo Hs	Model	WE0512HVV	Serial #		Repair System Description:			TS-I Pretreatment	☐ Other	No. Employees
# Nitrification Fields	1	# Lines	5	Linear Ft:	269 +	Maintenance Agreement Required:	☒ YES	☐ NO	Drip	☐ Slab	☐ Crawl Space
Trench Width	Min 24"	Max. Trench Bottom Depth	36"	Gravel Depth	N/A		☐ GRAVITY	☒ PRESSURE		☒ Basement w/ plumbing	☐ Basement w/o plumbing

Water Supply: ☒ Private ☐ Public ☐ Community

Comments / Conditions: Must abandon existing well before a Construction Authorization can be Issued
Existing Septic System must be properly abandoned

Wells abandoned 8/29/18, existing Septic has been abandoned
9/7/18 Reviewed Floor plan & site plan, in Compliance with Septic plan. Owner is doing additions to existing home instead of building new home.

INITIAL SITE SKETCH

See attached, approved plan by Penninger Soil Consulting, PLLC (dated 12-19-16).

AS BUILT SKETCH

	Date	Initials
Drain Lines Checked	5-29	MD
Tanks Checked	5-28-19	DS
Pressure Manifold or Valve Box Checked	5-23	CC
Pressure Head Set	5-29	MD
Electrical Checked	5-23	CC
Floats Set	5-23	CC
Alarm Checked	5-23	CC
Maintenance Contract (Y) / N	6/16	MM

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: 12/22/16 Installed by: Lyate Wastewater

IMPROVEMENT PERMIT by: Maria Dotson RS Date: 12/20/16 OPERATION PERMIT by: Carla C. Caul Date: 5-24-19

AUTHORIZATION TO CONSTRUCT by: Maria Dotson Date: 9/7/18 Existing System Inspected by: Date:

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

IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # ~~22364~~ 44

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

PIN # 4624094303

APPLICANT: ~~John Davenport~~ Gary Rinaldi APPLICANT ADDRESS: 1112 Belle Grove Pl Charlotte, NC 28270

SITE ADDRESS: 640 Stone Marker Mooresville, NC PHONE: 704 661-4049 ALT. PHONE:

SITE DIRECTIONS: Brawley School Rd TR Stonemarker on Lakeside # 640

SUBDIVISION: CLAT SECTION: 6 LOT # 169 LOT AREA: 1.08 Ac DESIGN FLOW: 480 gpd L.T.A.R.: .3

Septic Tank 1600 (gal) STB 760 Date 2-13-19
Pump Tank 1000 (gal) PT 363 Date 1-26-19
Pump Make Goulds Model WE0512HVV Serial #
Nitrification Fields 1 # Lines 5 Linear Ft: 269+
Trench Width min 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: TS-I Pretreatment
Maintenance Agreement Required: ☒ YES ☐ NO Drip
☐ GRAVITY ☒ PRESSURE

☒ Residence No. Bedrooms 4
☐ Business No. Persons 8
☐ Other No. Employees
☐ Slab ☐ Crawl Space
☒ Basement w/plumbing ☐ Basement w/o plumbing

Water Supply: ☒ Private ☐ Public ☐ Community

Comments / Conditions: Must abandon existing well before a Construction Authorization can be Issued.
Existing Septic System must be properly abandoned

Wells abandoned 8/29/18, existing Septic has been abandoned.
9/7/18 Reviewed Floor plan & site plan, in Compliance with Septic plan. Owner is doing additions to existing home instead of building New home.

INITIAL SITE SKETCH

See attached, approved plan by Penninger Soil Consulting, PLLC (dated 12-19-16).

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. CONTACT A LOCATOR SERVICE PRIOR TO ANY EXCAVATION

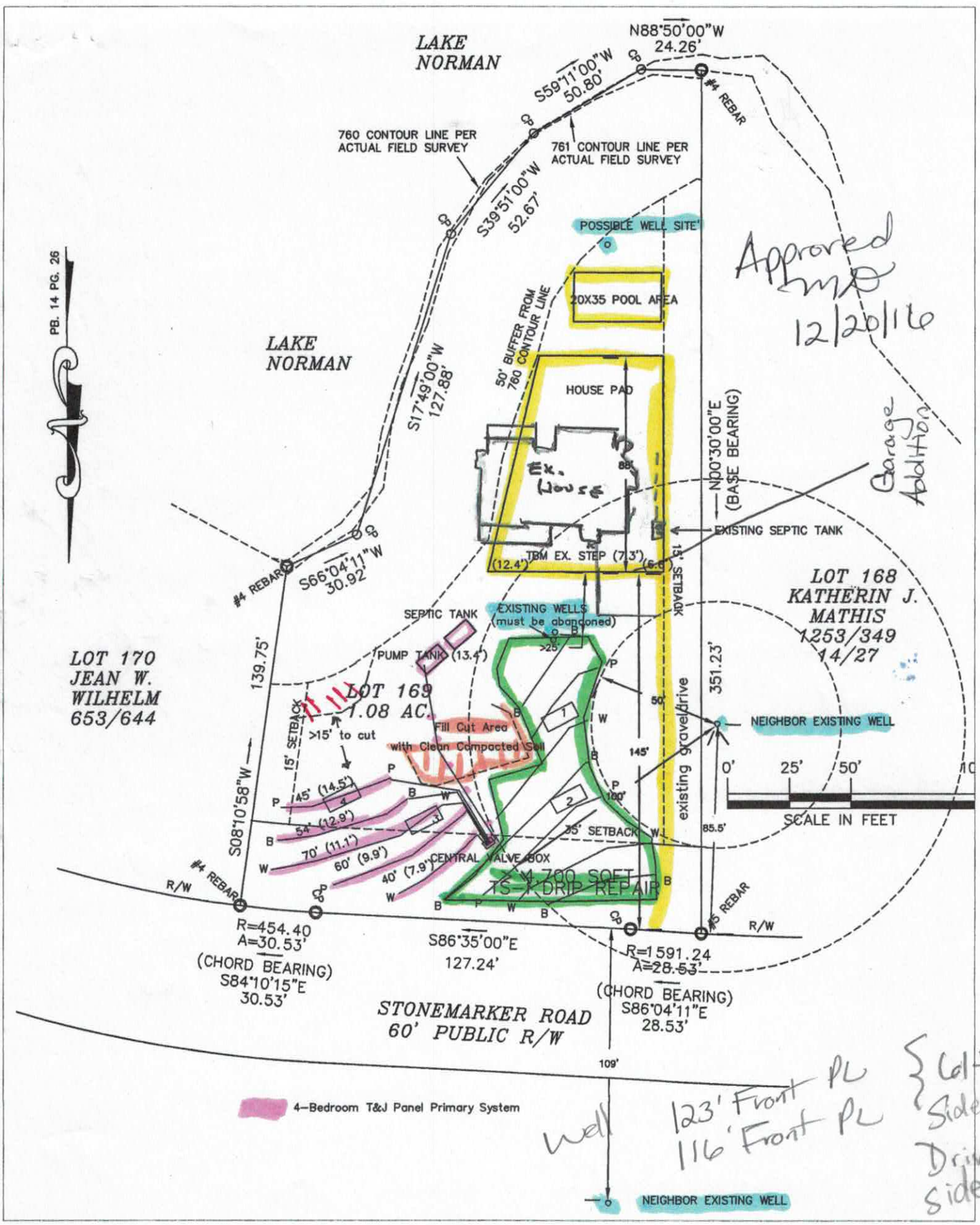
☐ IMPROVEMENT PERMIT ~~with plat valid without expiration.~~ ☒ IMPROVEMENT PERMIT with site plan valid for 60 mos. ☐ AUTHORIZATION TO CONSTRUCT valid for period equal to IMPROVEMENT PERMIT--not to exceed 60 mo.

Owner / Applicant Signature: Date: 12/22/16 Installed by: Lentz Wastewater

IMPROVEMENT PERMIT by: Maria Dotson RS Date: 12/20/16 OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: Maria Dotson Date: 9/7/18 Existing System Inspected by: Date:

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



John Davenport Septic Site Plan 640 Stonemarker Road – 12.19.16

Site plan must accompany Penninger Soil Consulting written report dated 12.19.16

John Davenport - 640 Stonemarker Expedited Review Proposal (pg 1 of 2)
Revised 12.19.16

Approved
12/20/16

Number of Bedrooms	4
Basement or Crawl	**basement/slab garage**
Design Flow (gpd)	480
Primary System LTAR (gpd/sqft)	0.3
Primary System Type	**LP PPBPS - T&J Panel Block**
No. Lines	5 (see attached site plan)
Total Linear Feet	269 ft
Trench Width	2' min.
Trench Spacing	8' min.
Trench Depth	36 inch max
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	approx. 80' of 2" SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	31 gpm
Elevation head	approx. 14'
Pressure head	3.0'
Friction head	approx. 3'
20% Contingency	4'
Total Head	24'
Pump Requirements	31 gpm @ 24' of head (To be verified by installer and ICHD after final tank placement)
Maximum Dosing Volume	223 gallons max*
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	yes
Repair System -	**TS-I Pretreatment Drip**
Total Area Required	>4,700 sqft shown - 3,840 sqft required
Repair LTAR (gpd/sqft)	0.125 with 16 in. max. tubing depth

***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.**

John Davenport - 640 Stonemarker Expedited Review Proposal (pg 2 of 2)
Revised 12.19.16

Approved MR 12/20/16

Summary of Primary T&J Panel System Lines

Line No.	Use	Line Color	System Type	Line Length (ft.)	Rod Reading (ft)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	white	LPPPBPS	40	7.9	9	9	1 per panel	5/32"
2	System	pink	LPPPBPS	60	9.9	14	14	1 per panel	5/32"
3	System	white	LPPPBPS	70	11.1	16	16	1 per panel	5/32"
4	System	blue	LPPPBPS	54	12.9	13	13	1 per panel	5/32"
5	System	pink	LPPPBPS	45	14.5	10	10	1 per panel	5/32"
				Total System: 269'		Total: 62	Total:62 (1 in each panel)		

Tank		1000 gal (2 compartment)		
Pump Tank		1000 gal.		13.4
House		Front L		12.4
House		Front Rt.		6.6
TBM		first step on ex. house		7.3

Notes:

- **Installer and ICHD shall verify all line locations, tank locations, and elevations prior to installation.**
- System is to be installed according to any other ICHD and T&J Panel requirements or policies.
- These specifications are to satisfy the ICHD Expedited Review Checklist and are not intended to represent an Engineered System Design or Permit.
- On similar systems the ICHD has requested the central valve box be located on the upper drainfield line.
- System proposal information must accompany Penninger Soil Consulting, PLLC written report dated 12/19/16.
- New house foundation elevation and tank location must allow gravity flow to septic tank.

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

Sheet 1 of 1
PROPERTY ID #:
COUNTY:

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

MD Approved 12/20/16

OWNER: John Davenport
ADDRESS: 640 Stonemarker
APPLICATION DATE: 12-7-16
DATE EVALUATED: 12-2-16
PROPOSED FACILITY: SFDD
PROPOSED DESIGN FLOW (.1949): 600
PROPERTY SIZE: 1.08
LOCATION OF SITE: Lot 169 Section G
PROPERTY RECORDED: 76
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	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	L ~15%	0-4	WSBK scl	fr ss/so	br				PS .3 L
		4-21	mSBK C	fr ss/sp	red				
		21-33	WSBK cl	fr ss/so	yell br				
		33-66	mass l-sl	sap fr ss/so	sp mot	33	PS	0	
2	L ~12%	0-2	WSBK sl	fr ss/so	br				PS .3 L
		2-28	mSBK c-cl	fr ss/sc	red fr-c sap				
		28-67	mass l sap	fr ss/sp	mc fr-c sap				
			sapro vw	slightly		28"	PS	0	
			- stone beds		East side dip ~8" fill				
3	L ~16%	0-4	WSBK scl	fr ss/so	br				PS .3 L Drip .12 -.15
		4-24	mSBK C	fr ss/so	red				
		24-30	WSBK cl	fr ss/so	yell br				
		30-65	mass l-sl	sap fr ss/so	mot	30"	PS	0	
4	L ~15%	0-5	WSBK sl	fr ss/so	br				PS .3 L Drip .12 -.15
		5-42	mSBK C/D	fr ss/so	red fr-c sap				
		42-70	mass l-sl	sap fr ss/so	mot				
			fr cl	ind		42"	PS	0	

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	T&J	TS-1 Drip
Site LTAR	.34	DESIGN 0.12

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: PAD
OTHER(S) PRESENT: Mark Bs approved by IRHD

COMMENTS: MUST ACCOMPANY PERMITTING SOIL CONSULTING WRITTEN REPORT

IREDELL COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

DOCUMENTATION TO AUTHORIZE AN OWNER'S LEGAL REPRESENTATIVE

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.

I, John and Susan Davenport, am the legal owner(s) of the property located at 640 Stonemarker Road - CL&T Lot 169 Section 6, identified as PIN (Parcel Identification Number) 4624094303, located in Iredell County, North Carolina.

I do hereby authorize (**print legal representative/company name**) Paul Penninger, Penninger Soil Consulting, 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.

John E. Davenport — Dec 6, 2016 — Susan Davenport — 12/6/16

Signature of Owner(s) | Date | Signature of Witness | Date

Please return this signed form to the appropriate office:

Mooresville - Environmental Health
ronda.hart@co.iredell.nc.us
Fax: 704-662-3239
610 E. Center Avenue, Mooresville, NC 28115

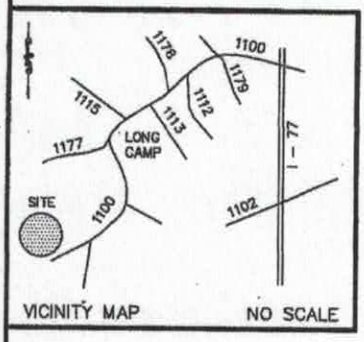
Statesville - Environmental Health
adrienne.shea@co.iredell.nc.us
Fax: 704-871-3483
349 N. Center Street, Statesville, NC 28677

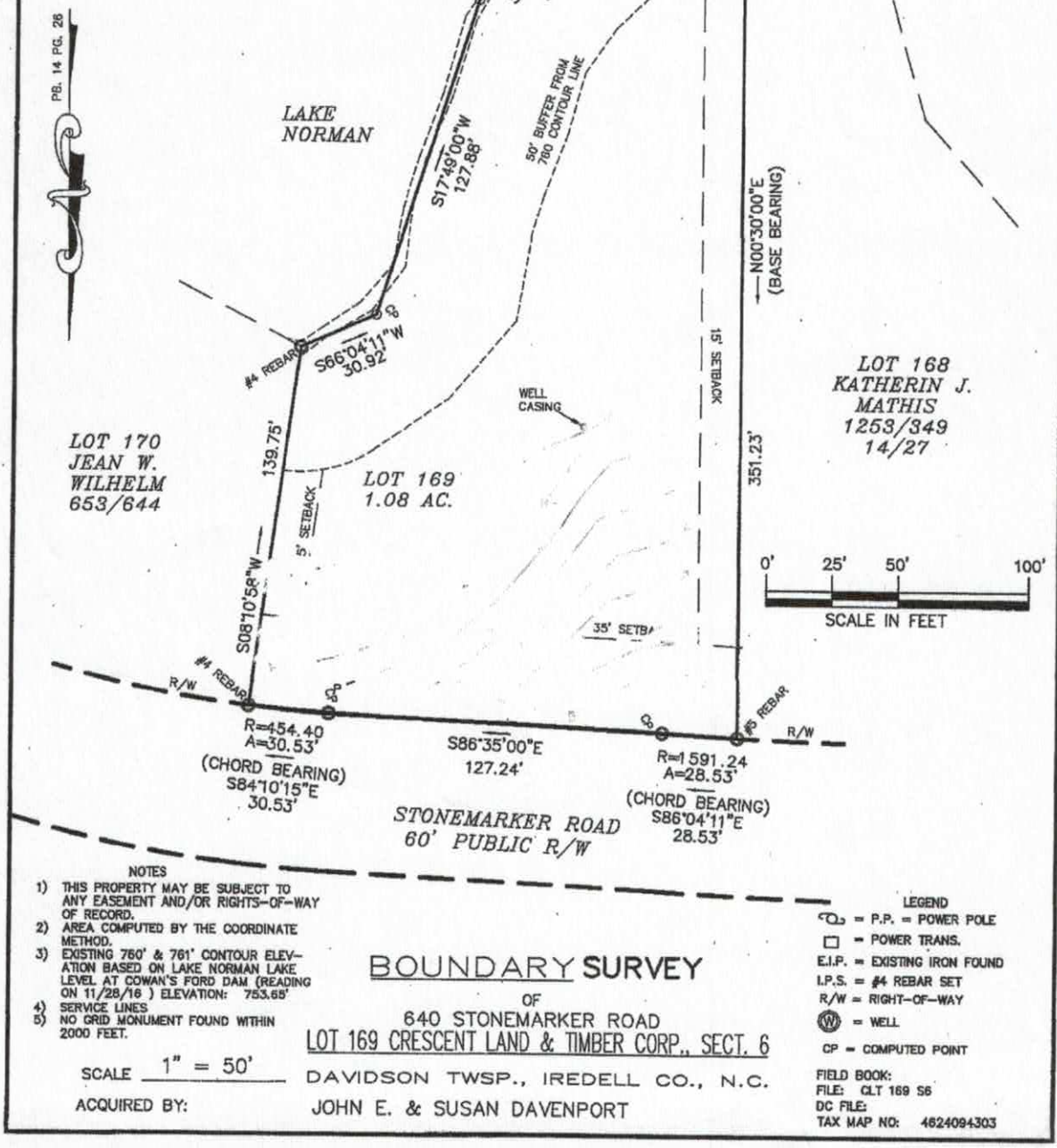
DAS DON ALLEN & ASSOCIATES, P.A.
"Since 1971"
Commercial * Residential * Mortgage Surveys * Multi-Family
Construction Staking * Subdivision Design * Topographical
131 Crosslake Park Drive – Suite 102 * Mooresville * NC * 28117
(704) 664-7029 (704) 664-8041 Fax

I, certify that this map was drawn under my supervision from an actual survey made under my supervision recorded in deed book 921, page 1796, and/or plat book 14, page 26, 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 1, day of DECEMBER, A.D. 20 16.

WILLIAM M. ALLEN, PLS

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





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 11/28/16) ELEVATION: 753.65'
4) SERVICE LINES
5) NO GRID MONUMENT FOUND WITHIN 2000 FEET.

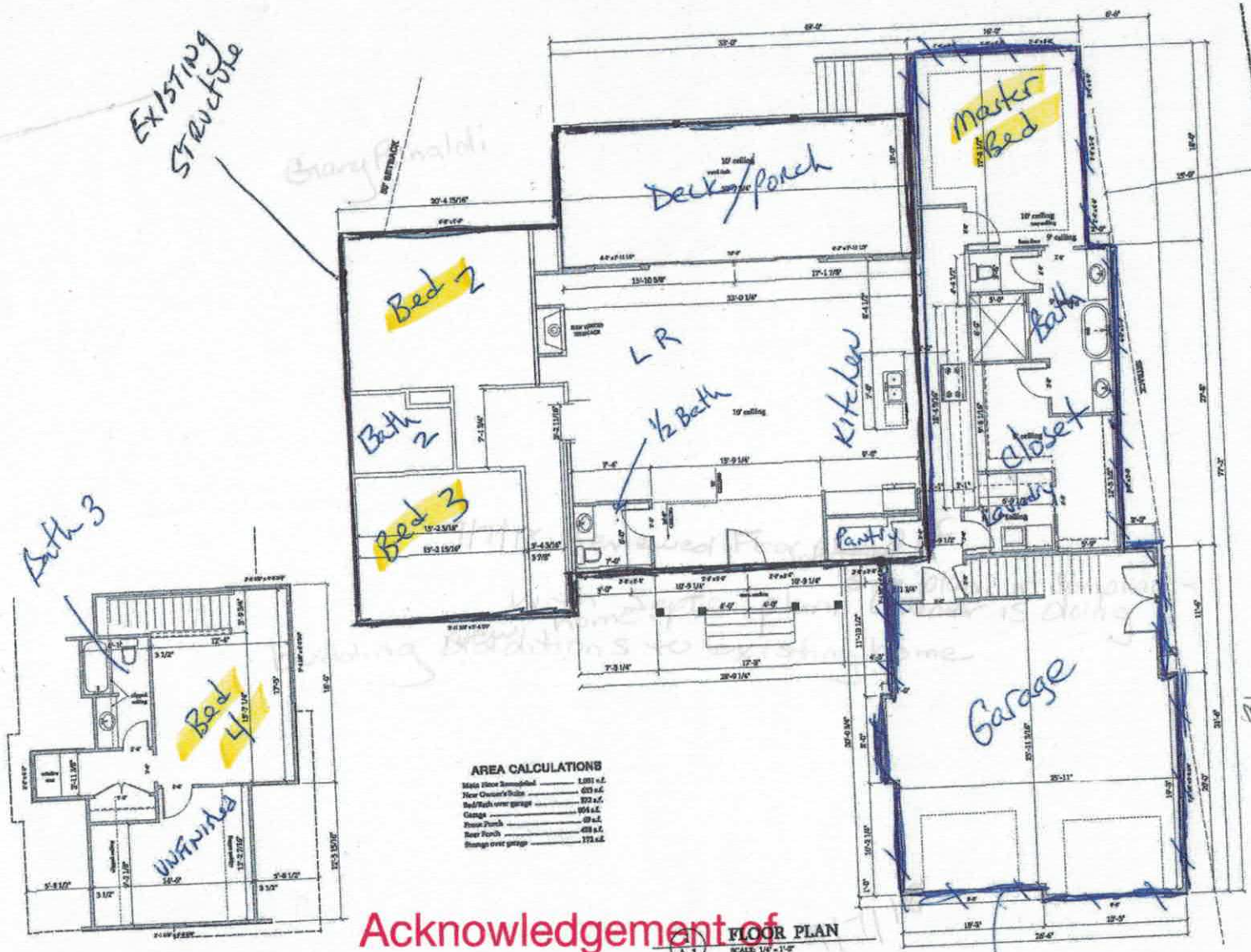
LEGEND
P.P. = POWER POLE
□ = POWER TRANS.
E.I.P. = EXISTING IRON FOUND
I.P.S. = #4 REBAR SET
R/W = RIGHT-OF-WAY
(W) = WELL
CP = COMPUTED POINT

BOUNDARY SURVEY

OF
640 STONEMARKER ROAD
LOT 169 CRESCENT LAND & TIMBER CORP., SECT. 6
DAVIDSON TWSP., IREDELL CO., N.C.
JOHN E. & SUSAN DAVENPORT

SCALE 1" = 50'
ACQUIRED BY:

FIELD BOOK:
FILE: CLT 169 S6
DC FILE:
TAX MAP NO: 4624094303



Acknowledgement of
Plans Submittal ONLY!

Maria Eriksen Date 9/7/18

Date

Addition

U.S. HOME DESIGNS, INC.

RINALDI

640 STONEMARKER RD.

MAIN FLOOR PLAN

8-1-18

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A-1

IREDELL COUNTY

PO Box 788
349 North Center St.
Statesville, NC 28677

APPLICATION NUMBER
223644
Issue Date: 12/07/2016

ZONING PERMIT

Residential

Parcel Number	Street Address	Jurisdiction
4624094303.000	640 STONEMARKER ROAD, MOORESVILLE, NC	IREDELL COUNTY

Owner Information	Applicant Information
Owner: DAVENPORT JOHN E+SUSAN	Applicant: PAUL PENNINGER
Address: 1112 BELLEGROVE PL CHARLOTTE, NC 28270	Address: 595 J M PENNINGER RD LEXINGTON, NC 27292
Phone:	Phone: 704-996-6330

Use Requested	Zone Code
	R20

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
1.070	35.00	15.00	15.00	50.00	CACL	AE

Remarks:

The applicant certifies that there are no deed restrictions, contractual agreements or governmental regulations of any kind that interfere with or prohibit the use of the property or the use for which this permit is requested. The applicant further acknowledges that enforcement of deed restrictions, plat conditions and other contractual agreements will not be undertaken by Iredell County and is the sole responsibility of the affected parties.

Applicant: _____ Date: _____

Permit Number	87617	TOTAL FEES:	$ 77.25

CLAT 6/169

Print Form

WELL CONSTRUCTION RECORD (GW-1)

For Internal Use Only:

1. Well Contractor Information:

RANDY OWNBEY
Well Contractor Name

3214
NC Well Contractor Certification Number

AIR DRILLING, INC.
Company Name

2. Well Construction Permit #: 235148
List all applicable well construction permits (i.e. UIC, County, State, Variance, etc.)

3. Well Use (check well use):

Water Supply Well:
- ☐ Agricultural
- ☐ Municipal/Public
- ☐ Geothermal (Heating/Cooling Supply)
- ☒ Residential Water Supply (single)
- ☐ Industrial/Commercial
- ☐ Residential Water Supply (shared)
- ☐ Irrigation

Non-Water Supply Well:
- ☐ Monitoring
- ☐ Recovery

Injection Well:
- ☐ Aquifer Recharge
- ☐ Groundwater Remediation
- ☐ Aquifer Storage and Recovery
- ☐ Salinity Barrier
- ☐ Aquifer Test
- ☐ Stormwater Drainage
- ☐ Experimental Technology
- ☐ Subsidence Control
- ☐ Geothermal (Closed Loop)
- ☐ Tracer
- ☐ Geothermal (Heating/Cooling Return)
- ☐ Other (explain under #21 Remarks)

4. Date Well(s) Completed: 9/12/18 **Well ID#** _____

5a. Well Location:

GARY RINALDI
Facility/Owner Name — Facility ID# (if applicable)

640 STONEMAKER RD. MOORESVILLE 28117
Physical Address, City, and Zip

IREDELL
County — Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

35° 51. 799 N 80° 94.812 W

6. Is(are) the well(s): ☒ **Permanent** or ☐ **Temporary**

7. Is this a repair to an existing well: ☐ **Yes** or ☒ **No**
If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. For Geoprobe/DPT or Closed-Loop Geothermal Wells having the same construction, only 1 GW-1 is needed. Indicate TOTAL NUMBER of wells drilled: _____

9. Total well depth below land surface: 425 **(ft.)**
For multiple wells list all depths if different (example- 3@200' and 2@100')

10. Static water level below top of casing: 15 **(ft.)**
If water level is above casing, use "+"

11. Borehole diameter: 6 **(in.)**

12. Well construction method: _____
(i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm) 15 **Method of test:** AIR

13b. Disinfection type: HTH **Amount:** _____

14. WATER ZONES

FROM	TO	DESCRIPTION
409 ft.	410 ft.	
ft.	ft.	

15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
0 ft.	86 ft.	6 in.		GALV

16. INNER CASING OR TUBING (geothermal closed-loop)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
ft.	ft.	in.		
ft.	ft.	in.		

17. SCREEN

FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
0 ft.	ft.	in.			
ft.	ft.	in.			

18. GROUT

FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT
0 ft.	20 ft.	GROUT	POURED
ft.	ft.		
ft.	ft.		

19. SAND/GRAVEL PACK (if applicable)

FROM	TO	MATERIAL	EMPLACEMENT METHOD
ft.	ft.		
ft.	ft.		

20. DRILLING LOG (attach additional sheets if necessary)

FROM	TO	DESCRIPTION (color, hardness, soil/rock type, grain size, etc.)
0 ft.	76 ft.	DIRT
76 ft.	425 ft.	ROCK
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	

21. REMARKS

22. Certification:

Signature of Certified Well Contractor — Date: 9/12/18

By signing this form, I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 15A NCAC 02C .0200 Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:
You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

Division of Water Resources, Information Processing Unit,
1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells: In addition to sending the form to the address in 24a above, also submit one copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program,
1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells: In addition to sending the form to the address(es) above, also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.