IREDELL COUNTY HEALTH DEPARTMENT

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 217739

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

PIN # 4638682256

APPLICANT/OWNER: Juan Vasquez APPLICANT ADDRESS: 130 Creston Ct. Mooresville, NC

SITE ADDRESS: 148 Kiskadee Dr. Mooresville, NC PHONE: 704-314-5739 ALT. PHONE —

SITE DIRECTIONS: Perth → L on Stumpy Creek → L on Kiskadee → lot on R SAP CONTROLLED: ☑ YES ☐ NO

SUBDIVISION: Harbor View SECTION: 9 LOT # 5+6 LOT AREA: 1.16ac DESIGN FLOW: 480 gpd L.T.A.R.: .35

Septic Tank	1000	(gal)	STB Infiltrator	Date	IM-1060	☑ New System ☐ Repair ☐ Expansion System Type: I II III IV V VI		☑ Residence	No. Bedrooms	4	Water Supply
Pump Tank		(gal)	PT	Date		System Description: gravity PPBPS		☐ Business	No. Persons	8	☐ Private
Pump Make		Model		Serial #		Repair System Description: LP PPBPS		☐ Other	No. Employees		☐ Public
# Nitrification Fields	1	# Lines	6@40'	Linear Ft	240'	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☐ Crawl Space		☑ Community
Trench Width	24"	Trench Bottom Depth(Low side)	30"/36" highside	Gravel Depth	—	☑ GRAVITY ☐ PRESSURE		☐ Basement w/plumbing			☑ Basement w/o plumbing

Comments / Conditions: No parking of vehicles along side of driveway.
Existing gully must be backfilled with group IV soil upon septic installation

7/28/2020 Check Connections & d-box

INITIAL SITE SKETCH

See attached site plan by Rollans Soil + Environmental Services, PA

7641 Statesville Ford Rd.

installer #828-320-0744

AS BUILT SKETCH

7/20/2020: Plastic tank OK. Needs filter installed.

L1	40	9	PPBPS @ 36" TB. Installed substantially as permitted. Verified ok by laser.
L2	40	9	
L3	40	9	
L4	40	9	
L5	40	9	
L6	40	±9	

54 (panel #)

* - Conveyance line, D-Box + Header Lines to drainfield laterals yet to be installed / inspected.

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:

IMPROVEMENT PERMIT by: Date: 6-19-18

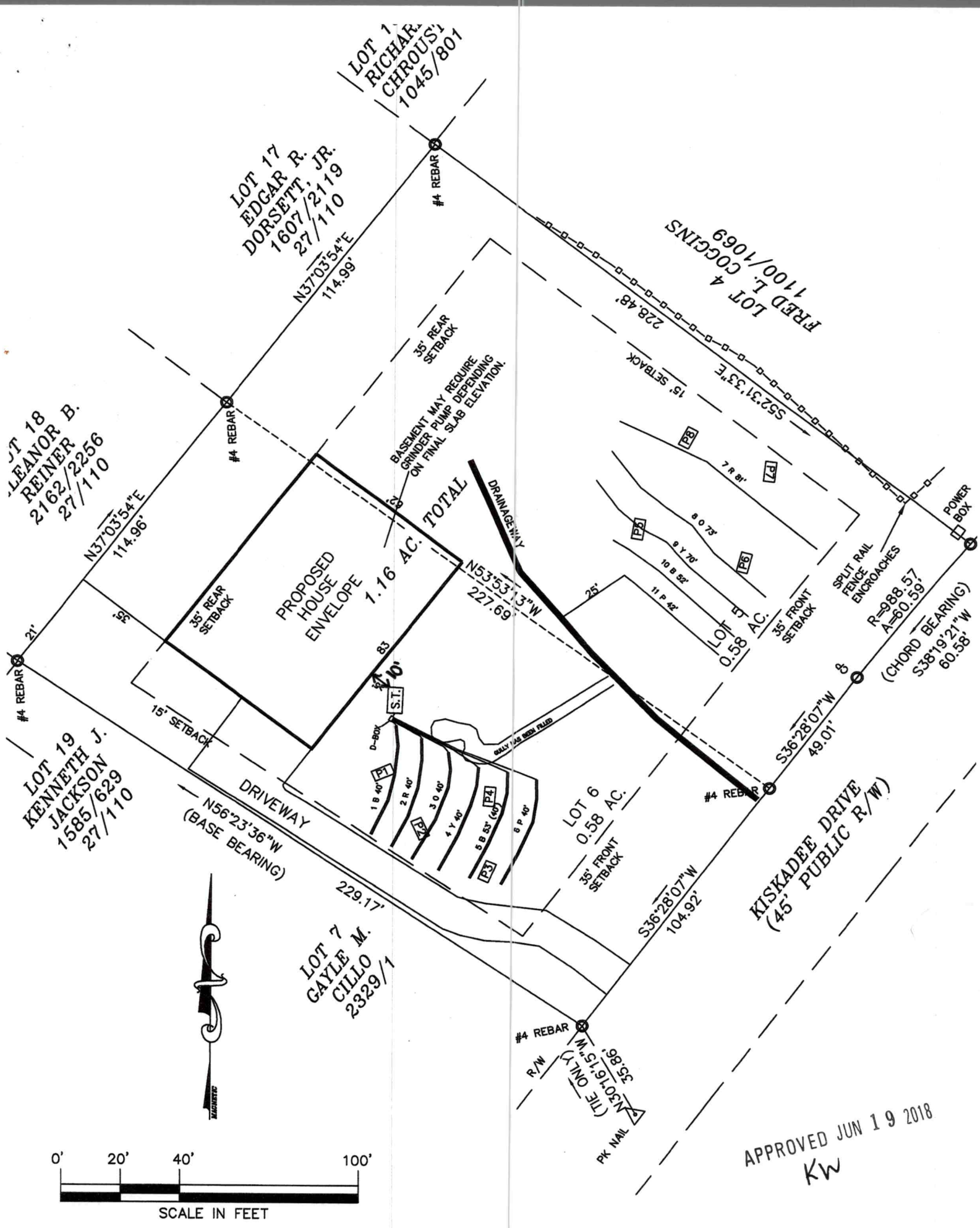
AUTHORIZATION TO CONSTRUCT by: Date: 6-28-18

Installed by: Charles Bailey (individual)

OPERATION PERMIT by: Date: 7/28/20

Existing System Inspected by: Date:

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



APPROVED JUN 19 2018
Kw

217739

6/5/18

ROLLANS *Soil & Environmental Services, PA.*

P.O. Box 832 Mooresville, NC 28115 Phone: (704) 658-1723 Fax: (704) 278-0989

Ashley Rollans, NC Licensed Soil Scientist
Mobile: (704) 746-5046
Email: rollans.ashley@yahoo.com

Attached is a proposed design for a PPBPS Septic System with gravity distribution for a 4 bedroom single family residence at 148 Kiskadee Drive, Mooresville (PIN 4638682256), Iredell County, North Carolina.

Contents: **Page**

Information for the Installer---------- 1

Design Information
- Design Specifications---------- 2-3
- Layout Specifications---------- 4
- System Tapsheet---------- 5

Site Plan & Floor Plan---------- 6-7

Calculations---------- 8

Profile Descriptions---------- SUBMITTED

Isometric Drawing of 16" T & J Panel System Gravity Drainfield---------- 9

Expedited Review Process Checklist---------- 10

Zoning Permit & Receipt---------- SUBMITTED

Application---------- 11-12

Green Sheet---------- 13

Agent Authorization Form---------- 14

Voluntary Relinquishment Form---------- 15

LICENSED SOIL SCIENTIST Samuel A. Rollans 1231 NORTH CAROLINA

6/1/18

April 1, 2016
Project No.01-3122
Design By: Rollans Soil & Environmental Services, PA

INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by NCDHHS, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- No heavy equipment shall be used on the field during or after installation. The use of a small loader (i.e. Bobcat) or a trencher (i.e. Ditch Witch 2300/2310) may be used for installation.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pumptank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as a PPBPS installation with gravity distribution.
- Repair is specified as a PPBPS installation with low pressure distribution.
- Backfill 4 - 6" of material (County Approved) over panels, rake trench walls, lime side-walls, install trenches 24" wide to be level but have no more than 1/4" fall in 10 feet.
- **Distribution Device must be bedded on a level pad.**

GRAVITY PPBPS SYSTEM
FOR WASTEWATER TREATMENT

Owner/Applicant: Juan Vasquez

Address: 130 Creston Court
Mooresville, NC 28115
Phone: 704.314.5739
County: Iredell
Location: 148 Kiskadee Drive

Source of Wastewater Flow: 4 Bedroom Single Family Residence
Estimated Daily Wastewater Production: 480 gpd
System Flow: N/A

Design Specifications

Drainfield Size: 240
Loading Rate: 0.35
Depth of Gravel in Trench: NA (PPBPS)
Gravel Size: NA (PPBPS)
Trench Depth: 36 in. Repair Trench Depth - 36 in.
Trench Width: 24 in.
Septic Tank Size: 1000
Pump Tank Size: ~~1000~~ N/A

Estimated Supply Line Length: 5
Supply Line Diameter: 3 in. SCH 40 PVC
Supply Line Volume: 1.90
Dosing Volume: N/A
Supply Manifold: N/A
Supply Manifold Length: N/A
Supply Manifold Volume: N/A

Recommended Float Controls: N/A

Recommended Control Panel: N/A

Pressure Head: N/A
Friction Head: N/A
Elevation Head: N/A
Total Dynamic Head: N/A

Threaded Union: N/A
Gate Valves: N/A

Check Valves: N/A
Anti-Siphon Hole: N/A
Additional Comments: Soil suitability was performed by Rollans Soil & Environmental Services

APPROVED JUN 19 2018
KW

148 Kiskadee Drive
GRAVITY PPBPS

DESIGN FLOW:	480
SOIL APPLICATION RATE:	0.35
TOTAL AREA TRENCH BOTTOM:	480
TOTAL LATERAL LENGTH:	240
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	228.57
SUPPLY LINE LENGTH:	5
TOTAL DYNAMIC HEAD:	N/A
MANIFOLD SIZE:	N/A
DOSING VOLUME:	N/A
PUMP TANK DRAW DOWN*:	N/A
SEPTIC TANK SIZE:	1000

APPROVED JUN 19 2018
KW

148 Kiskadee Drive

Project #:01-3122

LAYOUT FOR 4 BEDROOM HOME

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH	6/1/18 DESIGN LINE LENGTH
TBM							
INSTR. 1							
HOUSE CNR							
1	***BLUE***					***40***	***40***
2	***RED***					***40***	***40***
3	***ORANGE***					***40***	***40***
4	***YELLOW***					***40***	***40***
5	***BLUE***					***40***	***40***
6	***PINK***					***40***	***40***
7	RED					81	81
8	ORANGE					73	73
9	YELLOW					70	70
10	BLUE					52	52
11	PINK					42	42
					Total	558	558

	LINE LENGTH	LTAR GPD/FT2	SYSTEM TYPE	SOIL LTAR GPD/FT2	TRENCH SYSTEM	DISTRIBUTION
**** System***	***240***	***0.35***	***MOD.***	***0.350***	***PPBPS***	***GRAVITY***
Repair	318	0.3	MOD.	0.300	PPBPS	LOW PRESSURE

Notes:

**All measures in feet

**Nitrification lines are demonstrated on contour via colored pin flags

APPROVED JUN 19 2018

KW

GRAVITY PPBPS SPECIFICATIONS - 148 Kiskadee Drive

SYSTEM

Line #	Color	Elevation	Length	Hole Size	Flow/hole	Trench Area	# of Panels
1	***BLUE***	***N/A***	***40***	***N/A***	***N/A***	80	9
2	***RED***	***N/A***	***40***	***N/A***	***N/A***	80	9
3	***ORANGE***	***N/A***	***40***	***N/A***	***N/A***	80	9
4	***YELLOW***	***N/A***	***40***	***N/A***	***N/A***	80	9
5	***BLUE***	***N/A***	***40***	***N/A***	***N/A***	80	9
6	***PINK***	***N/A***	***40***	***N/A***	***N/A***	80	9
						480	54

total	**feet =**	**240**	**gal/min =**	**N/A**
		Des. Flow	**480**	
		Pump Run=	**N/A**	
		soil LTAR	**0.35**	
		LTAR +5%	**0.3675**	
		LTAR with mod.	**0.7**	
		LTAR with mod.. + 5%	**0.735**	

.156 equals 5/32 inch hole

APPROVED JUN 19 2018
KW

CALCULATIONS

Location 148 Kiskadee Drive, Mocresville, NC 28117

Project Number	01-3122	
Lot No:	5/6	
No. of Bedrooms	4	
Design Flow	480	$^{gal}/_{day}$
LTAR	0.35	$^{gal}/_{ft^2\,day}$
PPBPS? (YES OR NO)	YES	
Supply Line Length	5	ft.
Supply Line Volume	1.9	gal.
Required Feet of Line	228.57	ft.
Amount of Line from Layout	240	ft.
Gallons per Minute	N/A	$^{gal}/_{min}$
Required Septic Tank Capacity	1000	gal.
Minimum Standard Tank Size	1000	
Panel Volume	3.6	gal.
# of Panels	54	
Dosing Volume	N/A	gal.
Tank Draw Down	N/A	
Pump Run Time	N/A	minutes
Elevation Head	N/A	ft.
Pressure Head	N/A	ft.
Friction Factor	N/A	ft./100 ft. *(From the interpolater.)*
Friction Head	N/A	ft.
Total Dynamic Head (+15%)	N/A	ft.

FRICTION FACTOR INTERPOLATER
2" SCH 40 PVC

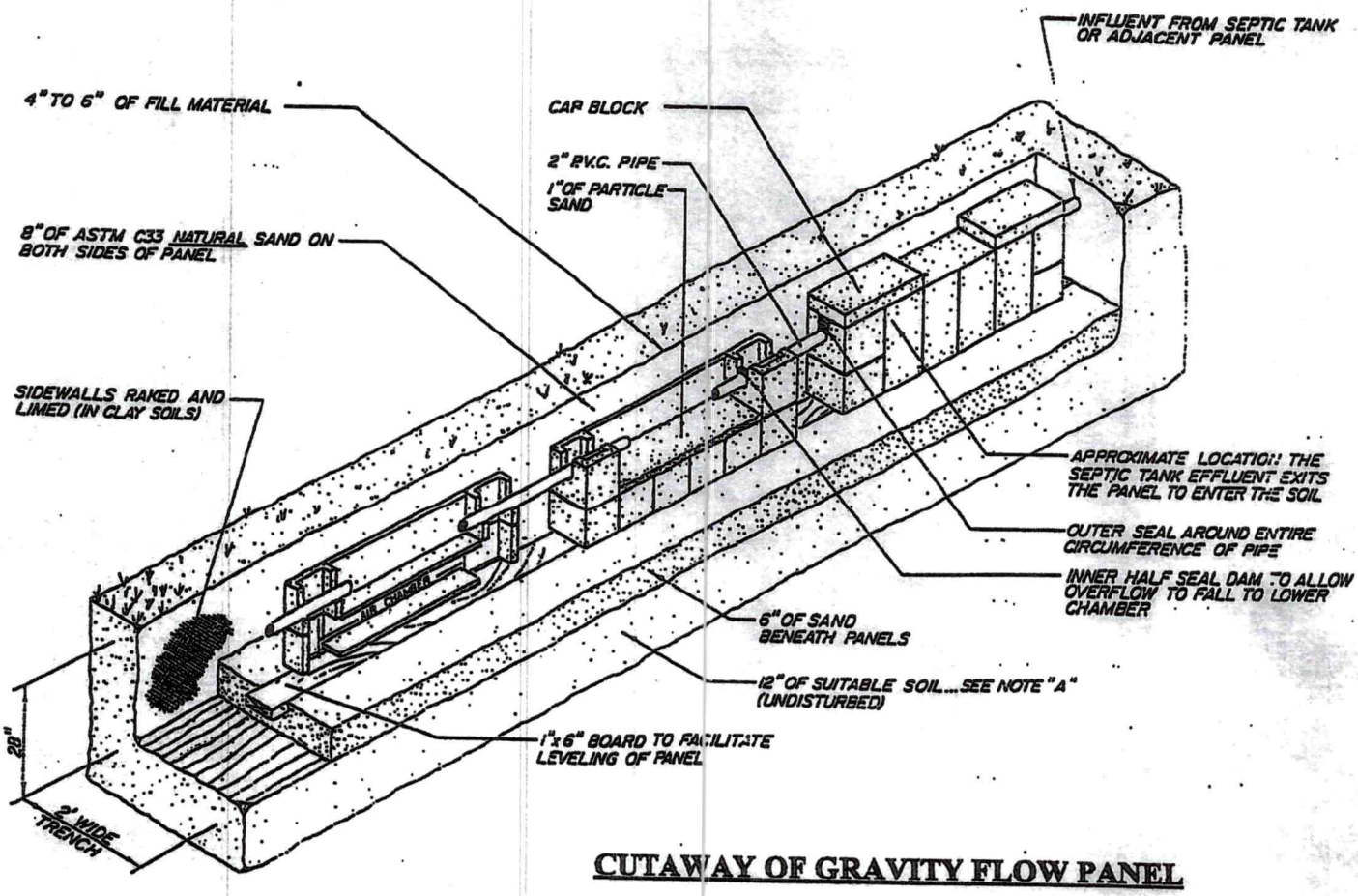
GPM	*f*
20	0.84
	-0.88
25	1.27
	-1.28
30	1.78
	-1.76
35	2.37
	-2.25
40	3.03
43.07	3.48
45	3.77
48.14	4.28
50	4.58
57.11	5.89
60	6.42

The T & J Panel
Wastewater Treatment System

Patent # 4013559

269 Marble Road
Statesville, N.C. 28625
704-924-8600

ISOMETRIC DRAWING OF A SEGMENT OF 16" T & J PANEL SYSTEM DRAINFIELD



CUTAWAY OF GRAVITY FLOW PANEL

IREDELL COUNTY DEPARTMENT of ENVIRONMENTAL HEALTH

APPLICATION FORM

Application For: ( ) New Well Permit ( ) Well Repair Permit ( ) Well Abandonment
(X) Septic Improvement Permit, (X) Authorization to Construct ( ) Existing System Inspection ( ) Septic System Repair
– Moved House location, Tank & Foundation Type

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

Applicant Information: (PRINT CLEARLY)

Applicant Name: Ashley Rollins **Address:** PO Box 832 Mooresville NC **Zip:** 28115
Applicant Email: ashleyrollins@gmail.com **Phone:** 704-746-5046 **Alt. Phone:**
Owner Name: Juan Vasquez **Address:** 130 creston court mooresville NC **Zip:** 28115
Owner Email: **Phone:** 704-314-5739 **Alt. Phone:**

Property Information:

Street Address: 148 Kiskadee Drive Mooresville NC 28117
Subdivision Name: Harbor view **Section/Phase:** 5 **Lot Number:** 6
Driving Directions: 150 W, Rt on Perth, left on stumpy crk, Lt on Kiskadee, Lot on Rt

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

(X) New Single Family Residence
( ) New Multi-Family Residence
( ) Accessory Building
( ) Bedroom(s) Addition
( ) Repair to failing septic system ___ Tank ___ Drain lines

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

CHECK FOUNDATION TYPE
(X) Crawl Space Foundation
( ) Concrete Slab Foundation
( ) 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:
( ) New Well ( ) Existing Well (X) 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 (X) 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: _____ 6/1/18
Property owner or owner's legal representative signature (SIGNATURE REQUIRED) DATE

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, Juan Vasquez, am the legal owner(s) of the property located at 144/148 Kiskadee dr. Mooresville 28117, identified as PIN (Parcel Identification Number) 4638682256, located in Iredell County, North Carolina.

I do hereby authorize (print legal representative/company name) Samuel Ashley Rollans Rollans Soil Environmental Services, 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

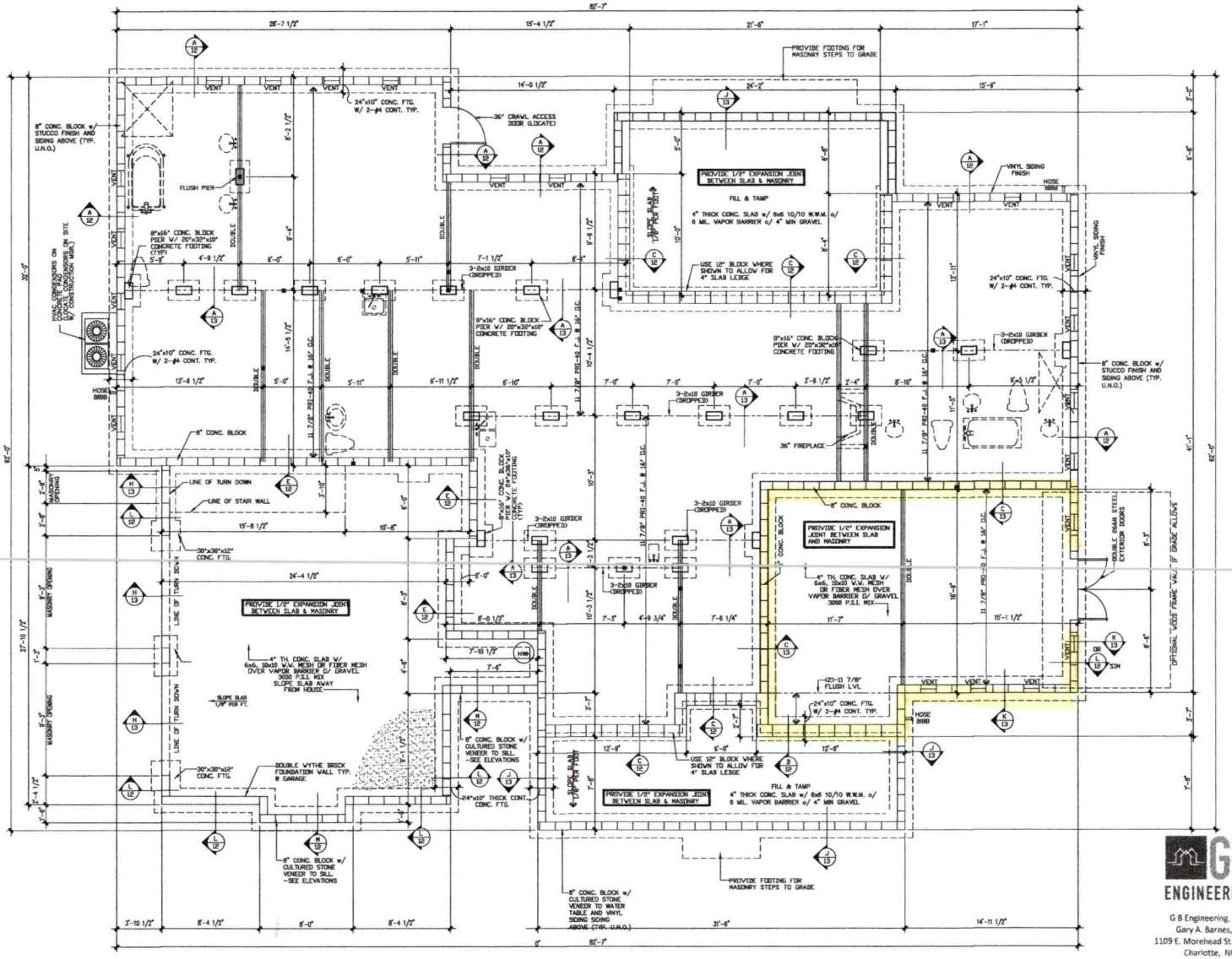
I agree to abide by all decisions and/or conditions between the legal representative acting on my behalf and the Iredell County Department of Public Health, Environmental Health Division.

Signature of Owner(s)	Date	Signature of Witness	Date
	04-01-16		4/1/16

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



NOTES:

MAIN FLOOR FRAMING PLAN AND FOUNDATION PLAN STRUCTURAL NOTES:

1. ALL FLOOR JOISTS SHALL BE 11 7/8" PRI-40'S @ 16" O.C. UNLESS NOTED OTHERWISE.
2. PROVIDE DOUBLE JOIST UNDER ALL PARALLEL PARTITIONS.
3. ALL LVL BEAMS ARE 1 3/4" WIDE.
4. ALL GIRDERS SHALL BE (3)2x10 SYP #1 DROPPED GIRDERS UNLESS NOTED OTHERWISE.
5. PERIMETER FOUNDATION IS 8" MASONRY FOUNDATION OVER 10"X24" REINFORCED CONCRETE FOOTING WITH (2) #4'S CONT.
6. ALL PIERS ARE 8"X16" SOLID GROUTED PIERS OVER 10"X20"X32" CONCRETE FOOTING.
7. EX6 PRESSURE TREATED SILL PLATE SHALL BE ATTACHED TO PERIMETER FOUNDATION WITH 1/2" DIAMETER ANCHOR BOLTS @ 72" O.C. WITH MINIMUM OF 7" EMBEDMENT INTO FOUNDATION.
8. REFER TO DETAIL SHEETS AND GENERAL NOTES FOR MORE INFORMATION.
9. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

Acknowledgement of Plans Submittal ONLY!

Date 6/28/18

Date 6-28-18

GB ENGINEERING
G B Engineering, PLLC
Gary A. Barnes, PE
1109 E. Morehead St. Suite 13
Charlotte, NC
(704) 677-5339
NC Bus. Lic. #P-1298

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL GARY A. BARNES 6-10-18

Sealed for Structural Information Only

148 Kiskadee Dr
Mooresville NC 28117

A NEW RESIDENCE FOR:
Juan Vasquez

PROFESSIONAL SEAL:

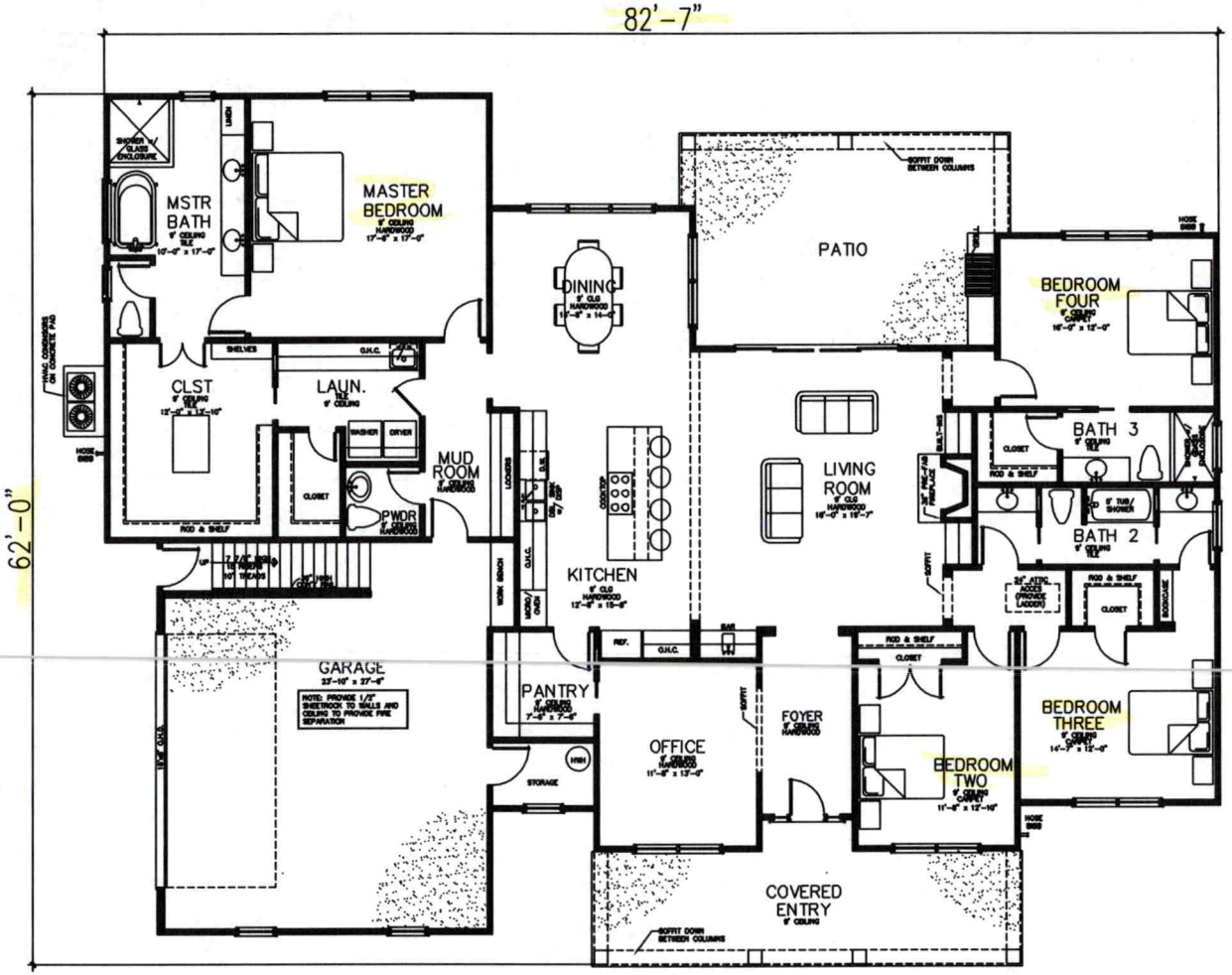
FOUNDATION PLAN

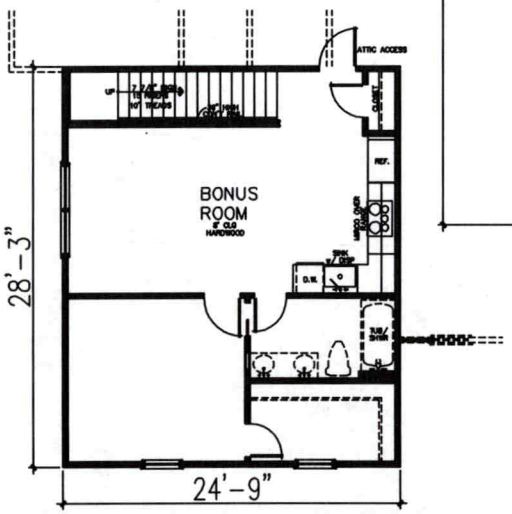
SCALE: 1/4" = 1'-0"

SHEET NO.
3
OF 13 SHEETS

Square Footage
02/06/18

MAIN LEVEL HEATED	3,014 SQ. FT.
BONUS ROOM (UNFINISHED)	699 SQ. FT.
COV'D PATIO	343 SQ. FT.
COV'D FRONT PORCH	267 SQ. FT.
GARAGE	672 SQ. FT.
Total Under Roof	4,995 SQ. FT.





Acknowledgement of Plans Submittal ONLY!

Juan Vasquez Date 6/28/18

Date 6-28-18

A NEW RESIDENCE FOR:
Juan Vasquez

PROFESSIONAL SEAL:

MAIN LEVEL FLOOR PLAN

SCALE 1/4" = 1'-0"

SHEET NO 4 OF 18 SHEETS

IREDELL COUNTY

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

APPLICATION NUMBER
217739
Issue Date: 04/01/2016

ZONING PERMIT

Open Space

Parcel Number	Street Address	Jurisdiction
4638682256.000	148 KISKADEE, MOORESVILLE, NC 28117	IREDELL COUNTY

Owner Information	Applicant Information
Owner: ~~LALLY MARK E+LAWRENCE L~~ Juan Vasquez	Applicant: ROLLANS SOIL & ENVIRON
Address: ~~399 RINEHARDT RD~~ 130 Creston Court, Mooresville NC 28115 MOORESVILLE, NC 28115	Address: 470 NORTH BROAD STREET SUITE D MOORESVILLE, NC 28115
Phone:	Phone: 704-658-1723

Use Requested	Zone Code
SFD	RA

Lot Acreage	F Setback	B Setback	L Setback	R Setback	Watershed	Flood Zone
1.160	35.00	35.00	15.00	15.00	CACL	X

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: 4/5/16

Permit Number	64515	TOTAL FEES:	$ 77.25