ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PERMIT # OSWP-2022-4465

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

PIN # 4637-25-5307

APPLICANT / OWNER: BENEFIELD OUTDOOR SERVICES & SOLUTIONS APPLICANT ADDRESS: 939 Brawley School Rd, Mooresville, NC 28117

SITE ADDRESS: 155 RIVERWOOD RD, MOORESVILLE, NC 28117 PHONE: 7043600376 ALT. PHONE:

SITE DIRECTIONS: Hwy 150 to McCoy Rd to Riverwood CL+T

SUBDIVISION: SECTION: 10 LOT #: 52 LOT AREA: 1.01 Ac DESIGN FLOW: 480 L.T.A.R.: .30

SAP CONTROLLED: YES ☐ NO ☒

Septic Tank: (gal) 1000	STB: 1012	Date: 2/1/23	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 4	Water Supply: New Well
Pump Tank: (gal) 1000	PT: 17	Date: 2/1/23	System Description: PM - 25% Reduction		☐ Business	No. Persons: 8	
Pump Make: Zoeller	Model: 153	Serial #: 1/2 hp	Repair System Description: LP - PPBPS - 50% Reduction		☐ Other	No. Employees:	
# Nitrification Fields: 1	# Lines: 5	Linear Ft.: 400	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
Trench Width: 36in	Trench Bottom Depth (~~cumulative~~): 36in Max		Gravel Depth: -	☐ GRAVITY ☑ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to G.S. 130A-335(a2), (a3) & (a4) using the signed and sealed LSS/LG Evaluation attached here, from:

Benfield Outdoor Services + Solutions LLC

LSS# 1258

AS BUILT SKETCH

Tanks
Lines
PH CW 4/25
PM
Floats
Electrical
CW
9/12/23

Installed as Drawn

* Check alarm box 12 inches off ground * SW 9/26/2023

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: Benjamin A Benfield Date:

AUTHORIZATION TO CONSTRUCT by: Benjamin A Benfield Date:

Installed By: Dellinger

OPERATION PERMIT by: Sarah Williams Date: 9/26/2023

Existing System Inspected By: Date:

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

BLDR-2022-10953

ICHD - ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625

PERMIT # OSWP-2022-4465

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

PIN # 4637-25-5307

APPLICANT / OWNER: BENEFIELD OUTDOOR SERVICES & SOLUTIONS APPLICANT ADDRESS: 939 Brawley School Rd, Mooresville, NC 28117

SITE ADDRESS: 155 RIVERWOOD RD, MOORESVILLE, NC 28117 PHONE: 7043600376 ALT. PHONE:

SITE DIRECTIONS: Hwy 150 to McCoy Rd to Riverwood SAP CONTROLLED: YES ☐ NO ☒

SUBDIVISION: CL+T SECTION: 10 LOT #: 52 LOT AREA: 1.01 AC DESIGN FLOW: 480 L.T.A.R.: .30

Septic Tank: (gal) 1000	STB:	Date:	☑ New System ☐ Repair ☐ Expansion	System Type: III	☑ Residence	No. Bedrooms: 4	Water Supply: New Well
Pump Tank: (gal) 1000	PT:	Date:	System Description: PM- 25% Reduction		☐ Business	No. Persons: 8	
Pump Make:	Model:	Serial #:	Repair System Description: LP- PPBPS- 50% Reduction.		☐ Other	No. Employees:	
# Nitrification Fields: 1	# Lines: 5	Linear Ft.: 400	Maintenance Agreement Required: ☐ YES ☑ NO		☐ Slab	☑ Crawl Space	
Trench Width: 36 in	Trench Bottom Depth (~~Lowside~~): 36 in max		Gravel Depth: —	☐ GRAVITY ☑ PRESSURE	☐ Basement w/ Plumbing	☐ Basement w/o Plumbing	

Comments / Conditions:

INITIAL SITE SKETCH

This permit is issued pursuant to G.S. 130A-335(a2), (a3) & (a4) using the signed and sealed LSS/LG Evaluation attached here, from:

Benefield Outdoor Services & Solutions LLC

LSS# 1258

AS BUILT SKETCH

Manifold, tanks, lines, PH, floats
4/25/23 CW

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: Installed By:

IMPROVEMENT PERMIT by: Benjamin A. Bates Date: OPERATION PERMIT by: Date:

AUTHORIZATION TO CONSTRUCT by: Benjamin A. Bates Date: Existing System Inspected By: Date:

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

LINE SCHEDULE

LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	WHITE	.2	78	78
2	ORANGE	1.3	79	78
3	BLUE	1.9	80	78
4	RED	2.9	86	82
5	YELLOW	3.6	90	86
6	WHITE	4.8	94	0
7	ORANGE	5.4	96	0
8	PINK	6.3	71	0
9	GREEN	6.8	38	0
			TOTAL	TOTAL
			710	402

155 RIVERWOOD RD, MOORESVILLE NC.
SECTION -, LOT 52 CRESENT LAND

4-BEDROOM PUMP TO PRESSURE MANIFOLD (ACCEPTED)
INSTALL LINES 1-5 TOTAL 402 LINEAR FT
LTAR 0.3
25% REDUCTION 9' OC
24-36" TRENCH BOTTOM (INSTALLER DISCRETION)

4-BEDROOM LP PPBPS SYSTEM
TOTAL 299 LINEAR FEET
LTAR 0.3
36" TRENCH BOTTOM

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY MIRANDA STAMPER LSS

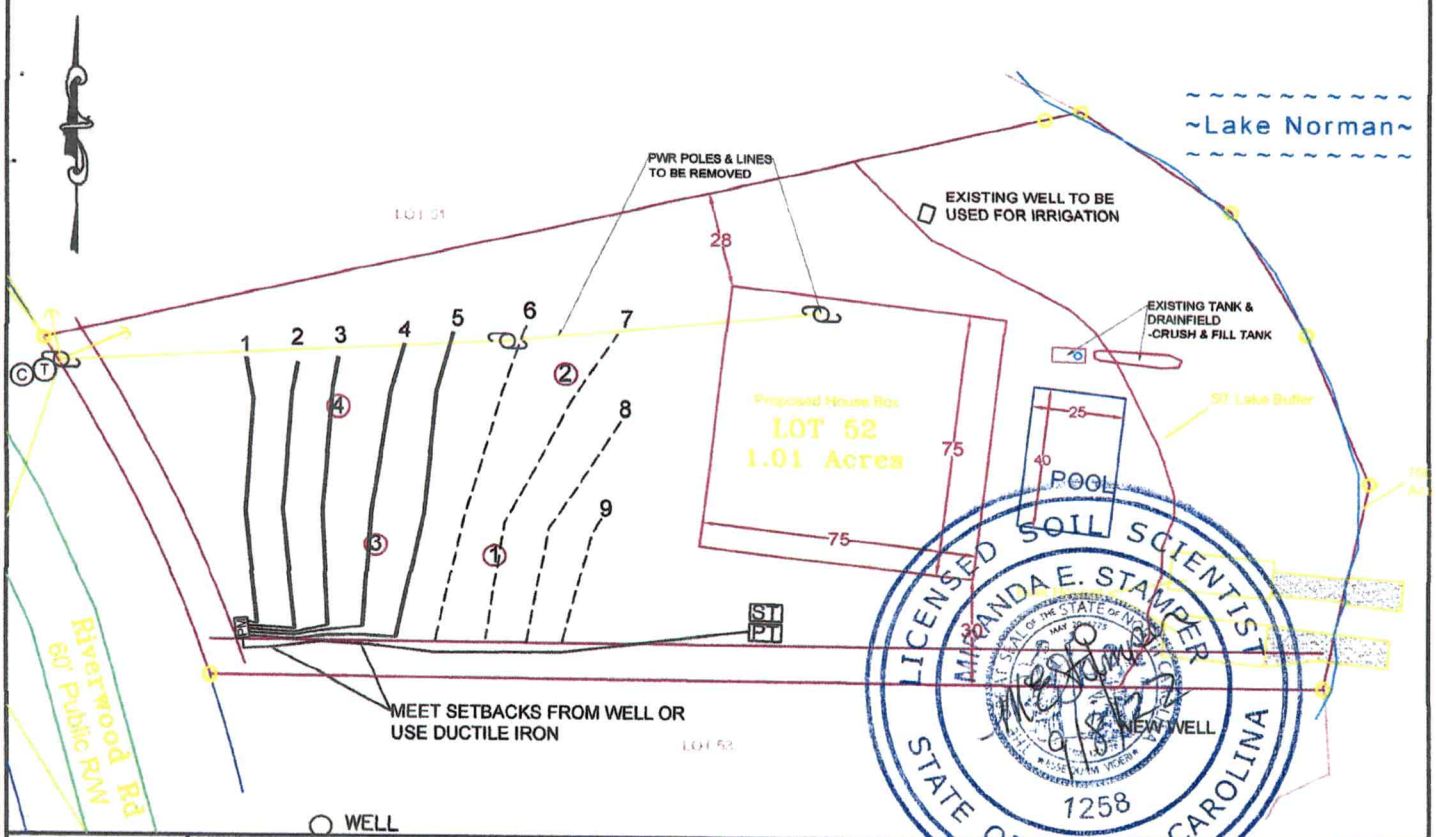
CONDITIONS: MUST BE INSTALLED BY A LICENSED SEPTIC INSTALLER. DRAINFIELD AREA MUST MAINTAIN NATURAL CONTOURS & SLOPE. IMPROPER OR EXCESSIVE GRADING WILL VOID THIS DESIGN AND BOSS IS NOT LIABLE.

0 25 50

SCALE:
1" = 50 ft.

INITIAL LINE ———

REPAIR LINE - - - - - - - - - -



BOSS

Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0376
Info@yardsbyboss.com

MICHAEL GANDY

LOT 52
155 RIVERWOOD RD,
MOORESVILLE, NC
IREDELL COUNTY

DATE:9/2/22 DRAWN BY:MDB REVIEWED BY:MES

County: Iredell

This Section for Local Health Department Use Only

Initial submittal received: 9/29/2022 (Date) by BB (Initials)

Permit Number: OSWP-2022-4465

G.S. 130A-335(a4) states the following: *'If a local health department fails to act on an application for an improvement permit submitted pursuant to subsection (a3) of the section within 10 business days of receipt of a complete application, the local health department shall issue the improvement permit.'*

In accordance with G.S. 130A-335(a3) the improvement permit application is:

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

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☐ Denied (See attached report.)

Copies of this were sent to the LSS and the Owner on _____ (Date)

State Authorized Agent: _____ Date: _____

☑ Complete

State Authorized Agent: Benjamin A Botts Date of Issuance: 9/29/2022

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2), (a3), and (a4) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit by the Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This site is subject to revocation if the site plan, plat, or the intended use changes, or if information submitted in the application was falsified, inaccurate or misleading. The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit. The location and identification of all property lines, easements, water lines, and other appropriate utilities shall be the responsibility of the owner.

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

Improvement Permit Expiration Date: 9/29/2027

See attached site sketch

BENFIELD OUTDOOR SERVICES & SOLUTIONS

Benfield Outdoor Services & Solutions
Phone: (704) 360-0376
939 Brawley School Rd.
Mooresville, North Carolina 28117
Info@yardsbyboss.com
LLS: Miranda Stamper #1258

Iredell County Environmental Health Department
610 East Center Avenue
Mooresville, NC 28115
Phone: 704-664-5281
Fax: 704-664-9737

August 17, 2022

Recommended Wastewater Disposal System
Owner: _____
PIN: 4637255307.000

To whom it may concern,

You will find attached a copy of the wastewater disposal system proposed for the owners ELG Investments LLC. The lot of 52, PIN #4637255307.000 located on Riverwood Road is in Iredell County. Also attached are the sealed soil notes, site plan and design for an onsite wastewater disposal system. The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2). Please review the attached proposal and contact me if you have any questions or concerns.

The LSS evaluation attached to this application is to be used to produce design and construction features for permitting in accordance with G.S. 130A-335(a2)."

Owner: _____

Signature: _____

Signature: _____

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

Miranda Stamper, LSS

Signature: Miranda Stamper, LSS 1258

County: Iredell

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)/SL2022-11

PIN/Lot Identifier: 4637255307

Issued To: ELG Investments

Property Location: 155 Riverwood Rd.

Subdivision: Cresent Land Lot #: 52 Block: _____ Section: _____

LSS Report Provided: Yes ☑ No ☐

If yes, name and license number of LSS: Miranda Stamper, 1258

New ☑ Repair ☐ Expansion ☐ System Relocation ☐

Proposed Structure: 4 bedroom house

Proposed Wastewater System Type: 25% reduction chambers (Initial) LP PPBPS (Repair)

Fill System: ☐ Yes ☑ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area please provide a fill plan)

Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.3 gal/day/ft2 Proposed LTAR (Repair): 0.3 gal/day/ft2

Design Wastewater Strength: ☑ domestic ☐ high strength ☐ industrial process

Number of bedrooms: 4 Number of Occupants: 8 Other: _____

Pump Required: ☑ Yes ☐ No ☐ May be required based upon final location and elevations of facilities

Artificial Drainage Required: ☐ Yes ☑ No If yes, please specify details: _____

Type of Water Supply: ☑ Private well ☐ Public well ☐ Municipal Supply ☐ Spring ☐ Other: _____

Drainfield location meets requirements of Rule .1945: Yes ☑ No ☐

Drainfield location meets requirements of Rule .1950: Yes ☑ No ☐

Permit valid for: ☑ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Licensed Soil Scientist Print Name: Miranda Stamper

Licensed Soil Scientist Signature: Miranda Stamper Digitally signed by Miranda Stamper Date: 2022.09.09 09:16:16 -04'00' Date: 9/9/2022

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

See attached site sketch

Pressure Manifold
Septic System Design

for

155 Riverwood Rd
Mooresville, North Carolina

Designed by:

Michael Benfield
Benfield Outdoor Services & Solutions, LLC
Mooresville, North Carolina
BOSS Project #: 1695A

9/2/2022



155 Riverwood Rd
Table of Contents

Contact Information ---------- 1
Specifications (system) ---------- 2
Tap Chart (system) ---------- 3
Site Plan (System) ---------- 4
Control Panel Specifications ---------- -
Pump Specifications ---------- -
Effuent Filter Specifications ---------- -
Supply Line Hydraulic Profile ---------- -

Attachments

Septic and Pumptank Details	Figure	1
Pressure Mainfold and Trench Details	Figure	2

155 Riverwood Rd
Contact Information

Client: Michael Gandy
Attn:
Street Address: 155 Riverwood Rd
Mooresville NC
Phone: 704-506-5148
Fax: na

Designer: B.O.S.S.
Attn: Michael Benfield
Street Address: 939 Brawley School Lane.
Mooresville NC, 28117
Phone: 704-658-8616
Fax: na

155 Riverwood Rd

Layout/Design Specifications

Facility Type:	Single Family Home	
# of Bedrooms:	4	
Daily Flow:	480	**gal/day**
L.T.A.R.:	0.300	**gal/day/sq.ft**
Max Trench Depth:	36	**in**
Trench Width:	36	**in**
Stone Depth:	n/a	**in**
Manifold Length:	42	**in**
Manifold Diameter:	6	**in sch 80pvc**
Supply Line Length:	141	**ft**
Supply Line Diameter:	2	**in sch 40pvc**
Supply Line Volume:	24.53	**gallons**
Friction Loss + Fitting Loss:	2.15	**ft(supply line length + 70' for fittings in pump tank)**
Design Head:	2	**ft**
Elevation Head:	7.70	**ft**
Total Head:	11.85	**ft**
Dose Volume:	196.22	**gals**
% of Pipe Vol.	.75	
Drawdown:	9.73	**in @ 20.16 gal/in**
Pump Run Time:	7.85	**Minutes**
Pump Run Time:	25.00	**gals/minute**
Control Panel:	SJE Rhombus Model112 control panel (or approved equivalent)	
Pump:	Zoeller5032-0008 High Flow (or approved equivalent)	
: Tank Effluent Filter:	Zoeller 170-0144 residential effluent filter (or approved equivalent)	
Existing **Septic Tank:**	1000	**gallon Shoaf** PG2
Existing **Pump Tank:**	1000	**gallon Shoaf**

155 Riverwood Rd
SYSTEM TAP CHART

Bench Mark:	0	= 100.00	**Manifold elev:**	0.10					
Pump tank elevation:	10.00		**Pump elev:**	14.00					
line	**color**	**rod read**	**elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**
1	White	0.20	99.80	78	1/2in SCH 40	7.11	96.00	234	0.4103
2	Orange	1.30	98.70	78	1/2in SCH 40	7.11	96.00	234	0.4103
3	Blue	1.90	98.10	78	1/2in SCH 40	7.11	96.00	234	0.4103
4	Red	2.90	107.10	82	1/2in SCH 40	7.11	96.00	246	0.3902
5	Yellow	3.60	96.40	86	1/2in SCH 40	7.11	96.00	258	0.3721
	P-TANK	10.00	90.00						
		total	**feet =**	**402**	**gal/min =**	**35.55**		**LTAR =**	**0.300**
				Des. Flow	480			**(ltar + 5%)**	0.32
				24 Hour Pump Run=	13.50			**(ltar W/ INOV)**	0.40
								(ltar + 5%)	0.42

Comments:

PG3

IREDELL COUNTY HEALTH DEPARTMENT

00377 (SEPTIC TANK) IMPROVEMENTS PERMIT AND CERTIFICATE OF COMPLETION
(Ground Absorption Sewage Disposal System G. S. Chapter 130-Article 13C)

OWNER OR CONTRACTOR Roseman Trailer Pk. DATE Sept. 9, 83 PERMIT NO. _____

PHONE: Business _____ Home _____

LOCATION SR 1521 Lippard Farm rd. TL So 3/4 mi. on left

S. R. No. _____

SUBDIVISION NAME New addition LOT NO BB SECTION OR BLOCK NO. _____

House ( ) Mobile Home (✓) Business ( ) Other _____

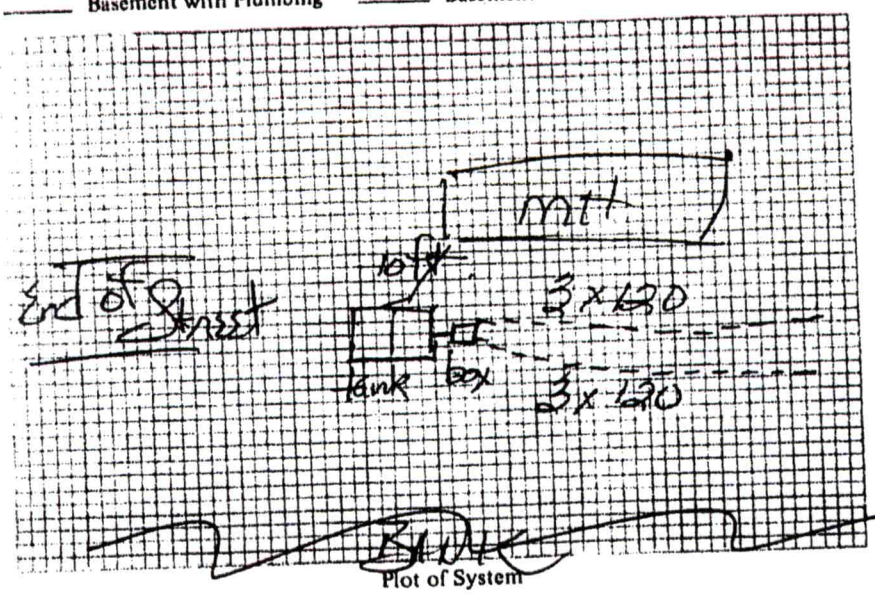
No. Bedrooms 2-3 No. Bathrooms 1-2

Garbage Disposal Unit	Yes ( )	No (✓)
Auto. Dishwasher	Yes ( )	No (✓)
Auto. Wash. Machine	Yes (✓)	No ( )
Site Suitable	Yes (✓)	No ( )

Lot Area Ample

Character & Porosity of Soil _____
Percolation Rate _____
Topography _____
Depth to Water Table _____
Rock or other impervious formations _____

_____ Basement with Plumbing _____ Basement without Plumbing ✓ No Basement



Plot of System

Size of Tank 1000 Gals.

Nitrification Field:
No. of Lines 2
Sq. Ft. 720 Linear Ft. 240
Depth of Stone in Lines 12"

Water Supply: Individual ( )
Public (✓)

Installed by Cothran

I understand and agree to install septic tank system as specified on this Improvements Permit.

Signed: _____

IMPROVEMENTS PERMIT BY _____

COMMENTS: _____

CERTIFICATE OF COMPLETION BY Charles D. Gintler DATE Sept. 9, 83

EXISTING SYSTEM CHECKED BY: _____ DATE _____

CONSTRUCTION MUST COMPLY WITH ALL OTHER APPLICABLE STATE AND LOCAL REGULATIONS.
Permit is VOID if any unauthorized changes are made in installation of system and/or if any false information is supplied in making Improvements Permit.

Health Dept. Copy: White Inspection Dept. Copy: Yellow Sanitarian's Copy: Pink Owner's Copy: Gold