ICHD–ENVIRONMENTAL HEALTH DIVISION

Statesville Office (704) 878-5305 Mooresville Office (704) 660-3625 PERMIT # 328063

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

PIN # 4626518464

APPLICANT/OWNER: Benfield Outdoor Service + Solutions APPLICANT ADDRESS: 939 Brawley School, Mooresville NC 28117

SITE ADDRESS: 219 Freshwater Lane Mooresville NC 28117 PHONE: 704-360-0376 ALT. PHONE

SITE DIRECTIONS: Brawley School Rd to South Fork to Freshwater house on Left.

SAP CONTROLLED: ☐ YES ☒ NO

SUBDIVISION: The Farms SECTION: P2 LOT # 248 LOT AREA: 1.342 Ac DESIGN FLOW: 600 L.T.A.R.: .30

Septic Tank	1500 (gal)	STB	Ext	Date	Ext	☐ New System ☐ Repair ☐ Expansion	System Type: I II (III) IV V VI	☒ Residence	No. Bedrooms 5
Pump Tank	1500 (gal)	PT	Ext	Date	Ext	System Description:	Relocation - PM-25% Reduction	☐ Business	No. Persons 10
Pump Make		Model		Serial #		Repair System Description:	LP - Pool Blue 50% Reduction	☐ Other	No. Employees
# Nitrification Fields	1	# Lines	1	Linear Ft	128	Maintenance Agreement Required:	☐ YES ☒ NO	☐ Slab	☒ Crawl Space
Trench Width	36in	Trench Bottom Depth(Low side)	30.4	Gravel Depth	–		☐ GRAVITY ☒ PRESSURE	☐ Basement w/ plumbing	☐ Basement w/o plumbing

Water Supply: ☐ Private ☐ Public ☒ Community

Comments / Conditions: Repair existing line to close to pool - Replace with new Line as shown. Keep System 15ft from Pool

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:

Benfield Outdoor Services + Solutions

LSS# 1258 Dated April 22, 2022

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: 6-30-22 Installed by: BOSS

IMPROVEMENT PERMIT by: Date: 6/29/2022 OPERATION PERMIT by: Date: 9/12/22

AUTHORIZATION TO CONSTRUCT by: Date: 6/29/2022 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.

New line checked - not plumbed 9/1/22 DW

	Date	Initials
Drain Lines Checked	9/2/22	MW
Tanks Checked		
Pressure Manifold or Valve Box Checked	9/2/22	MW
Pressure Head Set	9/2/22	MW
Electrical Checked		
Floats Set		
Alarm Checked		
Maintenance Contract Y / N		

DocuSign Envelope ID: 568BDC3B-2AAB-4CA0-8F13-3F67BA3A1B41

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

April 22, 2022

Recommended Wastewater Disposal System
Owners: Mark & Megan Burkett
PIN: 4626518464.000

To whom it may concern,

You will find attached a copy of the wastewater disposal system proposed for the owners Mr. and Mrs. Mark Burkett. The lot of 248, PIN #4626518464.000 located on Freshwater Ln is in Iredell County. Also attached are the sealed soil notes, site plan and design for an onsite wastewater disposal system. This is submitted under Session Law 2018-114 (HB 374). 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 SL-2018-114 Section 11 . System must be installed by a certified septic installer. Drainfield must maintain natural contours and slope, improper or excessive grading will void design of wastewater system.

Owner: Mark & Megan Burkett

Signature: DocuSigned by: Mark Burkett EA24C1DB0BFF4EB...

Signature: DocuSigned by: Megan Burkett 4C35BA1C29A0421...

The LSS Evaluation is submitted pursuant to and meeting requirements of SL-2018-114 Section 11 (c)(1)

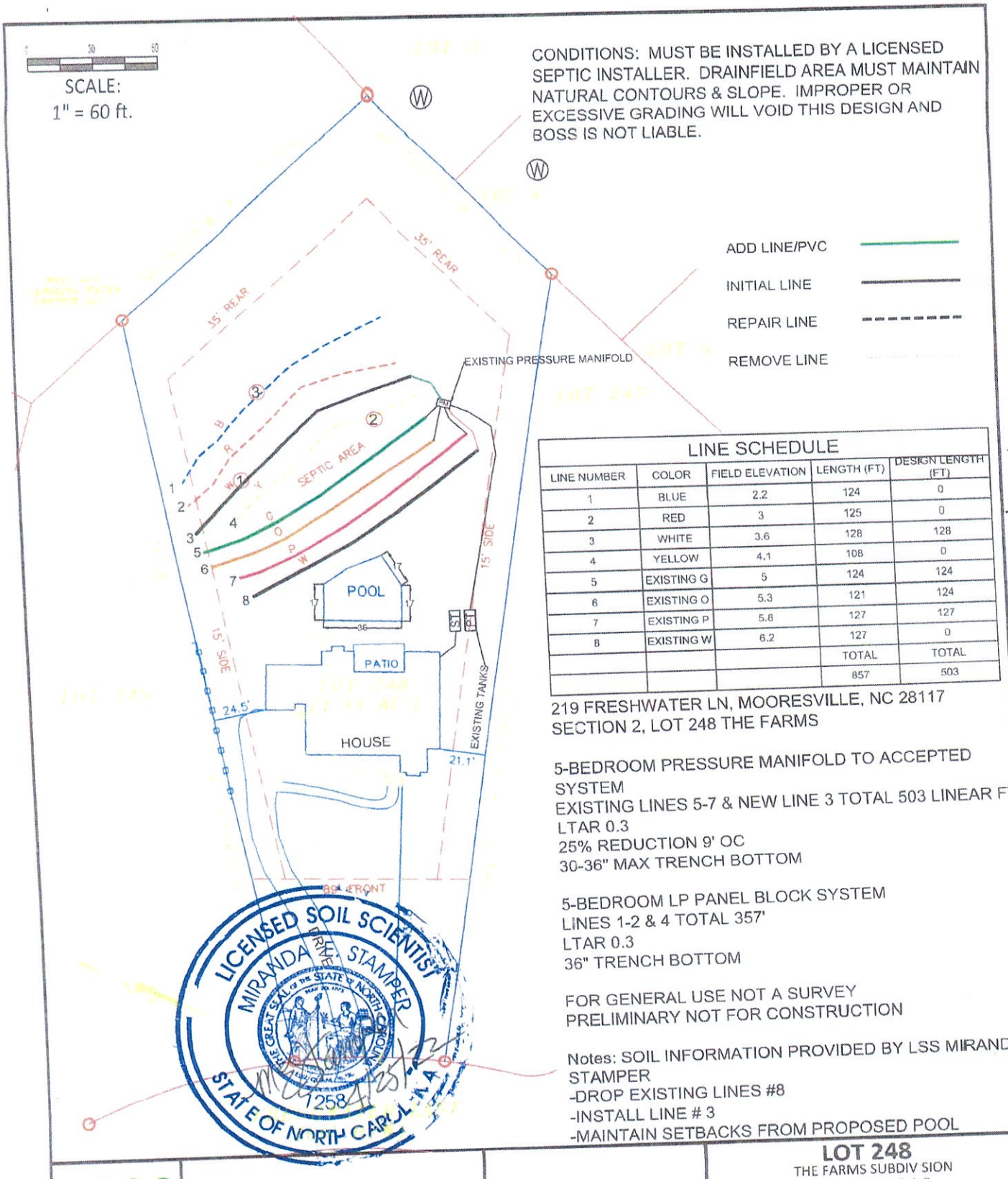
Miranda Stamper, LSS

Signature: Miranda Stamper, LSS

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
1258
STATE OF NORTH CAROLINA

SCALE:
1" = 60 ft.

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.



LINE SCHEDULE				
LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	BLUE	2.2	124	0
2	RED	3	125	0
3	WHITE	3.6	128	128
4	YELLOW	4.1	108	0
5	EXISTING G	5	124	124
6	EXISTING O	5.3	121	124
7	EXISTING P	5.8	127	127
8	EXISTING W	6.2	127	0
			TOTAL	TOTAL
			857	503

219 FRESHWATER LN, MOORESVILLE, NC 28117
SECTION 2, LOT 248 THE FARMS

5-BEDROOM PRESSURE MANIFOLD TO ACCEPTED SYSTEM
EXISTING LINES 5-7 & NEW LINE 3 TOTAL 503 LINEAR FT
LTAR 0.3
25% REDUCTION 9' OC
30-36" MAX TRENCH BOTTOM

5-BEDROOM LP PANEL BLOCK SYSTEM
LINES 1-2 & 4 TOTAL 357'
LTAR 0.3
36" TRENCH BOTTOM

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

Notes: SOIL INFORMATION PROVIDED BY LSS MIRANDA STAMPER
-DROP EXISTING LINES #8
-INSTALL LINE # 3
-MAINTAIN SETBACKS FROM PROPOSED POOL

BOSS

Benfield Outdoor Services & Solutions, LLC
939 Brawley School Rd, Mooresville, NC 28117 Ph:704-360-0378
info@yardsbyboss.com

MARK BURKETT

LOT 248
THE FARMS SUBDIV SION
MOORESVILLE, NC
IREDELL COUNTY

DATE: 4/18/22 DRAWN BY: MDB CHECKED BY: MES

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)

OWNER:
ADDRESS: 219 Freshwater
APPLICATION DATE
DATE EVALUATED: 3/17/22
PROPOSED FACILITY:
PROPOSED DESIGN FLOW (.1949):
PROPERTY SIZE:
LOCATION OF SITE:
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	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	R 2%	0-10	SBK/GR SCL	NS NP FR	—	47"	—	✓	0.3
		10-26	SBK CL	SS MP FI					
		26-40	SBK CL	SS SP FI					
		40-47	SBK CL	SS SP FR					
2	R 5-7%	0-3	GR SCL	SS NP FR	—	48"	WORM @44"	✓	0.3
		3-11	SBK CL	SS NP FI					
		11-24	SBK C	SS P FI					
		24-48	SBK C	NS NP FR					
3	R 34%	0-10	SBK CL	NS SP FR	Goethite @42"	48"	—	—	0.3
		10-48	SBK/GR	NS SP FR/FI					
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	503 LF	357 LF
System Type(s)	25% Reduction	50% Reduction
Site LTAR		

OTHER FACTORS (.1949):
SITE CLASSIFICATION (.1948):
EVALUATED BY: [illegible] Sydney Sutcliff
OTHER(S) PRESENT: [illegible] Byrfield, Carlton Sarros

LICENSED SOIL SCIENTIST
MIRANDA E. STAMPER
STATE OF NORTH CAROLINA

COMMENTS:

Pressure Manifold
Septic System Design

for

219 Freshwater Lane
Mooresville, North Carolina

Designed by:

Michael Benfield
Benfield Outdoor Services & Solutions, LLC
Mooresville, North Carolina
BOSS Project #: 1439A

4/21/2022

219 Freshwater Lane
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

219 Freshwater Lane
Contact Information

Client: Mark Burkett
Attn:
Street Address:

Phone:
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

219 Freshwater Lane
Layout/Design Specifications

Facility Type:	Single Family Home
# of Bedrooms:	5
Daily Flow:	600 **gal/day**
L.T.A.R.:	0.300 **gal/day/sq.ft**
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:	110 **ft**
Supply Line Diameter:	2 **in sch 40pvc**
Supply Line Volume:	19.14 **gallons**
Friction Loss + Fitting Loss:	1.68 **ft(supply line length + 70' for fittings in pump tank)**
Design Head:	2 **ft**
Elevation Head:	9.00 **ft**
Total Head:	12.68 **ft**
Dose Volume:	244.05 **gals**
% of Pipe Vol.	.75
Drawdown:	12.11 **in @ 20.16 gal/in**
Pump Run Time:	9.76 **Minutes**
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)
Septic Tank:	1500 **gallon Shoaf**
Pump Tank:	1500 **gallon Shoaf**

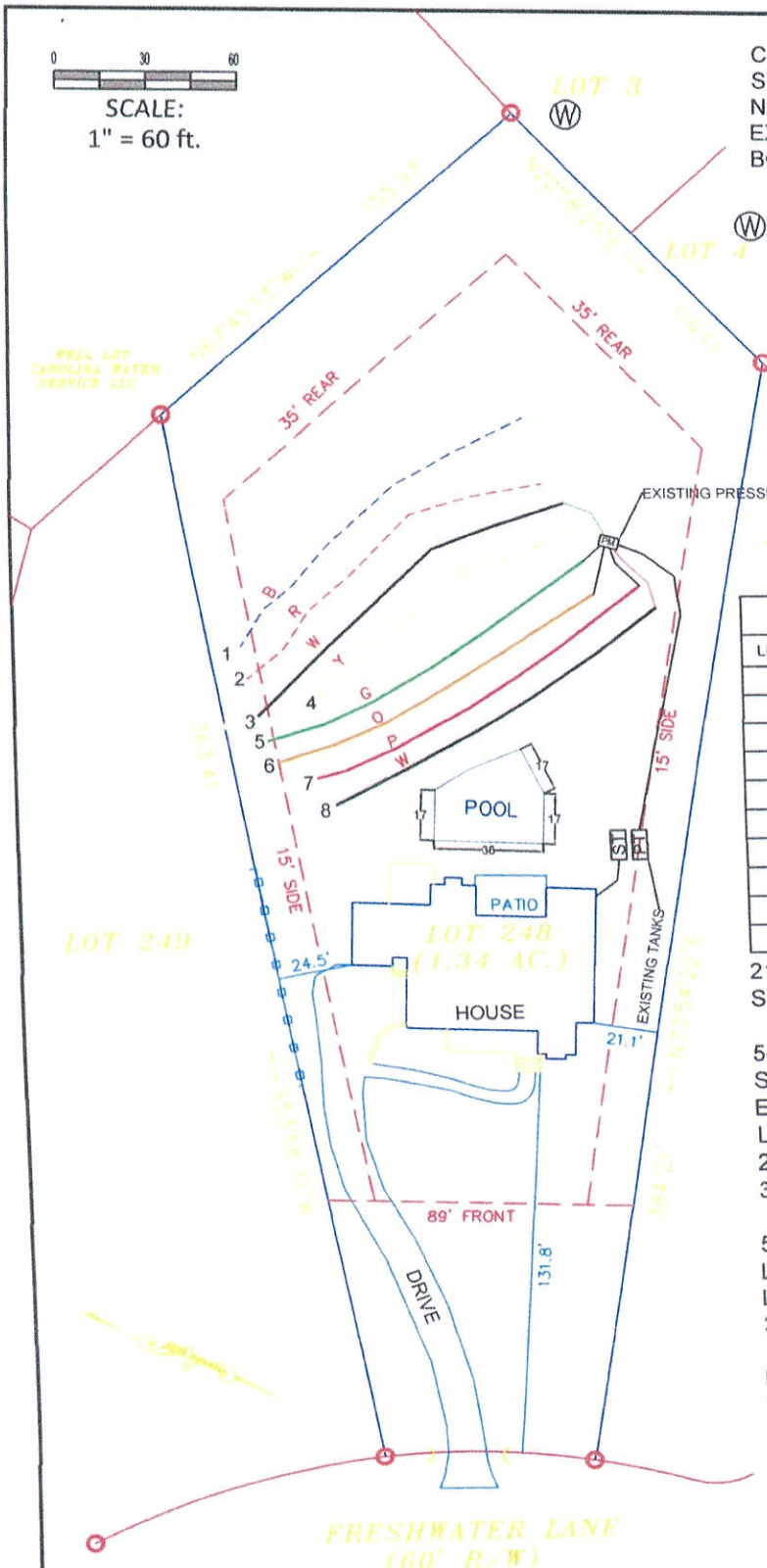
Existing
Existing

219 Freshwater Lane
SYSTEM TAP CHART

Bench Mark:	0	= 100.00	**Manifold elev:**	5.00					
Pump tank elevation:	12.00		**Pump elev:**	6.60					
line	**color**	**rod read**	**elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**
3	White	3.40	96.60	128	1/2in SCH 80	5.48	120.00	384	0.3125
5	Green	3.50	96.50	124	1/2in SCH 80	5.48	120.00	372	0.3226
6	Orange	3.90	96.10	124	1/2in SCH 80	5.48	120.00	372	0.3226
7	Pink	4.40	95.60	127	1/2in SCH 80	5.48	120.00	381	0.3150
	P-TANK	12.00	88.00						
		total	**feet =**	**503**	**gal/min =**	**21.92**		**LTAR =**	**0.300**
								(ltar + 5%)	0.32
				Des. Flow	480			**(ltar W/ INOV)**	0.40
				24 Hour Pump Run=	21.90			**(ltar + 5%)**	0.42

PG3

Comments:
Existing taps may vary from specs. Installer must match new taps to current for equal distribution



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ADD LINE/PVC

INITIAL LINE

REPAIR LINE

REMOVE LINE

LINE SCHEDULE

LINE NUMBER	COLOR	FIELD ELEVATION	LENGTH (FT)	DESIGN LENGTH (FT)
1	BLUE	2.2	124	0
2	RED	3	125	0
3	WHITE	3.6	128	128
4	YELLOW	4.1	108	0
5	EXISTING G	5	124	124
6	EXISTING O	5.3	121	124
7	EXISTING P	5.8	127	127
8	EXISTING W	6.2	127	0
			TOTAL	TOTAL
			984	503

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