DESIGN SPECIFICATIONS FOR LOW PRESSURE PIPE SYSTEM FOR PROPOSED THREE-BEDROOM RESIDENCE ON LOT #3, LAKE NORMAN BONANZA, PONDEROSA BOULEVARD IN IREDELL COUNTY, NORTH CAROLINA
GARY RHYNE - BUYER - DEVELOPER MR. F.W. PELONE - PROPERTY OWNER/SELLER

DAILY WASTEFLOW:	360 GPD
SEPTIC TANK SIZE:	1,500 gallons
PLUMING TANK SIZE:	1,000 gallons
EFFLUENT LOADING RATE:	0.1297 gpd/ft^2
TOTAL ABSORPTION AREA:	2,775 ft^2
TOTAL LINEAR FEET AND DIAMETER OF LATERALS:	555 feet of 1¼"Ø pvc
TOTAL LENGHT AND DIAMETER OF SUPPLY MANIFLOD:	130 feet of 2"Ø pvc
NUMBER AND LENGHT OF LATERALS:	7@50' each, 4@45' each, and 1@25'
MANIFOLD PLACEMENT:	middle
HOLE SIZE:	5/32"Ø
TOTAL NUMBER OF HOLES:	115 orifices
FLOW PER HOLE:	0.455 gpm
TOTAL FLOW THROUGH SYSTEM:	115 holes @ 0.455 gpm = 52.3 gpm anti-siphon hole 2 gpm TOTAL 54.3 gpm
ELEVATION HEAD:	15.0 feet
PRESSURE HEAD:	2.5 feet average
FRICTION HEAD:	5.6 feet
TOTAL HEAD:	23.1 feet
STORAGE VOLUME IN PIPES:	Manifold = 25.2, Lateral = 50.4 Total = 75.6 gallons, say 76
DOSING VOLUME:	277 gallons, = 11" in 1,000 gal. tank
CHECK VALVE NEEDED:	No
PUMP REQUIREMENTS:	54.3 gpm@23.1 FEET OF HEAD. USE MYERS ½ Hp WHRH5 series pump

1/8"

ORIFICE SIZE AND LOCATION

LETTER IDENTIFICATION OF LATERAL	LENGHT OF LATERAL	SIZE OF ORIFICE	DISTANCE FROM MANIFOLD PIPE TO FIRST ORIFICE	ORIFICE SPACING	DISTANCE FROM LAST ORIEICE TO END OF LATERAL	NUMBER OF ORIFICES PER LINE
A	45'	5/32"Ø	1'-8"	5'-0" o.c	3'-4"	9
B	45'	5/32"Ø	3'-4"	4'-6" o.c	1'-8"	10
C	50'	5/32"Ø	1'-8"	5'-0" o.c	3'-4"	10
D	50'	5/32"Ø	3'-4"	4'-6" o.c	1'-8"	11
E	50'	5/32"Ø	1'-8"	5'-0" o.c	3'-4"	10
F	50'	5/32"Ø	3'-4"	4'-6" o.c	1'-8"	11
G	45'	5/32"Ø	2'-0"	5'-7" o.c	3'-11"	8
H	50'	5/32"Ø	3'-4"	5'-0" o.c	1'-8"	10
I	50'	5/32"Ø	1'-8"	4'-6" o.c	3'-4"	11
J	50'	5/32"Ø	3'-4"	5'-0" o.c	1'-8"	10
K	45'	5/32"Ø	1'-6"	4'-6" o.c	3'-0"	10
L	25'	5/32"Ø	3'-4"	5'-0" o.c	1'-8"	5
12 Total	555 LF Total					115 Total

Recommend Uniform Spacing

TOTAL OF 115 ORIFICES OF 5/32"Ø SIZE EACH

RECOMMENDED LATERALS, SIZE, LENGHT, AND ORIFICE SPACING

FOR PROPOSED 3-BEDROOM RESIDENCE ON LOT #3
LAKE NORMAN BONANZA SUB-DIVISION - IREDELL COUNTY, N.C.
F.W. PELONE - SELLER GARY RHYNE, PROSPECTIVE BUYER

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NORTH CAROLINA PROFESSIONAL SEAL 6271 ENGINEER DAVID ARTHUR ROBERTS

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