IREDELL COUNTY HEALTH DEPARTMENT

STATESVILLE 704-878-5305 MOORESVILLE 704-664-5281

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

PERMIT# 089854 PIN# 3797 52 7024 DATE 7-11-2000

OWNER OR CONTRACTOR TED O'KEEFE PHONE: Business 878-9444 Home

ADDRESS 192 ASHLEY ACRES STATESVILLE NC 28677

LOCATION NC90W, TL 2ND LACKEY FARM RD, TR PLANK BARN RD, 2ND LOT ON LEFT

SUBDIVISION STONY HILL BLOCK / SECTION LOT 23 LOT AREA 1.4996 ACRES SITE CLASS. PS1 DESIGN FLOW 360 L.T.A.R. 0.125 GPD/FT²

Septic Tank: 1000 Gallons; STB 1012 Date 4-31-00 (8)

Pump Tank: 1000 Gallons; PT 17 Date 5-27-00

Pump Make: HYDROMATIC Model SIGFSOA Serial No.

Nitrification Field: No Fields 1 Square Feet 2800 Linear Feet 576

No Lines 7 Trench Width 18" Max Trench Bottom Depth 18" Gravel Depth 12"

☑ New System ☐ Repair System Type: I, II, III, IV, V, VI

System Description: LOW-PRESSURE APE

Repair System Description: LOW-PRESSURE PPBPS

Maintenance Agreement Required: ☑ Yes ☐ No

☐ Slab ☑ Crawl Space ☐ Basement w/plumbing ☐ Basement wo/plumbing

☑ House/Mod. Home No. Bedrooms 3

☐ Mobile Home No. Bathrooms 2

☐ Business No. Employees

☐ Other

Water Supply: ☐ Individual ☑ Public ☐ Community

Comments:/Conditions:

Comments:/Conditions: TANKS & LINES INSPECTED 8-1-00, PRESSURE CHECKED OK. -RSH

INITIAL SITE SKETCH

AS BUILT SKETCH

(1) INSTALL LOW PRESSURE PIPING GROUND ABSORPTION WASTE WATER DISPOSAL SYSTEM IN ACCORDANCE WITH GUIDELINES SET FORTH IN .1957 (a) AND AS SPECIFIED IN ATTACHED SITE PLAN DATED JUNE 30, 2000 PREPARED BY B.K. BARRINGER & ASSOCIATES, P.A.

(2) CERTIFIED MANAGEMENT ENTITY SHALL BE CONTRACTED WITH PRIOR TO ISSUANCE OF OPERATION PERMIT.

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. Improvement Permit with plat valid without expiration. Improvement Permit with site plan valid for sixty months. Authorization to Construct is valid for a period equal to that of Improvement Permit – not to exceed sixty months.

Signed: Mary Lou O'Keefe date 7/12/00 Installed by: A-1 Backhoe

Improvement Permit by: STEVE HEDRICK date 7-11-2000 Operation Permit by: date

Authorization to Construct by: STEVE HEDRICK date 7-11-2000 Existing System Inspection by: date

HEALTH DEPT. COPY: WHITE OWNER COPY (FINAL): YELLOW OWNER COPY (INITIAL): PINK

Specifications and Scope of Work

for

INDIVIDUAL RESIDENCE

LOW PRESSURE PIPING

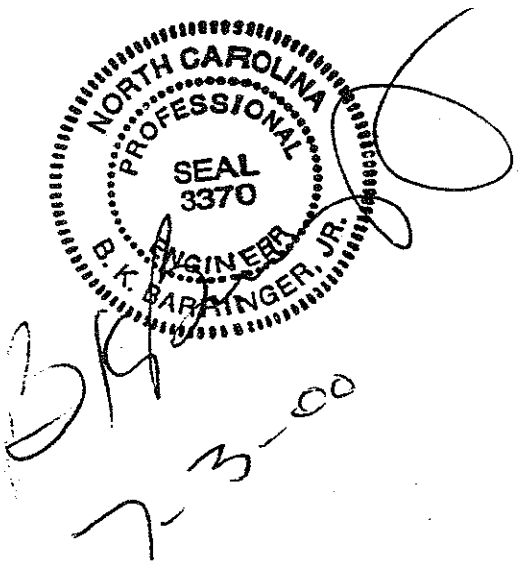
GROUND ABSORPTION, WASTEWATER

DISPOSAL SYSTEM

for

Ted O'Keefe Home Builders
Lot 23 Plank Barn Lane
Stony Hill Subdivision
Stony Point, (Iredell County), NC

Pin # 3797-52-7024



7-3-00

PREPARED FOR:

Ted O'Keefe Home Builders
192 Ashley Ave
Statesville, NC 28677
Phone: (704) 878-9444
Fax: (704) 450-1920

PREPARED BY:

B. K. BARRINGER & ASSOCIATES, P.A.
N. C. Registration No. 3370
Suite 104 Westfield Center
125 East Plaza Drive
Mooresville, N. C. 28115
Phone (704) 664-7888
Fax (704) 664-1778

DESIGN SPECIFICATIONS - LOW PRESSURE PIPING SYSTEM

Ted O'Keefe Home Builders

Lot 23 Plank Barn Lane

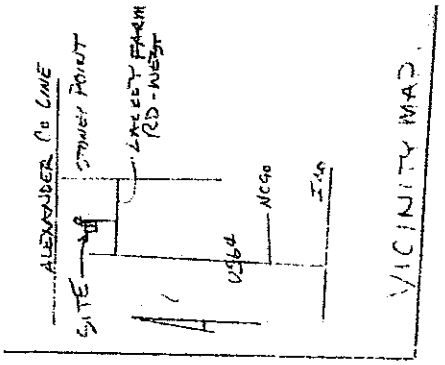
Stony Hill Subdivision

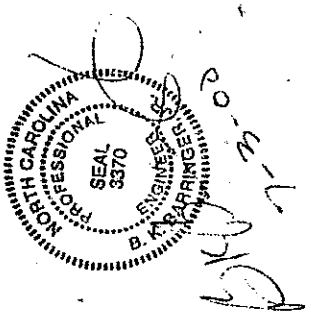
Stony Point, Iredell County, NC

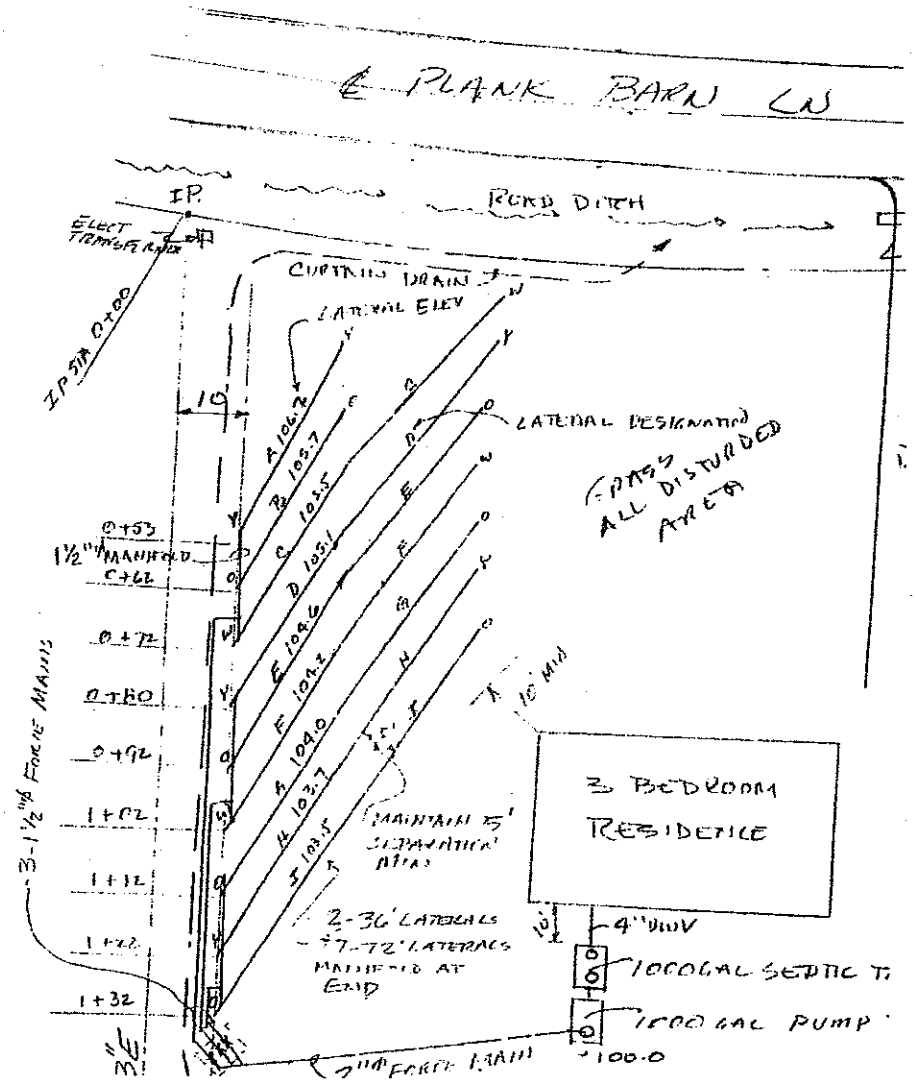
June 30, 2000

Revised July 7, 2000

Daily design waste flow: (3-bedroom)	360 gpd
Septic tank size:	1,000 gal
Pumping tank size:	1,000 gal.
Effluent Filters (2):	Effluent Filter Zabel A300 w/ 1.32" openings in septic tank and G.F.S. Sm. Tech Filter at dosing pump.
Effluent loading rate:	0.125gpd sf
Total absorption areas:	2,800 sf effective, 2,300 sf repair
Number and length of laterals:	2 laterals @ 70' ea, 2 laterals @ 36' w/manifold @ end = 278 LF of 1¼" dia. PR160 PVC inside 4" corrugated perforated pipe
Force Main & Supply Manifold	60LF- 2" diameter SCH 40 – 190LF – 1¼" (diameter) Sch 40
Manifold placement:	See plan
Hole size:	5/32
Hole spacing:	Varies, see chart
Total number of holes:	90
Flow rate through the system:	41.08 gpm
Elevation head (pump to end of manifold):	12.2'
Pressure head:	2.0'
Friction head:	2.61'
Total head:	16.81'
Pump requirements:	41.08 gpm @ 16.81', use Myers ME33, 1/3 hp, 230v/1ph
Dosing volume:	276 gal.
Depth of water pumped per dose:	11.8"
Pump run per dose:	6.71 min.
Check valve:	yes
Syphon break hole:	yes


ALEXANDER Co LINE
SYDNEY POINT
LAKE EDY FARM RD - WEST
SITE
VICINITY MAP


NORTH CAROLINA
PROFESSIONAL
SEAL
3370
ENGINEER
B. K. HARRINGTON


PLANK BARN LN
IP
ROAD DITCH
ELECT TRANSFER PUMP
CURTAIN DRAIN
LATERAL ELEV
IPSTA 0+00
10'
LATERAL DESIGNATION
A 106.7
B 105.7
C 105.5
D 105.1
E 104.6
F 104.2
G 104.0
H 103.7
I 103.5
0+53
1½" MANIFOLD
0+62
0+72
0+80
0+92
1+02
1+12
1+22
1+32
3-1½" FORCE MAINS
3" FORCE MAIN
MAINTAIN 5' SEPARATION
2-36' LATERALS
7-72' LATERALS
MANIFOLD AT END
2 BEDROOM RESIDENCE
4" DIA V
1000 GAL SEPTIC TK
1000 GAL PUMP
100.0

AMPAD 22-141 50 SHEETS 22-142 100 SHEETS 22-144 200 SHEETS 7/3/00

TED OKEEFE LOT 22 POINTE PARALLAX STONE HILL SUB IRED

LATERAL	LENGTH	ELEV	REZ HD (H)	ORF	GPM/ ORF .29PH	NO/ ORFS	GPM PER LINE	ORFICE SPACING	LOCATION OF FIRST ORF: DIST FROM MANIFOLD TO 1ST HOLE	LOCATION OF FIRST ORF: DIST FROM LAST HOLE TO END OF LATERAL
A	36'	106.2	2.0	5/32"	0.41	6	2.46	6'-0"	3'-0"	3'-0"
B	36	105.7	2.5		0.46	6	2.76	6'-0"	2'-0"	4'-0"
C	72	105.5	2.7		0.48	10	2.4 x 2= 4.8	7'-6"	3'-6"	12"
D	72	105.1	2.0		0.41	12	4.92	6'-0"	2'-0"	4'-0"
E	72	104.6	2.5		0.46	12	5.52	6'-0"	4'-0"	2'-0"
F	72	104.2	2.9		0.49	10	4.9	7'-6"	3'-6"	12"
G	72	104.0	2.0		0.41	12	4.92	6'-0"	2'-0	4'-0"
H	72	103.7	2.3		0.44	12	5.28	6'-0"	4'-0"	2'-0"
I	72	103.5	2.5		0.46	10	5.52	7'-6"	3'6"	12"

90 HOLES 41.08 GPM

TED O'KEEFE | LOT 23 STONY HILL - IREDELL Co | 6/30/00

SEPTIC TANK & PUMP TANK 1000 GAL EA

LTAR 0.25 G/SF/D X 0.5 = 0.125 G/SF/D

DESIGN FLOW; 3 BR @ 120 = 360 GPD

$\frac{360}{0.125}$ = 2880 SF / 5 = 576 LF

TRY 16 LINES @ 36'-

FLOW THRU SYSTEM (SEE CHART) = 41.08 GPM

ELEV HD 106.2 - 94 = 12.2

OPERATING HD 2.0

FRICTION (2" PVC) $50'\left(\frac{3.3}{100}\right)1.2 = 1.98$

(1½" Ø) $75\left(\frac{0.7}{100}\right)1.2 = 0.63$ } 2.61

TDH 16.81'

PUMP REQ'D 41.08 GPM @ 16.81' TDH

USE MYERS ME 33 ⅓ HP 230 V / 1 PH PUMP.

DOSE VOL LATERAL $(16 \times 36)\left(\frac{9.0}{100}\right)5^{\text{TIMES}}$ = 259.2 CAL

(2" FORCE MAIN) $50'\left(\frac{17.4}{100}\right) = 8.7$

(1½" FORCE MAIN) $75\left(\frac{10.6}{100}\right)$ 7.95 } = 16.65

DOSE VOL 275.85

DRAW DOWN / DOSE $\frac{60" \times 98" \times 1"}{1728 \text{ CI/CF}} \times 7.48 = 25.45$ G/IN

$\frac{275.85}{25.45}$ = 10.84" DRAWDOWN

PUMP RUN $\frac{275.85 \text{ GAL}}{41.08 \text{ G/M}}$ = 6.71 MIN