RECEIVED
AUG 22 2018
ZONING

250562000

YEAR	
SCANNED	
LAKE	

2018 Onsite Septic System A[illegible]

Becker County Planning & Zoning
915 Lake Ave, Detroit Lakes, MN 56501
Phone (218)-846-7314; Fax (218)-846-7266

All to be done Spicy

1. PROPERTY DATA (as it appears on the tax statement, purchase agreement or deed)

Parcel Number(s) of property where the system will be installed: 250562000

Is this a split of an existing property? Yes (No)

(If yes and a parcel number has not yet been assigned, indicate the main parcel number from which the new parcel was split.)

Section 18 Township 141 Range 038 Township Name Round Lake South

Lake Name Round Lake Classification RD

Legal Description: Pike Peak Beach Lots 17, 18, 19 + 21

Project Address: 31359 Co Hwy 35 Ponsford, MN 56575

2. PROPERTY OWNER INFORMATION (as it appears on the tax statement, purchase agreement or deed)

Owner's First Name Joannie & Donald Owner's Last Name ~~Donald~~ Mullohan

Mailing Address 7961 Bluff Rd City, State, Zip Rockford, MN 55373

Phone Number 515-802-2308

3. DESIGNER/INSTALLER INFORMATION

Designer Name Ron Muff Company Name Muff's Trenching License # 576

Address Callaway Phone Number 218-204-0925

Installer Name Same Company Name _____ License # _____

Address _____ Phone Number _____

4. SYSTEM DESIGN INFORMATION

System Status

_____ Vacant Lot-No existing system-new structure
_____ Replacement – structure removed and being rebuilt
X Failing –Replacement- cesspool/seepage pit or other
_____ Enlargement of system-Undersized
_____ Repairs Needed to existing
_____ Additional system on property

What will new system serve? Check one

X Dwelling 2 Cabins
_____ Resort/Commercial
_____ Commercial (Non-resort)
_____ Other – explain below

8/16/18 Date of site evaluation

Design Flow 450 Gallons Per Day
Number of Bedrooms 3
Garbage Disposal ____ Yes X No
Dishwasher X Yes ___ No
Lift station in House ___ Yes X No
Grinder pump in House ___ Yes X No

Well Depth >50'
Depth of other wells within 100 ft of system >50'

Original Soil X Compacted Soil ____
Type of Soil Observation
____ Pit ____ Probe X Boring
Depth to Restricting Layer 45"
Maximum Depth of System 9"

Size of All Tanks to be installed
_____ gal Single Compartment Septic Tank
1500 gal Compartmented Tank
_____ Pit Privy
_____ gal Separate Lift Station
_____ gal Holding Tank
_____ Existing Tank to be used
_____ Existing tank w/new Additional Tank
_____ Existing tank w/new Lift Station
_____ Holding Tank with Privy

Total Number of tanks to be installed in this system 1 (This # will be reported to MPCA at end of year.)

PARCEL	
APP	SEPTIC
YEAR	

Type of Drainfield	Full Size of Drainfield	Reduced/Warrantied size
_____ Chamber Trench	_____ sq ft	_____ sq ft
_____ Rock Trench	_____ sq ft	_____ sq ft
_____ Gravelless	_____ sq ft	_____ sq ft
_____ Mound	_____ sq ft ***	
X Pressure Bed	570 sq ft ***	
_____ Seepage Bed	_____ sq ft ***	
_____ At-grade	_____ sq ft ***	
_____ Alternative / Performance	_____ sq ft ***	

***Attach Worksheets

Type of chamber N A
Depth of Rock 9"

Alarm? Yes X No _____
Type of Alarm Alderon Power Post
Size of Lift Pump 1½ Hp
Size of Lift Line 1½

PROPOSED SETBACKS

	TANK	DRAINFIELD
Distance to Well	75'	50'
Distance to Building	50'	100'
Distance to Property Line	105'	15'
Distance to OHW of Lake	140'	> 200'
Distance to Pressure Line	-	-
Distance to Wetland/Protected Water	-	-

Perc Rate _____ Soil Sizing Factor 1.27 *If SSF other than .83, attach Perc Test Data

Soil Borings (three are required)

Depth	Texture	Color	Structure		Depth	Texture	Color	Structure
0-8	Topsoil	Black			0-10	Topsoil	Black	
8-28	Sand	10YR 3/4			10-24	Sand	10YR 3/4	
28-47	Sand	10YR 4/4			24-45	Sand	10YR 4/4	
> 47	Redox				> 45	Redox		

Depth	Texture	Color	Structure		Depth	Texture	Color	Structure
0-7	Topsoil	Black						
7-23	Sand	10YR 3/4						
23-46	Sand	10YR 4/4						
> 46	Redox							

5. REQUIRED DOCUMENTS

U of MN worksheets are required for mounds, pressure beds, seepage beds, at-grades or Type IV or Type V systems. Are the required worksheets attached? X Yes _____ No

6. DESIGNER'S CERTIFIED STATEMENT

I, Ron Muff (Print Name of Designer) certify that I have completed the preceding design work in accordance with all applicable requirements (including, but not limited to Minnesota Chapter 7080 and the Becker County Individual Sewage Treatment System Ordinance).

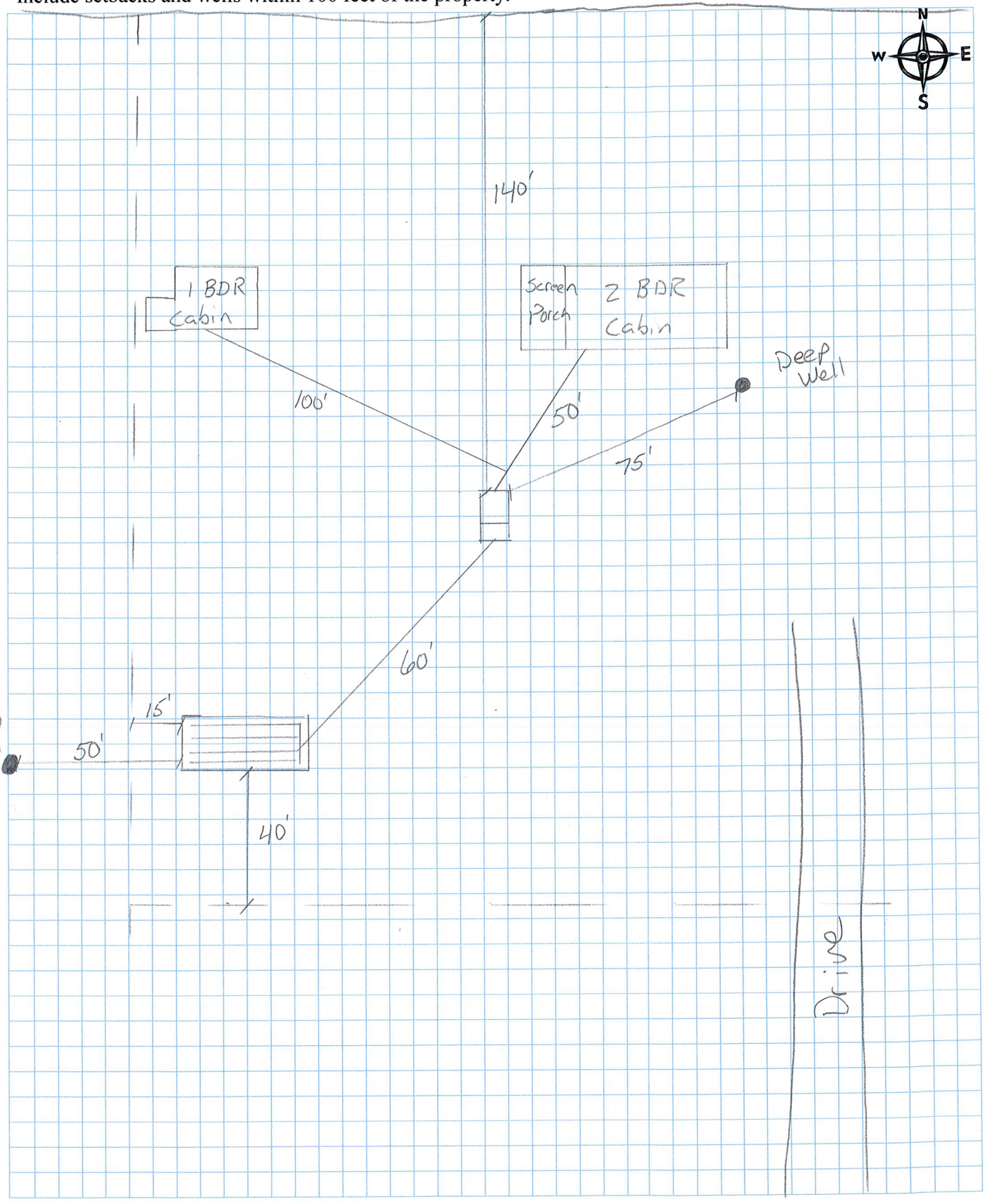
Signature of Designer _____ Date 8/22/18

Round Lake

SKETCH OF PROPERTY

Please sketch all structures and septic systems on the property;
Include setbacks and wells within 100 feet of the property.

PARCEL	
APP	SEPTIC
YEAR	2018



Trench and Bed Worksheet

All boxed rectangles must be entered, the rest will be calculated.

1. AVERAGE DESIGN FLOW

A. Estimated: 450 gpd *(see figure A-1)*
or measured: ____ x 1.5 *(safety factor)* = 0 gpd

B. Septic tank capacity: 1000 gallons

A-1 Estimated Sewage Flows in GPD

Number of Bedrooms	Class I	Class II	Class III	Class IV
2	300	225	180	60% of
3	450	300	218	the
4	600	375	256	values
5	750	450	294	in the
6	900	525	332	Class I,
7	1050	600	370	II or II
8	1200	675	408	columns

2. SOILS (Site evaluation data)

C. Depth to restricting layer = 3.75 feet

D. Maximum depth of system Item C - 3 ft = 0.75 feet

E. Texture: Sand / Sandy Loam Percolation rate: ____ mpi

F. SSF: 1.27 ft^2/gpd (see figure D-15)

G. % Land slope: 1 %

D-15 Soil Characterisitcs & SSF

Perc Rate mpi	Soil Tecture	SSF sq ft/gpd
< 0.1 *	Coarse sand	0.83
0.1- 5	Medium sand	0.83
	Loamy sand	
0.1- 5**	Fine sand	1.67
6 - 15	Sandy loam	1.27
16 - 30	Loam	1.67
31 - 45	Silt loam, silt	2.00
46 - 60	Clay loam, sandy clay or silty clay	2.20
61 - 120***	Clay, sandy or silty clay	4.20
>120****		

* No trench >25% of total system

** Soil with >50% fine sand particles

*** A mound must be used

**** An other or performance system

C-1 Septic Tank Capacity in Gallons

Number of Bedrooms	Minimum Capacity	Capacity with Garb. Disp.	Capacity with Disp. and Lift
2 or less	750	1125	1500
3 or 4	1000	1500	2000
5 or 6	1500	2250	3000
7, 8 or 9	2000	3000	4000

D-9: Soil Characteristics and Soil sizing factors (SSF) for Gravelless Pipe

percolation rate (minutes/inch)	soil texture	lineal feet/ gallon/day
Faster than 0.1 *	Coarse Sand	----
0.1 to 5	Medium Sand	0.28
	Loamy Sand	
0.1 to 5	Fine Sand **	0.6
6 to 15	Sandy Loam	0.42
16 to 30	Loam	0.56
31 to 45	Silt Loam	0.67
	Silt	
46 to 60	Clay Loam (CL)	0.74
	Sandy CL	
	Silty CL	
slower than 60***	Clay	----
	Sandy Clay	
	Silty Clay	

*Soil too coarse for sewage treatment. Use systems for rapidly permeable soils.
**Soil having 50% or more fine sand + very fine sand.
***Soil with too high a percentage of clay for installation of a standard inground system.

3. TRENCH OR BED BOTTOM AREA

H. For trenches with 6 inches of rock below the pipe:
A x F = 450 gpd x 1.27 ft/gpd = 571.5 ft^2

I. For trenches with 12 inches of rock below the pipe:
A x F x 0.8= 450 gpd x 1.27 ft/gpd x 0.8 = 457.2 ft^2

J. For trenches with 18 inches of rock below the pipe:
A x F x 0.66= 450 gpd x 1.27 ft/gpd x 0.66 = 377.2 ft^2

K. For trenches with 24 inches of rock below the pipe:
A x F x 0.6= 450 gpd x 1.27 ft/gpd x 0.6 = 342.9 ft^2

L. For gravity beds with 6 or 12 inches of rock below the pipe;
1.5 x A x F = 1.5 x 450 gpd x 1.27 ft/gpd = 857.3 ft^2

M. For pressure beds with 6 or 12 inches of rock below the pipe;
A x F = 450 gpd x 1.27 ft/gpd = 571.5 ft^2

4. DISTRIBUTION (Check all that apply)

	Bed (<6% slope)		Drop Boxes (any slope)	x	Rock
	Trenches		Distribution Box (<3%)		Chamber
x	Pressure		Gravity		Gravelless

5. SYSTEM WIDTH, LENGTH AND VOLUME

M. Select width = 15.0 ft

N. If using rock, divide bottom area by width: (H, I, J or K) divided by P = lineal feet
570.0 ft^2 / 15.0 ft = 38.0 lineal feet

Rock depth below distribution pipe plus 0.5 foot times bottom area:
(Rock depth + 0.5 foot) x Area (H, I, J, K, L)
(1 ft + 0.5 ft) x 570.0 ft^2 = 855.0 ft^3

Volume in cubic yards = volume in cubic feet divided by 27
855.0 / 27= 31.7 yd^3

Weight of rock in tons = cubic yards times 1.4
31.7 x 1.4= 44.3 tons

O. If using 10" Gravelless Pipe, length = Flow (A) x Gravelless SSF (see figure D-9)
gpd x ft/gpd = 0.0 lineal feet

P. If using a Chamber (H, I, J, K [based on height of chamber slats] divided by width of chamber in ft)

7. LAWN AREA

Q. Select trench spacing, center to center = feet

R. Multiply trench spacing by lineal feet R x Q = sq. ft. of lawn area
x = 0 ft^2

8. LAYOUT

Select an appropriate scale; one inch = feet
Show pertinent property boundaries, rights-of-way, easements.
Show location of house, garage, driveway, and all other improvements, existing or proposed.
Show location and layout of sewage treatment system, well and dimensions of all elevations

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws

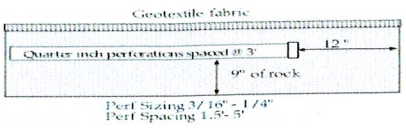
(signature) 576 (license #) 8/22/18 (date)

PRESSURE DISTRIBUTION SYSTEM

All boxed rectangles must be entered, the rest will be calculated.

1. Select number of perforated laterals: [4]

2. Select perforation spacing = [2.5] ft



3. Since perforations should not be placed closer that 1 foot to the edge of the rock layer (see diagram), subtract 2 feet from the rock layer length

[38] - 2 ft = 36 ft

4 Determine the number of spaces between perforations.
Divide the length (3) by perforation spacing (2) and round down to nearest whole number.

Perforation spacing = 36 ft / 2.5 ft = 14

5. Number of perforations is equal to one plus the number of perforation spaces (4).
** Check figure E-4 to assure the number of perforations per lateral guarantees < 10% discharge variation.*

14 spaces + 1 = 15 perforations/lateral

E-4 Maximum Number of 1/4 inch perforations per lateral to guarantee <10% discharge variation

Perforation Spacing feet	1 inch	1.25 inch	1.5 inch	2.0 inch
2.5	8	14	18	28
3.0	8	13	17	26
3.3	7	12	16	25
4.0	7	11	15	23
5.0	6	10	14	22

E-6 Perforation Discharge in GPM

Head (feet)	Perforations diameter (inches)		
	3/16	7/32	1/4
1[a]	0.42	0.56	0.74
2[b]	0.59	0.80	1.04
5	0.94	1.26	1.65

a. Use 1.0 foot for single-family homes.
b. Use 2.0 feet for anything else

6. A. Total number of perforations = perforations per lateral (5) times number of laterals (1).

15 perfs/ lat x 4 laterals = 60 perforations

B. Calculate the square footage per perforation.
Recommended value is 6-10 sqft/perf. Does not apply to at-grades.
1. Rock bed area = rock width (ft) x rock length (ft)

[15] ft x 38 ft = 570 ft^2

2. Square foot per perforation=Rock Bed Area/number of perfs(6)

570.0 ft^2 / 60 perfs = 9.5 ft^2/ perf

7. Determine required flow rate by multiplying the total number of perforations(6A) by flow per perforations (see figure E-6)

60 perfs x [0.74] gpm / perfs = 44.4 gpm

8. If laterals are connected to header pipe as shown in Figure E-1, to select minimum required lateral diameter; enter figure E-4 with perforation spacing (2) and number of perforations per lateral (5).

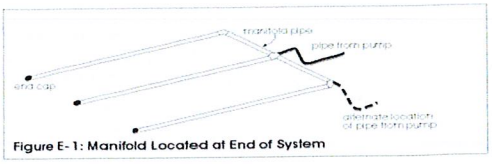
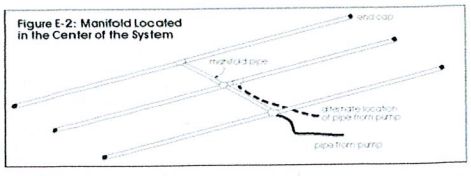


Figure E-1: Manifold Located at End of System

Select minimum diameter for perforated laterals = [1.5] inches

9. If perforated lateral system is attached to manifold pipe near the center, like Figure E-2, perforated lateral length (3) and number of perforations per lateral (5) will be approximately one half of that in step 8. Using these values, select minimum diameter for perforated lateral = [1.5] inches.



I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

[signature] (signature) 576 (license #) 8/22/18 (date)

APP	SEPTIC
YEAR	

****************************** FOR OFFICE USE ONLY ******************************

Application Approved by: [signature] Date: 8/30/18
Amount Paid #150.00 Receipt Number ______ Permit Number ______
NOTES: ______

****

INSPECTION REPORT

Home Information

Does the structure contain any of the following elements?

Garbage disposer ___ Yes X No Dishwasher X Yes ___ No
Grinder pump ___ Yes X No Lift pump in basement ___ Yes X No
Effluent screen installed? ___ Yes X No Effluent screen manufacturer ______

Alarm required? ✓ Yes ___ No Alarm Type elec Alarm manufacturer alderon

Lift pump in system? ✓ Yes ___ No Pump manufacturer Zoller BN98

Number of bedrooms 3 - 2 cabins

Component Information

Tank size 1500/2 Tank manufacturer Infiltrator

Drainfield size 16'x40'
Drainfield medium Pressure Bed Medium manufacturer Rock
Drainfield medium size/depth 9"

Soil Verification

Vertical separation verified for Boring #1 on ______ Depth ______

Vertical separation verified for Boring #2 on ______ Depth ______

Vertical separation verified for Boring #3 on ______ Depth ______

Setback Verification

	TANK	DRAINFIELD
Distance to Well	85	114
Distance to Building	54	75
Distance to Property Line	100+	10+ per installer
Distance to OHW of Lake	100+	200+
Distance to Pressure Line		
Distance to Wetland/Protected Water		

Date System Installed 6-20-19 **Installer** Ron Muff **Inspector** Denise Gubrud

****
****

CERTIFICATE OF COMPLIANCE

( ) Certificate Is Hereby Denied
(✓) Certificate is Hereby Granted Based upon the Application, addendum from, plans, specifications and all other supporting data. With property maintenance, this system can be expected to function satisfactory, however, this is not a guarantee.

Denise Gubrud — Signature
Inspector — Title
6-20-19 — Date

(Certificate of Compliance is not valid unless signed by a Registered Qualified Employee)

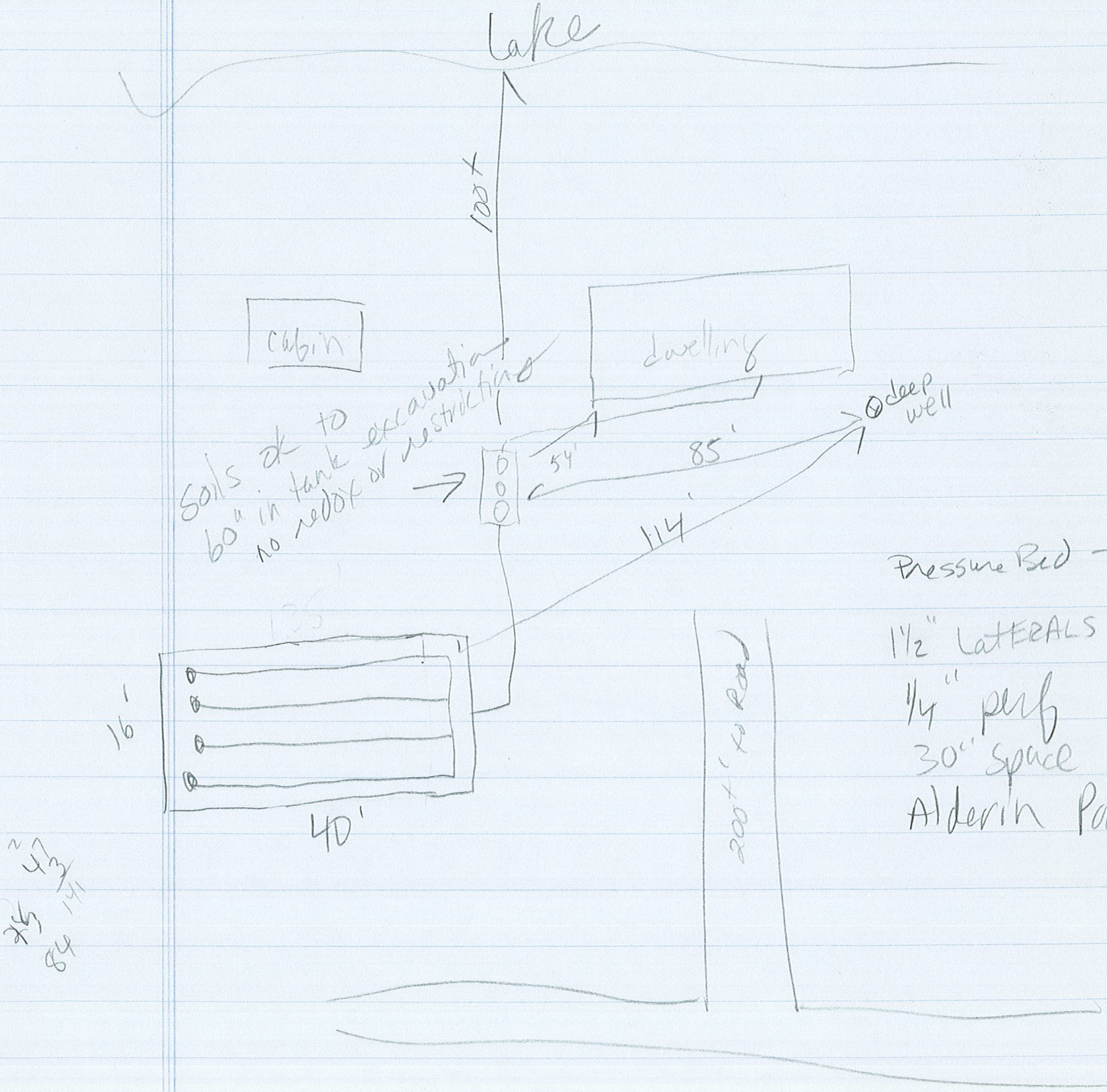
Round Lake South

6-20-19
250562000
31359 Co Hwy 35
Mullihan / Donald

Ron Muffb Instu
218-204-0925

Access 9-12-18

* 1 - Infiltrator 1500/2 pump Zoeller N98



Pressure Bed - 24" deep

1 1/2" LATERALS
1/4" perf
30" Space
Alderin Power Post

PERMIT MUST BE POSTED AT THE CONSTRUCTION SITE

Becker County Planning & Zoning
835 Lake Ave, P O Box 787
Detroit Lakes, MN 56502-0787
Phone (218)-846-7314; Fax (218)-846-7266

Onsite Septic System Site Evaluation/Design Tax Parcel Number 25.0562.000 911 Address 31359 Cty Hwy 35

Legal Description: Lot 17, 18, 19, 20, 21 Pike Peak Beach Section 18 TWP 141 Range 38

Lake Name Round Lake Classification (X) RD ( ) GD ( ) NE Township Name Round Lake

Owner's Name Ed Henrickson Mailing Address 201 70th Ave N

City Moorhead State/Zip MN 565760 Phone Number

Number of Bedrooms 3
Design Flow 450 GPD
(dwellings must be classified as Type 1)
Type of Observation: Probe Pit (Boring)
Original Soil (Yes) (No) Compacted Soil (Yes) (No)
Depth to Restricting Layer 60"
Maximum Depth of System 24"
Perc Rate 13 Soil Sizing Factor 1.27

Well Casing Depth 130 ft
Depth of other Wells within 100 ft of system

Garbage Disposal (Yes) (No)
Grinder Pump/Lift Station In House (Yes) (No)

Proposed Design
( ) Replace Septic Tank
(X) Septic Tank/Drainfield
( ) Drainfield Only
( ) Holding Tank
( ) Lift Station

Type of Drainfield
( ) Chamber- H10, EQ36 other
( ) Standard rock- depth
( ) Standard gravelless
( ) Mound (X) Standard Bed
( ) Pressurized Bed ( ) At Grade

SOIL BORING LOG

DEPTH (INCHES)	TEXTURE	COLOR & MUNSELL NO.	STRUCTURE
0-8	topsoil	Black	BLOCKY PLATY PRISMATIC NONE
8-24	Loam	Brown	BLOCKY PLATY PRISMATIC NONE
24-38	Sandy loam	Brown	BLOCKY PLATY PRISMATIC NONE
38-60	Sand	Light Brown	BLOCKY PLATY PRISMATIC NONE

SOIL BORING LOG

DEPTH (INCHES)	TEXTURE	COLOR & MUNSELL NO.	STRUCTURE
0-9	topsoil	Black	BLOCKY PLATY PRISMATIC NONE
9-38	Loam	Dark Brown	BLOCKY PLATY PRISMATIC NONE
38-60	Sandy loam	Light Brown	BLOCKY PLATY PRISMATIC NONE
			BLOCKY PLATY PRISMATIC NONE

Type of alarm Device on lift Station or Holding tank

Attach perc test Information if Required

I hereby certify that I have completed this work in accordance with applicable ordinances, rules and laws.

Name and Address of Designer Ron Muff Ogema MN, 56569 Phone (218) 983-3376

MPCA Number 5074 Date of Site Evaluation 5/20/02 Signature of Designer

Name of Installer (if different from Designer) Larry Muff MPCA Number 576

FOR USE BY BECKER COUNTY ENVIRONMENTAL SERVICES DEPARTMENT ONLY

*** Any changes to the permit must first be approved by Becker County Planning & Zoning. No system shall be covered up without inspection by Becker County Planning & Zoning.

*** Inspections must be scheduled at least 24 hours prior to time requested.

Date Received 8.19.02 Application Fee 75.00 Fine ~~Fine~~ Total 75.00

[ ] Application is hereby denied
[X] Application is hereby granted to Ed Henrickson to install an individual septic system according to the specifications of the site evaluation and design submitted to the Becker County Environmental Services Office. By Order of:

Patricia Johns
Signature of Becker County Qualified Employee

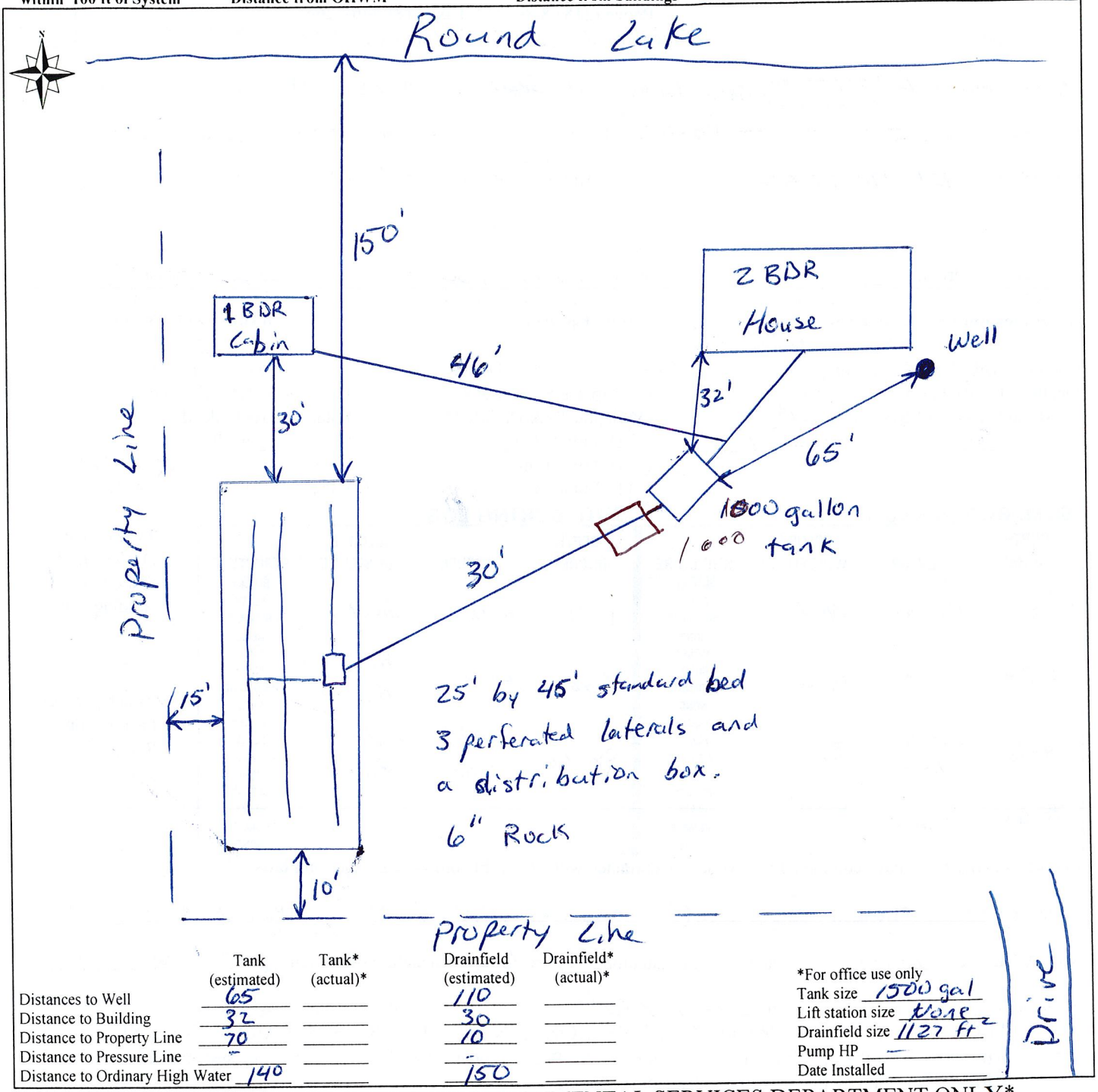
8.19.02
Date Permit Issued

18098 a
Permit Number

This permit expires on 8.19.03

The site plan must be drawn to dimension or to scale:

*Dimensions of Lot
*Well & Water Line Locations within 100 ft of System
*Existing & Proposed Buildings
*Distance from Property Lines
*Distance from OHWM
*Easements & setbacks
*Tank Access Route
*Distance from buildings
*Scale - One inch = _____ ft
*Location of any Unsuitable Soil
*Soil Borings & Per Test Locations
*Alternate Drainfield Location



	Tank (estimated)	Tank* (actual)*	Drainfield (estimated)	Drainfield* (actual)*
Distances to Well	65		110	
Distance to Building	32		30	
Distance to Property Line	70		10	
Distance to Pressure Line	-		-	
Distance to Ordinary High Water	140		150	

*For office use only
Tank size 1500 gal
Lift station size None
Drainfield size 1127 ft²
Pump HP —
Date Installed _____

FOR USE BY BECKER COUNTY ENVIRONMENTAL SERVICES DEPARTMENT ONLY

CERTIFICATE OF COMPLIANCE

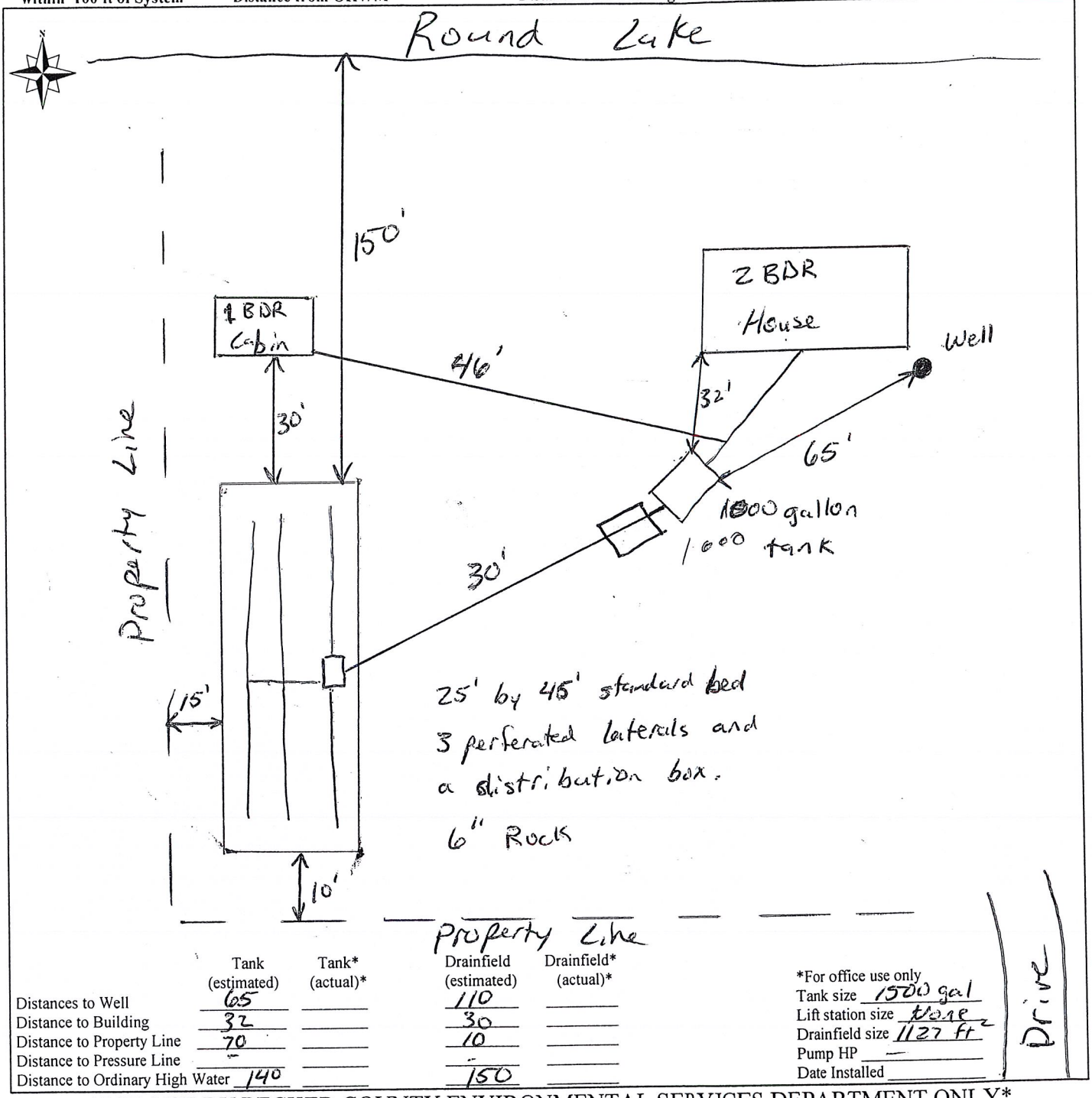
( ) Certificate Is Hereby Denied
( ) Certificate is Hereby Granted Based upon the Application, addendum from, plans, specifications and all other supporting data. With property maintenance, this system can be expected to function satisfactory, however, this is not a guarantee.

Signature _____ Title _____ Date _____

(Certificate of Compliance is not valid unless signed by a Registered Qualified Employee)

The site plan must be drawn to dimension or to scale:

*Dimensions of Lot
*Well & Water Line Locations within 100 ft of System
*Existing & Proposed Buildings
*Distance from Property Lines
*Distance from OHWM
*Easements & setbacks
*Tank Access Route
*Distance from buildings
*Scale - One inch = _____ ft
*Location of any Unsuitable Soil
*Soil Borings & Per Test Locations
*Alternate Drainfield Location



	Tank (estimated)	Tank* (actual)*	Drainfield (estimated)	Drainfield* (actual)*
Distances to Well	65		110	
Distance to Building	32		30	
Distance to Property Line	70		10	
Distance to Pressure Line	—		—	
Distance to Ordinary High Water	140		150	

*For office use only
Tank size 1500 gal
Lift station size None
Drainfield size 1127 ft²
Pump HP —
Date Installed _____

FOR USE BY BECKER COUNTY ENVIRONMENTAL SERVICES DEPARTMENT ONLY

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_____ _____ _____
Signature Title Date

(Certificate of Compliance is not valid unless signed by a Registered Qualified Employee)

Trench and Bed Worksheet

All boxed rectangles must be entered, the rest will be calculated.

1. AVERAGE DESIGN FLOW

A. Estimated: 450 gpd *(see figure A-1)*
or measured: _____ x 1.5 *(safety factor)* = _____ gpd

B. Septic tank capacity: 1500 gallons

A-1 Estimated Sewage Flows in GPD

Number of Bedrooms	Class I	Class II	Class III	Class IV
2	300	225	180	60% of
3	450	300	218	the
4	600	375	256	values
5	750	450	294	in the
6	900	525	332	Class I,
7	1050	600	370	Ii or II
8	1200	675	408	columns

2. SOILS (Site evaluation data)

C. Depth to restricting layer = 5 feet

D. Maximum depth of system Item C - 3 ft = 2 feet

E. Texture: loam Percolation rate: 25 mpi

F. SSF: 1.67 ft^2/gpd (see figure D-15)

G. % Land slope: 3 %

D-15 Soil Characterisitcs & SSF

Perc Rate mpi	Soil Tecture	SSF sq ft/gpd
< 0.1 *	Coarse sand	0.83
0.1- 5	Medium sand	0.83
	Loamy sand	
0.1- 5**	Fine sand	1.67
6 - 15	Sandy loam	1.27
16 - 30	Loam	1.67
31 - 45	Silt loam, silt	2.00
46 - 60	Clay loam, sandy clay or silty clay	2.20
61 - 120***	Clay, sandy or silty clay	4.20
>120****		

* No trench >25% of total system

** Soil with >50% fine sand particles

*** A mound must be used

**** An other or performance system

C-1 Septic Tank Capacity in Gallons

Number of Bedrooms	Minimum Capacity	Capacity with Garb. Disp.	Capacity with Disp. and Lift
2 or less	750	1125	1500
3 or 4	1000	1500	2000
5 or 6	1500	2250	3000
7, 8 or 9	2000	3000	4000

D-9: Soil Characteristics and Soil sizing factors (SSF) for Gravelless Pipe

percolation rate (minutes/inch)	soil texture	lineal feet/ gallon/day
Faster than 0.1 *	Coarse Sand	----
0.1 to 5	Medium Sand Loamy Sand	0.28
0.1 to 5	Fine Sand **	0.6
6 to 15	Sandy Loam	0.42
16 to 30	Loam	0.56
31 to 45	Silt Loam Silt	0.67
46 to 60	Clay Loam (CL) Sandy CL Silty CL	0.74
slower than 60***	Clay Sandy Clay Silty Clay	----

*Soil too coarse for sewage treatment. Use systems for rapidly permeable soils.
**Soil having 50% or more fine sand + very fine sand.
***Soil with too high a percentage of clay for installation of a standard inground system.

3. TRENCH OR BED BOTTOM AREA

H. For trenches with 6 inches of rock below the pipe:

A x F = _____ gpd x _____ ft/gpd = _____ ft^2

I. For trenches with 12 inches of rock below the pipe:

A x F x 0.8= _____ gpd x _____ ft/gpd x 0.8 = _____ ft^2

J. For trenches with 18 inches of rock below the pipe:

A x F x 0.66= _____ gpd x _____ ft/gpd x 0.66 = _____ ft^2

K. For trenches with 24 inches of rock below the pipe:

A x F x 0.6= _____ gpd x _____ ft/gpd x 0.6 = _____ ft^2

L. For gravity beds with 6 or 12 inches of rock below the pipe;

1.5 x A x F = 1.5 x 450 gpd x 1.67 ft/gpd = 1127 ft^2

M. For pressure beds with 6 or 12 inches of rock below the pipe;

A x F = _____ gpd x _____ ft/gpd = _____ ft^2

4. DISTRIBUTION (Check all that apply)

X	Bed (<6% slope)		Drop Boxes (any slope)	X	Rock
	Trenches	X	Distribution Box (<3%)		Chamber
	Pressure	X	Gravity		Gravelless

5. SYSTEM WIDTH, LENGTH AND VOLUME

M. Select width = 25 ft

N. If using rock, divide bottom area by width: (H, I, J or K) divided by P = lineal feet

1127 ft^2 / 25 ft = 45 lineal feet

Rock depth below distribution pipe plus 0.5 foot times bottom area:

(Rock depth + 0.5 foot) x Area (H, I, J, K, L)

(0.5 ft + 0.5 ft) x 1127 ft^2 = 1127 ft^3

Volume in cubic yards = volume in cubic feet divided by 27

1127 / 27= 42 yd^3

Weight of rock in tons = cubic yards times 1.4

42 x 1.4= 59 tons

O. If using 10" Gravelless Pipe, length = Flow (A) x Gravelless SSF (see figure D-9)

_____ gpd x _____ ft/gpd = _____ lineal feet

P. If using a Chamber (H, I, J, K [based on height of chamber slats] divided by width of chamber in ft)

_____ ft^2 / _____ ft = _____ lineal feet

7. LAWN AREA

Q. Select trench spacing, center to center = _____ feet

R. Multiply trench spacing by lineal feet R x Q = sq. ft. of lawn area

_____ x _____ = _____ ft^2

8. LAYOUT

Select an appropriate scale; one inch = _____ feet

Show pertinent property boundaries, rights-of-way, easements.

Show location of house, garage, driveway, and all other improvements, existing or proposed.

Show location and layout of sewage treatment system, well and dimensions of all elevations

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws

_____ (signature) 5074 (license #) 5/20/02 (date)

BUILDING AND SEWAGE SYSTEM PERMIT

BECKER COUNTY ZONING AND PLANNING
829 LAKE AVENUE, BOX 787, PHONE 847-4427, DETROIT LAKES, MN 56502

Parcel No. 25.0562.000 Lake Name Round Lake Permit No. 12-18,960-1

Fire No. ______ Township Round Section 18 Description 17, 18, 19, 20, 21

Pike Peaks Beach T141N R38W. Lot Size ______

Issued to: Name Joseph D. Ransvold Tel. No. ______

Address Box 229 Fargo ND 58107

Work Authorized Sewage Disposal System

Type of Improvement: ( )New Home ( )Alteration ( ) Garage ( )Mobile Home Yr. ______

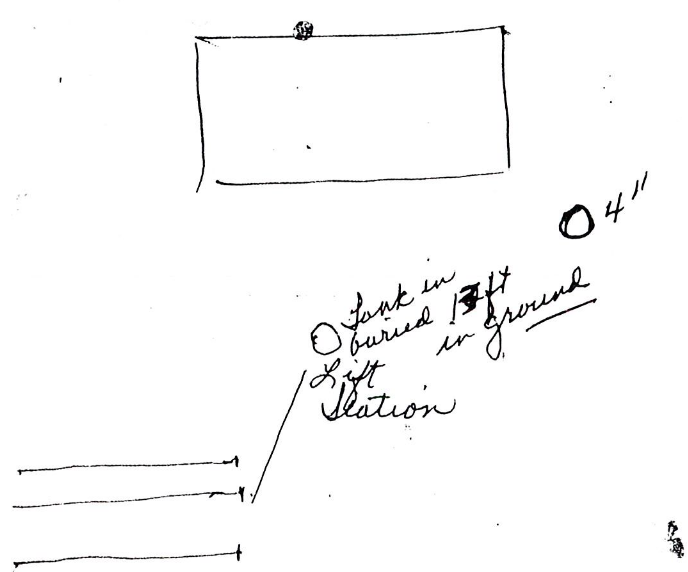
( )Cottage (X)Septic System ( )Other Building ( )Multiple Dwelling ______ Units.

Size 375 SF or 125 L Seepage Bed Stories ______ Basement ______ No. of Bedrooms ______ Bathrooms ______

Contractor: Name & Address ______ Tel. No. ______

Estimated Cost ______ Permit Fee 45.50 State Fee ______ Receipt No. 3604

Sketch



1 Inch = ______ Feet

HORIZONTAL DISTANCE IN FEET FROM NEW CONSTRUCTION TO:

High Water Mark of Lake ______

Side Lot Lines ______ and ______ rear yard ______

Center Line of Public Road ______

Right of way State or Co. ______

APPROVED: Board of Adjustment Date: ______

Planning Commission Date: ______

County Commissioners Date: ______

Zoning Administrator Date: ______

SEWAGE DISPOSAL SYSTEM DATA

Installed in 19____	Septic Tank	Drain Field
Capacity	Gls.	125 L Sq. Ft.
Distance from nearest well	Ft.	375 SF Ft.
Distance from lake or stream	Ft.	+50 Ft.
Distance from occupied building	Ft.	+100 +20 Ft.
Distance from property line	Ft.	10 Ft.
Distance from bottom to Water Table	Ft.	+4 Ft.

Lift Pump ( ) Yes ( ) No Well Depth______ type ______

AGREEMENT: I HEREBY CERTIFY THAT THE INFORMATION CONTAINED HEREIN IS CORRECT AND AGREE TO DO THE PROPOSED WORK IN ACCORDANCE WITH THE DESCRIPTION ABOVE AND ACCORDING TO THE PROVISIONS OF THE ORDINANCE OF BECKER COUNTY. I AGREE TO POST THIS PERMIT ON THE PREMISES ON WHICH THE WORK IS TO BE DONE, AND MAINTAINED THERE UNTIL COMPLETION OF THE WORK. I AGREE THAT ANY VIOLATION OF THIS PERMIT OR THE BECKER COUNTY ZONING IS A MISDEMEANOR AND UPON CONVICTION THEREOF SHALL BE PUNISHED BY A FINE NOT TO EXCEED $700.00 FOR EACH VIOLATION. NOTIFY THE BECKER COUNTY ZONING ADMINISTRATOR (847-4427) BEFORE BUILDING FOOTINGS HAVE BEEN COMPLETED. NO PART OF THE SEWAGE SYSTEM SHALL BE COVERED UNTIL IT HAS BEEN INSPECTED AND APPROVED. NOTIFY THE ZONING ADMINISTRATOR 24 HOURS BEFORE THE JOB IS READY FOR INSPECTION.

Joseph D Ransvold by CO/ E. Erickson

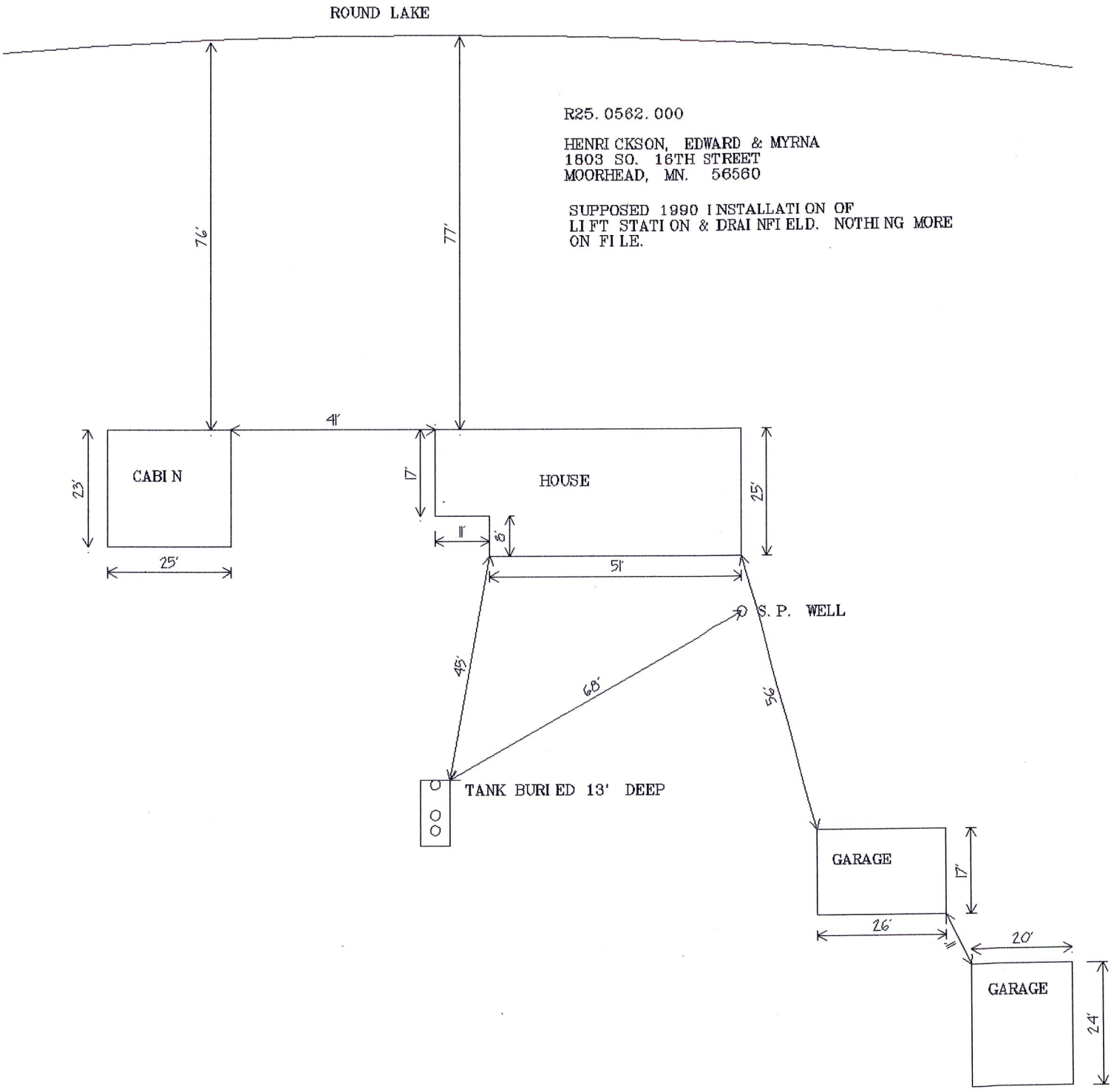
SIGNATURE OF OWNER

Received By Margaret M. Foster Date July 19, 1990.

Approved By Floyd Swenby mf

Becker County Zoning Administrator

BECKER COUNTY
DETROIT LAKES, MN 56501


ROUND LAKE
R25.0562.000
HENRICKSON, EDWARD & MYRNA
1803 SO. 16TH STREET
MOORHEAD, MN. 56560
SUPPOSED 1990 INSTALLATION OF
LIFT STATION & DRAINFIELD. NOTHING MORE
ON FILE.
76'
77'
41'
CABIN
23'
25'
17'
HOUSE
25'
11'
8'
51'
S.P. WELL
45'
68'
56'
TANK BURIED 13' DEEP
GARAGE
17'
26'
11'
20'
GARAGE
24'