

**PERMIT MUST BE
POSTED AT THE
CONSTRUCTION SITE**

Becker County Planning &
835 Lake Ave, P O Box 7
Detroit Lakes, MN 56502-0781
Phone (218)-846-7314; Fax (218)-846-7266



180097001

Onsite Septic System Site Evaluation/Design Tax Parcel Number 18.0097.001 911 Address 19032-140th Ave

Legal Description: pt SE 1/4 SE 1/4 SE 1/4; beg NE 1/4 North Section 16 TWP 139 Range 48

Lake Name N/A Lake Classification () RD () GD () NE Township Name Lake Park

Owner's Name ARLEN & LAVONNE NELSON Mailing Address 19032 140th Ave.

City Lake Park, MN State/Zip 56544 Phone Number _____

Number of Bedrooms 3 Well Casing Depth No well ON SITE Garbage Disposal (Yes) (No)

Design Flow 450 GPD Depth of other Wells within 100 ft of system N/A Grinder Pump/Lift Station In House (Yes) (No)

Type of Observation: Probe Pit Boring _____

Original Soil (Yes) (No) Compacted Soil (Yes) (No) Proposed Design Type of Drainfield

Depth to Restricting Layer 4' () Replace Septic Tank () Chamber- H10, EQ36 other _____

*Maximum Depth of System 1' (X) Septic Tank/Drainfield () Standard rock- depth _____

Perc Rate 9.9 Soil Sizing Factor 1.27 () Drainfield Only () Standard gravelless

() Holding Tank () Mound () Standard Bed

(X) Lift Station (X) Pressurized Bed () At Grade

SOIL BORING LOG

SOIL BORING LOG

DEPTH (INCHES)	TEXTURE	COLOR & MUNSELL NO.	STRUCTURE	DEPTH (INCHES)	TEXTURE	COLOR & MUNSELL NO.	STRUCTURE
0-14"	Sandy loam	TOP soil	BLOCKY PLATY PRISMATIC NONE	0-13	Sandy loam	TOP soil	BLOCKY PLATY PRISMATIC NONE
14-32	Sandy loam	10YR 5/4	<input checked="" type="checkbox"/> BLOCKY PLATY PRISMATIC NONE	13-30	Sandy loam	10YR 5/4	<input checked="" type="checkbox"/> BLOCKY PLATY PRISMATIC NONE
32-48	Loam	10YR 5/3	<input checked="" type="checkbox"/> BLOCKY PLATY PRISMATIC NONE	30-48	Loam	10YR 5/3	<input checked="" type="checkbox"/> BLOCKY PLATY PRISMATIC NONE
48"	Nothing		BLOCKY PLATY PRISMATIC NONE	48"	Nothing		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 Dan Schauderoff Phone 218-847-6247

MPCA Number 418 Date of Site Evaluation 8-10-02 Signature of Designer Dan Schauderoff

Name of Installer (if different from Designer) Serdar Bridge Building Company MPCA Number _____

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 8-13-02 Application Fee 75⁰⁰ Fine Total 75⁰⁰

[] Application is hereby denied
 Application is hereby granted to ARLEN & LAVONNE NELSON 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: Nancy Jung

Signature of Becker County Qualified Employee _____ Date Permit Issued 8-13-02 Permit Number 180592

This permit expires on 8-13-03

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

*Scale - One inch = _____ ft

*Dimensions of Lot

*Existing & Proposed Buildings

*Easements & setbacks

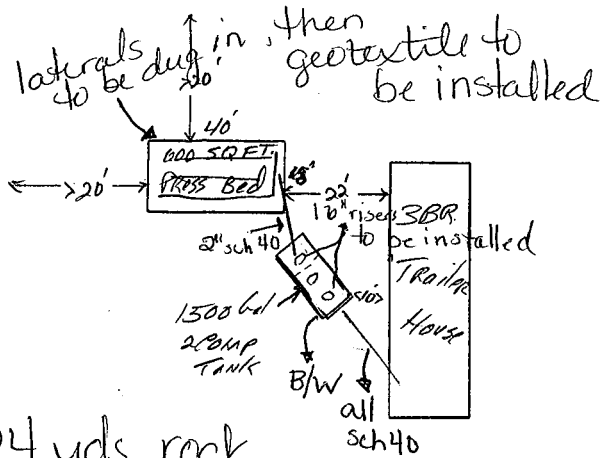
*Location of any Unsuitable Soil

*Well & Water Line Locations within 100 ft of System

*Distance from Property Lines
*Distance from OHWM

*Tank Access Route
*Distance from buildings

*Soil Borings & Per Test Locations
*Alternate Drainfield Location



* 24 yds rock
Supplied by
Agg. Ind (Fargo)

*Jerdee will provide
pictures for file

600 SQ FT. Press Bed
1 FT. IN GROUND
15 X 40 = 23 YD ROCK.
4 1/2 H.P. PUMP W/ELEC.
IN HOUSE ALARM

140 ST.

	Tank (estimated)	Tank* (actual)*	Drainfield (estimated)	Drainfield* (actual)*
Distances to Well	no well	outside +50'		+750'
Distance to Building	10'	NA	22'	NA
Distance to Property Line	>20'	+10'	>20'	+10'
Distance to Pressure Line	N/A	NA	N/A	NA
Distance to Ordinary High Water	N/A	NA	N/A	NA

*For office use only
Tank size 1000 } 1500 21c
Lift station size 500 }
Drainfield size 600 sq ft
Pump HP ~~4 1/2~~ 4 1/2 hp ABS
Date Installed 8-27-02

FOR USE BY BECKER COUNTY ENVIRONMENTAL SERVICES DEPARTMENT ONLY

CERTIFICATE OF COMPLIANCE

() Certificate Is Hereby Denied
(X) 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.

Nancy Young
Signature

Zoning Inspector
Title

8.28.02
Date

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

Nelson

- PERCOLATION TEST SHEET -

Test hole location DRX Field Hole # 182 Date test hole was prepared: 8-10-02

Depth of hole bottom: 12" inches Diameter of hole: 5 inches

Soil Data from test hole:

depth, inches	soil texture:	soil color
_____	_____	_____
_____	_____	_____
_____	_____	_____

Method of scratching sidewall: Bad w/ nails Depth of pea size gravel in bottom of hole: 2 inches

Date and hour of initial water filling: 8 AM 8-10 Depth of initial water filling: 10" above hole bottom

Method used to maintain 12" of water depth in hole for 4 hours: MANUAL

Percolation test conducted by: Don Schlanderoff Percolation test started at 82 (am/pm)

Maximum water depth above hole bottom during test: 8 inches

TIME	INTERVAL (MINUTES)	WATER DEPTH	WATER DROP (fraction)	WATER DROP (decimal)	PERC RATE CALCULATION	conversions
---	START 10	<u>8</u> <u>7</u>	<u>1</u>	<u>1</u>	$\frac{10}{\text{TIME}} \div \frac{1}{\text{DROP}} = \frac{10}{\text{PERC}}$ A	1/16 = .06 1/8 = .13 3/16 = .19
---	REFILL 10	<u>8</u> <u>7 1/4</u>	<u>1 5/16</u>	<u>.94</u>	$\frac{10}{\text{TIME}} \div \frac{.94}{\text{DROP}} = \frac{10.6}{\text{PERC}}$ B	1/4 = .25 5/16 = .31
---	REFILL 10	<u>8</u> <u>7 1/8</u>	<u>7/8</u>	<u>.88</u>	$\frac{10}{\text{TIME}} \div \frac{.88}{\text{DROP}} = \frac{11.2}{\text{PERC}}$ C	3/8 = .38 7/16 = .44
---	REFILL	---	---	---	$\frac{10}{\text{TIME}} \div \frac{\text{DROP}}{\text{PERC}} = \frac{\text{PERC}}{\text{PERC}}$ D	1/2 = .5
---	REFILL 10	<u>8</u> <u>6 7/8</u>	<u>1 1/8</u>	<u>1.13</u>	$\frac{10}{\text{TIME}} \div \frac{1.13}{\text{DROP}} = \frac{8.8}{\text{PERC}}$ E	9/16 = .56 5/8 = .63
---	REFILL 10	<u>8</u> <u>6 15/16</u>	<u>1 1/16</u>	<u>1.06</u>	$\frac{10}{\text{TIME}} \div \frac{1.06}{\text{DROP}} = \frac{9.3}{\text{PERC}}$ F	11/16 = .69
---	REFILL 10	<u>8</u> <u>7</u>	<u>1</u>	<u>1</u>	$\frac{10}{\text{TIME}} \div \frac{1}{\text{DROP}} = \frac{10}{\text{PERC}}$ G	3/4 = .75 13/16 = .81
---	REFILL	---	---	---	$\frac{10}{\text{TIME}} \div \frac{\text{DROP}}{\text{PERC}} = \frac{\text{PERC}}{\text{PERC}}$ H	7/8 = .88 15/16 = .94

Ten Percent Calculation *

A, B, C

Largest # of ABC - Smallest # of ABC = _____

Smallest # of ABC x 0.10 = _____

C, D, E

Largest # of CDE - Smallest # of CDE = _____

Smallest # of CDE x 0.10 = _____

E, F, G

Largest # of EFG - Smallest # of EFG = _____

Smallest # of EFG x 0.10 = _____

B, C, D

Largest # of BCD - Smallest # of BCD = _____

Smallest # of BCD x 0.10 = _____

D, E, F

Largest # of DEF - Smallest # of DEF = _____

Smallest # of DEF x 0.10 = _____

F, G, H

Largest # of FGH - Smallest # of FGH = _____

Smallest # of FGH x 0.10 = _____

* If the top number in each set of boxes is larger than the bottom number then take another reading. If the top number is equal or smaller than bottom number, average the three numbers for the perc rate.