Lincoln-Lancaster County Health Department
Environmental Public Health Division
3140 N Street • Lincoln NE 68510-1514
Phone: 402-441-8643

REC'D AUG 19 2019

**A**

Permit Number
#S001874

# Onsite Wastewater Treatment System Permit Application

**Include Form B and C. Submit correct fee with this Application**

☑ Septic System ☐ Lagoon ☐ Other (Refer to Form C)

**PLEASE PRINT OR TYPE**

## A. Onsite System Location

Address* 14960 S. 56th St (no rural route) City Roca, NE Zip 68430

Legal Description S16 T8 R7 Silverhawk Estates Add 3 1

1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID 15-16-103-001-000 *Approx. Address (If to be determined)

## B. Owner

Name SNB Construction Signature

Address 3800 Old Cheney Rd City/State/Zip Lincoln NE 68516

Home Phone Work Phone

## C. Certified Installer

Name: Marcus Hackstein Signature

Address PO Box 142 City/State/Zip Eagle NE 68347

Work Phone 402-730-7749

## D. Engineer

☐ **Check and complete if engineer designed system** P.E. License Number:

Designer Name Firm Work Phone

## E. This system will serve a

☑ Residential Dwelling Number of Bedrooms 4 Whirlpool Bathtub? ☐ Yes ☑ No Total Acres 7.01

Garbage Grinder? ☑ Yes ☐ No

☐ Commercial Establishment/Other Facility Specify Design flow in gallons per day

Type of Wastewater ☐ Domestic ☐ Non-Domestic

***DO NOT WRITE BELOW THIS LINE***

**Approval Process**

**1. Health Department**

Site visits Date rec'd **ACTION** ☐ Approved ☐ Disapproved

Date frwd Signature

Comments

**2. Supt. Bldg. Insp. or Village Clerk**

Comments Date rec'd **ACTION** ☐ Approved ☐ Disapproved

Date frwd Signature

**3. City or County Engineer**

Comments Date rec'd **ACTION** ☐ Approved ☐ Disapproved

Date frwd Signature

**Installation Final Written Approval**

By

Date

***Business Office Use Only***
Date Received 8-20-19 Amount Paid $420.00
Received By JMD Cash/Check No. 260

White - Health Department Yellow - Engineer Pink - Building & Safety

Form A Updated: 4/15

Lincoln-Lancaster County Health Department (LLCHD)
Environmental Public Health Division
3131 "O" Street • Lincoln, NE 68510-1514
Phone: 402-441-8643

**B**

Permit Number:

# Onsite Wastewater Treatment System
## Soil Evaluation Report

PLEASE PRINT OR TYPE

### Onsite System Location

Address PID 15-16-103-001-000 (no rural route) City Roca NE, Zip 68430

Owner SMB Construction Address 7800 Old Cheney Rd, Lincoln NE 68516

Date of Tests 8-2-19 to 8-3-19 Weather: Precipitation C Temperature 86

### Percolation Test Data Table

| A. | B. | C. D. E. F. Saturation/Swelling Time | | | | G. H. I. J. K. Water Level Drop Last 30 mins of 4 hr or last 10 mins of 1 hr | | | | | L. M. N. Results | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start | | End | | Start | | | End | | | | |
| Hole No. | Hole Depth(in) | Date (Mo/Da) | Time (Hr/Min) | Date (Mo/Da) | Time (Hr/Min) | Date (Mo/Da) | Time (Hr/Min) | Initial Water Lev (in.) | Date (Mo/Da) | Time (Hr/Min) | Elapsed Time Interval | Water Level Drop(in) | Percolation Rates (Min/in = mpi) |
| 1 | 40 | 8/2 | 5:00 | 8/3 | 12:45 | 8/3 | 4:15 | 6 | 8/3 | 4:45 | 30m | 1/2 | 60 |
| 2 | 40 | " | " | " | " | " | " | 6 | " | " | " | 1/2 | 60 |
| 3 | 40 | " | " | " | " | " | " | 6 | " | " | " | 5/8 | 48 |
| 4 | 40 | " | " | " | " | " | " | 6 | " | " | " | 5/8 | 48 |
| | | | | | | | | 6 | | | | | |
| | | | | | | | | 6 | | | | | |
| | | | | | | | | 6 | | | | | |
| | | | | | | | | 6 | | | | | |

### Person Conducting Percolation Test

Name: Merrill Hochstein
Phone: 402-770-7749
Address PO Box 142
Eagle, NE 68347

Soil type (NRCS Maps/Other) Otoe Silty Clay
Groundwater Depth 12+

Sum of Percolation Rates: 216
Average of Rates: 54
Rate Used for Calculation: 54

### DO NOT WRITE BELOW THIS LINE

### Reviewing Action

Comments (Soil type, groundwater, floodplain, etc.)

Signature of Reviewing Official Date

# CONDUCTING A PERCOLATION TEST

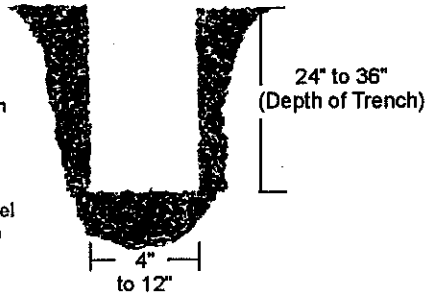
## READ THOROUGHLY

DIAGRAM OF PERCOLATION TEST PROCEDURE

**Natural Ground Level**

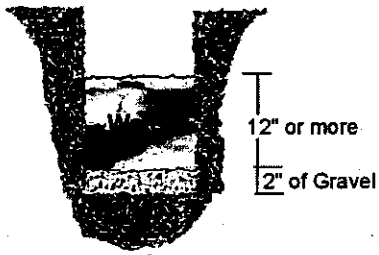
I. Number, Size and Location of Test Holes

- A. Dig six or more holes spaced evenly over proposed drainfield.
- B. Scratch smeared areas on the bottom 12" of hole.
- C. Remove loose material from hole.
- D. Add 2" layer of clean gravel in hole. Gravel (1/4"-3/4") may be placed in a nylon mesh bag so it can be used again.




II. Saturation/Swelling of Soil

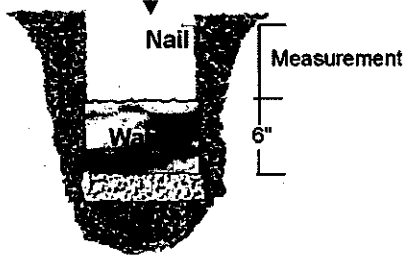
- A. Fill hole with at least 12" of clear water.
- B. **MAINTAIN THIS WATER LEVEL FOR 4 HOURS.**
- C. Record on Form B, Columns A to F
- D. **Must wait 24 hours before beginning Step III.**



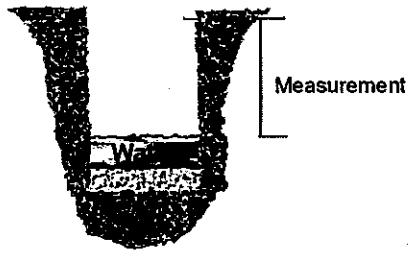

24 Hours Later

III. Water Level Drop Measurement (Refer to instructions 4a, b or c)

- A. Adjust water level to 6".
- B. Measure from fixed reference point (nail) to water, or use a percometer.
- C. Record measurement and time on scratch paper.
- D. 30 min. later re-measure and record time.
- E. After each measurement, refill to 6" above gravel.
- F. Continue for 4 hours taking readings evey 30 min. (Refer to 4b for exception)
- G. Last 30 min. reading is used in filing out Form B. Record in Column G through M.




½ hour later
(30 minutes)




IV. The Department will calculate Percolation Rates.

# Instructions

1. Percolation test holes. Percolation tests should be made in 6 or more separate holes spaced uniformly over proposed drainfield. Dig or bore holes 4 to 12" in diameter to the depth of the bottom of drainfield trench. (If sides of hole collapse, a slotted PVC plastic pipe and gravel pack may be needed to support the sides of the hole.) Do not dig holes in soil that is above the plastic limit or where frost is within 12" from the bottom of hole.
2. Preparation of test hole. Scratch any smeared areas on the bottom 12" of hole with nails driven into a 1x2" board to provide a natural soil interface for water to percolate. Remove all loose soil from bottom of hole. Add 2" of clean gravel to protect the bottom from scouring when water is put into hole.
3. Saturation and swelling of the soil. Fill holes with clear water to a depth fo 12" or more above gravel and maintain this water level at least 4 hours (add water as necessary). Do not remove water from holes. Holes should be covered with boards during the 20 hrs. wait before the test begins. Soils with slow permeability or containing greater than 30% clay will require several days saturation for thorough swelling in a dry season. The accuracy of the percolation test depends on thorough saturation and swelling of soil. Sandy soil containing no clay does not swell. The percolation test may proceed immediately if the 12" of water seeps away in 10 min. or less after filling holes twice. Proceed to Step 4c.
4. Measure percolation rate. Measurements must be made 24 hrs after starting saturation/swelling procedure described above. Record results on the front of this form and the Department will complete the calculations.

   a. If water remains in hole after the saturation/ swelling period, adjust depth to 6" above gravel. From a fixed point, measure the drop in water level over a 30 min. period to nearest 1/8". This drop is used to calculate percolation rate.

   b. If no water remains in hole after the saturation/ swelling period, add 6" of clear water above gravel. From a fixed point, measure the drop in water level to nearest 1/8" at 30 min. intervals for 4 hrs. Refill to the 6" level above gravel after each measurement. The drop that occurs during the last 30 min. of the 4 hrs. is used to calculate the percolation rate (when 3 consecutive percolation rates vary by no more than 10%, the test can stop before the end of 4 hr. period).

   c. In sandy soils, or other soils in which t he first 6" of water seeps away in less than 30 min., allow 10 min. between measurements and run the test for 1 hr. The drop that occurs during the last 10 min. of 1 hour is used to calculate the percolation rate. If 6" of water seeps away in less than 10 min., use a stopwatch.
5. Record test results on the front of this form. The average of the percolation rates calculated for all holes in 30 (10) min. will usually be the rate used to size the drainfield. Exceptions are the use of the slowest percolation rate when rates vary more than 20 mpi between holes or when other soil evaluation indicates a problem.

LLCHD reserves the right to witness or perform percolation tests and to required additional soil or groundwater information.

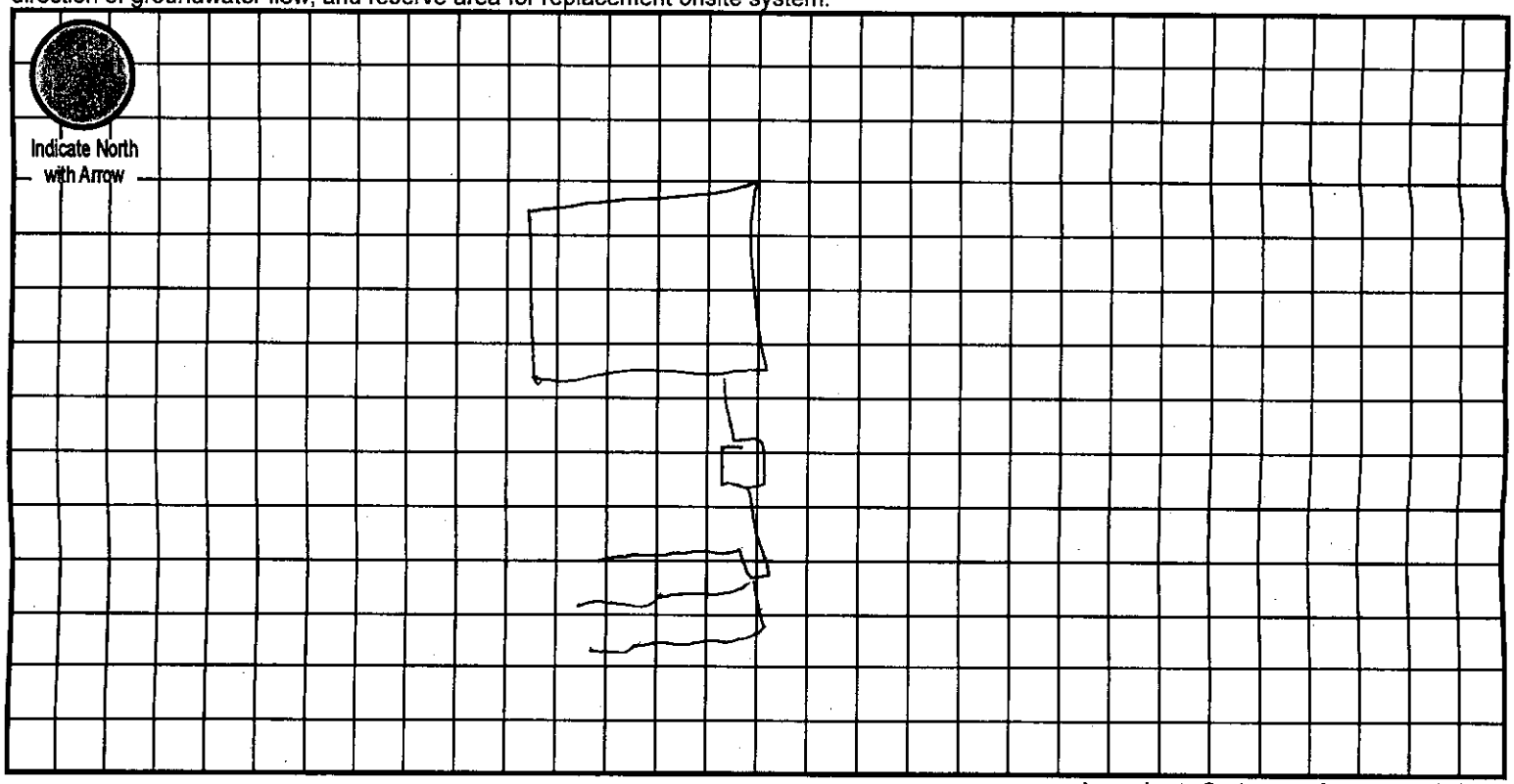
**Lincoln-Lancaster County Health Department**
Environmental Public Health Division
3131 O Street • Lincoln NE 68510-1514
Phone: 402-441-8643

**C**

Permit Number

# Onsite Wastewater Treatment System
# Preliminary Plan Specification

Draw a plot plan showing onsite system sewer lines, tank, drop or distribution boxes, drainfields, percolation test holes, well, residence, direction of groundwater flow, and reserve area for replacement onsite system.




Approximate Scale: ____ ft. = ____ grid line/s

## A. Onsite System Location

Address (no rural route) RD 15-16-103-CC1-CCC City Roca NE, Zip 68430

## B. Proposed Septic Tank/s

Septic Tank Cap. 1500 gals Tank Material: ☑ Concrete ☐ Plastic ☐ Other _____ ☐ Lagoon (Max. Seepage 1/8"/day)

## C. Reserve Area for Replacement Onsite System

☐ Drainfield Absorption Area (percolation test required) ☐ Lagoon

## D. Drainfield Absorption System

Percolation Rate 54 (min/inch = mpi) No. of Bedrooms 4 Soil Type Otoe Silty Clay Land Slope 1-3 %

☑ Trench ☐ Bed ☐ Non-standard (engineer-designed and NDEQ approved) Total square feet of drainfield 1440 Sq. Ft.

Total length of laterals 320 Type of Distribution: ☐ Perforated Pipe ☐ Half-Round ☐ Chambers ☑ Other EZ Flow

No. of Absorption Trenches 3 Width 36 in No. of Drop Boxes _____ Distribution Box 1

No. of Absorption Beds _____ Width _____ No. of Distribution Lines per Bed _____

Installer Marcus Hochstein Date: 8-5-19

Updated 2/18

**Lincoln-Lancaster County Health Department**
**Environmental Public Health Division (402) 441-8027**
**3131 O Street Lincoln, Nebraska 68510-1514**

**ON-SITE WASTE WATER SYSTEM**
**CONSTRUCTION - INSTALLATION PERMIT**
**No. HS001874**

**System Type:** Standard

**Situs:** 14960 S 59 ST, ROCA, NE 68430

Issued: 8/26/2019

Expires: 8/26/2020

**Description:** SILVERHAWK ESTATES ADDITION, BLOCK 3, Lot 1

**Owner:** SNB CONSTRUCTION II INC
3800 OLD CHENEY RD STE A
LINCOLN, NE 68516

Patricia D. Lopez

Patricia D. Lopez, RN, MSN, Interim Health Director

Dear Applicant:

The above document is your permit to construct a new On-site Waste Water System at the location listed. Please contact this office once the sytem is complete in order to schedule a final inspection before use.

Patricia D. Lopez

Patricia D. Lopez, RN, MSN
Interim Health Director

MARCUS HOCHSTEIN
PO BOX 142
EAGLE, NE 68347

Lincoln-Lancaster County Health Department
Environmental Public Health Division
3140 N Street • Lincoln NE 68510-1514
Phone: 402-441-8643

REC'D AUG 19 2019

SCANNED

A

Permit Number
HS001874

# Onsite Wastewater Treatment System Permit Application

Include Form B and C. Submit correct fee with this Application

☑ Septic System ☐ Lagoon ☐ Other (Refer to Form C)

**PLEASE PRINT OR TYPE**

## A. Onsite System Location

Address* 14960 S. 56th St (no rural route) City Raco, NE Zip 68430

Legal Description S16 T8 R7 Silverhawk Estates Add 3 1

1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID 15-16-103-001-000 *Approx. Address (If to be determined)

## B. Owner

Name SNB Construction Signature

Address 3800 Old Cheney Rd City/State/Zip Lincoln NE 68516

Home Phone Work Phone

## C. Certified Installer

Name: Marcus Hochstein Signature

Address PO Box 142 City/State/Zip Eagle NE 68347

Work Phone 402-730-7749

## D. Engineer

☐ **Check and complete if engineer designed system** P.E. License Number:

Designer Name Firm Work Phone

## E. This system will serve a

☑ Residential Dwelling Number of Bedrooms 4 Whirlpool Bathtub? ☐ Yes ☑ No Total Acres 3.01

Garbage Grinder? ☑ Yes ☐ No

☐ Commercial Establishment/Other Facility Specify Design flow in gallons per day

Type of Wastewater ☐ Domestic ☐ Non-Domestic

***DO NOT WRITE BELOW THIS LINE***

**Approval Process**

**1. Health Department**
Site visits 10/16/19 DS
Comments
Date rec'd 8/26/19
Date frwd 8/26/19
**ACTION** ☑ Approved ☐ Disapproved
Signature

**2. Supt. Bldg. Insp. or Village Clerk**
Comments
Date rec'd
Date frwd
**ACTION** ☑ Approved ☐ Disapproved
Signature

**3. City or County Engineer**
Comments
Date rec'd
Date frwd
**ACTION** ☐ Approved ☐ Disapproved
Signature

**Installation Final Written Approval**
By Doug Arnold
Date 10/21/19

***Business Office Use Only***
Date Received 8-20-19 Amount Paid $420.00
Received By MD Cash/Check No. 260

White - Health Department Yellow - Engineer Pink - Building & Safety

Form A Updated: 4/15

Lancaster County Health Department
Environmental Public Health Division
3140 N Street • Lincoln NE 68510-1514
Phone: 402-441-8643

Exhibit 5

Permit Number: H5001874

# Onsite Wastewater Treatment System

## Inspection Sheet

Date 10/21/19

Legal Description _____ ¼ ¼ Section/Township/Range

### Onsite System Location

Address (no rural route) 14960 S 59th City _____

Owner _____ Address _____

Mark One: ☒ Dwelling ☐ Non-dwelling

☒ New System ☐ Alteration [☐ Tank Only ☐ Trench Only] ☐ Lateral Only

☐ Temporary modification (Describe problem causing discharge and reason for temporary modification): _____

### Drainfield Absorption System:

☒ Lateral ☐ Bed ☐ Non-standard (engineer-designed and NDEQ approved) ☐ Holding Tank ☐ Trench

Total square feet of drainfield 1,440 Sq. Ft. Tank Size 1,500 gals

Total length of laterals 320' Type of Distribution: ☐ Chamber ☐ Perforated Pipe ☒ Other (describe) E2 Flow

No. of Absorption Laterals 4 Width 4.5 Facts No. of Drop Boxes _____ Distribution Box 1

Leveling Method Used Laser

### Setbacks (Check the Boxes Below if the Required Setback has been Satisfied):

| Distance From | Private Well | Public Well | Surface Water | Ground water | Pressure Water Lines | Property Lines |
|---|---|---|---|---|---|---|
| Tank (ft) | 50 ☐ | 500 ☐ | 50 ☐ | NA ☐ | 10 ☐ | 5 ☐ |
| Field (ft) | 100 ☐ | 500 ☐ | 50 ☐ | 4 ☐ | 5 ☐ | 5 ☐ |

Geographical Coordinates to 6 Decimals:

Tank _____

Lateral #1 NA Lateral #3 _____

Lateral #2 _____ Lateral #4 _____

Comments:

Inspections prior to Final Approval
Initial DL Date 10/16/19

Follow-Up _____ Date _____

Follow-Up _____ Date _____

Installation Final Written Approval
By Doug Lee
Date 10/21/19

Field Note Drawing (See Reverse Side):

Updated 4/15

**Nate C. Hartman**

**From:** Diane Van Deun <villageofroca@gmail.com>
**Sent:** Wednesday, August 21, 2019 12:16 PM
**To:** Nate C. Hartman
**Subject:** New Build

Hi Nate,

Heads up on Lot 1 Block 3 in Silverhawk Estates Addition. I received the permit for a new build yesterday. This is approved by me and please let me know the number when processed.
SNB Construction - Nick Fowler address is: 14960 S 59th St, Roca.

Hope all is well!

Thank you,
Diane Van Deun
Village of Roca Clerk/Treasurer
Equal Opportunity Provider and Employer
villageofroca@gmail.com
http://villageofroca.com/
402-421-9577