Lincoln-Lancaster County Health Department
Environmental Public Health Division (402) 441-8027
3140 N Street Lincoln, Nebraska 68510-1514

ON-SITE WASTE WATER SYSTEM
CONSTRUCTION - INSTALLATION PERMIT
No. HS000817

System Type: Standard

Situs: 8600 ROCA RD, RURAL, NE

Issued: 9/23/2013

Expires: 9/23/2014

Description: S14, T8, R7, 6th Principal Meridian, LOT 23 SW

Owner: RAYMOND, CURTIS GREG & JULIE A
5204 W 131 ST
LEAWOOD, KS 66209

Judith A Halstead
Judith A. Halstead, MS, 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.

Judith A Halstead
Judith A. Halstead, MS
Health Director

GAGNER CONSTRUCTION
4810 W. CLAIRE AVE
LINCOLN, NE 68523-9324

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

A

Permit Number
HS000817

Onsite Wastewater Treatment System
Request for Site Clearance and Permit

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

3 acres or more required for: ☐ Septic System ☐ Lagoon ☐ Other (Refer to Form C)

The undersigned hereby requests site clearance and permit to construct a Wastewater Treatment System in conformance with appropriate regulations.

PLEASE PRINT OR TYPE

A. Onsite System Location

Address 8600 Roca Rd (no rural route) City Roca, NE Zip

Legal Description 14 - 8 - 7 23
1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID

B. Owner

Name Greg & Julie Raymond Signature

Address City/State/Zip

Home Phone Work Phone

C. Certified Installer

Name: Melvin Gegner Signature

Address 4810 W Claire Ave City/State/Zip Lincoln Ne 68523

Work Phone

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 5 Whirlpool Bathtub? ☒ Yes ☐ No Total Acres 10.5
Garbage Grinder? ☒ Yes ☐ No

☐ Commercial Establishment/Other Facility Specify Design flow in gallons per day 600

Type of Wastewater ☐ Domestic ☐ Non-Domestic

DO NOT WRITE BELOW THIS LINE

Approval Process ☐ Municipal Code 24.38 ☒ County Resolution No. 02-30

1. Health Department
Site visits
Comments
Date rec'd 9/20/13
Date frwd 9/20/13
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
Date

Business Office Use Only
Date Received 9-20-13 Amount Paid $355.00
Received By BTull Cash/Check No. 7307

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

Lincoln-Lancaster County Health Department (LLCHD)
Environmental Public Health Division
3140 "N" Street • Lincoln, NE 68510-1514
Phone: 402-441-8022

B

Permit Number:

Onsite Wastewater Treatment System

Soil Evaluation Report

PLEASE PRINT OR TYPE

Onsite System Location

Address 8600 Roca Rd. (no rural route) City _____ NE, Zip _____

Owner Gregg Julie Raymond Address _____

Date of Tests 8-6-13 to 8-7-13 Weather: Precipitation 0 Temperature 75°

Percolation Test Data Table

A.	B.	C. D. E. F. Saturation/Swelling Time				G. H. I. J. K. Last 30 mins of 4 hr or last 10 mins of 1 hr Water Level Drop					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	30	8-6	1:00	8-7	1:30	8-7	1:45	6	8-7	2:15	30 min	½	60
2	31	"	"	"	"	"	"	6	"	"	"	1¼	24
3	33	"	"	"	"	"	"	6	"	"	"	½	60
4	31	"	"	"	"	"	"	6	"	"	"	¾	40
5	32	"	"	"	"	"	"	6	"	"	"	½	60
6	32	"	"	"	"	"	"	6	"	"	"	½	60
								6					
								6					

Person Conducting Percolation Test

Name: Melvin Gagner
Phone: 402 432 5698
Address 4810 W Claire Ave
Lincoln Ne 68523
Soil type (NRCS Maps/Other) 7684
Groundwater Depth _____

Sum of Percolation Rates: _____
Average of Rates: _____
Rate Used for Calculation: 60 mpi

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Comments (Soil type, groundwater, floodplain, etc.) _____
1 Wetzel Conductor at 60 mpi 522 9/20

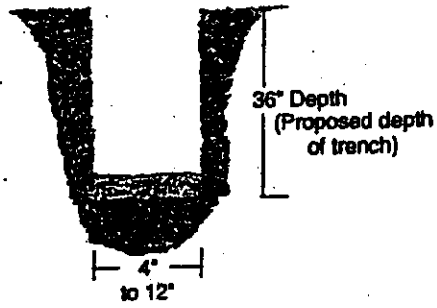
Signature of Reviewing Official _____ Date 9/20/13

READ THOROUGHLY

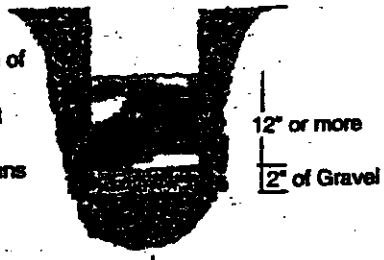
DIAGRAM OF PERCOLATION TEST PROCEDURE

Finished Grade or Natural Ground Level

I. Size, Number, and Location or Test Holes
   - A. Dig six or more holes spaced uniformly over proposed lateral field site.
   - B. Scratch smeared spots on sides of hole.
   - C. Remove loose material from hole.
   - D. Add 2" of gravel to hole.

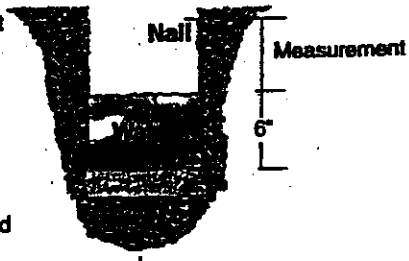


II. Saturation of Soil (Pre-soak)
   - A. Fill hole with 12" or more of water.
   - B. MAINTAIN THIS WATER LEVEL FOR 4 HOURS.
   - C. Record on Form B columns a thru f.



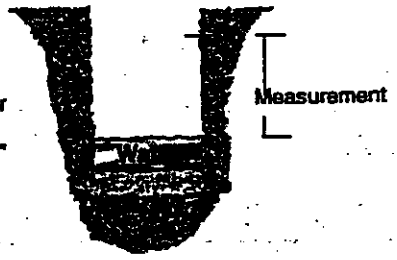
24 Hours Later

III. Percolation-rate Measurement (refer to instructions 5a, 5b, or 5c.)
   - A. Add 6" of water.
   - B. Measure from fixed reference point (nail) to water.
   - C. Record measurement and time on front of Form B.



½ hour later (30 minutes)

   - D. 30 minutes later remeasure and record time.
   - E. If water will be too low for another reading 30 minutes later, adjust to 6" of water and remeasure and record time.



   - F. Continue for 3½ hours taking readings every 30 minutes.
   - G. Last 30 minute reading is used in filling out Form B. Record date, time, intervals and water level drops in column g thru m.

Instructions

1. **Number and location of tests.** Percolation tests shall be made in 6 or more separate test holes which shall be spaced uniformly over the proposed lateral field site.
2. **Type of test hole.** Dig or bore a hole 3 feet deep with a diameter of 4 to 12 inches. (To save time, labor and the volume of water required per test, a 4-inch auger hole is recommended).
3. **Preparation of the test hole.** Scratch or roughen any smeared spots on the sides of the hole with a knife blade or sharp pointed instrument to provide a natural soil interface into which water may percolate. Remove all loose material from the hole. Add 2 inches of gravel to protect the bottom from scouring when water is poured into the hole.
4. **Saturation and swelling of the soil.** Fill the hole with clear water to a depth of 12 inches or more above the gravel and maintain this water level at least 4 hours and preferably overnight. The accuracy and true value of the percolation data depends on thorough saturation and swelling of the soil.
5. **Percolation-rate measurement.** Percolation-rate measurements shall be made 24 hours after starting the saturation and swelling procedure described above. Record results on the front of this form and complete all calculations.
   a. If water remains in the test hole after the overnight swelling period, adjust the depth to approximately 6 inches over the gravel. From a fixed reference point, measure the drop in water level over a 30 minute period to the nearest 1/8 of an inch. This drop is used to calculate the percolation rate.
   b. If no water remains in the test hole after the overnight swelling period, add clear water to bring the depth to approximately 6 inches over the gravel. From a fixed point, measure the drop in water level to the nearest 1/8 of an inch at 30-minute intervals for 4 hours. Refill to the 6 inch level over the gravel as often as necessary. The drop that occurs during the final 30 minutes is used to calculate the percolation rate.
   c. In sandy soils (or other soils in which the first 6 inches of water seeps away in less than 30 minutes after the overnight swelling period) the time interval between measurements shall be 10 minutes instead of 30 minutes and the test run for 1 hour instead of 4 hours. The drop that occurs during the final 10 minutes is used to calculate the percolation rate.
6. **Record the test results and complete all calculations on the front of this form.** The average of the percolation rates calculated for all holes in the last 30 (10) minutes will normally be the rate used for calculations to size the system. ***Exceptions are the use of the greatest percolation rate when rates vary more than 20 min/in between holes or when other soil analysis indicates potential percolation problems.***

LLCHD reserves the right to require additional testing based on knowledge of soil types, percolation tests results on nearby properties, or due to concerns with procedures followed. In some situations, LLCHD staff will require and perform on-site observation of percolation tests.

Lincoln-Lancaster County Health Department
Environmental Public Health Division
3140 "N" Street • Lincoln, NE 68510-1514
Phone: 402-441-8022

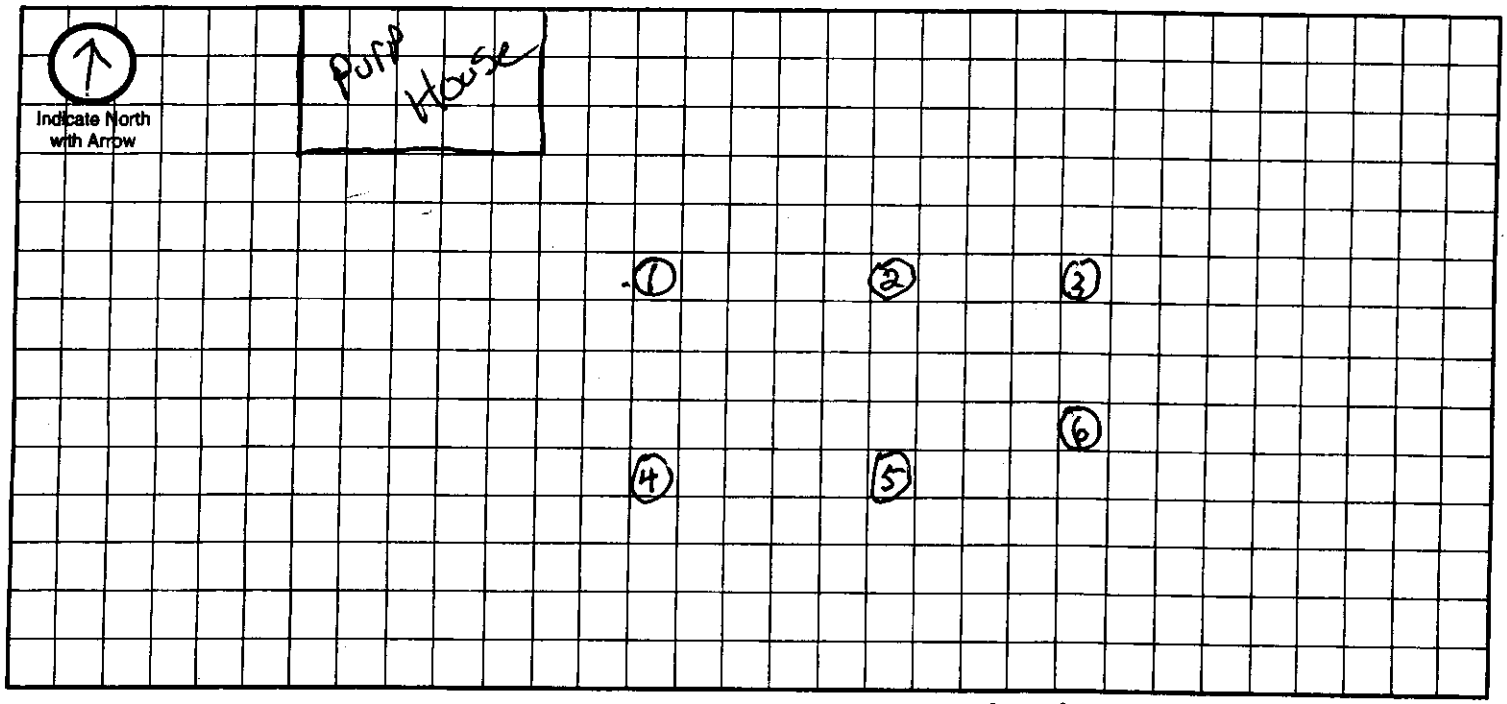
C

Permit Number:

Onsite Wastewater Treatment System

Preliminary Plan Specifications

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



Approximate Scale: _____ft. = _____ **grid line/s**

A. Onsite System Location

Address (no rural route) 8600 Roca Rd City _____ NE, Zip _____

B. Proposed Septic Tank/s

Septic Tank Cap._____ gals Tank Material: ☒ Concrete ☐ Plastic ☐ Other_____ ☐ Lagoon(Max. seepage 1/8" per day)

C. Reserve Area for Replacement Onsite System

☐ Drainfield Absorption Area (percolation test required) ☐ Lagoon

D. Drainfield Absorption System

Percolation Rate_____ (min/inch = mpi) No. of Bedrooms_____ Soil Type_____ Land Slope_____%

☐ Trench ☐ Bed ☐ Non-Standard (engineer designed and NDEQ approved Total Square feet of drainfield_____sq.ft.

Total length of laterals_____ Type of distribution: ☐ Perforated pipe ☐ Half-Round ☐ Chamber ☐ Other

No. of absorption trenches_____ Width_____ No. of drop boxes_____ Distrubtion Box_____

No. of absorption beds_____ Width_____ No of Distribution lines per bed_____

E. Setbacks Check the Boxes Below if the Required Setback has been Satisfied

Distance From	Private Well	Public Well	Surface Water	Gound Water	Pressure Water Lines	Property Lines	Foundations Yours	Foundations Neighbors	All Other Setbacks
Tank (ft)	50 ☐	500 ☐	50 ☐	NA ☐	25 ☐	20 ☐	15 ☐	25 ☐	☐
Field (ft)	100 ☐	500 ☐	50 ☐	4 ☐	30 ☐	20 ☐	30 ☐	40 ☐	☐
Lagoon (ft)	100 ☐	500 ☐	50 ☐	N/A ☐	30 ☐	50 ☐	100 ☐	200 ☐	☐

F. Required Signatures

Home Building Contractor _____ Date _____

Installer _____ Date _____

SCANNED

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

A

Permit Number
HS0000817

Onsite Wastewater Treatment System
Request for Site Clearance and Permit

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

3 acres or more required for: ☐ Septic System ☐ Lagoon ☐ Other (Refer to Form C)

The undersigned hereby requests site clearance and permit to construct a Wastewater Treatment System in conformance with appropriate regulations.

PLEASE PRINT OR TYPE

A. Onsite System Location

Address 8600 Roca Rd (no rural route) City Roca, NE Zip

Legal Description 14 - 8 - 7 - 23

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

PID

B. Owner

Name Greg & Julie Raymond Signature

Address City/State/Zip

Home Phone Work Phone

C. Certified Installer

Name: Melvin Gagner Signature

Address 4810 W Claire Ave City/State/Zip Lincoln Ne 68523

Work Phone

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 5 Whirlpool Bathtub? ☒ Yes ☐ No Total Acres 10.5

Garbage Grinder? ☒ Yes ☐ No

☐ Commercial Establishment/Other Facility Specify Design flow in gallons per day 600

Type of Wastewater ☐ Domestic ☐ Non-Domestic

DO NOT WRITE BELOW THIS LINE

Approval Process ☐ Municipal Code 24.38 ☑ County Resolution No. 02-30

1. Health Department
Site visits
Comments
Date rec'd 9-20-13
Date frwd 9/20/13
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 Mueller
Date 4/10/14

Business Office Use Only
Date Received 9-20-13 Amount Paid $355.00
Received By BTB Cash/Check No. 7307

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

Form A Updated: 1/13

HEALTH DEPARTMENT

LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT
LAGOON/SEPTIC INSPECTION REPORT

Permit No. H5000817 Certified Installer: Mel Gagner

Address: 8600 Roca Rd.

Circle compliance status for each item. **IN = in compliance OUT = not in compliance NA = not applicable NO = not observed**

LAGOON SETBACKS

				Item	MIN. SETBACK DISTANCE – FT. (METERS)	COMMENTS
IN	OUT	NA	NO	Surface Wtr. Distance from Wtr. Mark	50 ft. (15.2 m)	
IN	OUT	NA	NO	Private Drinking Water Wells	100 ft. (30.5 m)	
IN	OUT	NA	NO	Public Drinking Water Supply Wells:		
IN	OUT	NA	NO	Non-Community	100 ft. (30.5 m)	
IN	OUT	NA	NO	Community	Evaluated by a professional engineer for potential impact on the well and submitted to the Dept. for approval if less than 1000 ft. (304.8 m)	
IN	OUT	NA	NO	All Other Water Wells	100 ft. (152.4 m)	
IN	OUT	NA	NO	Water Lines:		
IN	OUT	NA	NO	Pressure Main	25 ft. (7.6 m)	
IN	OUT	NA	NO	Pressure-Service Connection	25 ft. (7.6 m)	
IN	OUT	NA	NO	Suction Line	100 ft. (30.5 m)	
IN	OUT	NA	NO	Property Lines	50 ft. (15.2 m)	
IN	OUT	NA	NO	Trees and Brush	50 ft. (15.2 m)	
IN	OUT	NA	NO	Foundations: (see definition above)		
IN	OUT	NA	NO	Except Neighbor's Foundation:		
IN	OUT	NA	NO	Class 1	100 ft. (30.5 m)	
IN	OUT	NA	NO	Class 2	100 ft. (30.5 m)	
IN	OUT	NA	NO	Class 3	50 ft. (15.2 m)	
IN	OUT	NA	NO	Neighbor's Foundation:		
IN	OUT	NA	NO	Class 1	200 ft. (61.0 m)	**Lagoon Dimensions:**
IN	OUT	NA	NO	Class 2	200 ft. (61.0 m)	
IN	OUT	NA	NO	Class 3	100 ft. (30.5 m)	

TANK AND SOIL ABSORPTION SYSTEM SETBACKS

				Item	MIN. SETBACK DISTANCE – FT. (METERS) Tanks	Absorption, Infiltrative & Evaporative Systems	COMMENTS
IN	OUT	NA	NO	Surface Water	50 ft. (15.2 m)	50 ft. (15.2 m)	
IN	OUT	NA	NO	Private Drinking Water Wells	50 ft. (15.2 m)	100 ft. (30.5 m)	
IN	OUT	NA	NO	Public Drinking Water Supply Wells:			
IN	OUT	NA	NO	Non-Community System	50 ft. (15.2 m)	100 ft. (30.5 m)	
IN	OUT	NA	NO	Community System	500 ft. (152.4 m)	500 ft. (152. 4 m)	
IN	OUT	NA	NO	Community System when a septic system or soil absorption system of > 1000 gpd is proposed	500 ft. (152.4 m)	Evaluated by professional engineer for potential impact on the well and submitted to the Depart. for approval if less than 1000 ft.	
IN	OUT	NA	NO	All Other Water Wells	50 ft. (15.2 m)	100 ft. (30.5 m)	
IN	OUT	NA	NO	Water Lines:			
IN	OUT	NA	NO	Pressure-Main	10 ft. (3.1 m)	25 ft. (7.6 m)	
IN	OUT	NA	NO	Pressure-Service – Connection	10 ft. (3.1 m)	25 ft. (7.6 m)	
IN	OUT	NA	NO	Suction Lines	50 ft. (15.2 m)	100 ft. (30.5 m)	
IN	OUT	NA	NO	Property Lines	5 ft. (1.5 m)	5 ft. (1.5 m)	
IN	OUT	NA	NO	Parking area, driveway, sidewalk or other impermeable surface or cover	5 ft. (1.5 m)	5 ft. (1.5 m)	
IN	OUT	NA	NO	Foundations: (see definitions above)			
IN	OUT	NA	NO	Except Neighbor's Foundation:			
IN	OUT	NA	NO	Class 1	15 ft. (4.6 m)	30 ft. (9.1 m)	
IN	OUT	NA	NO	Class 2	10 ft. (3.1 m)	20 ft. (6.1 m)	**Septic Tank Size:** 2000
IN	OUT	NA	NO	Class 3	7 ft. (2.1 m)	10 ft. (3.1 m)	
IN	OUT	NA	NO	Neighbor's Foundation:			
IN	OUT	NA	NO	Class 1	25 ft. (7.6 m)	40 ft. (12.2 m)	**Lateral Sq. Footage:**
IN	OUT	NA	NO	Class 2	20 ft. (6.1 m)	30 ft. (9.1 m)	
IN	OUT	NA	NO	Class 3	15 ft. (4.6 m)	20 ft. (6.1 m)	1750 sq. ft.

Inspected By: Doug Smith **Date:** 4/10/14