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

A

Permit Number
HSDO2354

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* 6420 N 148th (no rural route) City Lincoln, NE Zip 68527

Legal Description S/W 34 11N 8 16
1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID _____ *Approx. Address (If to be determined) _____

B. Owner

Name Dan Hartshorn Signature _____

Address 7310 Willow Ave City/State/Zip Lincoln, NE 68507

Home Phone 402-890-2120 Work Phone _____

C. Certified Installer

Name: Harry Mulbach Signature Harry Mulbach

Address 1421 N 56 St City/State/Zip Lincoln, NE 68517

Work Phone 402-430-7304

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 3 Whirlpool Bathtub? ☐ Yes ☒ No Total Acres 5.2
Garbage Grinder? ☐ Yes ☒ No

☐ Commercial Establishment/Other Facility Specify _____ Design flow in gallons per day 400

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 1-21-22 Amount Paid 450.00
Received By LC Cash/Check No. Cash

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 _____ City _____ NE, Zip _____
(no rural route)

Owner _____ Address _____

Date of Tests _____ to _____ Weather: Precipitation _____ Temperature _____

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		Initial	End				
Hole No.	Hole Depth(in)	Date (Mo/Da)	Time (Hr/Min)	Date (Mo/Da)	Time (Hr/Min)	Date (Mo/Da)	Time (Hr/Min)	Water Lev (in.)	Date (Mo/Da)	Time (Hr/Min)	Elapsed Time Interval	Water Level Drop(in)	Percolation Rates (Min/in = mpi)
								6					
								6					
								6					
								6					
								6					
								6					
								6					
								6					

Person Conducting Percolation Test

Name: _____

Phone: _____

Address _____

_____

Sum of Percolation Rates: _____

Average of Rates: _____

Rate Used for Calculation: _____

Soil type (NRCS Maps/Other) _____

Groundwater Depth _____

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

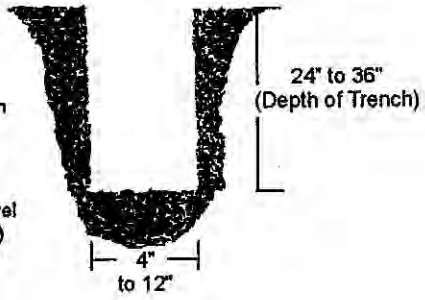
I. Number, Size and Location of Test Holes

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.



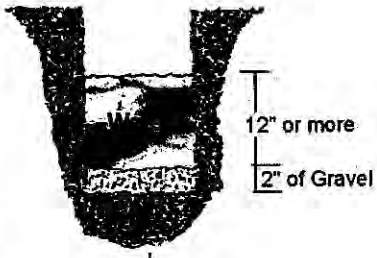
II. Saturation/Swelling of Soil

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.

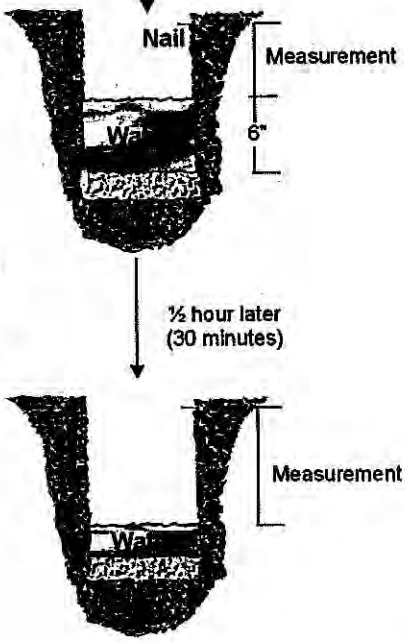
C. Record measurement and time on scratch paper.

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.



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.

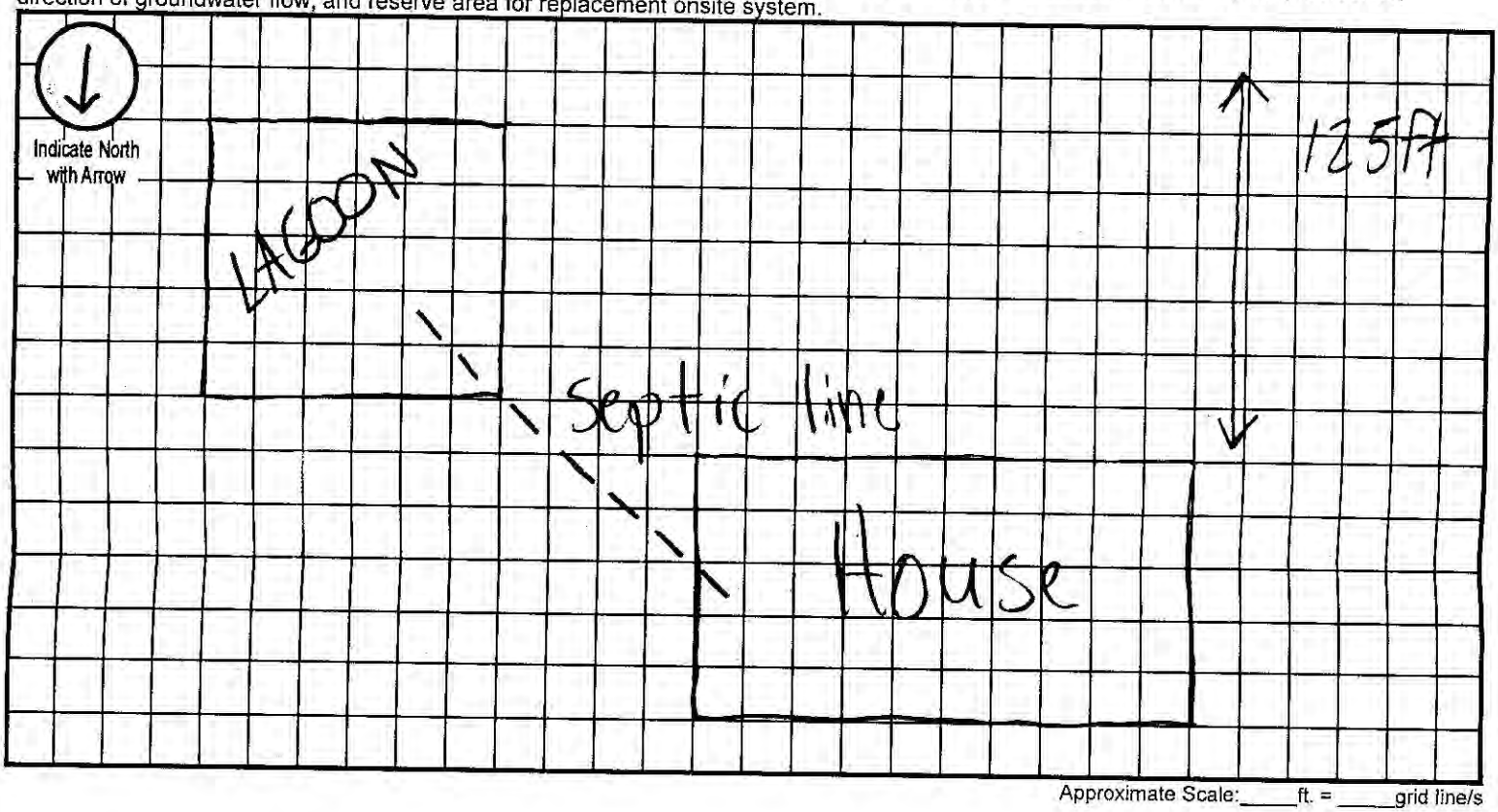
Lincoln-Lancaster County Health Department
Environmental Public Health Division
3131 O Street • Lincoln NE 68510-1514
Phone: 402-441-8643

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) _____ City _____ NE, Zip _____

B. Proposed Septic Tank/s

Septic Tank Cap._____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_____(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 ❑ Chambers ❑ Other _____

No. of Absorption Trenches _____ Width _____ No. of Drop Boxes _____ Distribution Box _____

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

Installer _____ Date: _____

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. HS002354

System Type: Lagoon

Situs: No Site Address Specified

Issued: 1/27/2022

Expires: 1/27/2023

Description:

Owner: HARTSHORN, DAN
7310 WILLOW AVE
LINCOLN, NE 68516

Patricia D. Lopez

Patricia D. Lopez, RN, MSN, 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
Health Director

HARRY MUHLBACH
14277 N 56 ST
LINCOLN, NE 68513

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

SCANNED

A

Permit Number
HSDO2354

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* 6420 N 148th (no rural route) City Lincoln, NE Zip 68527

Legal Description S/W 34 11N 8 16
1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID _____ *Approx. Address (If to be determined) _____

B. Owner

Name Dan Hartshorn Signature _____

Address 7310 Willow Ave City/State/Zip Lincoln, Ne 68507

Home Phone 402-890-2120 Work Phone _____

C. Certified Installer

Name: Harry Mullback Signature Harry Mullback

Address 1421A N 56 ST City/State/Zip Lincoln, Ne 68513

Work Phone 402-430-7304

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 3 Whirlpool Bathtub? ☐ Yes ☒ No Total Acres 5.2
Garbage Grinder? ☐ Yes ☒ No

☐ Commercial Establishment/Other Facility Specify _____ Design flow in gallons per day 400

Type of Wastewater ☐ Domestic ☐ Non-Domestic

5.04

DO NOT WRITE BELOW THIS LINE

Approval Process

1. Health Department
Site visits _____
Comments _____
Date rec'd 1/27/22
Date frwd 1/27/22
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 1-21-22 Amount Paid 450.00
Received By LC Cash/Check No. Cash

1-27-22 #14500 CC0968 LC

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

Form A Updated: 4/15

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

ON-SITE WASTE WATER SYSTEM
CONSTRUCT/ INSTALL EXTENSION PERMIT
No. HS002354

System Type: Lagoon

Situs: No Site Address Specified

Issued: 1/28/2023

Expires: 7/27/2023

Description:

Owner: HARTSHORN, DAN
7310 WILLOW AVE
LINCOLN, NE 68516

Patricia D. Lopez

Patricia D. Lopez, RN, MSN, 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.

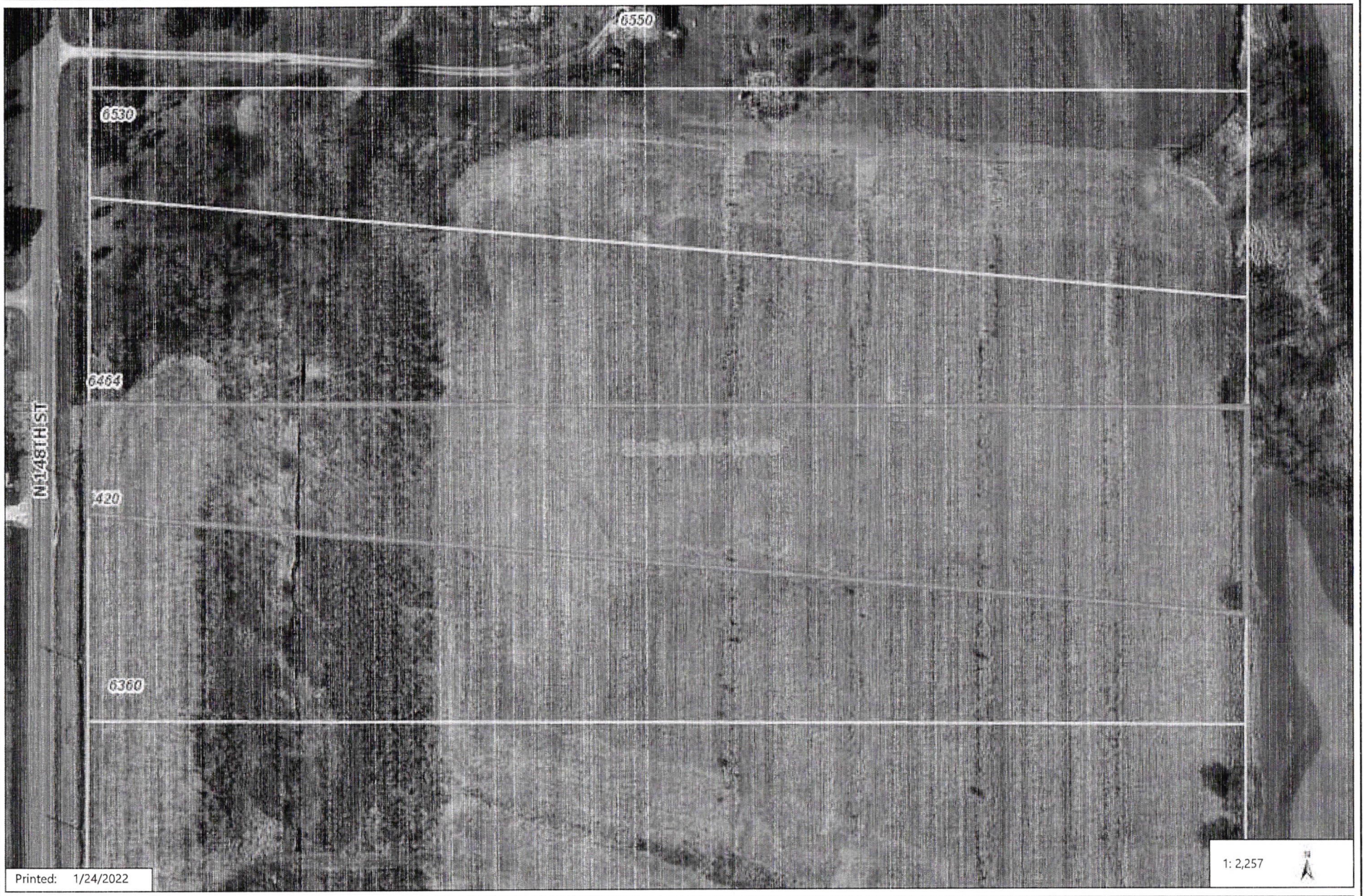
Patricia D. Lopez

Patricia D. Lopez, RN, MSN
Health Director

HARRY MUHLBACH
14277 N 56 ST
LINCOLN, NE 68513

GIS Viewer
CITY OF LINCOLN - LANCASTER COUNTY, NE

City of Lincoln\Lancaster County GIS Map

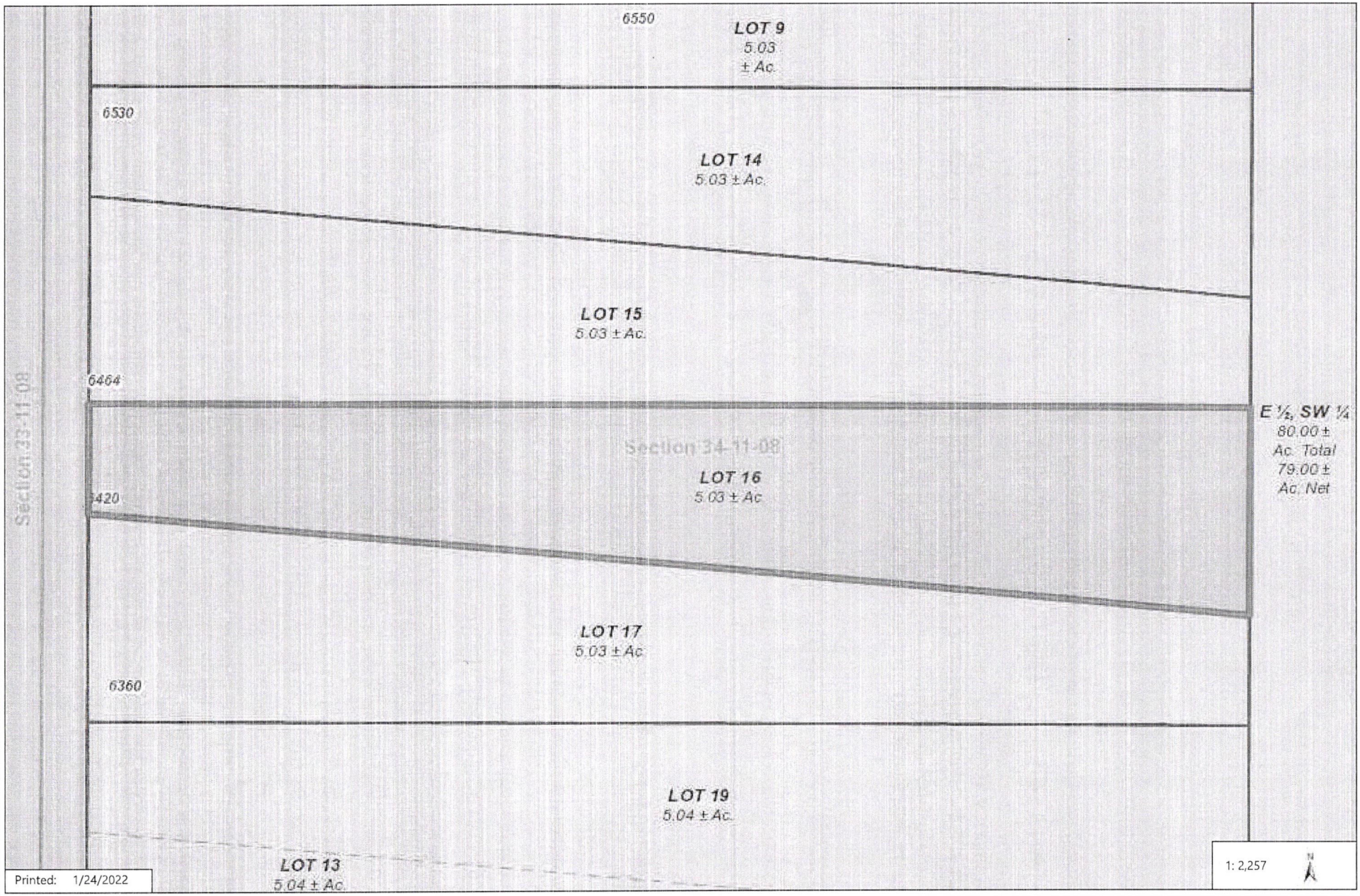


Printed: 1/24/2022

Disclaimer: The information is presented on a best-efforts basis, and should not be relied upon for making financial, survey, legal or other commitments. If you have questions or comments regarding the data displayed on this map, please email assessor@lancaster.ne.gov and you will be directed to the appropriate department.

GIS Viewer
CITY OF LINCOLN - LANCASTER COUNTY, NE

City of Lincoln\Lancaster County GIS Map



Printed: 1/24/2022

Disclaimer: The information is presented on a best-efforts basis, and should not be relied upon for making financial, survey, legal or other commitments. If you have questions or comments regarding the data displayed on this map, please email assessor@lancaster.ne.gov and you will be directed to the appropriate department.

Description Number	Description

A part of Lot 6, irregular tracts, in the W½SW¼ of Section 34, Township 11 North, Range 8 East of the 6th Principal Meridian, Lancaster County Nebraska, more particularly described as follows:

Commencing at the northwest corner of the said W½SW¼; thence easterly, along the north line of the said W½SW¼, a distance of 50.0 feet; thence southerly, parallel with and 50.0 feet easterly from the west line of the said W½SW¼, a distance of 1163.97 feet, to the point of beginning; thence on an angle of 85°13'12.9" left, a distance of 1272.12 feet, to a point on the east line of the said W½SW¼; thence southerly, along the east line of the said W½SW¼, a distance of 120.0 feet; thence westerly, on an angle of 90°02'53.7" right, a distance of 1267.80 feet, to a point 50.0 feet easterly from the west line of the said W½SW¼; thence northerly, parallel with and 50.0 feet easterly from the west line of the said W½SW¼, a distance of 226.0 feet to the point of beginning.

Containing 5.03 Acres, more or less.

19417 Lot 16 of irregular tracts in the SW¼ of Section 34, Township 11 North, Range 8 East

September 10, 1980 79-189

A part of Lot 6, irregular tracts, in the W½SW¼ of Section 34, Township 11 North, Range 8 East of the 6th Principal Meridian, Lancaster County Nebraska, more particularly described as follows:

Commencing at the northwest corner of the said W½SW¼; thence easterly, along the north line of the said W½SW¼, a distance of 50.0 feet; thence southerly, parallel with and 50.0 feet easterly from the west line of the said W½SW¼, a distance of 1043.97 feet, to the point of beginning; thence easterly, on an angle of 90°00' left, a distance of 1267.51 feet, to a point on the east line of the said W½SW¼; thence southerly, along the east line of the said W½SW¼, a distance of 226.0 feet; thence westerly, on an angle of 85°16'06.6" right, a distance of 1272.12 feet, to a point 50.0 feet easterly

Description Number	Description	

50.0 feet easterly from the west line of the said W½SW¼ a distance of 120.0 feet, to the point of beginning.

Containing 5.03 Acres, more or less.

19418 Lot 15 of irregular tracts in the SW¼ of Section 34, Township 11 North, Range 8 East

September 10, 1980 79-1900

A part of Lot 6, irregular tracts, in the W½SW¼ of Section 34, Township 11 North, Range 8 East of the 6th Principal Meridian, Lancaster County Nebraska, more particularly described as follows:

Commencing at the northwest corner of the said W½SW¼; thence easterly, along the north line of the said W½SW¼, a distance of 50.0 feet; thence southerly, parallel with and 50.0 feet easterly from the west line of the said W½SW¼, a distance of 817.97 feet, to the point of beginning; thence southeasterly, on an angle of 85°13'09" left, a distance of 1271.83 feet, to a point on the east line of the said W½SW¼; thence southerly, along the east line of the said W½SW¼, a distance of 120.0 feet; thence westerly, on an angle of 90°02'53.7" right, a distance of 1267.51 feet, to a point 50.0 feet easterly from the west line of the said W½SW¼; thence northerly, parallel with and 50.0 feet easterly from the west line of the said W½SW¼, a distance of 226.0 feet, to the point of beginning.

Containing 5.03 Acres, more or less.

19419 Lot 14 of irregular tracts in the SW¼ of Section 34, Township 11 North, Range 8 East

September 10, 1980 79-1901

A part of Lot 6, irregular tracts, in the W½SW¼, of Section 34, Township 11 North, Range 8 East of the 6th Principal Meridian, Lancaster County Nebraska, more particularly described as follows:

Commencing at the northwest corner of the said W½SW¼; thence easterly