Thompson Dreessen & Dorner, Inc. Consulting Engineers 10836 Old Mill Road Omaha NE	PERCOLATION TEST WORKSHEET	Date drilled: By: Date Readings Taken: By:
Client: Choice Homes	Location: Lot 2 [illegible] Watering Hole	Job No.: 1968-00

		Test Hole #1 Depth = 72 in. Dia. = 6 in.		Test Hole #2 Depth = 72 in. Dia. = 6 in.		Test Hole #3 Depth = 48 in. Dia. = 6 in.	
Time	Change in Time (min.)	Reading (inches)	Change in Water Level (inches)	Reading (inches)	Change in Water Level (inches)	Reading (inches)	Change in Water Level (inches)
11:30	10 min	6	6 1/2	6	2 3/4	6	2 1/2
:40		2 3/4 6		3 1/4 6		3 1/2 6	
50		6 6	2	6 6	2 1/4	6 6	2
12:00		6 6	3 1/2	6 6	3 1/2	6 6	3 1/2
10		6 6		6 6	1 1/2	6 6	1 1/2
20		6 6		6 6		6 6	
30		6 6	3 1/2	6 6		6 6	3 1/2
40		6 6	1/2	6 6	3 1/2	6 6	1/2
50		6 6	1/2	6 6	1/2	6 6	3 1/2
1:00		6 6		6 6	1/2	6 6	1/2
10		6 6	1/2	6 6	1/2	6 6	1/2
20		6 6	1 1/2	6 6	3/4	6 6	1 1/4

Percolation Rate: Min./ In. Min./ In. Min./ In.

Soil Description in 10' Deep Boring:

0 - 1 1/2 Dark Brown [illegible] Topsoil

1 1/2 - 10 Light [illegible] Brown [illegible] Clay

Sketch of the test hole locations on the back of this worksheet

March 19, 2015

Choice Homes
Mr. Chad Bumsted
1221 E Pierce St. Suite 300
Council Bluffs, IA 51503

RE: Percolation Test
Lot 2, Block 3, Whispering Creek 1st Addition.
Lancaster County, Nebraska
TD2 File No. 1968-109.1

Three percolation tests were performed at the above-referenced location at your request:

Test Hole No. 1 was located 45 feet east of the southeast corner of the proposed house.
Test Hole No. 2 was located 40 feet south and 45 feet east of the southeast corner of the proposed house.
Test Hole No. 3 was located 80 feet south and 45 feet east of the southeast corner of the proposed house.

The test holes had percolation rates of 24 minutes per inch, 27 minutes per inch and 30 minutes per inch respectively, indicating that the soils in the area tested are suitable for installation of a conventional septic system lateral field.

A boring was located between the test holes and was drilled to a depth of 10 feet. Dark brown silty clay was found to a depth of 1.5 feet, followed by light yellow brown silty clay.

No free groundwater was found at the time the boring was drilled.

These tests were performed by a professional Soil Evaluation as certified by the Nebraska Department of Environmental Quality. The tests were performed in accordance with procedures outlined in current State of Nebraska Department of Environmental Quality regulations concerning soil percolation tests. The soil was tested at normal lateral field depth in the locations described above. If there are changes in the proposed lateral field location, or if site grading is done after the test date, retesting may be necessary.

This report has been prepared for the exclusive use of our client in accordance with generally-accepted geotechnical engineering practices. We would like to emphasize that improper construction methods, improper use of the system, and improper maintenance of the system are beyond our control and, therefore, no other warranty, expressed or implied, is made.

For your information, we have enclosed a copy of a NebGuide published by the Cooperative Extension Service, Institute of Agriculture and Natural Resources of the University of Nebraska-Lincoln, entitled Residential Onsite Wastewater Treatment: Septic Tank and Drainfield Maintenance.

This publication outlines important information concerning the proper use and maintenance of septic tanks and absorption fields. As the publication indicates, it is critical that the tank be inspected periodically and pumped when excessive solids accumulate so that the absorption field can function properly. Misuse of the system or failure to properly maintain the system can result in system failure and the need to replace the absorption field.

We suggest that this information be made available to all system users to help emphasize the need for responsible use of the system and to inform them that maintenance is critical for the proper operation of the onsite sewage treatment system.

If you have any questions pertaining to this report, please contact the undersigned.

Respectfully submitted,

Charles E. Riggs, P.E.
THOMPSON, DREESSEN & DORNER, INC.

CER/bre

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. HS001060

System Type: Standard

Situs: No Site Address Specified

Issued: 4/30/2015

Expires: 4/30/2016

Description: WHISPERING CREEK 1ST ADDITION, BLOCK 3, Lot 2

Owner: ACKERMAN, JENNIFER A
REVOCABLE TRUST
7821 AMELIA DR
LINCOLN, NE 68516

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

CHOICE HOMES LLC
1221 E PIERCE ST #300
COUNCIL BLUFFS, IA 51503

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

OK 11/9/16 JP

Exhibit 5

Permit Number: H500 1060

Onsite Wastewater Treatment System

Inspection Sheet Whispering Creek 1st Add.

Date 11/7/16 Legal Description 18/9/8 Blk 3 Lot 2
¼ ¼ Section/Township/Range

Onsite System Location

Address (no rural route) 6344 Water Edge 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: Verified installation No inspection

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

Total square feet of drainfield _____ Sq. Ft. Tank Size _____ gals System covered prior to

Total length of laterals _____ Type of Distribution: ❑ Chamber ❑ Perforated Pipe ❑ Other (describe) inspection.

No. of Absorption Laterals _____ Width _____ No. of Drop Boxes _____ Distribution Box Statement provided by

Leveling Method Used _____ installer as

Setbacks (Check the Boxes Below if the Required Setback has been Satisfied): Per Rules.

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 ❑	25 ❑	5 ❑

Geographical Coordinates to 6 Decimals:

Tank _____

Lateral #1 N/A Lateral #3 _____

Lateral #2 _____ Lateral #4 _____

Comments:

Inspections prior to Final Approval
Initial OK Date 11/9/16

Follow-Up _____ Date _____

Follow-Up _____ Date _____

Installation Final Written Approval
By Doug Jones

Date 11/7/16

Field Note Drawing (See Reverse Side):

Onsite Wastewater Treatment System
As-Built Description and Drawing

Type of Onsite Wastewater System: ☐ Lagoon (Skip to Back Page) ☒ Subsurface Septic ☐ Mound

Onsite Wastewater System Location

Address or Legal Description or Parcel Identification Number (PID) 22-18-207-002-000

Owner: Jennifer Ackerman Address 6344 Waters Edge Dr

A. Wastewater Piping

1. Material: SCH 40 PVC Diameter: 4 in.
2. Distance between dwelling and septic tank: 90 ft.

B. Septic Tank

1. Material Concrete - Accurate Precast
2. Capacity: 2000 ~
3. Depth to top of tank, below unfinished grade: 12 in.
4. Distance to:
   Well NA ft.
   Pressure line +50 ft
   Property Line +50 ft.
   Foundation 95 ft.

C Distribution Box or Drop Box

Distance and Direction from septic tank: 13 ft. SE

D. Drainfield/Absorption Field

☒ Trench ☐ Bed

1. Type: ☐ Perforated Pipe ☒ Chamberless ☐ Other
   Material brand and inside width of Chamberless: Infiltrator Quick 4 Plus 29" -
2. Number of Laterals: 4
3. Length of each lateral (linear): ft. 148 ft. 148 ft. 120 ft. 72
4. Drainfield size: 1769 sq. ft.
5. Distance to:
   Well NA ft.
   Pressure line +50 ft.
   Property line 15 ft.
   Depth of Groundwater +12'

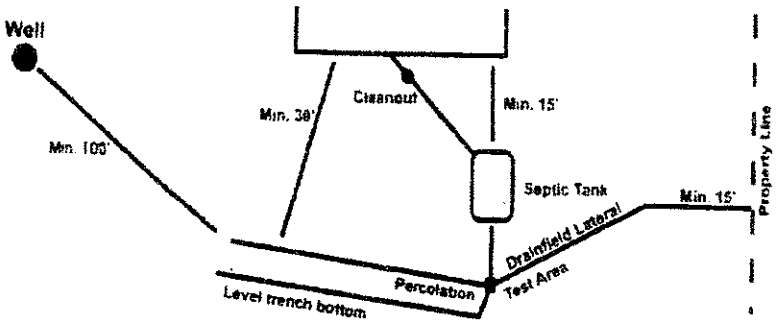
Was the Onsite Wastewater System covered prior to LLCHD inspection? ☒ Yes ☐ No

If Yes, the Certified Professional must sign below for final approval:

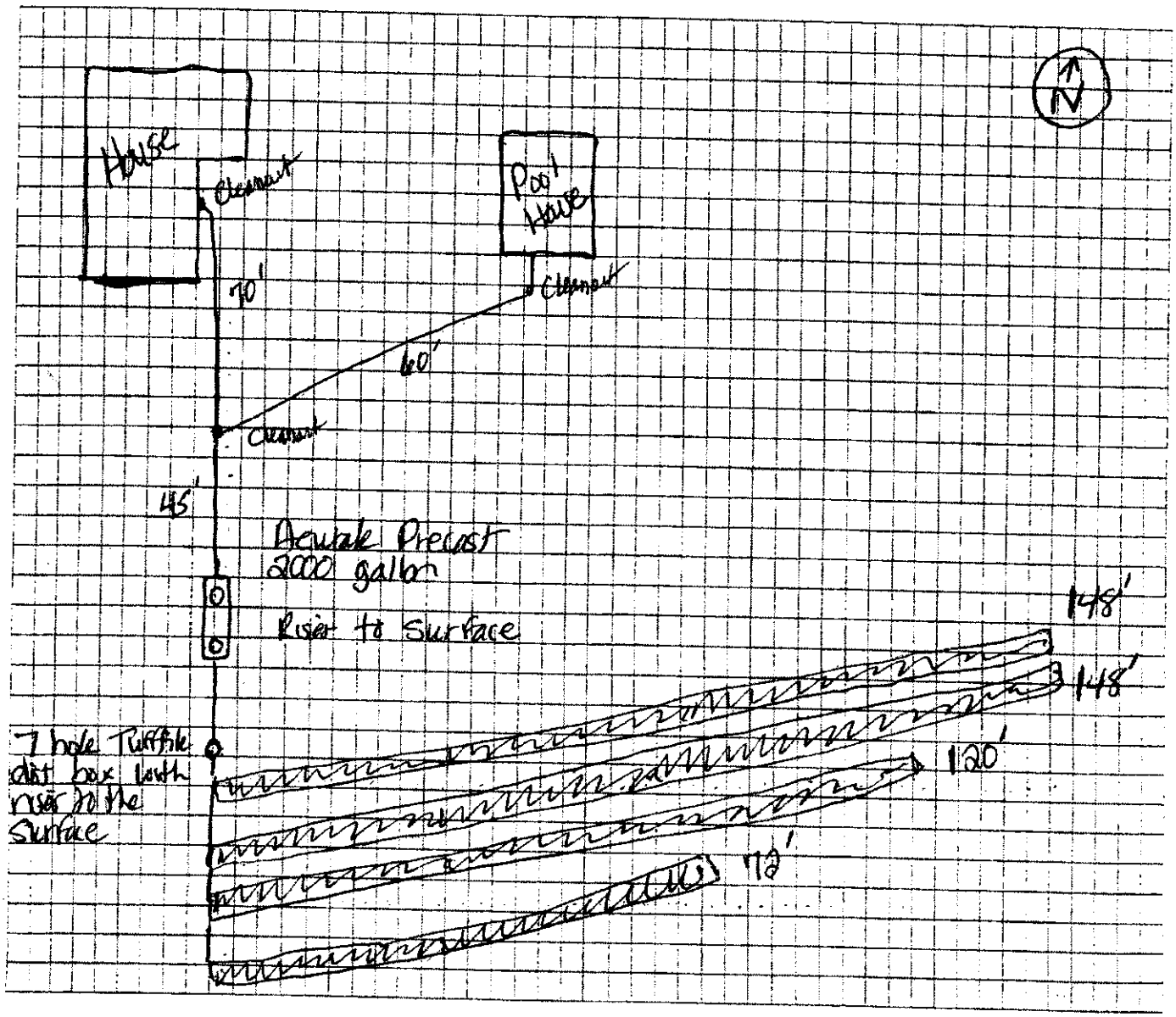
I swear and affirm that the system complies with Lincoln Municipal Code (LMC) 24.38 and/or County Resolution R-13-0062 requirements and that the information and documentation submitted are true and accurate.

Certified Professional Signature: [signature] - Date: 6/25/16

Complete As-Built drawing on the back of this form.



*Note-If Lagoon, show all applicable dimensions



- Rural Water

- Infiltrator Quick 4 plus

488 @ 3.625 = 1769 sq ft

Nate C. Hartman

From: Ken D. Schroeder
Sent: Thursday, April 30, 2015 7:30 AM
To: Nate C. Hartman
Cc: Pamela L. Dingman
Subject: sewage disposal system for PID #22 18 207 002 000
Attachments: part of sec 18-9-8.pdf

Nate,
Lancaster County Engineering Department indicates approval for a sewage disposal system for lot 2, Block 3, "WHISPERING CREEK 1ST ADDITION" located in the N 1/2 of fraction Section 18, T9N, R8E of the 6th P.M., Lancaster County, Nebraska. *(see attached part of sec 18-9-8)*
As always, subject to confirmation of and compliance with any floodplain elevation requirements prior to construction.
Ken

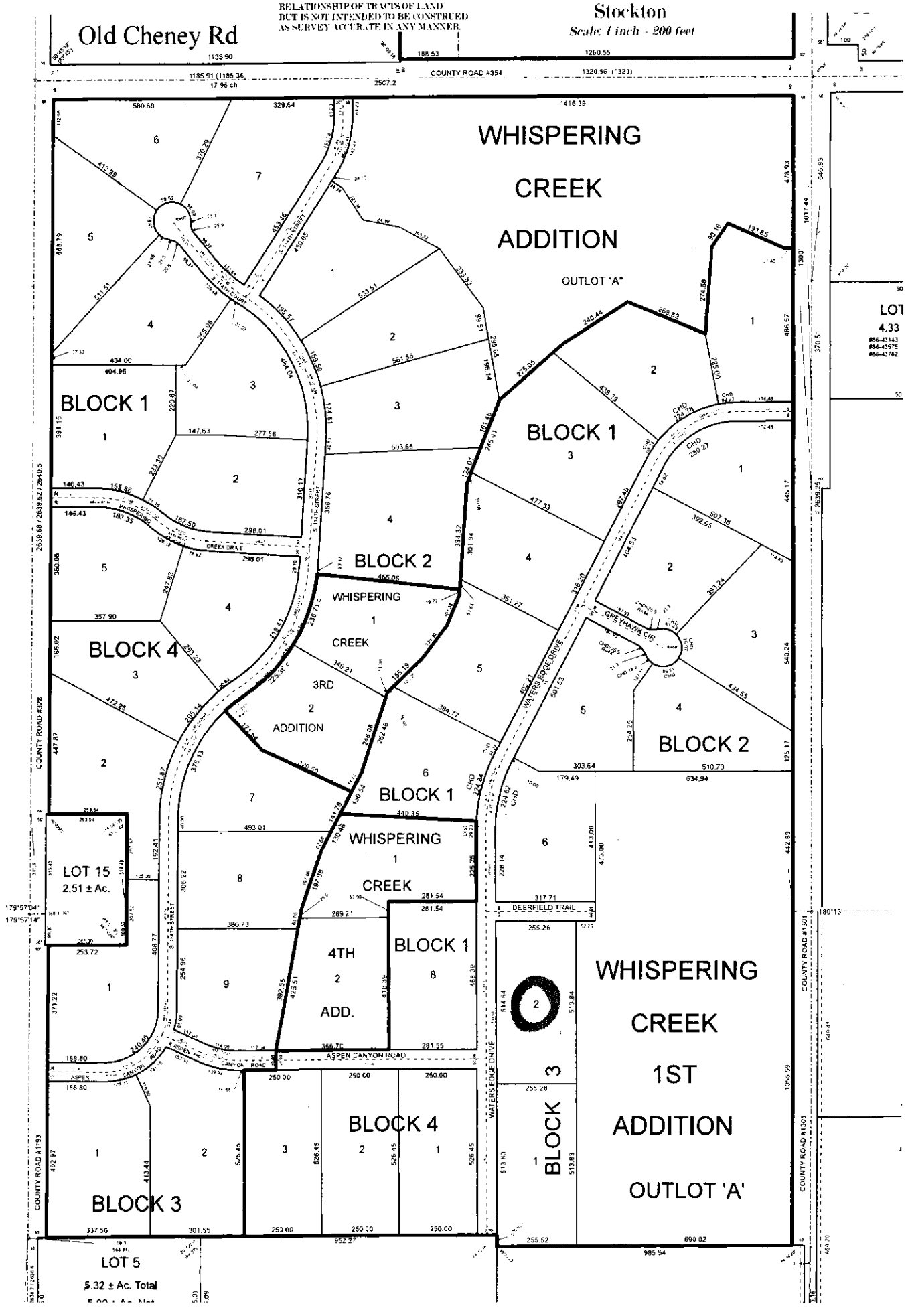
Kenneth D. Schroeder, RLS
Lancaster County Surveyor
444 Cherrycreek Road, Bldg. "C"
Lincoln, Nebraska 68528
kschroeder@lancaster.ne.gov
Phone (402) 441-7681
Fax (402) 441-8692

THIS PLAT IS INTENDED TO SHOW AS ACCURATELY AS POSSIBLE THE RELATIONSHIP OF TRACTS OF LAND BUT IS NOT INTENDED TO BE CONSTRUED AS SURVEY ACCURATE IN ANY MANNER.

Sec. 18-T9N-R8E

Stockton

Scale: 1 inch = 200 feet



Nate C. Hartman

From: Todd A. Stutzman
Sent: Wednesday, April 29, 2015 4:18 PM
To: Nate C. Hartman
Subject: 6344 Waters Edge

Nate,

Lot 2 Block 3 Whispering Creek 1st addition is a buildable lot

Todd

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

ON-SITE WASTE WATER SYSTEM
CONSTRUCT/ INSTALL EXTENSION PERMIT
No. HS001060

System Type: Standard

Situs: No Site Address Specified

Issued: 5/1/2016

Expires: 10/30/2016

Description: WHISPERING CREEK 1ST ADDITION, BLOCK 3, Lot 2

Owner: ACKERMAN, JENNIFER A
REVOCABLE TRUST
7821 AMELIA DR
LINCOLN, NE 68516

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

CHOICE HOMES LLC
1221 E PIERCE ST #300
COUNCIL BLUFFS, IA 51503

SCANNED

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

APR 29 2015

A

Permit Number
HS001060

Chad $10/$201

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 6344 Waters Edge SB City Lincoln, NE Zip 68526
(no rural route)

Legal Description 18 9N 8 Whispering Creek 1st 3 2
1/4 1/4 Section Township Range Subdivison Addition Block Lot

PID 22-18-207-002-000

B. Owner

Name Choice Homes/Jennifer Ackerman Signature

Address 7821 Amelia Dr City/State/Zip Lincoln NE 68516

Home Phone Work Phone

C. Certified Installer

Name: Jason Kubik Signature

Address 105 Locust City/State/Zip Hickman NE 68372

Work Phone 402-440-7606

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

1. Health Department
Site visits 11/4/16
Comments
Date rec'd 4/30/15
Date frwd 4/30/15
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 11/7/16

Good thru 11/9/16

Business Office Use Only
Date Received 4-24-15 Amount Paid $375.00
Received By SB Cash/Check No. 11484

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

Form A Updated: 1/13

SCANNED

Thompson Dreessen & Dorner, Inc. Consulting Engineers 10836 Old Mill Road Omaha NE	PERCOLATION TEST WORKSHEET	Date drilled: [illegible] By: [illegible] Date Readings Taken: [illegible] By: [illegible]
Client: Choice Homes	Location: Lot 2 [illegible] Whispering creek	Job No.: 1968-100

		Test Hole #1 Depth = [illegible] in. Dia. = 6 in.		Test Hole #2 Depth = [illegible] in. Dia. = 6 in.		Test Hole #3 Depth = [illegible] in. Dia. = 6 in.	
Time	Change in Time (min.)	Reading (inches)	Change in Water Level (inches)	Reading (inches)	Change in Water Level (inches)	Reading (inches)	Change in Water Level (inches)
11:30	10 min	6	2 1/2	6	2 3/4	6	2 1/2
:40		2 1/2	2	3 1/4	2 1/4	3 1/2	2
:50		4 1/2	3 1/4	5 1/4	3 1/4	5 1/2	3 1/4
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:10		7		7 1/2		8 1/4	
:20		8	3/4	8 1/2	3/4	9	3/4
:30		8 3/4	1/2	9	3/4	9 3/4	1/2
:40		9 1/4	1/2	9 3/4	1/2	10 1/4	3/4
:50		9 3/4	1/2	10 1/4	1/2	10 3/4	1/2
1:00		10 1/4	1/2	10 3/4	1/2	11 1/4	1/2
:10		10 3/4	1/2	11 1/4	1/4	11 3/4	1/4
:20		11 1/4	1/2	11 1/2	3/4	12	1/4

Percolation Rate: Min./ In. Min./ In. Min./ In.

Soil Description in 10' Deep Boring:

0 - 1 1/2 Dark Brown [illegible] LC Topsoil

1 1/2 - 10 Light Yellow Brown [illegible] LC

Sketch of the test hole locations on the back of this worksheet

TD2
engineering
& surveying

thompson, dreessen & dorner
10836 Old Mill Road
Omaha, NE 68154
402 330-8860

March 19, 2015

SCANNED

Choice Homes
Mr. Chad Bumsted
1221 E Pierce St. Suite 300
Council Bluffs, IA 51503

RE: Percolation Test
Lot 2, Block 3, Whispering Creek 1st Addition.
Lancaster County, Nebraska
TD2 File No. 1968-109.1

Three percolation tests were performed at the above-referenced location at your request:

Test Hole No. 1 was located 45 feet east of the southeast corner of the proposed house.
Test Hole No. 2 was located 40 feet south and 45 feet east of the southeast corner of the proposed house.
Test Hole No. 3 was located 80 feet south and 45 feet east of the southeast corner of the proposed house.

The test holes had percolation rates of 24 minutes per inch, 27 minutes per inch and 30 minutes per inch respectively, indicating that the soils in the area tested are suitable for installation of a conventional septic system lateral field.

A boring was located between the test holes and was drilled to a depth of 10 feet. Dark brown silty clay was found to a depth of 1.5 feet, followed by light yellow brown silty clay.

No free groundwater was found at the time the boring was drilled.

These tests were performed by a professional Soil Evaluation as certified by the Nebraska Department of Environmental Quality. The tests were performed in accordance with procedures outlined in current State of Nebraska Department of Environmental Quality regulations concerning soil percolation tests. The soil was tested at normal lateral field depth in the locations described above. If there are changes in the proposed lateral field location, or if site grading is done after the test date, retesting may be necessary.

This report has been prepared for the exclusive use of our client in accordance with generally-accepted geotechnical engineering practices. We would like to emphasize that improper construction methods, improper use of the system, and improper maintenance of the system are beyond our control and, therefore, no other warranty, expressed or implied, is made.

For your information, we have enclosed a copy of a NebGuide published by the Cooperative Extension Service, Institute of Agriculture and Natural Resources of the University of Nebraska-Lincoln, entitled Residential Onsite Wastewater Treatment: Septic Tank and Drainfield Maintenance.

This publication outlines important information concerning the proper use and maintenance of septic tanks and absorption fields. As the publication indicates, it is critical that the tank be inspected periodically and pumped when excessive solids accumulate so that the absorption field can function properly. Misuse of the system or failure to properly maintain the system can result in system failure and the need to replace the absorption field.

We suggest that this information be made available to all system users to help emphasize the need for responsible use of the system and to inform them that maintenance is critical for the proper operation of the onsite sewage treatment system.

If you have any questions pertaining to this report, please contact the undersigned.

Respectfully submitted,

Charles E. Riggs, P.E.
THOMPSON, DREESSEN & DORNER, INC.

CER/bre

Vendee
P.E. # E4369 WY
4/29/15

Onsite Wastewater Treatment System
As-Built Description and Drawing

9-8-17

Whispering Creek LOT BLK 3, Lot 2

Type of Onsite Wastewater System: ☐ Lagoon (Skip to Back Page) ☒ Subsurface Septic ☐ Mound

Onsite Wastewater System Location

Address or Legal Description or Parcel Identification Number (PID) 22-18-207-002-000

Owner: Jennifer Ackerman Address 6344 Waters Edge Dr

A. Wastewater Piping

1. Material: SCH 40 PVC Diameter: 4 in.
2. Distance between dwelling and septic tank: 90 ft.

B. Septic Tank

1. Material Concrete - Accurate Precast
2. Capacity: 2000
3. Depth to top of tank, below unfinished grade: 12 in.
4. Distance to:
   Well NA ft.
   Pressure line +50 ft
   Property Line +50 ft.
   Foundation 95 ft.

C Distribution Box or Drop Box

Distance and Direction from septic tank: 13 ft. SE

D. Drainfield/Absorption Field

☒ Trench ☐ Bed

1. Type: ☐ Perforated Pipe ☒ Chamberless ☐ Other
   Material brand and inside width of Chamberless: Infiltrator Quick 4 Plus 29"
2. Number of Laterals: 4
3. Length of each lateral (linear): ft. 148 ft. 148 ft. 120 ft. 72
4. Drainfield size: 1769 sq. ft.
5. Distance to:
   Well NA ft.
   Pressure line +50 ft.
   Property line 15 ft.
   Depth of Groundwater +12'

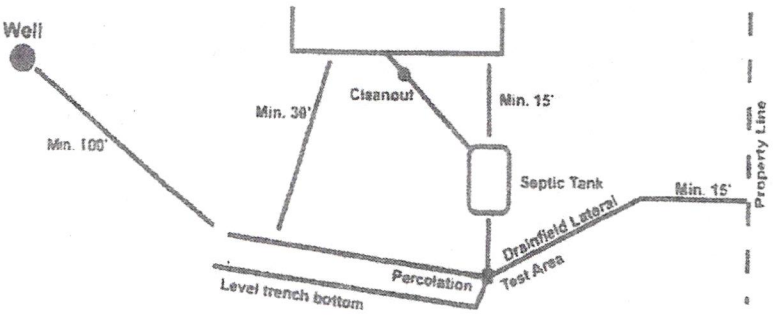
Was the Onsite Wastewater System covered prior to LLCHD inspection? ☒ Yes ☐ No

If Yes, the Certified Professional must sign below for final approval:

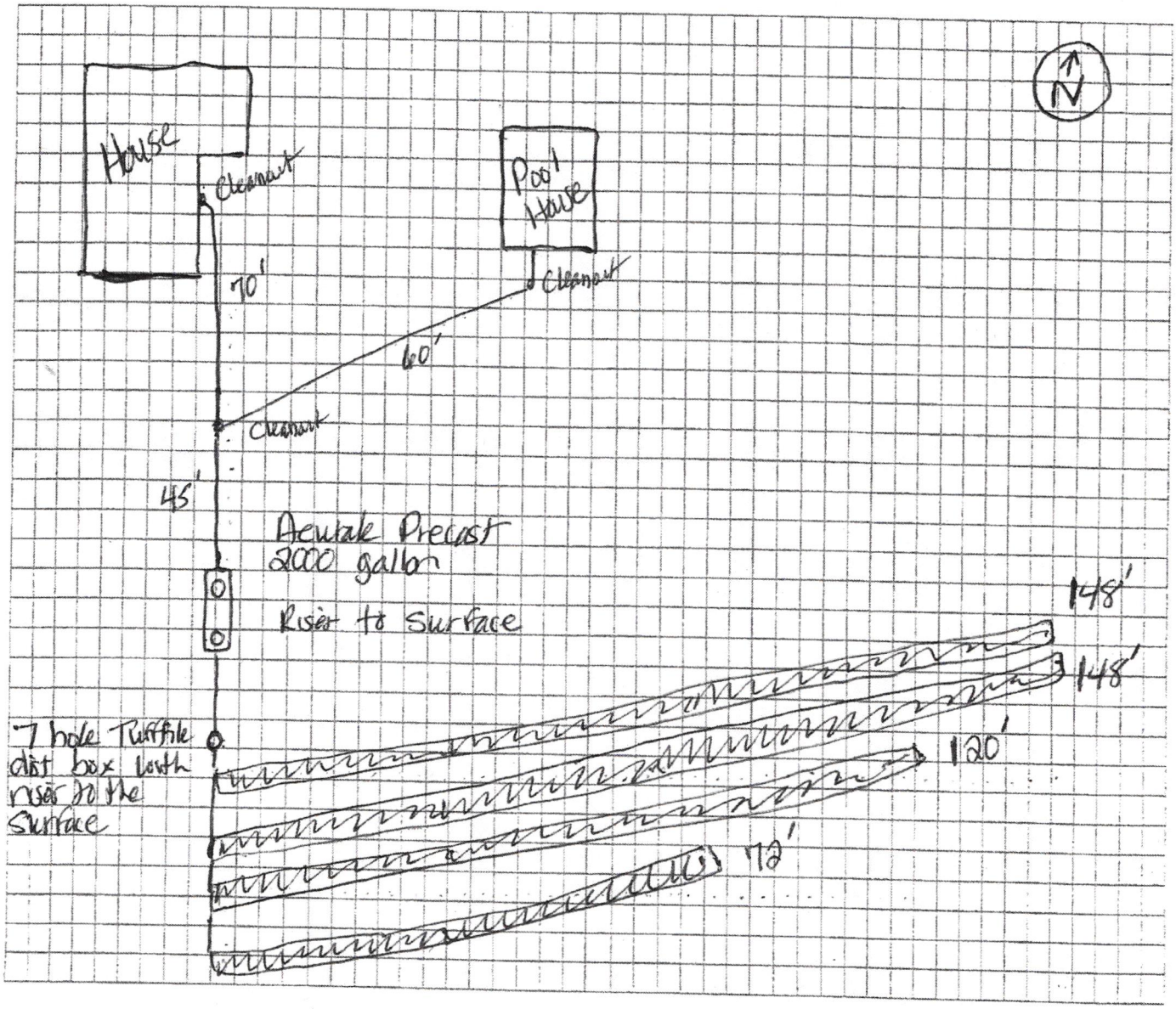
I swear and affirm that the system complies with Lincoln Municipal Code (LMC) 24.38 and/or County Resolution R-13-0062 requirements and that the information and documentation submitted are true and accurate.

Certified Professional Signature: Jason Kuth Date: 6/25/16

Complete As-Built drawing on the back of this form.



*Note-If Lagoon, show all applicable dimensions



- Rural Water

- Infiltrator Quick 4 plus

488 @ 3.625 = 1769 sq ft

SCANNED

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

OK 11/9/16 JP

Exhibit 5

Permit Number: H5001060

Onsite Wastewater Treatment System

Inspection Sheet Whispering Creek 1st Add.

Date 11/7/16 Legal Description 18/9/8 Blk 3 Lot 2
¼ ¼ Section/Township/Range

Onsite System Location

Address (no rural route) 6344 Water Edge 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: Verified installation. No inspection

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

Total square feet of drainfield _____ Sq. Ft. Tank Size _____ gals System covered prior to

Total length of laterals _____ Type of Distribution: ❑ Chamber ❑ Perforated Pipe ❑ Other (describe) inspection.

No. of Absorption Laterals _____ Width _____ No. of Drop Boxes _____ Distribution Box Statement provided by

Leveling Method Used _____ installer as

Setbacks (Check the Boxes Below if the Required Setback has been Satisfied): Per Policy.

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 ❑	25 ❑	5 ❑

Geographical Coordinates to 6 Decimals:

Tank _____

Lateral #1 N/A Lateral #3 _____

Lateral #2 _____ Lateral #4 _____

Comments:

Inspections prior to Final Approval
Initial DK Date 11/9/16

Follow-Up _____ Date _____

Follow-Up _____ Date _____

Installation Final Written Approval
By Doug Anderson

Date 11/7/16

Field Note Drawing (See Reverse Side):

SCANNED

THIS PLAT IS INTENDED TO SHOW AS ACCURATELY AS POSSIBLE THE RELATIONSHIP OF TRACTS OF LAND BUT IS NOT INTENDED TO BE CONSTRUED AS SURVEY ACCURATE IN ANY MANNER.

Sec. 18-T9N-R8E

Stockton

Scale: 1 inch = 200 feet

