Lincoln-Lancaster County Health Department

ENVIRONMENTAL PUBLIC HEALTH DIVISION

3140 N STREET · LINCOLN, NE 68510-1514

002773

(402) 441-8000

Permit

SEWAGE INSTALLATION
SEPTIC SYSTEM

Permit # 03380265601

Issued 06/12/03
Expires 12/12/03
Revenue Code 3157

Establishment

MIKE & KIM MATTHEWS
T12N R6E SEC 31 QTR S1
23-SE1/4,33&34-SW1/4 LOT 33&34
15305 NW 48 ST-RAYMOND

FEES: $200.00

Permittee

MIKE & KIM MATTHEWS
4410 NICHOLS ST
RAYMOND NE 68428

TOTAL: $200.00

Bruce D. Dart

Bruce D. Dart, Health Director

EPH COPY

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

A

Permit Number: 03380265601

Sewage Disposal System

Request for Site Clearance and Permit

Include Form B, Form C and Applicable Fees with this Application.

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

The undersigned hereby requests site clearance and permit to construct a Sewage Disposal System in conformance with appropriate resolution or ordinance, as described herein:

PLEASE PRINT OR TYPE

A. System Location (Indicate correct number and street)

Address 15305 NW 48TH (no rural route) City Raymond NE, Zip 68428

Legal Description LOT 33 and 34 SW and LOT 23 SE All In 31-12-6
1/4 1/4 Section Township Range Subdivision Addition Block Lot

Geographical Location (if known): Longitude _____ Latitude _____

☐ Check if system mail address is not the same as the owner's address

B. Owner

Name Mike/Kim Matthews Signature Kim Matthews

Address 4410 Nichols ST City/State/Zip Raymond NE. 68428

☐ Check if owner designed system Home Phone 783-2031 Work Phone _____

C. Contractor

Name Lloyd J. Jakoubek Company Name Raymond Contracting

Address 12800 NW 70th. City/State/Zip Raymond NE 68426

☐ Check if contractor designed system Work Phone 890-6009

D. Engineer/Installer ☐ Check and complete if engineer designed system

Designer Name _____ Firm _____ Work Phone _____

E. This System Will Serve a

☒ Residential Dwelling Number of Bedrooms 3 Is there a Whirlpool Bathtub (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. 2832

1. **Health Department** Date rec'd 6/12/03 Date frwd 6/13/03 ACTION ☒ Approved ☐ Disapproved Signature Jerrold C. Hood
2. **Supt. Bldg. Insp. or Village Clerk** Date rec'd 6-12-03 Date frwd _____ ACTION ☒ Approved ☐ Disapproved Signature Everett Nissen
3. **City or County Engineer** Date rec'd 6-13-03 Date frwd 6-13-03 ACTION ☒ Approved ☐ Disapproved Signature _____

-Line tank / lateral
Verify System Is Not In Flood plain

Installation Final Written Approval

By _____

Date 9/29/03

Business Office Use Only

Date Rec'd 06/12/03
Amt Paid 200.00
Rec'd By _____ Cash/Check No. 4944

FORM 23-100 10-96 White - Health Dept. Yellow - Engineer Pink - Bldg. Inspector

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

B

Permit Number: 033862656

Sewage Disposal System

Soil Absorption Test Data Report

Annex to Application

PLEASE PRINT OR TYPE

System Location (Indicate correct number and street)

Address 15305 NW 48th (no rural route) City Raymond NE, Zip 68428

Owner Mike + Kim Matthews Addresss

Soil Type (SCS): DcD bordering into Judson Percolation Rate: min./inch

Date of Tests 6-18-03 to 6-19-03 Weather: Precipitation 1½" rain (hard) night before perc test - some setting into some holes Temperature 85-90°F

*circled hole is LLCHD standardized perc test procedure

Percolation Test Data Table

A.	B.	C. D. E. F. Pre-Saturation Period				G. H. I. J. K. Percolation Readings					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)	Water Lev (in.)	Date (Mo/Da)	Time (Hr/Min)	Elapsed Time (Min)	Water Level Drop (in)	Percolation Rates (Min/in)
1	7" 30"	6-18-03	10:30 AM	6-18-03	2:30	6-19-03	9:30 AM	6"	6-19-03	1:30	30	3/8"	80 mpi
(2)*	"	"	"					"			"	2"	15 mpi
(3)*	"	"	"					"	Dry hole in 30 min.		10 min	3½"	3 mpi
4	32"	"	"					"			30	1⅜"	22 mpi
(5)*	30	"	"					"			"	2 3/16"	14 mpi
6	"	"	"					"			"	¼"	120 mpi
7	"	"	"					"			"	1⅞"	16 mpi
8	32"	"	"					"			"	⅝"	48 mpi
9	30"	"	"					"			"	⅝"	48 mpi

Person Conducting Percolation Tests

Name: Ron Maryanek + Kristi Tokarbek (Raymond contracting Inc.)

Phone:

Address

Sum of Percolation Rates: > 20 mpi variation

Average of Rates: thus use 48

Rate Used for Calculation: 48 mpi

DO NOT WRITE BELOW THIS LINE

Reviewing Action

Remarks Recommend installing drainfield laterals South of drive in area of perc holes # 2, # 4, & # 5. Must use circled rates for this perc test.

Signature of Reviewing Official Ron Maryanek Date 6-19-03

FORM 23-101 10-96

Jerry.

Here are the results.

Note one hole failed because it perced too fast!

3 mpi.

I did not use this hole - maybe a root channel or something?

Circled ones are ones used to calculate new rate.

- Ron

(They may run 3 extra holes in batch area to average a faster rate)

A to Z Printing
745 D Street
Lincoln, NE 68502-1151
Phone: 402.477.0815
Fax: 402.477.0837
www.atozprint.com
Email: info@atozprint.com

PERK TEST 6-19-03

$1\frac{1}{2}$" hard Rain overnight



owner: Mike + Kim Matthews
15305 NW 48th.

	9:30AM	10:00	10:30	11:00	11:30	12:00	12:30	1:00
le #1	$6\frac{5}{8}$ ~~(4")~~	$6\frac{1}{2}\frac{8}{16}$	$7\frac{1}{8}^{14}$	$6\frac{3}{4}(\frac{6}{8})$	$6\frac{3}{8}$	$7\frac{5}{8}$	$7\frac{1}{4}$	$6\frac{7}{8}$
	$6\frac{7}{8}$	$6\frac{3}{16}$	$6\frac{3}{4}$	$6\frac{3}{8}$	6"	$7\frac{1}{4}(\frac{2}{8})$	$6\frac{7}{8}$	$6\frac{1}{2}\frac{4}{8}$
	$\frac{4}{8}(\frac{1}{2}")$	$\frac{5}{16}$	$\frac{3}{8}$"	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$"
	(6")							
* LLCHD #2 ✓	$20\frac{1}{4}$" ~~(2")~~	$19\frac{13}{16}$	$19\frac{7}{8}$	$20\frac{1}{4}(\frac{4}{16}$	20"	$20\frac{1}{4}(\frac{2}{8})$	$19\frac{7}{8}$	$19\frac{7}{8}$
	$18\frac{1}{2}(\frac{2}{4})$	$18\frac{1}{16}$	$17\frac{7}{8}$	$18\frac{3}{16}$	$17\frac{13}{16}$	$18\frac{1}{8}$	$17\frac{5}{8}$	$17\frac{7}{8}$
	$1\frac{3}{4}$	$1\frac{12}{16}$	2"	$2\frac{1}{16}$	$2\frac{3}{16}$	$2\frac{1}{8}$	$2\frac{2}{8}$	2"
	(6")	(6")						
* LLCHD #3	$19\frac{1}{4}$ ~~(2")~~	$21\frac{1}{2}$"	10 min → $19\frac{1}{2}$	10 min → $18\frac{1}{4}$	$18\frac{1}{4}$	$19\frac{3}{4}$	$10/\frac{1}{32}=10\div\frac{1}{2}=10\times\frac{2}{1}=20$	3 mph
	dry	dry	16"	$15\frac{5}{8}$	$15\frac{3}{8}$	$16\frac{1}{4}$		
	6+"	6+"	$3\frac{1}{2}$"	$2\frac{3}{8}$ $2\frac{5}{8}$	$2\frac{3}{8}$	$3\frac{1}{2}$		
	(6")	(8")		(4½")	(4½")			
#4 ✓	$7\frac{3}{4}$" ~~(2")~~	$7\frac{5}{8}$"	$8\frac{5}{8}$	$7\frac{1}{4}$"	$7\frac{5}{8}$	$7\frac{3}{4}(\frac{6}{8})$	$7\frac{1}{2}(\frac{8}{16})$	$7\frac{1}{2}\frac{4}{8}$
	$6\frac{1}{4}$	$6\frac{1}{8}$	$7\frac{1}{4}\frac{2}{4}$	$5\frac{7}{8}$	$6\frac{3}{8}$	$6\frac{3}{8}$	$6\frac{3}{16}$	$6\frac{3}{8}$
	$1\frac{1}{2}$"	$1\frac{4}{8}$	$1\frac{3}{8}$"	$1\frac{3}{8}$"	$1\frac{2}{8}$	$1\frac{3}{8}$	(6") $\frac{5}{16}$	$1\frac{3}{8}$
	(16")	(6")	(7")	(5½")	(6")			
* LLCHD #5 ✓	$20\frac{5}{8}$ ~~(1")~~	$19\frac{3}{4}(\frac{6}{8})$	$20\frac{3}{16}$	$17\frac{7}{8}$	$17\frac{3}{4}$	$18\frac{1}{8}(\frac{2}{16})$	$19\frac{5}{16}$	$16\frac{5}{4}(\frac{4}{16}$
	$17\frac{1}{4}\frac{2}{8}$	$16\frac{5}{8}$	$16\frac{11}{16}$	15	15	$15\frac{9}{16}$	$16\frac{5}{4}(\frac{4}{16})$	$14\frac{1}{16}$
	$3\frac{3}{8}$"	$3\frac{1}{8}$"	$3\frac{1}{2}$"	$2\frac{7}{8}(\frac{14}{16}$	$2\frac{3}{4}(\frac{12}{16})$	$2\frac{11}{16}$	$3\frac{1}{16}$	$2\frac{3}{16}$
	(8")	(7")	(8")	(6")	(6")	(6")	(6½")	(5")
#6	$7\frac{5}{8}$ ~~(1½")~~	$7\frac{3}{8}(\frac{6}{16})$	$8\frac{1}{2}$	$8\frac{1}{4}$	8"	$8\frac{3}{4}$	$8\frac{1}{2}$	$8\frac{1}{4}$
	$7\frac{3}{8}$	$7\frac{3}{16}$	$8\frac{2}{4}$	8"	$7\frac{3}{4}$	$8\frac{1}{2}$	$8\frac{1}{4}$	8
	$\frac{2}{8}\frac{1}{4}$"	$\frac{3}{16}$"	$\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$"	$\frac{1}{4}$"	$\frac{1}{4}$	$\frac{1}{4}$
	(5½")	(5¼")	(6")	(5¾")			(6")	

#7 $6\frac{3}{8}$" ($5\frac{1}{2}$) 10:30 11:00 11:30 12:00 12:30 1:00

1" $1\frac{1}{2}$ $1\frac{3}{4}$ 2" 2" $1\frac{7}{8}$" $1\frac{7}{8}$ $1\frac{7}{8}$

#8 $6\frac{7}{8}$" $6\frac{1}{2}$"

1" $\frac{1}{2}$ $\frac{1}{2}$ $\frac{3}{4}$" $\frac{1}{2}$ $\frac{1}{2}$ $\frac{5}{8}$ $\frac{5}{8}$

#9 $5\frac{13}{16}$ 5"

$2\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{5}{8}$" $\frac{5}{8}$" $\frac{5}{8}$" $\frac{5}{8}$ $\frac{5}{8}$

$30 \div \frac{3}{8}$ $30 \times \frac{8}{3}$ $3\overline{)240}$ 8, 24, 0

$30 \div 1\frac{3}{8}$ $30 \div \frac{11}{8}$ $30 \times \frac{8}{11}$ $11\overline{)240}$ 22, 20

$\frac{35}{16}$ $30 \times \frac{16}{35}$ $35\overline{)480}$ 35, 130, 140

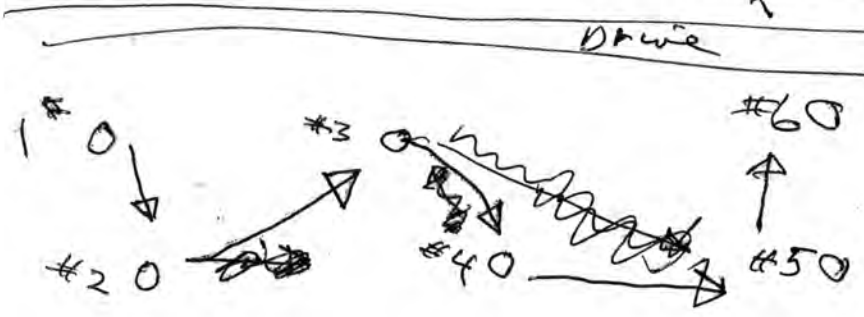
$5\overline{)240}$ 20, 40, 0

$30\frac{4}{1}$ $\frac{15}{8} \div \frac{8}{15}$ $15\overline{)240}$ 15, 90, 16

PERCOLATION TEST

owner: Mike + Kim Matthews @ 15305 NW 48th, ¼ mile N. of Reynolds on West Side

- Presoak started at 10:30 PM on 6-18-03 (2" rain in previous 3 days prior)
- Perc test site just outside 100 yr. floodplain, but in 500 yr.
- Soils Map indicates test run in DcD. Dickison sandy loam & gravelly into Tuscon soil.
- east two holes in more clay-like soil at 30"
- All holes drilled with auger to 30". (2 holes at 32")
- 3 holes by LLC+D were sealed with spackle and board with nails from an augered hole of 5½" to a hole 7" in diameter (2" clean gravel in bottom of hole)
- 6 holes by contractor were augered to 6" holes + scratched with board + nails to 7" dia. Put 4" slotted PVC pipe with 2" of road gravel (clean) (pop bottle float for floating reference point.
- Holes numbered from west to east #07 ← #8 ← #9 ← [Same sequence for each 30 min read of perc test 24 hrs later.]



N ↑

← West EAST →

- Holes #7, #8, #9 started presoak 1 hr. earlier than others.

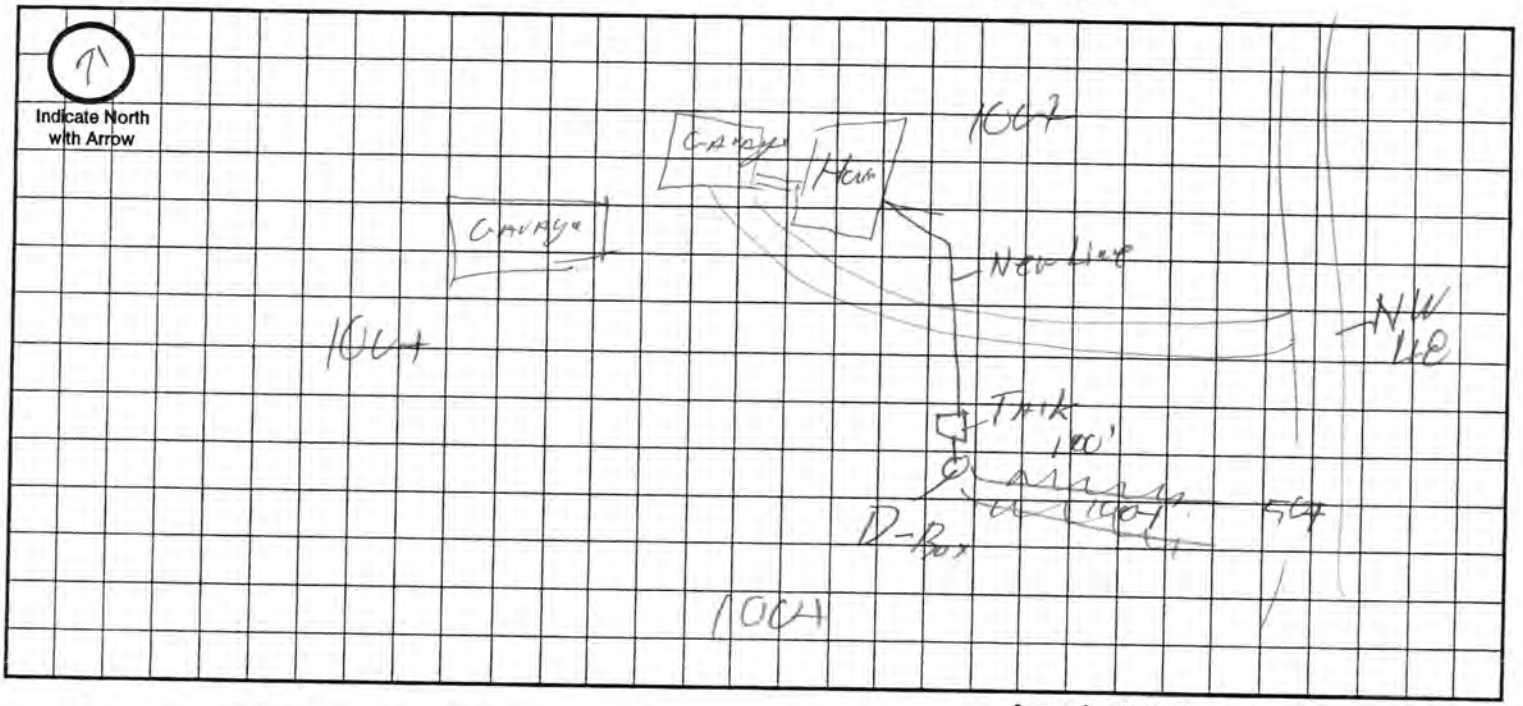
Lincoln-Lancaster County Health Department
Environmental Health Division
3140 "N" Street • Lincoln, NE 68510-1514
Phone: 402-441-8022

C

Permit Number: 033802656

Sewage Disposal System
Preliminary Plan Specifications

Draw a plot plan showing system location, lines, distribution box, tank and laterals, percolation test hole locations, well, residence, compass direction and property lines. Indicate on drawing if residence and well are existing or proposed.



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

A. System Location (Indicate correct number and street)

Address (no rural route) 15305 NW 48th City Raymond NE, Zip 68428

B. Proposed Septic Tank/s

Tank Material: ☒ Concrete ☐ Plastic ☐ Other 1000 Gallon

C. Proposed Absorption System (See Form B for Percolation Information)

Percolation Rate _____ (min. per inch) Soil Type: _____ Land Slope: Flat %

Type of Absorption System: ☒ Trench ☐ Bed ☐ Other _____

Total Square Feet of Field Required: 200? sq. ft.

Type of Lateral: ☐ Half-Moon ☐ Perforated Pipe ☐ Other Lateral Material: Equalizer 34" wide 16" tall x 6.25

Capacity of Septic Tank 1000 gals Number of Absorption Beds: 2 Number of Distribution Laterals per Bed _____

Total Length of Laterals 200? ft. Number of Trenches _____ Trench Width _____

D. 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 ☐	☐

E. Required Signatures

Home Building Contractor _____ Date 06/11/03

Installer _____ Date 06/12/03.

FORM 23-102 10-96

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

D

Permit Number:

Sewage Disposal System

As Built Plans & Specifications

Date 9/27/03

System Location (Indicate correct number and street)

Address 15305 NW 48Th. (no rural route) City Raymond. NE, Zip 68428

A. Building Sewer

1. Material: class160
   Diameter: 4 in.
2. Distance above basement floor: _____ in.
   or distance below basement floor: 30 in.
3. Distance between dwelling and septic tank: 130 ft.
4. Number of clean-outs: 2
5. Distances to: well or suction line 100+ ft.
   stream 100+ ft.
   pressure line 100+ ft.
   property line 100+ ft.

B. Septic Tank

1. Material: concrete
   Number of compartments: one
2. Capacity: 1500 gal.
3. Factory built: ☒ Yes ☐ No
4. Manholes: Over inlet, diameter 24 in.
   Over outlet, diameter 24 in.
   Riser: ☐ above ☐ below grade 1FT grade 4 in.
5. Inlet: ☒ baffle ☐ tee
6. Outlet: ☒ baffle ☐ tee
7. Depth to top of tank, below unfinished grade: 19 in.
8. Distances to: Well or suction line 100+ ft.
   Stream 100+ ft.
   Pressure line 100+ ft.
   Property line 100+ ft.

C. Distribution Box

1. Material: Plastic
   Number available outlets: Drill your own
2. Factory built: ☐ Yes ☒ No
3. Distance from septic tank: 26' ft.

D. Absorption Field

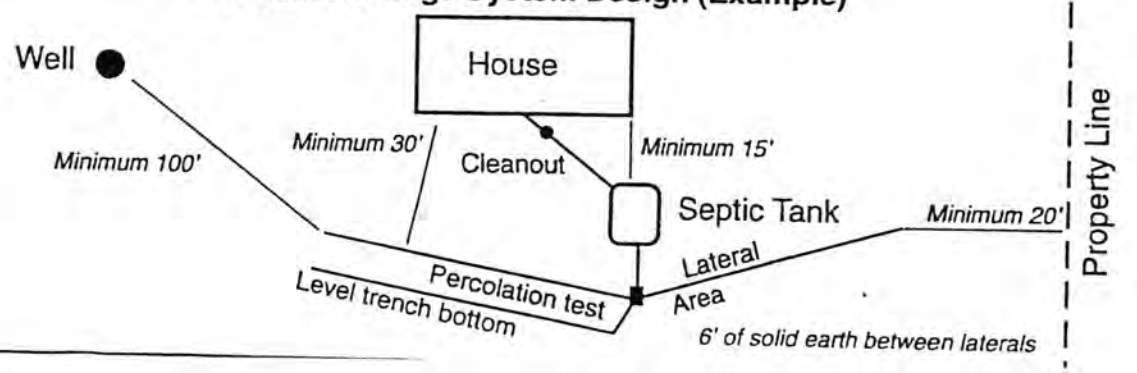
(Provide as-built drawings on back of this form)

1. Type: ☒ Half rounds ☐ Perforated pipe
   Diameter of half round: 34" x 12" T to 11
   or perforated pipe: _____
   Material: ☒ fiberglass ☐ plastic ☐ concrete
   ☐ other _____
2. Lateral lines: Number 330
   Length of each line: 112.5 ft. 112.50 ft.
   _____ ft. _____ ft., 106.25 ft.
3. Trench dimensions: Width 18" (1½ ft.)
   Slope FLAT in/100 ft.
   Average depth 39" in
4. Filter material: Dirt
   Depth of material 39" in.
5. Distances to: Well or suction line 100+ ft.
   Stream 100+ ft.
   Pressure line 100+ ft.
   Property line 100+ ft.

Indicate North with Arrow

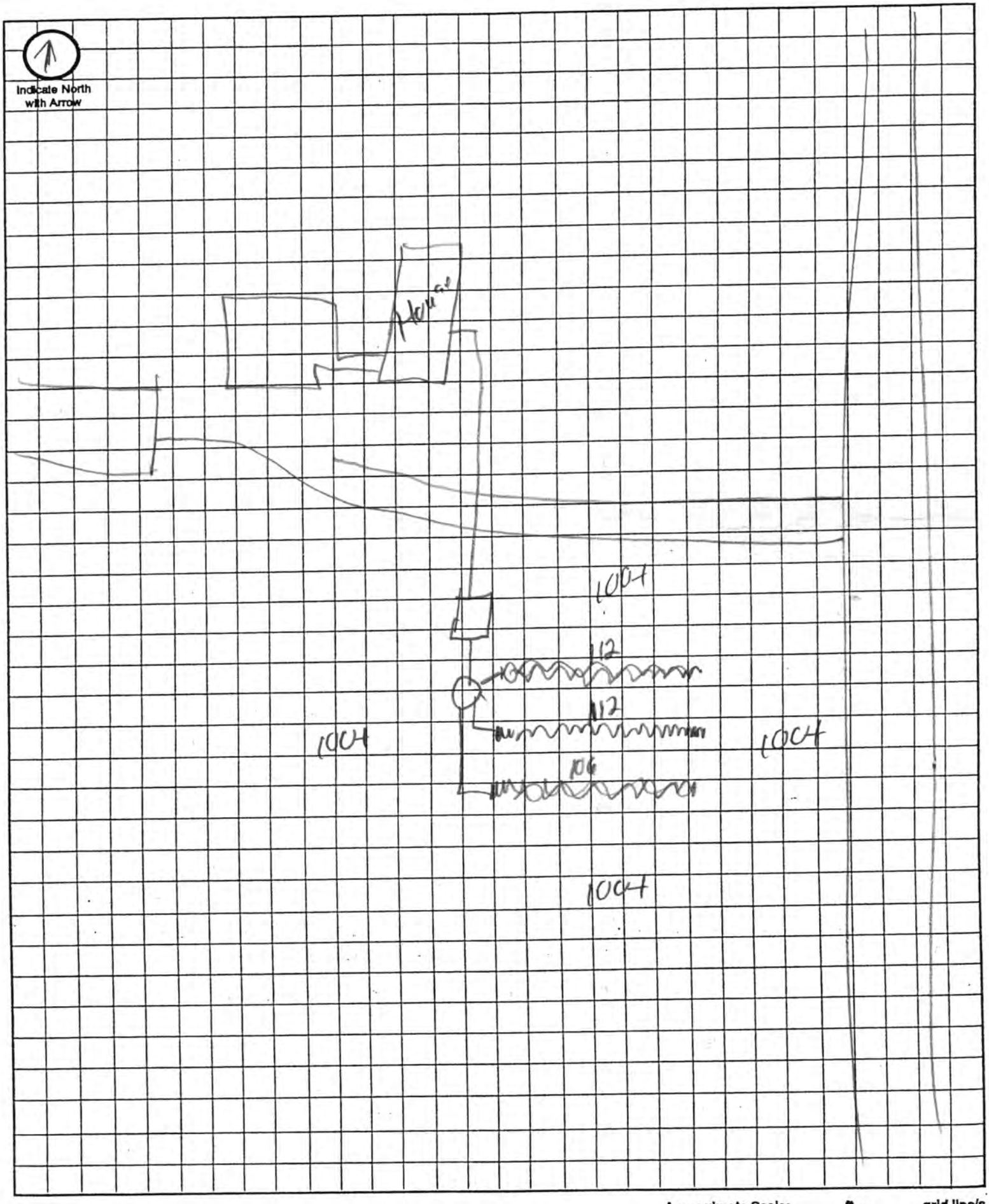
Complete "As Built" drawing on back of this form.

Individual Sewage System Design (Example)

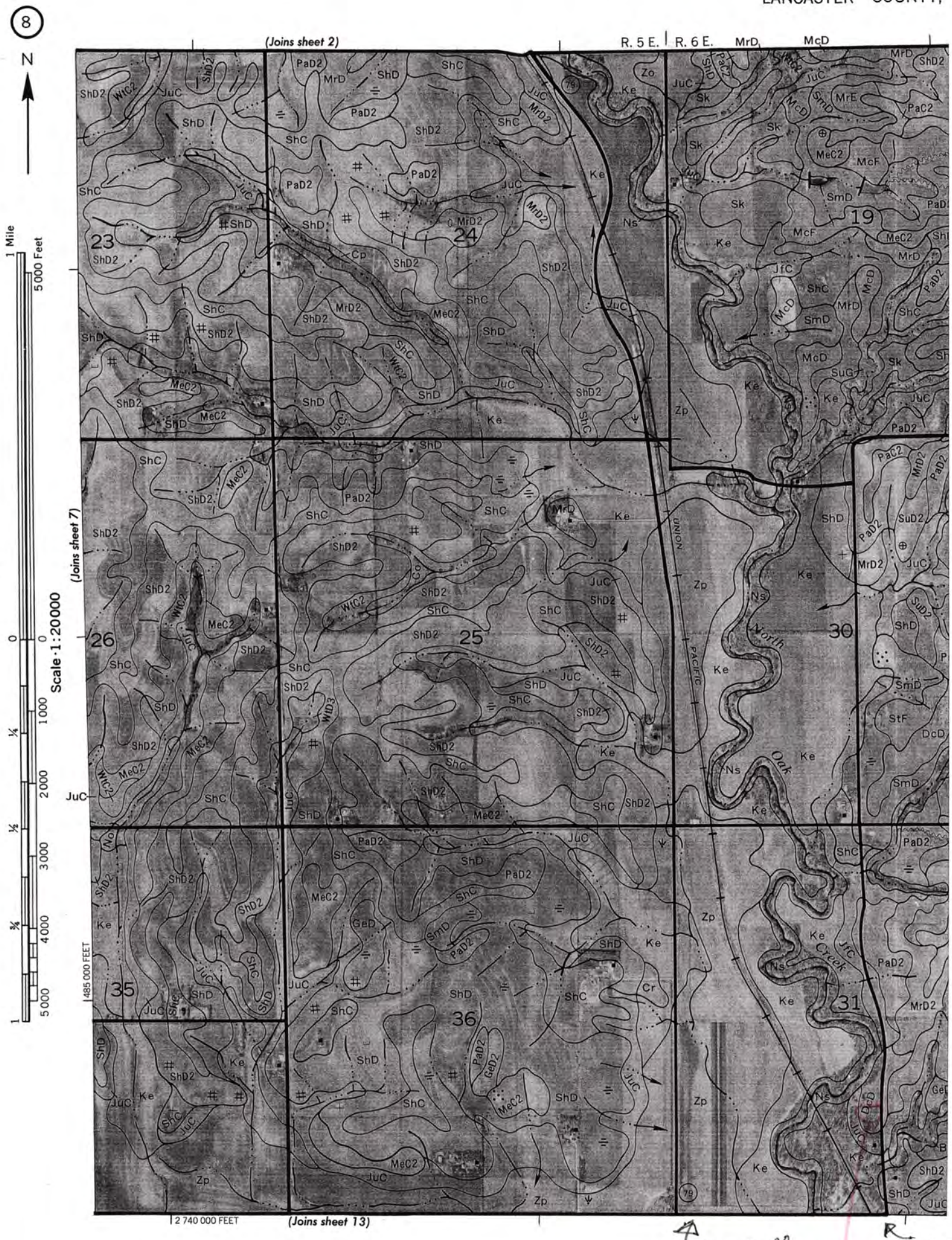


FORM 23-103 10-96

As Built Drawing



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


8
N
(Joins sheet 2)
R. 5 E.
R. 6 E.
(Joins sheet 7)
(Joins sheet 13)
1 Mile
5000 Feet
Scale · 1:20000
485 000 FEET
2 740 000 FEET
23
24
25
26
30
31
35
36
19
Oak Creek
Raymond Rd

ESRI ArcExplorer 2.0

15305 N.W. 48th Street , Raymond , Ne.



streets
Parcels
flood1

N

Friday, Jun 13 2003