



Brummer Septic LLC.

Site Evaluations, Septic Designs, Inspections

Designer I - Lic. #1347

Jeff Brummer (218) 821-0704

brummerseptic@gmail.com

Billing Statement

Invoice Number : 22-200 Markus Konopacki

Job Location : 21782 470th St. McGregor MN 55760

Parcel Number : 29-0-060807

Service of : Septic Design (3 bedroom Mound) \$400.00

All Passed due bills will be charged \$10.00 per month extra until paid.

Amount Due : \$400.00

Date of billing : 9/20/2022

Billing Information

Payment Due : 10/20/2022

Markus Konopacki 612-310-0927

725 Frontier Dr.

Belle Plaine MN 56011 (mkonzzz@gmail.com)

Make Payment to:

Brummer Septic LLC.

14650 Agate Ridge Rd

Brainerd MN. 56401

Thank you, Jeff Brummer

Preliminary & Field Evaluation Form

Type III Septic System

www.SepticResource.com vers 12.4

Owner Information			
Date	9/19/2022	Sec / Twp / Rng	S-30, T-49, R-23
Parcel ID	29-0-060807	LUG (county, city, township)	Shamrock
Property Owner:	Markus Konopacki	Owners address (if different)	
Property Address:	21782 470th St.	725 Frontier Dr.	
City / State / Zip:		Belle Plaine MN 56011	

Flow Information and Waste Type / Strength			
Estimated Design flow	450	Anticipated Waste strength	<input type="checkbox"/> HI Strength <input checked="" type="checkbox"/> Domestic
Comments: Type III mound Because of soils (Mottles at 8") Aitkin County requires an operating permit Property Address: City / State / Zip:		Any Non-Domestic Waste	<input type="checkbox"/> Yes (class V) <input checked="" type="checkbox"/> No
		Sewage ejector/grinder pump	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Water softener	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Garbage Disposal	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Daycare / In home business	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Site Information					
Existing & proposed lot improvements located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Well casing depth	Existing deep well	
Easements on lot located (see site map)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Drainfield w/in 100' of residential well	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Property lines determined (see site map)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No By Owner		Site w/in 200' of transient noncommunity water supply (TNCWS)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Req'd setbacks determined (see site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site w/in an inner wellhead mgmt zone (CWS/NTNCWS)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Utilities located & identified (gopher state one call)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Buried water supply pipe w/in 50' of system	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Access for system maintenance (shown on site map)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site located in Shoreland (w/in 1000' of lake, 300' of river)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Soil treatment area protected	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Site map prepared with previous items included	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Construction related issues	Divert surface water around mound into ditch <hr/>				

Soil Information

		Evidence of site:	
		Cut	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Filled	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Compacted	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		Disturbed	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Original soils	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Perk test completed and attached (if applicable)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Soil logs completed and attached	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Percolation rate (if applicable)	_____
Soil loading rate (gpd/ft ²)	<u>0.60</u>	Flooding or run-on potential (comments)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Depth/elev to SHWT	<u>(+ 36")</u>	Flood elevation (if applicable)	_____
Depth to system bottom maximum (or elev minimum)	_____	Elevation of ordinary high water level (if applicable)	_____
Depth/elev to standing water (if applicable)	_____	Floodplain designation and elev - 100 yr/10 yr (if applicable)	_____
Depth/elev to bedrock (if applicable)	_____		
Soil Survey information determined (see attachment)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Differences between soil survey and field evaluation (if applicable)	_____		

I hereby certify this evaluation was completed in accordance with MN 7080 and any local req's.


 Designer Signature

Brummer Septic LLC.
 Company

L-1347
 License #

Aitkin Co Operating Permit Required
 Event Counter and Alarm on Pump controller (Aitkin Co. Operating Permit)

 Designer Signature

Soil Observation Log

www.SepticResource.com vers 12.4

Owner Information	
Property Owner / project: <u>Markus Konopacki</u>	Date <u>9/19/2022</u>
Property Address / PID: <u>21782 470th St.</u>	

Soil Survey Information	
<input type="checkbox"/> refer to attached soil survey	
Parent mat'l's:	<input checked="" type="checkbox"/> Till <input type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Alluvium <input type="checkbox"/> Organic <input type="checkbox"/> Bedrock
landscape position:	<input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input checked="" type="checkbox"/> Side slope <input type="checkbox"/> Toe slope
soil survey map units:	<u>625& 1353B</u> slope <u>1</u> % direction- <u>North</u>

Soil Log #1							
		<input type="checkbox"/> Boring	<input checked="" type="checkbox"/> Pit	Elevation <u>97'</u>	Depth to SHWT <u>8"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 8	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
8 - 14	Sandy Loam	<35	10YR5/3	7.5YR5/6	Loose	Loose	Granular
Comments:							

21782 470th St.

Soil Log #2

		<input type="checkbox"/> Boring	<input checked="" type="checkbox"/> Pit	Elevation <u>96.9'</u>	Depth to SHWT <u>8"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 8	Topsoil Sandy Loam	<35	10YR3/2		Loose	Loose	Granular
8 - 14	Sandy Loam	<35	10YR5/3	7.5YR5/6	Loose	Loose	Granular
21782 470th St							

21782 470th St.

Soil Log #3

		<input type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation _____	Depth to SHWT _____		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
21782 470th St		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive
		<35 35 - 50 >50			loose friable firm rigid	loose weak moderate strong	single grain granular blocky prismatic platy massive

I hereby certify this work was completed in accordance with MN 7080 and any local req's.

Designer Signature 

Brummer Septic LLC.
Company

L-1347
License #

Mound Design - Aitkin county

Property Owner: Markus Konopacki

Date: 9/19/2022

Site Address: 21782 470th St.

PID: 29-0-060807

Comments: Type III Because of Soils (Mottles at 8")

Instructions: = enter data = adjust if desired = computer calculated - DO NOT CHANGE!

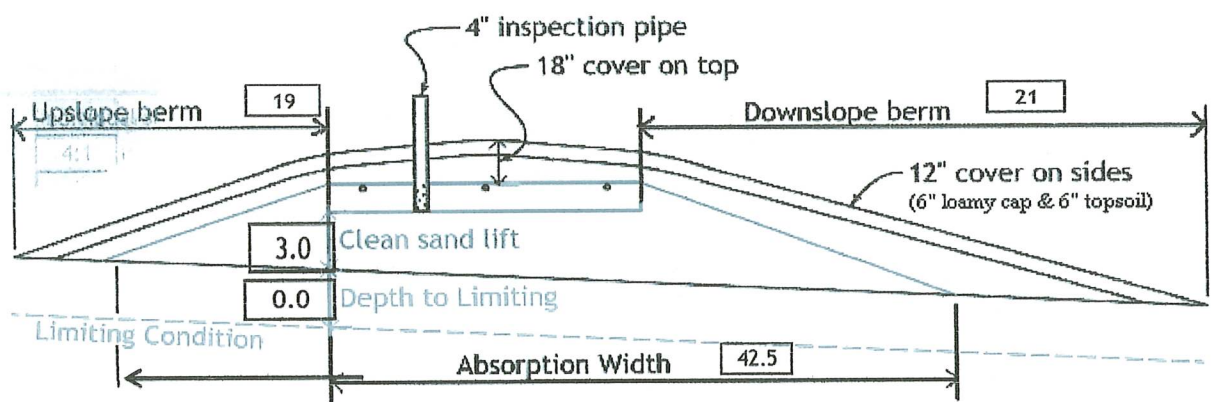
- 1) bedroom Type Residential System
- 2) GPD design flow
- 3) Garbage disposal or pumped to septic Install 1650 Jacobson 2/Compartment tank
- 4) Gal Septic tank (code minimum) Gal Septic tank (design size / LUG req'd)
Tank options: none
- 5) GPD/ft² mound sand loading rate contour loading rate of req's a min ft. long rockbed
- 6) ft rockbed width ft rockbed length
- 7) ft lateral spacing ft perforation spacing (maximum of 3 for both)
end feed manifold connection
- 8) laterals feet long perfs / lateral perfs total
(1/2 a perf means the first perf starts at the middle feed manifold)
- 9) inch perfs at feet residual head gives gpm flow rate per perforation
for this perf size & spacing, & pipe size on line 12, max perfs/lateral = , line #8 must be less --> OK
- 10) doses per day (4 minimum)
- 11) gallons per dose (treatment volume) 1.50 5x
- 12) inch diameter laterals must be used to meet "4x pipe volume" requirement 2.00 3x
- 13) feet of inch supply line leads to gallons of drainback volume
(Tip: "top feed" manifold to control the drainback)
- 14) gallons TOTAL pump out volume (treatment + drainback)
- 15) feet vertical lift from pump to mound laterals, leads to a:
- 16) GPM @ feet of head, Pump requirement (note: >50gpm may require an extra 3-6' of head)
- 17) gal Dose tank (code minimum) gal Dose tank (design size / LUG req'd) at gpi
leads to a
- 18) inch swing on Demand float, or timed dosing of min ON (confirm pump rate with drawdown
(this delivers Average flow, =70% of Peak design flow) hrs OFF test and adjust as necessary)
- 19) inches from bottom of tank to "Pump OFF" float
- 20) inches from bottom of tank to "Pump ON" float, or inches to "Timer ON" float if time dosed
- 21) inches from bottom of tank to "Hi Level" float, or inches to "Hi Level" float if time dosed
- 22) gallons reserve capacity (after High Level Alarm is activated)

- 23) 0.60 gpd/ft² Absorption area Soil Loading Rate, which gives a mound ratio of 2 (minimum)
 (this must match the soil boring log) desired mound ratio 2.0
- 24) 1 percent site slope (0-20% range) 1 (% downslope site slope, if different than upslope)
- 25) 0 inches, or 0.0 ft. to Redox or other limiting condition (need at least 12" to be a Type I)
 Treatment zone contains 0 inches of 0% soil credit, and 0 inches of 50% soil credit. Giving a:
- 26) 36 inch, or 3.0 ft. Sand Lift Mound **CRITICAL FOR FUTURE CERTIFICATIONS!!!**
- 27) 20.0 ft. base absorption width (with sand beyond rockbed as follows):
 42.5 greater of: absorption width OR sand slope
- 28) 5.0 ft. upslope and sideslope sand upslope 15.4
 5.0 ft. Downslope sand down slope 17.1

Individual slope ratios give BERM widths (topsoil beyond rockbed) of:

- 29) $4:1$ upslope ratio 19 ft. upslope berm
- 30) $4:1$ sideslope 20 ft. sideslope berms
- 31) $4:1$ downslope 21 ft. downslope berm

- 32) Overall Dimensions: 10.0 ft. wide by 37.5 ft. long Rock bed
 50 ft. wide by 78 ft. long Mound footprint



Note:
 For 0 to 1% slopes, *Absorption Width* is measured from the *Bed* equally in both directions.
 For slopes >1%, *Absorption Width* is measured downhill from the upslope edge of the *Bed*.

- 33) **Rock Bed:**
 10.0 ft. by 37.5 ft. by 9 inches under pipe, plus 20% gives 17 yd³ or *1.4= 24 ton
- 34) **Mound Sand:** (note: volume is based on 3:1/4:1 slope from top of rockbed, Exchange sand for loamy cap if desired)
 79.3 up + 90.2 downslope + 24.9 ends + 42.4 under rock = 284 yd³ or *1.4= 398 ton
 plus 20%
- 35) **Loamy Cap:**
 46 ft. by 74 ft. 6" deep, plus 20% gives 76 yd³ or *1.4= 106 ton
- 36) **Topsoil:**
 50 ft. by 78 ft. 6" deep, plus 20% gives 87 yd³ or *1.4= 122 ton

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Rock Bed: *[Signature]* Brummer Septic LLC. L-1347 9/19/2022
 Designer Signature Company License# Date

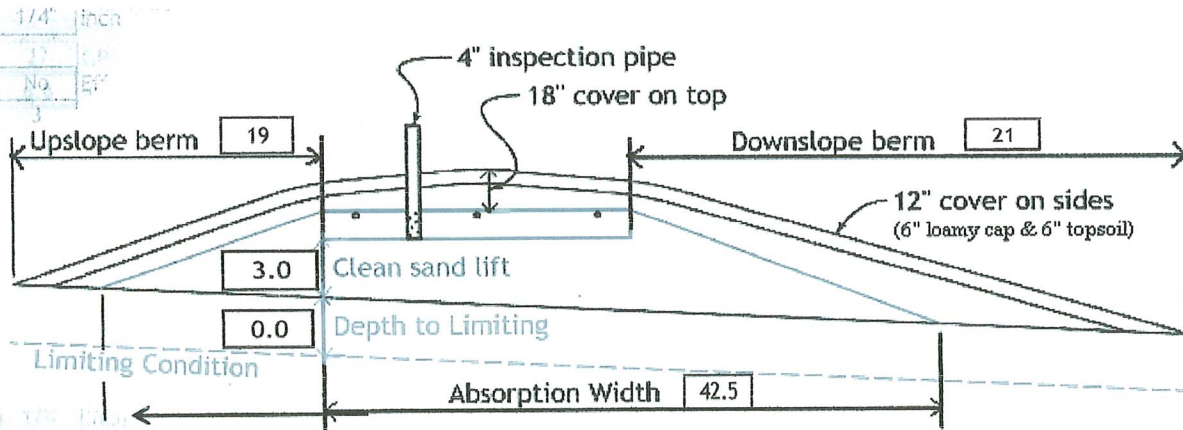
Installer Summary

- 1000 gallon Septic tank (minimum) Tank options: none
- Install 1650 Jacobson 2/Compartment tank
- 533 gallon Dose tank (minimum) at 12.69 gpi
- 27 GPM @ 24 ft. of head, Pump required
- 6.8 inch swing on Demand float which translates to roughly 4.4 inches of float tether length
- if time dosing is required --> 3.2 minutes ON time & 5.1 hours OFF time
- 19 inches from bottom of tank to "pump ON" float, or 12 inches to "timer ON" float
- 22 inches from bottom of tank to "Hi Level Alarm" or 32 inches to "Hi level alarm" if time dosed
- 130 ft. of 2.0 inch supply line with end feed manifold connection (Tip: "top feed" manifold to control drainback)
- 36 inch, or 3.0 ft. Sand Lift Mound
- 10.0 ft. wide by 37.5 ft. long Rock bed
- 3 laterals 1.50 inch diameter 35.5 ft. long 3.0 ft. lateral spacing
- 1/4" inch perfs 3.0 ft. perforation spacing
- 27 GPM
- No. Effluent filter & alarm
- 3 clean out & valve box assemblies

- 42.5 ft. Total sand ABSORPTION width (minimum)
- 15.4 ft. upslope and sideslope (sand beyond rockbed, minimum)
- 17.1 ft. Downslope (sand beyond rockbed, minimum)

Specific slope ratios give BERM widths (topsoil beyond rockbed) of:

4:1 upslope ratio	19 ft. upslope berm
4:1 sideslope	20 ft. sideslope berms
4:1 downslope	21 ft. downslope berm



Note:

For 0 to 1% slopes, *Absorption Width* is measured from the *Bed* equally in both directions.
 For slopes >1%, *Absorption Width* is measured downhill from the upslope edge of the *Bed*.

Rock Bed:	17.0 yd ³ or *1.4=	24 ton	9 inches under pipe
Mound Sand:	284 yd ³ or *1.4=	398 ton	
Loamy Cap:	76 yd ³ or *1.4=	106 ton	6" deep
Topsoil:	87 yd ³ or *1.4=	122 ton	6" deep

Note:
 End

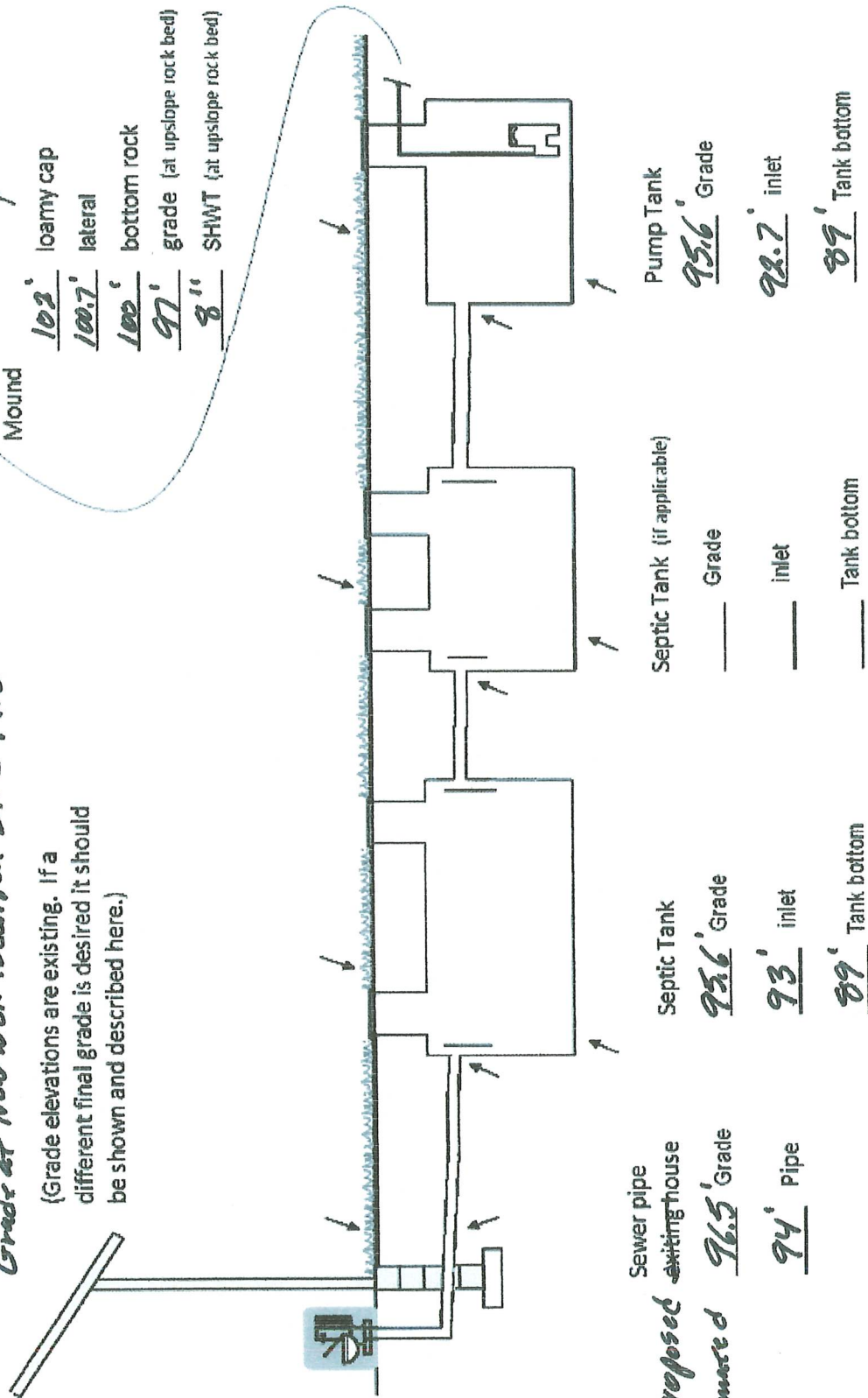
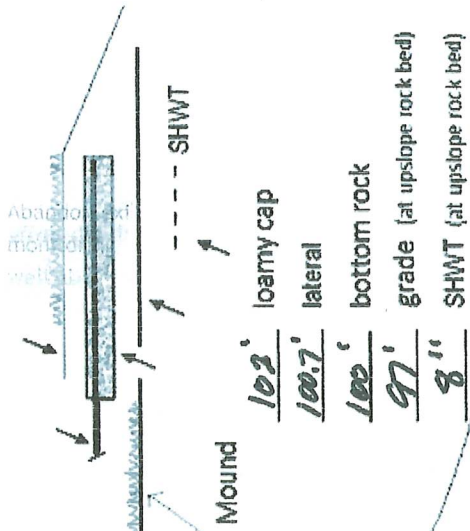
INSPECTOR CHECKLIST - mound

- 21782 4/0th St.
- WELL setbacks: 20' to pressure tested sewer line (5 psi for 15 min)
50' to everything 100' to dispersal area with shallow well
- PROPERTY LINES setback: 10' to everything
- Road setback: platted: 10' prop line. Metes & bounds: out of road easement, or outer ditch.
- LAKE / BLUFF setback: 20' for bluff. Lakes: GD ____, RD ____, NE _____. Protected wetland ____.
- Building setbacks: 10' for everything, 20' for dispersal area.
- WATER LINE under pressure se 10' to bed, tank & sewer line. (else sewer line > 12" below, else ok w/pvc)
- Sewer line & baffle connection (no 90's, 3' between 45's, slope min 1" in 8', max 2" in 8')
(no depth req's, clean out every 100', Sch 40 pipe)
- Septic tank and risers (water tight, insulated, proper depth, existing verified by pumping)
WELL mfg _____ 1000 gallons none _____
- Riser over outlet, riser over inlet or center, and 6"+ inspection pipe over any remaining baffles.
- No effluent filter & alarm
- Dose tank risers and piping (water tight, insulated, proper depth, drainback)
mfg _____ 533 gallons
- dose pump _____ 27 gpm 24 head VERIFY PUMP CURVE 3.2 min ON 5.1 hr OFF
- float setting drop 6.8 inches at 12.7 gpi "DESIGNED" 4.4 inches approx float tether length
86.0 gal dose divided by _____ gpi "INSTALLED" = _____ inches float drop (field corrected)
- LABEL pump requirements and drawdown on riser or panel
- Cam lock reachable from grade - 30" max. J-hook weep hole. Supply line access (no hard 90's)
2.0 inch supply pipe: Sch40, sloped 1/8"+, supported by 4" sch40 sleeve or compacted, and buried 6"+.
splice box / control panel / electrical connections
flow measurement: CT, ETM, time dosed, home water meter
mound absorption area rough up
mound rock dimensions 10.0 X 37.5
Sand lift depth 36 inches. (Jar test : 2" sand leaves < 1/8" silt after 30 min)
- Absorption Sand beyond rock 15.4 upslope 17.1 downslope
- Bermed topsoil beyond rockbed 19 upslope 20 sideslope 21 downslope
- cover depth of 12-18"+ VERIFY
3 laterals (1-2' from edge of rock)
1.50 inch pipe size (Sch40 pipe & fittings)
3.0 ft lateral spacing
- 1/4" inch perforations
3.0 ft perforation spacing
- Air inlet at end of laterals, and at top feed manifold if necessary. VERIFY
clean outs (no hard 90's)
- 4" inspection pipe to bottom of rock, anchored VERIFY
- Abandon existing system - if necessary Re-use existing tank certification
monitoring plan and type _____
well abandonment form - if necessary _____

Systems - System Elevations

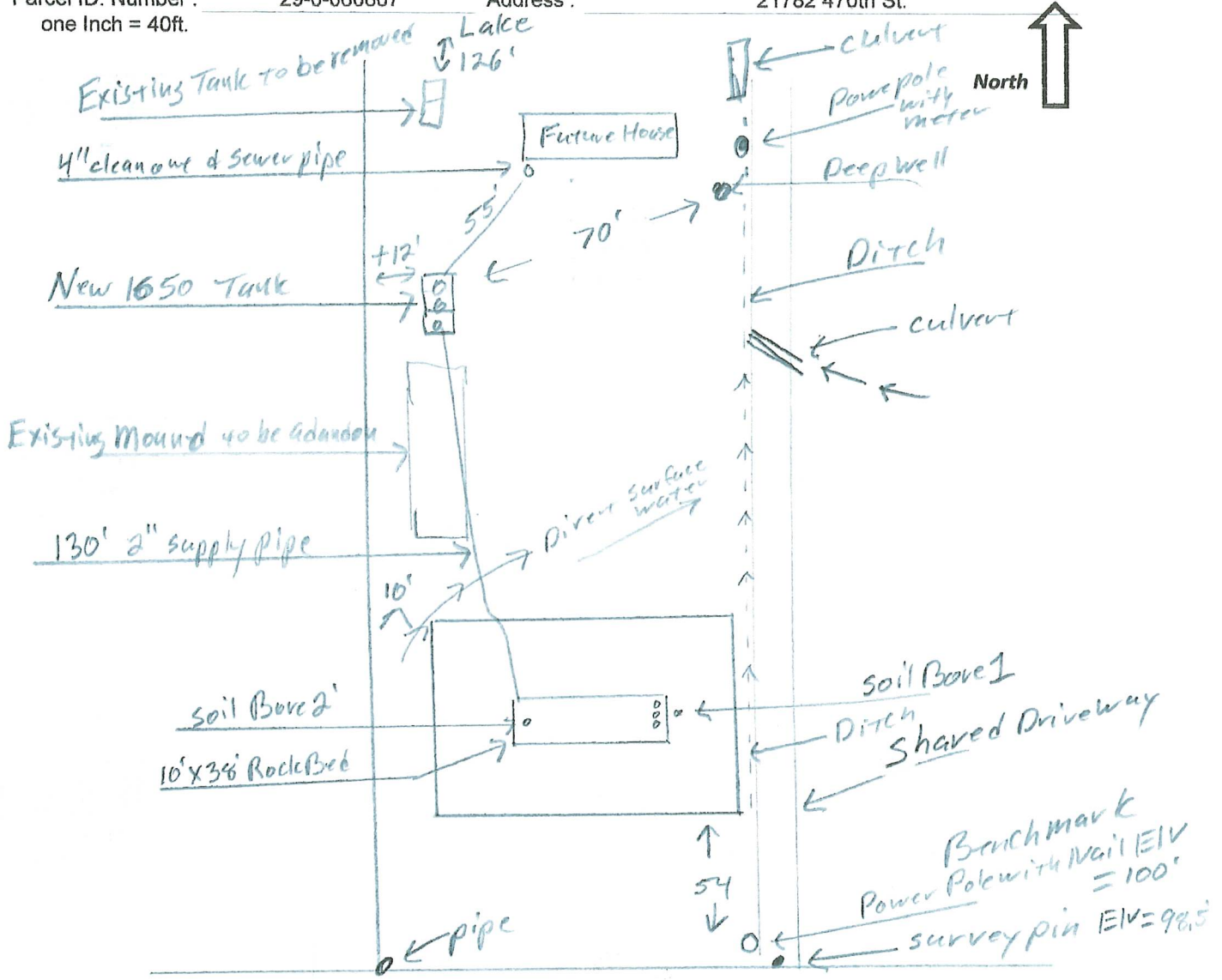
EL = 100' benchmark Nail on Power Pole SE for corner
 Grade at New well location EL = 94.6'

(Grade elevations are existing. If a different final grade is desired it should be shown and described here.)



{ Design Drawing }

Property Owner: Markus Konopacki Date: 9/19/22 Designer's Initials: JB
 Parcel ID. Number: 29-0-060807 Address: 21782 470th St.
 one Inch = 40ft.



Grade at New Well Location Elv. = 94.6' Lake Elv. = 86.4' on 9/16/2022 Shore Elv. = 87.9'
 Approx. Septic tank Inlet Elv. = 93.5' Existing Septic tank Grade Elv. = 93.6'
 Elevation of House not set at time of Design Estimated Top of Pad for house Elv. = 96.5'

	Surface/ SHWT	Nail on Power pole = Bench Mark 100'		Existing Grade
Soil Pit 1	97' / 8"	Bench Mark	100'	Upslope Edge of Rockbed Elv. = 97'
Soil Pit 2	96.9' / 8"	Ground Elv. BM	98.8'	Bottom of Rockbed Elv. = 100'
Soil Bore 3		Ground Elv. Tank	95.6'	Top of Washed Sand Elv. = 100'
Existing Ground at Proposed house			95.1'	Estimated Sewer pipe at House Elv. = 94.'

Please show all that apply (Existing)

- Wells within 100ft. Of Drain field.
- Water lines within 10 ft. of Drain field.
- Drain field Areas:

Please Draw to Scale with North to Top or Left Side of Page:

- | | |
|---------------------------|-----------------------------------|
| Disturbed/Compacted Areas | Access Route for Tank Maintenance |
| Component Location | Property Lines |
| OHW ordinary high water | Structures |
| Lot Easements | Setbacks |

Mound Design Notes - Aitkin county

Property Owner: Markus Konopacki Date: 9/19/22

Site Address: 21782 470th St. PID: 29-0-060807

Comments: **Mound design may not follow Aitkin co. Auto fill form for mound design.**

- 1 This is a type III mound , (Soil Separation 8") sized for a 3 bedroom system.
- 2 Existing well location is on the SE corner of proposed house.
- 3 Existing tank to be pumped collapsed, filled, or removed. Existing Mound drainfield to be abandon.
East property line is middle of shared driveway. Survey pin at SE lot corner center of driveway.,
Installer to landscape from west edge of mound to move surface water to ditch along side driveway.
- 4 The house will be gravity flow from SW corner area of house, install clean-out near house.
Pressure test sewer pipe if closer than 50 ft to well.
- 5 Lot is Flat, install 1650 Jacobson compartment tank for gravity flow from house.
Install tank low enough for drainback from mound to pump tank.
Designer Recommends Installing an effluent filter in septic tank outlet. Install alarm on Effluent filter.
- 6 The berm slopes are at 4:1. The West end berm is approx. 10 ft from property line.
Mound location is on contour, divert surface water around mound area to driveway ditch.
- 7 Elevation contour of rock bed upslope edge is 97' . East end berm is approx. 10 ft. from East property line.
The area size of the rock bed is 10' x 38' . Absorption area is 38' x 42.5'.
Sand absorption area is 15.4 ft. up slope + 10 ft. rockbed + 17.1 downslope = approx. 42.5 ft. wide sand base.
Berms are 19ft. Upslope, 21ft. Down slope, 10ft. Rock bed = approx. 50ft. Wide.
Overall mound size is approx. 50' wide x 78' long and approx. 5' high. End berms are 20ft. Wide.
- 8 The bench mark is the nail on the power pole at SE lot Corner near mound area, BM = Elv. 100'.
Installer to double check bench mark. Installer should confirm bench mark and sand height Elv. with inspector.
Installer should record bench mark Elv. and sand height on installation inspection form.
The top of the sand and bottom of rock bed is Elv. 100'.
- 9 It is important that the soils do not get compacted, and that clean Washed sand is used.
- 10 The Jacobson 1650 tank will be gravity flow from dwelling. Install the pump for 7 demand doses per day. approx. 86 gallons per dose, 6.8 inches of tank level. Install alarm at 3 inches from pump on level.
Install all manholes, inspection pipes and clean-outs to grade or above. (Recommend min. 4" above grade)
Install a 2" supply pipe from tank to end manifold in rock bed, install so pipe drains back to tank.
Install 1.5" laterals with 9" of rock under them. (Install Lateral clean-outs at far end of laterals. Recommended)
- 11 **Drill 1/4" perf holes spaced 3 ft. on center.**
Install 4" inspection pipe to bottom of rock bed, secure in rock bed and raise to above final grade.
- 12 Install Event counter on Effluent pump, calibrate pump and give gallons per event to Owner.
- 13 Designer does not guarantee or warranty any Type III systems.

Designed to Aitkin Co. and MPCA recommendations and requirements.

Designer  Signature

Brummer Septic LLC.
Design Company

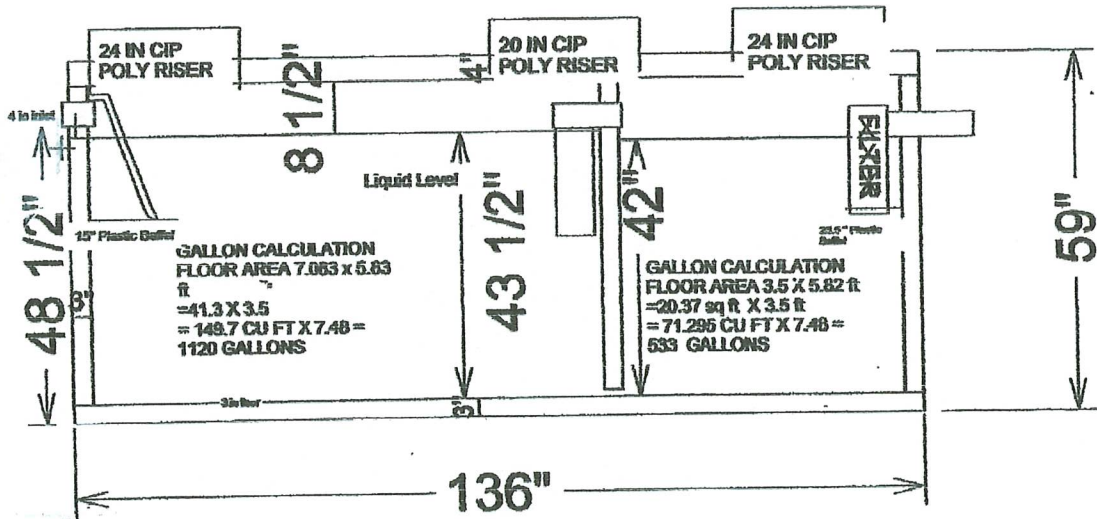
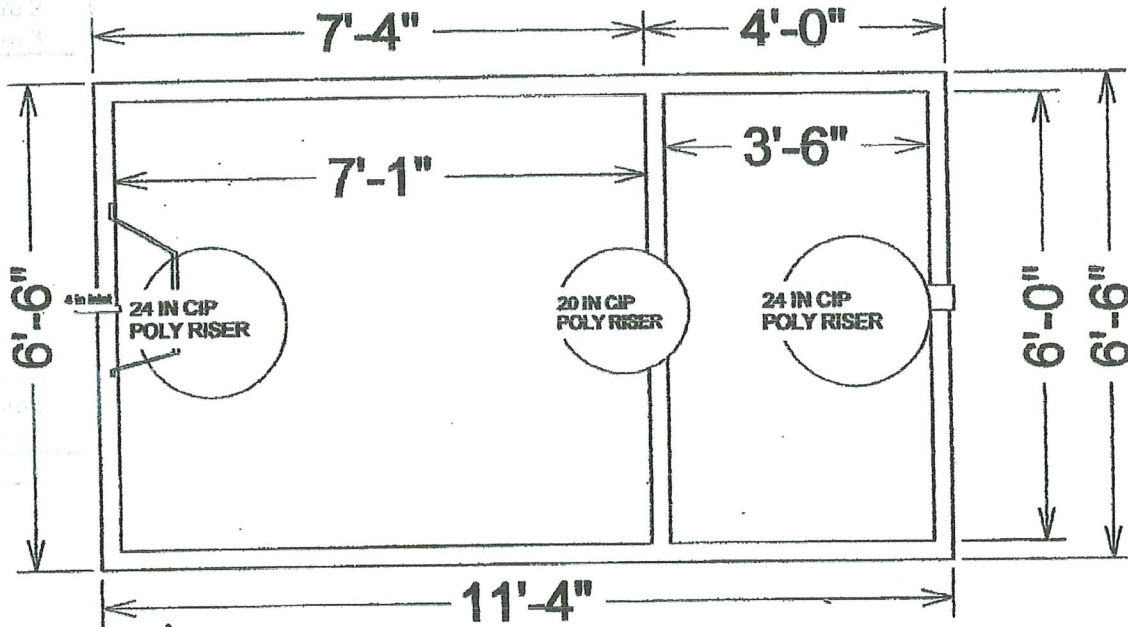
L-1347
License#

This System will require an Aitkin Co. Operator permit, annual inspection

There may be 2 alarms on this system one on the Effluent filter, one on the pump tank.
Owner and installer are responsible for owner knowing how system is maintained.
Owner should clean Effluent filter at least twice a year and check alarms and pump.

1650 Gallon 2 Compartment Septic Tank

TOP VIEW



$533 / 42" = 12.69 \text{ GPI}$

SIDE VIEW

Drawings Owned BY Jacobson Precast, Inc.
 36641 HWY 169, Aitkin, Mn 56431



Detailed Parcel Report

Parcel Number: 29-0-060807

General Information

Township/City: SHAMROCK TWP
 Taxpayer Name: KONOPACKI, KRISTY & MARKUS II
 Taxpayer Address: 735 FRONTIER DR
 BELLE PLAINE MN 56011
 Property Address: 21782 470th St
 Township: 49 Lake Number: 1006100
 Range: 23 Lake Name: BIG SANDY FLOWAGE *NE*
 Section: 30 Acres: 1.15 *150'*
 Green Acres: No School District: 4.00
 Plat:
 Brief Legal Description: E 100 FT OF W 1195.76 FT LOT 6

Tax Information

Class Code 1: Non-Comm Seasonal Residential Recreational
 Class Code 2: Unclassified *OHW 1216.56*
 Class Code 3: Unclassified *- 100yr 1223.9*
 Homestead: Non Homestead
 Assessment Year: 2022

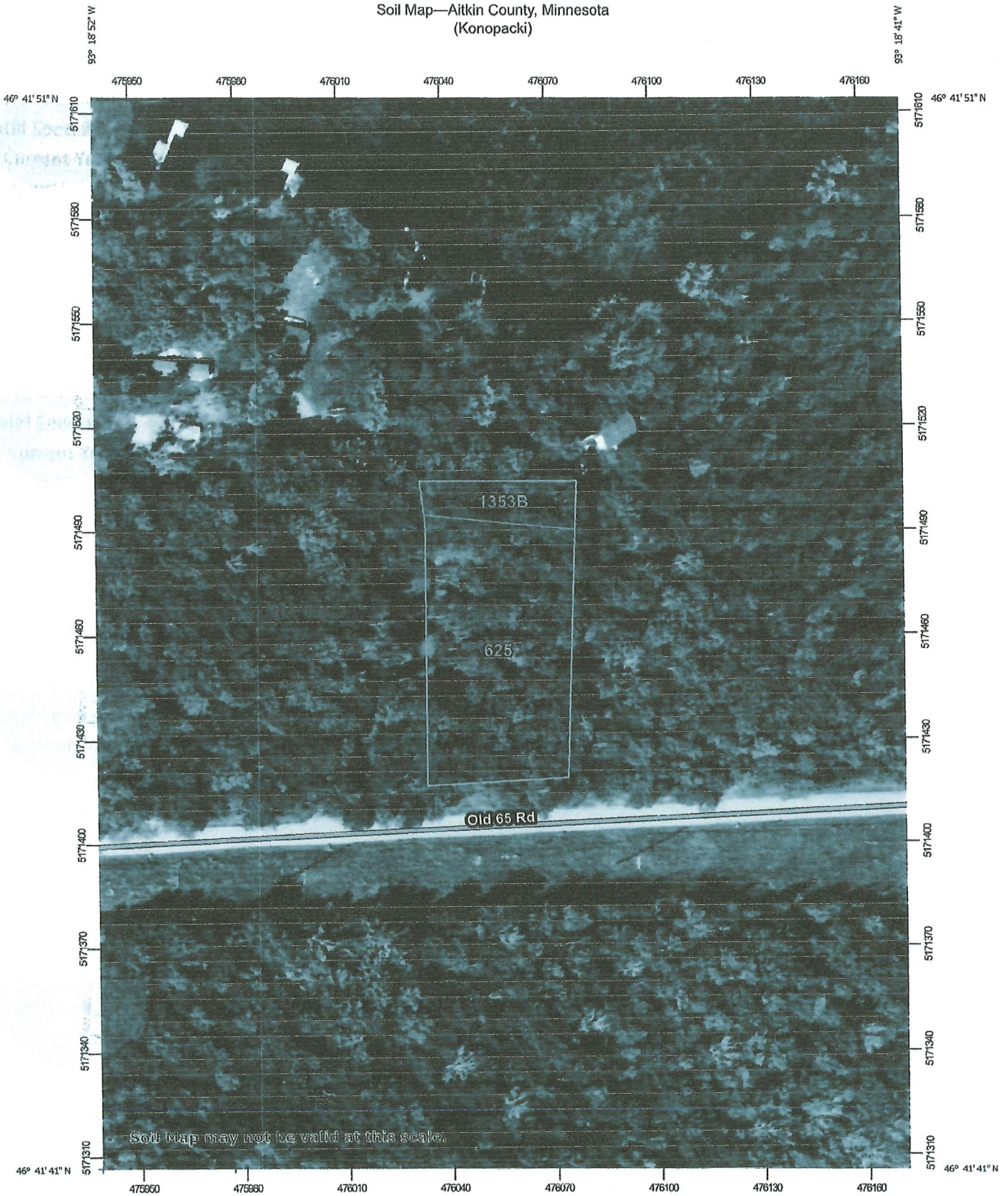
Estimated Land Value: \$113,500.00
 Estimated Building Value: \$200.00
 Estimated Total Value: \$113,700.00
 Prior Year Total Taxable Value: \$94,100.00
 Current Year Net Tax (Specials Not Included): \$784.00
 Total Special Assessments: \$0.00
 **Current Year Balance Not Including Penalty: \$331.84
 Delinquent Taxes: No

*** For more information on delinquent taxes, please call the Aitkin County Treasurer's Office at 218-927-7325.**

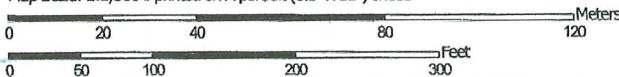
**** Balance Due on a parcel does not include late payment penalties.**

Total Special Ass:
** Current Year

Soil Map—Aitkin County, Minnesota
(Konopacki)



Map Scale: 1:1,500 if printed on A portrait (8.5" x 11") sheet.

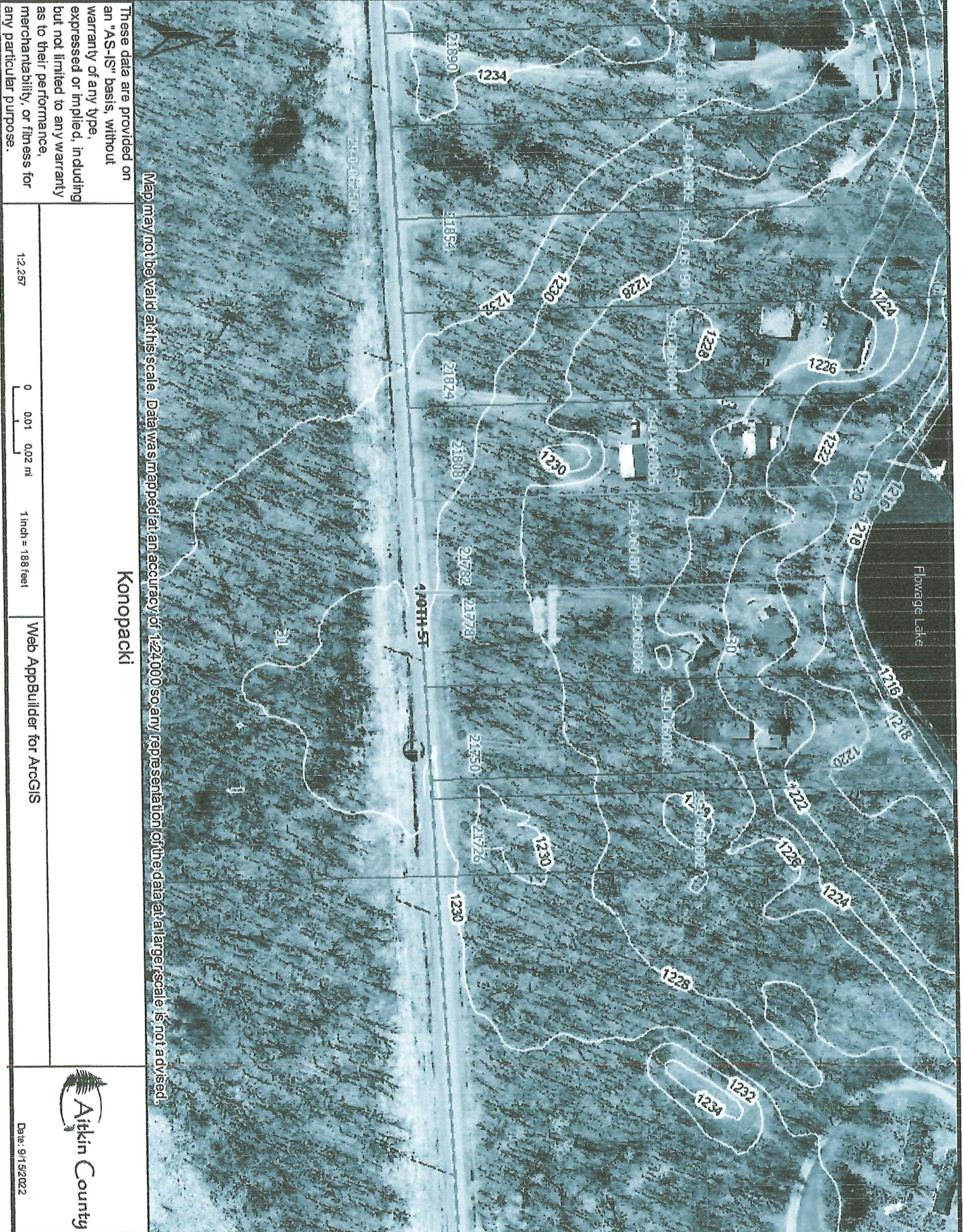


Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 15N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

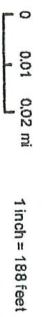


Map may not be valid at this scale. Data was mapped at an accuracy of 1:24,000 so any representation of the data at a larger scale is not advised.

Konopacki

These data are provided on an "AS-IS" basis, without warranty of any type, expressed or implied, including but not limited to any warranty as to their performance, merchantability, or fitness for any particular purpose.

1:2,257



Web AppBuilder for ArcGIS



Date: 9/15/2022

Aitkin County, Minnesota

625—Sandwich loamy sand

Map Unit Setting

National map unit symbol: gjj4
Elevation: 980 to 1,310 feet
Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 37 to 41 degrees F
Frost-free period: 95 to 105 days
Farmland classification: Not prime farmland

Map Unit Composition

Sandwich and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sandwich

Setting

Landform: Swales on moraines
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Sandy outwash over loamy till

Typical profile

E - 0 to 6 inches: loamy sand
Bw,E' - 6 to 34 inches: sand
2E/B,2Btg - 34 to 55 inches: loam
2Cg - 55 to 60 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 6 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Available water supply, 0 to 60 inches: Low (about 5.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C/D
Forage suitability group: Level Swale, Low AWC, Acid (G088XN007MN)
Other vegetative classification: Level Swale, Low AWC, Acid (G088XN007MN)

Hydric soil rating: Yes

Minor Components

Stuntz and similar soils

Percent of map unit: 3 percent

Hydric soil rating: No

Cutaway and similar soils

Percent of map unit: 3 percent

Hydric soil rating: No

Alstad and similar soils

Percent of map unit: 3 percent

Hydric soil rating: No

Dusler and similar soils

Percent of map unit: 3 percent

Hydric soil rating: No

Northwood and similar soils

Percent of map unit: 3 percent

Landform: Depressions

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Aitkin County, Minnesota

Survey Area Data: Version 22, Sep 10, 2021



Aitkin County, Minnesota

1353B—Cutaway loamy fine sand, 1 to 6 percent slopes

Map Unit Setting

National map unit symbol: gjd4
Elevation: 980 to 1,310 feet
Mean annual precipitation: 20 to 27 inches
Mean annual air temperature: 37 to 41 degrees F
Frost-free period: 95 to 105 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Cutaway and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cutaway

Setting

Landform: Moraines
Landform position (two-dimensional): Summit, backslope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy outwash over loamy till

Typical profile

A - 0 to 2 inches: loamy fine sand
E,Bw,E' - 2 to 26 inches: loamy sand
2E/B,2B/E - 26 to 49 inches: loam
2C - 49 to 60 inches: loam

Properties and qualities

Slope: 1 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 41 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: B
Forage suitability group: Sloping Upland, Acid (G088XN006MN)

Other vegetative classification: Sloping Upland, Acid
(G088XN006MN)
Hydric soil rating: No

Minor Components

Northwood and similar soils

Percent of map unit: 6 percent
Landform: Depressions
Hydric soil rating: Yes

Sandwick and similar soils

Percent of map unit: 6 percent
Landform: Swales
Hydric soil rating: Yes

Dusler and similar soils

Percent of map unit: 3 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Aitkin County, Minnesota
Survey Area Data: Version 22, Sep 10, 2021

{ Type III Design Notes for Owner and Installer }

Property Owner: Markus Konopacki Date: 9/20/2022 Installer's Initials : _____
 PIN : 29-0-060807 Site Address: 21782 470th St. McGregor Mn 55760

This is a TYPE III Septic System, Operating Permit Required of Owner. Permit # _____

Reason for Type III Type III because mottled soils at 8 inches Type III Soils

Description of System Type III mound 3 bedroom rockbed with 3 ft washed sand

1st Tank Gal. _____	1st compartment gal. _____	2nd Comp _____	3rd _____
2nd Tank Gal. _____	1st compartment gal. _____	2nd Comp _____	3rd _____
3rd Tank Gal. _____	1st compartment gal. _____	2nd Comp _____	3rd _____
1st Pump tank Gal. _____	1st Pump Brand and model # _____		
1st Pump GPM _____	1st Pump Ft. of Head _____	1st Pump Gal. per Dose _____	
1st Pump tank Gal. per inch. _____	1st Pump Inches per Dose _____	1st Pump Doses per Day _____	
1st Pump Design GPD _____	1st Pump Measured dose per day _____	Timed or demand Dose _____	
Time Settings: Minutes ON _____	Minutes OFF _____	Inches Pumped after drainback _____	
Notes : _____			
2nd Pump tank Gal. _____	2nd Pump Brand and model # _____		
2nd Pump GPM _____	2nd Pump Ft. of Head _____	2nd Pump Gal. per Dose _____	
2nd Pump tank Gal. per inch. _____	2nd Pump Inches per Dose _____	2nd Pump Doses per Day _____	
2nd Pump Design GPD _____	2nd Pump Measured dose per day _____	Timed or demand Dose _____	
Time Settings: Minutes ON _____	Minutes OFF _____	inches Pumped after drainback _____	
Notes : _____			

1st Alarm: Tank _____ Reason: _____
 2nd Alarm: Tank _____ Reason: _____
 3rd Alarm: Tank _____ Reason: _____

Water Meter Installed on house hold water: _____ Where is it located : _____

Event counter Installed on pump: _____ Which Pump: _____ Gal. Per Event _____

Where is Event Counter Located: _____

Requirement of Operating Permit

Owner to UNDERSTAND System Operation: Required to do monthly readings of water meter or event counter.

Owner to record readings every month that system is being used, should know calculations for Gal. per day.

Owner to REPORT to Aitkin Co. once a year with log of monthly readings and annual Inspection Report

Owner to Hire an Inspector for a Once a year Inspection of the system's, Operation, Mechanical functions, and Compliance with Operating Permit.

In no event shall the Inspector be responsible for special or consequential damages, including but not limited to, loss of time, injury to personal property or any other consequential damages or incidental or economic loss due to equipment failure or for any other reason. This contract does not assume any responsibilities or obligations, which are normally, the responsibility of the Client or as, related to parts or labor and does not extend to cover any costs that may be associated with any recommendations made under this contract.

This contract shall be effective: Beginning At time of Certification of Compliance Installation
and Ending _____, _____

Cost for Maintenance Service, Monitoring and Inspection Contract is:

\$ _____/yr. For _____ years totaling \$ _____ To be Determined at time of service

The Inspector agrees to provide inspection, monitoring and routine maintenance service only under this contract. The Client remedies for breach of this contract shall be limited to refund of any of the amounts paid in advance for service. This contract may be renewed 30 days from the ending date.

Payment for all services shall be paid At 1st inspection and every one after .

Client:

Inspector:

Sign: _____

Sign: Jeff Brummer

Print: Markus Konopacki

Print: Jeff Brummer

Date: _____

Date: 9/20/2022

Brummer Septic LLC. 218-821-0704
14650 Agate Ridge Rd Brainerd MN
brummerseptic@gmail.com

Check pumping system, including control panel and floats.

Owner ---> Record and date the readings of the elapsed time meter and cycle counter(s), if applicable. Owner is responsible for monthly event counter readings

Check dosing settings (in the control panel, if applicable).

Other: _____

**If the septic tank or lift stations need pumping to be in compliance with the operating permit the cost of the pumping is the responsibility of the Client.

TREATMENT DEVICE

_____ Inspect pretreatment unit (aerobic tank, sand filter, etc.) per manufacturer's recommendations, if applicable.

_____ Inspect and clean any parts per manufacturer's recommendations.

_____ Inspect and clean laterals, if applicable.

_____ Inspect the appearance of the wastewater inside the unit for color, turbidity and examination of odors.

_____ Sample effluent per Operating Permit monitoring requirements.

(Cost of sampling and analysis is the responsibility of the Client)

Other: _____

DISPERSAL FIELD

Inspect for visible signs of failure (surface discharge, soggy ground, wet spots, settling, etc.)

If liquid level monitors are installed, levels will be observed and recorded.

_____ Flush filters and clean cartridges, if applicable.

_____ Check field control unit solenoid operations or manual control, if applicable.

Other: _____

**MAINTENANCE SERVICE, MONITORING AND INSPECTION
CONTRACT
FOR INDIVIDUAL SEWAGE TREATMENT SYSTEM**

It is hereby agreed this ____ day of _____, _____ by and between
Jeff Brummer (Inspector) and Markus Konopacki (client)

(Client) Name & Address

Markus Konopacki 725 Frontier Dr. Belle Plaine MN 56011

Site Street Address 21782 470th St. McGregor Mn 55760

City, State, Zip _____

That in consideration of the payments provided herein, the Inspector shall provide services to perform Preventative Maintenance, Monitoring and Inspection of the Individual Sewage Treatment System (ISTS) located at the property described in the Aitkin County Operating Permit.

Each inspection includes an examination of the ISTS followed by a written report to the client. This inspection report shall contain recommendations for operation and maintenance for failure-preventative measures, if any are deemed appropriate by the inspector and a list of recommended corrective measures or replacement parts. The Inspector is authorized to submit a copy of the report to the Aitkin County Environmental Services Department.

This contract does not assume any responsibilities or obligations, which are normally the responsibilities of the Client, as related to parts or labor and does not extend to cover any costs that may be associated with any recommendations made under this contract.

The Inspector can only contract or subcontract for parts or labor after authorization. Billings for service calls shall be made on a case by case basis. This contract only covers maintenance, monitoring and inspection services per current Aitkin County Operating Permit and does not cover alarm calls of any kind.

The Inspector shall be provided access to the site and the system in order to perform the following services:

SEPTIC TANK AND LIFT STATIONS INSPECTION

(check the boxes needed to fill the requirements of the Operating Permit)

Check septic tank and compartments for solids buildup and general appearance. If necessary, have tanks pumped (cost of pumping is the responsibility of the client).

Check effluent filter for buildup and clean, if applicable.

C. MAINTENANCE PLANS

PARAMETER	LOCATION	FREQUENCY
450 GPD	Read Event Counter	Once a month or when present
Calibrate pump out gallons	Measure pump tank and calculate gallons pumped out per event	Calibrate system when installed and in operation. Check calibration number at 1st year inspection and every one after
Report monthly readings to Aitkin Co. Or inspector	Keep records of monthly readings	Once a year submit report to Aitkin Co.

D. MITIGATION PLAN:

Have system Inspected

I hereby certify with my signature as the designer, that all data for the operating permit application is true and correct to the best of my knowledge. I agree to indemnify and hold Aitkin County harmless from loses, damages, costs and charges that may be incurred by the County because of the information submitted with this application.

Jeff Brummer
Signature

L-1347
License Number

9/20/2022
Date

Jeff Brummer
Name (please print)

14650 Agate Ridge Rd Brainerd MN 56401
Address

(218) 821-0704
Telephone #