Preliminary & Field Evaluation Form

Type III Mound

www.SepticResource.com vers 12.4

Owner Information

Date	8/16/2023	Sec / Twp / Rng	S-11, T-48, R-26
Parcel ID	23-0-017602	LUG (county, city, township)	Aitkin Co.
Property Owner:	Todd Malcolm	Owners address (if different)	
Property Address:	44719 352nd Pl Aitkin Mn 56431		1456 25th St. SE
City / State / Zip:			St. Cloud MN 56304

Flow Information and Waste Type / Strength

Estimated Design flow: 300

Comments: Type III Mound Soils Type III 6" to Mottles
River Setback 125 ft to absorption area.
Wetland Impact area approx. 832 sq ft.

Aitkin Co Operating Permit Required

Event Counter and Alarm on Pump controller

Anticipated Waste strength	☐ Hi Strength	☑ Domestic
Any Non-Domestic Waste	☐ Yes (class V)	☑ No
Sewage ejector/grinder pump	☐ Yes	☑ No
Water softener	☐ Yes	☑ No
Garbage Disposal	☐ Yes	☑ No
Daycare / In home business	☐ Yes	☑ No

Site Information

Existing & proposed lot improvements located (see site map)	☐ Yes	☑ No	Well casing depth	Proposed deep well
Easements on lot located (see site map)	☐ Yes	☑ No	Drainfield w/in 100' of residential well	☐ Yes ☑ No
Property lines determined (see site map) By Owner	☑ Yes	☐ No	Site w/in 200' of transient noncommunity water supply (TNCWS)	☐ Yes ☑ No
Req'd setbacks determined (see site map)	☑ Yes	☐ No	Site w/in an inner wellhead mgmt zone (CWS/NTNCWS)	☐ Yes ☑ No
Utilities located & identified (gopher state one call)	☐ Yes	☑ No	Buried water supply pipe w/in 50' of system	☐ Yes ☑ No
Access for system maintenance (shown on site map)	☑ Yes	☐ No	Site located in Shoreland (w/in 1000' of lake, 300' of river)	☑ Yes ☐ No
Soil treatment area protected	☑ Yes	☐ No	Site map prepared with previous items included	☑ Yes ☐ No

Construction related issues: See Notes on Washed sand width and absorption area

Soil Information

Evidence of site:

Cut	☐ Yes	☑ No
Filled	☐ Yes	☑ No
Compacted	☐ Yes	☑ No
Disturbed	☐ Yes	☑ No

Original soils ☑ Yes ☐ No

Soil logs completed and attached ☑ Yes ☐ No

Perk test completed and attached (if applicable) ☐ Yes ☑ No

Soil loading rate (gpd/ft^2) 0.60

Percolation rate (if applicable) _____

Depth/elev to SHWT 6"

Flooding or run-on potential (comments) ☐ Yes ☑ No

Depth to system bottom maximum (or elev minimum) (+36")

Base Flood Elv.= 1210.6'

Flood elevation (if applicable) _____

Depth/elev to standing water (if applicable) _____

Elevation of ordinary high water level (if applicable) _____

Depth/elev to bedrock (if applicable) _____

Floodplain designation and elev - 100 yr/10 yr (if applicable) _____

Soil Survey information determined (see attachment) ☑ Yes ☐ 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 #

Soil Observation Log

www.SepticResource.com vers 12.4

Owner Information

Property Owner / project: Todd Malcolm Date 8/16/2023

Property Address / PID: 44719 352nd Pl Aitkin Mn 56431

Soil Survey Information

☐ refer to attached soil survey

Parent matl's: ☐ Till ☐ Outwash ☑ Lacustrine ☐ Alluvium ☐ Organic ☐ Bedrock

landscape position: ☐ Summit ☐ Shoulder ☐ Side slope ☐ Toe slope

soil survey map units: 1982 slope 0 % direction- North

Soil Log #1

☑ Boring ☐ Pit Elevation 97.1' Depth to SHWT 6"

Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	Topsoil Loam	<35	10YR3/2		Loose	Loose	Granular
6 - 16	Silt Loam to clay loam	<35	2.5YR3/1	Faint 7.5YR5/6	Friable	Weak	Blocky

Comments:

44719 352nd Pl Aitkin Mn 56431

Soil Log #2

☑ Boring ☐ Pit Elevation 97.1' Depth to SHWT 6"

Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	Topsoil Loam	<35	10YR3/2		Loose	Loose	Granular
6 - 16	Silt Loam to clay loam	<35	2.5YR3/1	Faint 7.5YR5/6	Friable	Weak	Blocky

44719 352nd Pl Aitkin Mn 56431

Soil Log #3

☐ Boring ☐ 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
		<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 #)

2011 purple code

Mound Design - Aitkin county

www.SepticResource.com (vers 15.2)

Property Owner: Todd Malcolm **Date:** 8/16/2023

Site Address: 44719 352nd Pl Aitkin Mn 56431 **PID:** 23-0-017602

Comments: Wetland Impact , river setback, type III soils. Type III Mound.

instructions: [ ] = enter data [ ] = adjust if desired [ ] = computer calculated - DO NOT CHANGE!

1) [2] bedroom Type [III] Residential System

2) [300] GPD design flow

3) [No] Garbage disposal or pumped to septic Install 1650 Jacobson 2/Compartment Septic/Pump tank

4) [1000] Gal Septic tank (code minimum) [1000] Gal Septic tank (design size / LUG req'd)
Tank options: none

5) [1.2] GPD/ft^2 mound sand loading rate contour loading rate of [12] req's a min [25] ft. long rockbed

6) [10.0] ft rockbed width [25.0] ft rockbed length

7) [3.0] ft lateral spacing [3.0] ft perforation spacing (maximum of 3 for both)
[end feed] manifold connection

8) [3] laterals [23.0] feet long [8.0] perfs / lateral [24] perfs total
(1/2 a perf means the first perf starts at the middle feed manifold)

9) [1/4"] inch perfs at [1] feet residual head gives [0.74] gpm flow rate per perforation

for this perf size & spacing, & pipe size on line 12, max perfs/lateral = [16], line #8 must be less --> OK

10) [7.0] doses per day (4 minimum)

11) [43] gallons per dose (treatment volume)

1.50 5x

12) [1.50] inch diameter laterals must be used to meet "4x pipe volume" requirement

2.00 3x

13) [35] feet of [2.0] inch supply line leads to [6] gallons of drainback volume
(Tip: "top feed" manifold to control the drainback)

14) [49] gallons TOTAL pump out volume (treatment + drainback)

15) [12] feet vertical lift from pump to mound laterals, leads to a:

16) [18] GPM @ [18] feet of head, Pump requirement (note: >50gpm may require an extra 3-6' of head)

17) [500] gal Dose tank (code minimum) [533] gal Dose tank (design size / LUG req'd) at [12.69] gpi
leads to a

18) [3.9] inch swing on Demand float, or timed dosing of [2.7] min ON (confirm pump rate with drawdown
(this delivers Average flow, =70% of Peak design flow) [5.1] hrs OFF test and adjust as necessary)

19) [12] inches from bottom of tank to "Pump OFF" float

20) [16] inches from bottom of tank to "Pump ON" float, or [12] inches to "Timer ON" float if time dosed

21) [19] inches from bottom of tank to "Hi Level" float, or [29] inches to "Hi Level" float if time dosed

22) [292] 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) 0 percent site slope (0-20% range) 0 (% 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:)
22.0 greater of: absorption width OR sand slope

28) 5.0 ft. upslope and sideslope sand upslope 5.0 North Berm
5.0 ft. Downslope sand down slope 7.0 South Berm

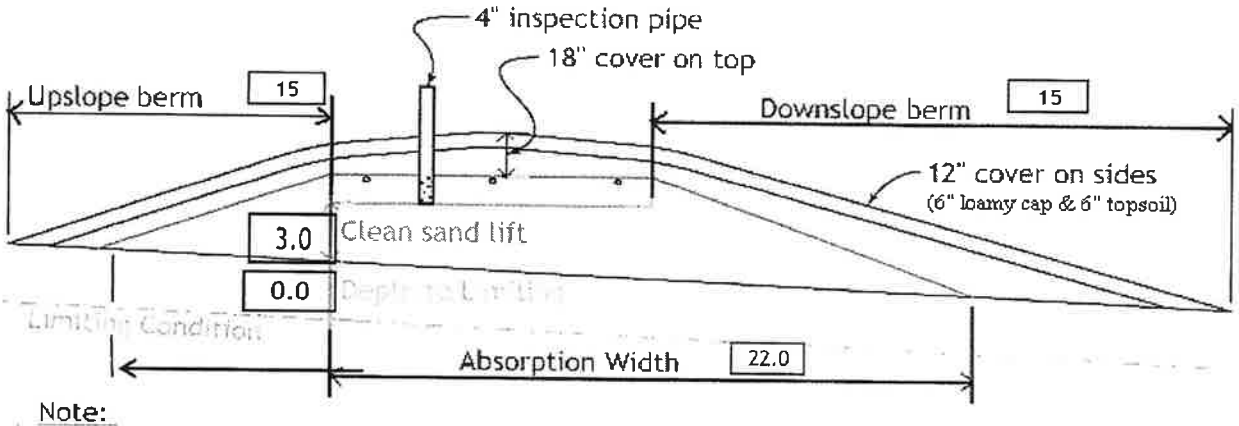
Individual slope ratios give BERM widths (topsoil beyond rockbed) of:

29) 3:1 upslope ratio 15 ft. upslope berm

30) 3:1 sideslope 15 ft. sideslope berms

31) 3:1 downslope 15 ft. downslope berm

32) Overall Dimensions: 10.0 ft. wide by 25.0 ft. long Rock bed
40 ft. wide by 55 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 25.0 ft. by 9 inches under pipe, plus 20% gives 12 yd³ or *1.4= 17 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)
43.6 up + 43.6 downslope + 17.8 ends + 27.8 under rock = 159 yd³ or *1.4= 223 ton
plus 20%

35) Loamy Cap:
36 ft. by 51 ft. 6" deep, plus 20% gives 41 yd³ or *1.4= 57 ton

36) Topsoil:
40 ft. by 55 ft. 6" deep, plus 20% gives 49 yd³ or *1.4= 69 ton

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

Designer Signature	Brummer Septic LLC.	L-1347	8/16/2023
	Company	License#	Date

Aitkin Co Operating Permit Required

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

Installer Summary

1000 gallon Septic tank (minimum)

Tank options: none

Install 1650 Jacobson 2/Compartment Septic/Pump tank at 12.69 gpi

533 gallon Dose tank (minimum)

18 GPM @ 18 ft. of head, Pump required

3.9 inch swing on Demand float which translates to roughly 3.0 inches of float tether length

if time dosing is required --> 2.7 minutes ON time & 5.1 hours OFF time

16 inches from bottom of tank to "pump ON" float, or 12 inches to "timer ON" float

19 inches from bottom of tank to "Hi Level Alarm" or 29 inches to "Hi level alarm" if time dosed

35 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 25.0 ft. long Rock bed

3 laterals 1.50 inch diameter 23.0 ft. long 3.0 ft. lateral spacing

1/4" inch perfs 3.0 ft. perforation spacing

No Effluent filter & alarm

3 clean out & valve box assemblies

22.0 ft.Total sand ABSORPTION width (minimum)

North Berm 5.0 ft. upslope and sideslope (sand beyond rockbed, minimum)

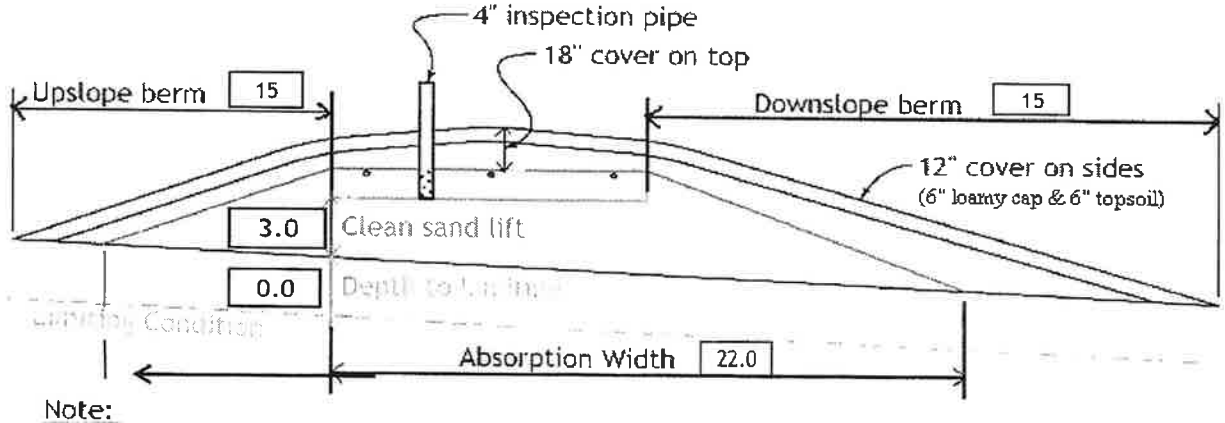
South Berm 7.0 ft. Downslope (sand beyond rockbed, minimum)

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

3:1 upslope ratio 15 ft. upslope berm

3:1 sideslope 15 ft. sideslope berms

3:1 downslope 15 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:	12.0	yd^3 or *1.4=	17	ton	9 inches under pipe
Mound Sand:	159	yd^3 or *1.4=	223	ton	
Loamy Cap:	41	yd^3 or *1.4=	57	ton	6" deep
Topsoil:	49	yd^3 or *1.4=	69	ton	6" deep

INSPECTOR CHECKLIST - mound

44/19 352nd Pl Aitkin Mn 56431

☐ 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)
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 _____ 18 gpm 18 head VERIFY PUMP CURVE 2.7 min ON 5.1 hr OFF

☐ float setting drop 3.9 inches at 12.7 gpi "DESIGNED" 3.0 inches approx float tether length
49.0 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 25.0

☐ Sand lift depth 36 inches. (Jar test : 2" sand leaves < 1/8" silt after 30 min)

☐ Absorption Sand beyond rock 5.0 upslope 7.0 downslope

☐ Bermed topsoil beyond rockbed 15 upslope 15 sideslope 15 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

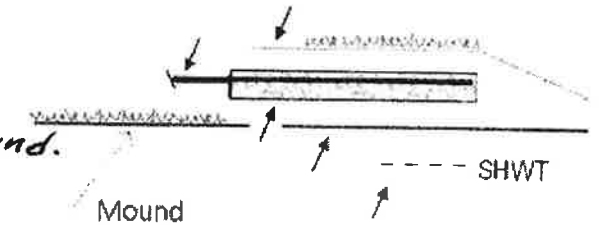
☐ Abandon existing system - if necessary ☐ Re-use existing tank certification

☐ monitoring plan and type _____

☐ well abandonment form - if necessary

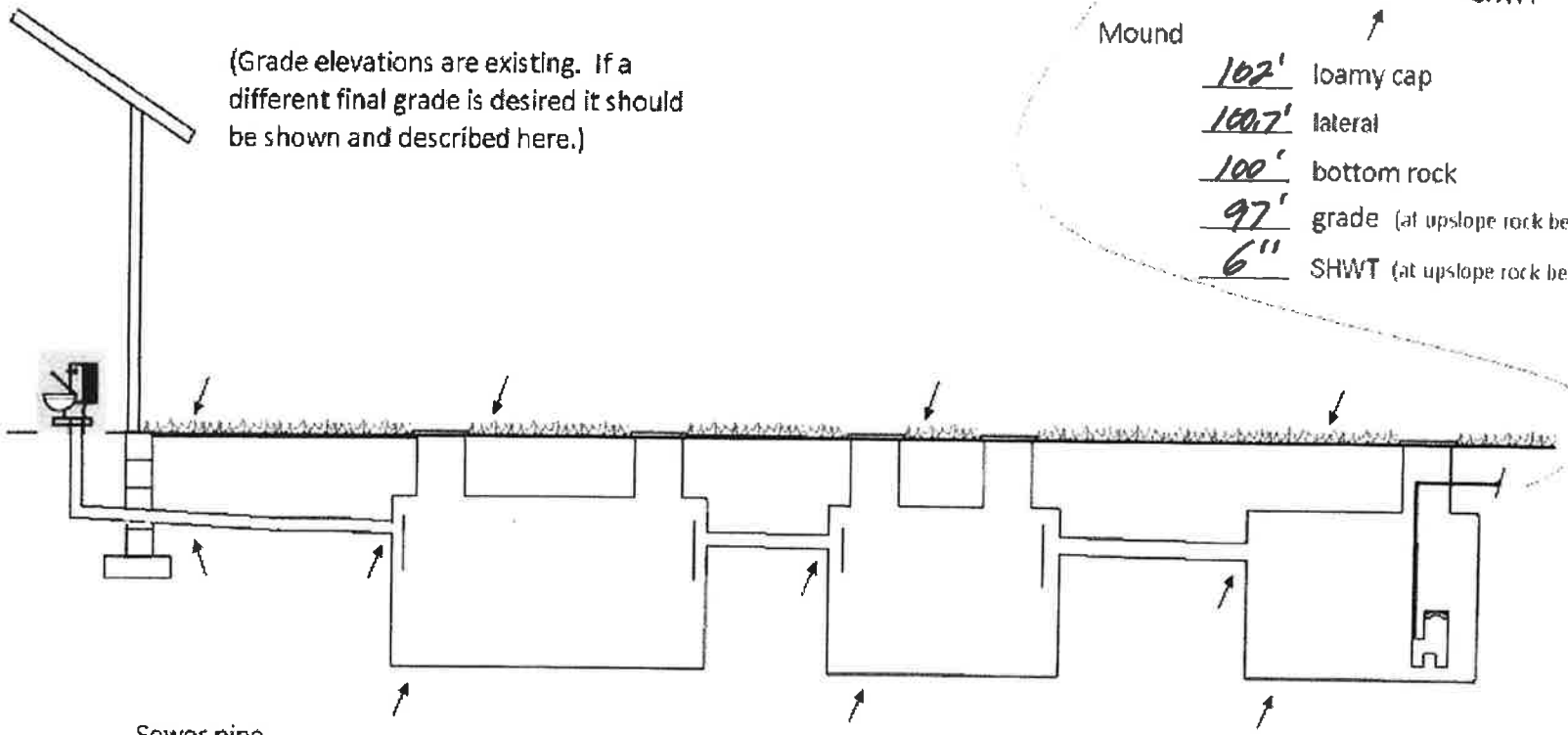
System Elevations

Elv = 100' benchmark Nail on Oak Tree North of Mound.



102' loamy cap
100.7' lateral
100' bottom rock
97' grade (at upslope rock bed)
6" SHWT (at upslope rock bed)

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



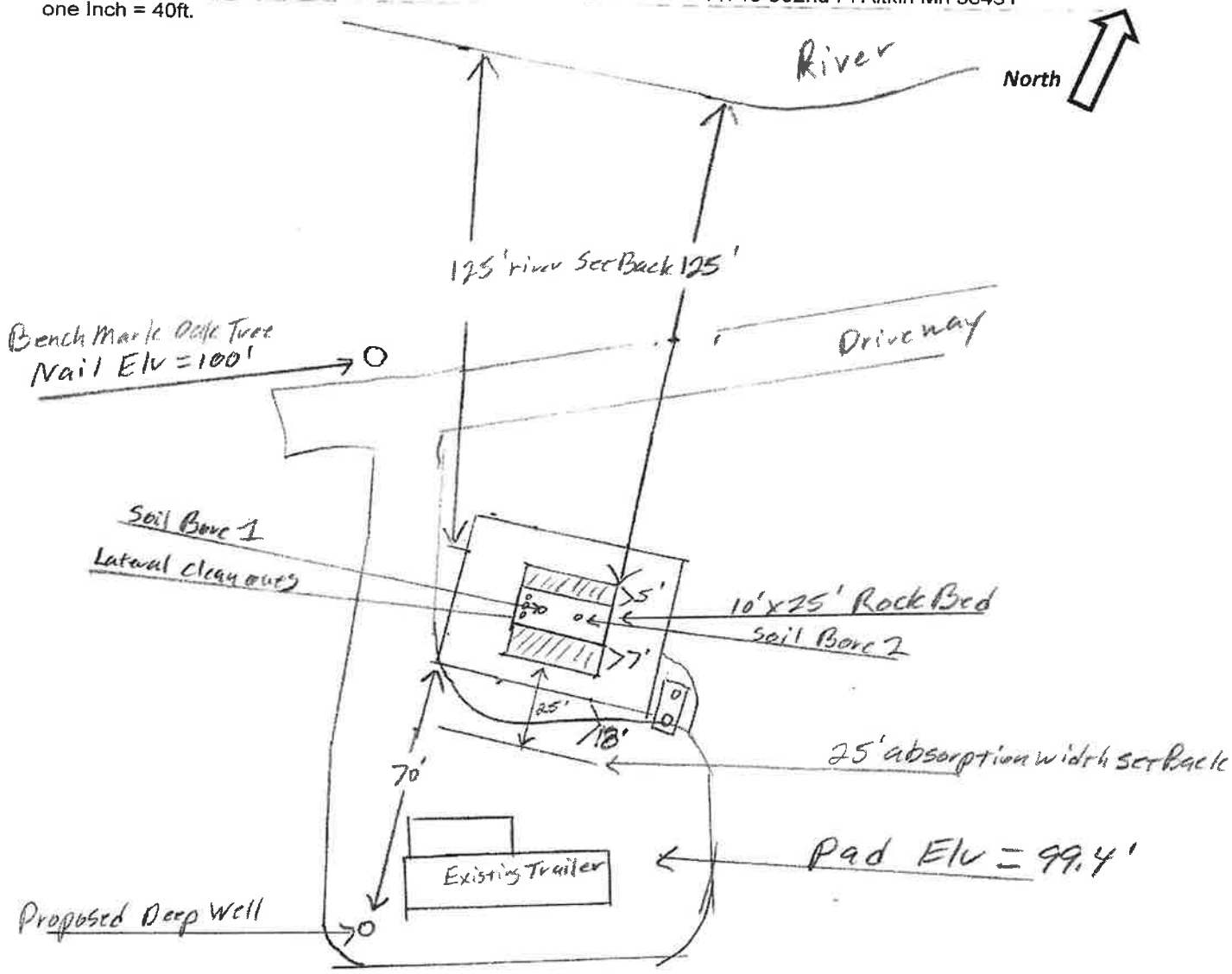
	Sewer pipe ~~exiting house~~	Septic Tank	Septic Tank (if applicable)	Pump Tank
Top of Pad	99.4' Grade	97.3' Grade	____ Grade	97.3' Grade
Estimated	97.5' Pipe	97' inlet	____ inlet	96.8' inlet
		93' Tank bottom	____ Tank bottom	93' Tank bottom

{ Design Drawing }

Property Owner: Todd Malcolm Date: 8/16/23 Designer's Initials : JB

Parcel ID. Number : 23-0-017602 Address : 44719 352nd Pl Aitkin Mn 56431

one Inch = 40ft.



Mississippi River Approx. Elv.= 86' on 8/16/2023

	Surface/ SHWT	*Nail on Tree = Bench Mark 100'*		Existing Grade
Soil Bore 1	97.1' / 6"	Bench Mark	100'	Upslope Edge of Rockbed Elv.= 97'
Soil Bore 2	97.1' / 6"	Ground Elv. BM	98.1'	Bottom of Rockbed Elv.= 100'
Soil Bore 3		Ground Elv. Tank	97.3'	Top of Washed Sand Elv.= 100'
		Ground at Proposed house	99.4'	Approx. Sewer pipe at House Elv.= 97.5'

Please show all that apply (Existing)

Wells within 100ft. Of Drain field.

Water lines within 10 ft. of Drain field.

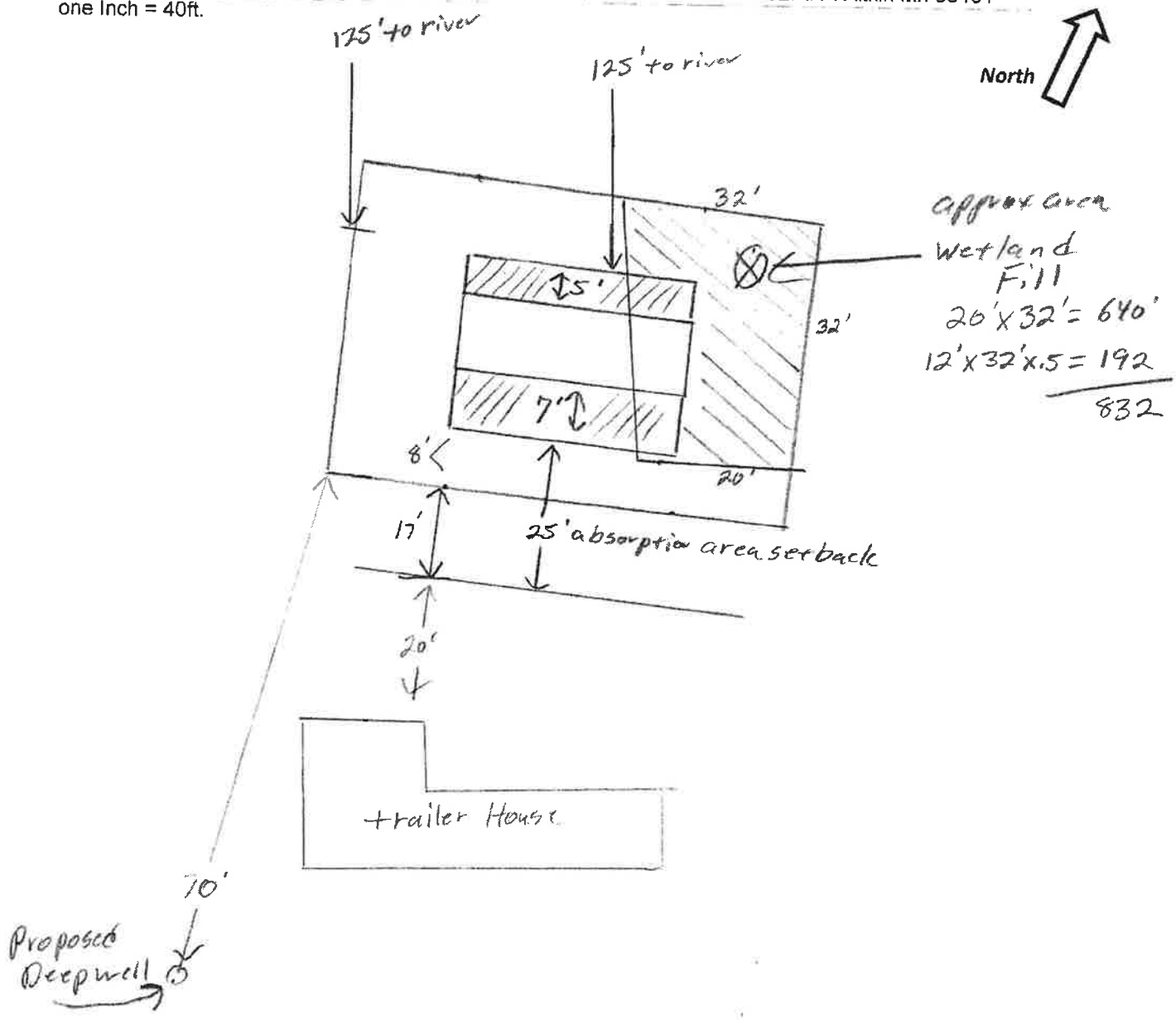
Drain field Areas:

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

{ Design Drawing }

Property Owner: Todd Malcolm Date: 8/16/23 Designer's Initials : JB
Parcel ID. Number : 23-0-017602 Address : 44719 352nd Pl Aitkin Mn 56431
one Inch = 40ft.



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Soil Bore 3		Ground Elv. Tank	97.3'	Top of Washed Sand Elv.= 100'
	Ground at	Proposed house	99.4'	Approx. Sewer pipe at House Elv.= 97.5'

Please show all that apply (Existing)

Wells within 100ft. Of Drain field.

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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

{ Type III Design Notes for Owner and Installer }

Property Owner: Todd Malcolm Date: Installer's Initials :

PIN : 23-0-017602 Site Address: 44719 352nd Pl. Aitkin MN 56431

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

Reason for Type III Mottles at 6"

Description of System 2 bedroom 3 ft. washed sand under 10' x 25 ' rockbed.

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.

Mound Design Notes - Aitkin county

Property Owner: Todd Malcolm **Date:** 8/16/23

Site Address: 44719 352nd Pl Aitkin Mn 56431 **PID:** 23-0-017602

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

1 This is a type III mound , (Soil Separation 6") sized for a 2 bedroom system.
Owner stated he thinks that the House pad is at Elv.= 1212' or Elv.= 99.4'

2 Proposed Deep well location is on the SW corner of house.

3 Mississippi River setback to the absorption area is 125 ft. Berm can be within setback.
North Washed Sand Width is 5 ft north of rockbed. 125 ft from river.
South Washed Sand width is 7 ft South of Rockbed, Building setback is 25 ft from absorption area.
Approx. Wetland Fill Impact area is 832 sq ft. The Malcom's have approx. 1000 sq ft of fill to work with.

4 The Future house is gravity flow from NE side of house, install clean-out near house.

5 Lot is Flat, install 1650 Jacobson compartment tank for gravity flow from house.
Install tank as high as possible, Bench into Existing pad and into East mound berm slope.
Install approx. 24" cover soil on top of tank for ballast, try to raise manholes above Elv.= 99.4'
Install tank low enough for drainback from mound to pump tank.

6 The berm slopes are at 3:1 to lessen wetland impact fill area.
The North 10 ft of the North berm will be within the 125 ft river setback.
Installer should install part of the berm toe to hold washed sand at designed width from rockbed.
North Washed Sand is 5 ft North of rockbed.
South Washed Sand is 7 ft South of Rockbed.

7 Elevation contour of rock bed upslope edge is 97' .
The area size of the rock bed is 10' x 25' . Absorption area is 25' x 22'.
Sand absorption area is 5 ft. up slope (North)+ 10 ft. rockbed + 7 ft. downslope (South)= approx. 22 ft. wide sand base.
Berms are 15ft. Upslope, 15ft. Down slope, 10ft. Rock bed = approx. 40ft. Wide.
Overall mound size is approx. 40' wide x 55' long and approx. 5' high. End berms are 15ft. Wide.

8 The bench mark is the nail on the Oak tree north of 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. 43 gallons per dose, 3.9 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 to Elv.= 99.4')
Install a 2" supply pipe from tank to end manifold in rock bed, install so pipe drains back to pump 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.

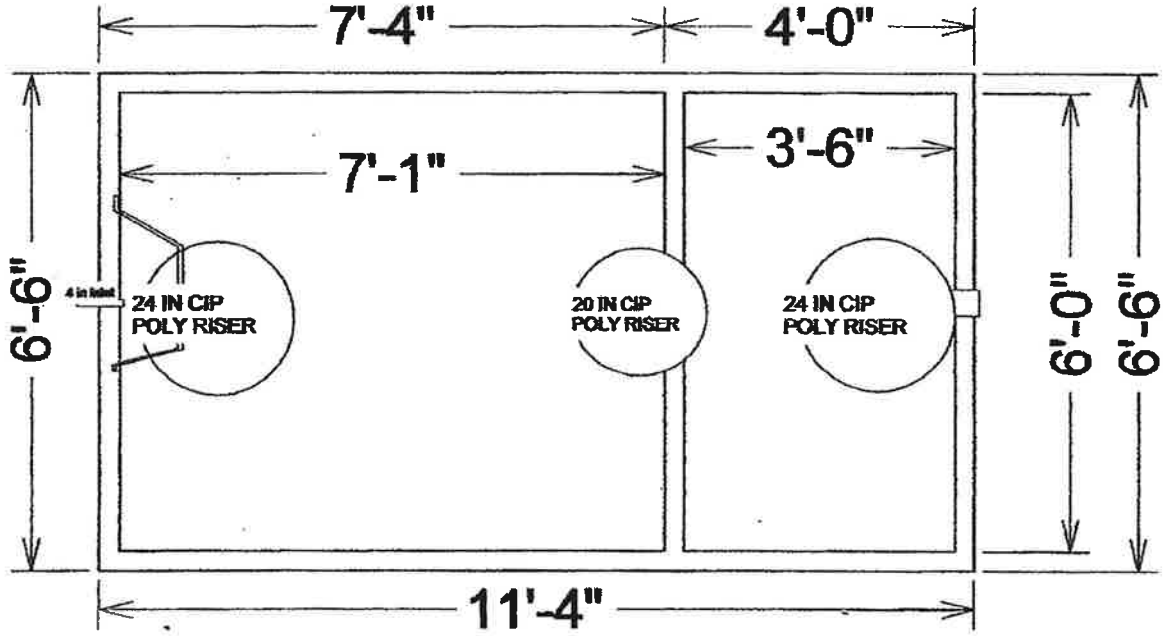
13 Designer does not guarantee or warranty any Type III systems.
Designed to Aitkin Co. and MPCA recommendations and requirements.

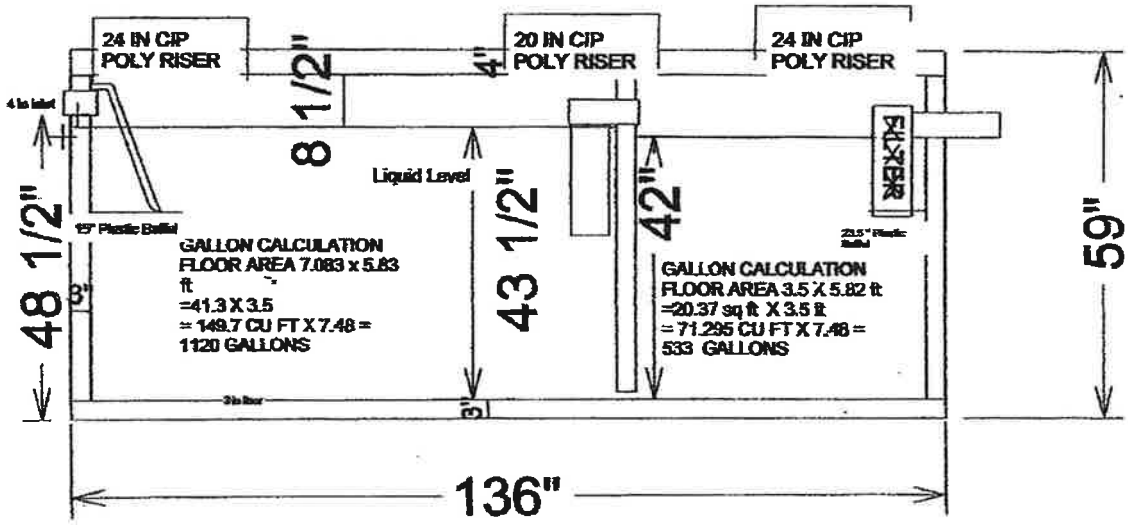
Designer Signature | Brummer Septic LLC. Design Company | L-1347 License#

This System will require an Aitkin Co. Operator permit, annual inspection
Owner and installer are responsible for owner knowing how system is maintained.

1650 Gallon 2 Compartment Septic Tank

TOP VIEW





SIDE VIEW

533 / 42" = 12.69 GPI

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

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.

ArcGIS Web Map

1:1,128 | 0 0.005 0.01 mi | 1 inch = 94 feet | Web AppBuilder for ArcGIS

Aitkin County

Date: 8/16/2023

Gmail

Jeff Brummer <brummerseptic@gmail.com>

Mississippi River

1 message

Henry Egland <henry.egland@co.aitkin.mn.us>
To: Jeff Brummer <brummerseptic@gmail.com>

Thu, Aug 10, 2023 at 12:23 PM

Hi Jeff,

After doing some digging into our ordinance and the river classifications. The DNR classifies this stretch of river as forested which our ordinance states forested river can have the septic's 100' from OHWL. However, given that this area is within the Mississippi Headwaters Boards jurisdiction they require the septic's to be at least 125' from OHWL which unfortunately overrules Aitkin County.

Not quite the good news we were looking for, but at least it will help with the planning process. Let me know if you have any other questions.

Thanks,

Henry Egland

Wetland Specialist/Compliance Officer

henry.egland@co.aitkin.mn.us

307 2nd Street NW, Rm 219, Aitkin, MN 56431

218-927-7313

www.co.aitkin.mn.us

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Aitkin County

Detailed Parcel Report

Parcel Number: 23-0-017602

General Information

Township/City:	MORRISON TWP
Taxpayer Name:	MALCOLM, SCOTT ETAL
Taxpayer Address:	944 CHARLES AVE ST PAUL MN 55104
Property Address:	44719 352ND PL
Township:	48
Range:	26
Section:	11
Green Acres:	No
Plat:	
Brief Legal Description:	(SW NE) LOT 2 LESS S 265 FT OF W 240 FT & LESS PT OF N 400 FT IN DOC 422710
Lake Number:	1060400
Lake Name:	Mississippi River
Acres:	47.25
School District:	1.00

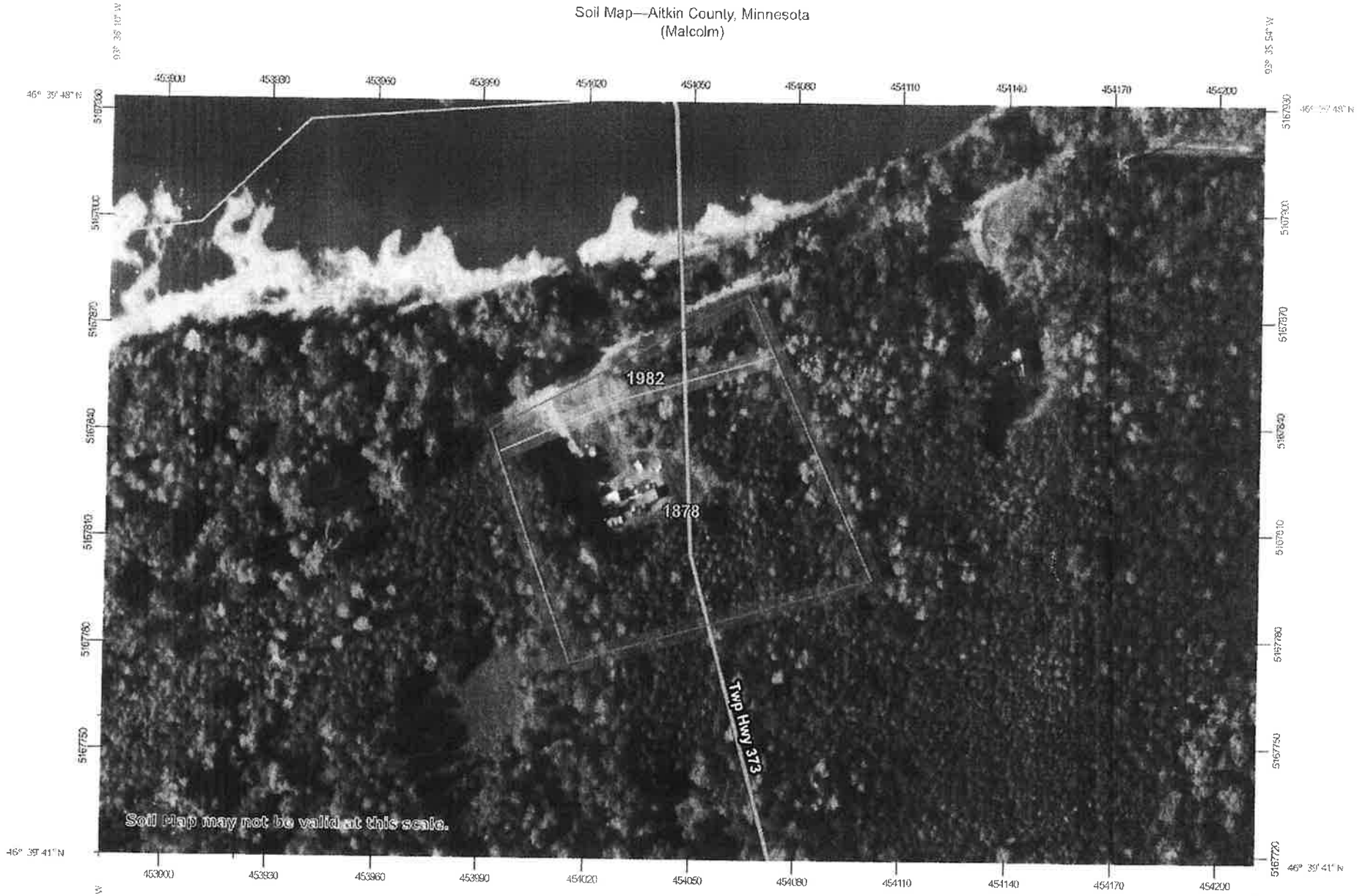
Tax Information

Class Code 1:	Non-Comm Seasonal Residential Recreational
Class Code 2:	Rural Vacant Land
Class Code 3:	Unclassified
Homestead:	Non Homestead
Assessment Year:	2023
Estimated Land Value:	$56,300.00
Estimated Building Value:	$2,900.00
Estimated Total Value:	$59,200.00
Prior Year Total Taxable Value:	$62,600.00
Current Year Net Tax (Specials Not Included):	$394.00
Total Special Assessments:	$0.00
****Current Year Balance Not Including Penalty:**	$0.00
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.**

Soil Map—Aitkin County, Minnesota
(Malcolm)



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

N

Meters: 0, 20, 40, 80, 120

Feet: 0, 50, 100, 200, 300

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

Aitkin County, Minnesota

1982—Baudette-Spooner complex

Map Unit Setting

National map unit symbol: gjfs
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: Prime farmland if drained

Map Unit Composition

Baudette and similar soils: 55 percent
Spooner and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Baudette

Setting

Landform: Lake plains
Landform position (two-dimensional): Backslope, summit
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Silty lacustrine deposits

Typical profile

A - 0 to 4 inches: silt loam
E - 4 to 9 inches: silt loam
Bt - 9 to 21 inches: silt loam
C - 21 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 2 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 (0.60 to 2.00 in/hr)
Depth to water table: About 30 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Available water supply, 0 to 60 inches: High (about 12.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C
Ecological site: F088XY015MN - Loamy Upland Wet-Mesic Mixed Forest

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

Description of Spooner

Setting

Landform: Flats on lake plains
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Silty and clayey lacustrine deposits

Typical profile

A - 0 to 7 inches: silt loam
E - 7 to 22 inches: silt loam
Btg - 22 to 27 inches: silt loam
C - 27 to 60 inches: silt 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 to high (0.60 to 2.00 in/hr)
Depth to water table: About 6 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: High (about 11.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Ecological site: F088XY008MN - Wet Mixed Forest
Forage suitability group: Level Swale, Neutral (G088XN001MN)
Other vegetative classification: Level Swale, Neutral (G088XN001MN)
Hydric soil rating: Yes

Minor Components

Cathro and similar soils

Percent of map unit: 5 percent
Landform: Bogs
Hydric soil rating: Yes

Sax and similar soils

Percent of map unit: 5 percent
Landform: Depressions

Hydric soil rating: Yes

Data Source Information

Soil Survey Area: Aitkin County, Minnesota
Survey Area Data: Version 23, Sep 6, 2022

Aitkin County, Minnesota

1878—Hamre muck

Map Unit Setting

National map unit symbol: gjfj
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

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

Description of Hamre

Setting

Landform: Depressions on moraines
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Organic material over loamy glaciolacustrine deposits

Typical profile

Oa - 0 to 10 inches: muck
A1,A2 - 10 to 17 inches: loam
Bg,Cg1,Cg2 - 17 to 60 inches: loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly 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 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Available water supply, 0 to 60 inches: Very high (about 13.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: B/D
Ecological site: F088XY007MN - Wet Depressional Forest
Forage suitability group: Organic (G088XN014MN)
Other vegetative classification: Organic (G088XN014MN)

Hydric soil rating: Yes

Minor Components

Talmoon and similar soils
Percent of map unit: 4 percent
Landform: Swales
Hydric soil rating: Yes

Willosippi and similar soils
Percent of map unit: 4 percent
Landform: Swales
Hydric soil rating: Yes

Cathro and similar soils
Percent of map unit: 4 percent
Landform: Bogs
Hydric soil rating: Yes

Warba 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 23, Sep 6, 2022