

Subsurface Sewage Treatment System Management Plan

Property Owner: Matthew Harmann Phone: 641-757-0907 Date: 6/3/2021
Mailing Address: PO. Box 307 City: Panora IA Zip: 50216
Site Address: 33721 446th Pl. City: Aitkin MN Zip: 56431

This management plan will identify the operation and maintenance activities necessary to ensure long-term performance of your septic system. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic service provider.

System Designer: check every 36 months.
Local Government: check every 36 months.
State Requirement: check every 36 months.

My System needs to be checked every 36 months.

(State requirements are based on MN Rules Chapter 7080.2450, Subp. 2 & 3)

Homeowner Management Tasks

Leaks – Check (look, listen) for leaks in toilets and dripping faucets. Repair leaks promptly.

Surfacing sewage – Regularly check for wet or spongy soil around your soil treatment area.

Effluent filter – *Inspect and clean twice a year or more.*

Owner ----> *Alarms* – Alarm signals when there is a problem. Contact a service provider any time an alarm signals.

Event counter or water meter – Record your water use.


-recommend meter readings be conducted (circle one: DAILY WEEKLY MONTHLY)

Professional Management Tasks

- Check to make sure tank is not leaking
- Check and clean the in-tank effluent filter
- Check the sludge/scum layer levels in all septic tanks
- Recommend if tank should be pumped
- Check inlet and outlet baffles
- Check the drainfield effluent levels in the rock layer
- Check the ~~alarm~~ alarm system functions
- Check wiring for corrosion and function
- Check dissolved oxygen and effluent temperature in tank
- Provide homeowner with list of results and any action to be taken
- Flush and clean laterals if cleanouts exist

"I understand it is my responsibility to properly operate and maintain the sewage treatment system on this property, utilizing the Management Plan. If requirements in the Management Plan are not met, I will promptly notify the permitting authority and take necessary corrective actions. If I have a new system, I agree to adequately protect the reserve area for future use as a soil treatment system."

Property Owner Signature:  Date: 6-9-21

Designer Signature:  Date: 6/3/2021

See Reverse Side for Management Log

Maintenance Log

Activity	Date Accomplished									
Check frequently:										
Leaks: check for plumbing leaks										
Soil treatment area check for surfacing										
Lint filter: check, clean if needed										
Effluent screen: if owner-maintained										
Water usage rate (monitor frequency _____)										
Check annually:										
Caps: inspect, replace if needed										
Sludge & Scum/Pump										
Inlet & Outlet baffles										
Drainfield effluent leaks										
Pump, alarm, wiring										
Flush & clean laterals if cleanouts exists										
Other: _____										
Other: _____										

Notes: Holding Tanks, pump when full, pumper should check for leaks or cracks.

Mitigation/corrective action plan: _____

Aitkin County Holding Tank Design Back Lot

Property Owner: Matthew Harmann Date: 6/3/2021 Cell: 641-757-0907
Mailing Address: PO. Box 307 Home Phone # : _____
City: Panora State: IA Zip: 50216
Site Address : 33721 446th Pl. Parcel Number: 07-1-139200
City: Aitkin State: MN Zip: 56431
Driving Directions if no address issued : _____

Legal Description : Lot 5 Blk 2 Hill top View Addition to Cedar Lake.

Sec : 5 Twp.: 46 Range : 27 Twp. Name : Farm Island

Lake / River : Back Lot Cedar Lake Lake / River Classification : RD

FLOW DATA

Number of Bedrooms : 3
Dwelling Classification : I
System Type : II
Gallons per Day (GPD) : 450

Estimated Flow in Gallons per Day (GPD)

Bedrooms	Class I	Class II	Class III
2	300	225	180
3	450	300	218
4	600	375	256
5	750	450	294
6	900	525	332
7	1050	600	370
8	1200	675	408

WELLS

Deep Well : Proposed Deep
Shallow Well : None

Wells to be sealed (if Applicable) ? _____

SETBACKS

Tank(s) to Well : +50' Drainfield to Well : NA Sewer Line to Well : _____
Tank(s) to House : 75' Drainfield to House : NA Air Test NO
Tank(s) to Property Line : +25' Drainfield to Property Line : NA

Additional System Notes and Information:

Tried to find suitable Site for mound. Heavy Clay Soils that perk 280 MIP with 15% slope

Soils will not support a Type I septic system

Designer Name : Jeff Brummer License Number : L-1347
Address : 7450 Burr Ln. City : Brainerd State : MN
Zip Code : 56401 Home Phone # : _____ Cell: 218-821-0704
E-Mail Address : brummerseptic@gmail.com

Designer Signature :  Date: 6/3/2021

{ Design Notes }

Property Owner: Matthew Harmann Date: 6/3/2021 Designer's Initials : JB
PIN : 07-1-139200 Page : of

Existing Garage to be used as house, maybe added onto in the future.

There are no wells on this parcel, proposed well will be off SW corner of garage/ house.

Designer conducted 2 perk tests in different locations, both were over 280 MPI and grater than 12% slope.

This lot has no Type I soil areas for septic system.

Bench Mark Elevation = 100' is nail on Cedar tree near holding tank location, Garage floor is at Elv. = 100 ft.

Install 2 Jacobson 1500 gal Holding tanks, in series, with gravity flow from garage / house.

Install 4" clean-out near garage / house . Installer will add extra soil on top of tank for ballast. Approx. 2 ft.

Install tanks with all inspections pipes and manholes raised to above finished grade elevation.

Install alarm in 2nd tank at approx. 50% of tank capacity, this will be approx. 750 gal. reserve capacity.

If installing manual alarm designer recommends raising 4" pipe to above snow levels (36" above grade),

Owner will need a Holding Tank Pumping Service Agreement.

Setbacks are

50 ft. from well

10 ft. from lot line

10 ft. from structure.

(Recommendations for holding tanks) Electric Alarm in or near house Insulate tank top Water proof outside if installed in water if available Raise manholes 4" or more above finished grade for winter access Add extra soil on top of tanks for ballast
--

Owner should install protect around tanks to keep traffic off tank. (Boulders, fence posts)

Existing Elevations

Grade at Power pole with power meter ,Elv. = 92.1'

Bench mark nail on Cedar Tree near holding tank location Elv. = 100'

Existing concrete floor in garage Elv. = 100'

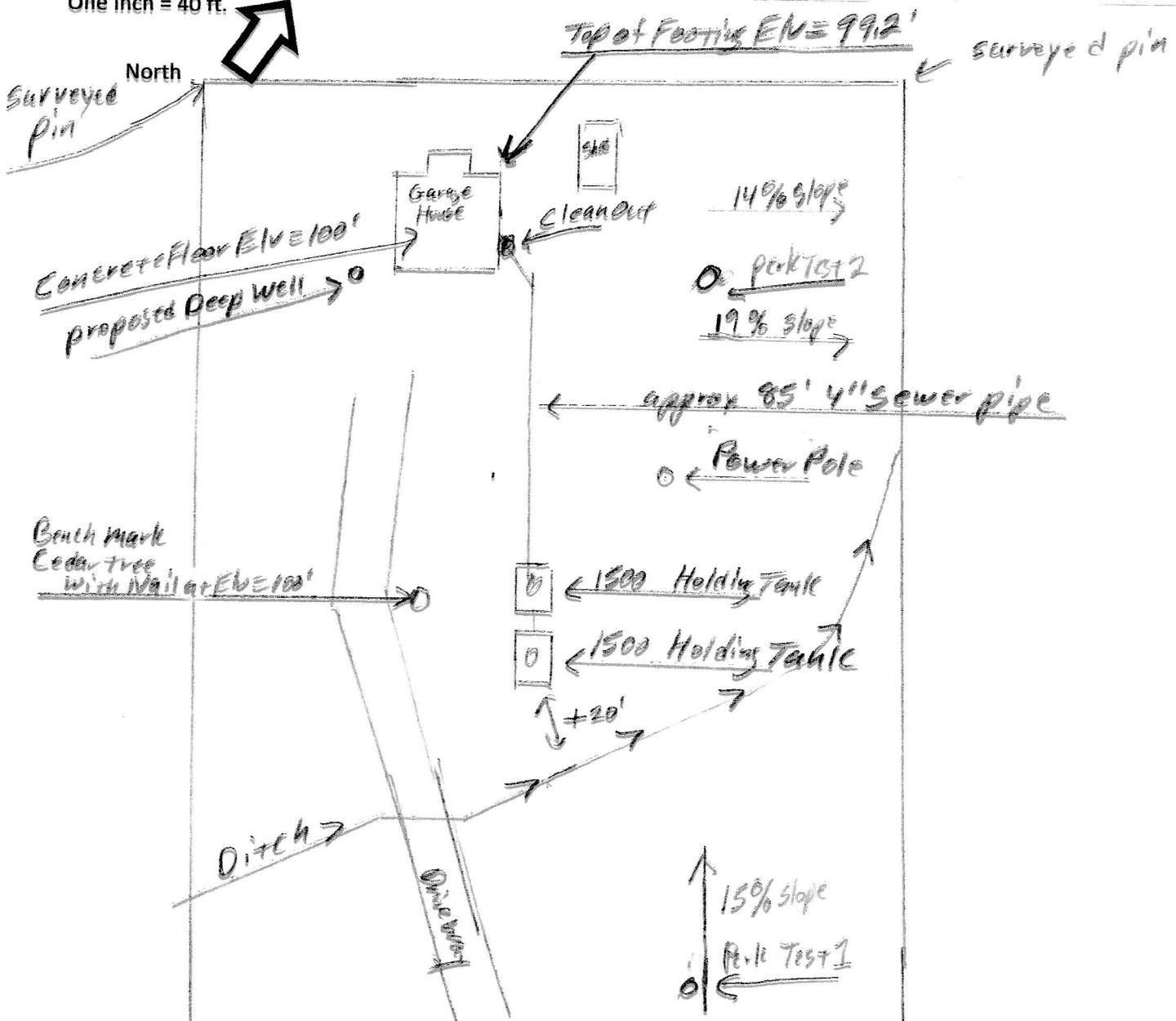
Existing Grade at Proposed tank site Elv. = 94.4'

Estimated new 1st tank inlet Elv. = 92.9'

 6-3-2021

Aitkin County { Holding Tank Design }

Property Owner: Matthew Harmann Date: 6/3/21 Designer's Initials: JB
 One Inch = 40 ft.



Please show all that apply (Existing or Proposed): Please Draw to Scale with North to Top or Left Side of Page:

- | | | |
|---|---------------------------|-----------------------------------|
| Wells within 100ft. Of Drain field. | Disturbed/Compacted Areas | Access Route for Tank Maintenance |
| Water lines within 10 ft. of Drain field. | Component Location | Property Lines |
| Drain field Areas: | OHW ordinary high water | Structures |
| | Lot Easements | Setbacks |

Elevations : Benchmark Elevation: Elevation = 100' Nail on Cedar Tree near driveway

Concrete floor in garage Elevation = 100'

1st tank Existing Grade Elevation = 94.4'

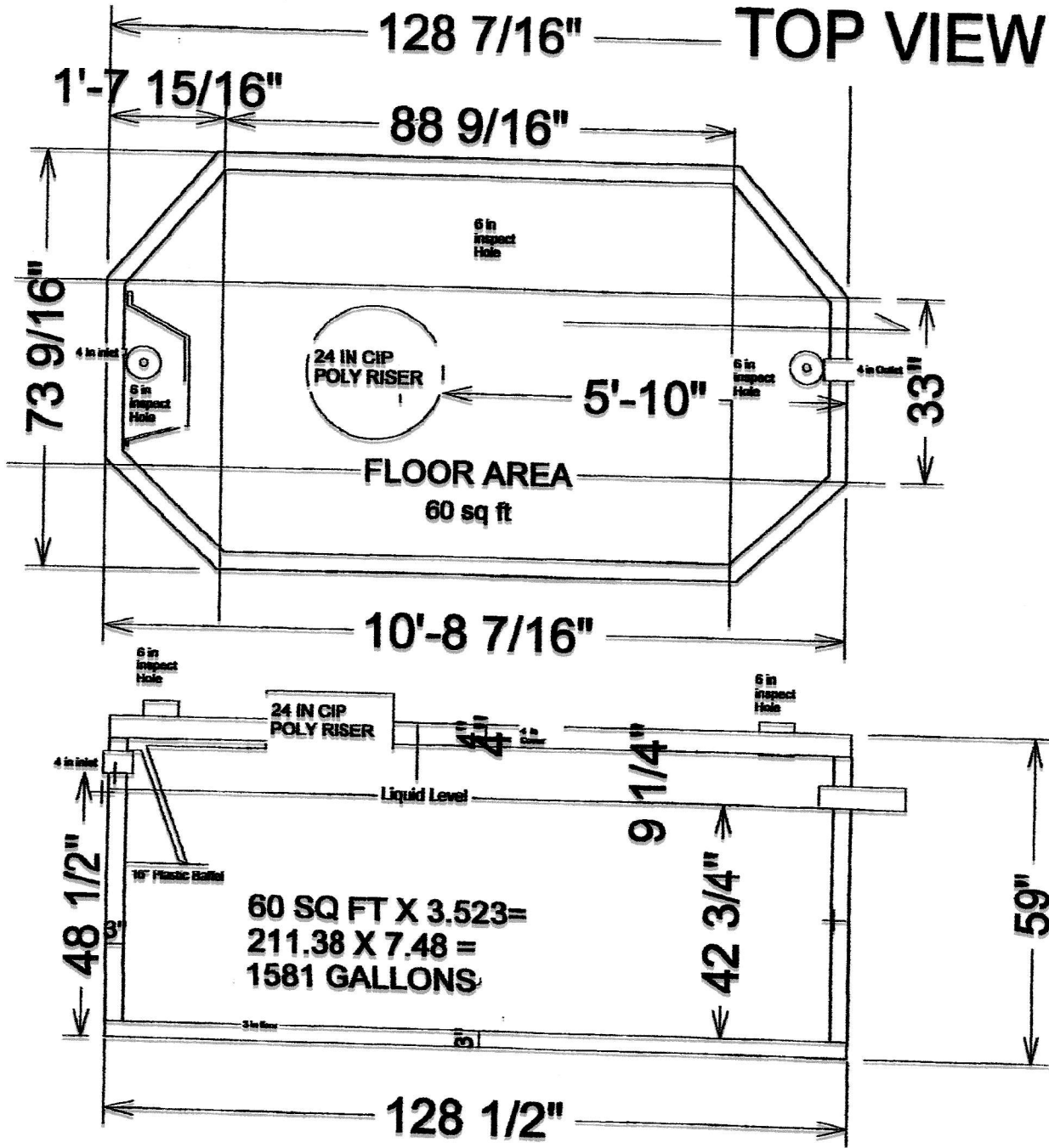
Estimated 1st tank inlet Elevation = 92.9'

Top of new footing at NE garage/ house corner Elevation = 99.2'

Estimated sewer pipe at garage/house Elevation = 97.5'

Page: Of

1500H Holding Tank



Drawings Owned BY Jacobson Precast, LLC
 36641 HWY 169, Aitkin, Mn 56431
 Do not copy drawings without permission of the Owner

Percolation Data Sheet

1. Contact Information

Property Owner: Matthew Harmann

Site Address: 33721 446th Pl. Aitkin Mn 56431

2. General Percolation Information

Diameter 7 in

Date prepared and/or soaked: 6/2/21

Method of scratching sidewall: Scatcheer

Is pre-soak required? Yes * *Not required in sandy soils*

Soak* start time: 10: am

Soak* end time: 8:00 am

22 hrs of soak

Method to maintain 12 in of water during soak Float

3. Percolation Test Data

Test hole: #1

Location: East side of drive way near 446th place

Date reading taken: 6/3/21

Elevation: 15 % slope NW

Starting time: 8:00am

Depth**: 14 inches

Soil texture description:

Depth (in)	Soil Texture
0 - 4	Silt loam top soil
4 - 7	Caly Loam E Horizon
7 - 20	Clay

After 2 reading concluded that perk too slow to use this area

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1	8:10	9:20	11.00	10.75	280.0	NA	NA
2	9:25	10:30	11.00	10.75	260.0	NA	NA
3							

Chosen Percolation Rate for Test Hole #1 mpi

Additional percolation test data may be included on attached pages
Design Percolation Rate (maximum of all tests) =

 mpi

Additional Percolation Data

Percolation Test Data

Test hole: #2 Location: East of garage
 Date reading taken: 3-Jun Elevation: 14% to 19% slope East NE
 Starting time: 8:00 am Depth**: 14 inches

Soil texture description:

Depth (in)	Soil Texture
0 - 3	Clay Loam Top soil
3 - 6	Clay Loam E horizon
6 - 20	Clay

After 2 reading concluded that perk too slow to use this area

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1	8:05	9:05	10.00	9.87	461.5	NA	NA
2	9:05	10:00	9.87	9.75	458.3	NA	NA
3							

Chosen Percolation Rate for Test Hole #2 mpi

Percolation Test Data

Test hole: #3 Location:
 Date reading taken: Elevation:
 Starting time: Depth**: inches

Soil texture description:

Depth (in)	Soil Texture

*** 12 in. for mounds & at-grades, depth of absorption area for trenches and beds*

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1						NA	NA
2						NA	NA
3							

Chosen Percolation Rate for Test Hole #3 mpi



Detailed Parcel Report

Parcel Number: 07-1-139200

General Information

Township/City: FARM ISLAND TWP
Taxpayer Name: HARMANN, MATTHEW D
Taxpayer Address: PO BOX 307
PANORA IA 50216
Property Address: 33721 446th Pl
Township: 46 **Lake Number:** 1920900
Range: 27 **Lake Name:** CEDAR (AITKIN/F.I.) - BACK LOT
Section: 5 **Acres:** 0.00
Green Acres: No **School District:** 1.00
Plat: HILLTOP VIEW ADDITION TO CEDAR LAKE
Brief Legal Description: LOT 5 BLK 2

Tax Information

Class Code 1: Non-Comm Seasonal Residential Recreational
Class Code 2: Unclassified
Class Code 3: Unclassified
Homestead: Non Homestead
Assessment Year: 2021

Estimated Land Value:	\$24,300.00
Estimated Building Value:	\$16,600.00
Estimated Total Value:	<u>\$40,900.00</u>
Prior Year Total Taxable Value:	\$39,400.00
Current Year Net Tax (Specials Not Included):	\$264.00
Total Special Assessments:	\$0.00
**Current Year Balance Not Including Penalty:	\$264.00
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.**

Sale History

HILLTOP VIEW ADDITION TO CEDAR LAKE

Know all men by these presents that GUY COMPANY, a Minnesota corporation, for owners, and Beverly Shale Bank of Aitkin, Kensington, and The Peoples and Rural Savings, Trust and Loan Association of Aitkin, Minnesota, as mortgagees, situate in the County of Aitkin, State of Minnesota, do hereby certify that the following is the true and correct plat of the Hilltop View Addition to Cedar Lake, as shown on the annexed map, and that the same has been duly recorded in the County of Aitkin, Minnesota, on the 27th day of September, 1976, A. D.

That part of Government Lot 3, Township 46, Range 27, described as follows: Commencing at the West Quarter corner of said Section 5, thence on an assumed bearing of S 89° 58' 54" W, a distance of 107.42 feet to the actual point of beginning of the plat to be described; thence North 44 degrees 34 minutes West a distance of 67.71 feet, thence along a logarithmic curve to the right (said curve having a radius of 330.00 feet and a central angle of 107.42 degrees) to the intersection of the center line of said Section 5 and West Quarter line of Section 31, thence North 89 degrees 59 minutes 34 seconds West along said parallel line a distance of 362.79 feet; thence North 10 degrees 30 minutes 25 seconds East a distance of 1381.46 feet; thence North 75 degrees 00 minutes East a distance of 567.50 feet; thence North 45 degrees 00 minutes East a distance of 200.89 feet; thence North 56 degrees 45 minutes East a distance of 271.00 feet, more or less, to the above line of Cedar Lake; thence along the center line of said Section 5, thence North 89 degrees 59 minutes 34 seconds West along said line a distance of 222.91 feet, more or less, to the actual point of beginning of the plat to be described and planted at HILLTOP VIEW DRIVE TO CEDAR LAKE, thence along the same to be surveyed and planted at HILLTOP VIEW DRIVE TO CEDAR LAKE, thence along the same to the public for public use hereafter, HILLTOP LAKE as shown on the annexed plat.

In witness whereof we hereto set our hands this 27th day of September, 1976, A. D.

GUY COMPANY
Richard A. Guy
 President

Beverly Shale Bank of Aitkin
Robert J. Hinkle
 President

The Peoples and Rural Savings, Trust and Loan Association of Aitkin
Robert J. Hinkle
 President

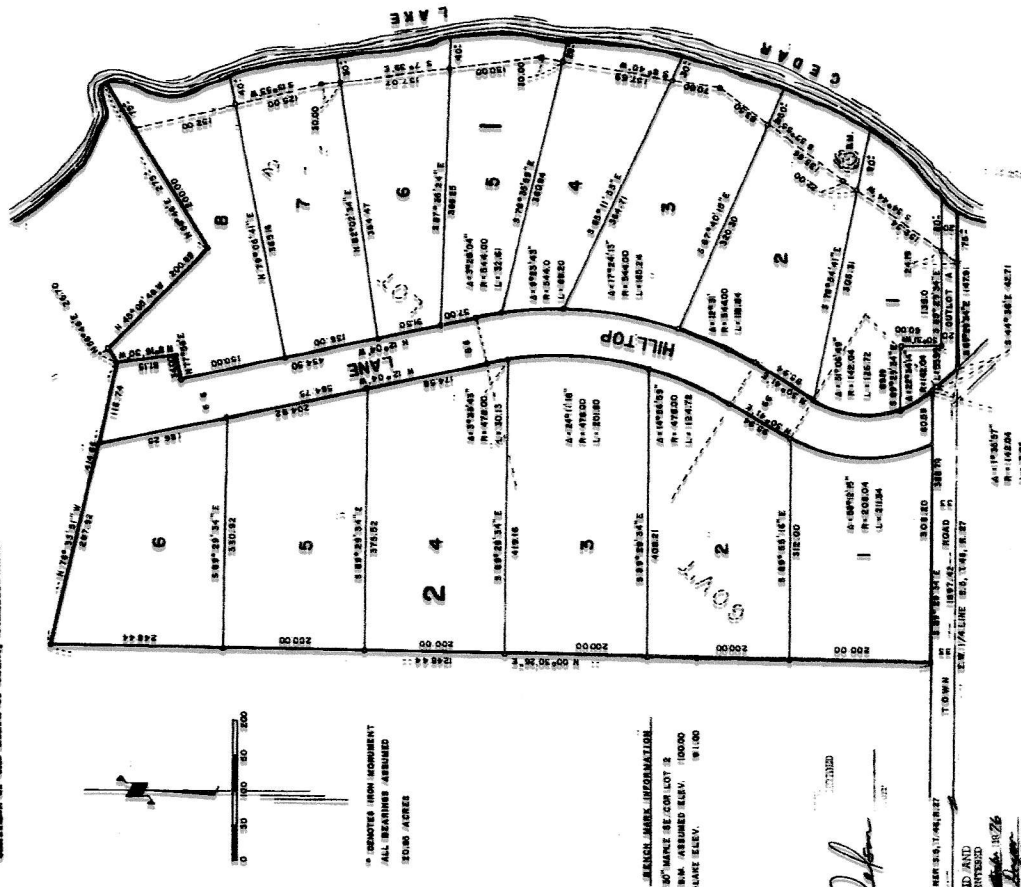
This plat of HILLTOP VIEW ADDITION TO CEDAR LAKE, as shown on the annexed map, was approved and accepted by the Minnesota Board of Land Surveyors on the 27th day of September, 1976, A. D., by Chester J. Beatty, Registered Land Surveyor.

State of Minnesota
 County of Aitkin

Charles J. Beatty
 Registered Land Surveyor
 Minnesota Registration No. 4792

I hereby certify that I have surveyed and planted the property described on this plat as HILLTOP VIEW ADDITION TO CEDAR LAKE, that this plat is a true and correct representation of the same, and that the same has been duly recorded in the County of Aitkin, Minnesota, on the 27th day of September, 1976, A. D., by Chester J. Beatty, Registered Land Surveyor.

Charles J. Beatty
 Registered Land Surveyor
 Minnesota Registration No. 4792



This plat of HILLTOP VIEW ADDITION TO CEDAR LAKE was approved and accepted by the Minnesota Board of Land Surveyors on the 27th day of September, 1976, A. D.

Charles J. Beatty
 Surveyor of the State of Minnesota