DESIGNATED SITES NORTH

7/8/24

# FIELD EVALUATION SHEET

PRELIMINARY EVALUATION DATE 5/14/22, FIELD EVALUATION DATE 5/14/22
PROPERTY OWNER: ALEESHA + MATT SAUL PHONE 763-498-9666
ADDRESS: 67 DTH ST CITY,STATE,ZIP: HILL CITY
LEGAL DESCRIPTION:
PIN# N-SPLIT 12-0-09180 SEC 24 T 52 R 26 TWP NAME HILL LAKE
FIRE# LAKE/RIVER LAKE CLASS OHWL FT.

## DESCRIPTION OF SOIL TREATMENT AREAS

| | AREA #1 | AREA #2 |
|---|---|---|
| DISTURBED AREAS | YES NO X | YES NO X |
| COMPACTED AREAS | YES NO X | YES NO X |
| FLOODING | YES NO X | YES NO X |
| RUN ON POTENTIAL | YES NO X | YES NO X |
| SLOPE % | 0 | 0 |
| DIRECTION OF SLOPE | 0 | 0 |
| LANDSCAPE POSITION | PLAN | PLAN |
| VEGETATION TYPES | GRASS TREES | |

REFERENCE BM ELEV. FT
REFERENCE BM DESCRIPTION

DEPTH TO STANDING WATER OR MOTTLED SOIL: BORING# 1 12", 1A 12", 2 13", 2A 12"

BOTTOM ELEVATION–FIRST TRENCH OR BOTTOM OF ROCK BED: #1 +24" FT., #2 +24" FT.

SOIL SIZING FACTOR: SITE # 1 2, SITE #2 2

CONSTRUCTION RELATED ISSUES:

LIC# 697 SITE EVALUATOR SIGNATURE: Ron Myers
SITE EVALUATOR NAME: RON MYERS TELEPHONE# 327-9273
LUG REVIEW DATE
Comments:

SOIL BORING LOGS ON REVERSE SIDE

Form des 2/20/98

# SOILS CHARTS FOR BOTH PROPOSED AND ALTERNATE SITES

**1 (PROPOSED) SOILS DATA**

| DEPTH (INCHES) | TEXTURE | MUNSELL COLOR |
|---|---|---|
| 0-6" | TOPSOIL | 10YR 3/2 |
| 6"-12" | CLAY LOAM | 10YR 5/3 |
| 12" | MOTTLED | |

**2 (PROPOSED) SOILS DATA**

| DEPTH (INCHES) | TEXTURE | MUNSELL COLOR |
|---|---|---|
| 0-6" | TOPSOIL | 10YR 3/2 |
| 6-13" | CLAY LOAM | 10YR 5/3 |
| 13" | MOTTLED | |

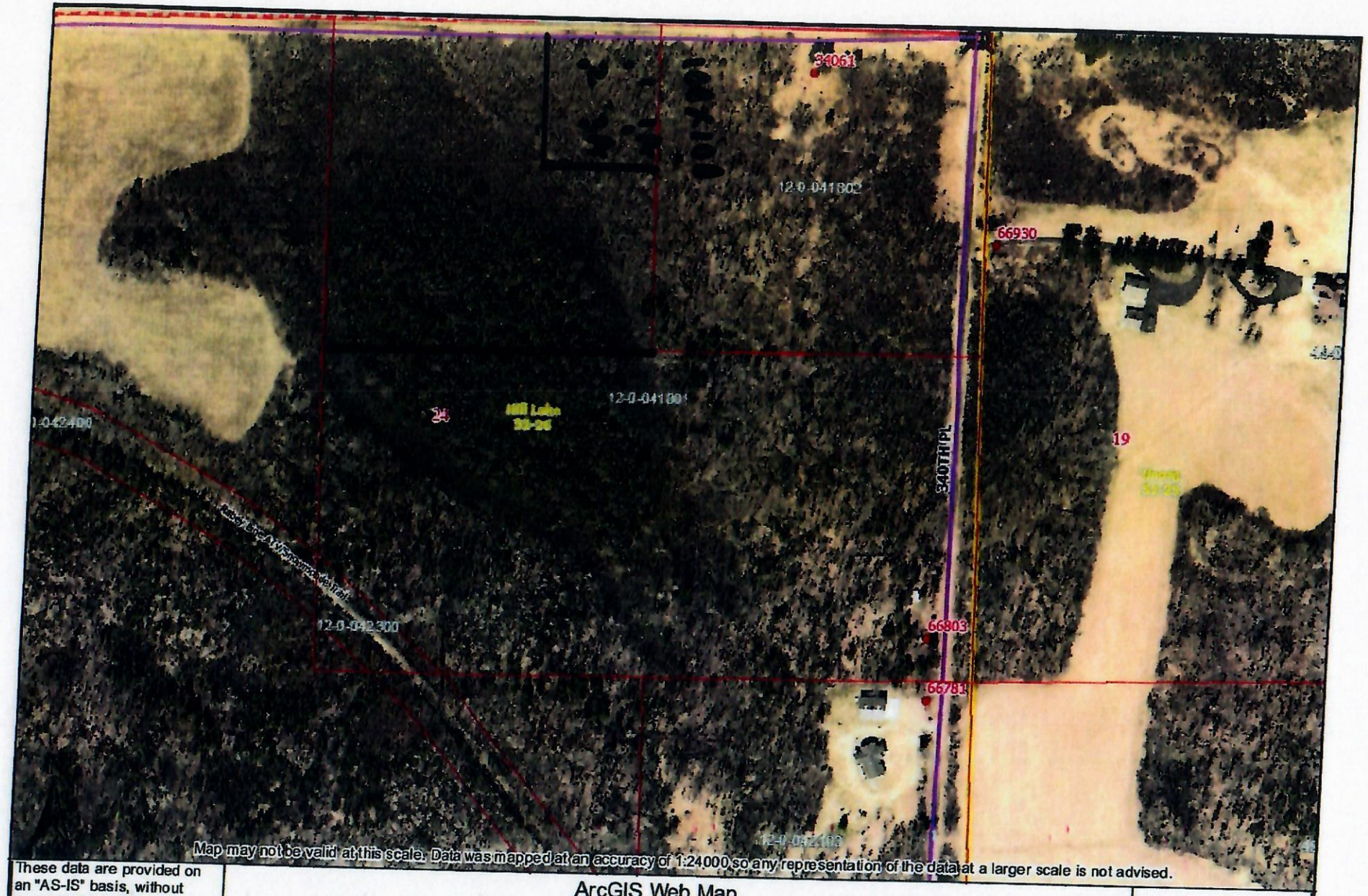
**1 (ALTERNATE) SOILS DATA**

| DEPTH (INCHES) | TEXTURE | MUNSELL COLOR |
|---|---|---|
| 0-6" | TOPSOIL | 10YR 3/2 |
| 6-12" | CLAY LOAM | 10YR 5/3 |
| 12" | MOTTLED | |

**2 (ALTERNATE) SOILS DATA**

| DEPTH (INCHES) | TEXTURE | MUNSELL COLOR |
|---|---|---|
| 0-7" | TOPSOIL | 10YR 3/2 |
| 7-13" | CLAY LOAM | 10YR 5/3 |
| 13" | MOTTLED | |

**ADDITIONAL SOIL BORINGS MAY BE REQUIRED**

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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

1:4,514 | 0 0.0225 0.045 mi | 1 inch = 376 feet | Web AppBuilder for ArcGIS

Aitkin County

Date: 5/13/2022

DESIGNATED SITES
SOUTH

# FIELD EVALUATION SHEET

PRELIMINARY EVALUATION DATE 5/14/22, FIELD EVALUATION DATE 5/14/22
PROPERTY OWNER: LEE GRUENHAGEN PHONE
ADDRESS: 66803 340TH PL CITY,STATE,ZIP: HILL CITY MN 55748
LEGAL DESCRIPTION:
PIN# 12-0-041801 SEC 24 T 52 R 26 TWP NAME HILL LAKE
FIRE# LAKE/RIVER LAKE CLASS OHWL FT.

## DESCRIPTION OF SOIL TREATMENT AREAS

| | AREA #1 | AREA #2 |
|---|---|---|
| DISTURBED AREAS | YES NO X | YES NO X |
| COMPACTED AREAS | YES NO X | YES NO X |
| FLOODING | YES NO X | YES NO X |
| RUN ON POTENTIAL | YES NO X | YES NO X |
| SLOPE % | 2% | 2% |
| DIRECTION OF SLOPE | NS | NS |
| LANDSCAPE POSITION | RIDGE | RIDGE |
| VEGETATION TYPES | GRASS TREES | |

REFERENCE BM ELEV. FT
REFERENCE BM DESCRIPTION

DEPTH TO STANDING WATER OR MOTTLED SOIL: BORING# 1 18", 1A 18", 2 19", 2A 19"

BOTTOM ELEVATION--FIRST TRENCH OR BOTTOM OF ROCK BED: #1 FT., #2 FT.

SOIL SIZING FACTOR: SITE # 1 1.67, SITE #2 1.67

CONSTRUCTION RELATED ISSUES:

LIC# 697 SITE EVALUATOR SIGNATURE: Ron Myers

SITE EVALUATOR NAME: RON MYERS TELEPHONE# 218-327-9273

LUG REVIEW DATE

Comments:

SOIL BORING LOGS ON REVERSE SIDE

Form des 2/20/98

# SOILS CHARTS FOR BOTH PROPOSED AND ALTERNATE SITES

**1 (PROPOSED) SOILS DATA**

| DEPTH (INCHES) | TEXTURE | MUNSELL COLOR |
|---|---|---|
| 0-5" TOPSOIC | | 10YR 3/2 |
| 5-18" LOAM | | 10YR 4/4 |
| 18" MOTTLED | | |

**2 (PROPOSED) SOILS DATA**

| DEPTH (INCHES) | TEXTURE | MUNSELL COLOR |
|---|---|---|
| 0-4" TOPSOIC | | 10YR 3/2 |
| 4-19" LOAM | | 10YR 4/4 |
| 19" MOTTLED | | |

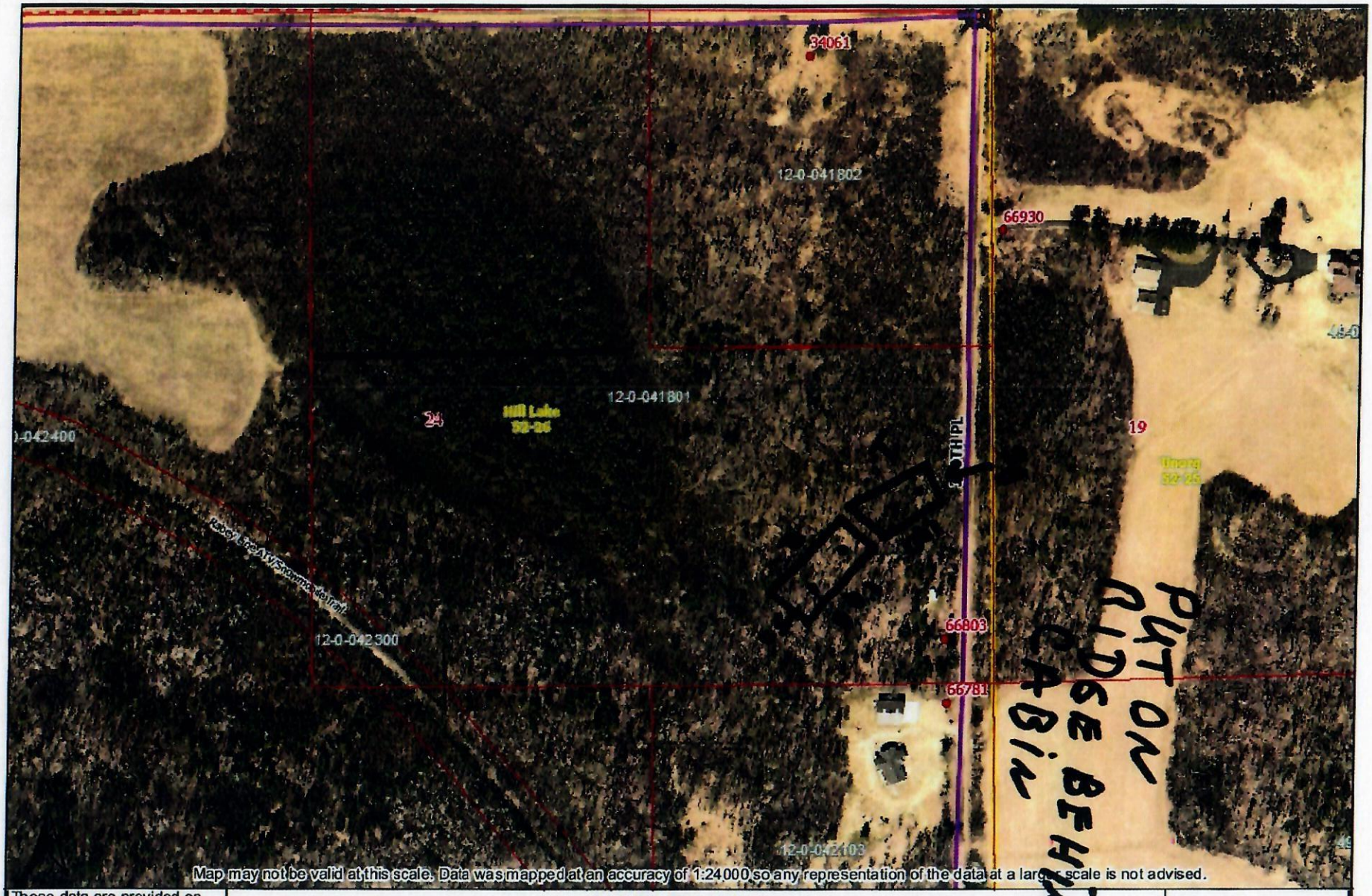
**1 (ALTERNATE) SOILS DATA**

| DEPTH (INCHES) | TEXTURE | MUNSELL COLOR |
|---|---|---|
| 0-5" TOPSOIC | | 10YR 3/2 |
| 5-18" LOAM | | 10YR 4/4 |
| 18" MOTTLED | | |

**2 (ALTERNATE) SOILS DATA**

| DEPTH (INCHES) | TEXTURE | MUNSELL COLOR |
|---|---|---|
| 0-4" TOPSOIC | | 10YR 3/2 |
| 4-19" LOAM | | 10YR 4/4 |
| 19" MOTTLED | | |

**ADDITIONAL SOIL BORINGS MAY BE REQUIRED**

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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

1:4,514 | 0 0.0225 0.045 mi | 1 inch = 376 feet | Web AppBuilder for ArcGIS

Aitkin County

Date: 5/13/2022

# MOUND DESIGN WORK SHEET (For Flows up to 1200 gpd)

## A. Average Design FLOW

Estimated 300 gpd *(see figure A-1)*
or measured _____ x 1.5 (safety *factor*) = _____ gpd

**A-1: Estimated Sewage Flows in Gallons per Day**

| number of bedrooms | Class I | Class II | Class III | Class IV |
|---|---|---|---|---|
| 2 | 300 | 225 | 180 | 60% of the values in the Class I, II, or III columns. |
| 3 | 450 | 300 | 218 | |
| 4 | 600 | 375 | 256 | |
| 5 | 750 | 450 | 294 | |
| 6 | 900 | 525 | 332 | |
| 7 | 1050 | 600 | 370 | |
| 8 | 1200 | 675 | 408 | |

## B. SEPTIC TANK Capacity

1000 gallons *(see figure C-1)*

**C-1: Septic Tank Capacities (in gallons)**

| Number of Bedrooms | Minimum Liquid Capacity | Liquid capacity with garbage disposal | Liquid capacity with disposall & 1ft inside |
|---|---|---|---|
| 2 or less | 750 | 1125 | 1500 |
| 3 or 4 | 1000 | 1500 | 2000 |
| 5 or 6 | 1500 | 2250 | 3000 |
| 7, 8 or 9 | 2000 | 3000 | 4000 |

## C. SOILS *(refer to site evaluation)*

1. Depth to restricting layer = 1 feet
2. Depth of percolation tests = _____ feet
3. Texture _____
   Percolation rate _____ mpi
4. Soil loading rate 2 gpd/sqft *(see figure D-33)*
5. Percent land slope 0 %

## D. ROCK LAYER DIMENSIONS

1. Multiply average design flow (A) by 0.83 to obtain required rock layer area.
   300 gpd x 0.83 sqft/gpd = 250 sqft
2. Determine rock layer width = 0.83 sqft/gpd x Linear Loading Rate (LLR)
   0.83 sqft/gpd x 12 gpd/sqft = 10 ft
3. Length of rock layer = area ÷ width =
   250 sqft (D1) ÷ 10 ft (D2) = 250 ft

| Mound LLR | |
|---|---|
| < 120 MPI | ≤ 12 |
| ≥ 120 MPI | ≤ 6 |

## E. ROCK VOLUME

1. Multiply rock area (D1) by rock depth of 1 ft to get cubic feet of rock
   250 sqft x 1 ft = 250 cuft
2. Divide cuft by 27 cuft/cuyd to get cubic yards
   250 cuft ÷ 27 cuyd/cuft = 9.25 cuyd
3. Multiply cubic yards by 1.4 to get weight of rock in tons
   9.25 cuyd x 1.4 ton/cuyd = 12.96 tons

## F. SEWAGE ABSORPTION WIDTH

Absorption width equals absorption ratio (See Figure D-33) times rock layer width (D2)

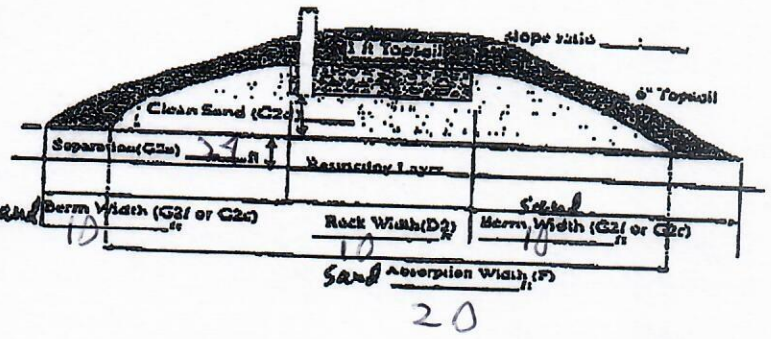
10 x 2 ft = 20 ft

**D-33: Absorption Width Sizing Table**

| Percolation Rate in Minutes per Inch (MPI) | Soil Texture | Loading Rate Gallons per day per square foot | Absorption Ratio |
|---|---|---|---|
| Faster than 5 | Coarse Sand, Medium Sand, Loamy Sand, Fine Sand | 1.20 | 1.00 |
| 6 to 15 | Sandy Loam | 0.79 | 1.50 |
| 16 to 30 | Loam | 0.60 | 2.00 |
| 31 to 45 | Silt Loam, Silt | 0.50 | 2.40 |
| 46 to 60 | Sandy Clay Loam, Silty Clay Loam, Clay Loam | 0.45 | 2.67 |
| 61 to 120 | Silty Clay, Sandy Clay, Clay | 0.24 | 5.00 |
| Slower than 120* | | | |

*System designed for these soils must be other or performance

G. **Mound Slope Width and Length (landslope less than or equal to 1%)**




1. Absorption width (F) 20 ft

2. Calculate mound size

a. Determine depth of clean sand fill at upslope edge of rock layer = 3 ft minus the distance to restricting layer (C1)
3 ft - 1 ft = 2 ft

b. Mound height at the upslope edge of rock layer = depth of clean sand for separation (G2a) at upslope edge plus depth of rock layer (1 ft) plus depth of cover (1 ft)
2 ft + 1ft + 1ft = 4 ft

c. Berm width = upslope mound height (G2b) times 4 *(4 is recommended, but could be 3-12)*
4 x 4 = 16 ft

d. The total landscape width is the sum of berm (G2c) width plus rock layer width (D2) plus berm wic (G2c): 10 ft + 16 ft + 16 ft = 42 ft

e. Additional width necessary for absorption = absorption width (F) minus the landscape width (G2d)
20 ft - 42 ft = -22 ft, *if number is negative (<0) skip to g*

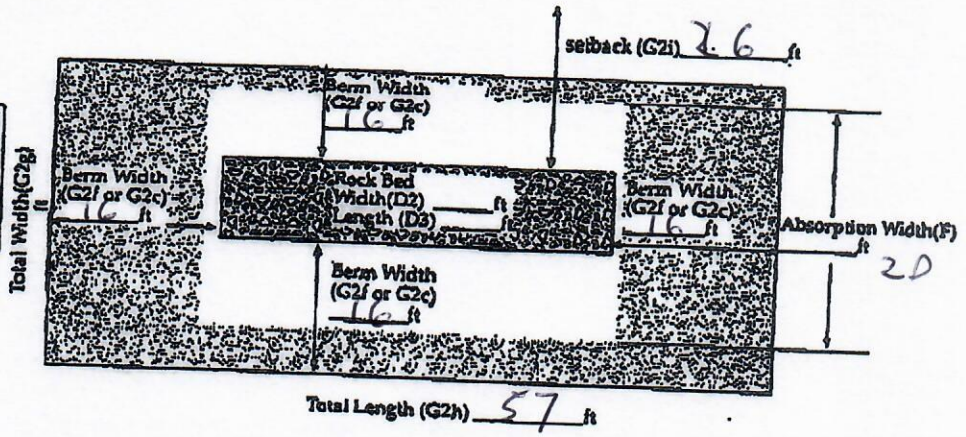
f. Final berm width = additional width (G2e) plus the berm width (G2c)
____ ft + ____ ft = ____ ft

g. Total mound width is the sum of berm width (G2f or G2c) plus rock layer width (D2) plus berm width (G2f or G2c): 10 ft + 16 ft + 16 ft = 42 ft

h. Total mound length is the sum of berm (G2f or G2c) plus rock layer length (D3) plus berm (G2f or G2c): 25 ft + 16 ft + 16 ft = 57 ft

i. Setbacks from the rockbed are calculated as follows: the absorption width (F) minus the rock bed wid (D2) divided by 2: ( 20 ft - 10 ft) ÷ 2 = 5 ft

**Final Dimensions:**
42 x 57



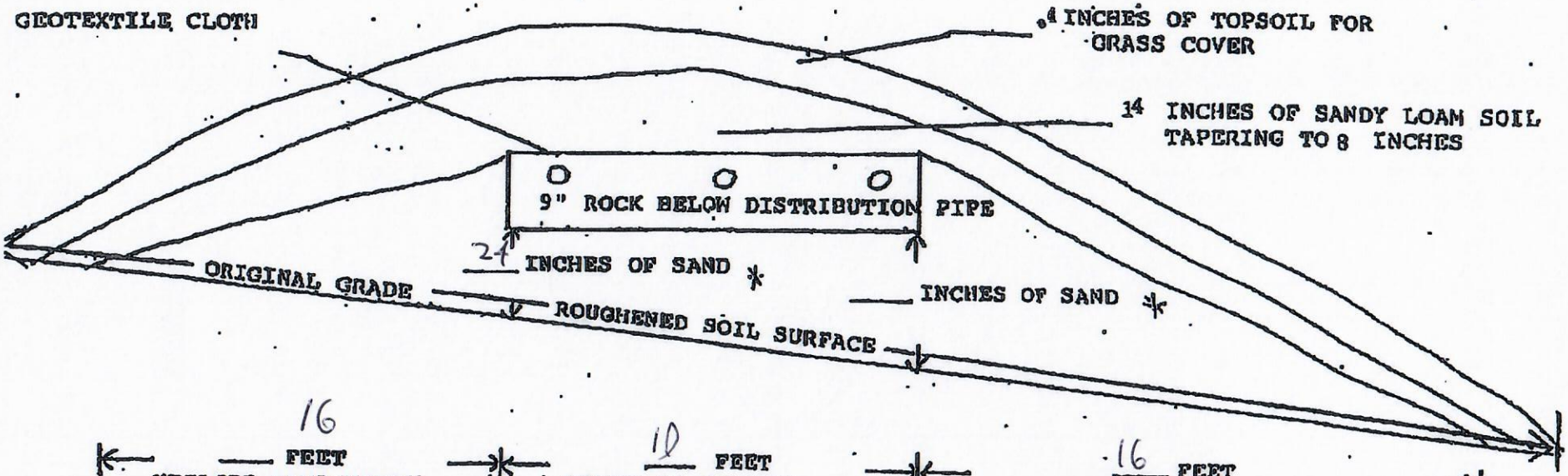

I hereby certify that I have completed this work in accordance with applicable ordinances, rules and laws.

_____ (signature) 697 (license #) 7/8/24 (date)

## MOUND CROSS-SECTION

0 PERCENT SLOPE OF ORIGINAL SOIL

10 FT. X 25 FT. SIZE OF ROCKBED 15 FT. X 20 FT. SIZE OF SANDBASE




16 FEET UPSLOPE SAND WIDTH

10 FEET WIDTH OF ROCKBED

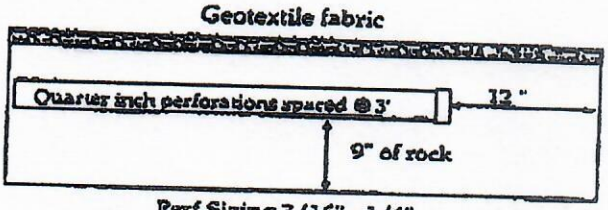
16 FEET DOWNSLOPE SAND WIDTH

17 FEET UPSLOPE COVER WIDTH

10 FEET WIDTH OF ROCK

17 FEET DOWNSLOPE COVER WIDTH

# PRESSURE DISTRIBUTION SYSTEM




Perf Sizing 3/16" - 1/4"
Perf Spacing 1.5'- 5'

1. Select number of perforated laterals 3

2. Select perforation spacing = 3 ft

3. Since perforations should not be placed closer than 1 foot to the edge of the rock layer (see diagram), subtract 2 feet from the rock layer length.

25 (Rock layer length) - 2 ft = 23 ft

4. Determine the number of spaces between perforations. Divide the length (3) by perforation spacing (2) and round down to nearest whole number.

Perforation spacing = 23 ft ÷ 3 ft = 7 spaces

5. Number of perforations is equal to one plus the number of perforation spaces(4). *Check figure E-4 to assure the number of perforations per lateral guarantees <10% discharge variation.*

7 spaces + 1 = 8 perforations/lateral

6. A. Total number of perforations = perforations per lateral (5) times number of laterals (1)

8 perfs/lat x 3 lat = 24 perforations

B. Calculate the square footage per perforation.
Should be 6-10 sqft/perf. *Does not apply to at-grades.*
Rock bed area = rock width (ft) x rock length (ft)
10 ft x 25 ft = 250 sqft
Square foot per perforation = Rock bed area ÷ number of perfs (6)
250 sqft ÷ 24 perfs = 10 sqft/perf

7. Determine required flow rate by multiplying the total number of perforations (6A) by flow per perforation *(see figure E-6)*

24 perfs x .74 gpm/perfs = 17.76 gpm

8. If laterals are connected to header pipe as shown on upper example, to select minimum required lateral diameter; enter figure E-4 with perforation spacing (2) and number of perforations per lateral (5) Select minimum diameter for perforated lateral = 1.5 inches.

9. If perforated lateral system is attached to manifold pipe near the center, lower diagram, perforated lateral length (3) and number of perforations per lateral (5) will be approximately one half of that in step 8. Using these values, select minimum diameter for perforated lateral = _____ inches.

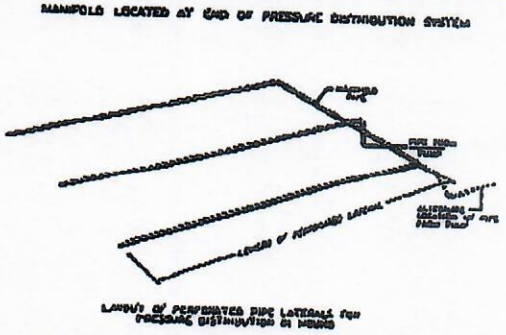
**E-4: Maximum allowable number of 1/4-inch perforations per lateral to guarantee <10% discharge variation**

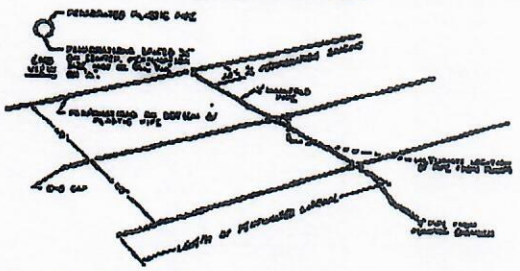
| perforation spacing (feet) | 1 inch | 1.25 inch | 1.5 inch | 2.0 inch |
|---|---|---|---|---|
| 2.5 | 8 | 14 | 18 | 28 |
| 3.0 | 8 | 13 | 17 | 26 |
| 3.3 | 7 | 12 | 16 | 25 |
| 4.0 | 7 | 11 | 15 | 23 |
| 5.0 | 6 | 10 | 14 | 22 |

**E-6: Perforation Discharge in gpm**

| head (feet) | perforation diameter (inches) 1/8 | 3/16 | 7/32 | 1/4 |
|---|---|---|---|---|
| 1.0[a] | 0.18 | 0.42 | 0.56 | 0.74 |
| 2.0[b] | 0.26 | 0.59 | 0.80 | 1.04 |
| 5.0 | 0.41 | 0.94 | 1.26 | 1.65 |

[a] Use 1.0 foot for single-family homes.
[b] Use 2.0 feet for anything else.




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

Ron Mauzy (signature) 697 (license #) 7/8/24 (date)

# PUMP SELECTION PROCEDURE

## 1. Determine pump capacity:

### A. Gravity distribution

1. Minimum required discharge is 10 gpm
2. Maximum suggested discharge is 45 gpm. For other establishments at least 10% greater than the water supply rate, but no faster than the rate at which effluent will flow out of the distribution device.

### B. Pressure distribution

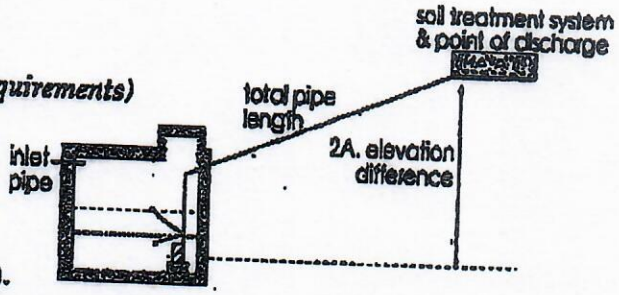
*See pressure distribution work sheet*

**From A or B Selected pump capacity: 17.76 gpm**

## 2. Determine pump head requirements:

A. Elevation difference between pump and point of discharge?
10 feet

B. Special head requirement? *(See Figure at right - Special Head Requirements)*
5 feet




| Special Head Requirements | |
|---|---|
| Gravity Distribution | 0 ft |
| Pressure Distribution | 5 ft |

C. Calculate Friction loss

1. Select pipe diameter 2 in
2. Enter *Figure E-9* with gpm (1A or B) and pipe diameter (C1).
   Read friction loss in feet per 100 feet from Figure E-9
   Friction Loss = .73 ft/100ft of pipe
3. Determine total pipe length from pump discharge to soil treatment discharge point. Estimate by adding 25 percent to pipe length for fitting loss. Total pipe length times 1.25 = equivalent pipe length
   60 feet x 1.25 = 75 feet
4. Calculate total friction loss by multiplying friction loss (C2) in ft/100 ft by the equivalent pipe length (C3) and divide by 100.
   = .73 ft/100ft x 75 ÷100 = .54 ft

D. Total head required is the sum of elevation difference (A), special head requirements (B), and total friction loss (C4)
10 ft + 5 ft + .54 ft =

**Total head: 15.54 feet** PR-41

| E-9: Friction Loss in Plastic Pipe Per 100 feet | | | |
|---|---|---|---|
| | nominal pipe diameter | | |
| flow rate gpm | 1.5" | 2" | 3" |
| 20 | 2.47 | 0.73 | 0.11 |
| 25 | 3.73 | 1.11 | 0.16 |
| 30 | 5.23 | 1.55 | 0.23 |
| 35 | 6.96 | 2.06 | 0.30 |
| 40 | 8.91 | 2.64 | 0.39 |
| 45 | 11.07 | 3.28 | 0.48 |
| 50 | 13.46 | 3.99 | 0.58 |
| 55 | | 4.76 | 0.70 |
| 60 | | 5.60 | 0.82 |
| 65 | | 6.48 | 0.95 |
| 70 | | 7.44 | 1.09 |

## 3. Pump selection

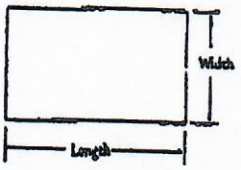
A pump must be selected to deliver at least 17.76 gpm (1A or B) with at least 15.54 feet of total head (2D)

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

[signature] (signature) 607 (license #) 7/8/24 (date)

# DOSING CHAMBER SIZING

1. Determine area
   A. Rectangle area = L x W
   _____ x _____ = _____ square feet
   B. Circle area = π (3.14) x radius in feet x radius in feet
   3.14 x _____ ft x _____ ft = _____ sqft
   C. Get area from manufacturer _____ sqft





2. Calculate gallons per inch
There are 7.5 gallons per cubic foot of volume, therefore multiply the area (1A, B or C) times the conversion factor and divide by 12 inches per foot to calculate gallon per inch.
Area x 7.5 ÷ 12 = _____ sqft x 7.5 ÷ 12 in/ft = 12.69 gallon per inch

3. Calculate total tank volume
   A. Depth from bottom of inlet pipe to tank bottom _____ in
   B. Total tank volume = depth from bottom of inlet pipe to tank bottom (3A) x gal/in (2)
   = _____ in x _____ gal/in = 533 gal

*Legal Tank:*
*500 gallons or*
*100% the Daily flow*
*or*
*Alternating Pumps*

4. Calculate gallons to cover pump (with 2-3 inches of water covering pump)
(Pump and block height (inch) + 2 inch) x gallon/inch
(12 in +2 in) x 12.69 gal/in = 177.6 gallon

5. Calculate total pumpout volume
   A. Select pump size for 4-5 does per day. Gallon per dose = gpd (see *figure A-1*)
   / doses per day = 300 gpd ÷ 4 doses/day = 75 gallons
   B. Calculate drainback
      1. Determine total pipe length, 60 feet
      2. Determine liquid volume of pipe, .17 gal per ft (*see figure E-20*)
      3. Drainback quantity = 60 ft (5B1) x .17 gal per ft (5B2) = 10.2 gal
   C. Total pump out volume = dose volume (5A) + drainback (5B3)
   75 gal + 10.2 gal = 85.2 Total gallon

**A-1: Estimated Sewage Flows in Gallons per Day**

| number of bedrooms | Class I | Class II | Class III | Class IV |
|---|---|---|---|---|
| 2 | 300 | 225 | 180 | 60% |
| 3 | 450 | 300 | 216 | of the |
| 4 | 600 | 375 | 256 | values |
| 5 | 750 | 450 | 294 | in the |
| 6 | 900 | 525 | 332 | Class I, |
| 7 | 1050 | 600 | 370 | II, or III |
| 8 | 1200 | 675 | 408 | columns. |

6. Float separation distance (using total pumpout volume)
Total pumpout volume (5C) ÷ gal/inch (2)
85.2 gal ÷ 12.69 gal/in = 6.7 inch

**E-20: Volume of Liquid in Pipe**

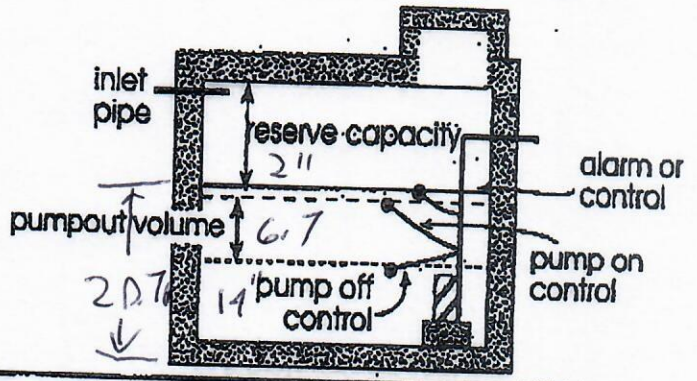
| Pipe Diameter inches | Gallons per foot |
|---|---|
| 1 | 0.045 |
| 1.25 | 0.078 |
| 1.5 | 0.11 |
| 2 | 0.17 |
| 2.5 | 0.25 |
| 3 | 0.38 |
| 4 | 0.66 |

7. Calculate volume for alarm (typically 2 to 3 inches)
Alarm depth (inch) x gallon/inch (2) = 2 in x 12.69 gal/in) = 25.38 gal

8. Calculate total gallon = gallons over pump (4) + gallons pumpout (5C) + gallons alarm (7)
177.6 gal + 85.2 gal + 25.38 gal = 288 gallons

9. Total Tank Depth = total gallon (8) ÷ gallon/inch (2)
288 gal ÷ 12.69 gal/in = 22.7 in

**Recommended:**
Calculate reserve capacity (75% the daily flow)
Daily flow x .75 = 300 x .75 = 225 gallons

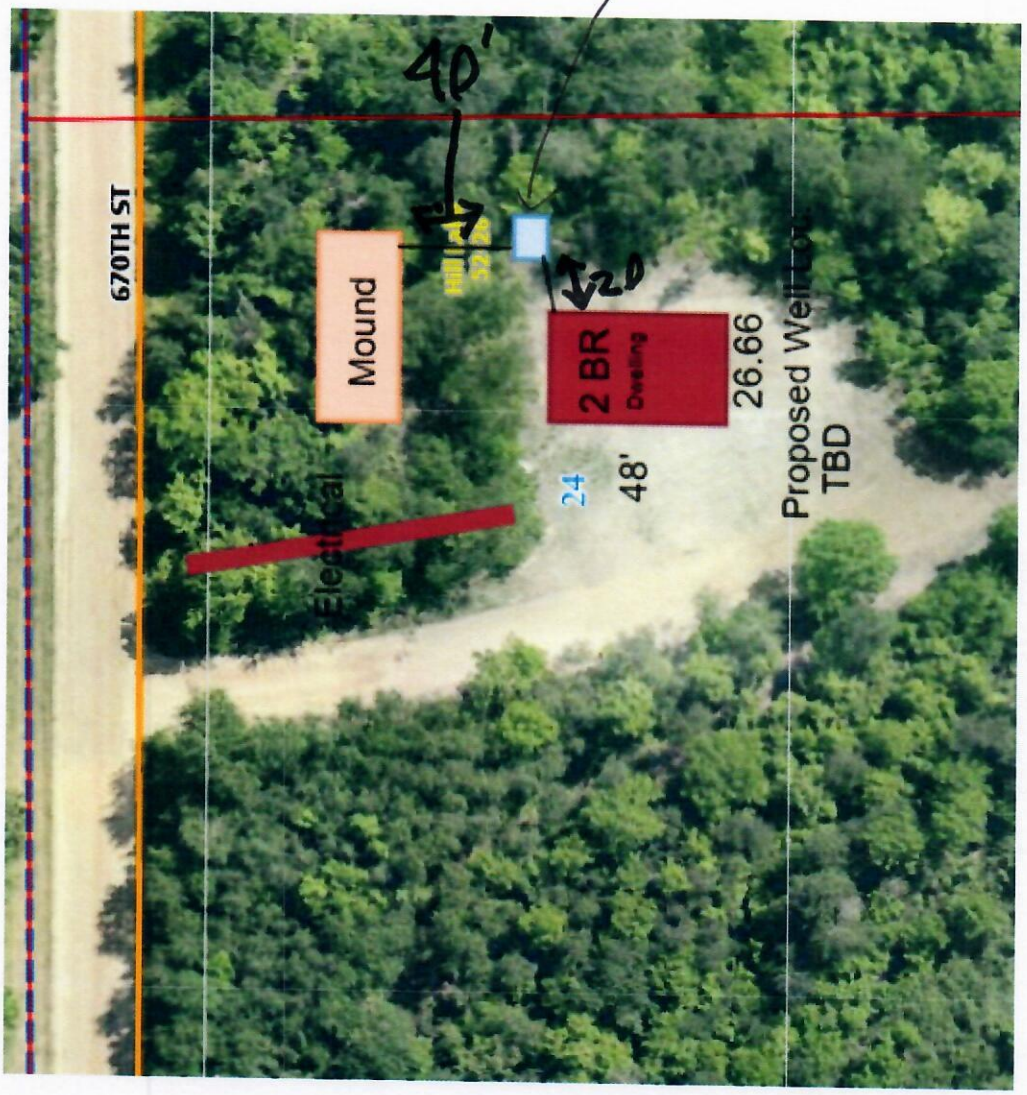



I hereby certify that I have completed this work in accordance with applicable ordinances, rules and laws.
_____ (signature) 687 (license #) 7/8/24 (date)

BRIAN 320-583-4506
MUNSTER

WELL NEEDS TO BE 50' AWAY FROM S.S.

JACOBSON P.C.
1650




Rec'd 697 7/8/21

CLIENT: [redacted]

DATE: _____

MAP DRAWN TO SCALE [redacted] WITH A NORTH ARROW

SEE OTHER DRAWING

## CHECK OFF LIST–HAVE ALL OF THE FOLLOWING BEEN DRAWN ON THE MAP??

SHOW EXISTING OR PROPOSED

- ☐ WATER WELLS WITHIN 100 FT OF TREATMENT AREAS
- ☐ PRESSURE WATER LINES WITHIN 10 FT OF TREATMENT AREAS
- ☒ STRUCTURES
- ☐ LOT IMPROVEMENTS
- ☐ ALL SOIL TREATMENT AREAS
- ☐ ALL ISTS COMPONENTS
- ☐ HORIZONTAL AND VERTICAL REFERENCE
- ☐ POINT OF SOIL BORINGS
- ☐ DIRECTION OF SLOPE
- ☒ LOT EASEMENTS
- ☐ ALL LOT DIMENSIONS
- ☐ DISTURBED/ COMPACTED AREAS
- ☐ SITE PROTECTION–LATHE AND RIBBON EVERY 15 FT
- ☐ ACCESS ROUTE FOR TANK MAINTENANCE

REQUIRED SETBACKS

- ☐ STRUCTURES
- ☐ PROPERTY LINES
- ☐ OHWL

COMMENTS:

**INDICATE ELEVATIONS**

BENCHMARK SURFACE

ELEVATION OF SEWER LINE @ HOUSE -12"

ELEVATION @ TANK INLET -30"

ELEVATION @ BOTTOM OF ROCK LAYER +24"

ELEVATION @ BOTTOM OF BORING OR RESTRICTIVE LAYER -12"

ELEVATION OF PUMP -84"

ELEVATION OF DISTRIBUTION DEVICE +36

DESIGNER SIGNATURE [signature]

LICENSE# 697

DATE 7/8/24