

Tract A

FIELD EVALUATION SHEET

PRELIMINARY EVALUATION DATE _____, FIELD EVALUATION DATE 5-4-16
 PROPERTY OWNER: Tim + Lisa Quady PHONE _____
 ADDRESS: 15732 Diamond Way CITY, STATE, ZIP: Apple Valley Mn 55124
 LEGAL DESCRIPTION: Lot 6 Musket Lodge Shores
 PIN# 08-1-066700 SEC 16 T 48 R 25 TWP NAME _____
 FIRE# 43171 LAKE/RIVER Gun LAKE CLASS _____ OHWL _____ FT.

DESCRIPTION OF SOIL TREATMENT AREAS

	AREA #1	AREA #2	REFERENCE BM ELEV. _____ FT.
DISTURBED AREAS	YES ___ NO <u>X</u>	YES ___ NO ___	REFERENCE BM DESCRIPTION _____
COMPACTED AREAS	YES ___ NO <u>X</u>	YES ___ NO ___	_____
FLOODING	YES ___ NO <u>X</u>	YES ___ NO ___	_____
RUN ON POTENTIAL	YES ___ NO <u>X</u>	YES ___ NO ___	_____
SLOPE %	<u>17%</u>	_____	_____
DIRECTION OF SLOPE	<u>N</u>	_____	_____
LANDSCAPE POSITION	<u>Shoulder</u>	_____	_____
VEGETATION TYPES	<u>Basswood, Maple, Aspin</u>		

DEPTH TO STANDING WATER OR MOTTLED SOIL: BORING# 1 6', 1A 7', 2 _____, 2A _____

BOTTOM ELEVATION--FIRST TRENCH OR BOTTOM OF ROCK BED: #1 3 FT., #2 _____ FT.

SOIL SIZING FACTOR: SITE #1 1.27, SITE #2 1.27

CONSTRUCTION RELATED ISSUES: _____

LIC# 747 SITE EVALUATOR SIGNATURE: Raymond Schrupp

SITE EVALUATOR NAME: Raymond Schrupp TELEPHONE# 218-820-8090

LUG REVIEW _____ DATE _____

Comments: _____

SOIL BORING LOGS ON REVERSE SIDE

Tim + Lisa Quady 08-1-066700 Tract A

SOILS CHARTS FOR BOTH PROPOSED AND ALTERNATE SITES

1 (PROPOSED) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
0-6	TS	7.5YR 3/2
6-24	SL	7.5YR 4/4
24-50	Sand + Rock	7.5YR 5/4
50-84	Sand	7.5YR 5/6

2 (PROPOSED) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR

1 (ALTERNATE) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
0-6	TS	7.5YR 3/2
6-12	SL	7.5YR 4/4
12-30	SL	7.5YR 5/4
30-84	Sand	7.5YR 5/4

2 (ALTERNATE) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR

ADDITIONAL SOIL BORINGS MAY BE REQUIRED

08-1-066700 Tract A TRENCH AND BED WORKSHEET

1. AVERAGE DESIGN FLOW

- A. Estimated 600 gpd (see figure A-1)
 or measured x 1.5 (safety factor) = gpd
 B. Septic tank capacity 1500 gal (see figure C-1)

2. SOILS (Site evaluation data)

- C. Depth to restricting layer = 6 ft
 D. Max depth of system Item 2C - 3 ft = 6 ft - 3 ft = 3 ft
 E. Texture SC Percolation rate 6-15 MPI
 F. Soil Sizing Factor (SSF) 1.27 sqft/gpd (see figure D-15)
 G. % Land Slope 1 %

3. TRENCH or BED BOTTOM AREA

- H. For trenches with 6 inches of rock below the pipe:
 $A \times F = \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} = \text{ } \text{ sqft}$
 I. For trenches with 12 inches of rock below the pipe:
 $A \times F \times 0.8 = \text{600} \text{ gpd} \times \text{1.27} \text{ sqft/gpd} \times 0.8 = \text{609} \text{ sqft}$
 J. For trenches with 18 inches of rock below the pipe:
 $A \times F \times 0.66 = \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} \times 0.66 = \text{ } \text{ sqft}$
 K. For trenches with 24 inches of rock below the pipe:
 $A \times F \times 0.6 = \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} \times 0.6 = \text{ } \text{ sqft}$
 L. For gravity beds with 6 or 12 inches of rock below the pipe;
 $1.5 \times A \times F = 1.5 \times \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} = \text{ } \text{ sqft}$
 For pressure beds with 6 or 12 inches of rock below the pipe;
 $A \times F = \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} = \text{ } \text{ sqft}$

4. DISTRIBUTION (Check all that apply)

- Bed (< 6% slope) Drop boxes (any slope) Rock
 Trenches Distribution box (< 3%) Chamber
 Pressure Gravity Gravelless

5. SYSTEM WIDTH, LENGTH and VOLUME

- M. Select trench width = 3 ft
 N. If using rock, divide bottom area by width: (H, I, J, K or L) ÷ M =
 $\text{609} \text{ sqft} \div \text{3} \text{ ft} = \text{203} \text{ lineal feet}$
 Rock depth below distribution pipe plus 0.5 foot times bottom area:
 Rock depth in feet + 0.5 feet x Area (H, I, J, K, or L)
 $(\text{ } \text{ ft} + 0.5 \text{ ft}) \times \text{609} \text{ sqft} = \text{915} \text{ cuft}$
 Volume in cubic yards = cuft ÷ 27
 $\text{915} \text{ cuft} \div 27 = \text{34} \text{ cu yds}$
 Weight of rock in tons = cubic yds x 1.4
 $\text{34} \text{ cu yds} \times 1.4 = \text{48} \text{ tons}$
 O. If using 10" Gravelless Pipe, Flow (A) x Gravelless SSF (see figure D-9)
 $\text{ } \text{ gpd} \times \text{ } \text{ lineal feet/gpd} = \text{ } \text{ lineal feet}$
 P. If using Chambers, H, I, J, or K (based on height of chamber slats) ÷
 width of chamber in feet (M)
 $\text{ } \text{ sqft} \div \text{ } \text{ ft} = \text{ } \text{ lineal ft}$

6. LAWN AREA

- Q. Select trench spacing, center to center = 6 feet
 R. Multiply trench spacing by lineal feet R x Q = sqft of lawn area
 $\text{6} \text{ ft} \times \text{203} \text{ ft} = \text{1218} \text{ sqft}$

7. Include a drawing with scale (one inch = 30 ft). Show pertinent boundaries, right of way, easements, location of house, garage, driveway, all other improvements, existing or proposed soil treatment system, well and dimensions of all elevations, setbacks and separation distances.

number of bedrooms	Class I	Class II	Class III	Class IV
2	300	225	180	60%
3	450	300	218	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.

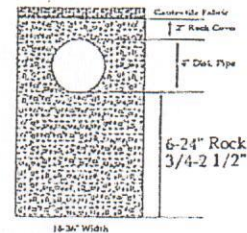
Number of Bedrooms	Minimum Liquid Capacity	Liquid capacity with garbage disposal	Liquid capacity with disposal & lift inside
2 or less	750	1125	1500
3 or 4	1000	1500	2000
5 or 6	1500	2250	3000
7, 8 or 9	2000	3000	4000

Percolation Rate (minutes per inch (mpi))	Soil Texture	Soil Sizing Factor (square feet/gallon per day (sqft/gpd))
faster than 0.1*	Coarse sand	0.83
0.1 to 5	Medium sand	0.83
	Loamy sand	
0.1 to 5**	Fine sand	1.67
6 to 15	Sandy loam	1.27
16 to 30	Loam	1.67
31 to 45	Silt loam	2.00
	Silt	
46 to 60	Clay loam	2.20
	Sandy clay	
	Silty clay	
over 61 to 120***	Clay	4.20
	Sandy clay	
	Silty clay	
slower than 120****		

*Use systems for rapidly permeable soils: pressure distribution or serial distribution with no trench > 25% of the total system.
 **Soil having 50% or more fine sand plus very fine sand
 ***A mound must be used.
 ****An other or performance system must be used

percolation rate (minutes/inch)	soil texture	lineal feet/gallon/day
Faster than 0.1*	Coarse Sand	—
0.1 to 5	Medium Sand	0.28
	Loamy Sand	
0.1 to 5**	Fine Sand	0.6
6 to 15	Sandy Loam	0.42
16 to 30	Loam	0.56
31 to 45	Silt Loam	0.67
	Silt	
46 to 60	Clay Loam (CL)	0.74
	Sandy CL	
	Silty CL	
slower than 60***	Clay	—
	Sandy Clay	
	Silty Clay	

*Soil too coarse for sewage treatment.
 Use systems for rapidly permeable soils.
 **Soil having 50% or more fine sand + very fine sand.
 ***Soil with too high a percentage of clay for installation of a standard inground system.



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

Carol Spurr (signature)

(signature)

747 (license #)

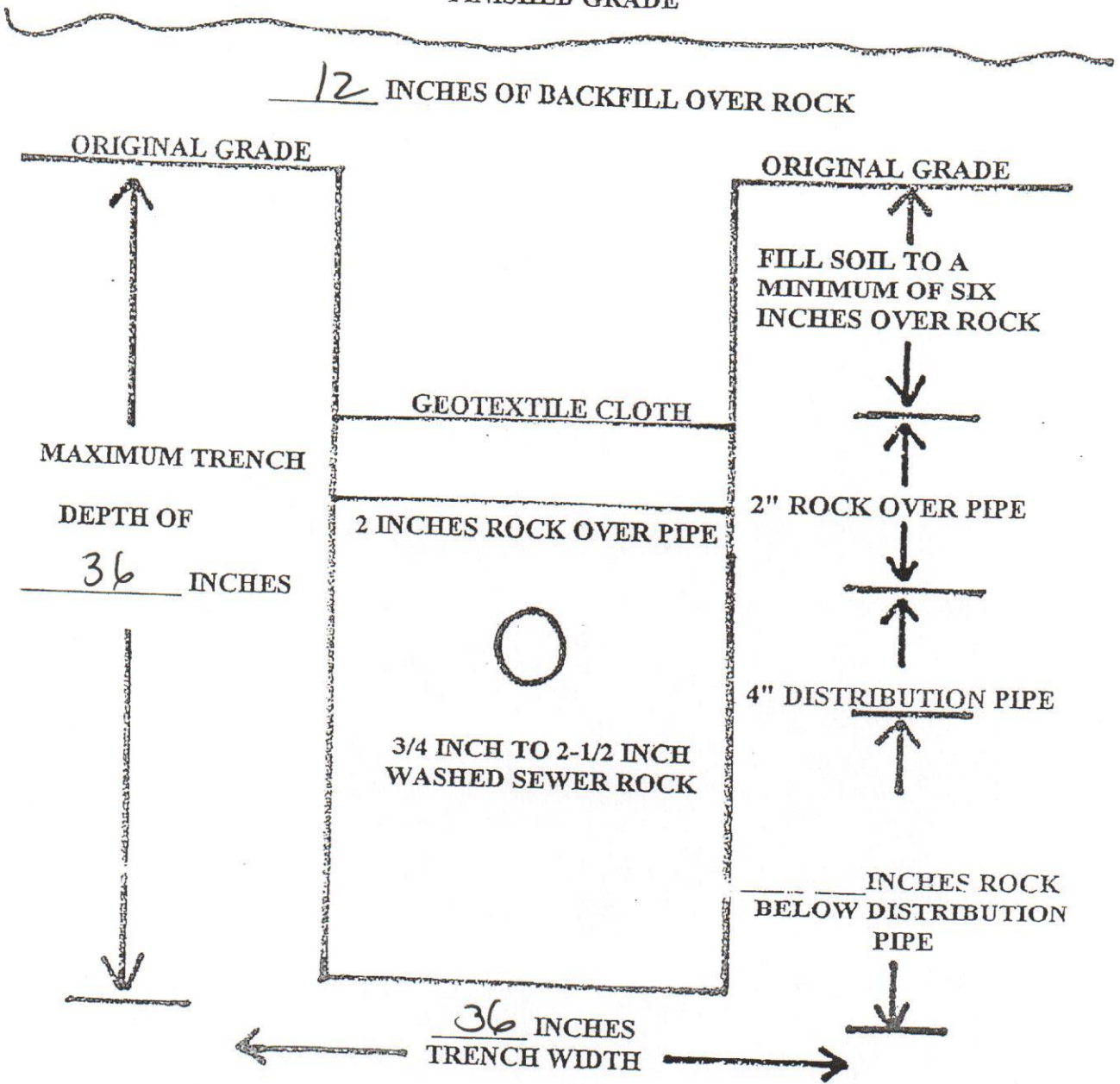
(license #)

5-4-16 (date)

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TRENCH CROSS-SECTION

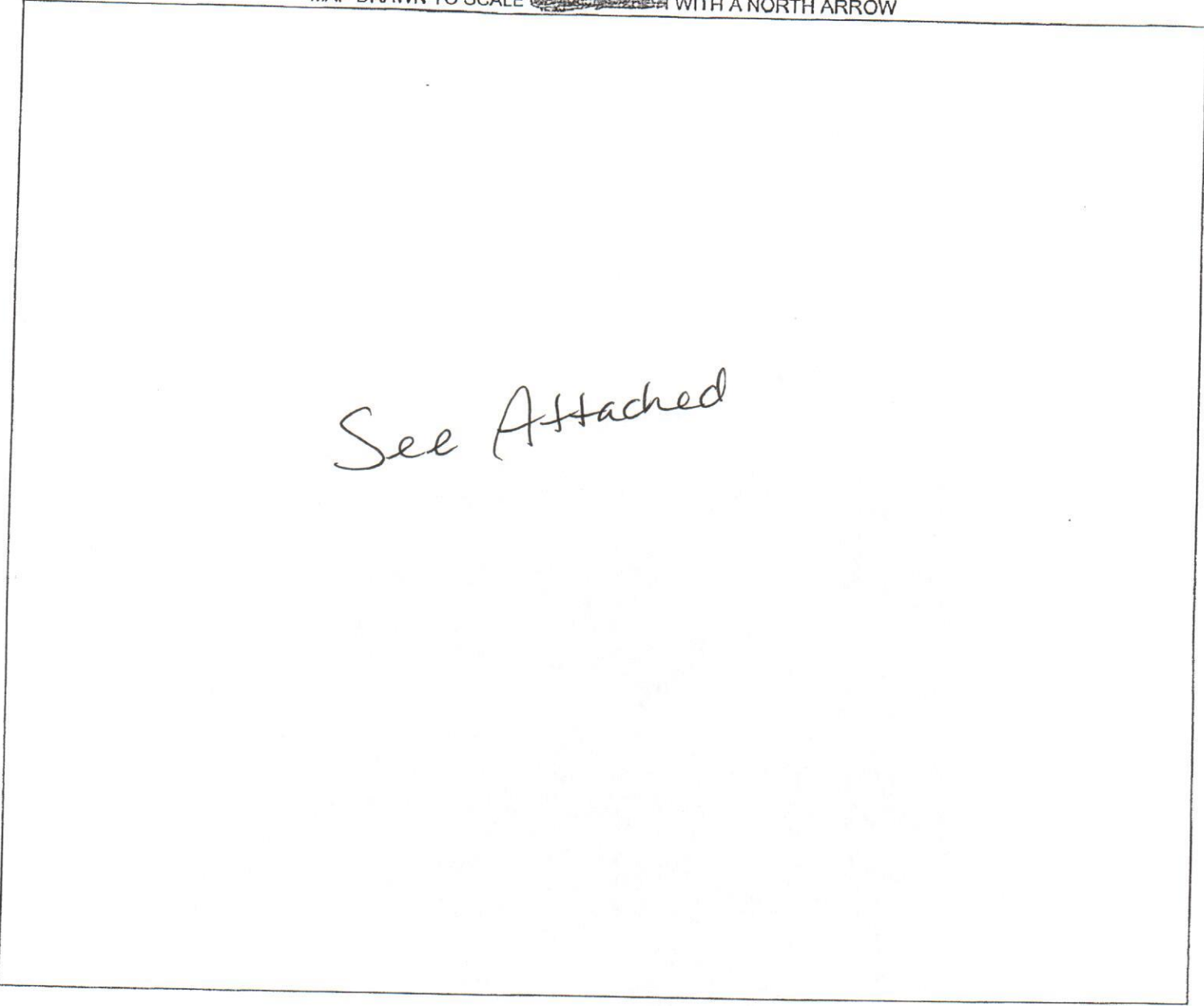
FINISHED GRADE



CLIENT: 08-1-066700 Tract A SKETCH SHEET

DATE: 5-4-16

MAP DRAWN TO SCALE ~~1"=100'~~ WITH A NORTH ARROW



See Attached

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

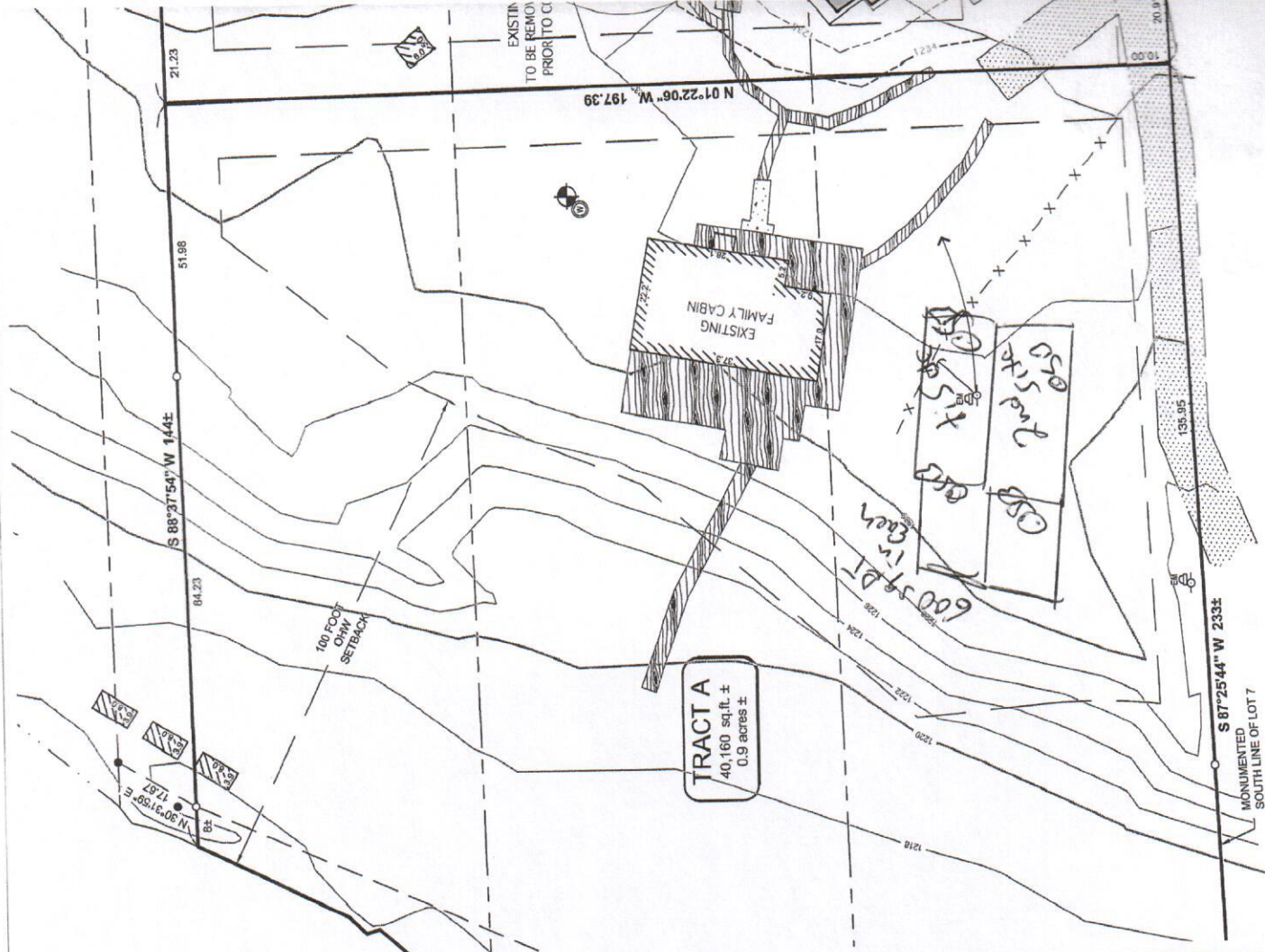
COMMENTS:

DESIGNER SIGNATURE [Signature]
LICENSE# 747

INDICATE ELEVATIONS

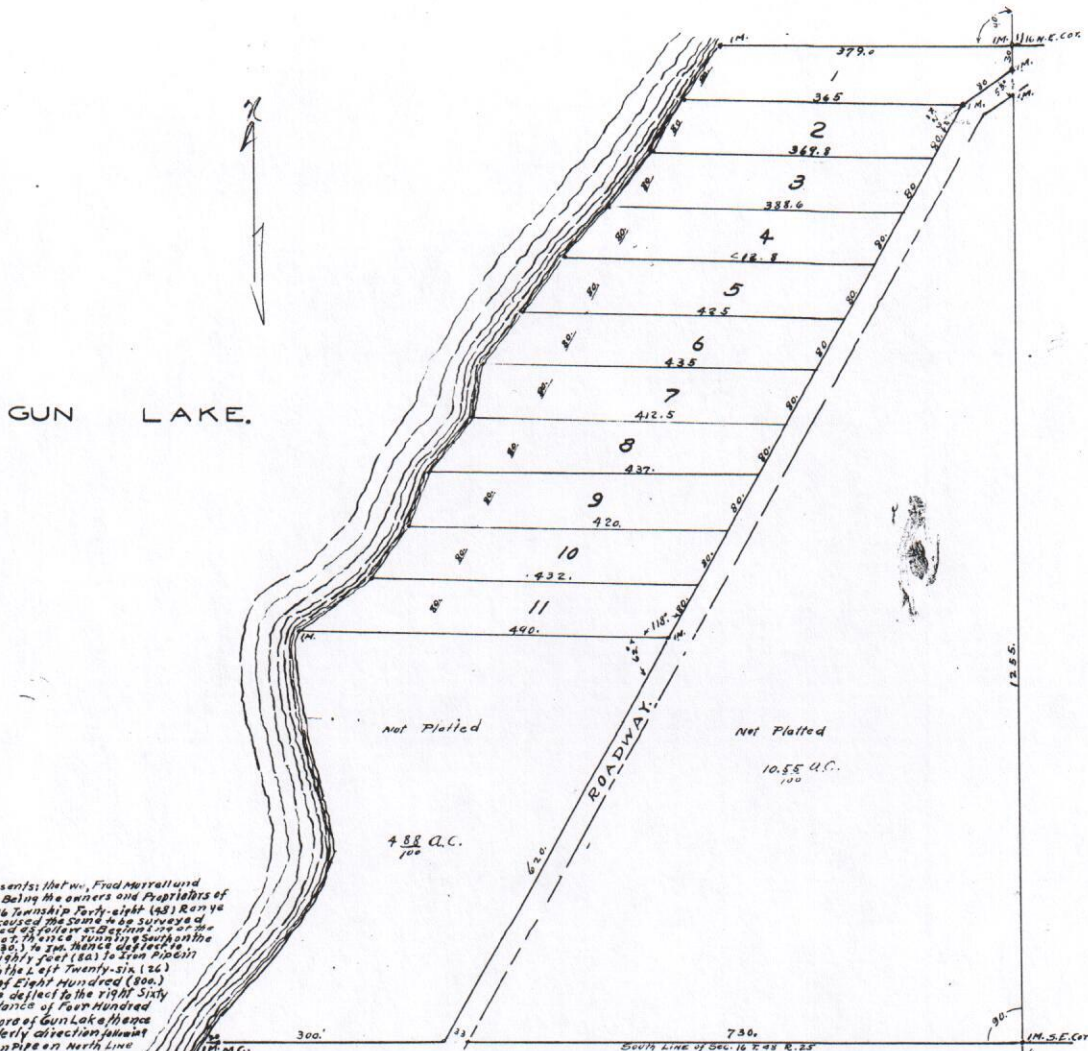
- BENCHMARK
- ELEVATION OF SEWER LINE @ HOUSE
- ELEVATION @ TANK INLET
- ELEVATION @ BOTTOM OF ROCK LAYER
- ELEVATION @ BOTTOM OF BORING OR RESTRICTIVE LAYER
- ELEVATION OF PUMP
- ELEVATION OF DISTRIBUTION DEVICE

DATE 5-4-16



MUSKET LODGE SHORES,

GOVERNMENT LOT, 5 ^{Sec 16} T. 48 R. 25 SEC. 16



Know all men by these Presents that we, Fred Murrell and Ester Murrell his wife being the owners and Proprietors of Government Lot 5 Sec. 16 Township Forty-eight (48) Range Twenty-five (25) have caused the same to be surveyed and divided as follows: to wit: Beginning at the North West Cor. of said Lot 5, thence South on the East Line Thirty feet (30.) to an Iron Pipe; thence the right 55 degrees 58 minutes (58) to Iron Pipe; thence thence deflect to the Left Twenty-six (26) degrees a distance of Eight Hundred (800.) feet to Iron Pipe, thence deflect to the Right Sixty two (62) degrees a distance of Four Hundred thirty (430.) feet to shore of Gun Lake (the shore turning in a Northeasterly direction adjacent the Shore of Lake to Iron Pipe on North Line of Said Lot 5, thence East on North Line Three Hundred seventy nine (379) feet to the Point of Beginning Platted in Lot 5 and Road and hereafter known as "Muskat Lodge Shores" In testimony whereof we, have hereunto set our hands and Seals this 28th day of October, A. D. 1949, and we hereby dedicate to Public Use the Road shown hereon.

Witness our hands and seals at Duluth, Minnesota, this 28th day of October, A. D. 1949.

Della E. Fitch Ester Murrell
 Della E. Fitch Ester Murrell
 State of Minnesota } ss.
 County of Hennepin } on this 28th day of
 October, A. D. 1949.

Before me, Personally appeared Fred Murrell and Ester Murrell, his wife, to me, Personally known to be the persons described in and who executed the foregoing Instrument and acknowledged that they executed the same as their free act and deed.

Della E. Fitch
 DELLA E. FITCH
 Notary Public, Hennepin County, Minn.
 My Commission Expires Dec. 27, 1948

I hereby certify that I have Surveyed and platted into Lots the parcel of Land described in the foregoing Instrument owned by Fred Murrell and Ester Murrell his wife, as shown on the within plat which is a correct representation of said Survey, and that Iron Pipes were drove in the Ground at all Points so indicated on Plat, that there are now no Land and no other Road to be dedicated except the Road shown on Plat.

H. D. Keath
 Surveyor.

The above certificate was subscribed and Sworn to before me this 31st day of October, A. D. 1949.

Claude J. Chaus
 Auditor of Aitkin County, Minnesota
 Ex. Off. Notary Public, Deputy Auditor

I hereby certify that the within Plat, was and that the same is hereby approved this 25th day of May, A. D. 1950.

attest Claude J. Chaus
 Auditor of Aitkin County, Minnesota.

H. C. Chaus
 Chairman of Board of County Commissioners
 of Aitkin County, Minnesota.

HEREBY CERTIFY THAT TAXES FOR THE YEAR 1949 ON THE LANDS DESCRIBED WITHIN ARE PAID

Ros C. Tiffany
 County Treasurer

123117
 OFFICE OF REGISTER OF DEEDS
 COUNTY OF AITKIN, MINN.

I hereby certify that the within Instrument was filed in this office for record on the 25th day of May, A. D. 1950.

V. E. Kistner
 Registrar of Deeds.

31st October 9
Claude J. Chaus
 Ex. Off. Notary Public, Deputy Auditor