

FIELD EVALUATION SHEET

PRELIMINARY EVALUATION DATE 11-18-19, FIELD EVALUATION DATE 11-18-19
PROPERTY OWNER: Grace Adams PHONE _____
ADDRESS: 25685 4350th Place CITY, STATE, ZIP: A. Tex 56431
LEGAL DESCRIPTION: Lot 1 Blk 3 Glen Waters
PIN# 11-1-246900 SEC 18 T 45 R 27 TWP NAME Hazelton
FIRE# _____ LAKE/RIVER Spectacle LAKE CLASS GD OHWL _____ FT.

DESCRIPTION OF SOIL TREATMENT AREAS

	AREA #1	AREA #2	REFERENCE BM ELEV. <u>100"</u>
DISTURBED AREAS	YES _____ NO <u>X</u>	YES _____ NO <u>X</u>	REFERENCE BM DESCRIPTION
COMPACTED AREAS	YES _____ NO <u>X</u>	YES _____ NO <u>X</u>	<u>Base of well casing</u>
FLOODING	YES _____ NO <u>X</u>	YES _____ NO <u>X</u>	_____
RUN ON POTENTIAL	YES _____ NO <u>X</u>	YES _____ NO <u>X</u>	_____
SLOPE %	<u>14%</u>	_____	_____
DIRECTION OF SLOPE	<u>Westerly</u>	_____	_____
LANDSCAPE POSITION	<u>Rolling</u>	_____	_____
VEGETATION TYPES	<u>grass pasture</u>	<u>SAME</u>	_____

DEPTH TO STANDING WATER OR MOTTLED SOIL: BORING# 1 72", 1A SAME

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

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

CONSTRUCTION RELATED ISSUES: 1250 tank gravity to 39 section of H. Cap chamber = 156 lined'

LIC# 2098 SITE EVALUATOR SIGNATURE: Bob Bartel

SITE EVALUATOR NAME: Bob Bartel TELEPHONE# 212-831-6430

LUG REVIEW _____ DATE _____

Comments: _____

SOIL BORING LOGS ON REVERSE SIDE

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SOILS CHARTS FOR BOTH PROPOSED AND ALTERNATE SITES

1 (PROPOSED) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
5"	Topsoil	10YR 3/3
14"	Sandy silty	16YR 4/4
72"	Sandy Gravel	10YR 4/6

2 (PROPOSED) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
almost the same		

1 (ALTERNATE) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
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2 (ALTERNATE) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
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ADDITIONAL SOIL BORINGS MAY BE REQUIRED

TRENCH AND BED WORKSHEET

1. AVERAGE DESIGN FLOW

- A. Estimated 450 gpd (see figure A-1)
 or measured 1.5 (safety factor) = 675 gpd
 B. Septic tank capacity 1250 gal (see figure C-1)

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number of bedrooms	Class I	Class II	Class III	Class IV
2	300	225	180	10%
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.

2. SOILS (Site evaluation data)

- C. Depth to restricting layer = 6'
 D. Max depth of system Item 2C - 3 ft = 16' ft - 3 ft = 3' ft
 E. Texture Sand, Percolation rate _____ MPI
 F. Soil Sizing Factor (SSF) 1.27 sqft/gpd (see figure D-15)
 G. % Land Slope 14 %

Number of Bedrooms	Minimum Liquid Capacity	Liquid capacity with cartridge disposal	Liquid capacity with disposal pit inside
2 or less	750	1125	1300
3 or 4	1000	1500	2000
5 or 6	1500	2250	3000
7, 8 or 9	2000	3000	4000

3. TRENCH or BED BOTTOM AREA

- H. For trenches with 6 inches of rock below the pipe:
 $A \times F = \text{_____ gpd} \times \text{_____ sqft/gpd} = \text{_____ sqft}$
 I. For trenches with 12 inches of rock below the pipe:
 $A \times F \times 0.8 = 450 \text{ gpd} \times 1.27 \text{ sqft/gpd} \times 0.8 = 458 \text{ sqft}$
 J. For trenches with 18 inches of rock below the pipe:
 $A \times F \times 0.66 = \text{_____ gpd} \times \text{_____ sqft/gpd} \times 0.66 = \text{_____ sqft}$
 K. For trenches with 24 inches of rock below the pipe:
 $A \times F \times 0.6 = \text{_____ gpd} \times \text{_____ sqft/gpd} \times 0.6 = \text{_____ sqft}$
 L. For gravity beds with 6 or 12 inches of rock below the pipe:
 $1.5 \times A \times F = 1.5 \times \text{_____ gpd} \times \text{_____ sqft/gpd} = \text{_____ sqft}$
 For pressure beds with 6 or 12 inches of rock below the pipe:
 $A \times F = \text{_____ gpd} \times \text{_____ sqft/gpd} = \text{_____ sqft}$

Percolation rate (minutes per inch (MPI))	Soil Texture	Soil Sizing Factor (square feet/gallon per day/gpd)
faster than 0.1'	Coarse sand	0.03
0.1 to 5"	Medium sand	0.53
	Loamy sand	1.67
0.2 to 5"	Fine sand	1.27
6 to 15"	Sandy loam	1.67
16 to 30"	Loam	2.00
31 to 45"	Silt loam	2.20
46 to 60"	Silt	2.20
	Clay loam	2.20
	Sandy clay	4.20
	Silty clay	4.20
	Sandy clay	4.20
	Silty clay	4.20
slower than 120"	Clay	4.20
	Sandy clay	4.20
	Silty clay	4.20

*Use systems for rapidly permeable soils; pressure distribution or seepage 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.
 ****As either a performance system must be used

4. DISTRIBUTION (Check all that apply)

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

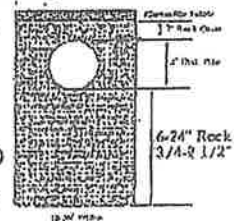
5. SYSTEM WIDTH, LENGTH and VOLUME

- M. Select trench width = 3 ft
 N. If using rock, divide bottom area by width: (H, I, J, K or L) ÷ M =
 $\text{_____ sqft} \div \text{_____ ft} = \text{_____ lineal feet}$
 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)
 $(\text{_____ ft} + 0.5 \text{ ft}) \times \text{_____ sqft} = \text{_____ cuft}$
 Volume in cubic yards = cuft ÷ 27
 $\text{_____ cuft} \div 27 = \text{_____ cu yds}$
 Weight of rock in tons = cubic yds x 1.4
 $\text{_____ cu yds} \times 1.4 = \text{_____ tons}$
 O. If using 10" Gravelless Pipe, Flow (A) x Gravelless SSF (see figure D-9)
 $\text{_____ gpd} \times \text{_____ lineal feet/gpd} = \text{_____ lineal feet}$

percolation rate (minutes/inch)	soil texture	lineal feet/gallons/day
Faster than 0.1'	Coarse Sand	---
0.1 to 5"	Medium Sand	0.28
	Loamy Sand	0.4
0.1 to 5"	Fine Sand	0.4
6 to 15"	Sandy Loam	0.62
16 to 30"	Loam	0.56
31 to 45"	Silt Loam	0.67
46 to 60"	Silt	0.74
	Clay Loam (CL)	---
	Sandy CL	---
	Silty CL	---
	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 in-ground system.

- P. If using Chambers, H, I, J, or K (based on height of chamber slats) ÷ width of chamber in feet (M)
 $\text{_____ sqft} \div \text{_____ ft} = \text{_____ lineal ft} = 39 \text{ Section of } 16 \times 48 \times 36 \text{ H. Cap } 3-52' \text{ to } 6' \text{ chamber}$



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
 $\text{_____ ft} \times \text{_____ ft} = \text{_____ sqft}$

7. Include a drawing with scale (one inch = _____ 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.

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

Bob Bault (signature)

(signature)

2088 (license #)

(license #)

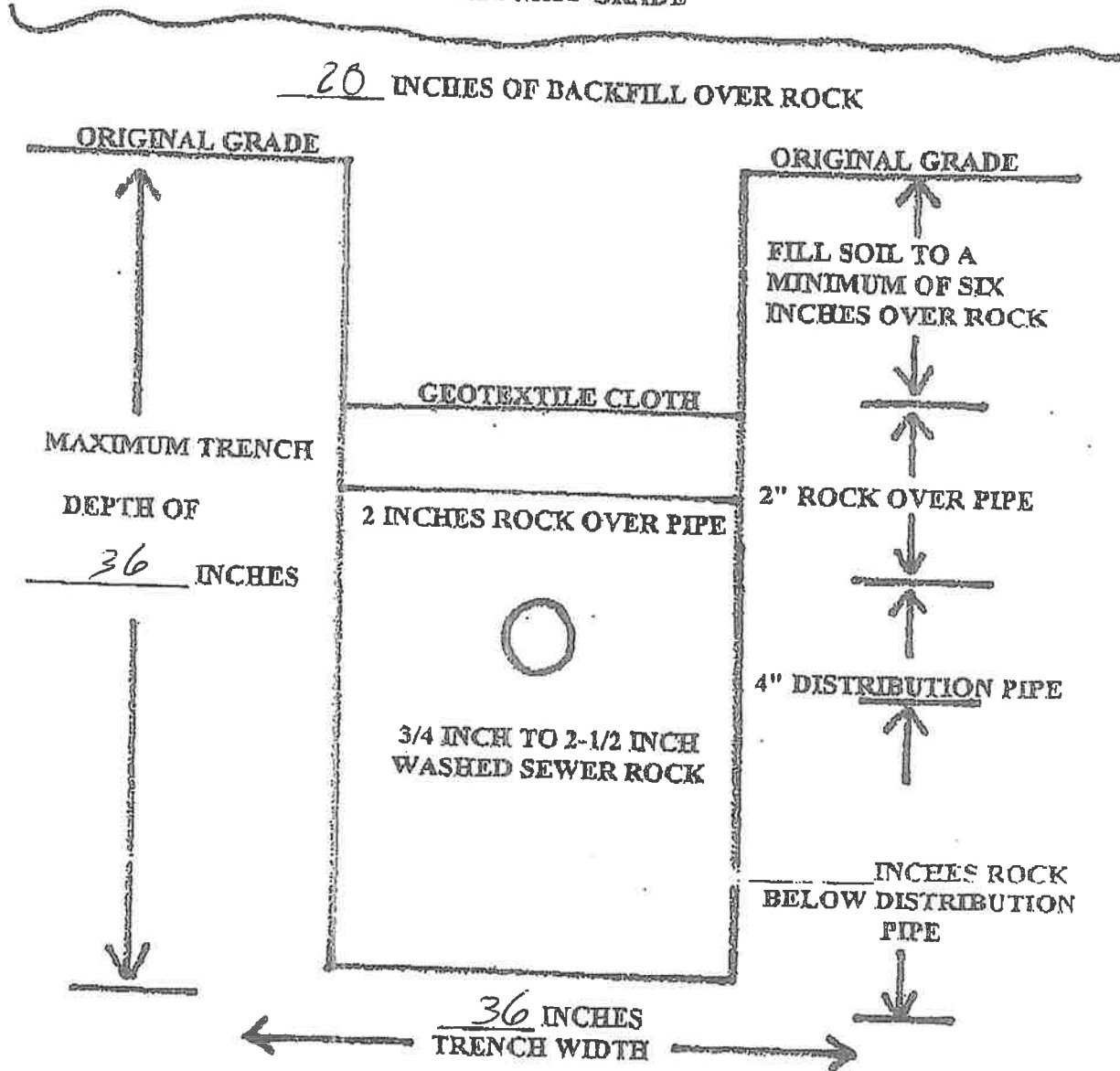
11-18-19 (date)

(date)

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TRENCH CROSS-SECTION

FINISHED GRADE



11-1-246960

Subsurface Sewage Treatment System Management Plan

Property Owner: Craig Adams Phone: 218-820-9801 Date: 11-18-19
 Mailing Address: 6254 Birdale Rd City: Brainerd Zip: 56401
 Site Address: 25.1085 455th Place City: Aitkin 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 _____ months.
 Local Government: check every _____ months.
 State Requirement: check every 36 months.

My System needs to be checked every 24 months.

(State requirements are based on MN Rules Chapter 7090.2450, 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.
- 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 pump and 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: Craig Adams Date: 11-18-19
 Designer Signature: Bob Bault Date: 11-18-19

See Reverse Side for Management Log

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Maintenance Log

Activity	Date Accomplished											
<i>Check frequently:</i>												
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 _____)												
<i>Check annually:</i>												
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:

Mitigation/corrective action plan:
