

FIELD EVALUATION SHEET

PRELIMINARY EVALUATION DATE 5/20/19, FIELD EVALUATION DATE _____
PROPERTY OWNER: Benton McCune PHONE 612-227-3004
ADDRESS: 49512 Island Pl CITY, STATE, ZIP: Shoreview MN 55160
LEGAL DESCRIPTION: _____
PIN# _____ SEC _____ T _____ R _____ TWP NAME _____
FIRE# _____ LAKE/RIVER Big Sandy Lake LAKE CLASS _____ OHWL _____ FT.

DESCRIPTION OF SOIL TREATMENT AREAS

	AREA #1	AREA #2	REFERENCE BM ELEV. <u>100'</u> FT.
DISTURBED AREAS	YES _____ NO <u>X</u>	YES _____ NO _____	REFERENCE BM DESCRIPTION
COMPACTED AREAS	YES _____ NO <u>X</u>	YES _____ NO _____	<u>corner of garage slab</u>
FLOODING	YES _____ NO <u>X</u>	YES _____ NO _____	_____
RUN ON POTENTIAL	YES _____ NO <u>X</u>	YES _____ NO _____	_____
SLOPE %	_____	_____	_____
DIRECTION OF SLOPE	_____	_____	_____
LANDSCAPE POSITION	_____	_____	_____
VEGETATION TYPES	_____	_____	_____

DEPTH TO STANDING WATER OR MOTTLED SOIL: BORING# 1 32", 1A _____, 2 _____, 2A _____

BOTTOM ELEVATION--FIRST TRENCH OR BOTTOM OF ROCK BED: #1 98.93 FT., #2 _____ FT.

SOIL SIZING FACTOR: SITE #1 .78, SITE #2 _____

CONSTRUCTION RELATED ISSUES: _____

LIC# L592 SITE EVALUATOR SIGNATURE: [Signature]

SITE EVALUATOR NAME: Bradley Eddy TELEPHONE# 218-426-4285

LUG REVIEW _____ DATE 6/10/19

Comments: Sand base pressure test as per meeting with
County Inspector

SOIL BORING LOGS ON REVERSE SIDE

SOILS CHARTS FOR BOTH PROPOSED AND ALTERNATE SITES

1 (PROPOSED) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR
0-4"	Topsoil	
0-24"	Sandy loam with few rocks	a/4 5YR
24"-32"	loam/clay	7.5YR a/6
32"	rocked	

2 (PROPOSED) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR

1 (ALTERNATE) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR

2 (ALTERNATE) SOILS DATA

DEPTH (INCHES)	TEXTURE	MUNSELL COLOR

ADDITIONAL SOIL BORINGS MAY BE REQUIRED

Benton Mccone

29-1-324900

49512 202nd PI McGregor MN 55760

This system is designed with a 2' lift of clean sand to be installed under new pressure bed and including a 2' width around system. This will result in meeting separation requirements and meeting lot setbacks.

As per meeting with Brian onsite.

Pressure Bed Design

Property Owner: Benton Mccone Date: 6/10/2019

Site Address: 49512 202 pl McGregor MN PID: 29-1-324900

Comments: Raised pressure bed as to meet seperation and lot requirments

instructions: = req'd input = input or default = calculated field *** = installer info

- 1) bedroom Type Residential System
- 2) GPD design flow
- 3) Garbage disposal or pumped to septic
- 4) *** Gallon septic tank (minimum) Tank options: none
- 5) GPD/ft² Soil Loading Rate ft² bed req'd, or ft² LUG minimum
(must match soil boring log)
- 6) *** ft desired bed width, leads to a ft bed length
(25' maximum) ERROR # of laterals incorrect
- 7) *** ft lateral spacing ft perforation spacing (maximum 3 for both)
 manifold connection
- 8) *** laterals feet long perfs / lateral perfs total
(1/2 perf means the first perf starts at the middle feed manifold)
- 9) *** inch perfs at feet residual head gives gpm flow rate per perforation
(If bed has > 1' of cover, increase residual head for cleanout req's)
for this perf size & spacing, & pipe size on line 12, max perfs/lateral = , line #8 must be less --> OK
- 10) doses per day (4 minimum)
- 11) gallons per dose (treatment volume)
- 12) 1.50 inch diameter laterals (or smaller) will meet "5x pipe volume"
*** inch diameter laterals (or smaller) must be used to meet "4x pipe volume" requirement
2.00 inch diameter laterals (or smaller) will meet "3x pipe volume"
- 13) *** feet of inch supply line leads to gallons of drainback volume
("top feed" to control the drainback)
- 14) gallons TOTAL pump out volume (treatment + drainback)
- 15) feet vertical lift from pump to dispersal area, leads to a
- 16) *** GPM @ feet of head, Pump requirement
(>50 gpm may require additional 3-6' head allowance for discharge assy)

- 17) *** 520 gal Dose tank (minimum) at 12.69 gpi
- 18) *** 12.1 inch swing on Demand float, or Timed dosing of 3.9 min ON (confirm pump rate with drawdown test and adjust as necessary)
(<100% of design flow requires a larger OFF time) 5.9 hrs OFF
- 19) 12 inches of from bottom of tank to "pump OFF" float, and/or to cover pump
- 20) *** 24 inches from bottom of tank to "pump ON" float, or 12 inches to "timer ON" float
- 21) *** 27 inches from bottom of tank to "Hi Level" float (add 5-15 inches if Time Dosed)
- 22) 177 gallons reserve capacity (after High Level Alarm is activated)
- 23) 32 inches, or 2.67 ft. to Redox or other limiting condition (This must match the soil boring log)
- 24) 36 inches, or 3.00 ft. of vertical separation required
leads to bottom of rock no more than:
- 25) *** -4 inches, or -0.3 ft. Below existing grade **CRITICAL FOR FUTURE CERTIFICATIONS!!!**
- 26) *** 6 inches of rock below the pipe
2 inches of rock to cover the pipe
- 27) Overall Dimensions: 15.0 ft. wide by 51.3 ft. long Pressure Bed
- 28) *** Rock Bed materials:
15 ft. by 51.3 ft. by 8 inches total, plus 20% gives 23 yd³ or *1.4= 32 ton

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


Designer Signature

Fieldand Excavating
Company

LS92
License#

6/10/19
Date

Installer Summary

1500 gallon Septic tank (minimum) none

520 gallon Dose tank (minimum) at 12.69 gpi

39 GPM @ 16 ft. of head, Pump required

12.1 inch swing on Demand float or 3.9 minutes ON time & 5.9 hours OFF time

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

27 inches from bottom of tank to "Hi Level Alarm" float

25 ft. of 1.5 inch supply line with middle feed manifold connection

8 laterals 2.00 inch diameter 24.7 feet long 3.0 ft lateral spacing

7/32 inch perfs 3.0 ft perforation spacing

No Effluent filter & alarm

8 clean out & valve box assembly

Pressure Bed:

15.0 ft. wide by 51.3 ft. Long

Bottom of rock no more than:

-4 inches, or -0.3 ft. Below existing grade

6 inches of rock below the pipe

Overall Dimensions: 15 ft. wide by 51.3 ft. long Pressure Bed

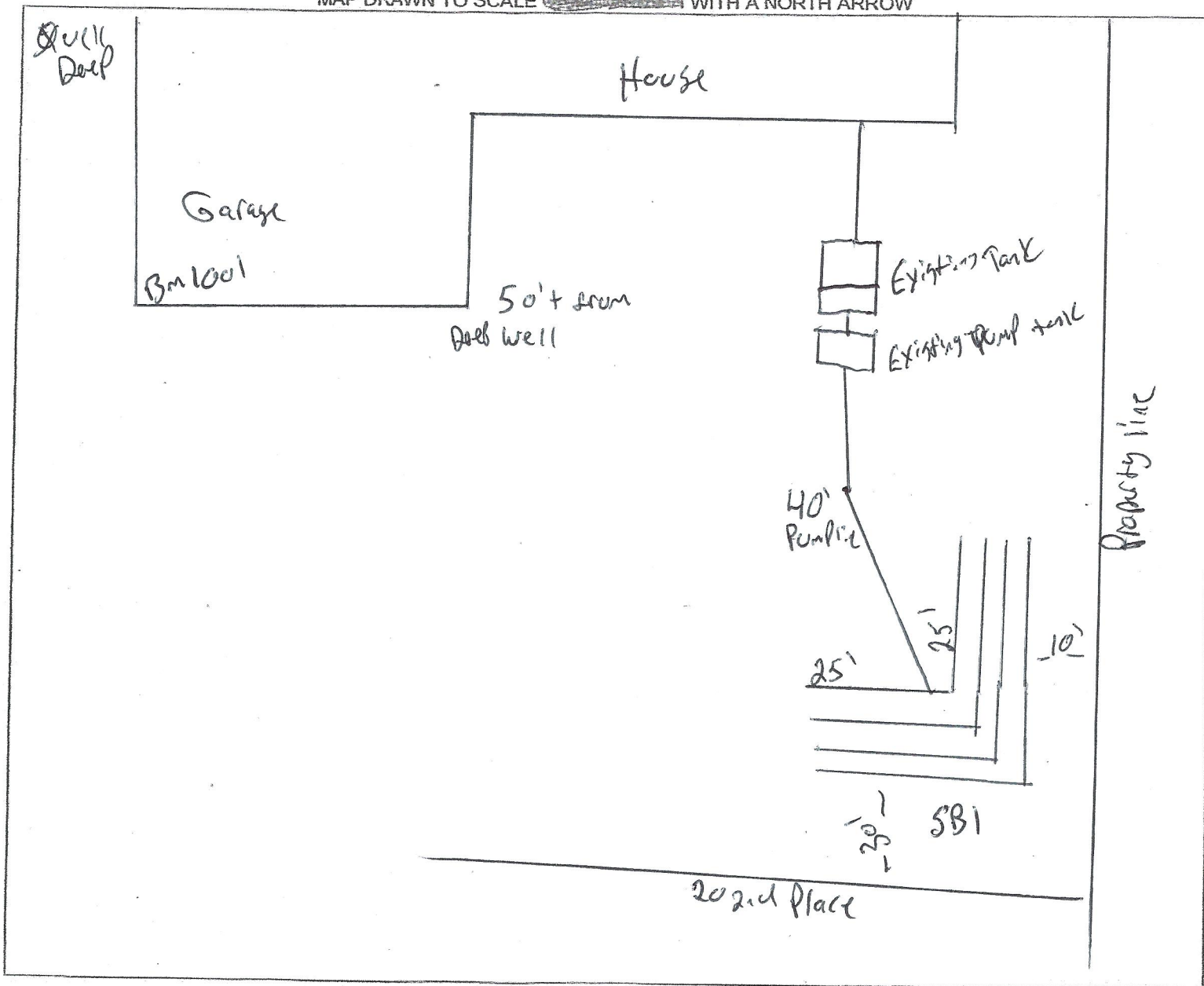
Rock Bed materials: 23 yd³ or *1.4= 32 ton

SKETCH SHEET

CLIENT: Benton McConc
29-1-324900

DATE: 6/10/19

MAP DRAWN TO SCALE WITH A NORTH ARROW



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
- ALL SOIL TREATMENT AREAS
- HORIZONTAL AND VERTICAL REFERENCE
- POINT OF SOIL BORINGS
- LOT EASEMENTS
- DISTURBED/ COMPACTED AREAS
- SITE PROTECTION--LATHE AND RIBBON EVERY 15 FT
- ACCESS ROUTE FOR TANK MAINTENANCE
- LOT IMPROVEMENTS
- ALL ISTS COMPONENTS
- DIRECTION OF SLOPE
- ALL LOT DIMENSIONS

REQUIRED SETBACKS

- STRUCTURES
- OHWL
- PROPERTY LINES

COMMENTS:

INDICATE ELEVATIONS

- BENCHMARK 100'
- ELEVATION OF SEWER LINE @ HOUSE _____
- ELEVATION @ TANK INLET _____
- ELEVATION @ BOTTOM OF ROCK LAYER 98.83
- ELEVATION @ BOTTOM OF BORING OR RESTRICTIVE LAYER _____
- ELEVATION OF PUMP 92.83
- ELEVATION OF DISTRIBUTION DEVICE _____

DESIGNER SIGNATURE [Signature]
 LICENSE# 4552

DATE 6/10/19

Subsurface Sewage Treatment System Management Plan

Property Owner: Benton McConel Phone: 612-227-3004 Date: 6/10/19
Mailing Address: _____ City: _____ Zip: _____
Site Address: 49512 202nd PL City: McBryer Zip: 5576

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 or maintenance provider.

System Designer: Recommends SSTS check every 12 months.
Local Government: Recommends SSTS check every _____ months.
State Requirement: Requires SSTS check every 36 months.
(State requirements are based on MN Rules Chapter 7080.2450, Subp. 2 & 3)

My System needs to be checked every _____ months.

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 or maintenance 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 N/A)

Licensed septic service provider or maintenance provider (Check all that apply):

- Check to make sure tank is not leaking
- Check and clean the in-tank effluent filter (if exists)
- 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: Benton McConel Date: 6/18/19
Designer Signature: [Signature] Date: 6/10/19

See Reverse Side for Management Log

**MAINTENANCE SERVICE, MONITORING AND INSPECTION
CONTRACT
FOR INDIVIDUAL SEWAGE TREATMENT SYSTEM**

It is hereby agreed this 18 day of July, 2019 by and between
Jerry Farley (Inspector) and Burtan McLane (client)

(Client) Name & Address

Burtan McLane

Street Address 49512 202nd PL

City, State, Zip McGregor MN 55760

That in consideration of the payments provided herein, the Inspector shall provide services to perform Preventative Maintenance, Monitoring and Inspection of the Individual Sewage Treatment System (ISTS) located at the property described in the Aitkin County Operating Permit.

Each inspection includes an examination of the ISTS followed by a written report to the client. This inspection report shall contain recommendations for operation and maintenance for failure-preventative measures, if any are deemed appropriate by the inspector and a list of recommended corrective measures or replacement parts. The Inspector is authorized to submit a copy of the report to the Aitkin County Environmental Services Department.

This contract does not assume any responsibilities or obligations, which are normally the responsibilities of the Client, as related to parts or labor and does not extend to cover any costs that may be associated with any recommendations made under this contract.

The Inspector can only contract or subcontract for parts or labor after authorization. Billings for service calls shall be made on a case by case basis. This contract only covers maintenance, monitoring and inspection services per current Aitkin County Operating Permit and does not cover alarm calls of any kind.

The Inspector shall be provided access to the site and the system in order to perform the following services:

SEPTIC TANK AND LIFT STATIONS INSPECTION

(check the boxes needed to fill the requirements of the Operating Permit)

Check septic tank and compartments for solids buildup and general appearance. If necessary, have tanks pumped (cost of pumping is the responsibility of the client).

Check effluent filter for buildup and clean, if applicable.

___ Check pumping system, including control panel and floats.

Record and date the readings of the elapsed time meter and cycle counter(s), if applicable.

___ Check dosing settings (in the control panel, if applicable).

___ Other: _____

****If the septic tank or lift stations need pumping to be in compliance with the operating permit the cost of the pumping is the responsibility of the Client.**

TREATMENT DEVICE

___ Inspect pretreatment unit (aerobic tank, sand filter, etc.) per manufacturer's recommendations, if applicable.

___ Inspect and clean any parts per manufacturer's recommendations.

___ Inspect and clean laterals, if applicable.

___ Inspect the appearance of the wastewater inside the unit for color, turbidity and examination of odors.

___ Sample effluent per Operating Permit monitoring requirements.

(Cost of sampling and analysis is the responsibility of the Client)

___ Other: _____

DISPERSAL FIELD

Inspect for visible signs of failure (surface discharge, soggy ground, wet spots, settling, etc.)

___ If liquid level monitors are installed, levels will be observed and recorded.

___ Flush filters and clean cartridges, if applicable.

___ Check field control unit solenoid operations or manual control, if applicable.

___ Other: _____

In no event shall the Inspector be responsible for special or consequential damages, including but not limited to, loss of time, injury to personal property or any other consequential damages or incidental or economic loss due to equipment failure or for any other reason. This contract does not assume any responsibilities or obligations, which are normally, the responsibility of the Client or as, related to parts or labor and does not extend to cover any costs that may be associated with any recommendations made under this contract.

This contract shall be effective: Beginning August 1, 2019
and Ending August 1, 2020

Cost for Maintenance Service, Monitoring and Inspection Contract is:

\$ _____ /yr. For _____ years totaling \$ _____

The Inspector agrees to provide inspection, monitoring and routine maintenance service only under this contract. The Client remedies for breach of this contract shall be limited to refund of any of the amounts paid in advance for service. This contract may be renewed 30 days from the ending date.

Payment for all services shall be paid _____.

Client:

Inspector:

Sign: Bert M... 6/18/19

Sign: Jerry Barley 6/18/19

Print: 6/18/19 Bert M...

Print: 6/18/19 Jerry Barley

Date: 6/18/19

Date: 6/18/19