

Septic System Permit
Flathead City-County Health Department
Environmental Health Services
1035 1st Avenue West, Kalispell, MT 59901
Phone: (406) 751-8130 / Fax: (406) 751-8131

Permit Number 20- 9878 N

Site Eval Receipt: 20-5241

Date Issued: 7/9/2020

Zone: 2

Date Recorded: 3/16/2020

1. Legal Description: Assr. # 0007657 Tr. # 5AD
Subdiv. Name:
COS #: 2221-1
Name/EQ:
Property Address: 4395 HIGHWAY 93 W WHITEFISH MT 59937

Sec 24 Twp 31 Rng 23
Lot:
Parcel Size: 4.62 acres
Type:

2. Legal Property Owner James & Lynette Haun
Address and Phone 4395 Hwy 93 W. Whitefish, MT 59937

3. Authorized for: New Existing Structure: Guest House Trench Min. Length: 80 ft.
4. Structure: Proposed Structure (Multi Family (3+)) Specify: Three 1-BR Cabins Trench Max. Depth: 36 in.
5. System Use: Shared (2) Trench Width: 3.0 ft.
6. Occupancy Type: Occ. No. #: 9 Other Permits: Lineal Footage: 400 ft. of
7. Water Supply: Multi User (3-9) Public Supply #: Standard Rock & Pipe
8. Nitrates: Source: WELL System Type: PUMP
9. Soil Type: Silty clay loam How Determined: I.H.
10. Depth to Groundwater Table/Bedrock: ≥ 84 in. How Determined: I.H.
11. Classification: 2 Septic Tank Size (gal-min): 2000/500 Absorption Area (sq ft): 1200
Permit Fee: \$415.00
12. Drainfield Orientation: North-South
13. Designed By: Glacier Precast (Dated 6/10/2020)
13a. Special Notes: 3 People Per Cabin. 1867/832 Tank Size

13b. Standard Requirements: This system shall be installed in accordance with applicable Flathead City/County Health Department, (FCCHD), regulations, construction standards and the approved design. Any changes from the approved design must be approved by the designer and FCCHD prior to modification of the project. The installer and a representative from FCCHD must be present for the inspection and clear-water pump or siphon test. System shall not be covered or backfilled until specifically authorized by FCCHD. Approved design report and layout sketch are attached.

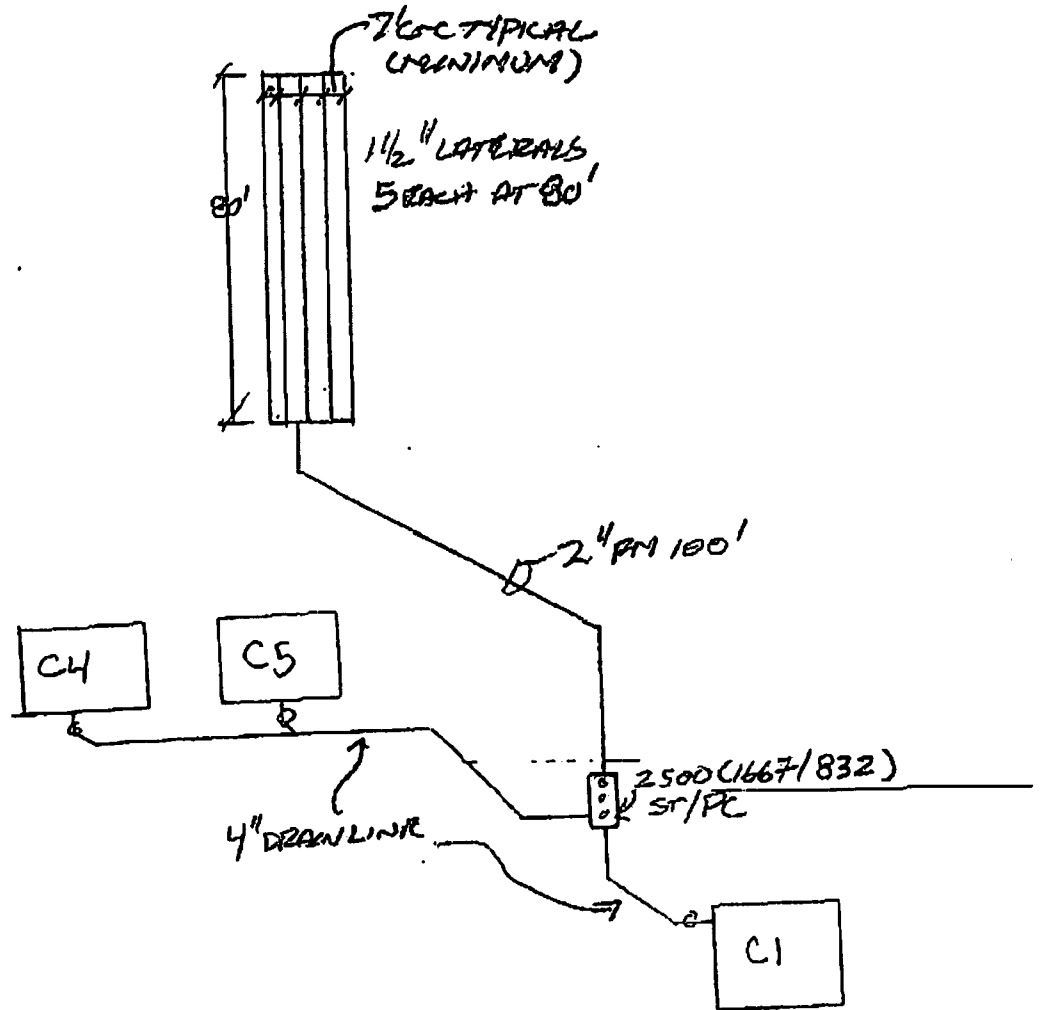
6/18/2020

Kate Cassidy, R.S.

Date

Signature Authorizing Approval of Permit

* These requirements establish the MINIMUM STANDARDS for this septic system installation. The permit will be voided and declared invalid if the system is not installed within 12 months. The issuance of this permit authorizes construction of the septic system and requires the installation comply with the FLATHEAD COUNTY REGULATIONS FOR SEWAGE TREATMENT SYSTEMS (FCRSTS). The permit will be void if the system is not utilized as intended within three (3) years of installation. The property owner is responsible for operating and maintaining the system in accordance with FCRSTS. Failure to comply with these regulations may result in revocation of this permit. This permit does not constitute a design and does not bind or obligate this office to guarantee the performance of the system. This permit shall be given to the installer prior to construction. The owner shall give 48 hours advance notice for the required inspection of the system. Please call 751-8130.



O = CLEAN OUT

PUMP DESIGN WORKSHEET - 1/18/19

Recd. Date Stamp (FCCHD)

Owner: Haun
 Address: 4395 Hwy 93 West, Whitefish
 Legal: Tr 6AD 24-31-23

Designer: Glacier Precast - JS
 Tel: 406-752-7163
 Installer: Eagle River Excavation
 Tel: 406-871-9836

Design Data Required

Orifice Diameter (OD) 5/32 inch (minimum 1/8th inch)
 Orifice Spacing (OS) 5 ft on centers (maximum 5 feet)
 Pressure head, first orifice (HO) 5 ft (> 2.3 ft for 3/16 in. or larger orifices, > 5 ft for orifices < 3/16 in.)
 Orifice Discharge Rate (QO) 0.66 gal/min (from orifice flow chart)
 Length of Force Main (LFM) 100 ft
 Diameter of Force Main DFM 2 inches
 Pump Chamber Low-Level (pump "off") elevation E1 100 ft
 Elevation of Upper Lateral E2 98 ft
 Daily Sewage Volume QSM 360 gal / day Level Two treatment
 Allowable Soil Loading Rate QL 0.3 gpd/sq.ft. x for yes ☐
 Trench type: ROCK (x for yes) x CHAMBER
 Trench width: select 2 or 3 ft 3 Effective width

Design calculations

Required infiltration Area (sq.ft.) Rock 1200 Chamber 900
 Total length of laterals 400 #DIV/0!
 =
 Number of Orifices NO = 80
 Total Discharge Rate Qt = 53 gal/min
 Force main Friction Factor F 6.03 ft/100 ft
 Force main Headloss (F x LFM/100) 6.03 ft.
 Elevation Head (gravity) HG = E2-E1 -2 ft.
 Total Dynamic Head (HG + FFM + HO), 9.03

Required Pump

Capable of pumping at least 53 gal/min against a head of 9 feet
 Pump make Ashland Model EP 45

Actual Drainfield Design:

	L1	L2	L3	L4	L5	L6
Number of Laterals <u>5</u> Length each Lateral	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	
Lateral elevation	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	
	L7	L8	L9	L10	L11	L12
Length						
Elevation						

Control Float Settings**Dose Volume**

Laterals-
 Pipe type/clas Sch 40 Int. Dia. 1.61 in. Pipe Vol. 0.106 gal/ ft
 Total length of laterals (L) 400 ft.
 Total vol in laterals (VL) 42.30

Force main
 Pipe type/clas Sch 40 Int. Dia. 2.067 in. Pipe Vol. 0.174 gal/ ft
 Total length force main 100 ft
 Total vol. in force main 17.43 gal, (VFM)

$$(5 \times VL) + VFM = 212 + 17 = 229 \text{ gal}$$

Pump Chamber Volume (V) 220 gal / ft 500 gallon dose tank does not have enough reserve
 Minimum Dose Volume (D) 229 gal Use a 2500 with 1667/832 split,
 Upper (pump on) float should be 1.04 ft (D/V) = 12 in. above "pump off" float
 Control & Alarm (make & model) SJE

PLEASE PROVIDE A SKETCH OF SYSTEM LAYOUT AND PROFILE ON BACK OF THIS SHEET