NOTES

Flout Tank:

1) Use a Camp Precast flout tank. 5' x 5' = 187 gal/vf.
2) Test flout discharge on and off levels to verify dose volumes.
3) Test flout to verify minimum 28" discharge height at leachfield.

Leachfield - Design Notes:

1) Assume a five bedroom house with 1 bedroom apartment. Daily Flow (DF) @ 140 gpd/br for the ADU and first 3 bedrooms in the house, and 70 gpd for the remaining 2 in house = 700 gpd
2) Limiting soil texture below the bottom of the trench : LS - SG
3) Application rate (AR) for LS - SG per table 9-3 for filtrate in an in-ground trench - 3.0 gal/sf/day
4) Required trench area: DF/AR = 700 gpd / 3.0 g/sf/day = 233 sf
5) Actual area: one trench @ 4' x 60' = 240 sf
6) Maximum Linear Loading Rate (LLR) = h x f
   h = Limit - 49" (ESHWT) - 18" (bottom of stone depth) - 18" (unsaturated flow) - 8" high side in ground = 5" = 0.42'
   and f = LLR factor = 52.4 gpd/lf/ft for loamy sand, with a 10-15% slope.
   Therefore, maximum LLR = 0.42 x 52.4 = 21.8 gpd/lf.
7) Actual LLR = 700 gpd/ 60 lf = 11.7 gpd/lf. which is less than the maximum allowed.

Leachfield - Construction Notes:

1) Bottom of trenches to be approximately 18" below grade on downslope side and level.
2) Scarify sides and bottom of trenches prior to placing stone.
3) Place 12" of 1"-1½" clean hard crushed stone or washed stone.
4) Place 1 1/2" SDR 26 or SCH 40 PVC pipe in center of trench.
5) Cover distribution lateral with a minimum of 2" of stone.
6) Cover stone with filter fabric.
7) Grade surface of leachfield to direct surface water away from leachfield.
8) Topsoil, seed, and mulch all disturbed areas to establish vegetation.

Water Supply Basis of Design:

1) Design flow = 5 bedroom house and 1-bedroom apartment @ 700 gpd
2) Design rate (gpm) = 0.97
3) Instantaneous peak demand (gpm) = 10 gpm
4) Source capacity = to be determined
5) Storage capacity = to be determined
6) Pump capacities = 10 gpm minimum
7) Operating pressure ranges = 30-50 psi
8) Reference to the floodplain = this project is not in the floodplain

Water Supply Well:

1) Install well in the location shown on the plan.
2) Provide well driller's log.
3) Provide well driller's certification as specified below.

Inspections and Certifications:

1) It is the owner's/ contractor's responsibility to contact the consultant (McCain Consulting - 802-244-5093) for the following:

   a) For stakeout of the well and leachfield locations - Please provide 2 weeks notice.
   b) For inspection of the septic tank, distribution box, leachfield laterals and stone before final covering of the wastewater system - Please provide 72 hours notice.
   c) For inspection of the pressurization of the force main to 50 psi.
   d) To observe pump operation and to verify discharge height at the leachfield.

2) The septic system installer will provide the consultant with a signed and dated statement as follows:

   "I hereby certify that the installation-related information submitted is true and correct, and that in the exercise of my reasonable professional judgment, the wastewater system has been installed in accordance with the permitted design and all permit conditions, was inspected, was properly tested, and has successfully met those performance tests.

3) The well driller will provide the consultant with a signed and dated statement as follows:

   "I hereby certify that the installation-related information submitted is true and correct, and that in the exercise of my reasonable professional judgment, the potable water supply has been installed in accordance with the permitted design and all permit conditions, was inspected, was properly tested, and has successfully met those performance tests.

4) The certification of construction as required by section 1-311(b) of the Environmental Protection Rules may not be provided by the designer if the procedures outlined herein are not followed.

Maintenance:

(1) At least once a year, the depth of sludge and scum in the septic tank should be measured. The tank should be pumped if:
   (a) The sludge is closer than twelve inches to the outlet baffle,or
   (b) The scum layer is closer than three inches to the septic tank outlet baffle.
   (c) Following septic tank cleaning in units over 5,000 gallons, all interior surfaces of the tank should be inspected for leaks and cracks.

(2) At least twice a year, the outlet filter on the septic tank should be removed and cleaned by spraying it with water under normal household pressure.

(3) At least once a year, dosing tanks and distribution boxes should be opened and settled solids removed as necessary and the dosing tank or distribution box checked for levelness.

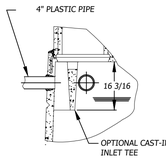
(4) At least once a year, pump stations should be inspected:

   (a) Remove settled solids as necessary. Solids and scum accumulation in the pump station may be indicative of a septic tank outlet filter malfunction, septic tank overloading, or other cause that should be investigated and remedied.
   (b) On/off and alarm floats should be tripped to ensure proper operation.
   (c) Inspect delivery of effluent to the distribution box. Slow delivery may indicate impending pump failure.

(5) Toxic or hazardous substances should in general not be disposed of in septic systems. These substances may pass through the system in an unaltered state and contaminate groundwater or remain in the septage and subsequently contaminate the soil or crops at the site of ultimate disposal.

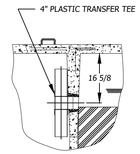
(6) The leachfields are not designed for the disposal of filter backwash or other byproducts of water treatment, filtration or purification systems.

DETAIL 1



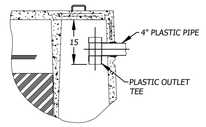
OPTIONAL INLET TEE

DETAIL 2

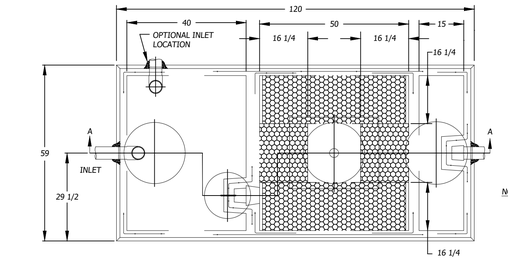


OPTIONAL TRANSFER TEE

DETAIL 3



OPTIONAL OUTLET TEE



NOTES:

1.) AERATOR MODEL 700LL IN CYCLED OR CONTINUOUS OPERATION MUST BE USED.

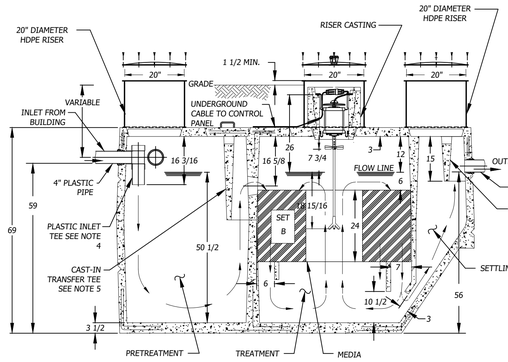
2.) IF AERATOR MOUNTING CASTING HAS NO RISER, RISERS ARE NOT REQUIRED HERE. REMOVABLE CONCRETE COVERS ARE REQUIRED.

3.) IF AERATOR MOUNTING CASTING HAS A RISER(S), COVERED RISERS ARE REQUIRED HERE. RISERS SHOULD BE DEVELOPED TO GRADE OR TO 6"-12" BELOW GRADE.

4.) PLANTS WHICH DO NOT USE A PLASTIC INLET TEE IN THE PRETREATMENT COMPARTMENT MAY USE AN OPTIONAL CAST-IN INLET TEE. SEE DETAIL 1.

5.) PLANTS WHICH DO NOT HAVE A CAST-IN TRANSFER TEE IN THE PRETREATMENT COMPARTMENT MAY USE AN OPTIONAL PLASTIC TRANSFER TEE. SEE DETAIL 2.

6.) PLANTS WHICH DO NOT HAVE A CAST-IN OUTLET TEE IN THE SETTLING COMPARTMENT MAY USE AN OPTIONAL PLASTIC OUTLET TEE. SEE DETAIL 3.



SECTION A-A

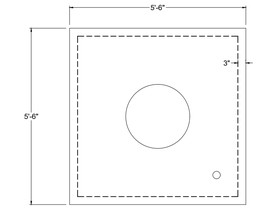
750 GPD PLANT
COMPONENT PARTS & INSTALLATION
©MMI
JET INC. 12

PATENTED

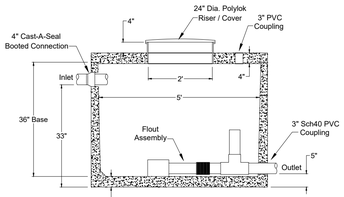
ITEM	REQ'D	PART NO.	DESCRIPTION
I H G F E D C B A			REV. TO LTR

JET INC. CLEVELAND, OHIO

DRAWN BY: DATE:
APPROVED BY: DATE:
MATERIAL:
TITLE: HOME PLANT 750
SCALE: NONE
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES
USED ON:
PROPRIETARY PROPERTY: THIS DRAWING IS THE PROPERTY OF JET INC. AND MAY NOT BE REPRODUCED, COPIED OR USED WITHOUT WRITTEN PERMISSION.
DRAWING NUMBER 750



Plan



Section

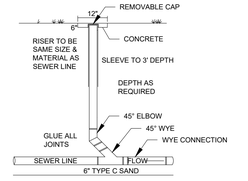
5'x5' FLOUT TANK DETAIL
(NOT TO SCALE)

USE 17" DOSE ARM = 265 GAL/DOSE

Soils Information

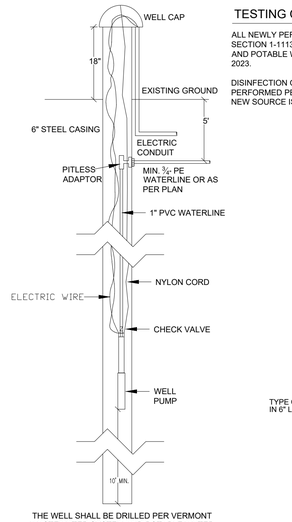
Test Pit excavated 8/8/2024 by backhoe. Robert Pelosi, ANR Montpelier, present to observe.

DEPTH (IN)	TXTR	COLOR	STRUCT	CNST	REDOX	COMMENTS
SB-1						
0" -8"	VFSL	10YR 3/3	SBK	VFR		TOPSOIL
8" -23"	LS	10YR 3/4	SG	VFR		STAINED @ 36"
23" -47"	S	10YR 3/4	SG	LOOSE		VG
	ESHWT @ 36"					
SB-2						
0" -8"	VFSL	10YR 3/3	SBK	VFR		TOPSOIL
8"-20"	LS	10YR 3/4	SG	VFR		STAINED @36"
20"-37"	S	10YR 3/4	SG	LOOSE		
	ESHWT @ 36"					
SB-3						
0" -8"	FSL	10YR 3/3	SBK	FR		TOPSOIL
8"-37"	LS	10YR 3/4	SG	LOOSE		GRAVELLY
37"-54"	FSL	10YR 4/3	SBK	FR		
	NO ESHWT					
SB-4						
0" -10"	FSL	10YR 3/3	SBK	VFR		TOPSOIL
10"-61"	CS	10YR 3/4	SG	LOOSE		GRAVELLY
	NO ESHWT					
SB-5						
0" -8"	LS	10YR 3/3	SG	VF		TOPSOIL
8"-29"	LS	10YR 3/4	SG	VF		REFUSAL @49"
29"-49"	CS	10YR 3/2	SG	LOOSE		UP HILL REFUSAL @42" ON BLDR
	ESHWT @ 49"					
SB-6						
0" -6"	FSL	10YR 3/3	SBK	VFR		TOPSOIL
6"-32"	FS	10YR 3/4	SG	LOOSE		
32"-44"	FSL	10YR 4/4	SBK	FR		
	ESHWT @ 44"					



NOTES:
1. PVC PIPE IS TO MEET ASTM D3034-SDR35.
2. PUSH ON JOINTS TO MEET ASTM D3212.

SEWER CLEAN-OUT SECTION
(NOT TO SCALE)



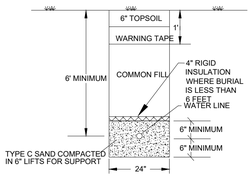
THE WELL SHALL BE DRILLED PER VERMONT WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES, SUBCHAPTER 12

DRILLED WELL DETAIL (TYPICAL)
(NOT TO SCALE)

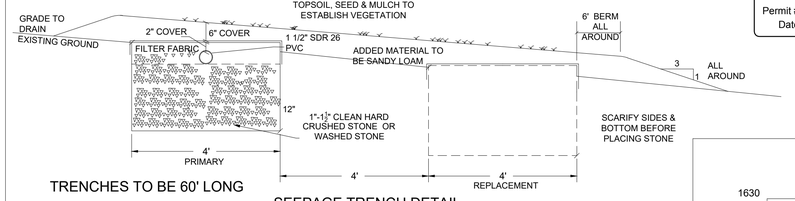
TESTING OF NEW WELLS

ALL NEWLY PERMITTED WELLS SHALL BE QUALITY TESTED PER SECTION 1-1113, PAGES 194-197 OF THE WASTEWATER SYSTEM AND POTABLE WATER SUPPLY RULES EFFECTIVE NOVEMBER 6, 2023.

DISINFECTION OF THE NEW SERVICE WELL SHALL BE PERFORMED PER SECTION 1-1210 OF THE RULES BEFORE THE NEW SOURCE IS PUT INTO SERVICE.



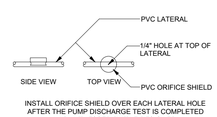
WATER LINE TRENCH DETAIL
(NOT TO SCALE)



TRENCHES TO BE 60' LONG

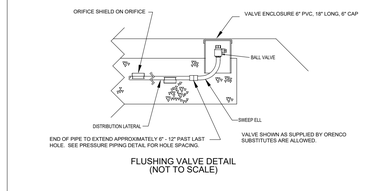
SEEPAGE TRENCH DETAIL
(NOT TO SCALE)

VERMONT
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Drinking Water & Groundwater Protection Division
THIS IS SUBJECT TO PROVISIONS OR CONDITIONS LISTED IN PERMIT
Permit #: WW-5-9764
Date: 12/13/2024

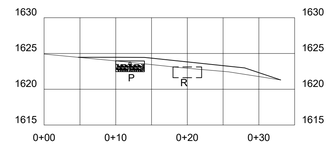


INSTALL ORIFICE SHIELD OVER EACH LATERAL HOLE AFTER THE PUMP DISCHARGE TEST IS COMPLETED AND WITNESSED BY THE DESIGNER.

ORIFICE SHIELD DETAIL
(NOT TO SCALE)



FLUSHING VALVE DETAIL
(NOT TO SCALE)

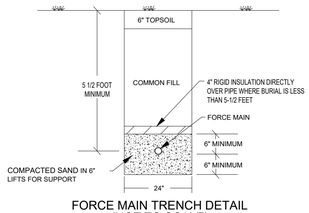


HORIZONTAL SCALE 1" = 10'
VERTICAL SCALE 1" = 10'

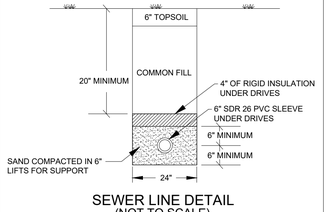
DESIGN INTENT:
THE INTENT OF THIS DESIGN IS TO HAVE THE BOTTOM OF THE STONE 18" BELOW GROUND ON THE LOW SIDE OF THE TRENCH. CONTRACTOR TO VERIFY ALL GRADES AND ELEVATIONS PRIOR TO COMMENCING CONSTRUCTION AND CONTACT DESIGNER IF DISCREPANCIES ARE FOUND.

SYSTEM INVERTS

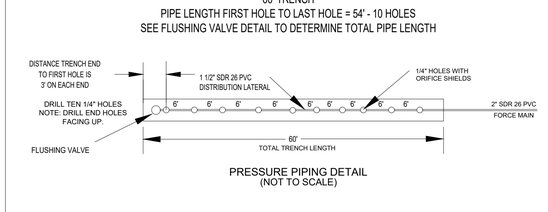
PIPES	BOTTOM OF STONE	DISTRIBUTION PIPE INVERT
P	1622.5'	1623.5'
R	1621.6'	1622.6'



FORCE MAIN TRENCH DETAIL
(NOT TO SCALE)



SEWER LINE DETAIL
(NOT TO SCALE)



PRESSURE PIPING DETAIL
(NOT TO SCALE)

STATE OF VERMONT
GUNNER MCCAIN
152.0126894
WW/WS DESIGNER

CONSULTANT:
GUNNER MCCAIN
WW/WS: 152.0126894

DETAILS

MICHAEL & KAREN WESTHELLE

SINGLE LOT WASTEWATER DESIGN

RABBIT HOLLOW ROAD FAYSTON, VT

SCALE : NTS
DESIGNED BY: GNM PROJECT #97051B
DRAWN BY: SJH/SCS
CHECKED BY: GNM

McCAIN CONSULTING, INC.
93 SOUTH MAIN STREET
WATERBURY, VERMONT 05676

DATE: OCTOBER 4, 2024 SHEET C-2

Y:\Cadd\97000's\97051B\dwg\97051B 20241119.dwg