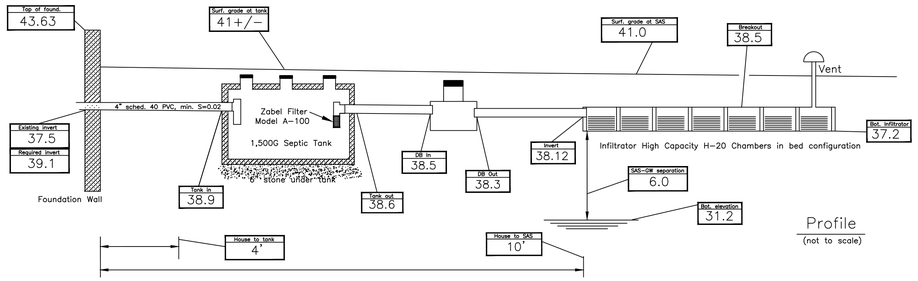
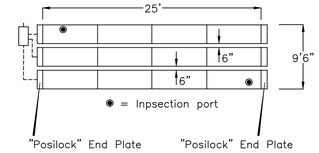
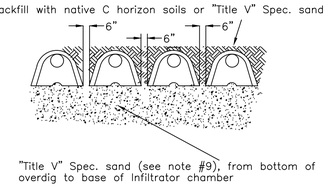


NOTE: All elevations referenced to 41.00' BENCH at catch basin frame and grate, Volusia Road (NAVD)

VARIANCES/DIVERGENCES REQUESTED:

1. Town of Hingham, Section VII.E., SDS to wetland setback
   Proposed: 58' Required: 100'
2. Town of Hingham, Section VII.J., Thickness of naturally occuring soils under SAS
   Proposed: 5.2' Required: 6.0'
3. Town of Hingham, Section VII.M., Construction in fill
   thickness of naturally occuring, unsaturated, soils under SAS
   Proposed: 5.2' Required: 6.0'
4. Town of Hingham, Section VII.F.7., SDS to drain lower than breakout
   Proposed: 17' Required: 50'
5. 310 CMR 15.405(1)(b), SAS to cellar wall setback
   Proposed: 10' Required: 20'
6. 310 CMR 15.405(1)(b), Septic tankto cellar wall setback
   Proposed: 4' Required: 10'





Soil Logs

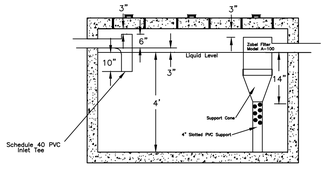
Elevation (Feet)	Observation Hole #1				
	Perk Rate = <2 min/in (@ 36")				
41.2	Depth (inches)	Soil Horizon	Soil Texture	Soil Color	Soil Mottling
38.7	0–30	Fill			
37.9	30–40	A	Loamy Sand	10 YR 3/2	None
36.4	40–58	B	Loamy Sand	10 YR 4/6	None
31.2	58–120	C	V. Grav. Sand	2.5 Y 5/4	120" 10YR 5/8

31.2 Mottle & Water

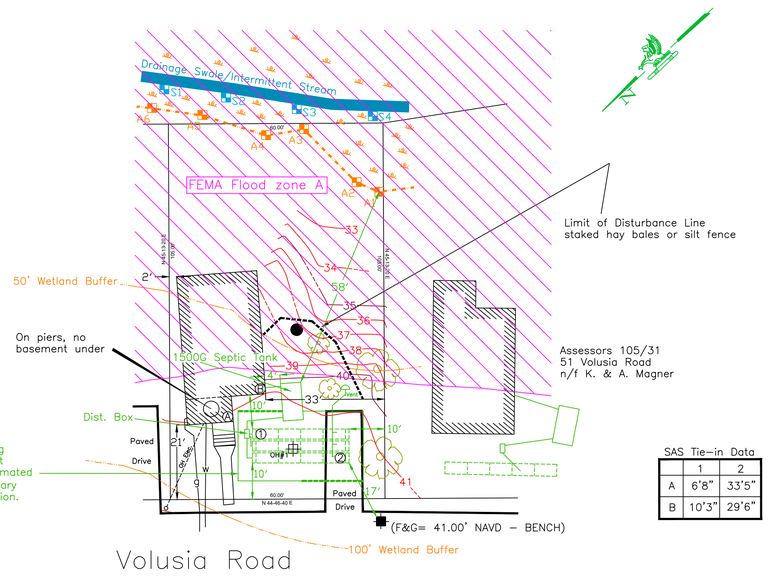
NOTE: A second deep observation hole must be completed at time of SDS installation

Tank Detail

Not to scale



NOTE: Tanks in groundwater must be waterproofed and "bandaided"



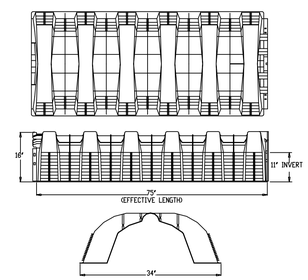
Limits of Overdig. All unsuitable material between breakout elevation (38.5') and bottom of B horizon (36.4', Hole #1) must be removed for instalation. NOTE: Northeastern and southwestern edges of overdig excavation must be lined with 40 mil rubber membrane from breakout elevation (38.5') to elevation = 35'. Elevations and volumes are estimated from site data obtained at the time of percolation testing and may vary depending upon conditions encountered at the time of system instalation.

SAS Tie-in Data

	1	2
A	6'8"	33'5"
B	10'3"	29'6"

SAS Detail

(not to scale)



Notes:

1. On 6/2/2020 soil tests were made, as shown here, by Terence McSweeney, a Massachusetts Department of Environmental Protection (DEP) approved Soils Evaluator, with B. Nee observing for the Board of Health. The log of this test is as follows, with location as #1 on this plan.
2. All stone to be washed free of iron, fines, and dust. All "structures" to be precast concrete. All pipes to be P.V.C. Schedule 40, laid true to line and grade. All "structures" under pavement to be H–20 loading with cast iron covers and frames, set to grade, on all manholes.
3. The existing SAS is to be abandoned and disposed of to the satisfaction of the health authority.
4. It is the responsibility of the home owner to advise the site engineer of the location of all house plumbing prior to construction of the system.
5. No part of the proposed system shall be buried greater than 3' below the surface of the ground.
6. The Zabel filter is to be covered with a 20" diameter (minimum) metal cover, containing in indelible marking (paint or otherwise) the following notice: "There is a filter under this cover".
7. All work to conform to these plans, Title 5 of the Environmental Code (310 CMR 15.00 et. seq.) and supplementary regulations of the Hingham Board of Health.
8. House plumbing to be set to the grades specified on this plan, as necessary, with a pipe slope minimum of 0.01.
9. All unsuitable material below breakout elevation of 38.5' is to be removed and replaced with material suitable to the health authority, for 5'around SAS. Fill specifications are as follows ("overdig"):
   1. No material is larger than 2".
   2. Not more than 45% is retained on #4 sieve.
   3. For the material which passes the #4 sieve, the following limits apply:
      #50 sieve 10 – 100% passing
      #100 sieve 0 – 20% passing
      #200 sieve 0 – 5% passing
   4. Results of sieve analysis submitted to Board of Health for approval prior to instalation.
10. Property line information as depicted on this plan is to be used for Title V purposes only.
11. A two bedroom deed restriction must be recorded in the chain of title for the subject property before release of the Cert. of Compliance by the Board of Health.

Calculations:

1. 2 bedrooms, no disposal
2. Est. Day Flow (EDF) = # B.R. x 110 G/Day
   EDF = 220 Gallons per day
3. Perk rate = <2 min/inch, Class I soil (see soil logs)
   Effluent Loading (ELR) = 0.74 G/s.f.
4. Septic Tank – 2 X EDF with 1,500 G minimum
   220 X 2 = 440 Gallons, use 1,500 Gallon tank
5. Soil Absorption System (SAS)
   SAS size required = EDF/ELR
   (220 G)/(0.74 G/s.f.) = 297 s.f.
   Infiltrator High Capacity H–20 Chamber
   in bed configuration = 4.73 s.f/l.f.
   297 s.f/4.73 s.f./l.f. = 62.9 l.f.
   @ 6.25 l.f./unit = 10 units
   Use 3 rows of 4 units each (12 units total)

Proposed:

1. 1,500 Gallon septic tank (monolithic)
2. Distribution box
3. 12 Infiltator units in bed configuration (3 rows of 4) as illustrated on SAS detail

Site Detail Plan

(1" = 20')

98 ——— = Proposed topographic line, with elevation
93 ------- = Existing topographic line, with elevation
OH #1 = Observation hole, location and designation
● = Existing disposal system
A2 = Wetland flag, McSweeney Associates, Inc. 6/2020
= Wetland Resource Area (BVW)
S4 = Stream/hydrological connection

I certify that in the fall of 1997 I was approved by the Mass. Department of Environmental Protection as a Soils Evaluator and that the soils analysis contained herein was preformed by me consistent with the training, expertise, and experience described in 310 CMR 15.018(2).

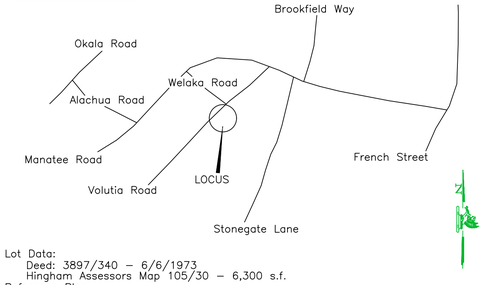
Terence McSweeney

Date

I certify that there are no wells known to me, or reported to be within 500 feet of this proposed SAS, other than those shown on this plan. Public water suppy wells in the area, location and distance from locus, are shown herein.

Terence McSweeney, R.S.

Locus Map



Lot Data:
Deed: 3897/340 – 6/6/1973
Hingham Assessors Map 105/30 – 6,300 s.f.
Reference Plan:
Russell H. Whiting, C.E., 6/1/1923
Plan B:4 P: 270 – Plymouth County RoD

Revisions:

McSweeney Associates, Inc.
McS
Environmental Engineering

Proposed Septic System
57 Volusia Road
Hingham, Massachusetts

745 Winter Street, Hanson, MA 02341

Thomas F. McSweeney 1894–1977
Brian McSweeney 1923–2015
Terence K. McSweeney 781–826–4571
Colin T. McSweeney 781–570–9381

Job Reference: DonovanV
Scale: As Noted
Date: 6/5/2020
Drawn By: T McS
Checked By: C McS