

① - 623.5

17m

20"

C

SAND

104.5/6

1/23/5

② - 623

17m

24"

C

SAND

104.5/6

1/23/5

COMMENTS:

TEST PIT	DATE	DEPTH	RATE MIN/INCH
2	3-3-22	48"	< 2

FROM
FORM 11

FOR FURTHER FLOW REDUCTION ALL TOILETS TO BE 1.3 GALS
PER FLUSH. CHANGE ALL THAT DOES NOT MEET THAT REQUIREMENT.
INSTALL AUTOMATIC DISBURSERS IN RESTAURANT. LIMIT APT USE TO 2 PERSONS
PER UNIT

All systems are required to have a minimum of:

- 6 inches of Specified Sand is at the edges of the GSF module.
- 6 inches of Specified Sand is at the beginning and end of each GSF Row.
- 6 inches of Specified Sand is directly below the GSF module.
- Minimum 12 inches of cover above the module.

Porous Top of the Eljen GSF allows evapotranspiration and oxygen exchange for better effluent treatment.

Anti-Siltation Fabric keeps fines out of the Eljen GSF

Untreated Effluent

Bio-Matt™ Fabric

Cusped Plastic Core provides separation between layers of Bio-Matt™ fabric. Maintains structural integrity of modules & aids oxygen transfer. Increases treatment surface area & effluent storage capacity.

Filtered Effluent

Perforated Pipe distributes effluent to the Eljen GSF. Pipe is secured to the GSF Modules with preformed metal clamps.

Primary Treatment Zone forms on Bio-Matt™ fabric. Significant bacteria provided for every 10' of soil interface.

Secondary Treatment Zone forms at sand layer. Long term acceptance rate of this biomat layer is significantly increased as compared to conventional systems

Specified Sand Layer provides additional filtration

Native Soil or Fill provides final filtration

TREATED EFFLUENT

ASTM C33 SAND SPECIFICATION		
Sieve Size	Sieve Square Opening Size	Specification Percent Passing (Wet Sieve)
3/8 inch	9.52 mm	100
No. 4	4.75 mm	95 - 100
No. 8	2.38 mm	80 - 100
No. 16	1.19 mm	50 - 85
No. 30	580 μ m	25 - 60
No. 50	297 μ m	10 - 30
No. 100	149 μ m	< 10
No. 200	75 μ m	< 5

SWETLAND FLAGGING 1A to 8A by EBT ENVIRONMENTAL CONSULTANTS

1. INSTALL STRAW BATTLES PRIOR TO ANY WORK
2. INSTALL CONCRETE BLOCK WALL PRIOR TO ANY WORK ON SEPTIC SYSTEM
3. THERE WILL BE NO STOCK PILING OF FILL ON SITE.

PROP. STRAW
WATTLE DETAIL
SCALE: NOT TO SCALE

SEPTIC TANK
 TYPE: CONCRETE
 LOADING: H-10
 CAPACITY: 3000 GAL.

COVERS
 AS SHOWN
 ALL COVERS TO GRADE

TEES
 Inlet and outlet tees shall extend a min. of 6" above the septic tank flow line, directly under the manholes, and 12" maximum from inside walls.

DISTRIBUTION BOX
 MATERIAL: CONCRETE PLASTIC
 NO. OUTLETS: 6
 LOADING RATE: N/A

W INFORMATION
 SEPT RESTAURANT AND 4 BEDROOMS
 60 GPD + 440 TOTAL 1700 GPD.
 EL FOR LAST 3 MONTHS WAS 21,219 GALS.
 LG APT. WOULD BE 70 DAYS, 72 DAYS CHOSEN WITH
 72 DAYS FOR RESTAURANT EQUALS ONLY 294 GALS/DAY
 CR IS CONSISTENT OVER LAST YEAR OF 300 GALS/DAY

ITEM	QTY	UNIT	PRICE	TOTAL
1. 3000 GALS SEPTIC TANK	1	EA	1200.00	1200.00
2. 6" 600' STONE BASE	1	EA	150.00	150.00
3. 6" 1000' STONE BASE	1	EA	150.00	150.00
4. 6" 2000' STONE BASE	1	EA	150.00	150.00
5. 6" 3000' STONE BASE	1	EA	150.00	150.00
6. 6" 4000' STONE BASE	1	EA	150.00	150.00
7. 6" 5000' STONE BASE	1	EA	150.00	150.00
8. 6" 6000' STONE BASE	1	EA	150.00	150.00
9. 6" 7000' STONE BASE	1	EA	150.00	150.00
10. 6" 8000' STONE BASE	1	EA	150.00	150.00
11. 6" 9000' STONE BASE	1	EA	150.00	150.00
12. 6" 10000' STONE BASE	1	EA	150.00	150.00
13. 6" 11000' STONE BASE	1	EA	150.00	150.00
14. 6" 12000' STONE BASE	1	EA	150.00	150.00
15. 6" 13000' STONE BASE	1	EA	150.00	150.00
16. 6" 14000' STONE BASE	1	EA	150.00	150.00
17. 6" 15000' STONE BASE	1	EA	150.00	150.00
18. 6" 16000' STONE BASE	1	EA	150.00	150.00
19. 6" 17000' STONE BASE	1	EA	150.00	150.00
20. 6" 18000' STONE BASE	1	EA	150.00	150.00
21. 6" 19000' STONE BASE	1	EA	150.00	150.00
22. 6" 20000' STONE BASE	1	EA	150.00	150.00
23. 6" 21000' STONE BASE	1	EA	150.00	150.00
24. 6" 22000' STONE BASE	1	EA	150.00	150.00
25. 6" 23000' STONE BASE	1	EA	150.00	150.00
26. 6" 24000' STONE BASE	1	EA	150.00	150.00
27. 6" 25000' STONE BASE	1	EA	150.00	150.00
28. 6" 26000' STONE BASE	1	EA	150.00	150.00
29. 6" 27000' STONE BASE	1	EA	150.00	150.00
30. 6" 28000' STONE BASE	1	EA	150.00	150.00
31. 6" 29000' STONE BASE	1	EA	150.00	150.00
32. 6" 30000' STONE BASE	1	EA	150.00	150.00
33. 6" 31000' STONE BASE	1	EA	150.00	150.00
34. 6" 32000' STONE BASE	1	EA	150.00	150.00
35. 6" 33000' STONE BASE	1	EA	150.00	150.00
36. 6" 34000' STONE BASE	1	EA	150.00	150.00
37. 6" 35000' STONE BASE	1	EA	150.00	150.00
38. 6" 36000' STONE BASE	1	EA	150.00	150.00
39. 6" 37000' STONE BASE	1	EA	150.00	150.00
40. 6" 38000' STONE BASE	1	EA	150.00	150.00
41. 6" 39000' STONE BASE	1	EA	150.00	150.00
42. 6" 40000' STONE BASE	1	EA	150.00	150.00
43. 6" 41000' STONE BASE	1	EA	150.00	150.00
44. 6" 42000' STONE BASE	1	EA	150.00	150.00
45. 6" 43000' STONE BASE	1	EA	150.00	150.00
46. 6" 44000' STONE BASE	1	EA	150.00	150.00
47. 6" 45000' STONE BASE	1	EA	150.00	150.00
48. 6" 46000' STONE BASE	1	EA	150.00	150.00
49. 6" 47000' STONE BASE	1	EA	150.00	150.00
50. 6" 48000' STONE BASE	1	EA	150.00	150.00
51. 6" 49000' STONE BASE	1	EA	150.00	150.00
52. 6" 50000' STONE BASE	1	EA	150.00	150.00
53. 6" 51000' STONE BASE	1	EA	150.00	150.00
54. 6" 52000'				

LOCAL UPGRADE REQUESTS

1. ALLOW USE OF ACTUAL WATER
USAGE FOR SYSTEM DESIGN
SYSTEM IS AS LARGE AS POSSIBLE

2. SPS IS 4' FROM PROP. LINE
10' REQ.

SPS IS 17' FROM LAKE - 50' REQUIRED
SEPTIC TANK 2' FROM PROPLINE
AND 5' FROM BUILDING 10' REQ.

IN ORDER TO GET 1000 GAL./DAY
SYSTEM AND PROPER TANK SIZE
LOCAL UPGRADES ARE NECESSARY

1. REGULATIONS

A. This design is in accordance with the Commonwealth of Massachusetts regulations 310 CMR 15.000 Title 5, of the State Environmental Code and the requirements of the local Board of Health, unless noted.

B. All work and components shall conform to the latest edition of the Commonwealth of Massachusetts regulations, 310 CMR 15.000 Title 5 of the State Environmental Code which governs the design and construction of on-site disposal of sanitary sewage.

C. This plan must be reviewed and permitted by the local Board of Health prior to construction.

D. All work shall be in accordance with the regulations of the local Board of Health, and must be inspected and approved by the local Board of Health.

E. All construction activity within 100 feet of a wetland or 200' of a riverfront area requiring filling in accordance with the wetlands Protection Act, MGL Chapter 131 Section 40.

F. The owner and/or contractor are responsible to adhere to applicable zoning and wetland regulations.

G. The contractor is responsible to comply with all inspections as per Board of Health and have a valid installer's license.

A. All concrete products including septic tank, pumping chamber, distribution boxes must be set on a level, stable base with inches of crushed stone.

B. Septic tank construction must comply with 310 CMR 15.226.

C. All stone used must be double washed and free of all iron, fines and dust.

D. Fill material for systems constructed in fill shall be clean, coarse, granular sand, free of organic matter and deleterious substances, meeting the requirements of 310 CMR 15.255(3), and placed on a dry scarified excavation.

A. No variation from this plan shall be made without written direction from Richard Gobl.
B. Richard Gobl is to be notified of any significant changes to this design plan.
C.

A. In excavations for the sewage disposal system trench area, care must be taken to not compact or smear the bottom or sides.

B. All work should be done in favorable weather conditions, but in no case shall fill or stone be placed on wet, smeared or frozen soils.

C. All backfilling shall be done with care to prevent damage to any components and have proper pipe bedding.

D. All leaching areas, unless noted, shall be loamed and seeded and have a 2% grade to prevent accumulation of water on the system.

E.

A. All wells, wetlands and waterways within 100 feet of the septic system are shown on this plan.

B. Property line information was taken from: DEEDS. NO SURVEY WAS DONE OWNER RESPONSIBLE THAT ALL WORK IS ON OWN LAND.

C. The occupancy requirements (number of bedrooms, etc.) for the existing building(s) as indicated in the calculations below and as shown herein are based on owner supplied information. No certification is made regarding this information.

D. The Owner or the Contractor is responsible for obtaining a Disposal Works Construction Permit prior to construction, Scheduling Board of Health inspections and obtaining a Certificate of Compliance prior to use of the system.

E.

A. In order to receive a Certificate of Compliance, all inspections required must be completed and the proper forms signed as per Code.

A. Septic tanks must be inspected yearly and cleaned when solids level is more than one (1) foot in depth, but as a minimum once every 2 years.

B. If an effluent filter is installed it should be inspected and cleaned if necessary every 6 months.

C. Septic tank additives of any kind are not necessary and may interfere with proper treatment and disposal. Never use sulfuric acid or sodium hydroxide. Try to use only biodegradable products. Moderation should be the rule in using household cleaners. Waste brine from water softeners should not discharge to septic tanks.

A. The design sanitarians only warranty is that the system is designed according to Title 5 and Local Board of Health regulations unless noted elsewhere, which would require a variance or local upgrade approval.

LEGEND

----- 90 -----	Existing Contour		Wetland Boundary
———— 90 ————	Proposed Contour	— BZ — BZ —	Buffer Zone
x90	Existing Spot Elevation		Double Staked Hay Bales
x90	Proposed Spot Elevation		Silt Fence
①	Deep Hole Location and Number		Limit of Excavation & Fill
	Percolation Test Location		Property Bound
———— D ————	Drain Line	• W	Existing Well
———— W ————	Water Line		Proposed Well
———— G ————	Gas Line		Utility Pole
CB	Catch Basin		

LOCATION: 294 EAST MAIN ST
EAST BROADFIELD.

GOBI LAND ENGINEERING

Richard Gobi R.S. #978
190 Wickaboag Valley Road
Post Office Box 600
West Brookfield, MA 01585
Phone 508-867-5363

SCALE: 1"=10'	DATE: 9-13-74	REV.	REV.
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Robert A. Gold

SCALE: 1"=10'	DATE: 9-13-74	REV.	REV.
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2AN