GENERAL NOTES AND SPECIFICATIONS

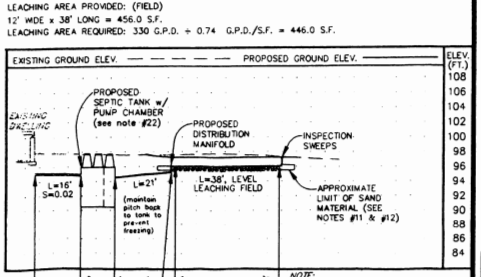
HIS PLAN IS INTENDED FOR THE LOCATION AND DESIGN OF THE SEWAGE DISPOSAL SYSTEM ONLY.
HE LOCATION, SIZE AND ORIENTATION OF THE NEW BUILDING, WHEN APPLICABLE, IS SUGGESTED IN
CCORDANCE WITH OWNER INSTRUCTIONS. SHOULD CHANGES OCCUR WHICH ALTER THE SEWAGE DISPOSAL
YSTEM/BUILDING RELATIONSHIP, THE DESIGN ENGINEER SHALL BE NOTIFIED FOR REVISIONS TO THIS DESIGN.
ONFORMANCE WITH ZONING BY-LAWS SHALL BE THE RESPONSIBILITY OF THE OWNER. LOT LINES ARE APPROXIMATE.
ROUNDWATER AND LEDGE ELEVATIONS AT THE FOUNDATION HAVE NOT BEEN DETERMINED. IT SHALL
E THE RESPONSIBILITY OF THE OWNER TO ENSURE THAT CELLAR SLABS ARE CONSTRUCTED ABOVE THE
ROUNDWATER ELEVATION AND/OR TO PROVIDE PROPER DRAINAGE.
ESIGNATIONS SHOWN AS (MIN.) OR (MAX.) ONLY INDICATE THAT THE DIMENSION SHOWN IS
PECIFICALLY LIMITED AND DOES NOT IMPLY THAT THE VALUE GIVEN CAN BE LIBERALLY INCREASED
R DECREASED, RESPECTIVELY.
HE TOPOGRAPHIC SURVEY WAS PERFORMED BY GATEWAY CONSULTANTS, INC. ON SEPTEMBER 5, 2002.
HIS PLAN SHOWS FEATURES WHICH WERE VISUALLY APPARENT AT THE TIME OF THE TOPOGRAPHIC
URVEY WAS PERFORMED. NO DETERMINATION AS TO THE EXISTENCE OF SUBSURFACE STRUCTURES,
TILITIES, ETC. HAS BEEN MADE AND THE ABSENCE OF SAME IS NOT IMPLIED OR INTENDED.
HERE ARE NO EXISTING POTABLE WELLS WITHIN 150 FT. OF THE LEACHING AREA AND 100 FT. OF THE SEPTIC TANK.
HERE ARE NO EXISTING SURFACE WATER SUPPLIES WITHIN 400 FT. OR TRIBUTARIES TO RESERVOIRS WITHIN
00 FT. OF THE LEACHING AREA AND OF THE SEPTIC TANK.
LL NEW WELLS SHALL BE INSTALLED 150 FT. (MIN.) FROM ALL LEACHING AREAS, 100 FT. (MIN.) FROM
LL SEPTIC TANKS, AND 10 FT. (MIN.) FROM ALL PROPERTY LINES. THE LOCATION OF A PROPOSED
ELL WHEN SHOWN IS SUGGESTED ONLY.
HERE ARE NO EXISTING CATCHBASINS, SUBSURFACE DRAINS OR DRY WELLS PROPOSED WITHIN 25 FT. OF THE
EACHING AREA. THERE ARE NO EXISTING SUBSURFACE DRAINS DISCHARGING DIRECTLY TO A WATERCOURSE
ADJACENT WETLANDS) WITHIN 50 FT. OF THE LEACHING FACILITY.
LL LARGE BOULDERS, TREES, TOPSOIL, SUBSOIL, FILL MATERIAL AND ORGANIC MATERIAL SHALL BE REMOVED
ROM THE LEACHING AREA AND FOR A DISTANCE OF 5 FT. AROUND THE LEACHING AREA, TO THE DEPTH
F PARENT MATERIAL IN ACCORDANCE WITH TITLE 5, 310 CMR 15.255.
LL LARGE BOULDERS WHICH ARE REMOVED FROM BELOW THE PROPOSED LEACHING FACILITY SHALL BE
EPLACED WITH FILL MEETING SECTION 15.255 SPECIFICATIONS, AND SHALL BE INSTALLED IN 6" LIFTS USING
VIBRATORY COMPACTOR.
LL CONSTRUCTION ACTIVITY WITHIN 100 FT. OF A WETLAND OR RESOURCE AREA REQUIRES FILING, IN
CCORDANCE WITH THE WETLAND PROTECTION ACT M.G.L. 131 SECTION 40.
SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO NOTIFY THE DESIGN ENGINEER OF ANY
SCREPANCY BETWEEN OBSERVED FIELD CONDITIONS AND CONDITIONS AS DESCRIBED ON THIS PLAN,
EFORE PROCEEDING WITH THE INSTALLATION.
HIS SEWAGE DISPOSAL SYSTEM IS NOT DESIGNED FOR GARBAGE DISPOSAL UNITS, EXISTING UNIT SHALL BE REMOVED.
EVIATION FROM AN APPROVED PLAN IS PERMISSIBLE ONLY WITH THE CONSENT OF THE BOARD OF
EALTH AND THE DESIGN ENGINEER.
HE INSTALLER SHALL CONTACT DIG SAFE (1-888-344-7233) AND THE GLOUCESTER WATER DEPARTMENT
RIOR TO ANY DIGGING IN ORDER TO VERIFY UTILITY CONNECTION LOCATIONS.
LL SYSTEM COMPONENTS SHALL MEET THE CONSTRUCTION STANDARDS AS OUTLINED IN 310 CMR 15.000
ITLE V). THESE STANDARDS SHALL ALSO APPLY IN THE CASE OF A DISCREPANCY WITH THE DETAILS
EPICTED ON THIS PLAN WHICH ARE SHOWN FOR GENERAL REFERENCE ONLY.
ER CMR 15.211 (1), WHERE SEWER LINES MUST CROSS WATER LINES, BOTH PIPES MUST BE CONSTRUCTED
F CLASS 150 PRESSURE PIPE AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS. AN
8 INCH VERTICAL SEPARATION BETWEEN THE BOTTOM OF THE WATERLINE AND THE TOP OF THE SEWER
NE IS REQUIRED.
HE EXISTING SEPTIC SYSTEM SHALL BE PUMPED AND ABANDONED PER 310 CMR 15.354 (3)c.
HE DESIGN IS SUBMITTED UNDER 310 CMR 15.405 (1)(a) TO ALLOW FOR A 10 FT. SEPARATION BETWEEN THE
ROPOSED LEACHING FACILITY AND FOUNDATION.
HE CONTRACTOR SHALL VERIFY BUILDING SEWER ELEVATION PRIOR TO SETTING SEPTIC TANK.

DESIGN CRITERIA

Ref: The State Environmental Code, Title 5: Minimum Requirements For The Subsurface Disposal Of Sanitary Sewage.

CALCULATIONS

OCCUPANCY: 3 BEDROOM DWELLING
DAILY SEWAGE FLOW: 3 BR. x 110 GAL./B.R. = 330 G.P.D.
PERCOLATION RATE: < 2 MIN./IN.
SEPTIC TANK REQUIREMENTS: CAPACITY: 1,500 GAL.
LEACHING AREA PROVIDED: (FIELD)
12' WIDE x 38' LONG = 456.0 S.F.
LEACHING AREA REQUIRED: 330 G.P.D. ÷ 0.74 G.P.D./S.F. = 446.0 S.F.



PROFILE

SCALE: HORIZ.: 1"=20'
VERT.: 1"=8'

BENCHMARK:
ELEV.=100.00 (ASSUMED DATUM)
BOTTOM OF SIDING ON CORNER OF HOUSE

DEEP OBSERVATION HOLE LOGS

HOLE NO. T-1

DEPTH IN (ft.)	SOIL TYPE AND DESCRIPTION	ELEV. (ft.)
0		98.0
8"	SANDY LOAM 10YR 3/2 A	97.3
	SANDY LOAM 7.5YR 4/6 Bw 20% gravel 5% cobbs	
21"		96.2
2		
4	COARSE SAND 10YR 3/6 C1 30% gravel 20% cobbs	
72"	ROOTS TO 72" 92.0	92.0
6		
8	MED. SAND 10YR 4/6 C1 10% gravel 20% cobbs	
104"	DRY, NO E.S.H.W.T.	89.3
10		

DATE: 8/29/02
SOIL EVALUATOR: ISAAC ROWE, G.B.O.H.
WITNESSED BY: JOHN JUDD, P.E.

HOLE NO. T-2

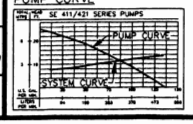
DEPTH IN (ft.)	SOIL TYPE AND DESCRIPTION	ELEV. (ft.)
0		97.5
8"	SANDY LOAM 10YR 3/2 A	96.8
	SANDY LOAM 7.5YR 4/6 Bw 20% gravel 5% cobbs	
21"		95.7
2		
4	COARSE SAND 10YR 3/6 C1 30% gravel 20% cobbs.	
72"	ROOTS TO 72" 91.5	91.5
6		
8 95"	MED. SAND 10YR 4/6 C1 10% gravel 20% cobbs.	
	DRY, NO E.S.H.W.T.	89.5
10		

DATE: 8/29/02
SOIL EVALUATOR: ISAAC ROWE, G.B.O.H.
WITNESSED BY: JOHN JUDD, P.E.

CERTIFICATION
I CERTIFY THAT ON JULY 1995 I HAVE PASSED THE SOIL EVALUATOR EXAMINATION APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE ABOVE ANALYSIS WAS PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE AND EXPERIENCE DESCRIBED IN 310 CMR 15.017.

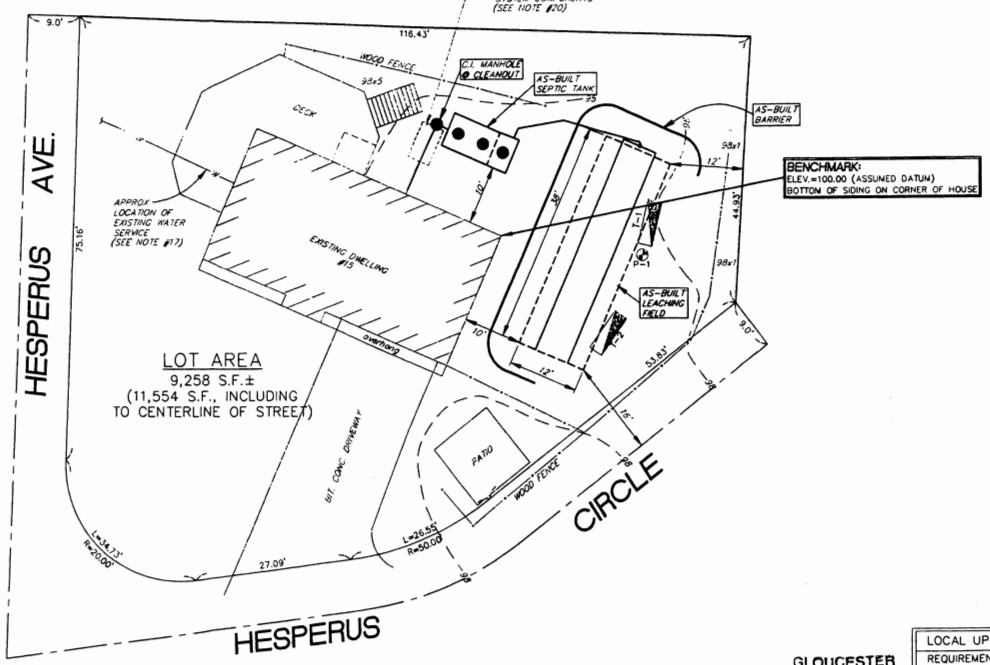
SIGNATURE _____ DATE _____

PUMP CURVE



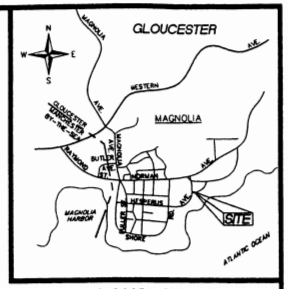
PERCOLATION TEST RESULTS

HOLE: P-1
RATE: < 2 MIN./IN.
BOTTOM ELEV.: 93.3
DATE: 8/29/02
PERFORMED BY: ISAAC ROWE, G.B.O.H.
ENGINEER: JOHN JUDD



PLAN

SCALE: 1"=10'



LOCUS PLAN

NOT TO SCALE

PLAN REFERENCE

"EXISTING SEPTIC TANK LOCATION PLAN", PREPARED BY CAPE ANN PROFESSIONAL ENGINEERS, INC., DATED APRIL 12, 1995.

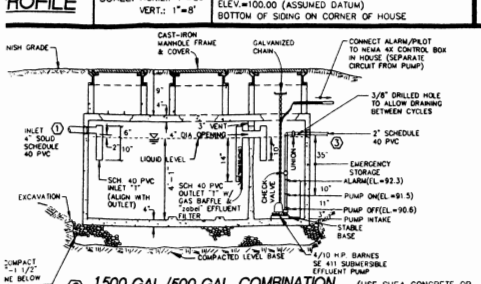
GLOUCESTER
BOARD OF HEALTH

LOCAL UPGRADE REQUIREMENT:	
REQUIREMENT:	PROPOSED REQUEST:
20 FOOT SEPARATION BETWEEN THE LEACHING FACILITY AND THE FOUNDATION 310 CMR 15.211 & G.O.S.W.R. 2.1	10' OFFSET PROPOSED

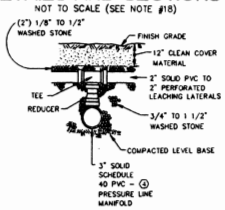
REPRODUCTION OF THIS PLAN IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE DESIGN ENGINEER AND OR FIRM

DETAILS AND SECTIONS

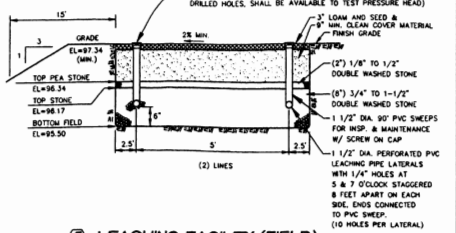
NOT TO SCALE (SEE NOTE #18)



② 1,500 GAL./500 GAL. COMBINATION SEPTIC TANK / PUMP CHAMBER UNIT (USE SHEA CONCRETE OR APPROVED EQUAL, MONOLITHIC, H-10 LOADING)



④ DISTRIBUTION MANIFOLD



⑤ LEACHING FACILITY (FIELD)

LEGEND

EXISTING CONTOURS — — — 98
EXISTING SPOT GRADE 97x0
EXISTING WATER SERVICE —W—
DEEP OBSERVATION HOLE
PERCOLATION TEST HOLE
REFERENCE TO DETAILS & SECTIONS

COMMONWEALTH OF MASSACHUSETTS
JOHN P. JUDD
CIVIL
No. 36380
REGISTERED PROFESSIONAL ENGINEER

REVISIONS TO PLAN	
DESCRIPTION	DATE
B.O.H. COMMENTS	10/21/02
PRESSURE DOSING	11/11/02
AS-BUILT SYSTEM	1/2/03

SEWAGE DISPOSAL SYSTEM PLAN

MAP 189, PARCEL 42
15 HESPERUS CIRCLE
GLOUCESTER, MA

PREPARED FOR
DAVID & FRANCES WHITE
15 HESPERUS CIRCLE
GLOUCESTER, MA 01930

GATEWAY CONSULTANTS, INC.
CIVIL ENGINEERING & PROJECT MANAGEMENT
33 FOREST HILL AVENUE
LYNNFIELD, MA 01940
OFFICE: (781) 334-4434
FAX: (781) 334-0007

Draft/Check	Drawing Scale	Date	Project No.	Drawing No.
SAR/JPJ	1"=10'	9/17/02	2441	2008

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