

**NOTES**

THE T.O.C. ELEVATION SHALL NOT BE USED AS A BENCHMARK FOR CONSTRUCTION UNLESS VERIFIED WITH BENCHMARK NAIL AS SHOWN.

CONTRACTOR TO VERIFY ELEVATION OF EXISTING SEWER AT FOUNDATION OR SEWER CONNECTION PRIOR TO THE PLACEMENT OF THE SEPTIC TANK AND REPORT ANY DISCREPANCIES TO THE DESIGN ENGINEER.

THE EXISTING SEPTIC TANK IS TO BE PUMPED OUT AND REMOVED OR PUNCTURED AND BACKFILLED WITH CLEAN GRAVEL FILL.

GARBAGE DISPOSALS AND WATER SOFTENERS SHALL NOT BE USED WITH THE GeOMAT LEACHING SYSTEM.

GeOMAT LEACHING SYSTEM DESIGNED IN ACCORDANCE WITH REMEDIAL USE APPROVAL ISSUED TO GeOMATRIX SYSTEMS, LLC, OCTOBER 26, 2016, LAST MODIFICATION JUNE 26, 2019, TRANSMITTAL #267026, AND THE STANDARD CONDITIONS FOR ALTERNATIVE SOIL ABSORPTION SYSTEMS, DATED MARCH 5, 2018.

PRIOR TO OBTAINING A CERTIFICATE OF COMPLIANCE FOR INSTALLATION OF AN UPGRADED SYSTEM, THE SYSTEM OWNER SHALL RECORD IN THE CHAIN OF TITLE FOR THE PROPERTY SERVED BY THE ALTERNATIVE SYSTEM IN THE REGISTRY OF DEEDS OR LAND REGISTRATION OFFICE, AS APPLICABLE, A NOTICE DISCLOSING THE EXISTENCE OF THE ALTERNATIVE ON-SITE SYSTEM.

THE LIMIT OF A TRADITIONAL LEACHING SYSTEM (LEACHING BED 65L x 30W x 6D) IS SHOWN IN THE PLAN VIEW ALONG WITH THE LIMIT OF THE REQUIRED BREAKOUT GRADING. (1.950 3' x 0.74 GPD/S.F. = 1.443 GPD)

AN EFFLUENT FILTER IS REQUIRED IN THE OUTLET TEE OF THE SEPTIC TANK. THE FILTER SHALL BE MAINTAINED ON AN ANNUAL BASIS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

DESIGN CRITERIA PROPOSED IN ACCORDANCE WITH THE PROVISIONS OF TITLE 5 310 CMR 1.2.405 CONTENTS OF LOCAL UPGRADE APPROVAL.

15.405(1)(h) - REDUCTION ON THE REQUIRED SEPARATION BETWEEN THE BOTTOM OF THE SOIL ABSORPTION SYSTEM AND THE HIGH GROUNDWATER FROM FIVE (5) FEET TO FOUR (4) FEET.

**SCHEDULE OF ELEVATIONS**

PROPOSED	AS-BUILT
TOP CONCRETE FOUNDATION	99.20
INVERT AT FOUNDATION	92.31
INVERT TANK INLET	92.05
INVERT TANK OUTLET	91.80
TOP SEPTIC TANK	93.2±
INVERT PUMP CHAMBER INLET	91.70
INVERT PUMP CHAMBER OUTLET	91.95
TOP PUMP CHAMBER	93.1±
MIN. FINAL GRADE	100.5
INVERT LATERAL BEGIN	99.61
INVERT LATERAL END	99.61
BOTTOM OF GeOMat	99.53
BOTTOM OF SAND	99.03
GROUNDWATER OFFSET REQUIRED	5'
GROUNDWATER OFFSET UTILIZED	4'

**DESIGN CRITERIA**

**GARBAGE GRINDERS - NOT PERMITTED**

**PERF. TESTS:** PERFORMED BY DANIEL WOLFE, D.E.R.A., INC. WITNESSED BY IRA GROSSMAN, N.A.B.H.

PERC. #	RATE (M/L)	ELEVATION	DEPTH	DATE
A	<2	96.9	56"	12/22/20

**GRAPHIC SCALE IN FEET**

0 10 20 40 60

**REVISIONS**

2/19/2021: REVISE PLAN PER BOH COMMENTS

8/18/2021: REVISE TANK/DC LOCATION, UPDATE PRES. DOSE CALC, ADD PWS WELL

**DESIGNED FOR:** SCOTT PATTERSON

**ADDRESS:** 204 AYER ROAD HARVARD, MA

**LOT NO.:** 8

**ASSESSOR MAP:** 38

**ASSESSOR PARCEL:** 38

**DAVID E. ROSS ASSOCIATES, INC.**

CIVIL ENGINEERS - LAND SURVEYORS  
ENVIRONMENTAL CONSULTANTS

6 Lancaster County Road  
P.O. Box 795  
Harvard, MA 01451-0795

978-772-6232  
FAX 978-772-6258  
www.davidross.com

SCALE: 1"=20'  
DATE: JULY 2021  
REF.: 20545, 33541  
PLAN NO.: L-14179  
JOB NO.: 33788  
SHEET NO.: 1 of 2

**SHEET TITLE:** SEWAGE DISPOSAL SYSTEM

**DESIGNED FOR:** SCOTT PATTERSON

**ADDRESS:** 204 AYER ROAD HARVARD, MA

**LOT NO.:** 8

**ASSESSOR MAP:** 38

**ASSESSOR PARCEL:** 38

**OBSERVATION TEST HOLE DATA**  
BY DANIEL WOLFE, D.E.R.A., INC.  
WITNESSED BY IRA GROSSMAN, N.A.B.H.  
12/22/20

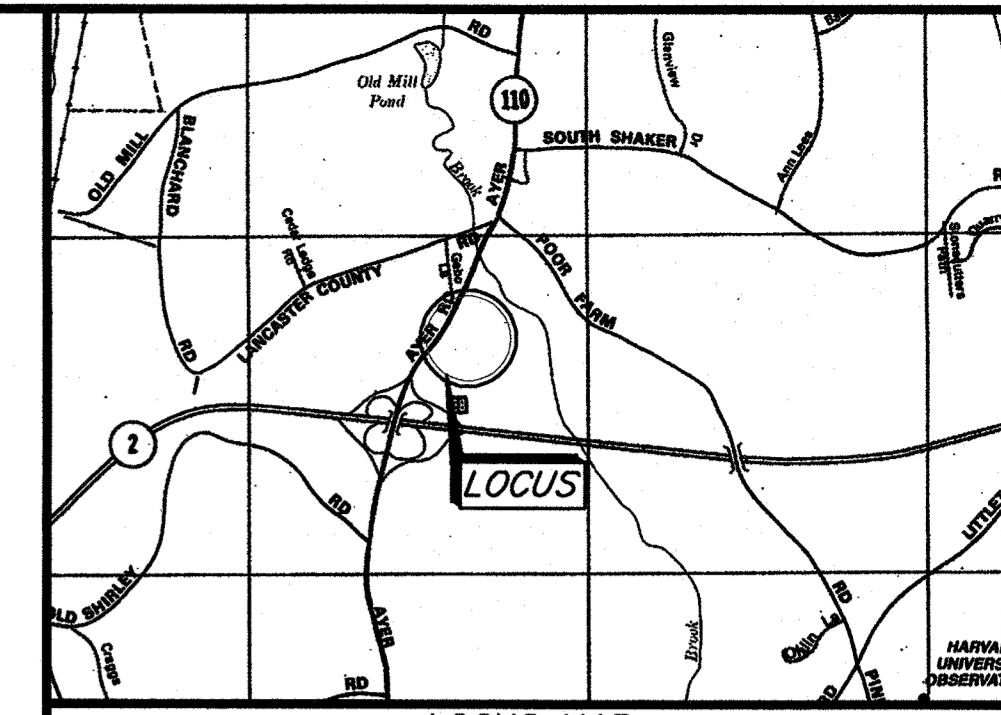
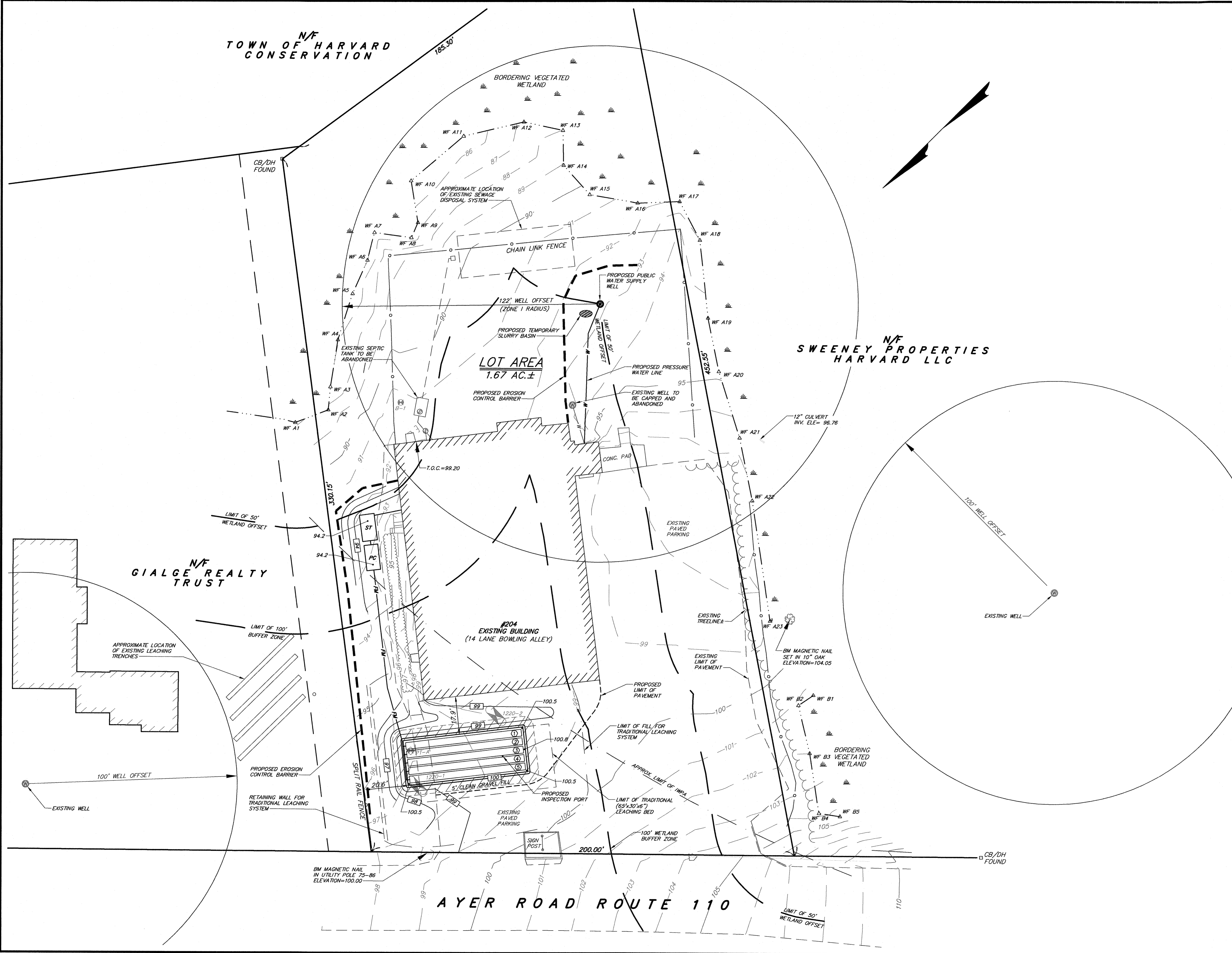
1220-1: ELEV. = 97.3'  
FILL 0' - 24"  
A<sub>p</sub> 24" - 26" FINE SANDY LOAM  
B<sub>w</sub> 26" - 30" LOAMY SAND  
C<sub>1</sub> 30" - 60" MED. SAND  
C<sub>2</sub> 60" - 104" MED./CRS. SAND  
MOTTLING AT 44"  
GROUNDWATER AT 65"  
NO REFUSAL  
E.S.H.W.T. AT 44" (93.6)

1220-2: ELEV. = 98.5'  
FILL 0' - 34"  
A<sub>p</sub> 34" - 38" FINE SANDY LOAM  
C<sub>1</sub> 38" - 55" MED. SAND  
C<sub>2</sub> 55" - 106" MED./CRS. SAND  
MOTTLING AT 50"  
GROUNDWATER AT 65"  
NO REFUSAL  
E.S.H.W.T. AT 50" (94.3)

**SOIL BORING WITH HAND AUGER**  
BY BRANDON DUCHARME, D.E.R.A., INC.  
2/18/2021

B-1: ELEV. = 91.1'  
A<sub>p</sub> 0' - 8" FINE SANDY LOAM  
B<sub>w</sub> 8" - 18" LOAMY SAND  
C<sub>1</sub> 18" - 32" MED. SAND  
MOTTLING AT 28"  
NO GROUNDWATER  
NO REFUSAL  
E.S.H.W.T. AT 28" (86.8)

TOWN OF HARVARD  
CONSERVATION

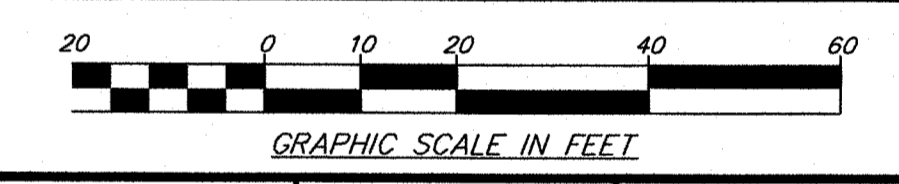


LOCUS MAP  
NOT TO SCALE

N/F  
SWEENEY PROPERTIES  
HARVARD LLC

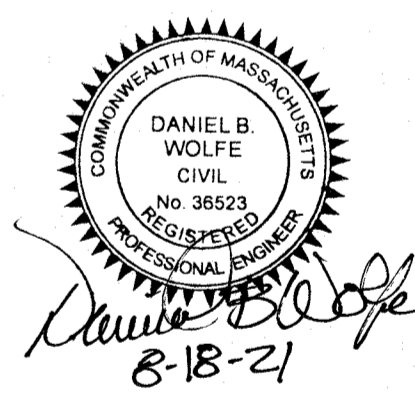
N/F  
GIALGE REALTY  
TRUST

AYER ROAD ROUTE 110



GSN/USD	CALC.: KRC	DRAFT: BJD
827-10	DEED: 5629/190	CHECK: DBW

REVISIONS  
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SHEET TITLE:  
SEWAGE DISPOSAL SYSTEM

DESIGNED FOR:  
SCOTT PATTERSON

ADDRESS:  
204 AYER ROAD  
HARVARD, MA

LOT NO.:	ASSESSOR MAP:	ASSESSOR PARCEL:
	8	38

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SCALE:	1"=20'	DATE:	JULY 2021
REF.:	20545, 33541	PLAN NO.:	L-14179
JOB NO.:	33788	SHEET NO.:	2 of 2