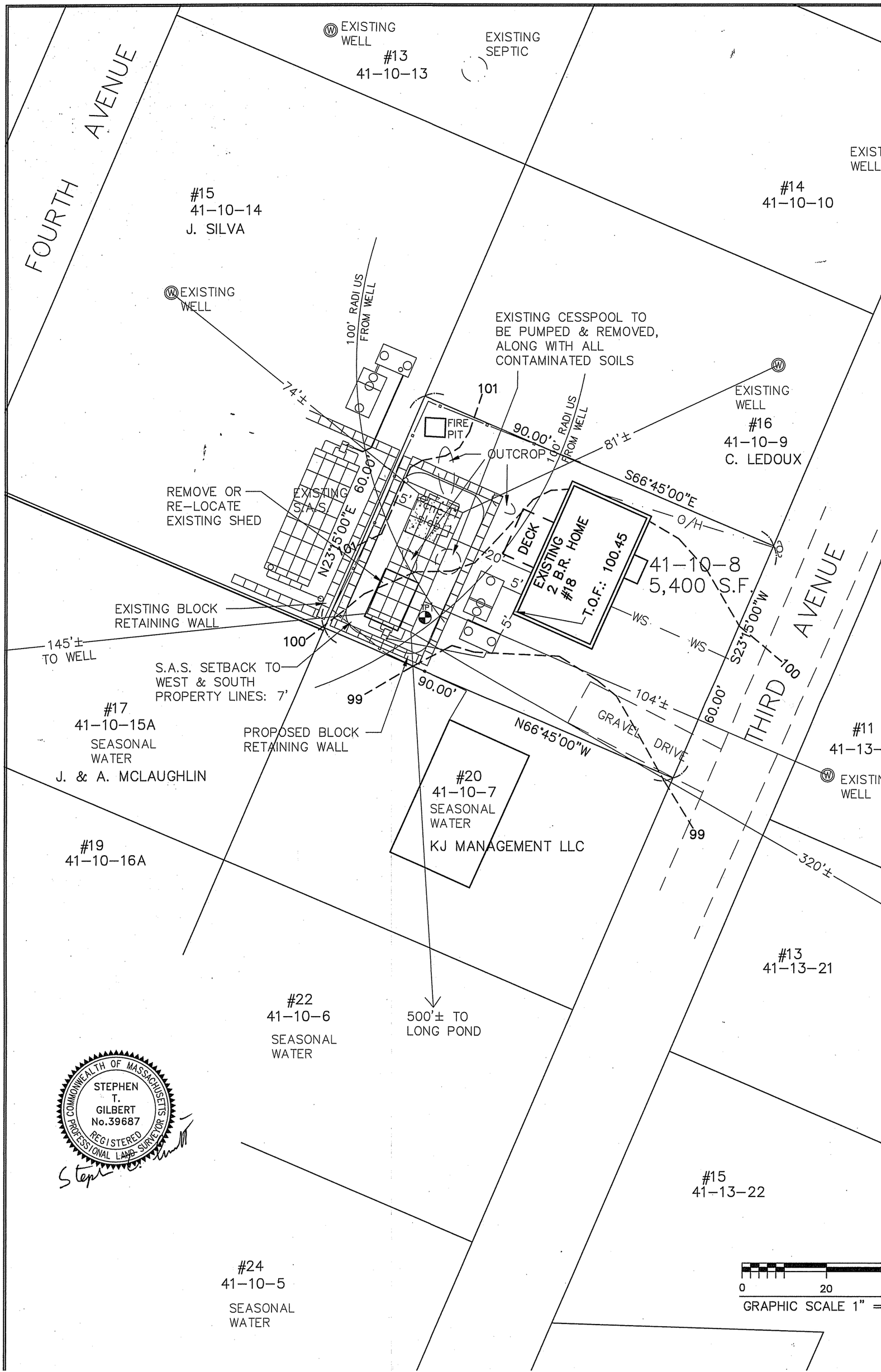
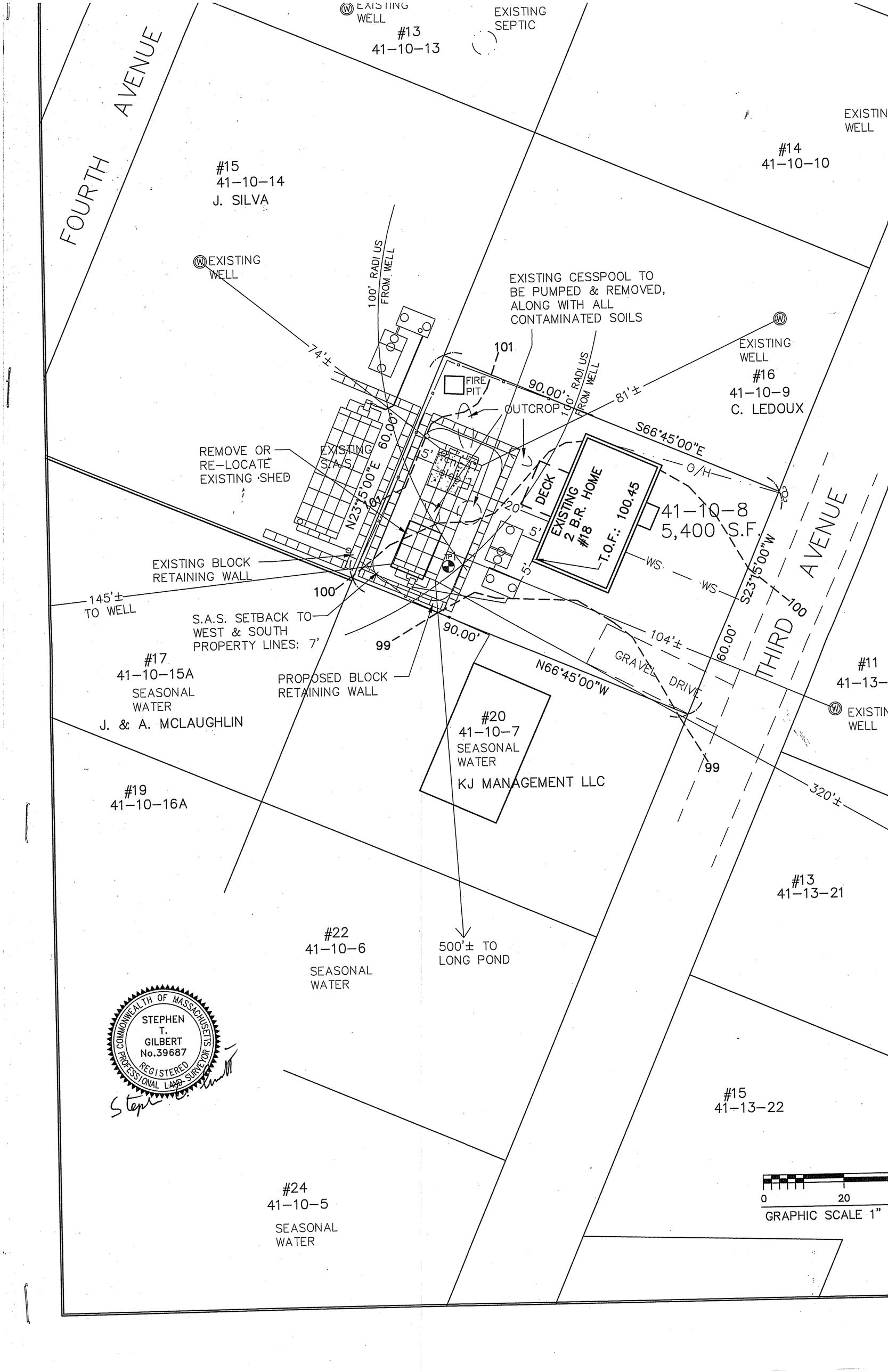

FOURTH AVENUE
THIRD AVENUE
EXISTING WELL
#13
41-10-13
EXISTING SEPTIC
#15
41-10-14
J. SILVA
#14
41-10-10
EXISTING WELL
100' RADI US FROM WELL
EXISTING CESSPOOL TO BE PUMPED & REMOVED, ALONG WITH ALL CONTAMINATED SOILS
74'±
101
FIRE PIT
OUTCROP
90.00'
81'±
#16
41-10-9
C. LEDOUX
REMOVE OR RE-LOCATE EXISTING SHED
EXISTING S.A.S.
N23°15'00"E 60.00'
S66°45'00"E
O/H
DECK
EXISTING 2 B.R. HOME #18
T.O.F.: 100.45
41-10-8
5,400 S.F.
EXISTING BLOCK RETAINING WALL
145'± TO WELL
100
S.A.S. SETBACK TO WEST & SOUTH PROPERTY LINES: 7'
99
90.00'
104'±
60.00'
S23°15'00"W
WS
PROPOSED BLOCK RETAINING WALL
N66°45'00"W
GRAVEL DRIVE
#17
41-10-15A
SEASONAL WATER
J. & A. MCLAUGHLIN
#20
41-10-7
SEASONAL WATER
KJ MANAGEMENT LLC
#19
41-10-16A
320'±
#13
41-13-21
#22
41-10-6
SEASONAL WATER
500'± TO LONG POND
#15
41-13-22
#24
41-10-5
SEASONAL WATER
COMMONWEALTH OF MASSACHUSETTS
STEPHEN T. GILBERT No.39687
REGISTERED PROFESSIONAL LAND SURVEYOR
0
20
GRAPHIC SCALE 1" =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FIRST FLOOR #18
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41-13-22
#24
41-10-5
SEASONAL WATER
0
20
GRAPHIC SCALE 1"

Ⓦ EXISTING WELL
#9
41–13–17

RECEIVED
MAR 16 2020
BOARD OF HEALTH

IN LAKEVILLE, MA
FOR PAUL LYNCH

DATE: MARCH 11, 2020

SENNA FITZGERALD GILBERT ASSOCIATES
CIVIL ENGINEERS & LAND SURVEYORS
28 MAIN STREET LAKEVILLE, MA 02347
(508) 946–5258 TEL./FAX. (508) 947–1090

18 THIRD AVENUE, MAP 41, BLOCK 10, LOT 8
SHEET 1 OF 2

OWNER: PAUL & HELEN LYNCH
165 PLEASANT STREET
ATTLEBORO, MA 02703

DEED REF.: BOOK 5220, PAGE 113

BUOYANCY CALCULATIONS
SEPTIC TANK SITS 3.49' IN WATER.
10.83' X 5.67' X 3.49' X 62.4 LBS/CF / 2000 LBS/TON = 6.69 TONS OF UPLIFT
SEPTIC TANK WEIGHS 5.8 TONS.
SEPTIC TANK HAS 0.91' OF COVER.
10.83' X 5.67' X 0.91' X 100 LBS/CF / 2000 LBS/TON = 2.79 TONS OF COVER
5.8 TONS + 2.79 TONS = 8.59 TONS > 6.69 TONS.

PUMP CHAMBER SITS 3.84' IN WATER.
8.38' X 5.54' X 3.84' X 62.4 LBS/CF / 2000 LBS/TON = 5.56 TONS OF UPLIFT
PUMP CHAMBER WEIGHS 5.0 TONS.
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BOARD OF HEALTH NOTES
- SEE SHEET 2 FOR THE BOARD OF HEALTH NOTES.
- SEE SHEET 2 FOR LOCAL UPGRADE & VARIANCE REQUESTS.

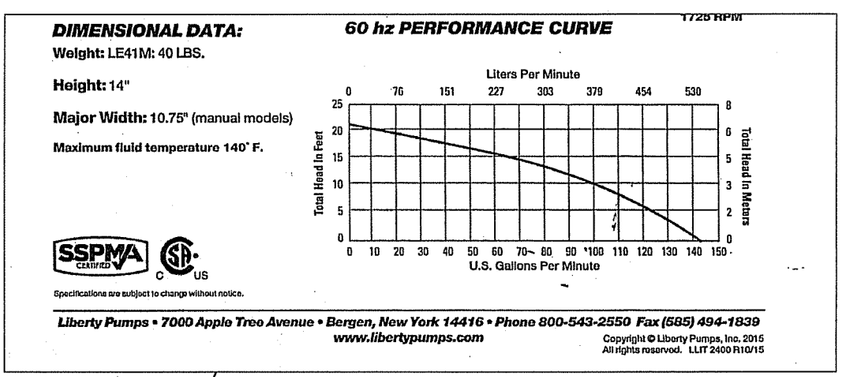
LEGEND
- TP — DEEP OBSERVATION HOLE
- --98-- EXISTING CONTOUR
- —99— PROPOSED CONTOUR
- Ⓦ WELL
- — WS — WATER SERVICE
- UTILITY POLE
- — O/H — OVERHEAD UTILITES
- EXISTING TREE
- — ▫ — EXISTING FENCE

PUMP CALCULATIONS
CLASS II SOIL REQUIRES 1 DOSE/DAY
RECOMMEND 2 DOSES/DAY
110 GALLONS TO BE PUMPED
PUMP CHAMBER INSIDE DIMENSIONS:
8.0' X 4.5' X 7.48 GAL/CF = 269 GAL/FT
110/269 = 0.41' TO BE PUMPED
ALARM FLOAT TO BE SET A MINIMUM
OF 1.64' BELOW THE OUTLET ELEVATION

HEAD LOSS
STATIC HEAD: 101.49 – 94.23 = 7.26'
DYNAMIC HEAD: 2" SERV., l = 25', v = 3.0 FPS
EQUIV. LENGTHS: 1 TEE: 6.6'
1 CHECK VALVE: 12.0'
2 ELBOWS: 5.7'
24.3' SAY 25'
EQUIV. LENGTH: 25' + 25' = 50'
A = .02 SF r = .04

$$h_L = \frac{(3.0)^{1.85}(50')}{[(1.318)(130)]^{1.85}(.04)} = 1.25'$$

TOTAL HEAD: 7.26' + 1.25' = 8.51' SAY 10'
LIBERTY LE41M PUMPS 100 GPM @ 10'



41–13–2

SECOND AVENUE

41–15–18
EXISTING
P.W.S. WELL

41–13–1

COMMONWEALTH OF MASSACHUSETTS
BRADLEY STEVEN FITZGERALD
No. 35070
CIVIL
REGISTERED PROFESSIONAL ENGINEER

FILE COPY

A SEPTIC SYSTEM REPAIR IN LAKEVILLE, MA FOR PAUL LYNCH

DATE: MARCH 11, 2020

SENNA FITZGERALD GILBERT ASSOCIATES
CIVIL ENGINEERS & LAND SURVEYORS
28 MAIN STREET LAKEVILLE, MA 02347
(508) 946-5258 TEL./FAX. (508) 947-1090

18 THIRD AVENUE, MAP 41, BLOCK 10, LOT 8

Ⓦ EXISTING WELL
#9
41-13-17

OWNER: PAUL & HELEN LYNCH
165 PLEASANT STREET
ATTLEBORO, MA 02703

DEED REF.: BOOK 5220, PAGE 113

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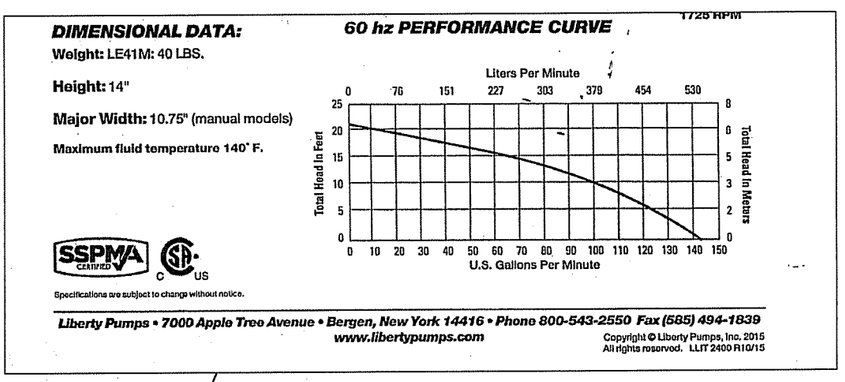


COMMONWEALTH OF MASSACHUSETTS
BRADLEY STEVEN FITZGERALD
No. 35070
CIVIL
REGISTERED PROFESSIONAL ENGINEER

ELEV.: 99.55 SOIL EVALUATOR: STEVE GILBERT, R.P.E.S.

FACE	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER (STRUCTURE, STONES, BOULDERS, CONSISTENCY, % GRAVEL)
	FILL & A				BOULDERS & COBBLES
14	C	LOAMY SAND	2.5Y 7/3		NOT COMPACT

TION RATE: 30 M.P.I.*

ATER: MOTTLING @ 34" (EL.: 96.49), WEEPING @ 36"

ALYSIS OF C LAYER DETERMINED SOIL TO BE SANDY LOAM, 30 M.P.I.

TEST PIT INFORMATION

IN LAKEVILLE, MA
FOR PAUL LYNCH

DATE: MARCH 11, 2020

SENNA FITZGERALD GILBERT ASSOCIATES
CIVIL ENGINEERS & LAND SURVEYORS
28 MAIN STREET LAKEVILLE, MA 02347
(508) 946-5258 TEL./FAX. (508) 947-1090

18 THIRD AVENUE, MAP 41, BLOCK 10, LOT 8

S.W.COLE ENGINEERING, INC.

Report of Hydrometer

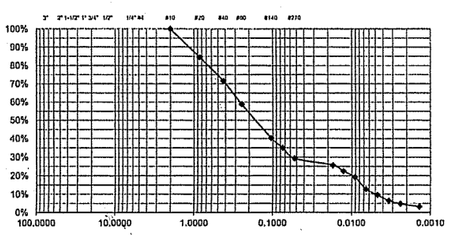
ASTM D422-63 (07)

ect Name: Title V Lab Testing
ect Location: 18 Third Ave Lakeville, MA
nt: SFG Associates
rial Description: Test Pit Sample
rial Source: On Site

Project Number: 20-0232
Lab ID: 2268T
Date Received: 2/20/2020
Date Completed: 3/2/2020
Tested By: RHB

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification (name)
No. 10	2	100	
No. 20	0.85	85	
No. 40	0.425	72	
No. 60	0.25	59	
No. 140	0.105	40	
No. 200	0.075	35	
No. 270	0.053	29.4	

Particle Size (mm)	Amount Passing (%)
0.01733	25.7
0.01276	22.5
0.00912	19.3
0.00657	12.8
0.00470	9.6
0.00334	8.4
0.00239	4.8
0.00138	3.2



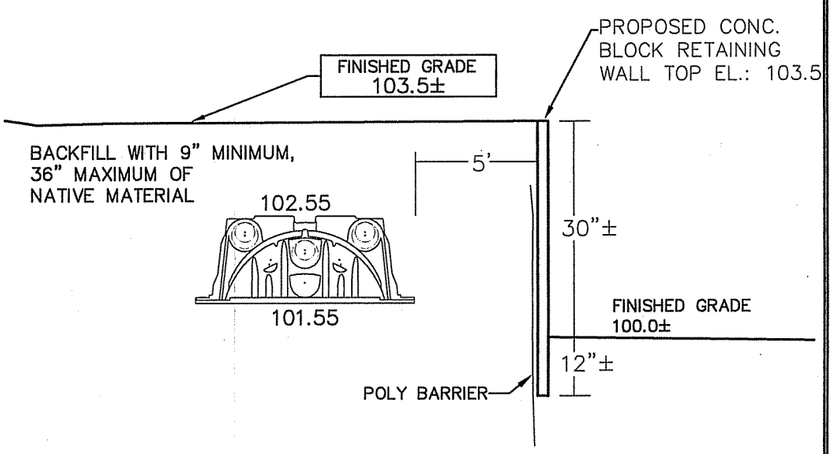
icle Distribution: Sand (No. 10 - No. 200) 65.0% Finos (0.074 -0.005) 24.8% Clay (<0.005) 10.2%

ments: Sandy Loam Class II

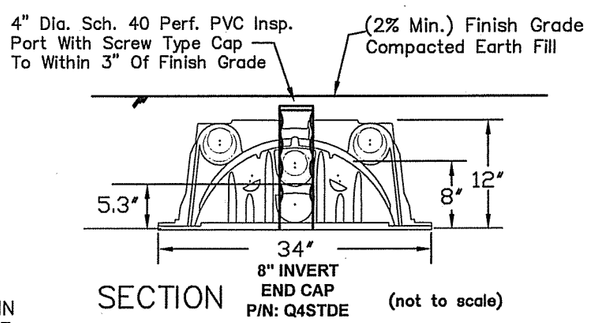
Reviewed By

490A Winthrop Street, Taunton, MA 02780 • P: 508-822-6934 • E: infotaunton@swcole.com

Geotechnical Engineering Construction Materials Testing and Special Inspections GeoEnvironmental Services



RETAINING WALL SECTION
(not to scale)

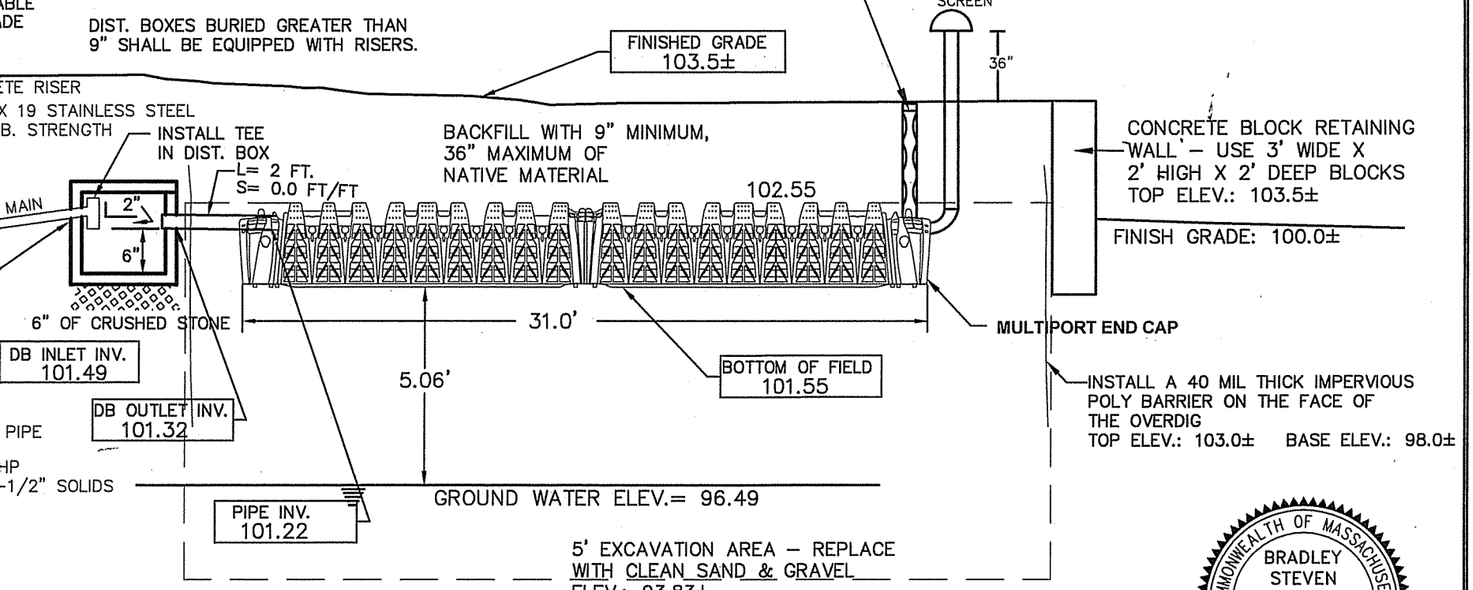


SECTION (not to scale)

ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED

ABLE
DE

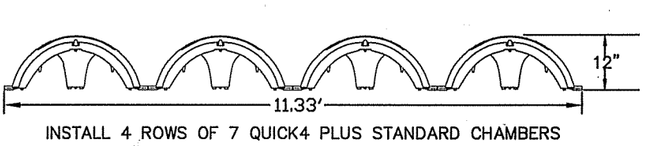
DIST. BOXES BURIED GREATER THAN 9" SHALL BE EQUIPPED WITH RISERS.



COMMONWEALTH OF MASSACHUSETTS
BRADLEY STEVEN FITZGERALD
No. 35070
CIVIL
REGISTERED PROFESSIONAL ENGINEER

PRECAST CONC. DISTRIBUTION BOX

QUICK4 PLUS STANDARD CHAMBERS



INSTALL 4 ROWS OF 7 QUICK4 PLUS STANDARD CHAMBERS

(not to scale)

FEBRUARY 4, 2020 WITNESS: JOHN ASHLEY
ELEV.: 99.33 SOIL EVALUATOR: STEVE GILBERT, R.P.L.S.

FACE	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL MOTTLING	OTHER (STRUCTURE, STONES, BOULDERS, CONSISTENCY, % GRAVEL)
	FILL & A				BOULDERS & COBBLES
14	C	LOAMY SAND	2.5Y 7/3		NOT COMPACT

TION RATE: 30 M.P.I.*
ATER: MOTTLING @ 34" (EL.: 96.49), WEEPING @ 36"
ALYSIS OF C LAYER DETERMINED SOIL TO BE SANDY LOAM,
30 M.P.I.

TEST PIT INFORMATION

A SEPTIC SYSTEM REPAIR IN LAKEVILLE, MA FOR PAUL LYNCH

DATE: MARCH 11, 2020

SENNA FITZGERALD GILBERT ASSOCIATES
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28 MAIN STREET LAKEVILLE, MA 02347
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18 THIRD AVENUE, MAP 41, BLOCK 10, LOT 8
SHEET 2 OF 2

S.W.COLE ENGINEERING, INC.

Report of Hydrometer
ASTM D422-63 (07)

Project Name: Title V Lab Testing
Project Location: 18 Third Ave Lakeville, MA
Client: SFG Associates
Material Description: Test Pit Sample
Material Source: On Site

Project Number: 20-0232
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Sieve Analysis

Sieve Size	Standard Designation (mm)	Amount Passing (%)	Specification (name)
No. 10	2	100	
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No. 40	0.425	72	
No. 60	0.25	59	
No. 140	0.105	40	
No. 200	0.075	35	
No. 270	0.053	29.4	

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Particle Size (mm)	Amount Passing (%)
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0.01276	22.5
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0.00657	12.8
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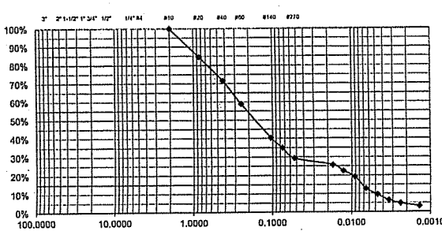

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Comments: Sandy Loam Class II
Reviewed By

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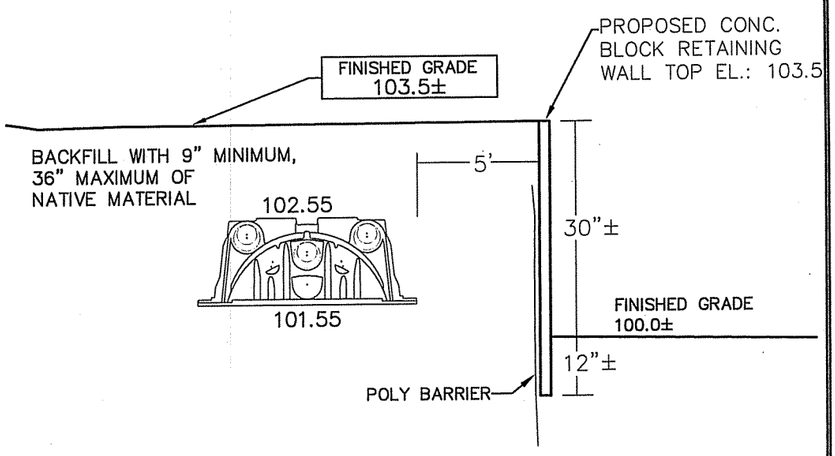
Geotechnical Engineering Construction Materials Testing and Special Inspections GeoEnvironmental Services



RETAINING WALL SECTION
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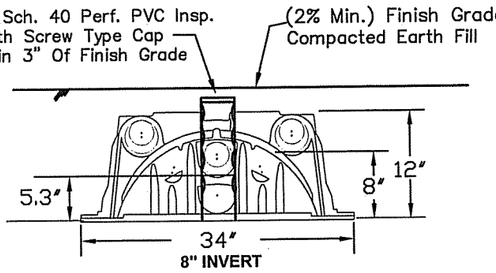


SECTION (not to scale)

ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED

4" DIA. SCH. 40 PERF. PVC INSP. PORT WITH SCREW TYPE CAP TO WITHIN 3" OF FINISH GRADE

4" DIA. SCH. 40 P.V.C. VENT WITH SCREEN

RABLE
RADE

DIST. BOXES BURIED GREATER THAN 9" SHALL BE EQUIPPED WITH RISERS.

FINISHED GRADE 103.5±

36"

RETE RISER
X 19 STAINLESS STEEL
LB. STRENGTH

INSTALL TEE IN DIST. BOX
L= 2 FT.
S= 0.0 FT/FT

BACKFILL WITH 9" MINIMUM, 36" MAXIMUM OF NATIVE MATERIAL

102.55

CONCRETE BLOCK RETAINING WALL – USE 3' WIDE X 2' HIGH X 2' DEEP BLOCKS
TOP ELEV.: 103.5±

FINISH GRADE: 100.0±

E MAIN

2"

6"

6" OF CRUSHED STONE

31.0'

MULTIPORT END CAP

DB INLET INV. 101.49

5.06'

BOTTOM OF FIELD 101.55

INSTALL A 40 MIL THICK IMPERVIOUS POLY BARRIER ON THE FACE OF THE OVERDIG
TOP ELEV.: 103.0± BASE ELEV.: 98.0±

DB OUTLET INV. 101.32

E PIPE

HP
1-1/2" SOLIDS

GROUND WATER ELEV.= 96.49

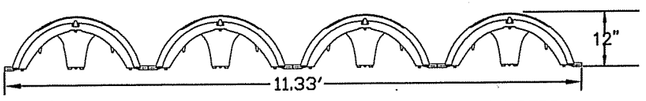
PIPE INV. 101.22

5' EXCAVATION AREA – REPLACE WITH CLEAN SAND & GRAVEL
ELEV.: 93.83±

COMMONWEALTH OF MASSACHUSETTS
BRADLEY STEVEN FITZGERALD
No.35070
CIVIL
REGISTERED PROFESSIONAL ENGINEER

PRECAST CONC. DISTRIBUTION BOX

QUICK4 PLUS STANDARD CHAMBERS



INSTALL 4 ROWS OF 7 QUICK4 PLUS STANDARD CHAMBERS

A MONOLITHIC TANK.

- THE 1000 GALLON PUMP CHAMBER SHALL BE A MONOLITHIC TANK.
- TANK CONSTRUCTION SHALL MEET THE REQUIREMENTS SPECIFIED IN TITLE 5, SECTION 15.226.
- CONCRETE IS TO BE 4000 PSI @28 DAYS.
- ALL RISERS ARE TO BE MADE WATERTIGHT.
- INSTALL A ZABEL OR EQUIVALENT EFFLUENT FILTER IN THE SEPTIC TANK OUTLET TEE.
- ALL PIPE IS TO BE SCH. 40 P.V.C. OR EQUIVALENT.
- ALL JOINTS ARE TO BE MADE WATERTIGHT.
- ALL STONE IS TO BE DOUBLE WASHED.
- ALL COMPONENTS SHALL HAVE A MINIMUM OF 9" AND A MAXIMUM OF 36" OF COVER
- THE PUMP IS TO BE WIRED, THROUGH A 1-1/4" CONDUIT, TO ITS OWN 20 AMP CIRCUIT BREAKER.
- WIRE THE CONTROL FLOAT TO A HIGH WATER ALARM INSIDE THE HOUSE. THE ALARM IS TO BE AUDIO AND VISUAL.
- THE ALARM IS TO BE ON A SEPARATE CIRCUIT FROM THE PUMP.
- THE VENT IS TO BE PLACED IN AN AREA WHERE IS WILL NOT BE SUSCEPTIBLE TO DAMAGE.
- THE CONTRACTOR IS TO VERIFY ALL ELEVATIONS AND UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ANY DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- THE EXISTING CESSPOOL AND OVERFLOW ARE TO BE PUMPED, AND REMOVED, ALONG WITH ALL CONTAMINATED MATERIALS.
- THE RESERVE AREA IS TO BE IN THE SAME LOCATION AS THE ACTIVE SYSTEM.
- THERE ARE NO CONFLICTS WITH TITLE 5, SECTION 15.220(4)(k) - LOCATION OF PUBLIC AND PRIVATE WATER SUPPLIES.
- 5' IS TO BE EXCAVATED ALL AROUND THE SYSTEM, DOWN 48"± TO THE C1 LAYER, AND REPLACED WITH CLEAN SAND & GRAVEL AS PER TITLE 5, SECTION 15.255.
- INSTALL A 40 MIL THICK, IMPERVIOUS POLY BARRIER ON THE FACE OF THE OVER-DIG, ALL AROUND THE SYSTEM. TOP ELEV.: 103.0±, BASE ELEV.: 98.0±
- CONSTRUCT A CONCRETE BLOCK RETAINING WALL ON ALL FOUR SIDES OF THE SYSTEM FOR FINISH GRADING PURPOSES. TOP ELEV.: 103.5±

- THE FOLLOWING LOCAL UPGRADES ARE REQUESTED UNDER TITLE 5, SECTION 15.405(1):
  (a): TO ALLOW THE SEPTIC TANK TO BE 5' FROM THE CRAWLSPACE, INSTEAD OF THE REQUIRED 10'.
  (a): TO ALLOW THE PUMP CHAMBER TO BE 5' FROM THE CRAWLSPACE, INSTEAD OF THE REQUIRED 10'.
  (a): TO ALLOW THE S.A.S. TO BE 7' FROM THE SIDE PROPERTY LINE OF KJ MANAGEMENT LLC, INSTEAD OF THE REQUIRED 10'.
  (a): TO ALLOW THE S.A.S. TO BE 7' FROM THE REAR PROPERTY LINE OF SILVA, INSTEAD OF THE REQUIRED 10'.
  (c): TO ALLOW A 21% REDUCTION IN THE SIZE OF THE S.A.S.
  (g): TO ALLOW THE S.A.S. TO BE 74' FROM THE ABUTTING WELL OF SILVA (15 FOURTH AVE.), INSTEAD OF THE REQUIRED 100'.
  (g): TO ALLOW THE S.A.S. TO BE 81' FROM THE ABUTTING WELL OF LEDOUX (16 THIRD AVE.), INSTEAD OF THE REQUIRED 100'.
  (i): TO ALLOW THE USE OF A SIEVE ANALYSIS, IN LIEU OF PERFORMING A PERCOLATION TEST, TO DETERMINE THE SOIL CLASSIFICATION.
  (j): TO ALLOW A REDUCTION OF THE REQUIREMENT OF A 12" SEPARATON BETWEEN THE INLET AND OUTLET TEES AND HIGH GROUNDWATER, PROVIDED THAT ALL BOOTS OR PIPE JOINTS ARE SEALED WITH HYDRAULIC CEMENT OR INSTALLED WITH WATERTIGHT SLEEVES, AND THE TANKS ARE PROVEN WATERTIGHT.

THE SEPTIC SYSTEM TO BE INSTALLED WITHIN A ZONE 1 OF A PUBLIC WATER SUPPLY WELL. S.A.S. TO BE 320'± FROM THE WELL.

- A DEED RESTRICTION SHALL BE PLACED IN THE CHAIN OF TITLE LIMITING THE HOUSE TO TWO BEDROOMS ONLY. THE DEED RESTRICTION MUST BE RECORDED IN THE PLYMOUTH REGISTRY OF DEEDS PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE.

- SEE SHEET 1 FOR THE PUMP AND BUOYANCY CALCULATIONS.

DESIGN CALCULATIONS

CAPACITY REQUIRED - RESIDENTIAL USE:

DESIGN FLOW:

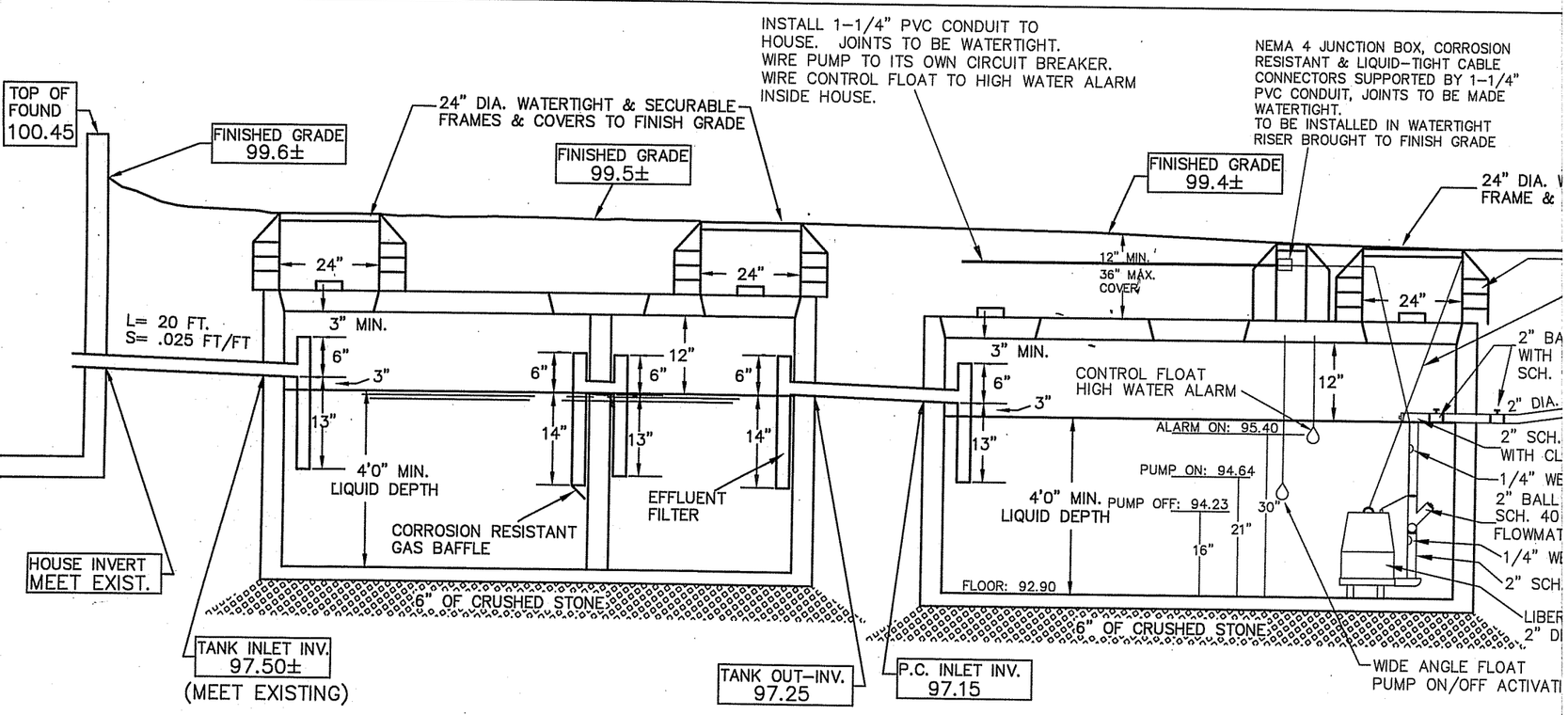
BEDROOMS @ 110 Gal/Day/Bedroom = 220 Gal/D

CAPACITY PROVIDED:

SEPTIC TANK FIRST COMPARTMENT:
DESIGN FLOW = 220 Gal/Day
X 200%
REQUIRED SIZE = 440 Gal/Day
SIZE PROVIDED = 1,000 Gal/Day

SEPTIC TANK SECOND COMPARTMENT:
DESIGN FLOW = 220 Gal/Day
X 100%
REQUIRED SIZE = 220 Gal/Day
SIZE PROVIDED = 500 Gal/Day

LEACHING FACILITY:
DESIGN PERCOLATION RATE: 30 MPI
SOIL TEXTURAL CLASS: CLASS II
LONG TERM ACCEPTANCE RATE (LTAR): 0.33 GPD/S
220 GPD/0.33 = 667 S.F. REQUIRED
REQUEST LOCAL UPGRADE TO REDUCE SYSTEM FOOTPRINT BY UP TO 25%
USING INFILTRATOR QUICK4 PLUS STANDARD CHAMBERS
667 S.F./4.73 S.F./L.F. = 140.94 L.F. REQUIRED
140.94/4' = 36 QUICK4 PLUS CHAMBERS REQUIRED
USE 4 ROWS OF 7 QUICK4 PLUS CHAMBERS
FIELD DIMENSIONS: 11.33' X 31'
28 QUICK4 PLUS CHAMBERS PROVIDES 174 Gal/Day
174 Gal/Day / 220 Gal/Day = 21% REDUCTION
SYSTEM IS NOT DESIGNED FOR A GARBAGE GRINDER OR WATER SOFTENER BACKWASH.



* INSTALL TEES IN ACCORDANCE WITH TITLE 5

1,500 GALLON TWO COMPARTMENT
MONOLITHIC PRECAST CONC. SEPTIC TANK
(H-20 LOADING CAPABILITY)

1,000 GALLON MONOLITHIC
PRECAST CONC. PUMP CHAMBER
(H-20 LOADING CAPABILITY)

LL BOOTS OR PIPE JOINTS MUST BE SEALED
ITH HYDRAULIC CEMENT OR INSTALLED
ITH WATERTIGHT SLEEVES, AND THE TANKS
UST BE PROVEN WATERTIGHT

TANKS & DIST. BOX FROM J & R PRE-CAST, INC.
16 COUNTY STREET BERKLEY, MA 02779
(508) 822-3311

SYSTEM P

OARD OF HEALTH NOTES

HE 1500 GALLON, TWO COMPARTMENT SEPTIC TANK SHALL BE MONOLITHIC TANK.
HE 1000 GALLON PUMP CHAMBER SHALL BE A MONOLITHIC TANK.
ANK CONSTRUCTION SHALL MEET THE REQUIREMENTS PECIFIED IN TITLE 5, SECTION 15.226.
ONCRETE IS TO BE 4000 PSI @28 DAYS.
LL RISERS ARE TO BE MADE WATERTIGHT.
ISTALL A ZABEL OR EQUIVALENT EFFLUENT FILTER THE SEPTIC TANK OUTLET TEE.
LL PIPE IS TO BE SCH. 40 P.V.C. OR EQUIVALENT.
LL JOINTS ARE TO BE MADE WATERTIGHT.
LL STONE IS TO BE DOUBLE WASHED.
LL COMPONENTS SHALL HAVE A MINIMUM OF 9" ND A MAXIMUM OF 36" OF COVER
HE PUMP IS TO BE WIRED, THROUGH A 1-1/4" CONDUIT, O ITS OWN 20 AMP CIRCUIT BREAKER.
IRE THE CONTROL FLOAT TO A HIGH WATER ALARM INSIDE HE HOUSE. THE ALARM IS TO BE AUDIO AND VISUAL.
HE ALARM IS TO BE ON A SEPARATE CIRCUIT FROM THE PUMP.
HE VENT IS TO BE PLACED IN AN AREA WHERE IS WILL NOT E SUSCEPTIBLE TO DAMAGE.
HE CONTRACTOR IS TO VERIFY ALL ELEVATIONS AND UTILITY OCATIONS PRIOR TO CONSTRUCTION. ANY DIFFERENCES SHALL E BROUGHT TO THE ATTENTION OF THE ENGINEER.
HE EXISTING CESSPOOL AND OVERFLOW ARE TO BE PUMPED, ND REMOVED, ALONG WITH ALL CONTAMINATED MATERIALS.
HE RESERVE AREA IS TO BE IN THE SAME LOCATION AS THE ACTIVE SYSTEM.
HERE ARE NO CONFLICTS WITH TITLE 5, SECTION 15.220(4)(k) - OCATION OF PUBLIC AND PRIVATE WATER SUPPLIES.
' IS TO BE EXCAVATED ALL AROUND THE SYSTEM, OWN 48"± TO THE C1 LAYER, AND REPLACED WITH CLEAN AND & GRAVEL AS PER TITLE 5, SECTION 15.255.
NSTALL A 40 MIL THICK, IMPERVIOUS POLY BARRIER ON THE FACE F THE OVER-DIG, ALL AROUND THE SYSTEM.
OP ELEV.: 103.0±, BASE ELEV.: 98.0±
ONSTRUCT A CONCRETE BLOCK RETAINING WALL ON ALL FOUR IDES OF THE SYSTEM FOR FINISH GRADING PURPOSES.
OP ELEV.: 103.5±

HE FOLLOWING LOCAL UPGRADES ARE REQUESTED UNDER TITLE 5, ECTION 15.405(1):
a): TO ALLOW THE SEPTIC TANK TO BE 5' FROM THE CRAWLSPACE, NSTEAD OF THE REQUIRED 10'.
a): TO ALLOW THE PUMP CHAMBER TO BE 5' FROM THE CRAWLSPACE, NSTEAD OF THE REQUIRED 10'.
a): TO ALLOW THE S.A.S. TO BE 7' FROM THE SIDE PROPERTY LINE F KJ MANAGEMENT LLC, INSTEAD OF THE REQUIRED 10'.
a): TO ALLOW THE S.A.S. TO BE 7' FROM THE REAR PROPERTY LINE F SILVA, INSTEAD OF THE REQUIRED 10'.
c): TO ALLOW A 21% REDUCTION IN THE SIZE OF THE S.A.S.
g): TO ALLOW THE S.A.S. TO BE 74' FROM THE ABUTTING WELL F SILVA (15 FOURTH AVE.), INSTEAD OF THE REQUIRED 100'.
g): TO ALLOW THE S.A.S. TO BE 81' FROM THE ABUTTING WELL F LEDOUX (16 THIRD AVE.), INSTEAD OF THE REQUIRED 100'.
i): TO ALLOW THE USE OF A SIEVE ANALYSIS, IN LIEU OF PERFORMING A PERCOLATION TEST, TO DETERMINE THE SOIL CLASSIFICATION.
j): TO ALLOW A REDUCTION OF THE REQUIREMENT OF A 12" SEPARATON BETWEEN THE INLET AND OUTLET TEES AND HIGH GROUNDWATER, PROVIDED THAT ALL BOOTS OR PIPE JOINTS ARE SEALED WITH HYDRAULIC CEMENT OR INSTALLED WITH WATERTIGHT SLEEVES, AND THE TANKS ARE PROVEN WATERTIGHT.

- A VARIANCE IS REQUESTED TO TITLE 5, SECTION 15.211(2) TO ALLOW THE SEPTIC SYSTEM TO BE INSTALLED WITHIN A ZONE 1 OF A PUBLIC WATER SUPPLY WELL. S.A.S. TO BE 320'± FROM THE WELL.
- A DEED RESTRICTION SHALL BE PLACED IN THE CHAIN OF TITLE LIMITING THE HOUSE TO TWO BEDROOMS ONLY. THE DEED RESTRICTION MUST BE RECORDED IN THE PLYMOUTH REGISTRY OF DEEDS PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE.
- SEE SHEET 1 FOR THE PUMP AND BUOYANCY CALCULATIONS.

DESIGN CALCULATIONS

CAPACITY REQUIRED - RESIDENTIAL USE:

DESIGN FLOW:

BEDROOMS @ 110 Gal/Day/Bedroom = 220 Gal/Day

CAPACITY PROVIDED:

SEPTIC TANK FIRST COMPARTMENT:
DESIGN FLOW = 220 Gal/Day
X 200%
REQUIRED SIZE = 440 Gal/Day
SIZE PROVIDED = 1,000 Gal/Day

SEPTIC TANK SECOND COMPARTMENT:
DESIGN FLOW = 220 Gal/Day
X 100%
REQUIRED SIZE = 220 Gal/Day
SIZE PROVIDED = 500 Gal/Day

LEACHING FACILITY:
DESIGN PERCOLATION RATE: 30 MPI
SOIL TEXTURAL CLASS: CLASS II
LONG TERM ACCEPTANCE RATE (LTAR): 0.33 GPD/SF
220 GPD/0.33 = 667 S.F. REQUIRED
REQUEST LOCAL UPGRADE TO REDUCE SYSTEM FOOTPRINT BY UP TO 25%
USING INFILTRATOR QUICK4 PLUS STANDARD CHAMBERS
667 S.F./4.73 S.F./L.F. = 140.94 L.F. REQUIRED
140.94/4' = 36 QUICK4 PLUS CHAMBERS REQUIRED
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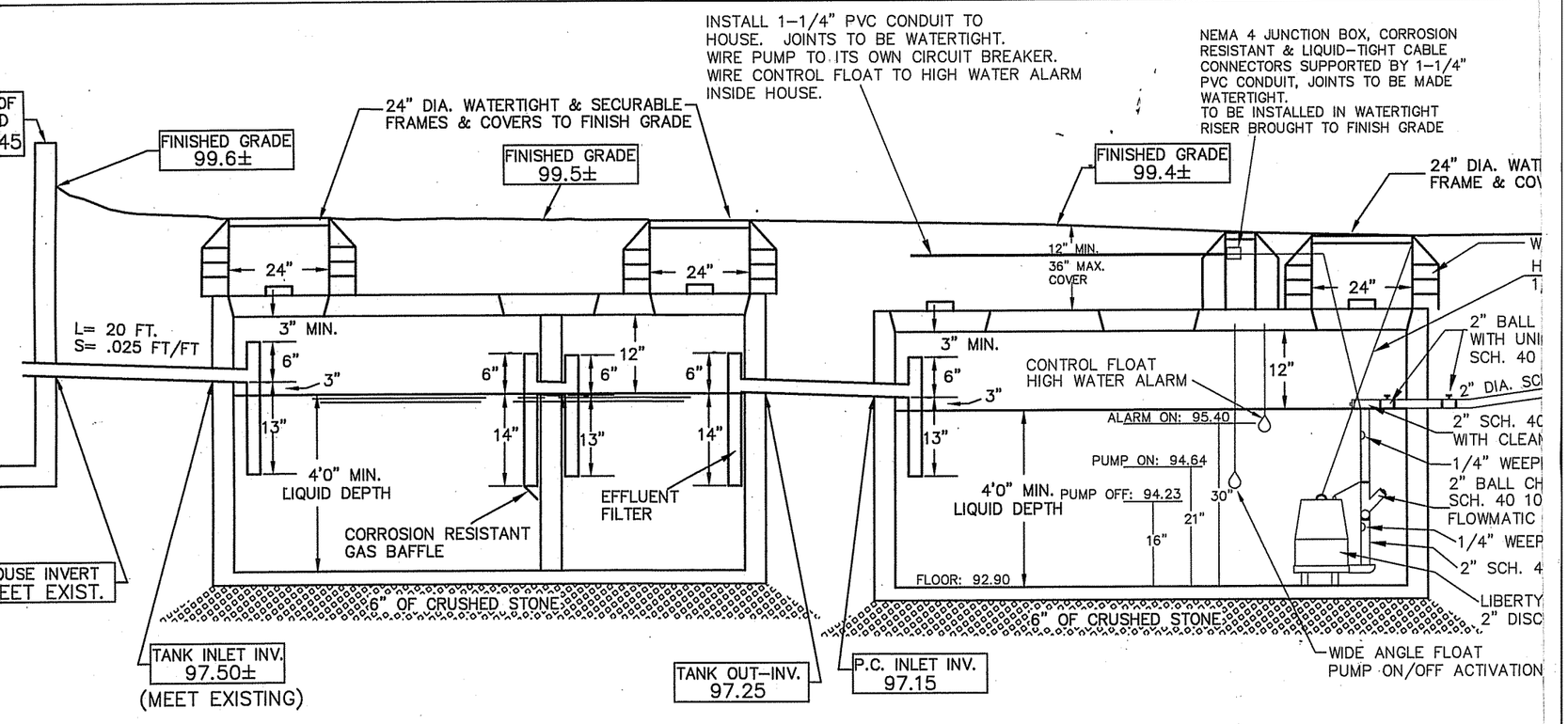
174 Gal/Day / 220 Gal/Day = 21% REDUCTION
SYSTEM IS NOT DESIGNED FOR A GARBAGE GRINDER OR WATER SOFTENER BACKWASH.



* INSTALL TEES IN ACCORDANCE WITH TITLE 5

1,500 GALLON TWO COMPARTMENT MONOLITHIC PRECAST CONC. SEPTIC TANK (H-20 LOADING CAPABILITY)

1,000 GALLON MONOLITHIC PRECAST CONC. PUMP CHAMBER (H-20 LOADING CAPABILITY)

BOOTS OR PIPE JOINTS MUST BE SEALED HYDRAULIC CEMENT OR INSTALLED WATERTIGHT SLEEVES, AND THE TANKS BE PROVEN WATERTIGHT

TANKS & DIST. BOX FROM J & R PRE-CAST, INC.
16 COUNTY STREET BERKLEY, MA 02779

SYSTEM PE

SENNA FITZGERALD GILBERT ASSOCIATES
CIVIL ENGINEERS & LAND SURVEYORS
28 MAIN STREET, LAKEVILLE, MA 02347
TEL. (508) 946-5258
TEL./FAX (508) 947-1090

March 16, 2020

To abutters to 18 Third Avenue, Map 41, Block 10, Lot 8, Lakeville, MA:

Please be advised that a septic system repair site plan has been submitted to the Lakeville Board of Health for the above referenced property. The property owner is Paul Lynch.

As part of the filing, the following Local Upgrades are requested under Title 5, Section 15.405(1):
(a) to allow the septic tank to be 5' from the crawl space, instead of the required 10'.
(a) to allow the pump chamber to be 5' from the crawl space, instead of the required 10'.
(a) to allow the s.a.s. to be 7' from the side property line of KJ Management LLC (20 Third Ave.), instead of the required 10'
(a) to allow the s.a.s. to be 7' from the rear property line of Silva (15 Fourth Ave.), instead of the required 10'.
(c) to allow a 21% reduction in the size of the s.a.s.
(g) to allow the s.a.s. to be 74' from the abutting well of Silva (15 Fourth Ave.), instead of the required 100'.
(g) to allow the s.a.s. to be 81' from the abutting well of Ledoux (16 Third Ave.), instead of the required 100'.
(i) to allow the use of a sieve analysis, in lieu of performing a percolation test, to determine the soil classification.
(j) to allow a reduction of the requirement of a 12" separation between the inlet and outlet tees and high groundwater, provided that all boots or pipe joints are sealed with hydraulic cement or installed with watertight sleeves, and the tanks are proven watertight.

Further, a variance is requested to Title 5, Section 15.211(2) to allow the septic system to be installed within a Zone 1 of a public water supply well located on Second Avenue (Map 41, Block 15, Lot 18), owned by Clark Shores Water Corp.

A public hearing will be held by the Lakeville Board of Health regarding these requests on Wednesday, April 1, 2020 at 6:00 p.m. The hearing will be held at the Board of Health office in the Town Hall, 330 Bedford Street, Lakeville. For information regarding this hearing, please contact the Board of Health at (508) 946-3473, or this office at the address and telephone numbers listed above.

No. _____

FEE #300
Ck# 13137
3/16/20

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Lakeville, *MA.*

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

Application for a Permit to Construct( ) Repair(✓) Upgrade( ) Abandon( ) - ☑ **Complete System** ☐ **Individual Components**

Location 18 Third Ave.	Owner's Name Paul Lynch
Map/Parcel# 41-10-8	Address 164 Pleasant St. Attleboro, MA 02703
Lot#	Telephone#
Installer's Name	Designer's Name SFG Assoc., Inc.
Address	Address 28 Main St. Lakeville, MA 02347
Telephone#	Telephone# (508) 946-5858

Type of Building _____ Lot Size 5400 sq. ft.

Dwelling - No. of Bedrooms 2 Garbage grinder ( )

Other - Type of Building _____ No. of persons _____ Showers ( ), Cafeteria ( )

Other Fixtures _____

Design Flow (min. required) 220 gpd Calculated design flow _____ Design flow provided 174 gpd

Plan: Date 3-11-2020 Number of sheets 2 Revision Date _____

Title A Septic System Repair in Lakeville, MA for Paul Lynch

Description of Soil(s) See plan

Soil Evaluator Form No. _____ Name of Soil Evaluator Steve Gilbert Date of Evaluation 2-7-2020

DESCRIPTION OF REPAIRS OR ALTERATIONS Replace the existing cesspool with a Title 5 system with Local Upgrades and a variance.

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed _____ Date _____

Inspections _____

No. _____

FEE _____

COMMONWEALTH OF MASSACHUSETTS

Board of Health, _____, *MA.*

CERTIFICATE OF COMPLIANCE

Description of Work: ☐ **Individual Component(s)** ☐ **Complete System**

The undersigned hereby certify that the Sewage Disposal System; Constructed ( ), Repaired ( ), Upgraded ( ), Abandoned ( )

by: _____

at _____

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. _____, dated _____. Approved Design Flow _____(gpd)

Installer _____

Designer: _____ Inspector: _____ Date: _____

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.