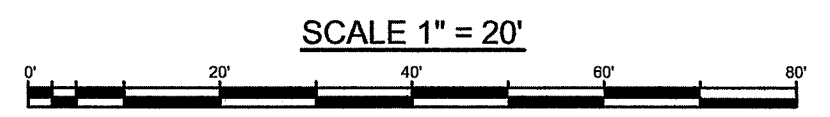


SITE INFORMATION

LOT:	3-2
ASSESSOR'S MAP:	3
LOT AREA:	542,311 SF
ZONING DISTRICT:	R-80
TOWN REQUIREMENTS	
LOT AREA:	80,000 SF
LOT WIDTH:	200 FEET
FRONT SETBACK:	50 FEET
SIDE SETBACK:	40 FEET
REAR SETBACK:	50 FEET
SITE COVERAGE:	20%
BUILDING HEIGHT:	35 FEET
PROPOSED	
PROPOSED HOUSE INCLUDING DECKS:	1973 SF
TOTAL PROPOSED COVERAGE AREA:	1,973 SF
TOTAL PROPOSED SITE COVERAGE:	0.4%

OVERALL SITE PLAN
SCALE 1" = 100'

STREET INDEX:
This plan, if recorded in the land evidence records of the local municipality shall be indexed under the following streets:
• Gardner Road



LEGEND

PROPERTY LINE	TEST PIT
UTILITY POLE	BOUND
SPOT GRADE	IRON PIN
EXISTING CONTOUR	TREE/BRUSH LINE
WATER LINE	STONE WALL
PROPOSED WELL	SILT FENCE & LIMIT OF DISTURBANCE
PROPOSED CONTOURS	RIVERBANK SETBACK
WETLAND SETBACK	WETLAND FLAG

NOTE:
PROVIDE REFERENCE POINTS TO MARK THE AREA OF DISTURBANCE PERMANENTLY. ACCEPTABLE PERMANENT TYPE MARKERS INCLUDE 4"x4" PRESSURE TREATED TIMBER POSTS, GALVANIZED FENCE POSTS WITH CAP, OR GRANITE OR CONCRETE BOUND. A PERMANENT-TYPE TAG OR SIGN LABELED "RIDEM BUFFER ZONE" MUST BE PLACED ON EACH MARKER.

System Elevation:

Restrictive Elev (S.E.#2)	102.8'
Height above Restrictive	+5.0'
Min. Elev. Bottom of System	107.8'
Depth of Stone	+1.0'
Min. System Invert	108.8'
Water Table Elev.	107.8'
Height above SHWT	+3.0'
Min. BSF Sand/Stone Elev.	110.8'
Design BSF Sand/Stone Elev.	111.0'

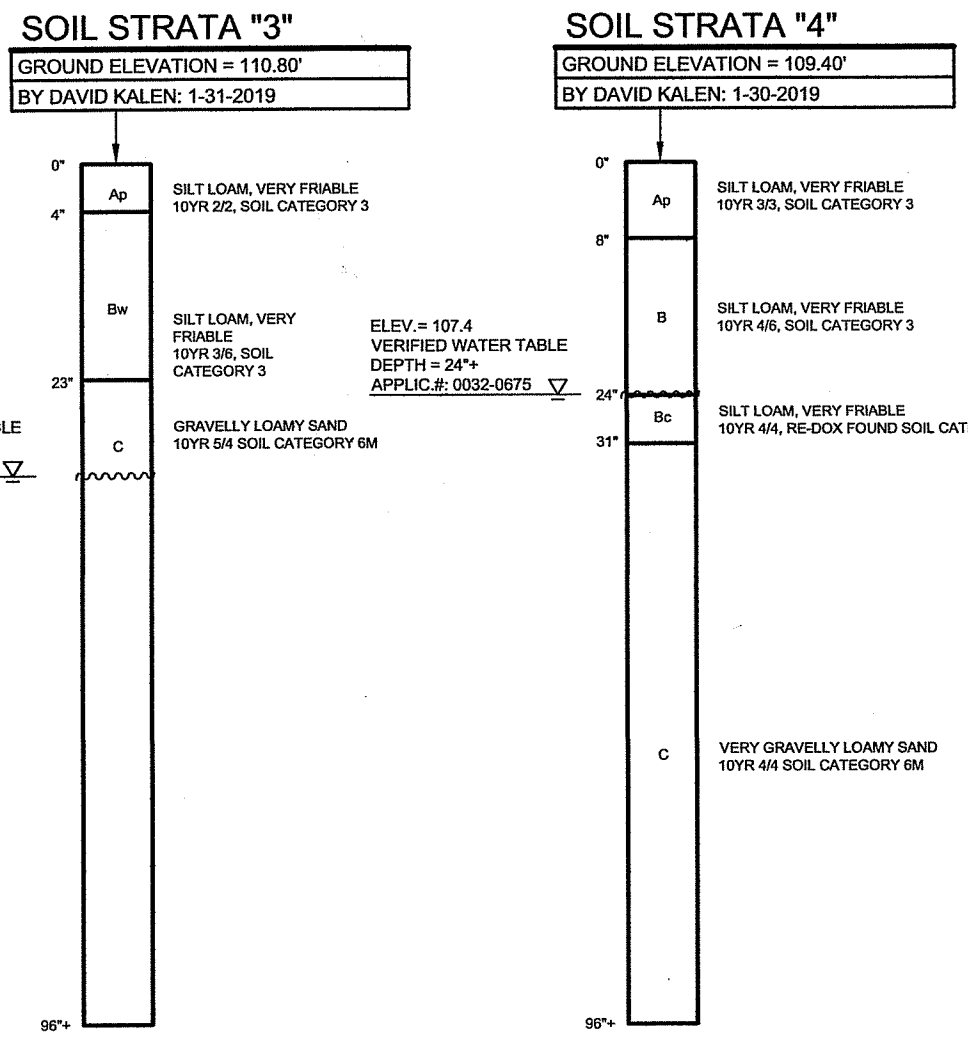
System Sizing:
Proposed 4-Bedroom = 115 Gal/Day/BR
4-Bedroom x 115 Gal/Day/BR = 460 GPD
Soil Category: 6 = 2.3 Gal/SF/Day
460 gpd / 2.3 g/sf/day = 200 SF Req'd
10.5' x 22' BSF = 231 SF Provided

FEMA DESIGNATIONS:
THE SUBJECT PROPERTY DEPICTED HEREON APPEARS TO BE WITHIN ZONE X. REFERENCE FEMA FLOOD INSURANCE RATE MAP 440609090H, DATED OCTOBER 19, 2010.

- UTILITIES:**
- THE LOCATION OF EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE ONLY AND HAVE BEEN SHOWN USING THE BEST AVAILABLE DATA.
 - THE CONTRACTOR SHALL CONTACT 'DIG-SAFE' AND/OR OTHER APPROPRIATE UTILITY COMPANIES TO ASCERTAIN THE EXACT LOCATION OF THE RESPECTIVE UTILITY PRIOR TO CONSTRUCTION.
 - UTILITIES INCLUDE BUT ARE NOT LIMITED TO GAS, ELECTRIC, WATER, TELEPHONE CABLE TV, ETC.

SCHEDULE OF INVERTS

INVERT No.	LOCATION OF INVERT	INVERT ELEV.
1	BUILDING SEWER	105.00'
2	SEPTIC TANK - IN	104.58'
3	PUMP CHAMBER - IN	105.78'
4	PUMP CHAMBER - OUT	105.78'
5	TOP OF BSF	111.67'



- GENERAL NOTES:**
- THIS SITE IS NOT LOCATED WITHIN A NATURAL HERITAGE AREA ACCORDING TO RIDEM ENVIRONMENTAL RESOURCE MAP.
 - THIS SITE IS NOT LOCATED WITHIN A CRITICAL RESOURCE AREA ACCORDING TO RIDEM ENVIRONMENTAL RESOURCE MAP.
 - THIS SITE IS NOT LOCATED IN A HISTORIC OVERLAY DISTRICT ACCORDING TO THE SOUTH KINGSTOWN GIS MAP.
 - THIS SITE IS NOT LOCATED IN A HIGH FLOOD DANGER OVERLAY DISTRICT ACCORDING TO THE SOUTH KINGSTOWN GIS MAP.
 - THIS SITE IS NOT LOCATED IN A GROUNDWATER PROTECTION OVERLAY DISTRICT ACCORDING TO THE SOUTH KINGSTOWN GIS MAP.
 - THERE ARE NO KNOWN PRIVATE WELLS WITHIN 100' OF PROPERTY LINE OR 200' FROM LEACHFIELD UNLESS SHOWN.
 - THERE ARE NO KNOWN PUBLIC WELLS WITHIN 500' OF LEACHFIELD UNLESS SHOWN.
 - THERE ARE NO KNOWN OWTS WITHIN 100' OF PROPERTY LINE.
 - UNLESS SHOWN THERE ARE NO KNOWN DRAINS WITHIN 200' OF THE PROPOSED LEACH FIELD.
 - THERE ARE NO WATERCOURSES, WETLANDS, AND DRAINS WITHIN TWO HUNDRED (200) FEET OF THE PROPOSED OWTS UNLESS SHOWN
 - NO DRAINS, INCLUDING FOUNDATION DRAINS, SHALL BE WITHIN 25' OF THE PROPOSED LEACH FIELD.
 - LOT AREA: 11.7± ACRES (TAKEN FROM TAX ASSESSOR INFO)

FRISELLA - BALCH & ASSOCIATES
LAND SURVEYORS
33 NORTH RD, SUITE C-201
PEACE DALE, RI
PHONE (401) 783-5949
FAX (401) 783-5997
www.frissella.com

SITE PLAN OF PROPOSED HOUSE and ONSITE WASTEWATER TREATMENT SYSTEM

LOCATED ON: LOT 3 OF ASSESSORS MAP 3-2

OWNED BY: DANIEL & PATRICIA BERG

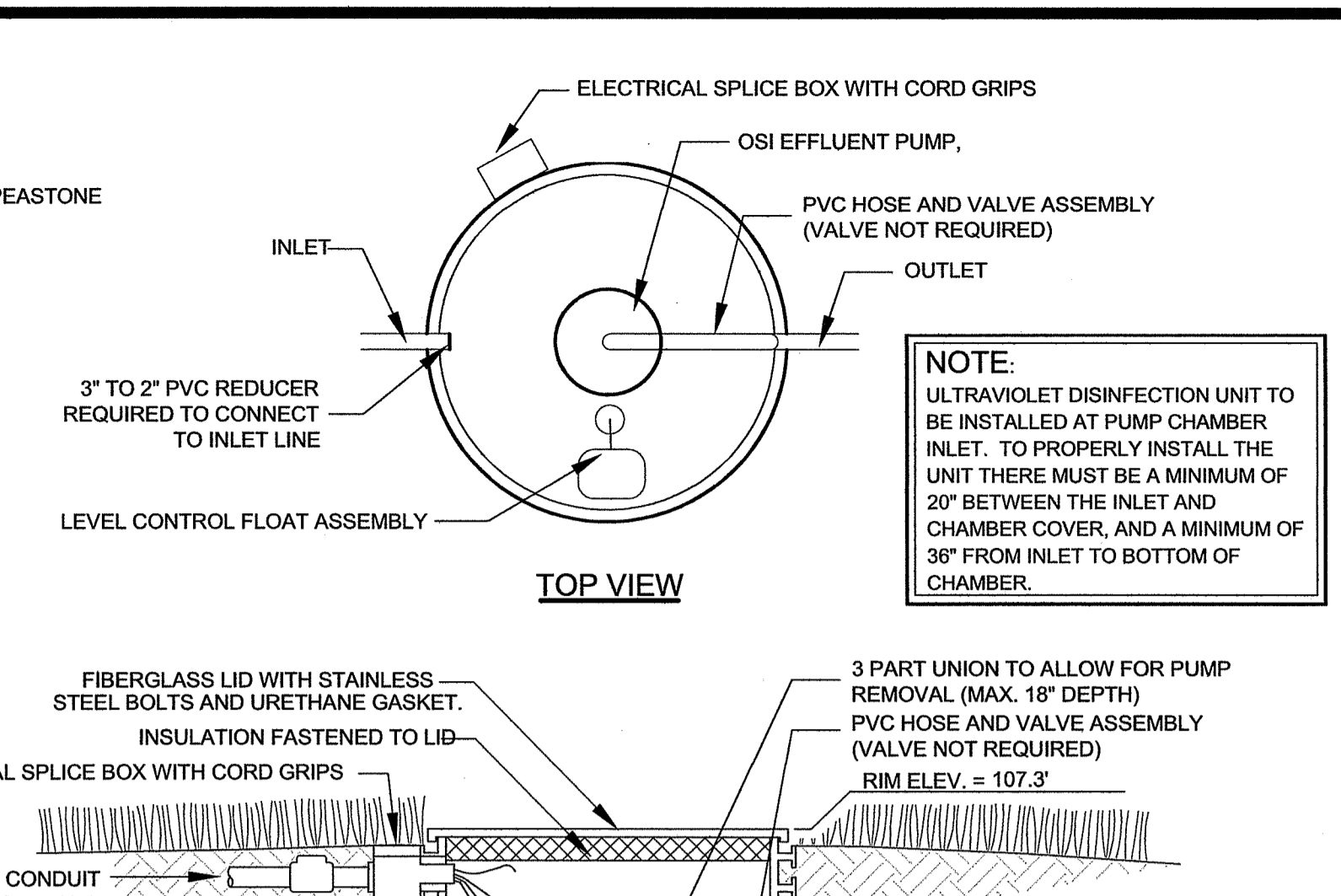
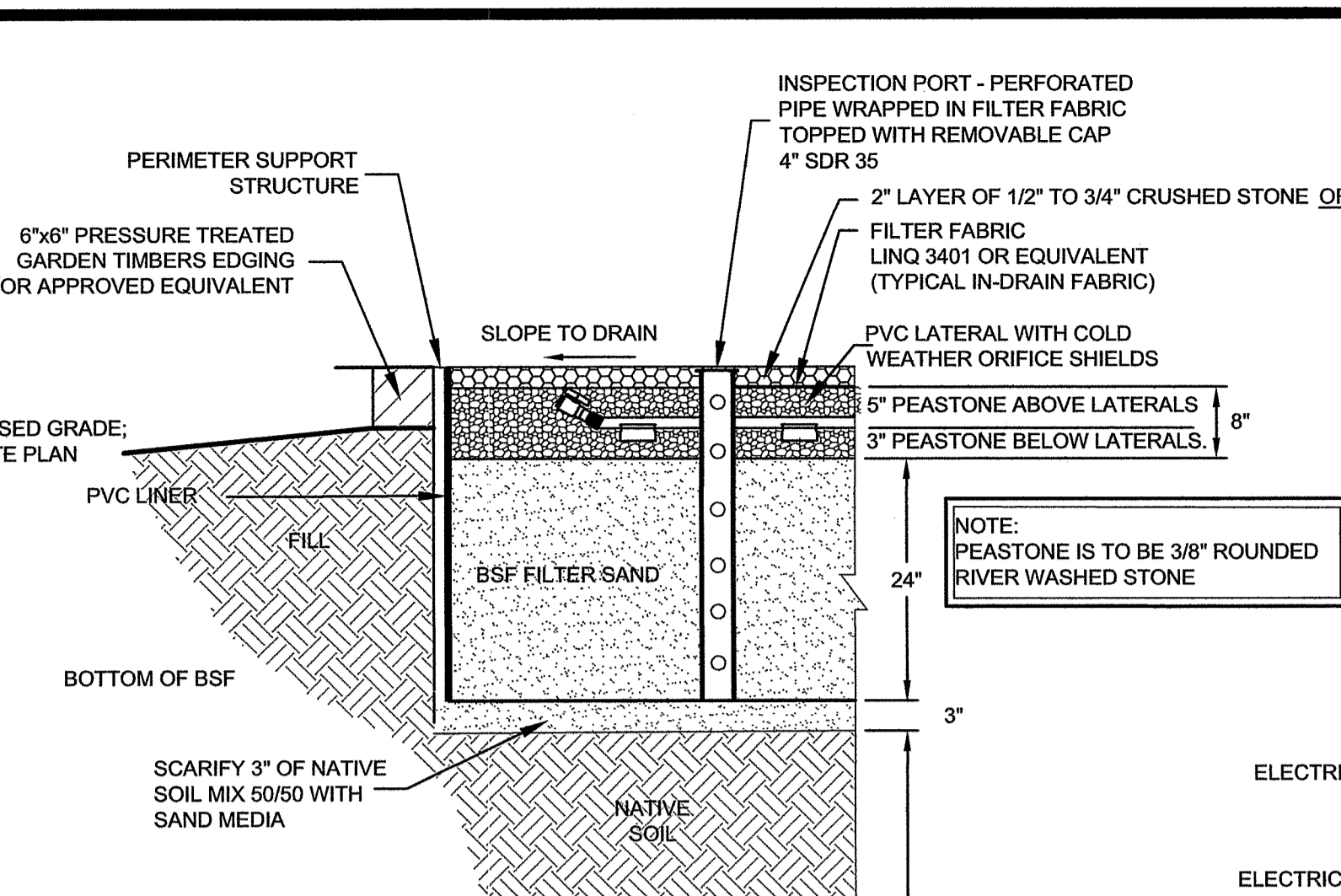
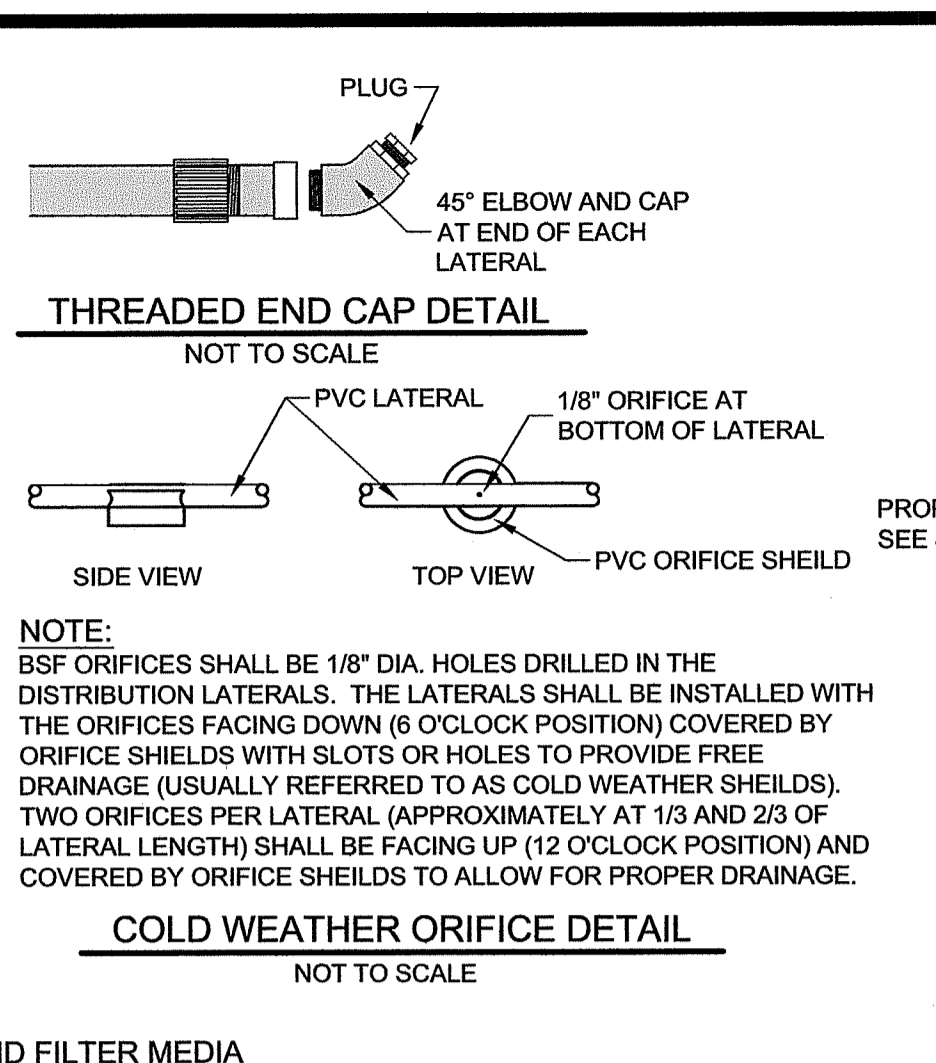
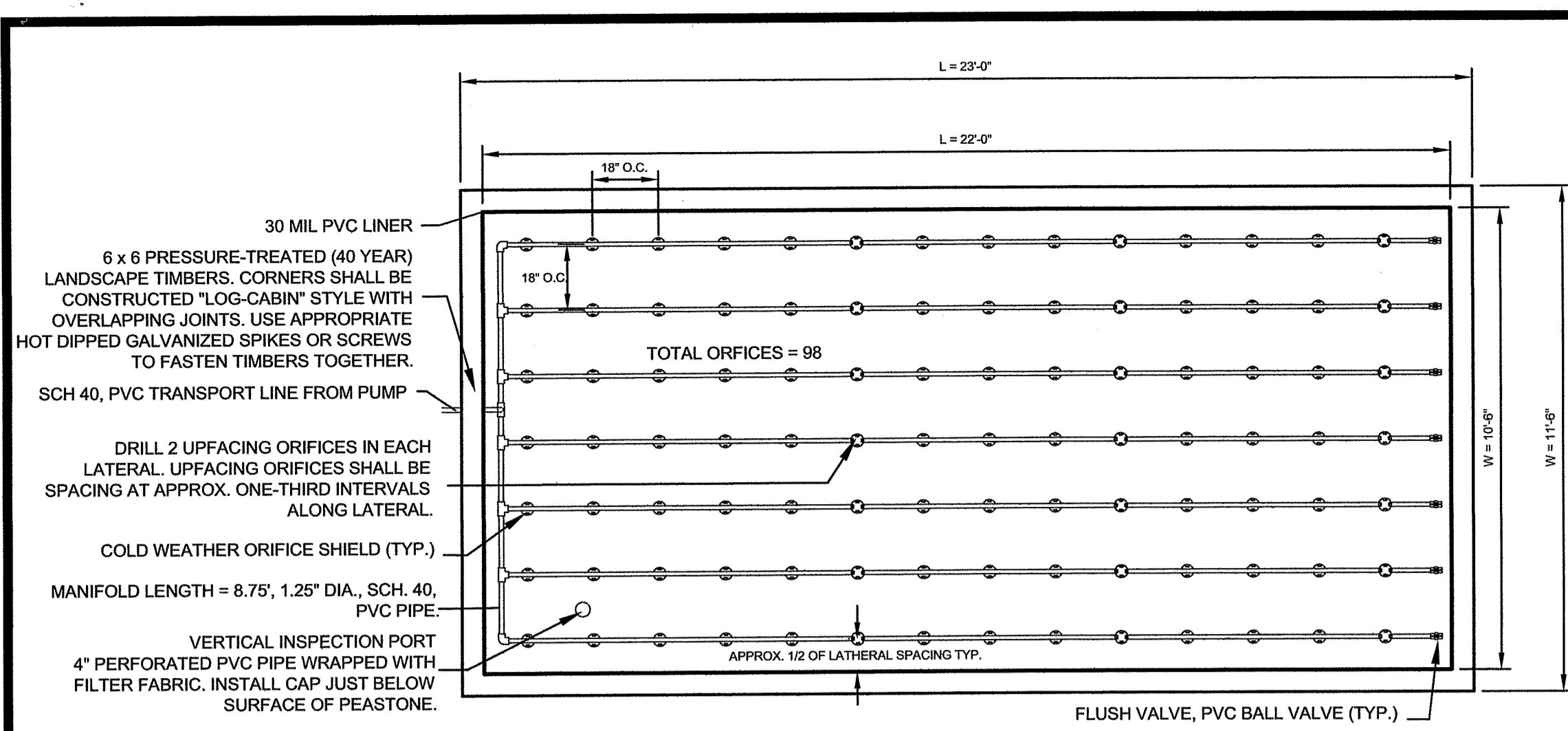
ADDRESS: 167-168 GARDNER RD IN THE TOWN OF SOUTH KINGSTOWN, RI

FEB 20, 2019
DESIGNED BY: JEFFREY K. BALCH, P.L.S.
SCALE: 1" = 20'

DRAWN BY: IVB
CHECKED BY: JKB
DATE: 5/16/2019

JEFFREY K. BALCH
No. 1839
PROFESSIONAL LAND SURVEYOR

SHEET 1 OF 24



30 MIL PVC LINER
6 x 6 PRESSURE-TREATED (40 YEAR) LANDSCAPE TIMBERS. CORNERS SHALL BE CONSTRUCTED "LOG-CABIN" STYLE WITH OVERLAPPING JOINTS. USE APPROPRIATE HOT DIPPED GALVANIZED SPIKES OR SCREWS TO FASTEN TIMBERS TOGETHER.
SCH 40, PVC TRANSPORT LINE FROM PUMP
DRILL 2 UPFACING ORIFICES IN EACH LATERAL. UPFACING ORIFICES SHALL BE SPACING AT APPROX. ONE-THIRD INTERVALS ALONG LATERAL.
COLD WEATHER ORIFICE SHIELD (TYP.)
MANIFOLD LENGTH = 8.75', 1.25" DIA., SCH. 40, PVC PIPE
VERTICAL INSPECTION PORT 4" PERFORATED PVC PIPE WRAPPED WITH FILTER FABRIC. INSTALL CAP JUST BELOW SURFACE OF PEASTONE.

FLUSH VALVE, PVC BALL VALVE (TYP.)

PLACE 3" OF PEASTONE BENEATH LATERALS. INSTALL LATERALS AND COVER WITH AN ADDITIONAL 5" LAYER OF PEASTONE.

NOTE:
BSF ORIFICES SHALL BE 1/8" DIA. HOLES DRILLED IN THE DISTRIBUTION LATERALS. THE LATERALS SHALL BE INSTALLED WITH THE ORIFICES FACING DOWN (6 O'CLOCK POSITION) COVERED BY ORIFICE SHIELDS WITH SLOTS OR HOLES TO PROVIDE FREE DRAINAGE (USUALLY REFERRED TO AS COLD WEATHER SHIELDS). TWO ORIFICES PER LATERAL (APPROXIMATELY AT 1/3 AND 2/3 OF LATERAL LENGTH) SHALL BE FACING UP (12 O'CLOCK POSITION) AND COVERED BY ORIFICE SHIELDS TO ALLOW FOR PROPER DRAINAGE.

NOTE:
PEASTONE IS TO BE 3/8" ROUNDED RIVER WASHED STONE

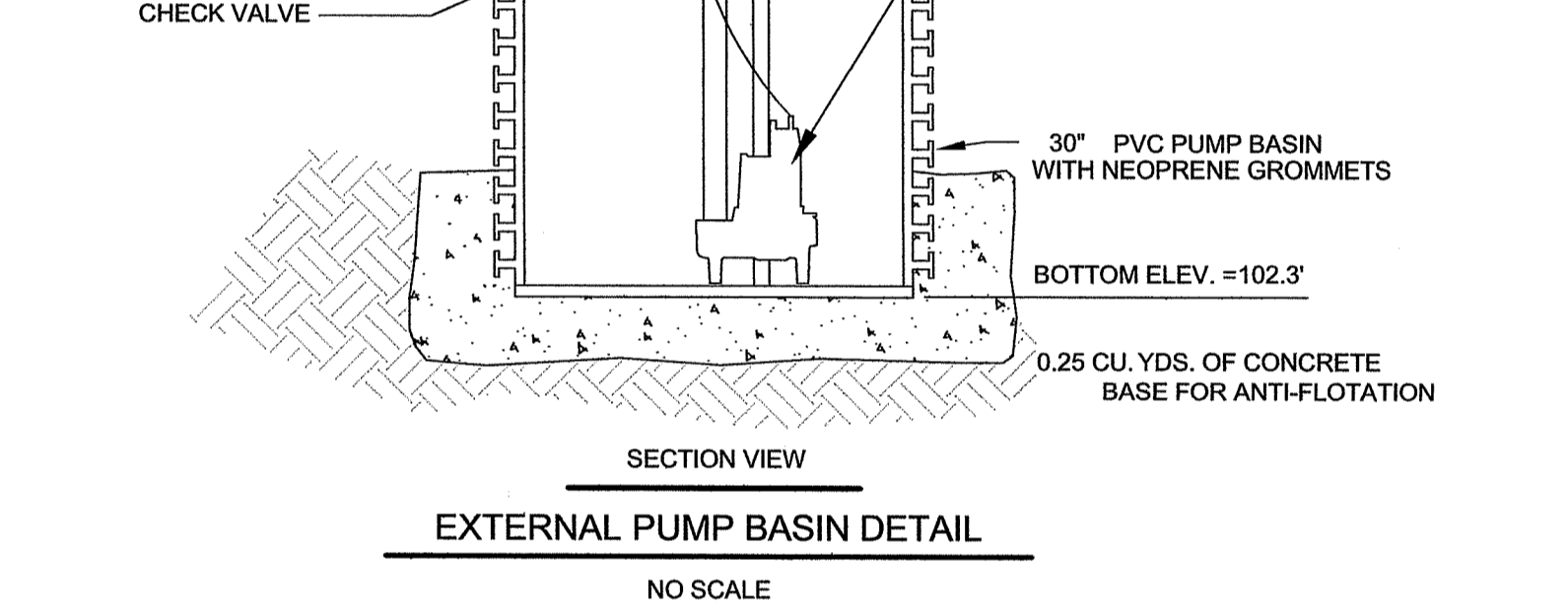
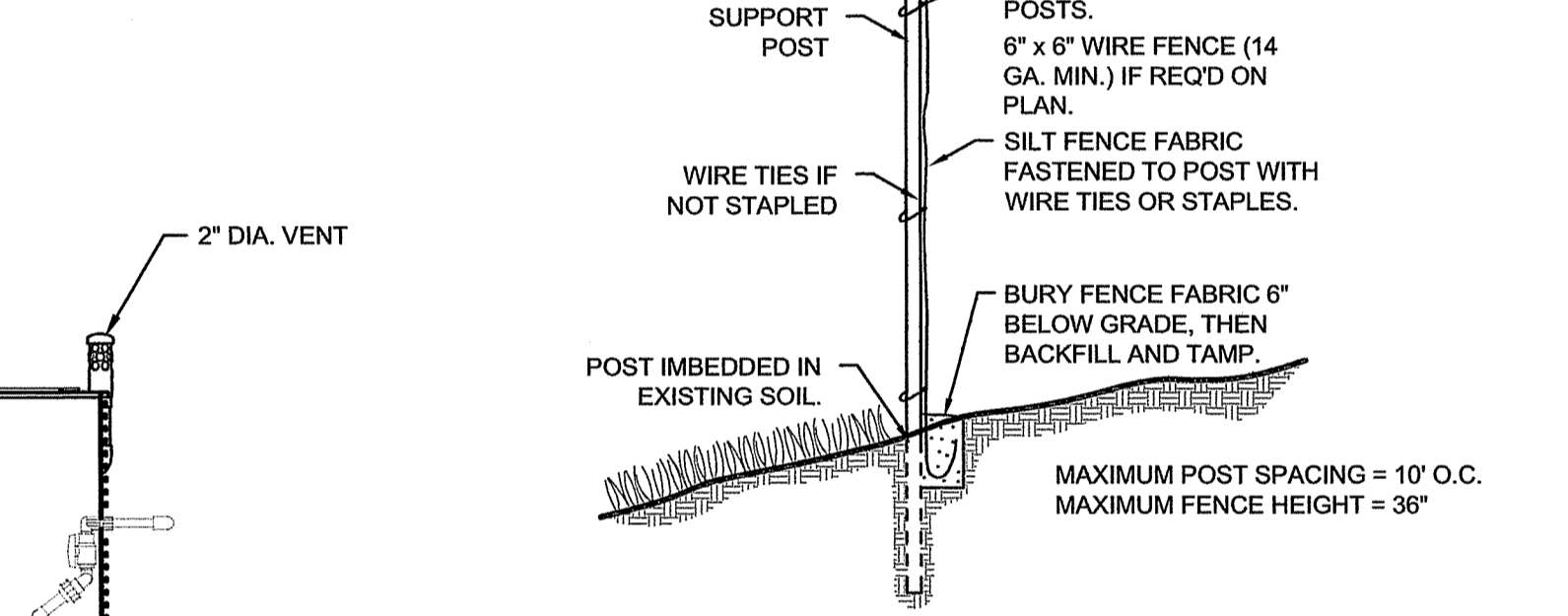
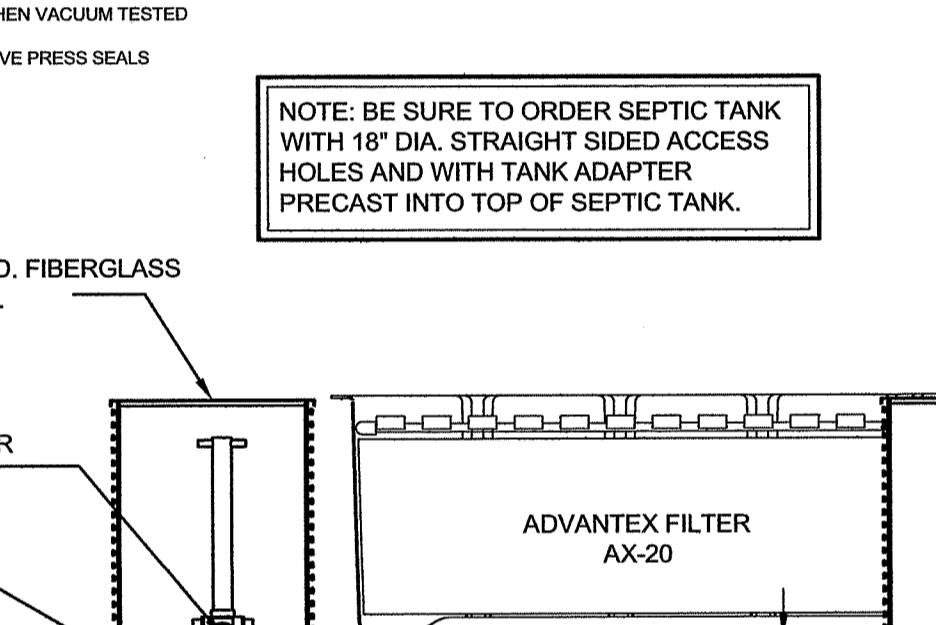
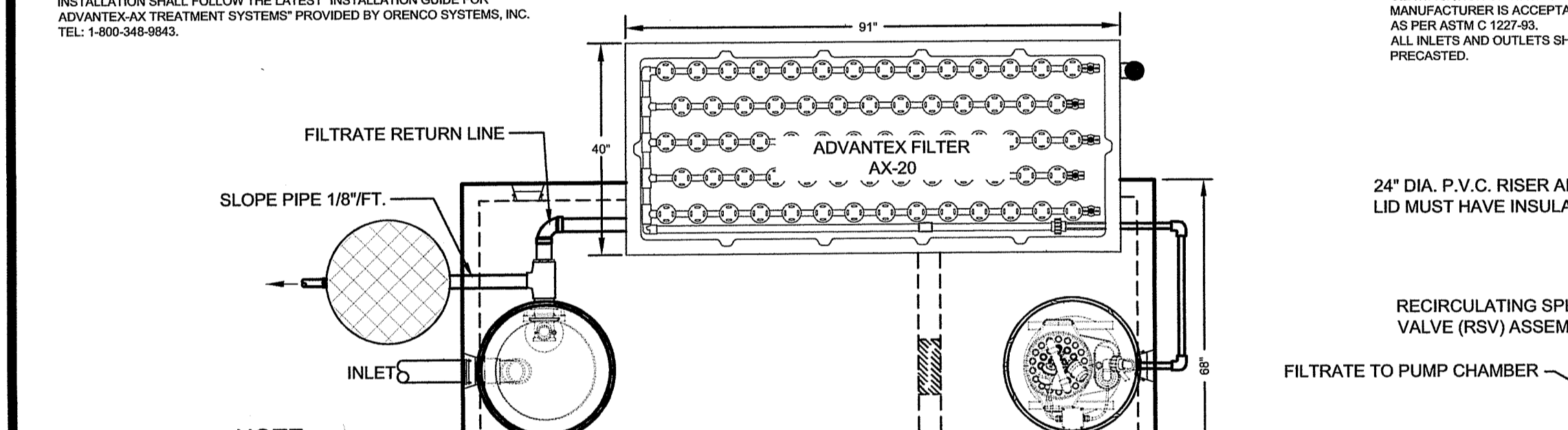
NOTE:
ULTRAVIOLET DISINFECTION UNIT TO BE INSTALLED AT PUMP CHAMBER INLET. TO PROPERLY INSTALL THE UNIT THERE MUST BE A MINIMUM OF 20" BETWEEN THE INLET AND CHAMBER COVER, AND A MINIMUM OF 36" FROM INLET TO BOTTOM OF CHAMBER.

BOTTOMLESS SAND FILTER:
A SERIES OF 1/8" DIAMETER HOLES (ORIFICES) SHALL BE DRILLED WITH A NEW SHARP 1/8" DRILL BIT TO MAKE CLEAN HOLES, FREE OF RESIDUAL DEBRIS OR OBSTRUCTIONS IN THE DISTRIBUTION LATERALS AND SPACED EVERY 14 INCHES.
EACH LATERAL SHALL BE INSTALLED WITH ALL ORIFICES POINTING DOWN (6 O'CLOCK POSITION) EXCEPT FOR 2 UPFACING ORIFICES (12 O'CLOCK - SPACED AT 1/3 AND 2/3 LENGTH). EACH ORIFICE SHALL HAVE ORIFICE SHIELDS WITH SLOTS OR HOLES TO PROVIDE FREE DRAINAGE (USUALLY REFERRED TO AS COLD WEATHER ORIFICE SHIELDS) SEE DETAILS.
THE TRANSPORT LINE SHALL BE SLOPED (WITH NO SAGS OR DIPS) TO PROVIDE FREE-DRAINING OF THE EFFLUENT TO PREVENT FREEZING WITHIN THE LINE.
INSTALLATION OF THE BOTTOMLESS SAND FILTER SHALL FOLLOW THE LATEST RDEMOWTS "GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS"

SAND FILTER MEDIA
BOTTOMLESS SAND FILTER MEDIA SHALL BE ASTM C93 SAND MEETING ALL OF THE FOLLOWING ADDITIONAL REQUIREMENTS:
-EFFECTIVE SIZE: D₁₀ = 1.35mm
-UNIFORMITY COEFFICIENT: 3.0 TO 4.0
-MAXIMUM ALLOWABLE FINES PASSING A #200 SIEVE SHALL BE 1%
OR AS SPECIFIED ON FIGURE 9 OF THE MOST RECENTLY PUBLISHED R.I.D.E.M. GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS.

EXTERNAL PUMP CHAMBER:
THE PUMP CHAMBER SHALL HOUSE A EFFLUENT PUMP MANUFACTURED BY ORENCO SYSTEMS, INC. MODEL PPK350 (OR APPROVED EQUIVALENT) AND SHALL BE INSTALLED ACCORDING TO DETAILS PROVIDED AND TO MANUFACTURERS SPECIFICATIONS. SEE TYPICAL PUMP CHAMBER DETAIL.

NOTE:
DISCHARGE PUMP BASIN, SEE SITE PLAN FOR SPECIFIC LOCATION AND SEPARATE DETAIL FOR SPECIFICATIONS AND INSTALLATION.

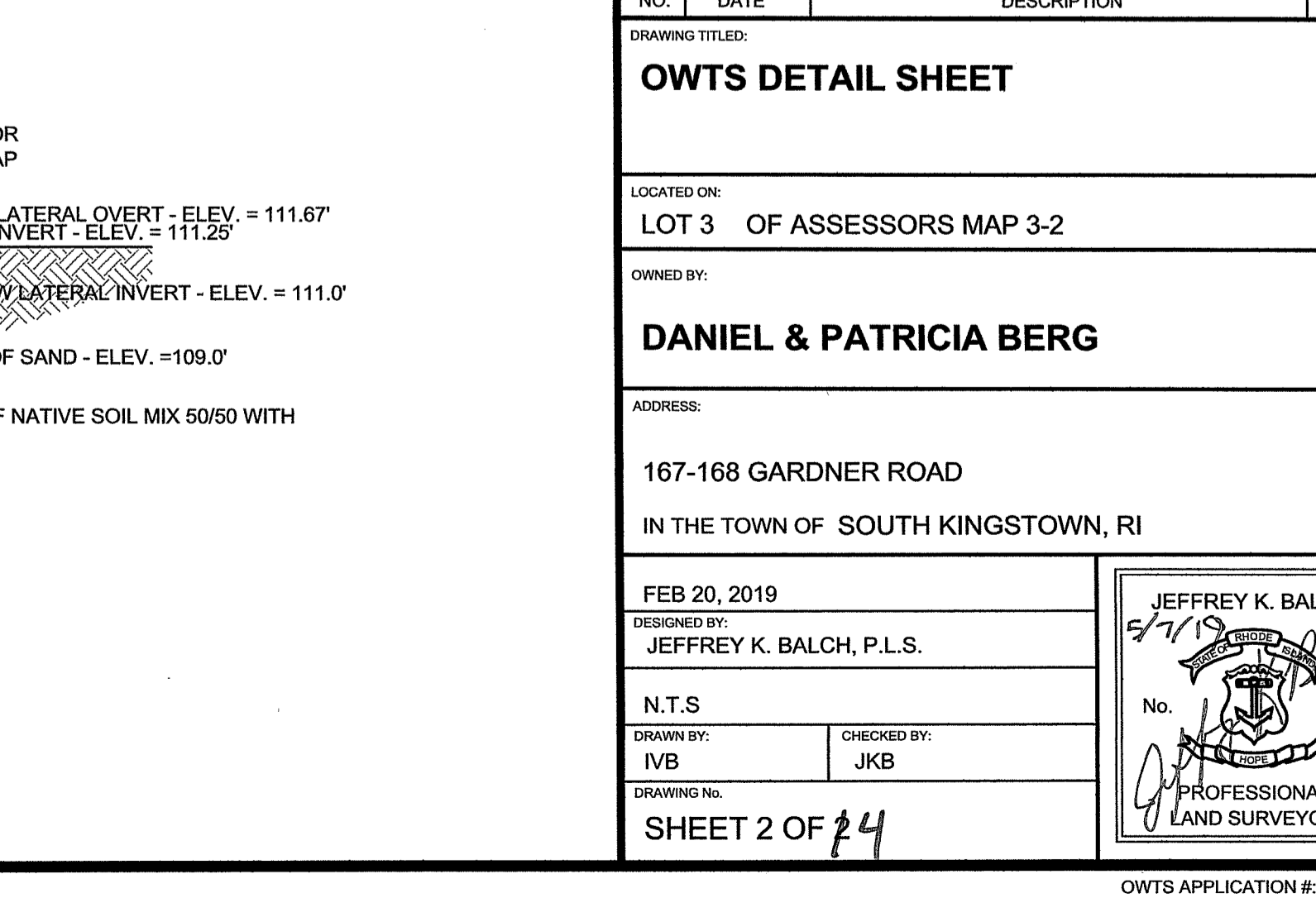
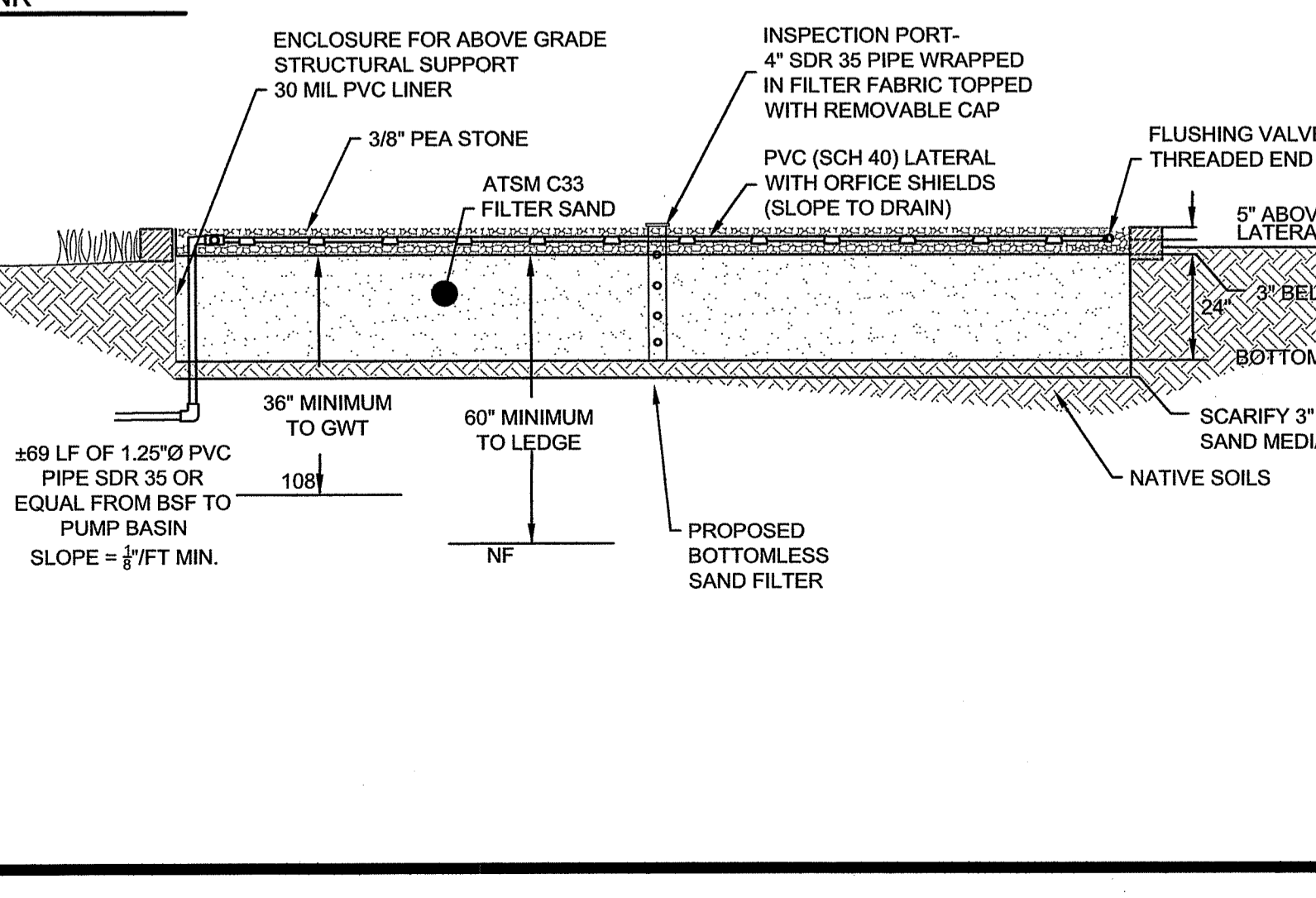
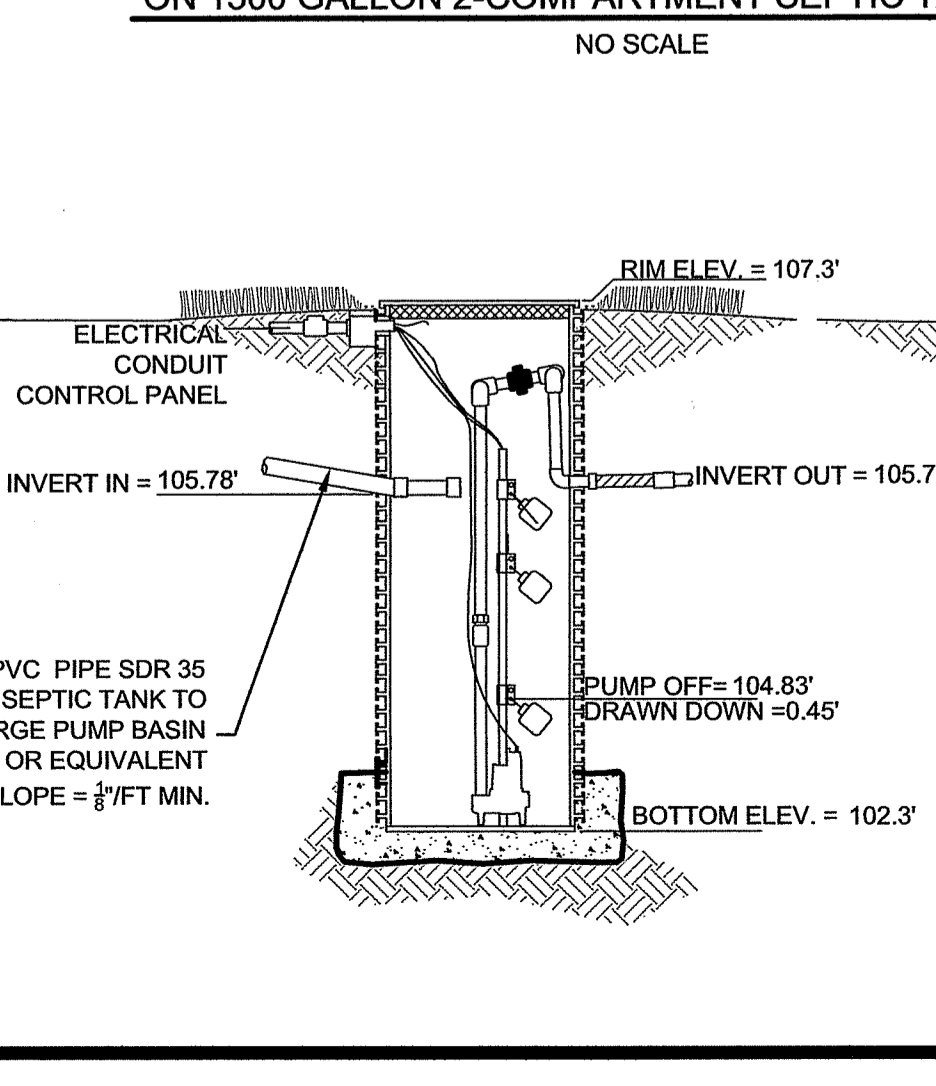
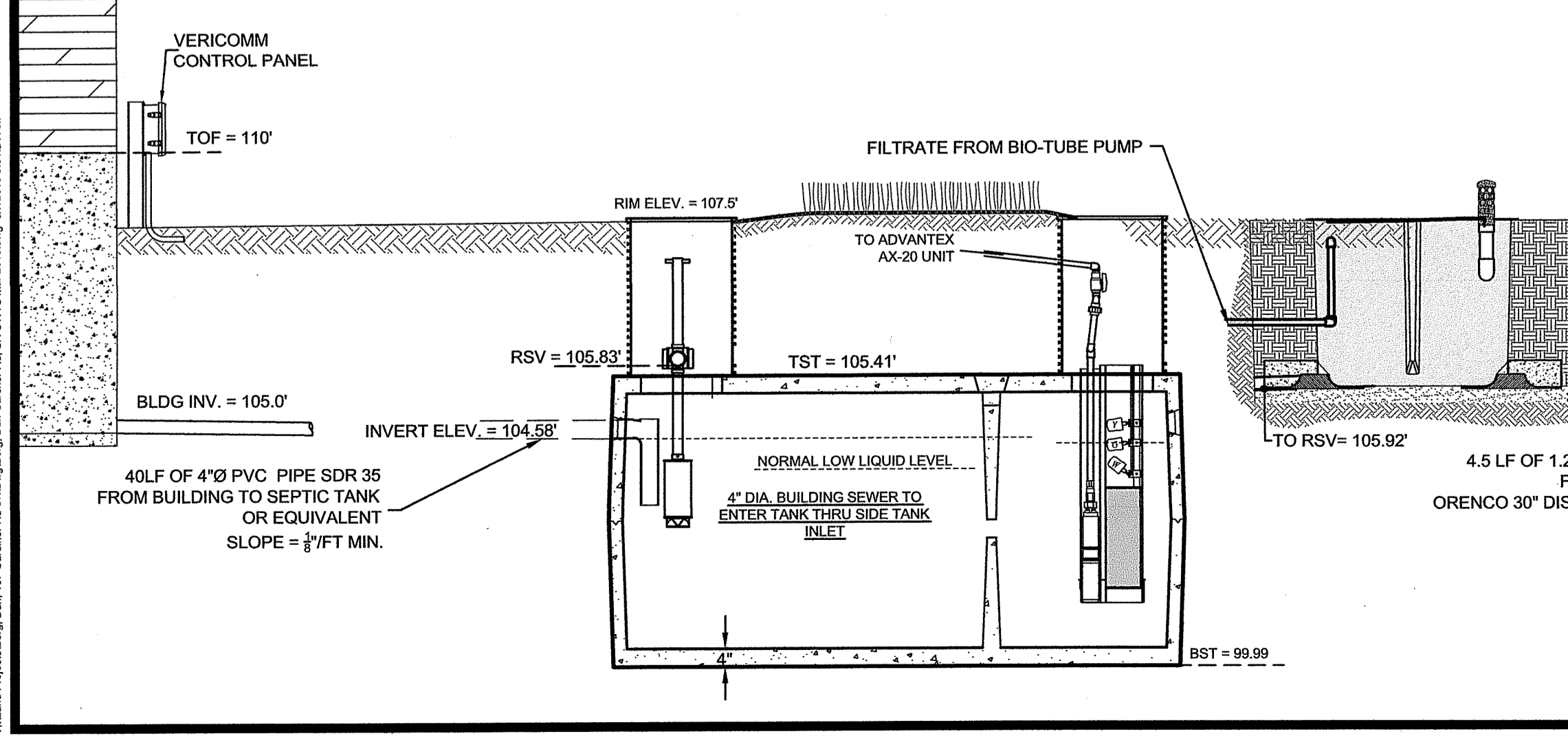
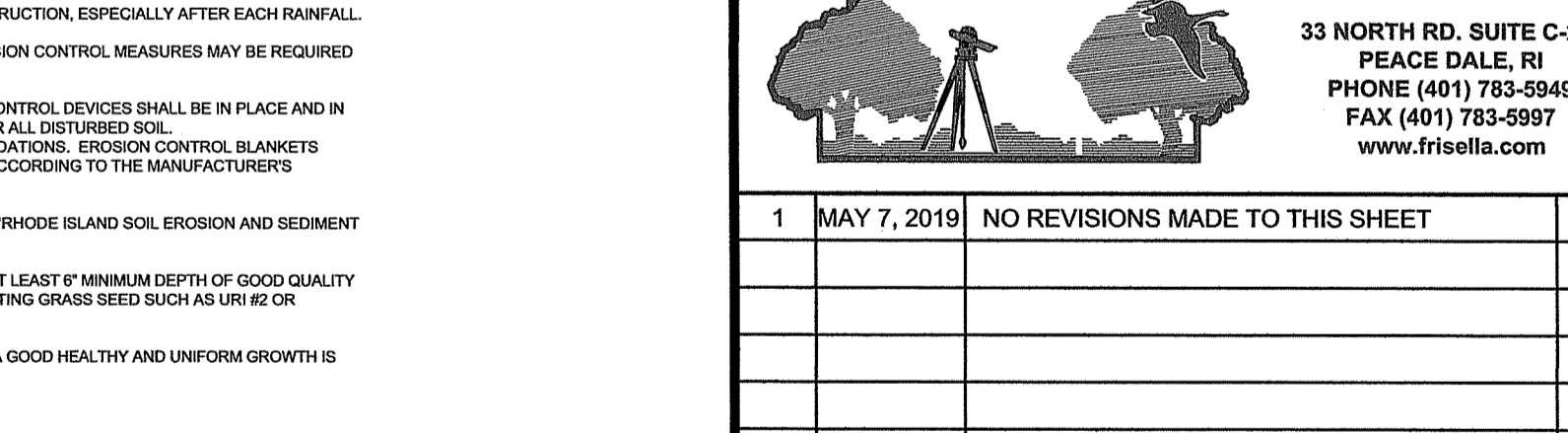
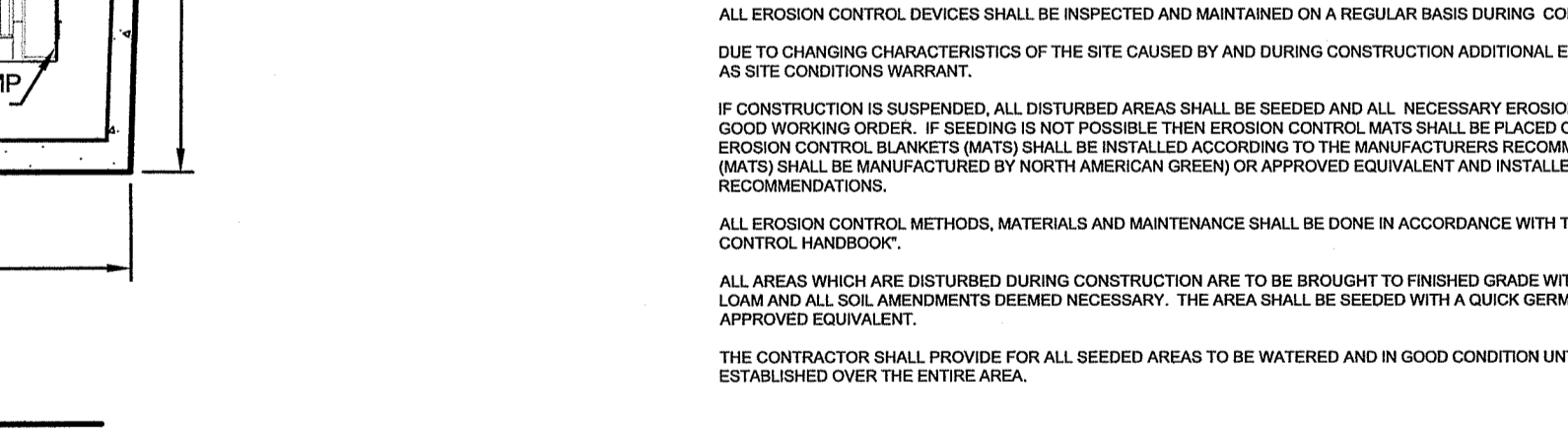
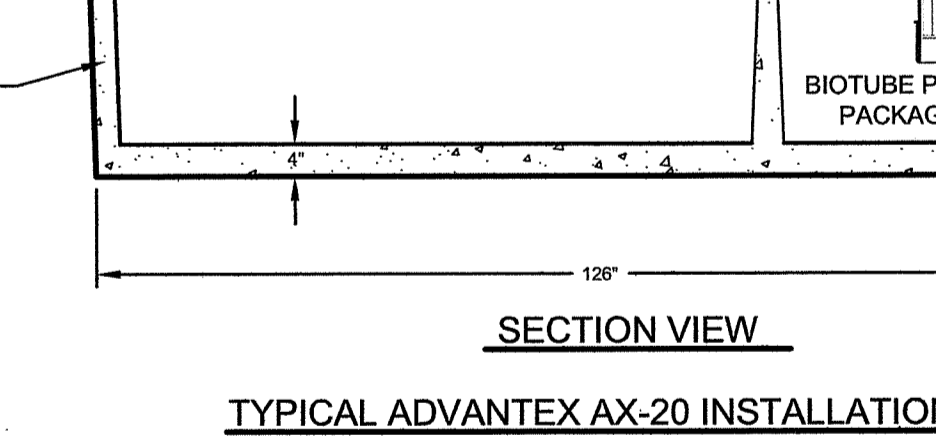


CONTROL PANEL:
THE CONTROL PANEL SHALL BE MANUFACTURED BY ORENCO SYSTEMS, INC. MODEL VERICOMM AXB. THE PROGRAMMABLE TIMER FOR THE RECIRCULATING TANK PUMP SHALL BE SET TO THE DEFAULT SETTINGS AS SUPPLIED BY THE MANUFACTURER.
THE EXTERNAL PUMP CHAMBER SHALL BE DEMAND Dosed AND HAVE: THE FLOATS SET AS SHOWN IN THE PUMP CHAMBER DETAIL. THE HIGH AND/OR LOW LEVEL ALARMS SHALL BE IN THE CONTROL PANEL.

NOTE: BE SURE TO ORDER SEPTIC TANK WITH 18" DIA. STRAIGHT SIDED ACCESS HOLES AND WITH TANK ADAPTER PRECAST INTO TOP OF SEPTIC TANK.

EROSION AND SEDIMENTATION CONTROL NOTES:
TEMPORARY AND/OR PERMANENT EROSION CONTROL DEVICES SUCH AS BAILED HAY, SILT FENCING, ETC. SHALL BE INSTALLED PRIOR TO ANY CLEARING OR EXCAVATION. HAY BAILES OR SILT FENCING SHALL BE PLACED IMMEDIATELY DOWN SLOPE AND ADJOINING AREAS OF SOIL DISTURBANCE AND STOPGAPES. INSTALLATION OF ALL EROSION CONTROL DEVICES SHALL BE CONDUCTED IN ACCORDANCE TO DETAIL SPECIFICATIONS.
CLEARING OF EXISTING VEGETATION SHALL BE DONE IN A CONTROLLED MANNER SO AS TO AVOID EXTENSIVE AREAS OF DEFOLIATED TERRAIN SUBJECT TO EROSION. AREAS SO DISTURBED SHALL BE BROUGHT TO FINAL GRADES AND STABILIZED AS SOON AS POSSIBLE.
DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL.
ALL EROSION CONTROL DEVICES SHALL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS DURING CONSTRUCTION, ESPECIALLY AFTER EACH RAINFALL. DUE TO CHANGING CHARACTERISTICS OF THE SITE CAUSED BY AND DURING CONSTRUCTION ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE CONDITIONS WARRANT.
IF CONSTRUCTION IS SUSPENDED, ALL DISTURBED AREAS SHALL BE SEEDED AND ALL NECESSARY EROSION CONTROL DEVICES SHALL BE IN PLACE AND IN GOOD WORKING ORDER. IF SEEDING IS NOT POSSIBLE THEN EROSION CONTROL MATS SHALL BE PLACED OVER ALL DISTURBED SOIL. EROSION CONTROL BLANKETS (MATS) SHALL BE MANUFACTURED BY NORTH AMERICAN GREEN OR APPROVED EQUIVALENT AND INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
ALL EROSION CONTROL METHODS, MATERIALS AND MAINTENANCE SHALL BE DONE IN ACCORDANCE WITH THE "RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK".
ALL AREAS WHICH ARE DISTURBED DURING CONSTRUCTION ARE TO BE BROUGHT TO FINISHED GRADE WITH AT LEAST 6" MINIMUM DEPTH OF GOOD QUALITY LOAM AND ALL SOIL AMENDMENTS DEEMED NECESSARY. THE AREA SHALL BE SEEDED WITH A QUICK GERMINATING GRASS SEED SUCH AS UR1 #2 OR APPROVED EQUIVALENT.
THE CONTRACTOR SHALL PROVIDE FOR ALL SEEDING AREAS TO BE WATERED AND IN GOOD CONDITION UNTIL A GOOD HEALTHY AND UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA.

NOTE: ADVANTEX UNITS ARE SUPPLIED WITH ANTI FLOTATION FLANGES WHICH ARE TO BE INSTALLED PER MANUFACTURERS INSTALLATION GUIDELINES



FRISSELLA - BALCH & ASSOCIATES
LAND SURVEYORS
33 NORTH RD. SUITE C-201
PEACE DALE, RI
PHONE (401) 783-5949
FAX (401) 783-5997
www.frissella.com

NO.	DATE	DESCRIPTION	BY
1	MAY 7, 2019	NO REVISIONS MADE TO THIS SHEET	IB

DRAWING TITLED:
OWTS DETAIL SHEET

LOCATED ON:
LOT 3 OF ASSESSORS MAP 3-2

OWNED BY:
DANIEL & PATRICIA BERG

ADDRESS:
167-168 GARDNER ROAD
IN THE TOWN OF SOUTH KINGSTOWN, RI

FEB 20, 2019
DESIGNED BY:
JEFFREY K. BALCH, P.L.S.

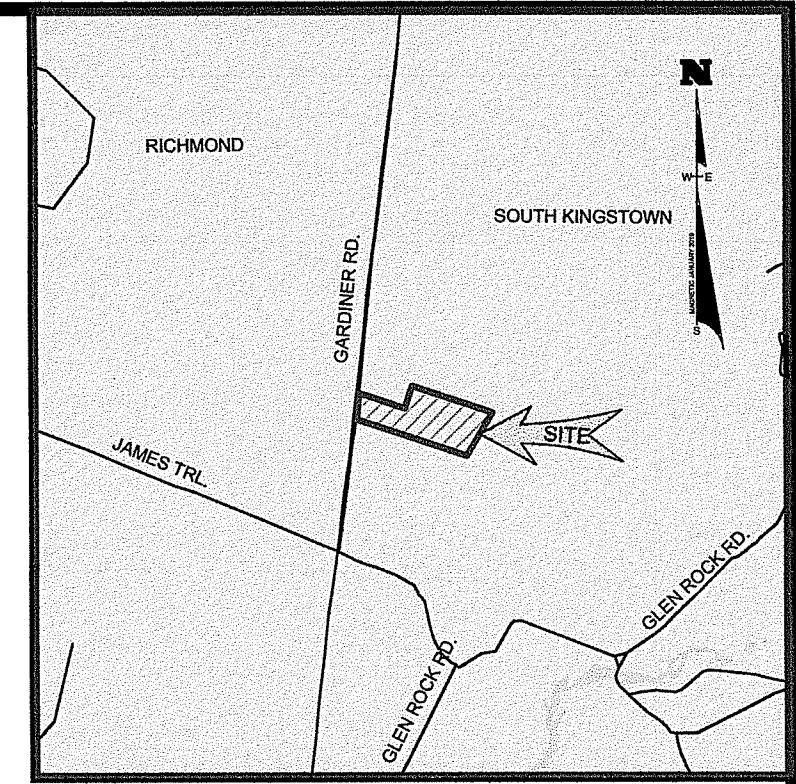
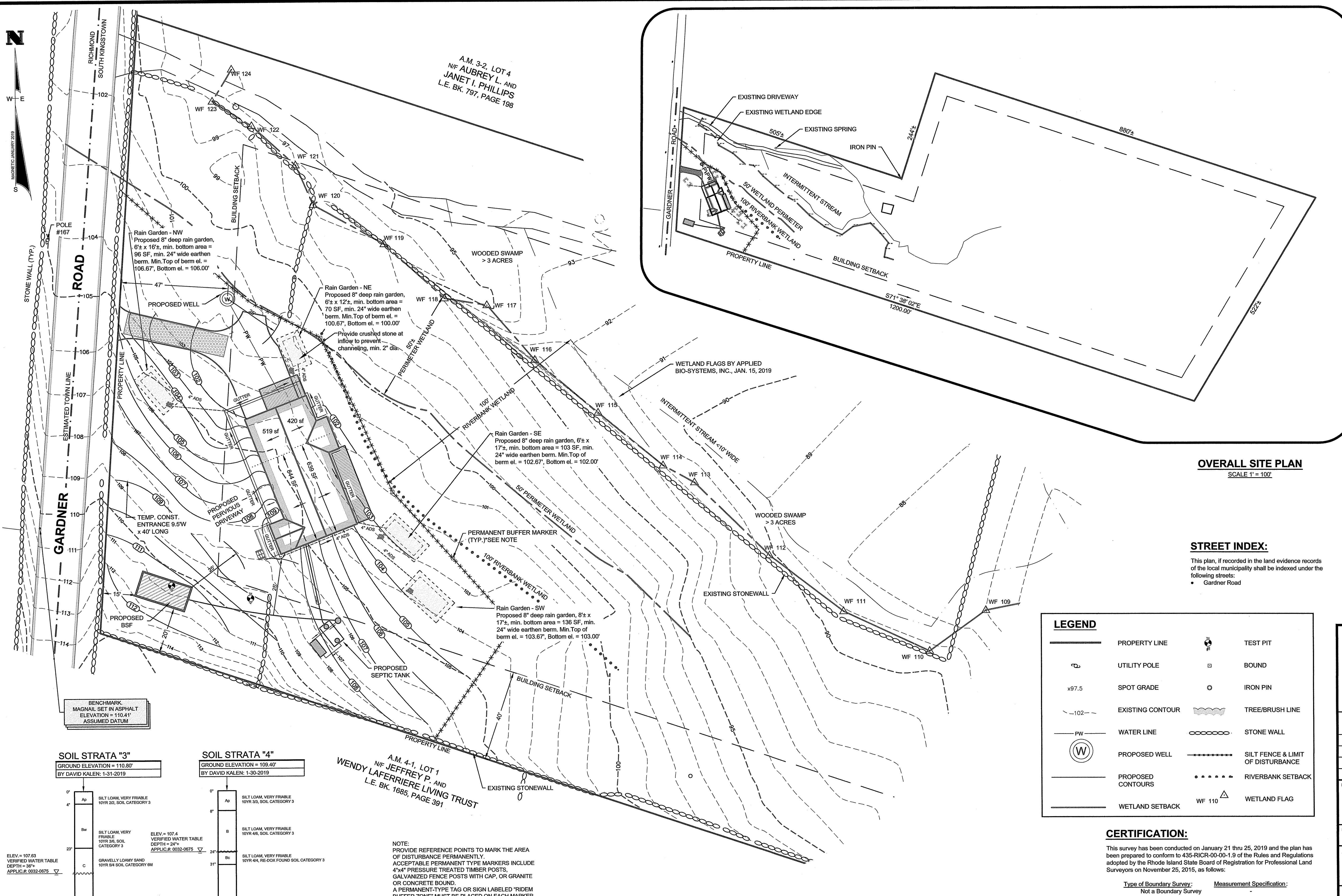
N.T.S.
DRAWN BY:
IVB
CHECKED BY:
JKB

JEFFREY K. BALCH
No. 1839
PROFESSIONAL
LAND SURVEYOR

SHEET 2 OF 24

OWTS APPLICATION #: 0032-0075

H:\land\Projects\1839_Dan_Gardner_Rd_BK_OWTS_May_2019.dwg, 5/17/2019 9:31:24 AM
 H:\land\Projects\1839_Dan_Gardner_Rd_BK_OWTS_May_2019.dwg, 5/17/2019 9:31:24 AM



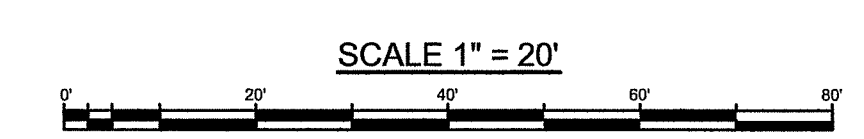
LOCATION PLAN
SCALE: 1" = 2000'

SITE INFORMATION

LOT:	3-2
ASSESSOR'S MAP:	3
LOT AREA:	542,311 SF
ZONING DISTRICT:	R-80
TOWN REQUIREMENTS	
LOT AREA:	80,000 SF
LOT WIDTH:	200 FEET
FRONT SETBACK:	50 FEET
SIDE SETBACK:	40 FEET
REAR SETBACK:	50 FEET
SITE COVERAGE:	20%
BUILDING HEIGHT:	35 FEET
PROPOSED	
PROPOSED HOUSE INCLUDING DECKS:	1973 SF
TOTAL PROPOSED COVERAGE AREA:	1,973 SF
TOTAL PROPOSED SITE COVERAGE:	0.4%

OVERALL SITE PLAN
SCALE 1" = 100'

STREET INDEX:
This plan, if recorded in the land evidence records of the local municipality shall be indexed under the following streets:
• Gardner Road



LEGEND

—	PROPERTY LINE	⊙	TEST PIT
⊙	UTILITY POLE	□	BOUND
x97.5	SPOT GRADE	○	IRON PIN
-102-	EXISTING CONTOUR	—	TREE/BRUSH LINE
PW	WATER LINE	—	STONE WALL
⊙	PROPOSED WELL	—	SILT FENCE & LIMIT OF DISTURBANCE
—	PROPOSED CONTOURS	—	RIVERBANK SETBACK
—	WETLAND SETBACK	WF 110	WETLAND FLAG

SOIL STRATA "3"
GROUND ELEVATION = 110.80'
BY DAVID KALEN: 1-31-2019

SOIL STRATA "4"
GROUND ELEVATION = 109.40'
BY DAVID KALEN: 1-30-2019

A.M. 4-1, LOT 1 W/F JEFFREY P. AND WENDY LAFERRIERE LIVING TRUST
L.E. BK. 1685, PAGE 391

NOTE:
PROVIDE REFERENCE POINTS TO MARK THE AREA OF DISTURBANCE PERMANENTLY. ACCEPTABLE PERMANENT TYPE MARKERS INCLUDE 4"x4" PRESSURE TREATED TIMBER POSTS, GALVANIZED FENCE POSTS WITH CAP, OR GRITMITE OR CONCRETE BOUND. A PERMANENT-TYPE TAG OR SIGN LABELED "TRIMED BUFFER ZONE" MUST BE PLACED ON EACH MARKER

CERTIFICATION:

This survey has been conducted on January 21 thru 25, 2019 and the plan has been prepared to conform to 435-RICR-00-00-1.9 of the Rules and Regulations adopted by the Rhode Island State Board of Registration for Professional Land Surveyors on November 25, 2015, as follows:

Type of Boundary Survey:	Measurement Specification:
Not a Boundary Survey	-
Other Type of Survey:	III
Data Accumulation Survey (Based on onsite instrument survey)	
Topographic Standard:	T-2

The purpose for the conduct of the survey and for the preparation of the plan is as follows:
This plan is intended for the design and permitting of an Onsite Wastewater Treatment System for the subject parcel.

By: *Jeffrey K. Balch* Date: 5/7/2019
Jeffrey K. Balch, RI Professional Land Surveyor #1839
Certificate of Authorization #A535.

FRISSELLA - BALCH & ASSOCIATES
LAND SURVEYORS
33 NORTH RD, SUITE C-201
PEACE DALE, RI
PHONE (401) 783-5949
FAX (401) 783-5997
www.frisella.com

1	MAY 7, 2019	REVISED DRIVEWAY LOCATION, ADDED BUFFER MARKERS AND NOTES	IB
NO.	DATE	DESCRIPTION	BY

SITE PLAN OF PROPOSED HOUSE and ONSITE EROSION & STORMWATER CONTROL

LOCATED ON:
LOT 3 OF ASSESSORS MAP 3-2

OWNED BY:
DANIEL & PATRICIA BERG

ADDRESS:
IN THE TOWN OF SOUTH KINGSTOWN, RI

FEB 20, 2019
DESIGNED BY:
JEFFREY K. BALCH, P.L.S.
SCALE: 1" = 20'
DRAWN BY: IVB
CHECKED BY: JKB
DRAWING NO.: SHEET 3 OF 4

JEFFREY K. BALCH
No. 1839
PROFESSIONAL LAND SURVEYOR

