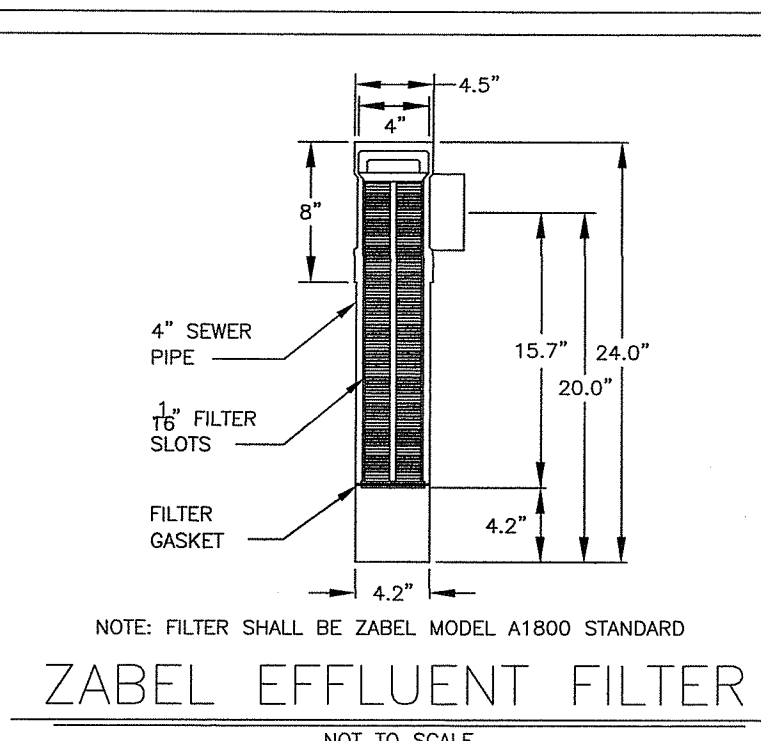


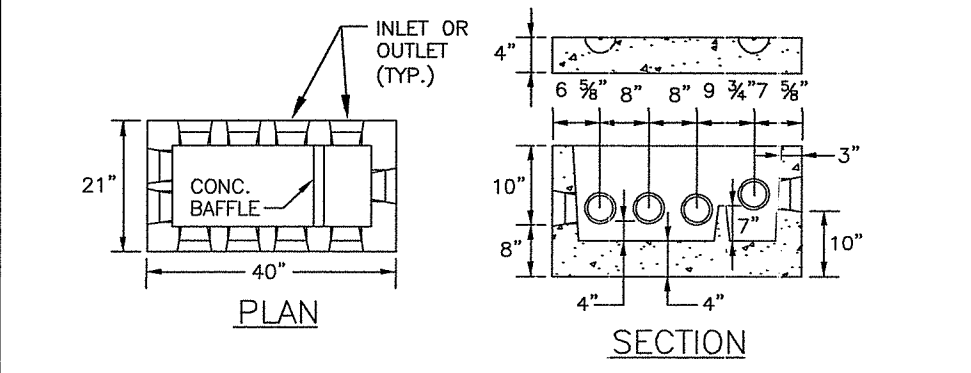
- NOTES**
- REFERENCE IS MADE TO EXISTING CONDITIONS PLAN PREPARED BY ATLAS LAND SURVEYING DATED JUNE 24, 2019. THIS PLAN STATES THIS LOT LIES WITHIN ZONE 'X' ON MAP 44007C0281G, EFFECTIVE DATE 3/2/2009.
 - SUBJECT SITE ALSO FRONTS ALONG SLACK RESERVOIR WHICH IS IDENTIFIED AS A 'ZONE A' FLOOD ZONE WITHOUT A BASE FLOOD ELEVATION.
 - WETLAND FLAGS HUNG ON 6/12/19, REFER TO EXISTING CONDITIONS PLAN PREPARED BY ATLAS LAND SURVEYING NOTED ABOVE.
 - SUBJECT SITE LIES IN THE R-40 ZONE.
 - OFFSITE STRUCTURES LOCATED BY AERIAL PHOTO.

Residential Districts and Use	Minimum Lot (square feet)	Minimum Lot Width and Frontage (feet)	Minimum Yard Depth (feet)	Front (feet)	Each Side (feet)	Rear (feet)	Main Structures (feet)	Accessory Structures (feet)	Building Coverage (%)
Residence R-40 Single-family dwelling	40,000	140	40	35	75	30	25		15%

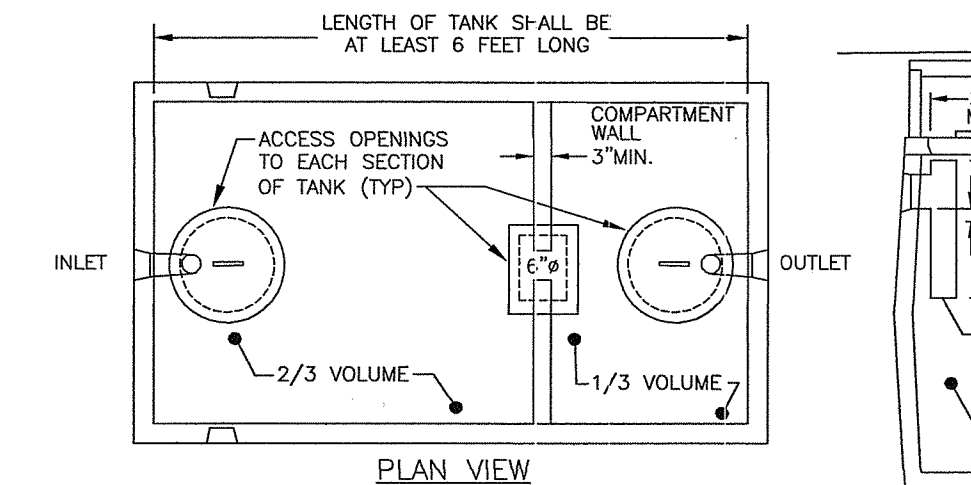
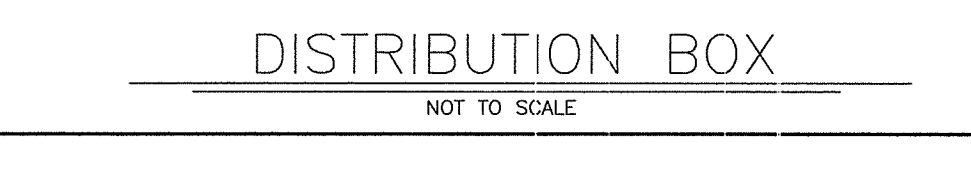


GRADING & DRAINAGE NOTES:

- CONTRACTOR TO FINE GRADE LOTS IN ACCORDANCE WITH STATE OF RHODE ISLAND ONE AND TWO FAMILY DWELLING CODE. LOTS SHALL BE GRADED SO THAT ADDITIONAL ACCUMULATION OF SURFACE WATER DOES NOT OCCUR ACROSS ADJOINING PROPERTY. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE OR OTHER POINT OF COLLECTION SO AS NOT TO CREATE A HAZARD. LOTS SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE AWAY FROM FOUNDATION WALLS SHALL FALL A MINIMUM OF 6" WITHIN THE FIRST 10 FEET. IMPERVIOUS SURFACES (DRIVEWAY) SHALL BE SLOPED AWAY FROM HOUSE AT A SLOPE OF 2% FOR AT LEAST 10 FEET.
- DO NOT ALLOW STREET RUNOFF TO ENTER SUBJECT PROPERTY.

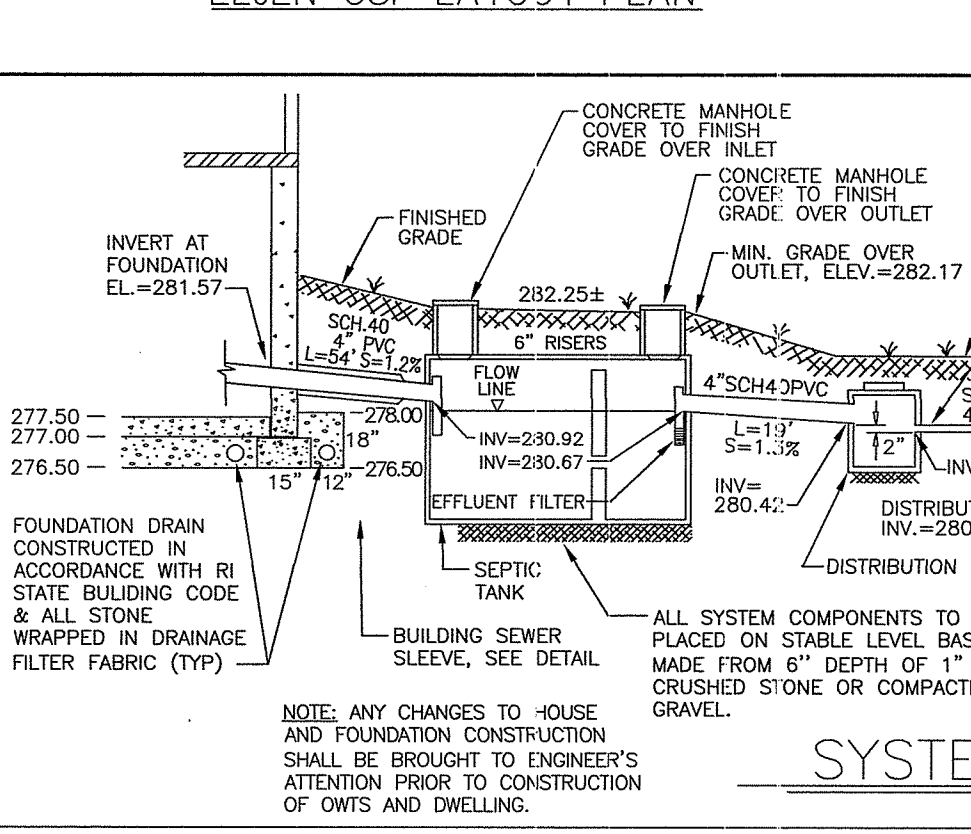
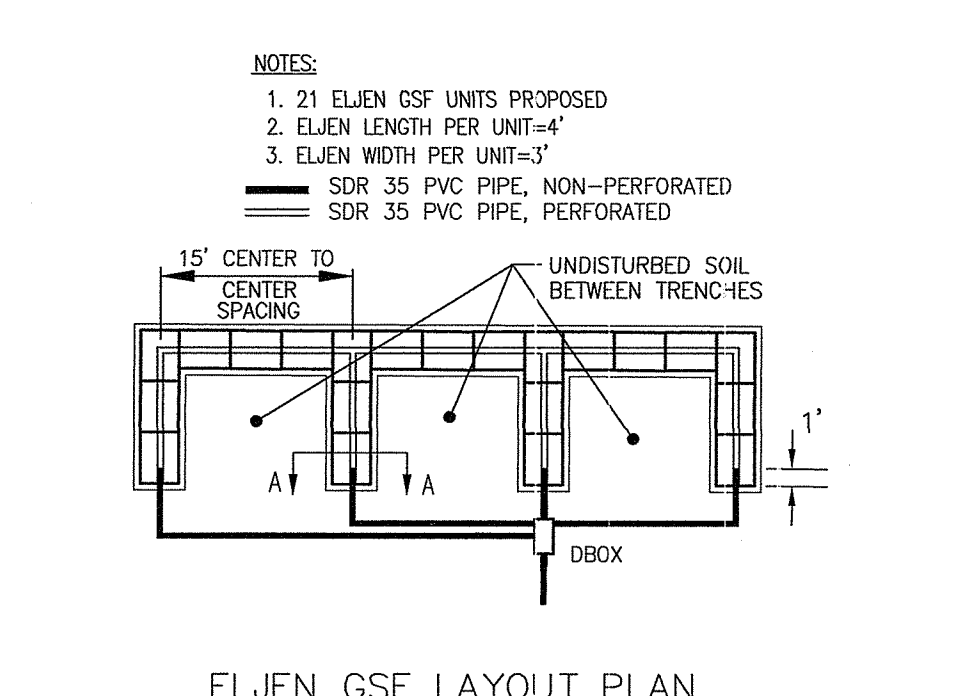


- DISTRIBUTION BOX NOTES:**
- D-BOX SHALL BE CONSTRUCTED OF 4,000 PSI CONCRETE, BE CAPABLE OF WITHSTANDING H-20 LOADINGS & A TOP LOAD CARRYING CAPACITY OF 300 LBS/SQ. INCH.
 - INLET SHALL ACCEPT 4" SCH 40 OR SDR 35 PVC PIPE.
 - OUTLETS SHALL HAVE STATE APPROVED SEALS THAT ACCEPT 4" SCH 40 OR 4" SDR 35 PVC PIPE.
 - EXTEND COVER TO WITHIN 12" OF FINISHED GRADE WITH CONCRETE RISERS AND PLACE A MARKER TO FINISH GRADE OVER THE COVER.
 - D-BOX SHALL BE PLACED ON A LEVEL AND COMPACTED BASE.
 - D-BOX SHALL HAVE A MINIMUM AREA OF 3 SQUARE FEET.
 - PROVIDE AN INLET TEE IF A CONCRETE BAYLE IS NOT PROVIDED.
 - THE DISTRIBUTION PIPES SHALL EXTEND INTO THE DISTRIBUTION BOX ONE (1) INCH.
 - DISTRIBUTION BOX AND ALL PIPE PENETRATIONS SHALL BE MADE WATER TIGHT.



- SEPTIC TANK NOTES:**
- SEPTIC TANK SHALL BE WATER TIGHT AND CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
 - PRECAST REINFORCED CONCRETE TANKS SHALL CONFORM WITH ASTM C-1227-02, LATEST EDITION.
 - TANKS SHALL BE PERMANENTLY MARKED AT THE INLET END OF THE TANK WITH DATE OF MANUFACTURE, NAME OF MANUFACTURER, CAPACITY, AN EXTERNAL LOADS FOR WHICH TANK IS DESIGNED TO RESIST.
 - A WARNING LABEL AT ALL OPENINGS SHALL BE PROVIDED WHICH READS "ENTRANCE INTO THE TANK COULD BE FATAL".
 - TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
 - TANK SHALL BE INSTALLED ON A LEVEL, STABLE BASE THAT WILL NOT SETTLE.
 - SURFACE WATER SHALL BE DIVERTED AWAY FROM THE TANK OPENINGS.
 - TANK SHALL NOT BE DAMAGED DURING BACKFILLING. BACKFILL MATERIAL SHALL BE FREE OF LARGE STONES, STUMPS, WASTE, CONSTRUCTION MATERIAL, RUBBISH, ORGANIC MATERIAL, AND FROZEN SOLIDS.
 - TANK AND RISERS SHALL BE TESTED FOR WATER TIGHTNESS BY EITHER VACUUM TESTING OR WATER PRESSURE TEST AS SPECIFIED IN THE 'RULES'. CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION THAT THE TEST PASSED PRIOR TO C.O.C.
 - JOINTS OF ALL CONCRETE TANKS SHALL BE SEALED WITH A 1" DIA. BUTYL RUBBER SEALANT OR APPROVED EQUAL.

SEPTIC TANK (SEE PLAN FOR SIZES)



- GENERAL NOTES:**
- THIS PLAN WAS PREPARED FOR RIDEM SEPTIC SYSTEM PERMIT ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER. THIS IS NOT THE BUILDING PERMIT PLOT PLAN.
 - ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 'RULES' ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, LATEST REVISION, AS REGULATED THROUGH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (THESE ARE REFERRED TO AS THE 'RULES') AND THE STATE OF RHODE ISLAND ONE & TWO FAMILY DWELLING BUILDING CODE.
 - THE PROPOSED ACTIVITIES (ARE OR ARE NOT X) UNDER THE RHODE ISLAND COASTAL RESOURCE MANAGEMENT COUNCIL'S JURISDICTION.
 - PUBLIC SEWERS (ARE OR ARE NOT X) LOCATED WITHIN 200 FEET OF THE PROPERTY LINE.
 - DRINKING WATER LINES (ARE OR ARE NOT X) LOCATED WITHIN 50 FEET OF THE PROPOSED OWTS. ALL DRINKING WATER LINES WITHIN 50 FEET OF THE PROPOSED OWTS HAVE BEEN SHOWN, IF PRESENT.
 - WATER SUPPLY IS BY (PUBLIC WATER SYSTEM OR PRIVATE WELL X).
 - THERE (ARE OR ARE NOT X) EXISTING AND PROPOSED PRIVATE DRINKING WATER WELLS LOCATED WITHIN THE SPECIFIED SETBACK DETAILED IN TABLE 22.5 OF THE 'RULES' + 100 FEET. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
 - THERE (ARE OR ARE NOT X) EXISTING AND PROPOSED WELLS SERVING NON-POTABLE USES WITHIN 100' OF THE OWTS. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
 - THERE (ARE OR ARE NOT X) EXISTING AND PROPOSED PUBLIC DRINKING WATER SUPPLY WELLS WITHIN 500 FEET OF THE PROPOSED OWTS. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN. THE TYPE OF PUBLIC WELL, IF PRESENT, IS NOTED NEXT TO THE WELL.
 - THERE (ARE OR ARE NOT X) WATERCOURSES AND/OR WETLANDS WITHIN 200 FEET OF THE PROPOSED OWTS. IF PRESENT, THE LOCATIONS ARE SHOWN ON THE PLAN.
 - THERE (ARE OR ARE NOT X) STORM AND SUBSURFACE DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS. SAID DRAINS (DO OR DO NOT X) DISCHARGE DIRECTLY OR INDIRECTLY INTO A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE 'RULES'.
 - THE PROPOSED OWTS (IS OR IS NOT X) LOCATED WITHIN THE WATERSHED OF A PUBLIC WATER SUPPLY.
 - THE PROPOSED OWTS (IS OR IS NOT X) LOCATED WITHIN A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE 'RULES' AT A DISTANCE TO THE NEAREST CRITICAL RESOURCE OF CONCERN IS FEET.
 - THERE (ARE OR ARE NOT X) EXISTING OWTS'S WITHIN 200 FEET OF ANY PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
 - EXISTING OWTS'S WITH A DESIGN FLOW GREATER THAN 1,000 GAL/DAY (ARE OR ARE NOT X) LOCATED WITHIN 400 FEET OF THE PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
 - THERE (ARE OR ARE NOT X) AREAS ON SUBJECT PROPERTY WHERE SOIL HAS BEEN EXCAVATED AND/OR WHERE STORM DEPOSITED SAND IN THE BACKGROUN ENVIRONMENT OR WHERE HUMAN TRANSPORTED MATERIAL HAS BEEN DEPOSITED.
 - THE POTENTIAL FOR FLOODING WITHIN 100 FEET OF THE PROPOSED OWTS (DOES X) OR (DOES NOT X) EXIST.
 - THE PROPOSED WELL, IF APPLICABLE, (DOES X) OR (DOES NOT X) REQUIRE A VARIANCE FROM RIDEM'S 'RULES' AND REGULATIONS GOVERNING THE ENFORCEMENT OF CHAPTER 46-13.2 RELATING TO THE DRILLING OF DRINKING WATER WELLS". THIS APPLICATION IS (OR IS NOT X) PART OF A SUBDIVISION OF FIVE (5) LOTS OR LESS WITH EXISTING ROAD FRONTAGE.
 - THE SUBJECT PROPERTY (IS X) OR (IS NOT X) SERVED WITH AN OWTS & PRIVATE WELL. THE NITROGEN LOADING RATE SHALL NOT EXCEED 345 GAL/DAY PER 20,000 SQUARE FEET OF PROPERTY WHEN SERVED WITH AN OWTS & PRIVATE WELL.
 - THE CONTRACTOR SHALL STAKE AND FLAG TO PROTECT THE LEACHFIELD FROM VEHICLE TRAFFIC AND EXCESSIVE WEIGHT LOADS BEFORE AND DURING CONSTRUCTION OF THE OWTS AND THE STRUCTURE. FLAGGING SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES AT THE SITE ARE COMPLETE.
 - APPLICANT/OWNER/CONTRACTOR SHALL NOT MOVE HOUSE, CHANGE HOUSE FOOTPRINT OR CONSTRUCT DRAINS/FOUNDATION DRAINS OTHER THAN WHAT IS SHOWN ON PLAN UNLESS PRE-AUTHORIZED IN WRITING BY OWTS DESIGNER.
 - SURVEY, TOPOGRAPHY, WETLAND AND SUBSURFACE DRAINS MAPPING BY ATLAS LAND SURVEYING. OWTS DESIGN BY COMMONWEALTH ENGINEERS & CONSULTANTS, INC.

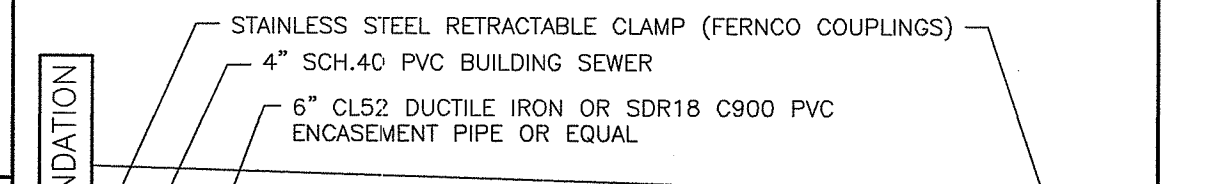
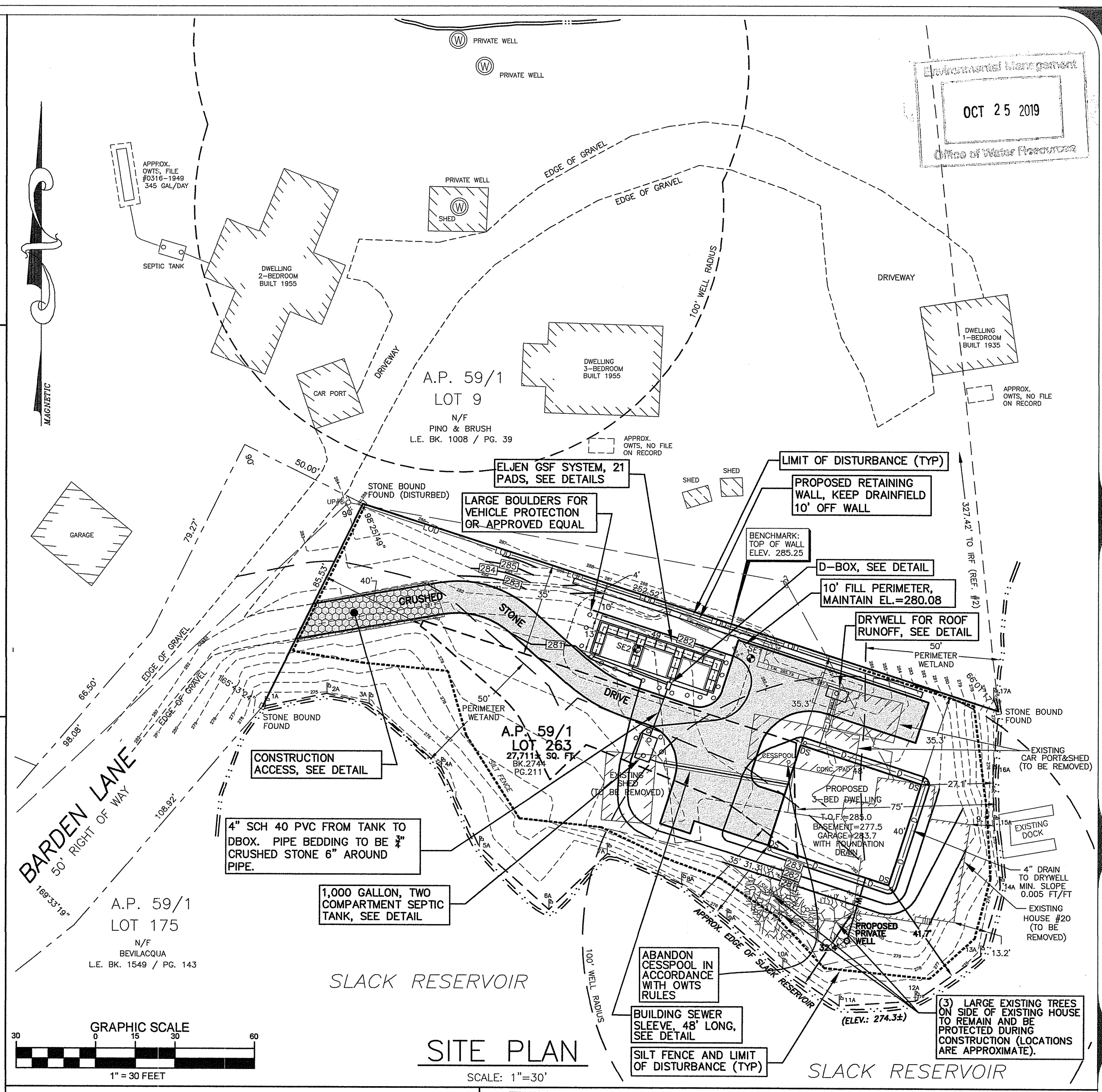
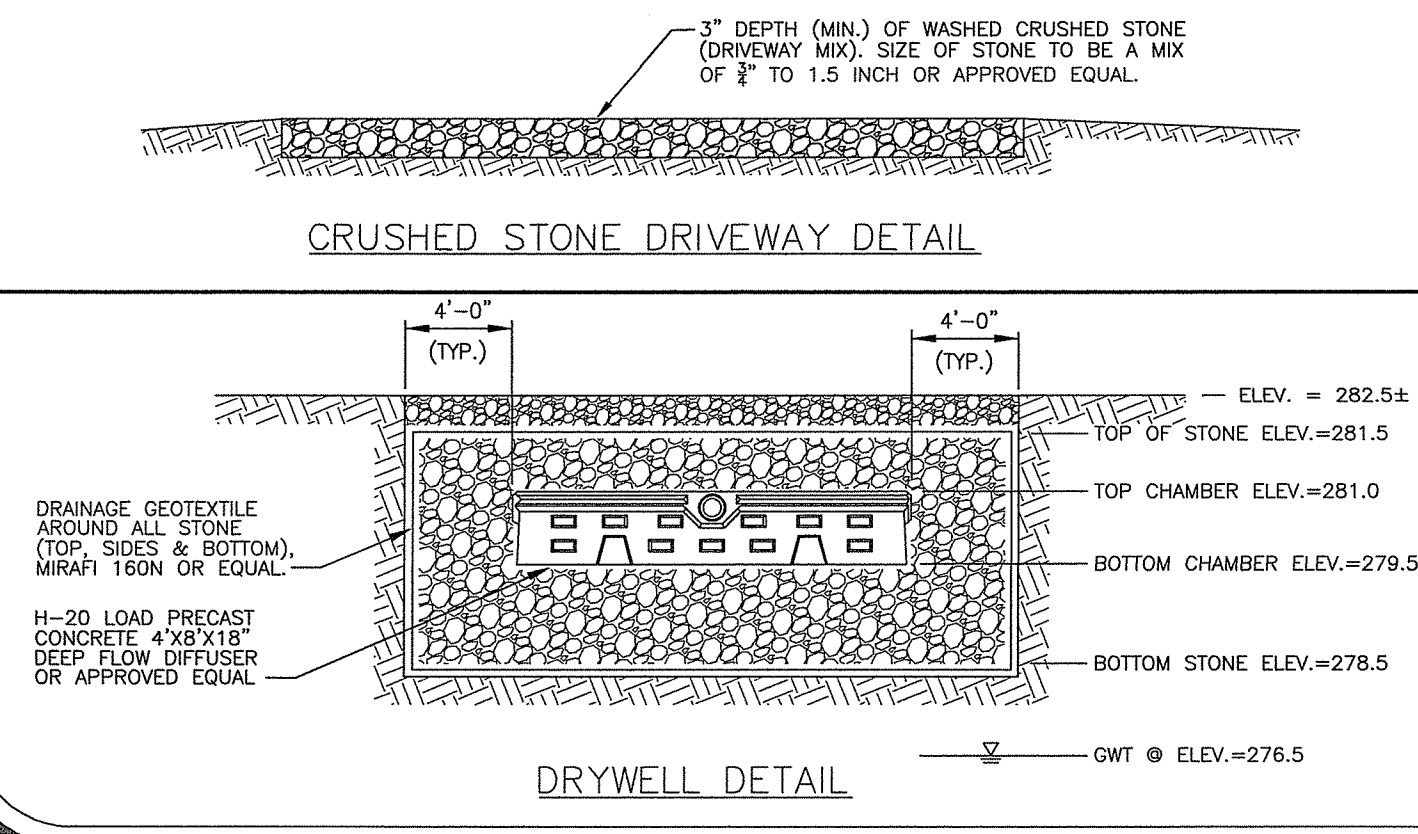
- GENERAL SITE & DESIGN DATA:**
- REFER TO OWTS APPLICATION #1916-0402.
 - DESIGN CRITERIA IS 6" OF TEST HOLE #5622 TO E.S.H.G.W.T. IN THE AREA INDICATED.
 - LOADING RATE BASED ON CAT 4 SOLS = 0.61 GAL/SF/DAY.
 - DESIGN WATER TABLE ELEVATIONS:
 - * TEST HOLE ELEVATION = 282.50
 - * DESIGN WATER TABLE = 282.50 - 6.0' = 276.50
 - * DESIGN LEDEGE ELEV. = 282.50 - 9.0' = 273.50 (BOTTOM OF HOLES)

- LEACHFIELD SIZING CALCULATIONS:**
- FLOW TO LEACHFIELD = 115 GAL/BEDROOM/DAY X 3 BEDROOMS = 345 GAL/DAY
 LOADING RATE = 0.61 GAL/SF/DAY (CATEGORY 4 SOLS)
 SQUARE FEET REQ'D = 345 / 0.61 = 568 SQUARE FEET REQ'D
 LEACHFIELD AREA = USE ELJEN GSF PADS
 = 28 SQ. FT. PER PAD
 = 21 PADS REQUIRED = 588 SQ. FT. > 566 SQ. FT., OK

- TANK SIZING CALCULATIONS:**
- RESIDENTIAL DWELLING = 3 BEDROOMS
 1,000 GAL. REQ'D; 1,000 GAL. PROVIDED

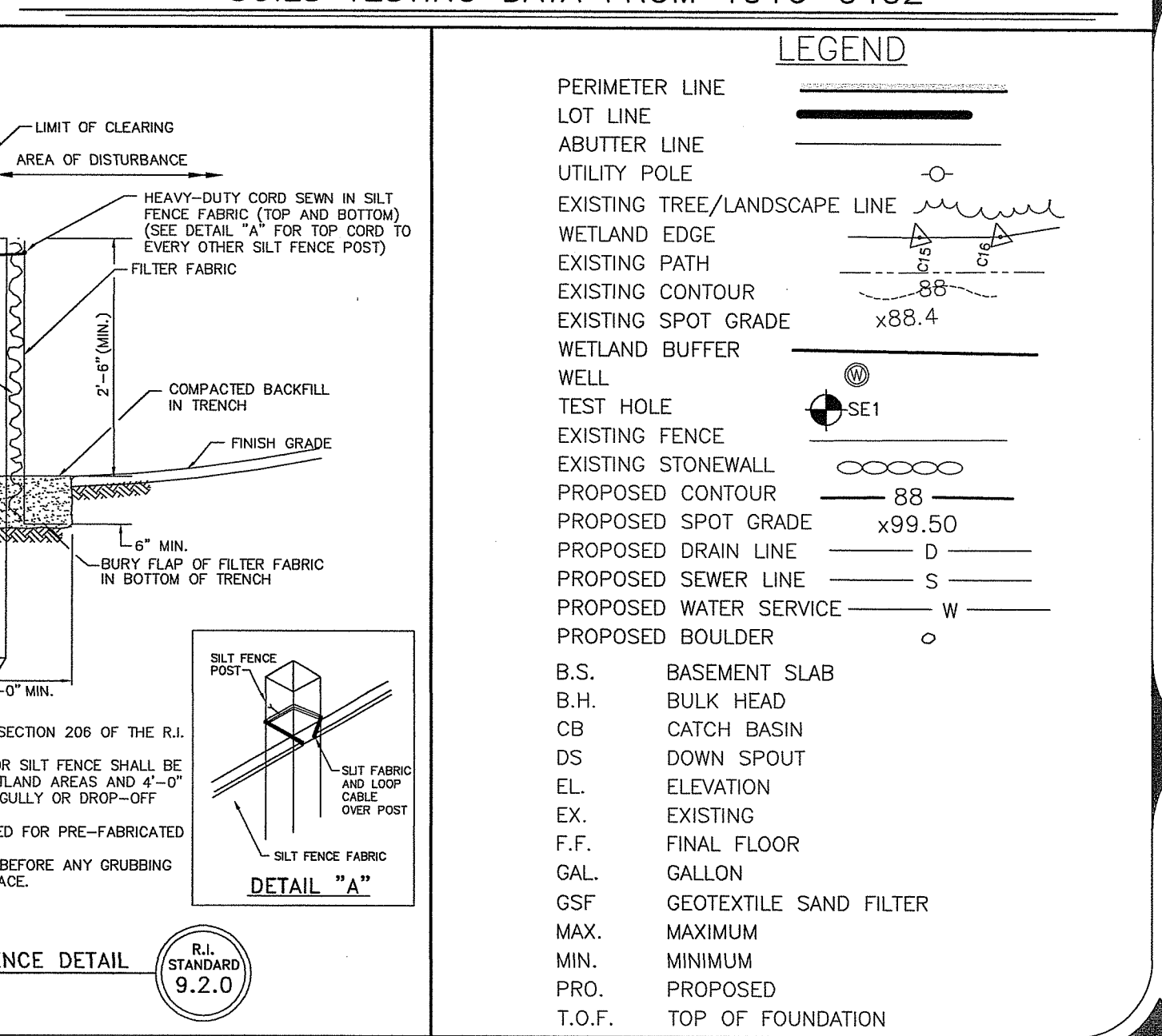
- CONTRACTOR'S NOTES - CONSTRUCTION:**
- NOTIFY ENGINEER 5 DAYS PRIOR TO START OF CONSTRUCTION.
 - PRODUCT AND MATERIAL SPECIFICATION SHEETS FOR ALL COMPONENTS SHALL BE PROVIDED TO ENGINEER PRIOR TO ENGINEER NOTIFYING RIDEM FOR START OF CONSTRUCTION. THIS INCLUDES: 1) SEPTIC TANK; 2) D-BOX; 3) EFFLUENT FILTER; 4) FILTER FABRIC; 5) SAND SIEVE ANALYSIS.
 - SURVEYOR TO STAKE OUT LEACHFIELD CORNERS FOR REVIEW AND APPROVAL BY ENGINEER.
 - ENGINEER TO APPROVE LOCATION OF LEACHFIELD PRIOR TO CONSTRUCTION OF LEACHFIELD.
 - SCARIFY LEACHFIELD BOTTOM IMMEDIATELY PRIOR TO CONSTRUCTION OF LEACHFIELD, NOT THE DAY BEFORE.
 - ENGINEER TO INSPECT SEPTIC TANK PRIOR TO BACKFILLING. CONTRACTOR SHALL PROVIDE VACUUM TEST REPORT FROM TANK MANUFACTURER.
 - ENGINEER TO INSPECT COMPLETED SYSTEM PRIOR TO BACKFILLING. FINE GRADE LEACHFIELD AND SEPTIC TANK AREA SO RUNOFF DOES NOT FLOW ONTO AREA FROM UPLAND AREAS DURING & AFTER CONSTRUCTION.
 - ALL CONCRETE RISER SECTIONS SHALL BE MORTARED WATER TIGHT TO TANK.

- OWNER'S NOTES:**
- FOOD/GARAGE GRINDERS ARE PROHIBITED FROM BEING CONNECTED TO THE SEPTIC SYSTEM.
 - VEHICLE PARKING OR TRAFFIC OVER THE LEACHFIELD AND SEPTIC TANK IS PROHIBITED.
 - BACKWASH WATER FROM WATER TREATMENT SYSTEMS (IF INSTALLED) SHALL NOT BE DISCHARGED INTO THE SEPTIC SYSTEM.
 - SEPTIC TANKS SHALL BE PUMPED OUT EVERY 24 MONTHS. EFFLUENT FILTERS WASHED ANNUALLY.
 - ONLY WASTEWATER AS DEFINED IN THE RIDEM OWTS REGULATIONS IS ALLOWED TO BE DISCHARGED INTO THE SEPTIC SYSTEM. ABSOLUTELY NO CHEMICALS, OILS, FATS, GREASE, OR PAINTS ARE ALLOWED. THIS IS NOT A GARBAGE DISPOSAL SYSTEM.
 - NO TREES OR LARGE SHRUBS SHALL BE PLANTED WITHIN 10 FEET OF THE LEACHFIELD.
 - NO SUBSURFACE DRAINS OR SUBDRAINS SHALL BE INSTALLED WITHIN 50 FEET OF THE OWTS UNLESS IN ACCORDANCE WITH OWTS REGULATIONS.



SOILS TESTING DATA FROM 1916-0402

TH#	DATE	SOIL DATA	CAT	SHWT DEPTH	TOTAL DEPTH	
SE1	5/15/2019	Ap 12" TO 7"	10YR 3/3 GSL	1,SBK,F FR	3	9'
		Bw 7" TO 0"	10YR 5/6 SL	1,SBK,F FR	3	
		2C 0" TO 28"	10YR 5/3 VG COS	0,SG LOOSE	1m	
		2C2 28" TO 44"	10YR 6/2 S	0,SG LOOSE	1	
		2C3 44" TO 96"	10YR 4/4 GCOS	0,SG LOOSE	1m	
SE2	5/15/2019	Ap 5" TO 7"	10YR 3/2 GSL	1,SBK,F FR	3	
		Bw 5" TO 0"	10YR 4/4 FSL	1,SBK,F FR	4	
		2C 0" TO 96"	10YR 5/3 VG COS	0,SG LOOSE	1m	



OWTS & WETLANDS PERMITTING PLAN

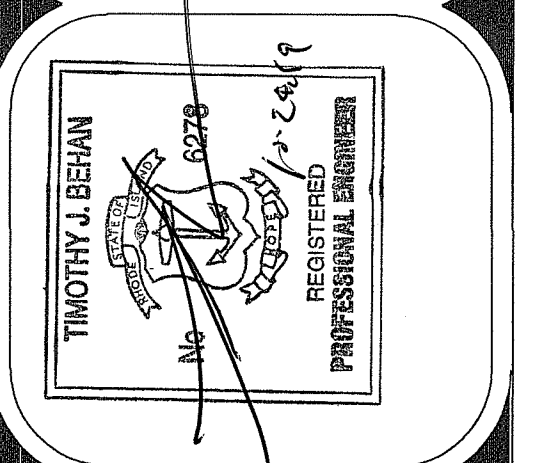
LOCATION
 20 BARDEN LANE
 JOHNSTON, RHODE ISLAND

OWNERS
 RICHARD CALIFANO
 23 CALY REACH AVENUE
 MARRAGANSETT, RHODE ISLAND 02882

Checked By: T.J.B. Drawn By: T.J.B. Date: AUGUST 12, 2019 Scale: 1" = 30'

REVISIONS

NO.	REVISION	DATE	BY
1	ISSUE COMMENTS	08-23-19	TJB
2	ISSUE COMMENTS	08-26-19	TJB



- DRAWING ISSUE:**
- CONCEPT
 - CUSTOMER APPROVAL
 - PERMITTING
 - CONSTRUCTION
 - AS-BUILT
 - OTHER
- ONLY PLANS ISSUED FOR CONSTRUCTION SHALL BE USED FOR CONSTRUCTION

COMMONWEALTH ENGINEERS & CONSULTANTS, INC.

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