

SOIL TEST DATA:

PT-1:
 DATE PERFORMED: 8/24/2016
 PERFORMED BY: SHELLEY HULTGREN
 WITNESS: WAYNE CURRAN
 PERC RATE: 4 MPI

DH-1:

SURFACE	EL = 509.60
L 10YR3/4	A 0"-6"
SL 10YR4/6	B 6"-19"
LS 2.5YR5/4	C 19"-27"
BEDROCK	27"+
EL = 507.35	

DH-2:

SURFACE	EL = 508.56
L 10YR7/4	A 0"-5"
SL 10YR4/6	B 5"-17"
LS 2.5YR5/4	C 17"-37"
EL = 505.48	

DH-3:

SURFACE	EL = 507.50
L 10YR5/3	A 0"-10"
LS 2.5YR5/6	B 10"-36"
LS 2.5YR6/2	C 36"-92"
EL = 499.83	

DH-4:

SURFACE	EL = 507.65
FILL	- 0"-9"
L 10YR5/3	A 9"-12"
LS 2.5YR5/6	B 12"-35"
OLD CESS POOL	- 35"-54"
EL = 503.15	

DESIGN ELEVATIONS:

TOP OF SILL	509.52
EXIST. INV. AT FOUNDATION	505.69
PROP. INV. AT FOUNDATION	505.69
PROP. INV. AT SEPTIC TANK	505.40
PROP. OUT AT SEPTIC TANK	505.15
PROP. INV. AT PUMP CHAMBER IN	505.00
PROP. INV. AT PUMP CHAMBER OUT	504.75
PROP. INV. IN AT PROP. D-BOX	510.56
PROP. INV. OUT AT PROP. D-BOX	510.39

LINE #	EXIST. GRADE	HIGH G.W. ELEV.	BOTTOM OF C-33 SAND/B.O.	BOTTOM OF PRESBY PIPE	INV. AT BEG./END 4" PIPE	TOP OF PRESBY PIPE	FINISHED GRADE
1	508.22	505.14	509.14	509.64	510.22	510.64	511.5
2	508.13	505.05	509.07	509.57	510.15	510.57	511.4
3	508.04	504.96	509.00	509.50	510.08	510.50	511.3
4	507.97	504.89	508.93	509.43	510.01	510.43	511.3
5	507.91	504.83	508.86	509.36	509.94	510.36	511.2

NOTE: THE BREAKOUT ELEV. IS EQUAL TO THE BOTTOM OF THE C-33 SAND

REQUEST FOR LOCAL UPGRADE:

REDUCTIONS OF SYSTEM LOCATION SETBACKS FROM WETLANDS TRIBUTARY TO PUBLIC WATER SUPPLY, AS REQUIRED BY 310 CMR 211(1), FROM 100 FT. TO 84.1 FT.

DESIGN CRITERIA:

TYPE OF BUILDING: SINGLE FAMILY DETACHED DWELLING
 # OF BEDROOMS: 3
 ESTIMATED DAILY FLOW: 330 GPD
 GARBAGE GRINDER: NO
 SOIL CLASS: 1 (LOAMY SAND)
 PERCOLATION RATE: 4 MPI
 LTAR: .74

DESIGN CALCULATIONS:

LONG TERM ACCEPTANCE RATE (LTAR): 0.74 GPD/S.F.
 LEACHING AREA REQUIRED BY TITLE V: (330 GPD)/(0.74 GPD/S.F.) = 445.9 S.F.
 PRESBY SYSTEM AREA (40% EFFECTIVE REDUCTION) (445.9 S.F.)(.6) = 267.6 S.F.
 BELOW MIN. ALLOWABLE AREA FOR PRESBY; USE 400 S.F. (MIN.)

CRITERIA:
 3 BEDROOM HOUSE PROVIDED = 1,500
 PERC RATE = 4 MPI % SLOPE OF SYSTEM = 2.8%
 CTR. TO CTR. SPACING: MIN. REQ'D = 1.50'
 MINIMUM SAND BED AREA: MIN. REQ'D = 210 L.F. PROVIDED = 250 L.F.
 MIN. REQ'D = 400.0 S.F. PROVIDED = 468.0 S.F.

LENGTH OF PRESBY PIPE LINE (L) = 50'
 LAYOUT WIDTH OF PIPES (W) = 7.0'
 (OUTSIDE EDGE OF #1 TO OUTSIDE EDGE OF #5)
 DIMENSIONS OF C-33 SYSTEM SAND BED = (52'L x 9.0'W) = 468.0 S.F.
 (5' OVERDIG WITH TITLE 5 SAND BEYOND C-33 SYSTEM SAND BED IS REQUIRED.)
 RESERVE AREA NOT REQUIRED ON REPAIRS.

RECORD DATA:

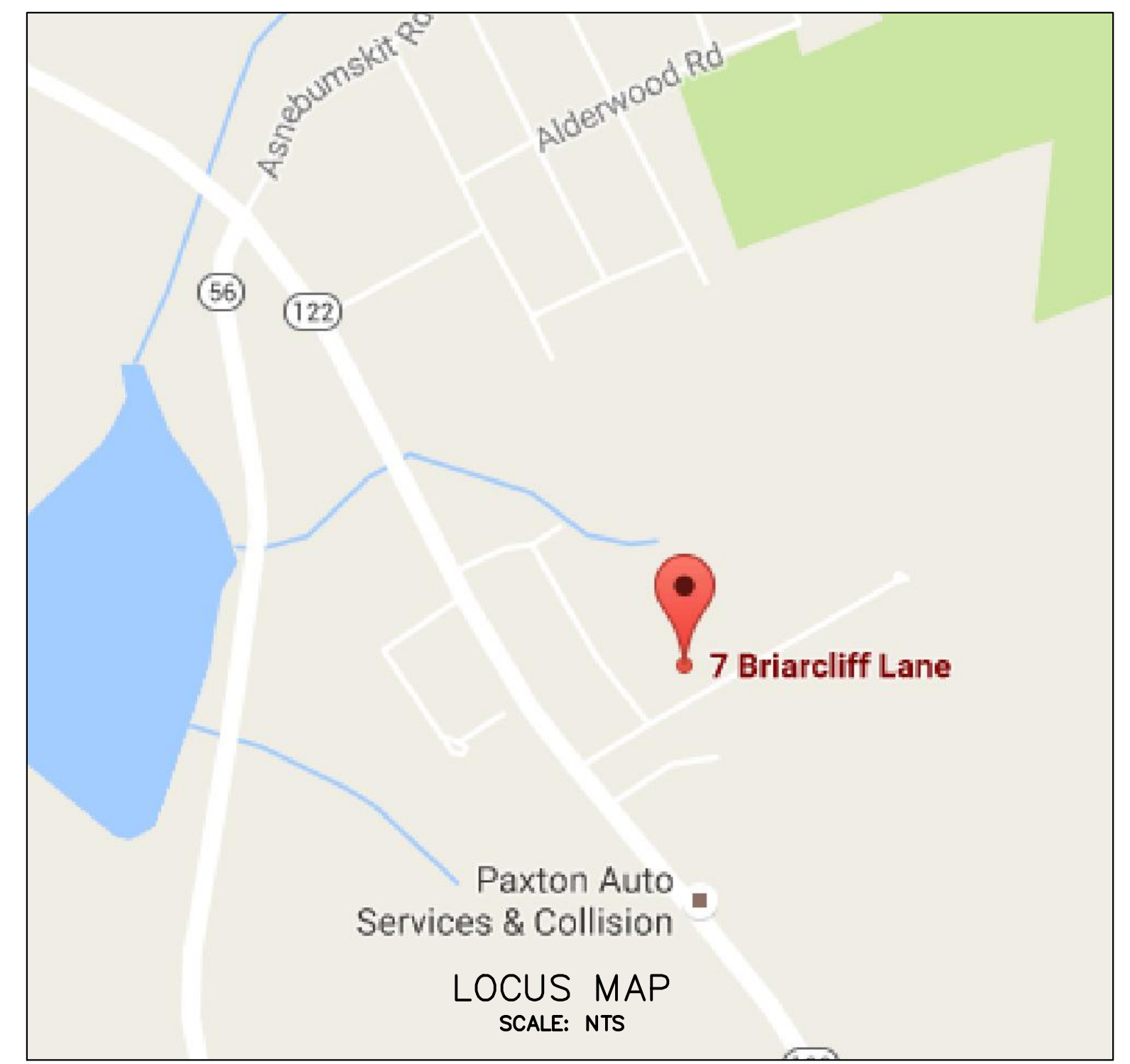
INV. AT FOUNDATION	_____
INV. IN AT SEPTIC TANK	_____
INV. OUT AT SEPTIC TANK	_____
INV. IN AT PUMP CHAMBER	_____
INV. OUT AT PUMP CHAMBER	_____
INV. IN AT DBOX	_____
INV. OUT AT DBOX	_____

PROJECT NOTES:

- PROPERTY INFORMATION: 7 BRIARCLIFF LN. MAP 27, LOT 73. DEED REFERENCE: BOOK 21876, PAGE 157.
- THE SITE LIES WITHIN AN AREA OF MINIMAL FLOOD HAZARD AS INDICATED ON FEMA NFIP FLOOD MAP 25027C0595E.
- THE SITE DOES NOT FALL WITHIN A MAPPED PRIORITY HABITAT OF RARE SPECIES OR ESTIMATED HABITAT OF RARE WILDLIFE.
- THE SITE LIES WITHIN A ZONE II APPROVED WELLED PROTECTION AREA.
- THE EXISTING CONDITIONS WERE PROVIDED TO QUINN ENGINEERING, INC. BY JARVIS LAND SURVEY AND DOES NOT WARRANT THE ACCURACY OF INFORMATION PROVIDED, UNLESS OTHERWISE DENOTED BY *.
- LAUNDRY AND BASEMENT SINK, IF PRESENT, MUST BE CONNECTED TO SEPTIC SYSTEM AS PER TITLE V REGULATIONS.

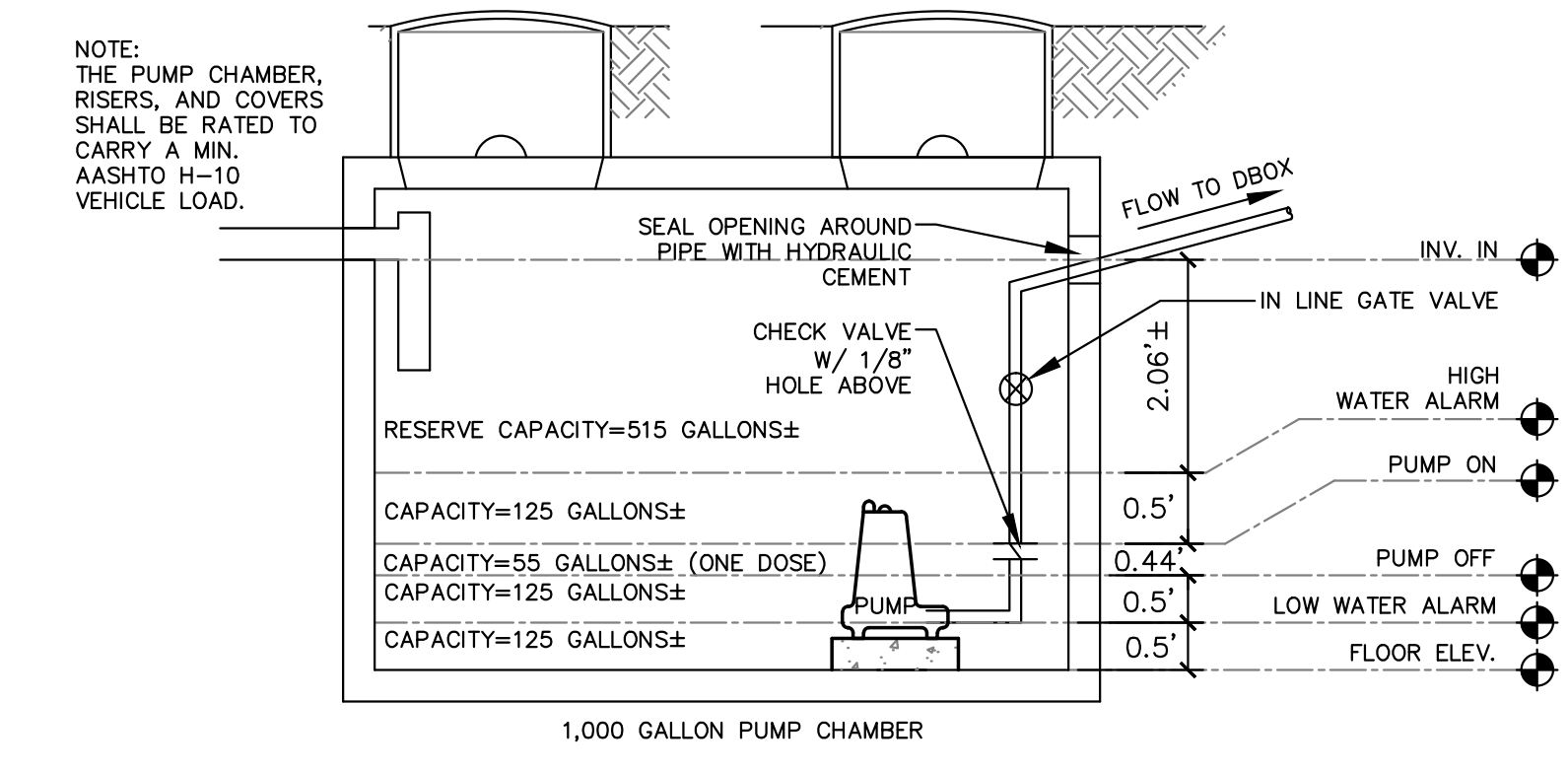
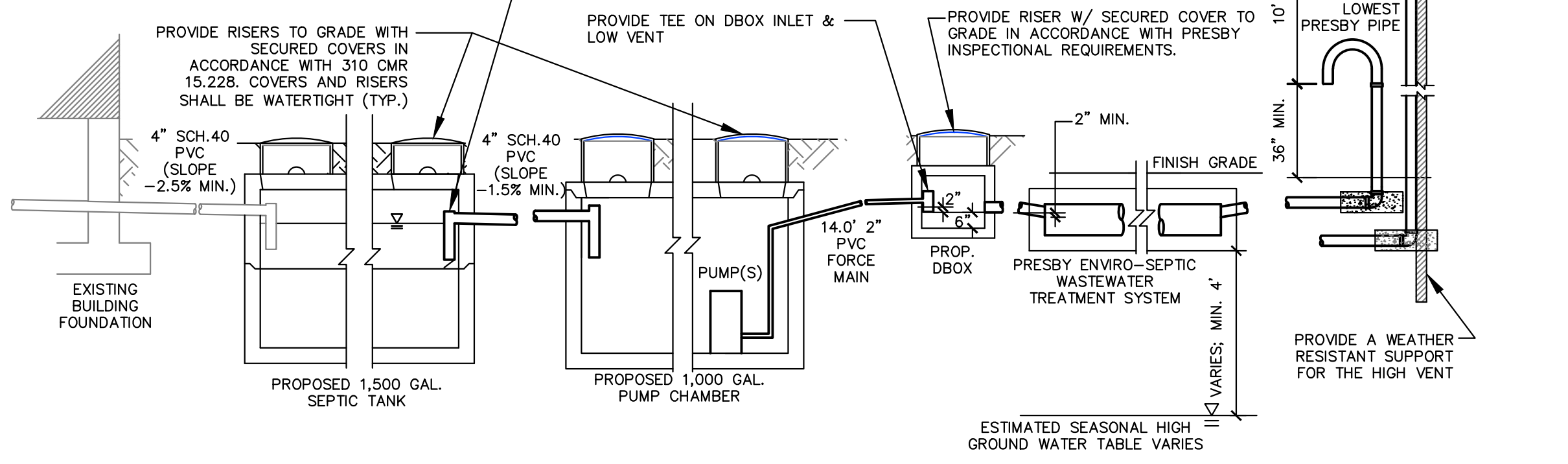
LEGEND

BIT.	BITUMINOUS
-(437)-	FINISHED CONTOUR
x 437.0	SPOT GRADE
-437-	EXISTING CONTOUR
---	SILT FENCE W/ STRAW WATTLES
o	DEEP HOLE
■	PERCOLATION TEST
□	C-33 CONCRETE SAND
+	BENCHMARK
W	WETLAND FLAG
E	ELEC. LINE
W-W	WATER SERVICE LINE
N 32°31'22" E 83.59'	PROPERTY LINE W/ CONTOUR LABELS.
o	EXISTING WATER GATE
---	PROP. IMPERVIOUS BARRIER



PROPOSED SEPTIC SYSTEM PROFILE
SCALE: NOT TO SCALE

- NOTES:**
- SEPTIC TANK AND DIST. BOX TO BE PLACED ON A LEVEL & STABLE BASE THAT HAS BEEN COMPACTED BY A VIBRATORY COMPACTOR OR EQUAL.
 - MIN. 4'-0" ELEV. REQUIRED BETWEEN BOTTOM OF LEACHING AREA AND MAX. G.W. ELEV.
 - A MINIMUM SLOPE OF -2.5% IS REQUIRED B/T THE HOUSE AND SEPTIC TANK.
 - A MINIMUM SLOPE OF -1.5% IS REQUIRED B/T THE SEPTIC TANK AND DISTRIBUTION BOX.
 - THE DESIGN ELEVATIONS INDICATED WILL PROVIDE AT LEAST THESE MINIMUM SLOPES FOR THE LENGTHS INDICATED ON PLAN. IF ANY COMPONENT OF THE SYSTEM IS MOVED, THE DESIGN ELEVATIONS MAY NOT PROVIDE ADEQUATE SLOPE.



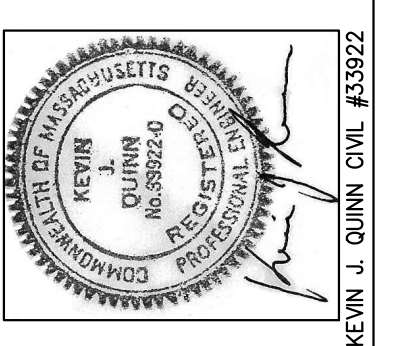
NOTES:

- PUMP CHAMBER SHALL BE A 1,000 GALLON REINFORCED CONCRETE TANK AS IN WACHUSETT PRECAST, INC. 1,000 GAL. SEPTIC TANK OR APPROVED EQUAL.
- THE PUMP CHAMBER SHALL HAVE A MINIMUM LIQUID DEPTH OF 4'.
- THE PUMP CHAMBER SHALL BE CAPABLE OF WITHSTANDING A H-10 WHEEL LOAD UNDER THE PROPOSED SOIL OVERBURDEN.
- THE TANK SHALL BE EQUIPPED WITH ONE SINGLE PHASE, 1/3 HP SIMPLEX EFFLUENT PUMP AS IN MYERS MODEL SAGHT OR APPROVED EQUAL. PUMP SHALL PUMP AT A RATE OF 30 GALLONS PER MINUTE AT A HEAD OF APPROXIMATELY 16 FEET. CONTRACTOR SHALL ENSURE THAT THE PUMP CAN PHYSICALLY FIT INTO THE PUMP CHAMBER.
- CONTRACTOR SHALL ENSURE THAT THE PUMP STATION IS COMPLETELY WATERTIGHT.
- PUMP STATION SHALL BE EQUIPPED WITH A CONTROL SYSTEM WHICH CAUSES THE PUMP TO OPERATE UPON SENSING "PUMP ON LEVEL" AND SHUTS PUMP OFF UPON SENSING "PUMP OFF LEVEL", AND SHALL PROVIDE A LOW AND HIGH LEVEL ALARM DETECTION AND ANNUNCIATION SYSTEM.
- ALARM CONDITION SHALL BE ANNUNCIATED BY A FLASHING LIGHT AND AN AUDIBLE SIGNAL INSIDE OF THE BUILDING, AND SHALL BE ON A SEPARATE ELECTRICAL CIRCUIT. AN ELECTRICAL PERMIT ISSUED BY THE PATXON ELECTRICAL INSPECTOR MAY BE REQUIRED FOR THE WORK.
- A SIGN SHALL BE MOUNTED ADJACENT TO THE FLASHING LIGHT AND AUDIBLE SIGNAL STATING THAT THE ALARM CONDITION IS A RESULT OF THE WASTEWATER EFFLUENT PUMP FAILURE.
- A LICENSED ELECTRICIAN SHALL INSTALL THE POWER SUPPLY TO THE PUMP STATION, ON ITS OWN SEPARATE CIRCUIT IN THE BUILDING ELECTRICAL SYSTEM, AND SHALL INSTALL ALL WIRING, CONTROL, AND ALARM CONNECTIONS. ALL ELECTRICAL WORK AND MATERIALS SHALL CONFORM TO THE LOCAL, STATE, AND NATIONAL ELECTRICAL CODES AND THE RECOMMENDATIONS OF THE MANUFACTURER.
- DISCHARGE PIPE SHALL HAVE A 1/8 INCH HOLE DRILLED ABOVE THE CHECK VALVE TO ENABLE THE FORCE MAIN TO DRAIN BACK INTO THE CHAMBER.
- PUMP STATION ELECTRICAL PANEL SHALL BE LOCATED INSIDE OF THE BUILDING OR AT THE DISCRETION OF THE BUILDING OWNER.
- PUMPS SHALL BE EQUIPPED WITH A HANGER PIPE FOR PUMP REMOVAL.
- PROVIDE A CONCRETE RISER TO BRING THE ACCESS COVER OVER THE PUMP TO GRADE.

PROPOSED PUMP CHAMBER DETAIL & NOTES
SCALE: NOT TO SCALE

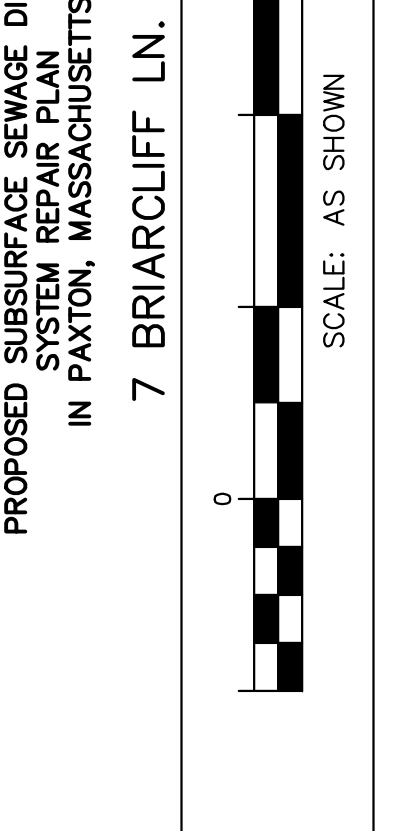


NO.	REVISION	DATE
1	REVISE TO PRESBY 2019 SIZING REQUIREMENTS	12/22/21



OWNER: DAVID SCHMIDT, 7 BRIARCLIFF LN., PATXON, MA 01612
 APPLICANT: KEVIN J. QUINN, 7 BRIARCLIFF LN., PATXON, MA 01612

PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM REPAIR PLAN IN PATXON, MASSACHUSETTS
 7 BRIARCLIFF LN.



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DATE: NOVEMBER 21, 2016
 PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM REPAIR PLAN
 SHEET 1 OF 2