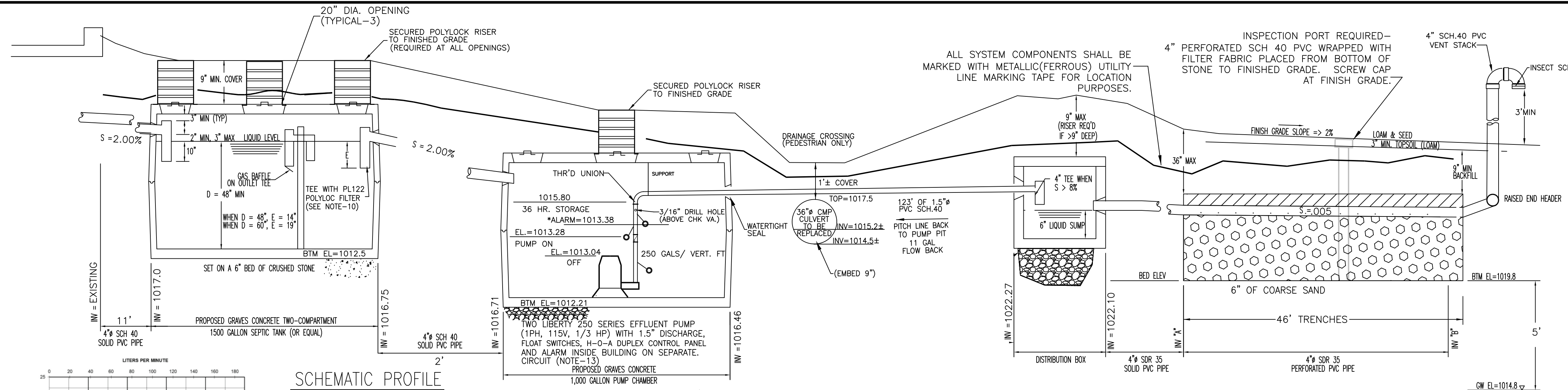


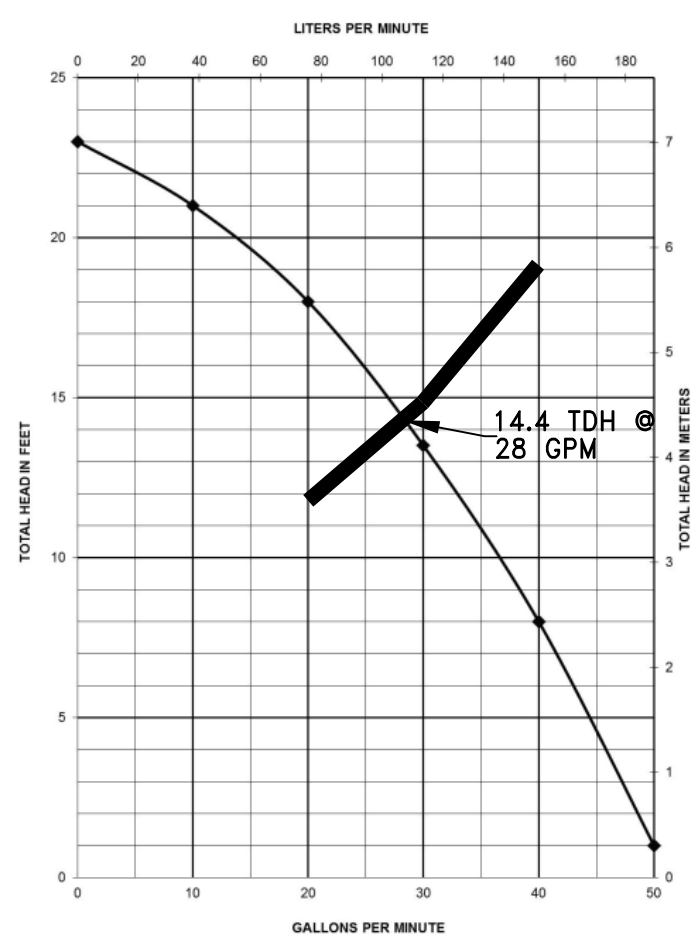
LOCUS NTS



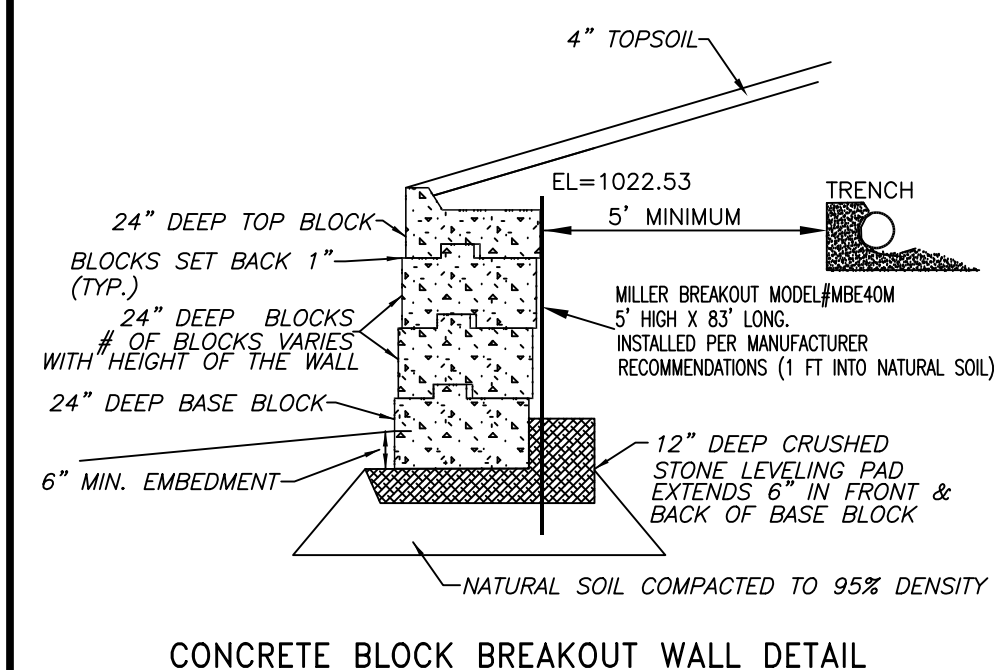
SCHEMATIC PROFILE
N.T.S.

SCHEMATIC PROFILE
N.T.S.

PROPOSED BED ELEVATIONS				
BED #	PIPE IN "X"	PIPE IN "Y"	BTM EL	END. H2O EL. EX. GROUND
1	1022.03	1021.8	1019.8	1014.8



PUMP CURVE
N.T.S.



CONCRETE BLOCK BREAKOUT WALL DETAIL

SEPTIC TANK BUOYANCY CALCULATIONS

ESHW elevation @ septic tank = 1014.8
 Bottom septic tank elevation = 1012.5
 Depth of water displaced = 2.3'
 Area of septic tank = 63.25 SF
 Volume of water displaced = 145.48 C.F.
 Uplift force = 62.41 lbs x 145.48 C.F. = 9,079 lbs
 Weight of proposed tank = 10,820 lbs > 9,079 lbs

PUMP CHAMBER BUOYANCY CALCULATIONS

ESHW elevation @ septic tank = 1014.8
 Bottom pump chamber elevation = 1012.21
 Depth of water displaced = 2.59'
 Area of pump chamber = 42.17 SF
 Volume of water displaced = 109.22 C.F.
 Uplift force = 62.41 lbs x 109.22 C.F. = 6,816 lbs
 Weight of proposed tank = 7,840 lbs > 6,816 lbs

NOTE IF WATER TABLE APPEARS HIGHER THAN SHOWN IN AREA OF TANKS, CONTACT ENGINEER IMMEDIATELY

PROPOSED TIES

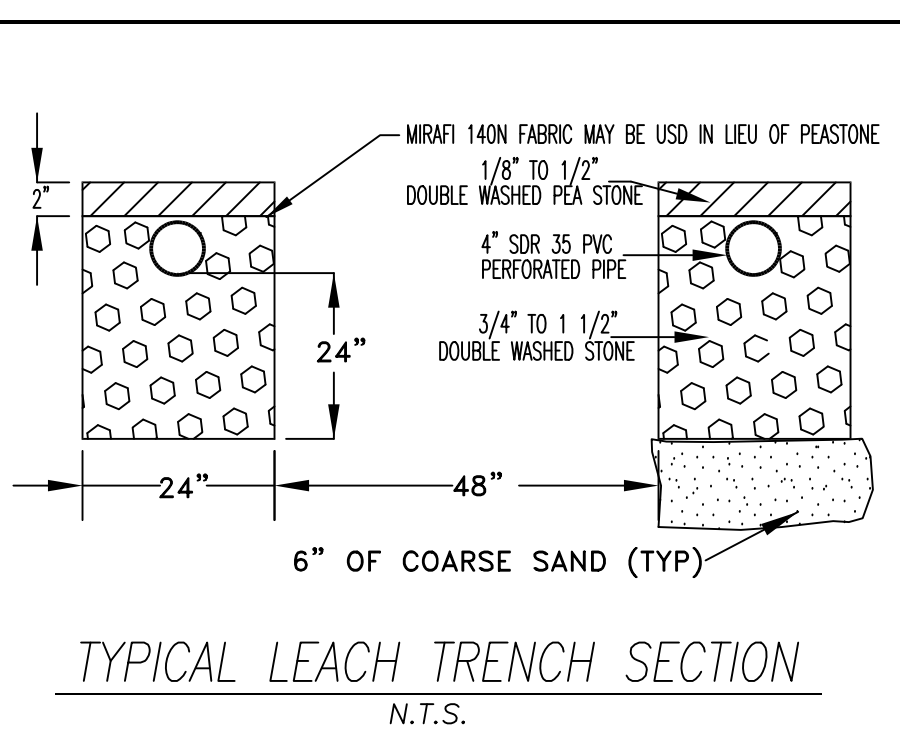
	TBM(1)	TBM(2)
CL-TR-1-A	18.8'	118.9'
CL-TR-1-B	64.5'	73.0'

DESIGN CRITERIA

- Estimated Hydraulic Loading
 Office building loading @ 75 GPD/1,000 S.F. -> 2,985 S.F. -> 224 GPD
 Warehouse/dry storage @ 15 GPD/non-office employee -> 12 employees -> 180 GPD
 Garbage disposal shall not be allowed with this system. TOTAL = 404 GPD
- Septic tank size = 1000/500 gallons.
- Leaching Area Design Criteria
 Percolation Rate = ≤ 2 mpi
 Soil Class Type = I (SAND)
 Allowable Loading Rate = $\frac{404}{2} = 202$ gpd/sf
 Required Leaching Area = $\frac{404}{202} = 2$ gpd/sf = 546 sf (Title V)
 Leaching Area Provided = 2 trenches X 46' ft trench length X 6 sf/lf = 552 sf
- Breakout (BO)
 Breakout Elevation = 1022.53
 Breakout Distance = 5-15' ft
 Distance Provided = 5-15' ft

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- DEEP HOLE TEST PIT
- PERCOLATION TEST
- PROPOSED SPOT ELEVATION
- WATER SERVICE
- ELECTRICAL SERVICE



TYPICAL LEACH TRENCH SECTION
N.T.S.

GENERAL NOTES

- Unless otherwise noted, property lines shown are compiled from existing plans and deeds of record. Proposed buildings and septic system should be located by instrument survey prior to construction.
- Underground utility data is plotted from visible field locations and available records. The locations are approximate only and verification must be made in the field.
- All construction to conform to 310 CMR 15.000, "The State Environmental Code, Title 5" and the Board of Health requirements for the Town of WINCHENDON.
- The contractor shall install the system exactly as shown on this plan. If changes are necessary, the contractor must contact the Engineer in advance.
- Heavy machinery shall not be permitted to pass over the leaching area and the contractor shall stake and flag the soil absorption/leaching area perimeter upon completion.
- All piping shall be polyvinyl chloride (PVC) pipe per ASTM D1785 for sch.40 and ASTM D3034 for SDR35 where indicated on the profile, unless otherwise noted.
- Septic tank shall be a 1500 gallon reinforced (TWO COMPARTMENT) tank of standard load design and watertight conforming to 310 CMR 15.221, 15.223, 15.226, 15.227, 15.228.
- The distribution box (D-box) shall be a 5 outlet reinforced concrete box of H-10 load design (min.) with a watertight cover and conform to all the requirements of 310 CMR 15.232.
- All topsoil, subsoil and impervious material, if any, must be excavated and removed below and 5' beyond the soil absorption system area. Fill material shall consist of a clean granular sand, free from organic matter and deleterious substances. Mixtures and layers of different classes of soil not be used. The sand fill shall not contain any material larger than 2 inches. A sieve analysis, using a #4 sieve, shall be performed on a representative sample of the fill. Up to 45% by weight of the fill sample may be retained on the #4 sieve. Sieve analyses also shall be performed on the fraction of the fill sample passing the #4 sieve, such analyses must demonstrate that the material meets or exceeds each of the following specifications: 100% passing #4 sieve; 10%-100% passing #50 sieve; 0%-20% passing #100 sieve; 0%-5% passing #200 sieve. (11/95 DEP SPEC)
- For proper performance, septic tank should be inspected at least once a year and pumped when the top of the sludge or solids layer is within 12" or less of the bottom of the outlet tee or the bottom of the scum layer is within 2 inches of the bottom of outlet tee (every 2 or 3 years). CLEAN OUTLET FILTER EVERY YEAR.
- There are no wells located within 100 feet of the proposed system.
- Office building and leaching area to be located on two separate tax parcels owned by the same entity. If the lots are ever to be sold to separate owners, the lots must be reconfigured in such a way that the leaching facility is on the same contiguous parcel as the facility it serves.
- Pump chamber to be equipped with two pumps valved such that dosing of the entire SAS can be done by either pump.
- A Notice of Intent must be filed with conservation for the work within the 200' riverfront area.

SOIL TEST DATA

DEEP HOLE & PERC TESTS

PERFORMED BY: TREVOR FLETCHER, P.E./MARK MOSCHETTI

WITNESSED BY: STEVE CALICHMAN, RS, AGENT/JAMES ABARE, B.O.H., WINCHENDON

DATE: MAY 8, 2023

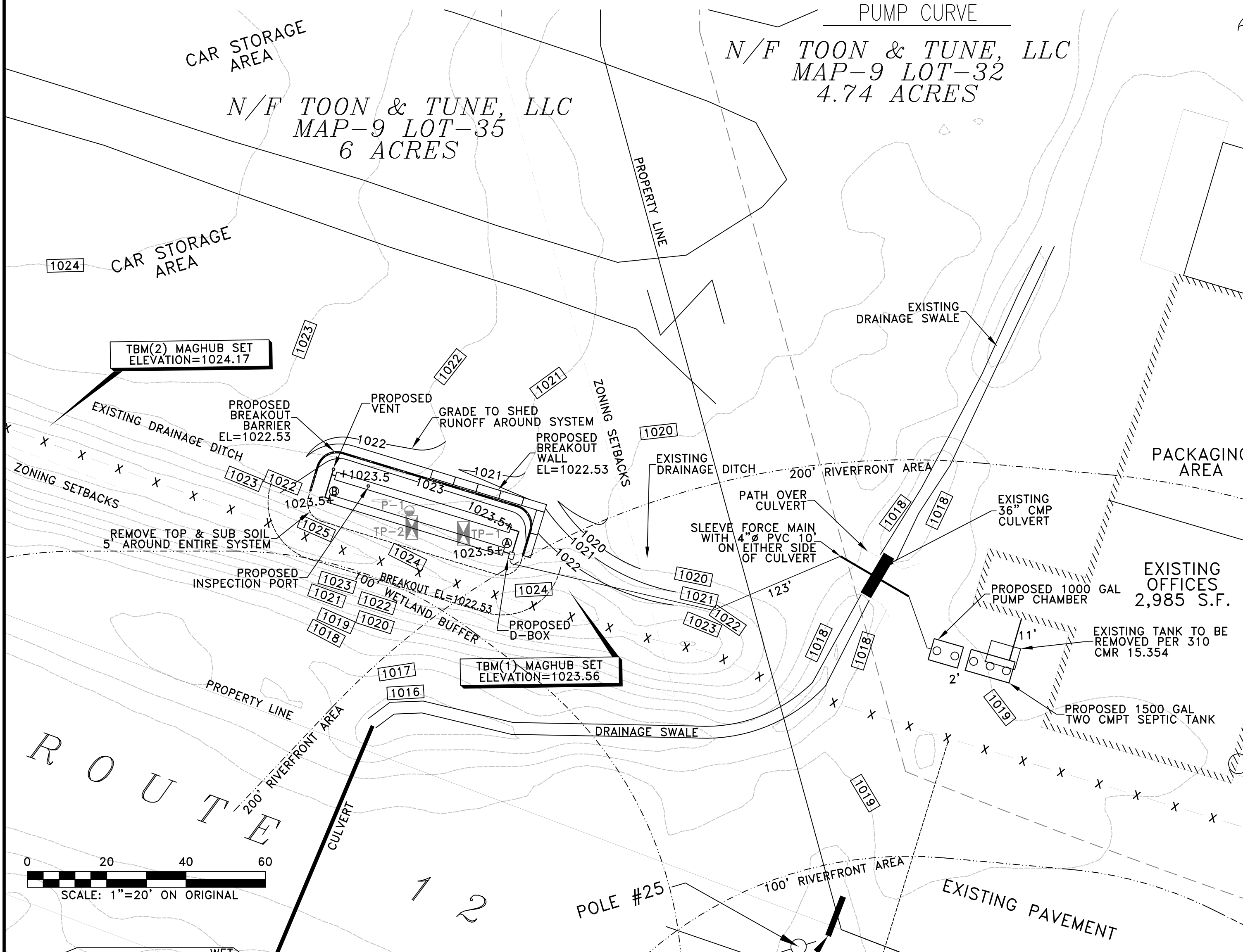
DEEP HOLE # TP-1

ESWT = 60"
STANDING WATER = 63"

DEEP HOLE # TP-2

ESWT = 79"
STANDING WATER = 82"

PERC TEST NUMBER	DEPTH	PERC RATE	NOTES
P-1	50"	UAS	



SCALE: 1"=20' ON ORIGINAL

DESIGNED BY TWF
 DRAWN BY TWF
 CHECKED BY PFG
 DATE 1-17-24
 SCALE 1"=20'
 JOB NUMBER 24002

SEPTIC SYSTEM UPGRADE DESIGN & NOI PLAN
 MAP-9 LOT-32 & 35
 800 SPRING STREET; WINCHENDON, MA
 PREPARED FOR:
 FENIX PARTS
 800 SPRING STREET
 WINCHENDON, MA 01475

GRAZ Engineering, LLC
 323 WEST LAKE RD.; FITZ WILLIAM, NH 03447; (603) 585-6959

SHEET 1 OF 1