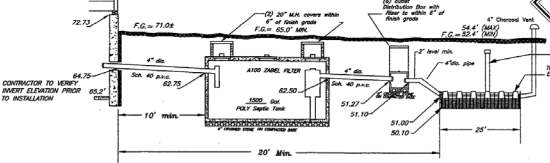
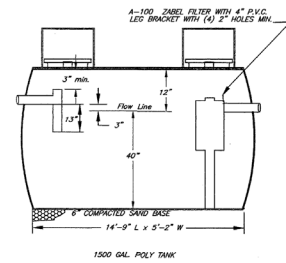
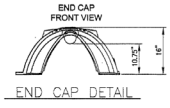
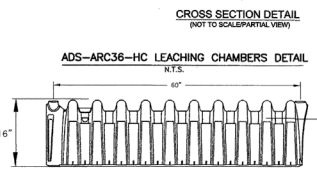
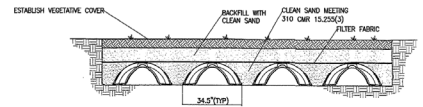
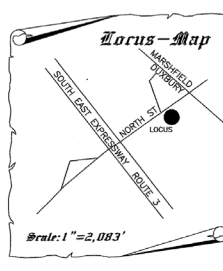




Underground Septic Tanks & Pump Chambers

- 1.) Tanks shall be structurally sound and to withstand the water imposed loads.
- 2.) Tanks shall be watertight.
- 3.) Tanks shall be precast concrete.
- 4.) Manufacturers of septic tanks shall implement a quality control/quality assurance program in conformity with ASTM standard C-1227-83. Tanks shall be embossed with a seal design that the state structure has been sealed. Tanks not embossed with a seal shall be rejected.
- 5.) Tanks shall be accessible for inspection and maintenance. No structure shall be located directly upon, above, or near the tanks which may interfere with performance, access, inspection, and pumping or repair.
- 6.) Inlet and outlet lines shall be of cast iron, schedule 40 pipe, or approved equal.
- 7.) Septic tanks shall be provided with at least three (3) 24" diameter manholes. Manholes shall be at the center and over each inlet and outlet line. For compartment tanks, the center manhole shall be the access to the compartment connection. System designs in excess of 1,000 GPD, or requiring more than one manhole shall be made accessible. If applicable private manhole access shall be provided. Manhole covers shall be made of cast iron, schedule 40 pipe, or approved equal. Manhole covers shall be removable and of impervious and durable material. Covers shall be within six inches of finished grade and shall be secured to prevent unauthorized access.



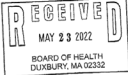
Section Thru System

Proposed Plan Line Grades	* As Built * Grades
INV. AT FOUNDATION	64.72
INV. INTO SEPTIC TANK	62.75
INV. OUT OF SEPTIC TANK	62.50
INV. INTO DISTRIBUTION BOX	61.27
INV. OUT OF DISTRIBUTION BOX	61.10
INV. INTO CHAMBER	61.00
BOTTOM OF CHAMBER	58.10

WATER TABLE MOTTLES @ 43.00 TPI'

T.P. 1

DEPTH	PERCENT MOISTURE	WATER CONTENT
1'-2"	12.5	83.00
2'-4"	10.5	67.00
4'-8"	10.5	67.00
8'-0"	10.5	67.00
12'-0"	10.5	67.00
16'-0"	10.5	67.00
20'-0"	10.5	67.00



SOIL LOGS

Percolation Rate Of 3 Minutes/Inch Present During Tests On 3/15/21
 Agency: TOWN OF DUXBURY
 Soil Evaluator: JOSEPH E. WEBBY, JR.

Bench. Mark TOP OF FOUNDATION ELEV. = 72.73

DESIGN CALCULATIONS

NUMBER OF BEDROOMS = 4
 GALLONS BEDROOM = 110 gal
 REQUIRED CAPACITY = 440 gal
 REQUIRED LEACHING AREA = 440 / 0.74 (0.3 min./inch) SWS = 595 sq. ft.
 LEACHING AREA PROVIDED = 600 sq. ft. > 595 sq. ft.
 LEACHING CAPACITY = 440 gal. > 440 gal.

440 x 2 = 880 GAL. USE 1500 GAL. MINIMUM SEPTIC TANK

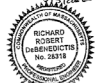
S.A.S. SIZING CALCULATIONS 25 CHAMBERS X 5' X 4.8 (L/F/S/F) = 600 S.F.

Issue	Date	Description	Drawn	Design	Check	Proj. Eng.
#1	5/4/22	SEPTIC REPAIR				

REPAIR OF Sanitary System

TOWN: DUXBURY, MASS. LOT NO.: 036-058-003-000
 LOCATION: 35 NORTH STREET
 PREPARED FOR: KERRY SMITH
 SCALE: 1" = 20' DATE: MAY 4, 2022

WEBBY ENGINEERING ASSOCIATES, INC.
 Civil Engineers & Land Surveyors
 180 County Road - Plympton, MA.
 (781) 585-1164



Prof. Land Surveyor

Prof. Engineer



DESIGN CRITERIA

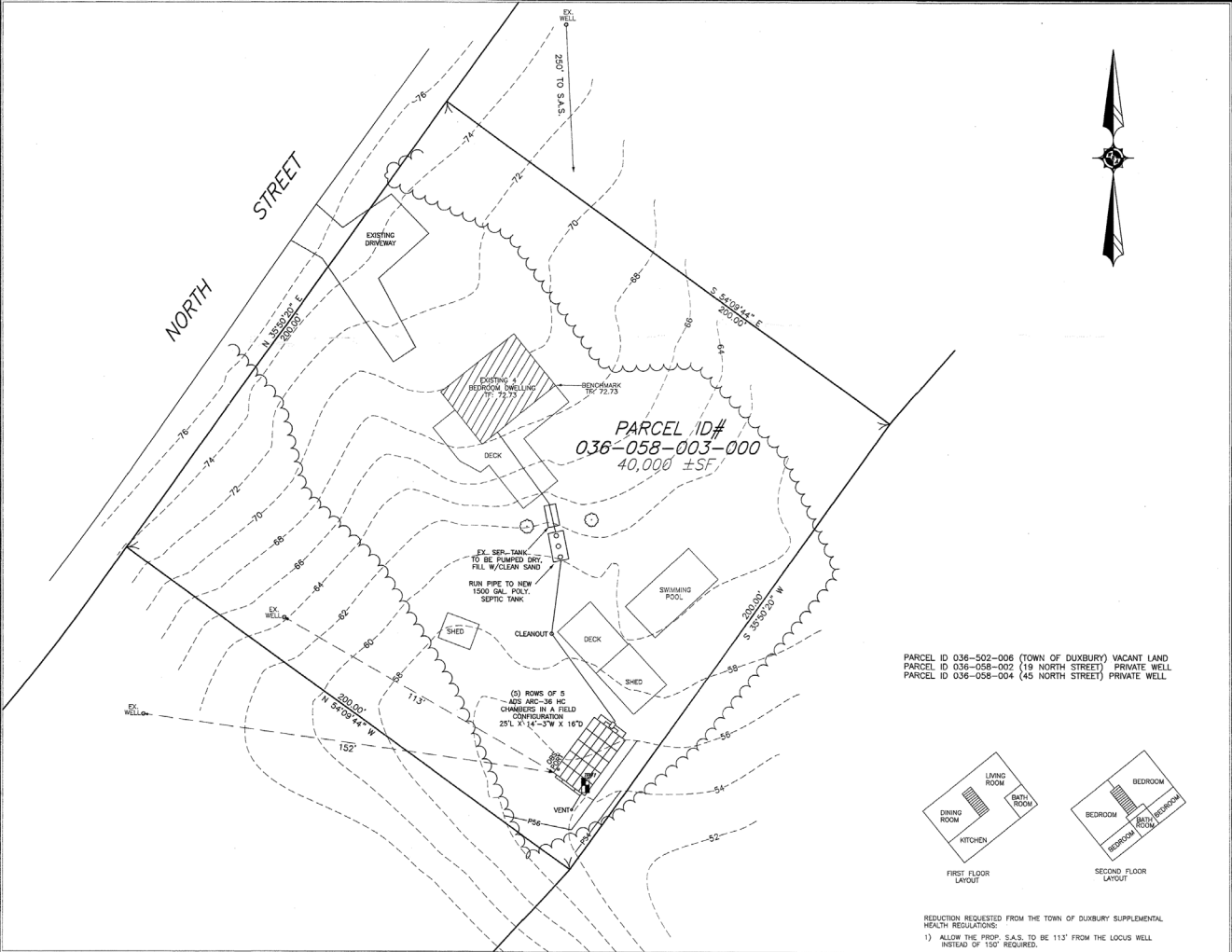
- 8.) Unless otherwise noted (OWN), the design of this system conforms to the requirements of the Commonwealth of Massachusetts Environmental Code "Title V", and the requirements of the local board of health.
- 10.) The design of this system did not allow for the use of a garbage disposal.
- 11.) The septic tank shall be inspected and cleaned annually.
- 12.) Grease trap, if applicable, shall be inspected every month, and shall be cleaned every 3 months or when the level of grease is 25% of the effective depth of the trap.
- 13.) The design of this system conforms with the following minimum distances from the proposed sanitary system:
 - A.) Surface water body or gravel packed well... 400 ft.
 - B.) Tubular public wells... 250 ft.
 - C.) Private potable wells... 200 ft.
 - D.) Non-potable irrigation wells... 150 ft.
 - E.) Other sanitary soil absorption system... 10 ft.
 - F.) Wetlands... 150 ft.
- 14.) No structures shall be located upon, above, or within 20' of the leaching field area. The reserve area (100% capacity) is considered to be the same as the leaching field area.
- 15.) The top of all system components, including the septic tank, distribution box or rising chamber and soil absorption system, shall be installed no more than 18" below finish grade.

Leaching Chambers Area

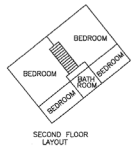
- 16.) Leaching chamber shall be an ARC-36 HIGH CAPACITY chamber or engineer approved equal.
- 17.) All installations shall be true to line and grade.
- 18.) All piping shall be PVC SCH. 40
- 19.) Distribution pipe(s) shall have a minimum diameter of 4" and a minimum slope of 0.01.
- 20.) All unsuitable material including top soil and sub soil shall be removed as follows:
 - a.) Excavation of unsuitable material
 - b.) Placement of the clean back fill meeting 310 CMR 12.25(2)
 - c.) Installation of the system with all components exposed for inspection and preparation of the final
 - d.) When existing ground elevations are changed a finished ground area, datum shall be required prior to certificate of compliance being issued.

Utility Notes

- 24.) The location of utilities are approximate only. Dig-Safe and other appropriate authorities shall be notified to verify utility locations.



PARCEL ID 036-502-006 (TOWN OF DUXBURY) VACANT LAND
 PARCEL ID 036-058-002 (119 NORTH STREET) PRIVATE WELL
 PARCEL ID 036-058-004 (45 NORTH STREET) PRIVATE WELL



REDUCTION REQUESTED FROM THE TOWN OF DUXBURY SUPPLEMENTAL HEALTH REGULATIONS:
 1) ALLOW THE PROP. S.A.S. TO BE 113' FROM THE LOCUS WELL INSTEAD OF 150' REQUIRED.