



Proposed Landscape Planting Plan

NOI Supplement

15 Elmwood Avenue, Sudbury

January 27, 2023

During the public hearing for the proposed replacement of the septic system at 15 Elmwood Avenue, OA noted that minimally three (3) trees within Adjacent Upland Resource Area to the Bordering Vegetated Wetlands (BVW) will need to be removed to complete the proposed installation. As the location of the proposed septic system is limited due to the size and shape of the lot and the orientation of the wetlands, there are no better alternatives to best protect the wetlands and avoid removing the existing trees.

Using the *Tree Removal Performance Standards* within the Bylaw Regulations provided by the Sudbury Conservation Commission (SCC), OA has provided this Landscape Planting Plan to address the replacement of the three trees on the property.

OA has proposed the following tree planting mitigation plan to fulfill the requirements of the *Standards*.

Planting Plan

1. Plantings will be selected from native species; no cultivars shall be planted. The plantings will be placed in the area of wetlands at the rear of the property (see Figure 1) and shall consist of three (3) black willow (*Salix nigra*) trees, or SCC staff-approved equivalents.
2. The number of trees will minimally be replaced at a 1:1 ratio. The final number of specimens to be planted, and species composition, will depend upon review and approval by the SCC. Substitutions or changes to the species may be necessary depending on availability and can be administratively approved by the Conservation Coordinator. Additional plantings may be required if additional trees need to be removed, or if the proposed species composition and/or size is unavailable.
3. Planting stock will be 1.5-inch caliper, nursery-grown specimens, planted on approximately 20-30 feet on-center. All trees will be placed evenly throughout the treatment area and a qualified wetland scientist will assist in the placement of plantings to ensure their success.
4. Once planted, the area delineated as wetland within the existing maintained yard will be allowed to naturalize. Wetland seed mix is available to establish a wet-meadow plant community, if necessary.
5. Metal FENO markers shall be placed along the approved wetland line to demarcate the boundary and serve as a visual indicator to protect against accidental wetland infringements. The FENO markers should have a collar and engraved cap designating that the area beyond the marker is a wetland and should not be mowed.

Monitoring and Management Thresholds:

A qualified wetland scientist will provide oversight during the installation of the plantings to ensure they are native stock and quantity, and that plantings are installed in the required location. Following installation, the scientist will provide a short report detailing the species and quantity of each approved planting.

Generally, Conservation Commissions requires that plantings must be monitored for two growing seasons following installation. Should this be required, the qualified wetland scientist will provide these reports prior to October 1 in the two years immediately following the installation. These reports will summarize the vitality of the plantings, recommendations for additional trees if the plantings do not survive, and any need for invasive species management within the portion of the existing lawn to be naturalized.

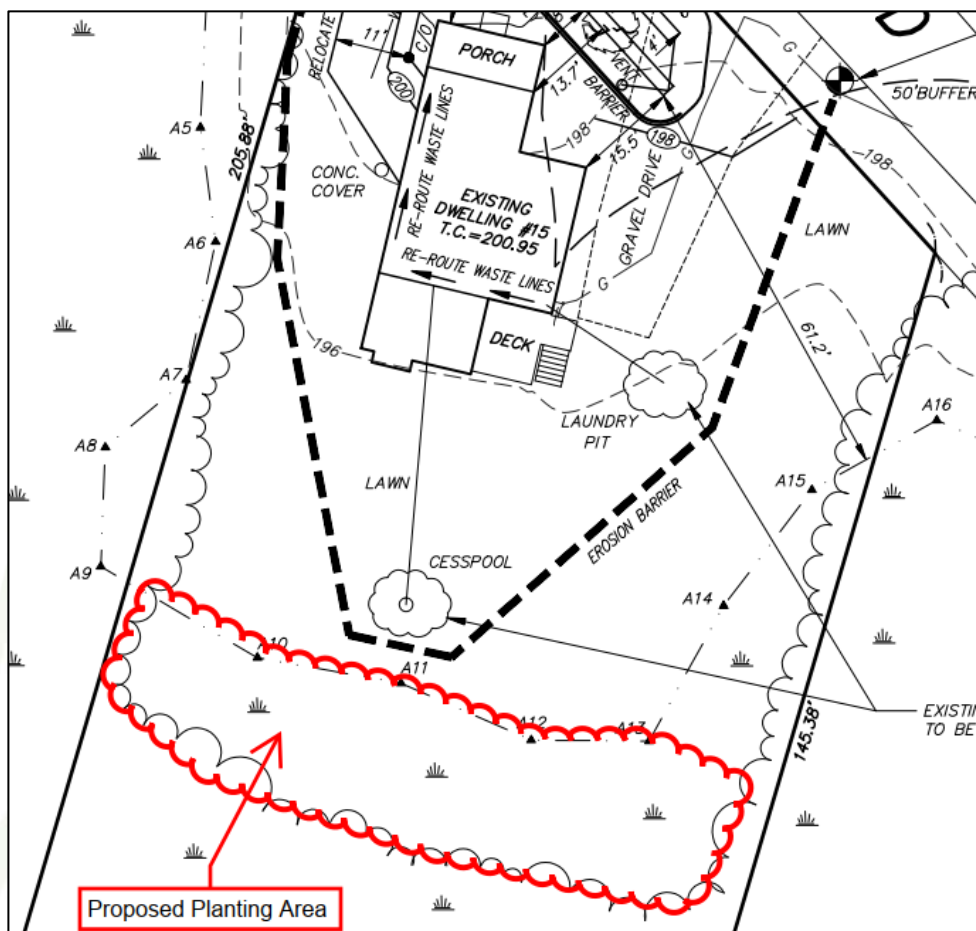
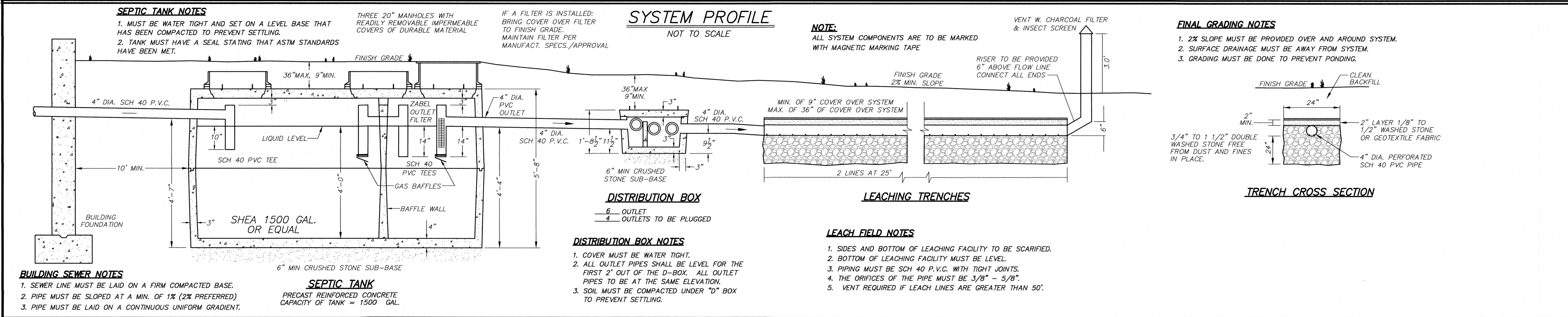
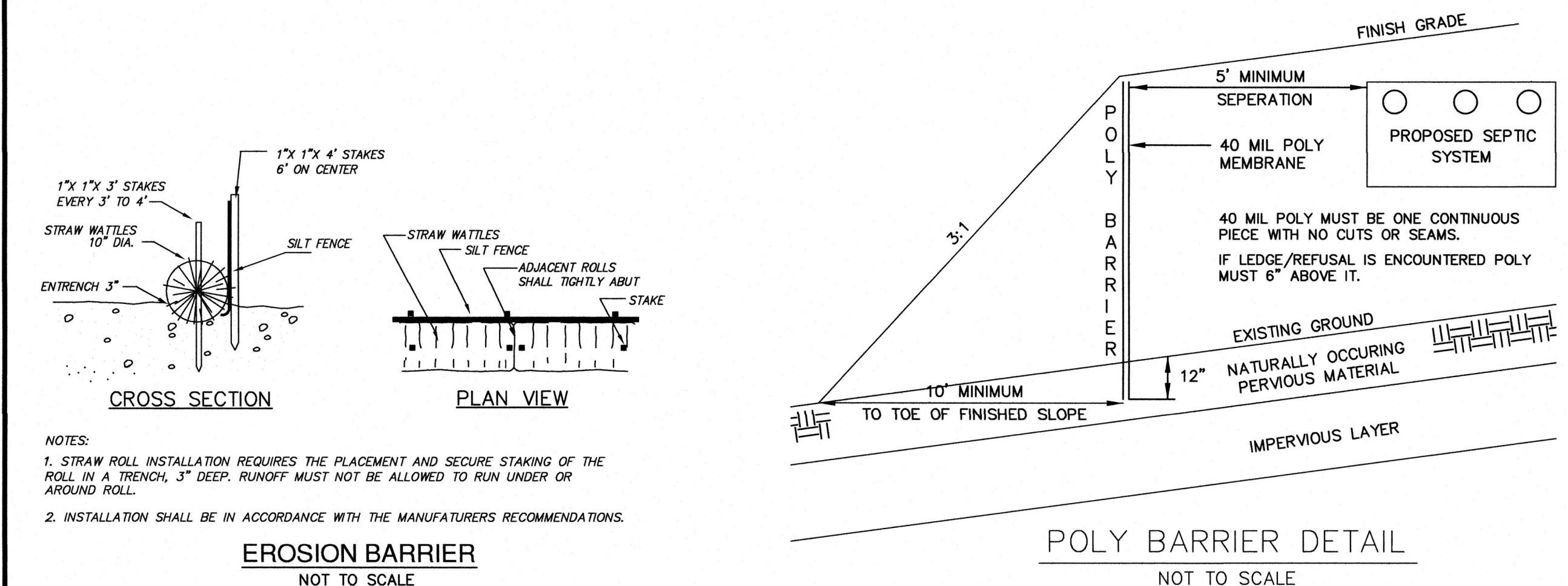
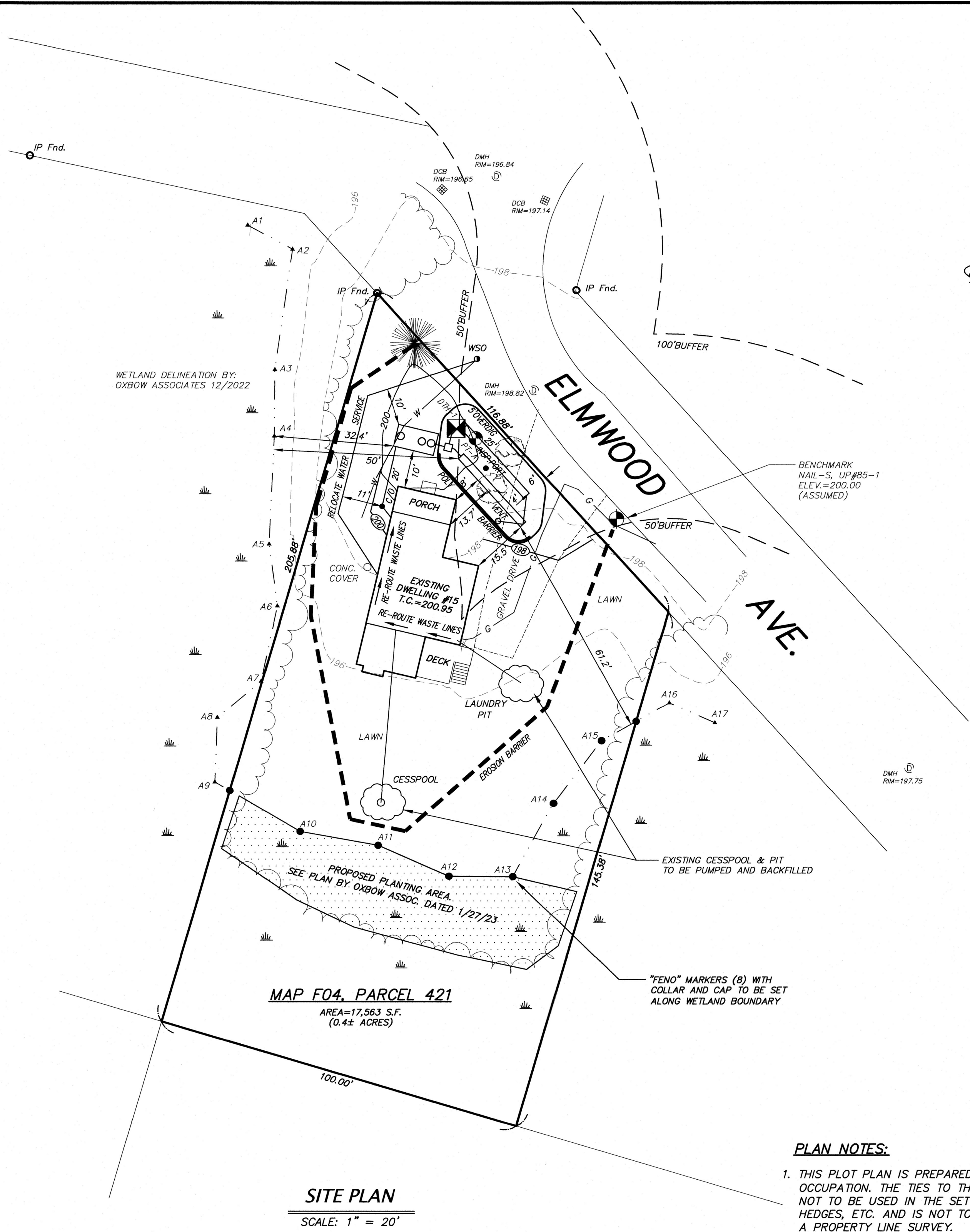
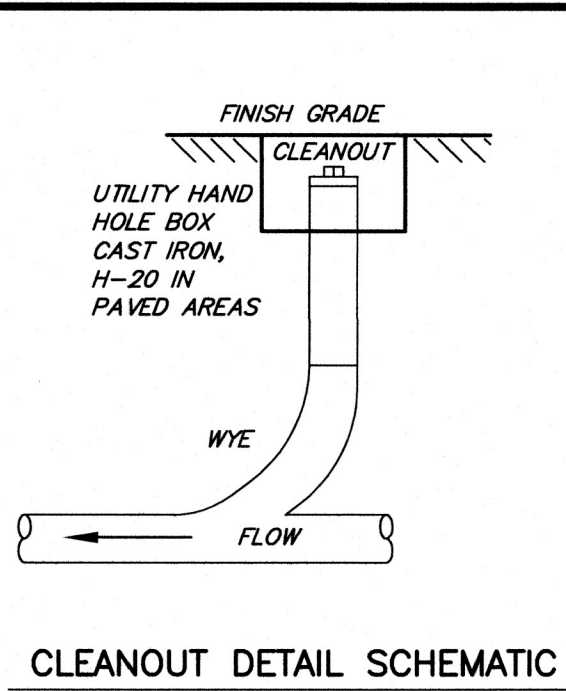
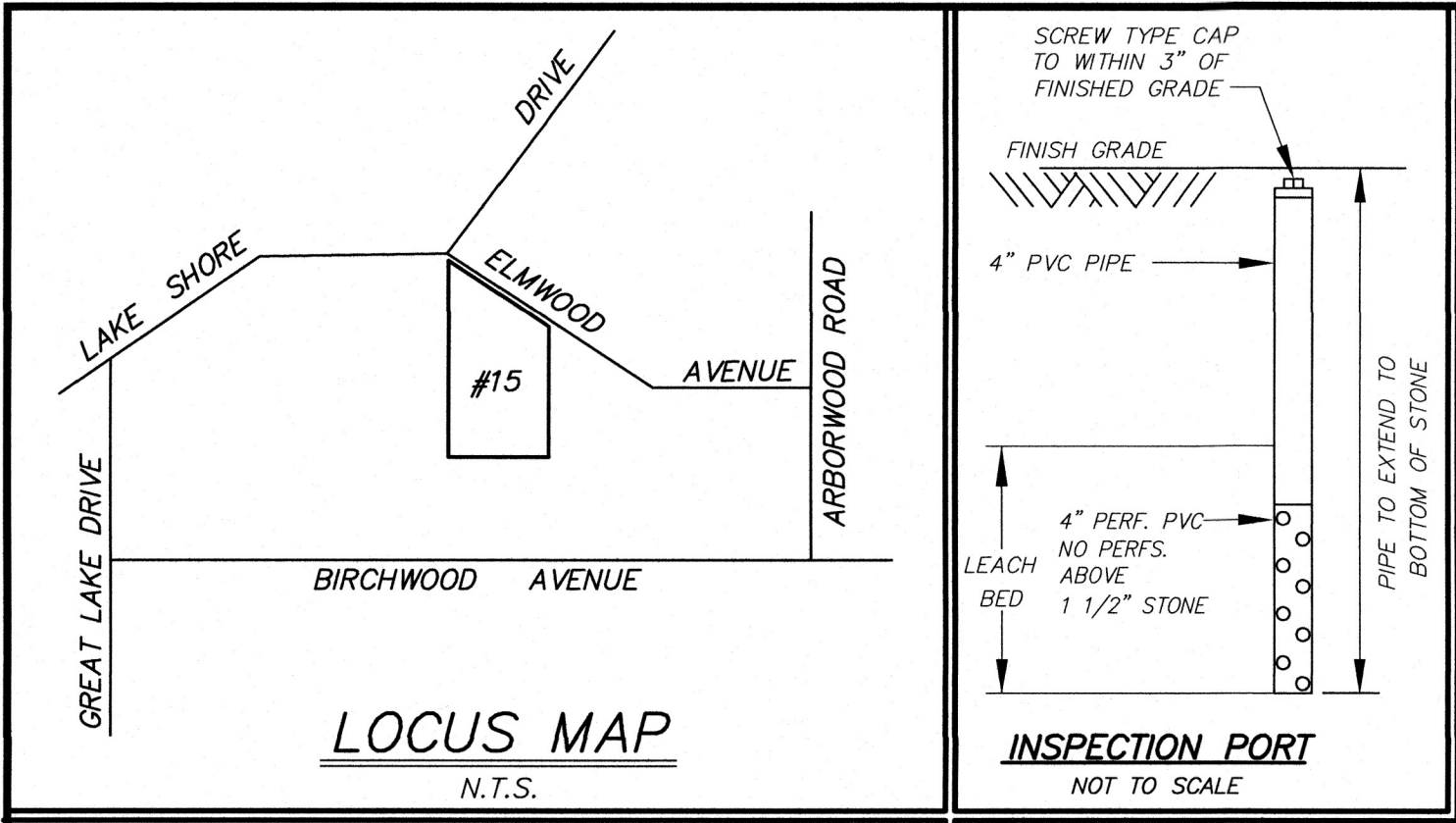


Figure 1. Approximate location of proposed planting area at rear of yard



GENERAL NOTES:

- Contractor shall call Digsafe at (888) 344-7233 a minimum of 72 hours prior to commencing any construction activities on site.
- Inspections by Design Engineer and Board of Health are as required by the Board of Health.
- This plan was prepared for the design of the subsurface sewage disposal system only and is based on the subsurface explorations and percolation tests listed below.
- System was designed only to accommodate sanitary sewage associated with normal domestic usage, consisting of water carried putrescible waste, and for flows indicated in the design criteria.
- The system must be vented through the buildings plumbing in accordance with the state building code.
- Plans show only features that were visually apparent on the date of the topographic survey, and the absence of subsurface structures, utilities, etc. is not guaranteed.
- Contractor to determine if site conditions are suitable for construction of proposed system, and must promptly notify the Design Engineer and Owner, in writing, of any plan deficiencies, unforeseen subsurface conditions, or required changes.
- There are no wells located within 100 feet of the proposed leaching area or within 100 feet of the proposed septic tank (except as shown).
- The subject property is not located within a Zone II of a public drinking water supply well.
- All construction is to conform to the requirements of the Massachusetts Environmental Code, Title V, and the town of SUDBURY Board of Health regulations.
- There are no surface or subsurface drains which are used to lower the ground water.
- For proper performance, septic tank should be pumped annually.
- System cannot be backfilled or concealed until design firm and board of health have inspected the system and permission to backfill has been given.
- Design firm must prepare and submit "As-Built" plan to Board of Health. This plan must certify that the system was installed in accordance with state and local regulations and that it complies with the proposed plan.
- Property lines are approximate and are not to be used for boundary survey purposes. Surface features and topography outside of work area are approximate.
- System is not designed to accommodate a garbage grinder.

TECHNICAL NOTES:

- Building sewer shall be in accordance with state plumbing code and have a minimum of 4" of cover in landscaped areas. A minimum of 12" of cover and/or appropriate sleeving shall be used in areas subject to vehicular traffic.
- All tanks, including septic tanks, distribution boxes, dosing chambers, and grease traps shall be either watertight through manufacturer's specification and warranty, or made watertight by the manufacturer or other individual by means and persons as approved in 310 CMR 15.221. Septic tank shall be constructed and placed in accordance with 310 CMR 15.223 through 310 CMR 15.228.
- Septic tanks shall have at least three (3) 20" manholes with at least one (1) of these manholes located no more than 6" below finish grade. (Systems over 1,000 gpd shall have access ports at both the inlet and outlet tees.)
- Distribution box ("d-box") shall be of watertight construction, installed level on a firm base, and installed in accordance with 310 CMR 15.232.
- Septic tank covers and d-box are to be brought within 6" and 9" of finish grade respectively by the use of riser sections.
- When the soil absorption system (SAS) is to be dosed or the slope of the inlet pipe exceeds 0.08 feet per foot, an inlet tee, baffle or splash plate extending to one inch above the outlet invert elevation shall be provided to dissipate velocity of the influent.
- When the SAS is installed within the top and subsoil layers or above natural grade, all topsoil and subsoil shall be removed below and laterally a minimum of 5 feet surrounding the SAS. Removed material shall be replaced with clean granular material in accordance with 310 CMR 15.255(3).
- All disturbed areas shall be loamed, seeded, and maintained so as to prevent erosion.
- All native soil interfaces which will contact the SAS shall be scarified prior to placement of stone.

HOLE NO. & DATE	TOP ELEVATION	DEPTH (in.)	SATURATION (Min.)	12"-9" DROP (Min.)	9"-6" DROP (Min.)	PERC. RATE (Min./In.)
PT-A 12/20/22	200.0	70"		COULD NOT SATURATE		<2 MIN/IN

DEEP OBSERVATION HOLE LOG

NO., DATE & ELEV.	DEPTH (in.)	SOIL HORIZON	TEXTURE (USDA)	COLOR (MUNSELL)	SOIL MOTTLING	OTHER
DTH-1 12/20/22	0-52"		FILL			
	52-132"	C1	COARSE SAND	10YR6/4	NONE	

TESTS CONDUCTED BY: MIKE SULLIVAN
TESTS OBSERVED BY: ROB LAZO
DATE: 12/20/22

I certify that I have passed the examination approved by the department of Environmental Protection and that the above analysis has been performed by me consistent with the required training, expertise, and experience described in 310 CMR 15.018(2).

Certified:

APPLICANT EUGENE WARNER		LOCATION 15 ELMWOOD AVENUE SUDBURY, MA ASSESSORS MAP F04 & PARCEL 421	
NO.	DATE:	REVISION:	BY:
1.	1/27/2023	MISC. CON. COMM. EDITS	REM

PROPOSED SEWAGE DISPOSAL SYSTEM

CONNORSTONE ENGINEERING
CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS
10 SOUTHWEST CUTOFF, SUITE 7
NORTHBOROUGH, MASSACHUSETTS 01532
PHONE: 508-393-9727 WWW.CSEI.NET
121 BOSTON POST RD. SUDBURY, MA. 01776
PHONE: 978-443-9566 WWW.SULLIVANCONNORS.COM

DATE: 12/28/2022 SHEET 1 OF 1