

**Earth Movement Permit
Hidden Pines Lane
Andover, Massachusetts**

February 1, 2022

**Prepared for:
Steven Leed
22 William Street
Andover, Massachusetts 01810**

Prepared By:



**1 East River Place
Methuen, MA 01844**

The Project Site is on a 2.33-acre parcel of land located off of William Street in Northern Andover, Massachusetts. The Site lies within the surface watersheds of Hussy Brook and the Shawsheen River and runoff ultimately discharges into the Merrimack River. The existing parcel to be developed is within the single lot residential zoning district SRA and is surrounded by existing single family lots to the west, north and east. The Hunter Ridge Condominium abuts the parcel to the south.

The Applicant, Steven Leed, is proposing to construct 315± long subdivision road that will support a four lot single family residential development. The project includes an existing dwelling that is to remain on a reconfigured lot (Lot 1) and proposes 3 new lots.

The proposed work will also include the construction of a subsurface infiltration/detention structure, lot grading, drainage and other utilities. The proposed road ends with a cul-de- sac and is within an existing 60-foot wide drainage and sewer easement. The subsurface infiltration/detention structure, at the end of the road, is proposed to treat and mitigate stormwater quality and quantity. The design accommodates the existing utilities while providing a new drainage system to discharge into the subsurface system. A new looped water main is to be constructed and each new lot will be serviced by this as well as new sewer service connections to the existing sewer, the existing sewer discharges north to south through the property.

According to the National Resources Conservation Service (NRCS), surface soils on the Site consist of Hinckley Loamy Sand (Map units 253B, 253C) and are classified as a Hydrologic Soil Groups (HSG) A soil, a soil with low runoff potential and high infiltration rates when thoroughly wetted.

ANDOVER PLANNING BOARD

**APPLICATION FOR SPECIAL PERMIT
FOR EARTH MOVEMENT**

(Section 6.3. of the Andover Zoning Bylaw)

APPLICATION MUST BE COMPLETE

(Please print or type)

This application, completed and signed, shall be submitted with 18 copies of the application and narrative, 12 copies of the plans, 1 CD with PDFs of the plans and 7 copies of any drainage report.

Application is hereby made for a Special Permit for removal and/or regrading of Earth Materials pursuant to Section 6.3 of the Zoning By-Law and Section 3.0 of the Rules Governing Special Permits of the Andover Planning Board.

1. Applicant(s): Steven & Elizabeth Leed
Contact Name: Steven Leed
Mailing Address: 22 William Street, Andover, MA 01810
Telephone Number: 978-475-7621

2. Record Owner(s) Name: Steven B. & Elizabeth L. Leed
Mailing Address: 22 William Street, Andover, MA 01810

3. Interest in Property: Owner Other
(Describe): _____

4. Engineer: Andover Consultants, Inc.
Contact Name: Dennis Griecci
Mailing Address: 1 East River Place, Methuen, MA 01844
Telephone Number: 978-687-3828
Name of Professional Surveyor: Peter D. Goodwin PLS # 48133

5. Name of Subdivision: William Court

6. Square footage of roadway construction land disturbance: 31,998

7. Square footage of total land disturbance: 75,950
(Attach a breakdown of land disturbance for roadway construction including drainage system and each individual lot.)

8. Property Address: 22 William Street
Assessors Map 52 Lot(s) 106
Zoning District(s) including overlay districts: SRA

9. Site Information: The application shall include an engineering report and plan which provides information on all of the following in narrative and graphic detail:

- a. Site soil types and boundaries based on U.S.D.A. S.C.S standards;
- b. Areas of steep slopes, i.e. greater than 15%;
- c. Predominant site vegetation, including existing cleared areas;
- d. Locations of ledge/rock outcroppings;
- e. Locations of standing water, wetlands, and perennial or intermittent streams;
- f. Proposed locations of earth material stockpiles;
- g. Maximum depth and width of proposed cuts;
- h. Volume of earth materials to be removed from the site;
- i. Type(s) of earth materials to be removed;
- j. Destination(s) of material to be removed;
- k. Estimated number of truckloads of materials;
- l. Proposed schedule of removal operations;
- m. Volume of earth materials to be regarded on the site;
- n. Proposed soil and slope stabilization program;
- o. Certified statement by the engineer that the data submitted to the Board is accurate;

The Applicant shall satisfactorily demonstrate to the Board that the subdivision plan associated with the request for removal and/or regarding makes the best feasible use of the existing topography of the site.



Signature of Record Owner

STEVEN LUO / ELIZABETH LUO
Print Name

JAN 24, 2021
Date



Signature of Applicant

STEVEN LUO / ELIZABETH LUO
Print Name

JAN 24, 2021
Date

Item 7 – Land Disturbance Breakdown:

DISTURBANCE	AREA (SF)	Net Volume (CY)
Road Construction	20,138	+559
Lot 1	2,106	-6
Lot 2	9,197	-186
Lot 3	17,211	-424
Lot 4	15,438	-469
Parcel A	11,860	-821
TOTAL DISTURBANCE	75,950	-1,347 (Cut)

Item 9 – Site Information:

a. Site soil types and boundaries

According to the National Resources Conservation Service (NRCS), surface soils on the Site were mapped as Hinckley loamy sand, map units 253B & 253C. Hinckley soils are classified as Hydrologic Soil Groups (HSG) A, soils with low runoff potential and high infiltration rates even when thoroughly wetted.

b. Areas of steep slopes, i.e. greater than 15%

Areas of steep slopes have been identified on the attached plan. Most of the areas are just offsite to the south and southwest with the onsite areas adjacent to existing retaining walls or graded slope at the existing tennis court.

c. Predominant site vegetation

Much of the site is developed including garages, pool house and pool, and graveled drives with many trees and grass not within the developed areas.

d. Locations of ledge/rock outcropping

There are no areas of ledge or rock outcroppings known to existing on the site.

e. Locations of standing water, wetlands, and perennial or intermittent streams

There are no wetland resource areas on the Site. There are two areas just offsite to the south on abutting property (wetland flagged series "B") and another offsite wetland approximately 100 feet west of the property (wetland flagged series "A").

f. Proposed locations of earth material stockpiles

Earth stockpiles will be located in areas convenient for the development contractor. A few possible locations for the stockpiles are indicated on the attached plan, but actual locations could vary as suits the development schedule

g. Maximum depth and width of proposed cuts

The maximum depth of cut will be in areas of foundation excavations with the calculated maximum depth of approximately 7 feet. The maximum calculated depth of fill is approximately 3 feet and occurs at the end of the cul de sac.

h. Volume of earth material to be removed from the site

The calculated earthwork quantities result in an approximate net cut of approximately 1,347 cubic yards of soil.

i. Type(s) of earth materials to be removed

Material to be removed includes top and subsoil and required removal of the substratum in areas of the proposed roadway, subsurface detention, and dwelling areas.

j. Destination(s) of material to be removed

Destination not yet known, but it will be offsite and at a location determined by the excavation contractor.

k. Estimated number of truckloads of materials

Assuming a dump truck with a 16 cubic yard capacity and 10% swell of excavated soils, the estimated number a truckloads is 93.

l. Proposed schedule of removal operations

Schedule not yet known, but operation hours are expected to be between 7 a.m. and 5 p.m.

m. Volume of earth materials to be regraded on the site


Approximately 1,400 cubic yards of material will be regraded on site. The majority of this will come from the construction excavations for the subsurface infiltration structure and house foundations and moved to fill location within the site.

n. Proposed soil and slope stabilization program

Soil will be stabilized immediately upon achieving final grades by loaming and seeding. Seeded areas shall be inspected periodically to ensure proper germination and adequate coverage and shall reseed as necessary. Any washouts shall be promptly repaired, reseeded, or re-mulched as necessary.

o. Certified statement by the engineer that the data submitted to the Board is accurate

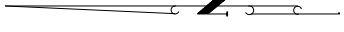
By signature below, I certify, to the best of my knowledge, that the data submitted to the Board as part of this Earth Movement Special Permit submittal is accurate.



James S. Fairweather II, P.E.

WILLIAM STREET

WILLIAM STREET



15% OR GREATER SLOPES ARE SHADED (TYPICAL)

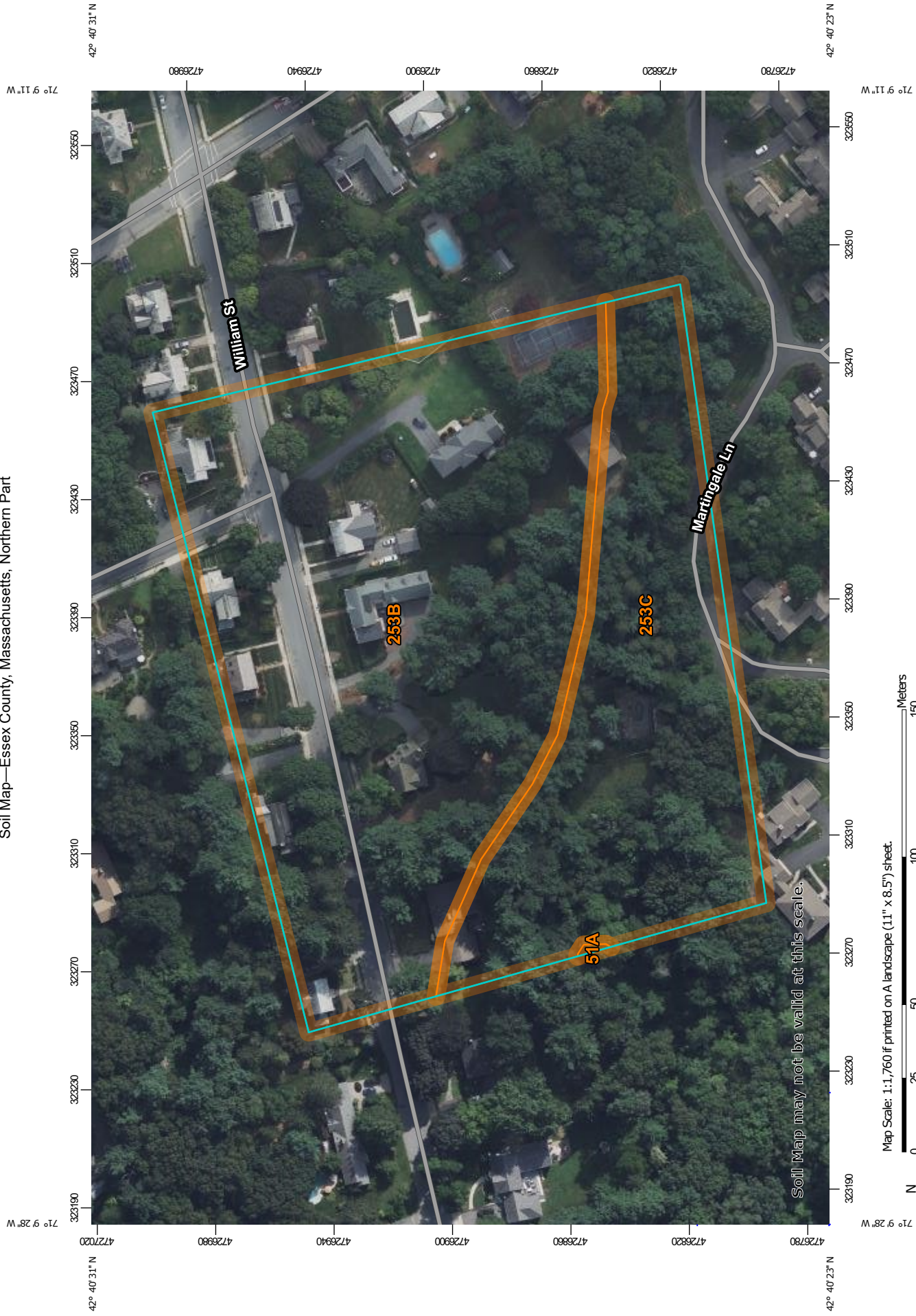
DEFINITIVE SUBDIVISION & EARTHWORK PLAN
EX. 15% SLOPE & EARTHWORK PLAN
WILLIAM COURT
ANDOVER, MASSACHUSETTS
PREPARED FOR: STEVEN LEED
DATE: FEBRUARY 1, 2022
SCALE: 1"=30'








































andover consultants inc.
1 East River Place
Methuen, Mass. 01844
Telephone: 978-687-3828



Soil Map—Essex County, Massachusetts, Northern Part



MAP LEGEND

-  Area of Interest (AOI)
-  Area of Interest (AOI)
- Soils**
-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points
- Special Point Features**
-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Essex County, Massachusetts, Northern Part
 Survey Area Data: Version 16, Jun 9, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 13, 2020—Sep 15, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
51A	Swansea muck, 0 to 1 percent slopes	0.0	0.1%
253B	Hinckley loamy sand, 3 to 8 percent slopes	6.0	65.9%
253C	Hinckley loamy sand, 8 to 15 percent slopes	3.1	34.0%
Totals for Area of Interest		9.1	100.0%