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): Eden Lane, LLC
   Contact Name: Greg Alexandris
   Mailing Address: 42 School Street, Andover, MA 01810
   Telephone Number: (978) 375-4418

2. Record Owner(s) Name: Eden Lane, LLC
   Mailing Address: 42 School Street, Andover, MA 01810

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

4. Engineer: DK Engineering, LLC
   Contact Name: Daniel Koravos
   Mailing Address: 59 Granite Lane, Chester, NH 03036
   Telephone Number: (603) 505-5226
   Name of Professional Surveyor: Hugo P. Findeisen PLS # 45098

5. Name of Subdivision: Eden Estates
6. Square footage of roadway construction land disturbance: 24,650 s.f.
7. Square footage of total land disturbance: 107,950 s.f.
   (Attach a breakdown of land disturbance for roadway construction including drainage system and each individual lot.)

8. Property Address: Bancroft Road

Assessors Map 59 Lot(s) 30

Zoning District(s) including overlay districts: SRB

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 Sign

Greg Alexandris
Print Name

Date

Signature of Applicant Sign

Same
Print Name

Date

(REVISED 6/13)

DK Engineering LLC

Address: 59 Granite Lane, Chester, NH 03036
Tel. (603) 505-5226 ◆ E-mail DAN@DKE.LLC

REPORT TO ACCOMPANY APPLICATION FOR SPECIAL PERMIT FOR EARTH MOVEMENT

9 Bancroft Road, Andover, Massachusetts

Introduction

Description: The site is located at 9 Bancroft Road between South Main Street (Rt. 28) and Holt Road in Andover, Massachusetts and consists of approximately 3.9± acres. The project involves subdividing one (1) lot into three (3) lots, two (2) parcels and a local road (Eden Lane). Topography generally slopes from the easterly boundary of the property to the northwest corner of the site along Bancroft Road. The existing vegetation mainly consists of grass areas with a tree line area along the perimeter of the property. The soils as mapped by the Natural Resource Conservation Service (NRCS) are mainly Woodbridge Series (fine sandy loam).

7. Land Disturbances:

Description	Disturbance (s.f.)		Total Area (s.f.)	Volume (c.y.)				Volume Export (c.y.)
	Cut	Fill		Cut	Basement	Tot. Cut	Fill	
Roadway	15,813	8,834	24,646	1,190	-	1,190	328	862
Lot 1	23,905	1,482	25,386	1,169	230	1,399	17	1,382
Lot 2	6,625	12,297	18,921	199	370	569	572	(4)
Lot 3	5,111	9,471	14,581	103	420	523	375	148
Parcel A	-	-	-	-	-	-	-	-
Parcel B	9,706	14,717	24,423	344	-	344	619	(275)
TOTALS:	61,158	46,800	107,958	3,004	1,020	4,024	1,912	2,113

[1]Includes excavation for basements
[2]Negative numbers indicate Cut

9. Site Information

a. Site soil type and boundaries based on U.S.D.A. Natural Resource Conservation Service Standards:

The soils within the project consist of the Woodbridge fine sandy loam series. Refer to the Soils Map at the end of this report and the Existing Conditions Plan (Definitive Subdivision Plan Set, Sheets 3 of 7).

b. Areas of Steep Slopes, i.e. greater than 15%:

There are a few small areas within the site that exceed fifteen (15) percent. These areas total approximately 1,500 square feet out of the total area of the site (168,800 square feet). None of these areas exceed twenty-five (25) percent.

c. Predominant site vegetation, including existing cleared areas:

The predominant site vegetation is mainly grass with treed areas along the perimeter of the property. Treed areas include various species including oak and maple.

d. Locations of ledge/rock outcroppings:

No areas of ledge/rock outcropping were observed on the site.

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

There are no wetland areas that exist on the property.

f. Proposed locations of earth material stockpiles:

The location of the earth material stockpile will be between lots 1 and 2 as shown on the Grading & Erosion Control Plan (sheet 4 of 7). Note that there are no wetlands within 100 feet of the earth material stockpile.

g. Maximum depth and width of proposed cuts:

The depth of cuts varies with the greatest depth being approximately 2.5 feet. With the excavation for the foundations, some cuts may be approximately 6.5 feet. Refer to the Earthwork Exhibit in this report.

h. Volume of earth materials to be removed from the site:

No material export is anticipated to balance the site.

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

The primary earth material to be removed from the site is the Woodbridge soil series. This series consists of moderately well drained loamy soils formed in lodgment till. They are very deep to bedrock and moderately deep to a densic contact. They are nearly level to moderately steep soils on hills, drumlins, till plains, and ground moraines. Slope ranges from 0 to 25 percent.

j. Proposed soil and slope stabilization program:

a) Install erosion control measures (Compost Filter Socks or equal) at the downgradient portion of the property to prevent sediment from leaving the site.

b) Install sediment control measures around all catch basins and Erosion Control Silt Sacks in the basins.

c) Grade site to bring the roadway to subgrade, install utilities, place binder course of pavement, and loam and seed side slopes.

d) Construct houses, loam, and seed all disturbed areas.

k. Destination(s) of materials to be removed:

Any export from the site is expected to be transported to 39 Sunset Rock Road.

l. Estimated number of truckloads of materials:

Assuming an average of eighteen (18) cubic yards per truck, the estimated number of truckloads of materials is one hundred (117).

m. Proposed schedule of removal operations:

Although the schedule of operations is unknow at this time, typically the operation time is between 7:00 am and 5:00 pm.

n. Volume of earth materials to be re-graded on the site:

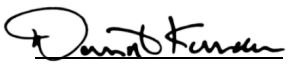
The site cut volume, including foundations and basements, is approximately 4,000 cubic yards and the site fill volume is approximately 1,900 cubic yards. No assumption has be made for shrinkage or expansion in the calculations so the net excess is approximately 2,100 cubic yards.

o. Proposed soil and slope stabilization program:

All disturbed areas remaining idle for more than fourteen (14) days shall be stabilized. Disturbed portions of the site where construction activities have permanently ceased shall be hydroseeded within three weeks of completion. All disturbed areas shall be loamed and seeded within six (6) months from the start of that lot construction.

p. Certified statement by the engineer that the date submitted to the Board is accurate:

I certify that to the best of my knowledge, the information presented in this report is accurate.



Prepared by: Daniel Koravos, P.E.
Date: May 15, 2024

Norse Environmental Services
Test Pit Data

December 12, 2022

See Following Page

Soil Suitability Assessment

Site: 9 Bancroft Street
City/Town: Andover, MA
Soil Evaluator/Soil Scientist: Maureen Herald – Norse Environmental Services, Inc.

A. Facility Information

1. Owner Information:
   Greg Alexandris

   Street Address:
   9 Bancroft Street

   Town:

Andover	MA	01810
City/Town	State	Zip Code

B. Site Information

1. (Check one) New Construction ☐ Upgrade ☐ Repair ☐

2. Published Soil Survey available? Yes ☒ No ☐ If yes: Web Soil Survey (Year Published) 1"=1410 (Publication Scale) 310 (Soil Map Unit)

   Woodbridge (Soil Name) None (Soil limitations)

3. Surficial Geological Report available? Yes ☐ No ☒ If yes: _____ (Year Published) _____ (Publication Scale) _____ (Map Unit)

   _____ (Geologic Material) _____ (Landform)

4. Flood Rate Insurance Map:

   Above the 500-year flood boundary? Yes ☒ No ☐ Within the 100-year flood boundary? Yes ☐ No ☒

   Within the 500-year flood boundary? Yes ☐ No ☒ Within a Velocity Zone? Yes ☐ No ☒

5. Wetland Area: National Wetland Inventory Map _____ (Map Unit) _____ (Name)

   Wetlands Conservancy Program Map _____ (Map Unit) _____ (Name)

6. Current Water Resource Conditions (USGS) Aug/2022 (Month/Year) Range: Above Normal ☐ Normal ☐ Below Normal ☒

7. Other references reviewed: _____

Soil Suitability Assessment

Site: 9 Bancroft Street
City/Town: Andover, MA
Soil Evaluator/Soil Scientist: Maureen Herald – Norse Environmental Services, Inc.

C. On-Site Review

Deep Observation Hole Number: DH 1 – DH 4 | 12/12/22 (Date) | 10:00 a.m. (Time) | Cloudy - 33F (Weather)

1. Location

   Ground Elevation at Surface of Hole: See Plan

   Location (Identify on Plan): See Plan

2. Land Use: Residential site – farm field (e.g. woodland, agricultural field, vacant lot, etc.) | None (Surface Stones) | Varies (Slope (%))

   Grasses (Vegetation) | Drumloidal (Landform) | Back Slope (Position on landscape (attach sheet))

3. Distances from: Open Water Body >10 ft. (feet) | Drainage Way >100 ft. (feet) | Possible Wet Area >100 ft (feet)

   Property Line >10 ft. (feet) | Drinking Water Well _____ (feet) | Other _____

4. Parent Material: Glacial Till | Unsuitable Materials Present: Yes ☐ No ☒

   If Yes: Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock ☐

5. Groundwater Observed: Yes ☒ No ☐ - Varies throughout the Deep Holes – See next page

   If Yes: Depth Weeping from Pit _____ Depth Standing Water in Hole _____

   Estimated Depth to High Groundwater: _____ (inches) _____ (elevation)

Soil Suitability Assessment

Site: 9 Bancroft Street

City/Town: Andover, MA

Soil Evaluator/Soil Scientist: Maureen Herald – Norse Environmental Services, Inc.

Deep Observation Hole Number: DH-1

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-14”	Ap	10YR 2/2				FSL			Granular	Friable	
14-33”	Bw	10YR 5/6				FSL			Weak Blocky	Friable	
33-48”	C	2.5Y 5/3	43”	7.5YR 5/6	20%	SL			Massive	Friable	

Additional Notes: ESHWT 43” / No Observed Water

Soil Suitability Assessment

Site: 9 Bancroft Street
City/Town: Andover, MA
Soil Evaluator/Soil Scientist: Maureen Herald – Norse Environmental Services, Inc.

Deep Observation Hole Number: DH-2

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-14”	Ap	10YR 2/2				FSL			Granular	Friable	
14-28”	Bw	10YR 5/6				FSL			Weak Blocky	Friable	
28-51”	C	2.5Y 5/3	32”	7.5YR 5/6	20%	SL			Massive	Friable	

Additional Notes: ESHWT 32” / No Observed Water .

Soil Suitability Assessment

Site: 9 Bancroft Street
City/Town: Andover, MA
Soil Evaluator/Soil Scientist: Maureen Herald – Norse Environmental Services, Inc.

Deep Observation Hole Number: DH-3

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-14”	Ap	10YR 2/2				FSL			Granular	Friable	
14-25”	Bw	10YR 5/6				FSL			Weak Blocky	Friable	
25-55”	C	2.5Y 5/3	43”	7.5YR 5/6	15%	SL			Massive	Friable	

Additional Notes: ESHWT 43”/ No Observed Water

Soil Suitability Assessment

Site: 9 Bancroft Street
City/Town: Andover, MA
Soil Evaluator/Soil Scientist: Maureen Herald – Norse Environmental Services, Inc.

Deep Observation Hole Number: DH-4

Depth (In.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-9”	Ap	10YR 2/2				FSL			Granular	Friable	
9-24”	Bw	10YR 5/6				FSL			Weak Blocky	Friable	
24-51”	C	2.5Y 5/4	43”	7.5YR 6/6	20%	SL			Massive	Friable	

Additional Notes: ESHWT 43” / No Observed Water .

D. Certification

I certify that I have passed the soil evaluator examination* approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise, and experience described in 310 CMR 15.017.

Signature of Soil Evaluator	Date
Maureen Herald	SE13578
Typed or Printed Name of Soil Evaluator	Soil Evaluator Number

E. Test Pit Locations

See Plan

NRCS – National Cooperative Soils Survey

See Following Pages

Hydrologic Soil Group—Essex County, Massachusetts, Northern Part
(42215 ~ 9 Bancroft Rd, Andover, MA)

Map Scale: 1:1,210 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

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 18, Sep 9, 2022

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

Date(s) aerial images were photographed: May 22, 2022—Jun 5, 2022

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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
310A	Woodbridge fine sandy loam, 0 to 3 percent slopes	C/D	1.8	38.6%
310B	Woodbridge fine sandy loam, 3 to 8 percent slopes	C/D	2.8	59.9%
310C	Woodbridge fine sandy loam, 8 to 15 percent slopes	C/D	0.1	1.5%
Totals for Area of Interest			**4.7**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

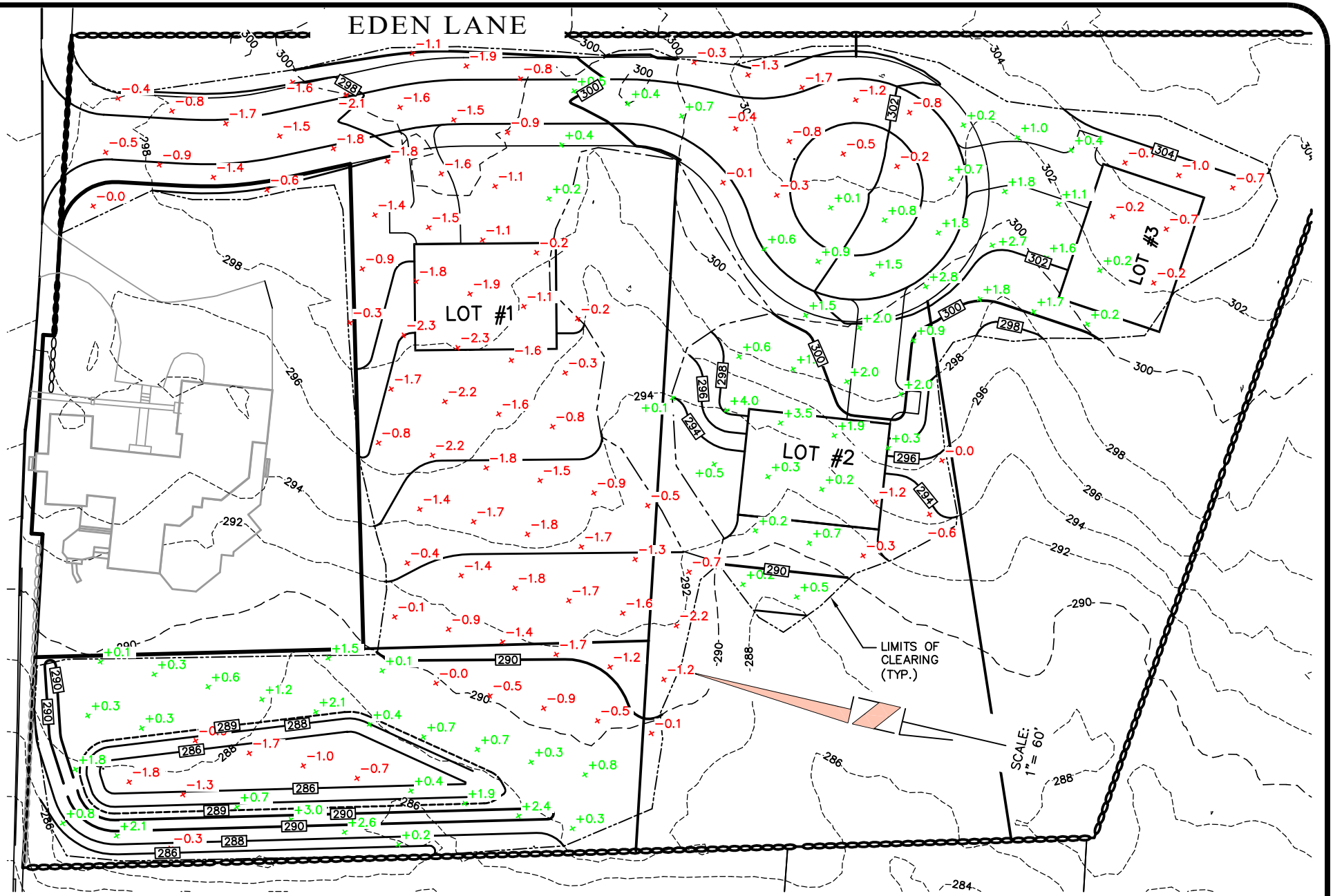
Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Earthwork Cut/Fill Exhibit

See Following Page



DK Engineering LLC

59 Granite Lane, Chester, NH 03036
Tel. Number.: (603) 505-5226
E-mail Address: dan@dke.llc

COLOR CODE
FILL
CUT

0 60 120

Assessor's Map & Lot: Map 59 & Lot 30	
Project No.: 42215	Drawing Scale: 1" = 60'
Plan Date: 05/26/24	Revised Date:

Sheet Title:

EARTHWORK QUANITIES CUT/FILL MAP

Drawing Name: 42215 ~ Earthwork Quantities 2024-05-26.dwg

Plotted on May 25, 2024 – 3:50pm