



100 Commerce Way  
 P.O. Box 2118  
 Woburn, MA 01888-0118  
 Tel: (781) 935-6889  
 Fax: (781) 935-2896

# Field Report

<b>Client:</b>	Westbrook Properties	<b>Report Date:</b>	02-12-18
<b>Project:</b>	The Aberdeen	<b>A&amp;M Project #:</b>	1687-07
<b>Location:</b>	1650 Commonwealth Avenue, Boston, MA	<b>Contractor:</b>	Dellbrook JKS
<b>Weather:</b>	Sunny, Cold, Partial Snow Cover	<b>Temperature:</b>	30 <sup>0</sup>
<b>Date of Site Visit:</b>	February 8, 2018		
<b>Time:</b>	<i>From:</i> 12:00 PM <i>To:</i> 1:00 PM		
<b>Present at Site:</b>	Steven Lee (A&M) and Kenny Roche (Dellbrook JKS)		
<b>Reported by:</b>	Steven Lee		

## The following was noted:

The purpose of this field report is to provide written documentation that the subsurface material in front of 1650 Commonwealth Avenue in Boston is not suitable for the installation of trees.

Documentation provided in this report includes site photos taken by the contractor during the installation of utilities, as well as soil test logs and photos taken by a licensed soil evaluator. In addition, a Proposed Tree and Existing Ledge Sketch (SK-1) has been provided illustrating the proposed tree areas, areas ledge was encountered, and the depth it was encountered at.

Photos were provided by the contractor during the installation of the 6" Fire Protection Water Service (Figure 1), Drywell #3 and #3B (Figure 2), Drywell #1 and #1B (Figure 3), and the installed 12" Storm Drain (Figure 4). Below is list of the approximate depth ledge was encountered at each location:

- 6" Fire Protection Water Service (Figure 1) = 6" Depth to Ledge
- Drywell #3 and #3B (Figure 2), =30" Depth to Ledge
- Drywell #1 and #1B (Figure 3), =36" Depth to Ledge
- 12" Storm Drain (Figure 4) =12" Depth to Ledge

Additionally, two (2) test pits were excavated on February 8, 2018, at two (2) tree locations abutting Commonwealth Avenue (see attached soil test logs). Refusal was met at both Test Pit #1 and #2 at 30” and 32” respectively.

Based on this information A&M has concluded that there is not enough room between the finished grade and the ledge/bedrock beneath the sidewalk abutting Commonwealth Avenue for the installation of trees. The existing ledge will not provide adequate drainage for root system of the trees.



**Figure 1 – View of existing 8” water line beneath the existing sidewalk at the fire protection connection point (See Test Pit Locations Plan – Sheet TP-1 for location)**





**Figure 2 – View of excavation of Drywell #3 and #3B at the back of sidewalk on the corner of Commonwealth Avenue and Mount Hood Street. A jackhammer was needed to remove between 24-36” of ledge to provide room for the drywells in this area. The proposed trees are approximately 20’ from this area.**





**Figure 3 – View of excavation of Drywell #1 and #1B located at the back of sidewalk. A jackhammer was needed to remove between 24-36” of ledge to provide room for the drywells in this area. The proposed trees are approximately 17’ from this area.**





**Figure 4 – View of trench for 12” PVC drain line being laid in Commonwealth Avenue (connecting DMH#4 to the drainage infrastructure in Commonwealth Avenue). Ledge is within 12” of the sidewalk in some places.**



Commonwealth of Massachusetts

City/Town of

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Tise Design Associates, Inc.
Owner Name
1650 Commonwealth Avenue
Street Address
Boston
City
MA
State
Zip Code

B. Site Information

1. (Check one) [ ] New Construction [ ] Upgrade [ ] Repair
2. Soil Survey Available? [ ] Yes [ ] No
3. Surficial Geological Report Available? [ ] Yes [ ] No
4. Flood Rate Insurance Map
5. Within a velocity zone? [ ] Yes [ ] No
6. Within a Mapped Wetland Area? [ ] Yes [ ] No
7. Current Water Resource Conditions (USGS):
8. Other references reviewed:



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C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)

Deep Observation Hole Number: TP-1 Date: 02/08/2018 Time: 11:15 AM Weather: Sunny, Cold, 25°

1. Location

Ground Elevation at Surface of Hole: 176.6 +/- feet Latitude/Longitude: /

Description of Location: Abutting Commonwealth Avenue in Brighton

2. Land Use

Developed

(e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

3. Distances from: Open Water Body none feet Drainage Way none feet Wetlands none feet Property Line 12' +/- feet Drinking Water Well none feet Other feet

4. Parent Material: Fill/Udorthents Unsuitable Materials Present: [X] Yes [ ] No

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

5. Groundwater Observed: [ ] Yes [X] No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: inches elevation



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C. On-Site Review (continued)

Deep Observation Hole Number: TP-1

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-23"	Fill										
23-30"	B	10YR 3/6				Sandy Loam	10%	<5%	Massive	Firm	
30" +	Refusal	N/A				Bedrock					

Additional Notes:

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Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review (continued)

Deep Observation Hole Number: TP-2 Date: 02/08/18 Time: 12:35 PM Weather: Sunny, Cold, 25°

1. Location

Ground Elevation at Surface of Hole: 179.0 +/- feet Latitude/Longitude: /

2. Land Use

Developed (e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

3. Distances from: Open Water Body none feet Drainage Way none feet Wetlands none feet Property Line 12' +/- feet Drinking Water Well none feet Other feet

4. Parent Material: Fill/Usorthents Unsuitable Materials Present: [ ] Yes [x] No

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

5. Groundwater Observed: [ ] Yes [x] No If yes: Depth Weeping from Pit Depth Standing Water in Hole

Estimated Depth to High Groundwater: inches elevation



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City/Town of \_\_\_\_\_

**Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

**C. On-Site Review** (continued)

Deep Observation Hole Number: \_\_\_\_\_

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color- Moist (Munsell)	Redoximorphic Features			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-30"	Fill										
30" +	Refusal	N/A				Bedrock					

Additional Notes:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



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D. Determination of High Groundwater Elevation

1. Method Used:
- Depth observed standing water in observation hole
  - Depth weeping from side of observation hole
  - Depth to soil redoximorphic features (mottles)
  - Depth to adjusted seasonal high groundwater (S<sub>h</sub>) (USGS methodology)

Obs. Hole # _____	Obs. Hole # _____
_____ inches	_____ inches
_____ inches	_____ inches
_____ inches	_____ inches
_____ inches	_____ inches

\_\_\_\_\_ Index Well Number      \_\_\_\_\_ Reading Date

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole # _____	S <sub>c</sub> _____	S <sub>r</sub> _____	OW <sub>c</sub> _____	OW <sub>max</sub> _____	OW <sub>r</sub> _____	S <sub>h</sub> _____
Obs. Hole # _____	S <sub>c</sub> _____	S <sub>r</sub> _____	OW <sub>c</sub> _____	OW <sub>max</sub> _____	OW <sub>r</sub> _____	S <sub>h</sub> _____

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material
- a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?
- Yes       No
- b. If yes, at what depth was it observed?      Upper boundary: \_\_\_\_\_ inches      Lower boundary: \_\_\_\_\_ inches
- c. If no, at what depth was impervious material observed?      Upper boundary: 0 inches      Lower boundary: 30" inches





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# Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

## F. Board of Health Witness

N/A  
Name of Board of Health Witness

N/A  
Board of Health

## G. Soil Evaluator Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

[Signature]  
Signature of Soil Evaluator

02-09-18  
Date

STEVEN LEE / SE13936  
Typed or Printed Name of Soil Evaluator / License #

01-01-19  
Expiration Date of License

**Note:** In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).



**Commonwealth of Massachusetts**

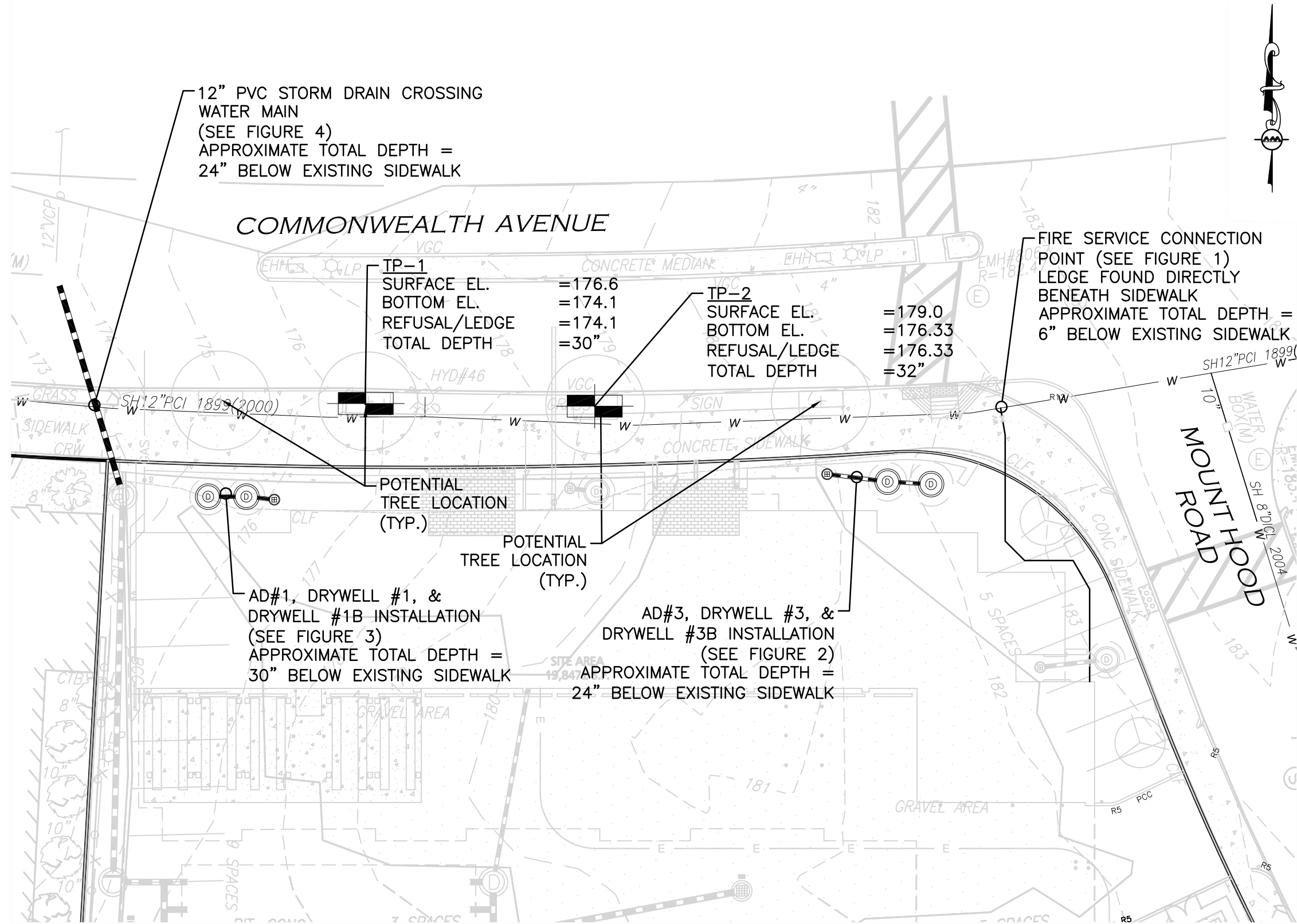
City/Town of

# **Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal**

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## **Field Diagrams**

Use this sheet for field diagrams:



GRAPHIC SCALE



( IN FEET )  
 1 inch = 20 ft.

**APPLICANT/OWNER:**  
 TISE DESIGN ASSOCIATES  
 246 WALNUT STREET  
 NEWTON, MA 02460

**PROJECT:**  
**THE ABERDEEN**  
 1650 COMMONWEALTH AVE.  
 BOSTON, MA

PROJECT NO.	1687-07	DATE:	02-12-2018
SCALE:	1" = 20'	DWG. NAME:	C1687-07
DESIGNED BY:	SJL	CHECKED BY:	CMQ

PREPARED BY:



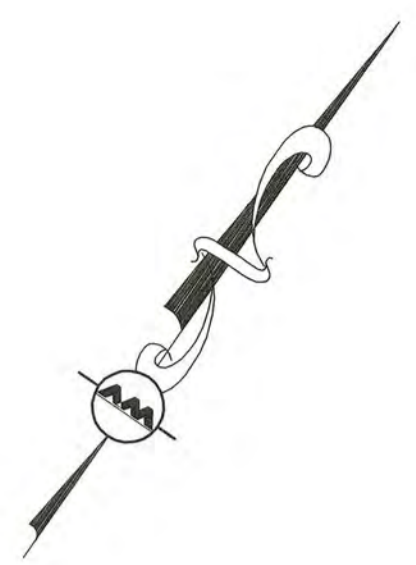
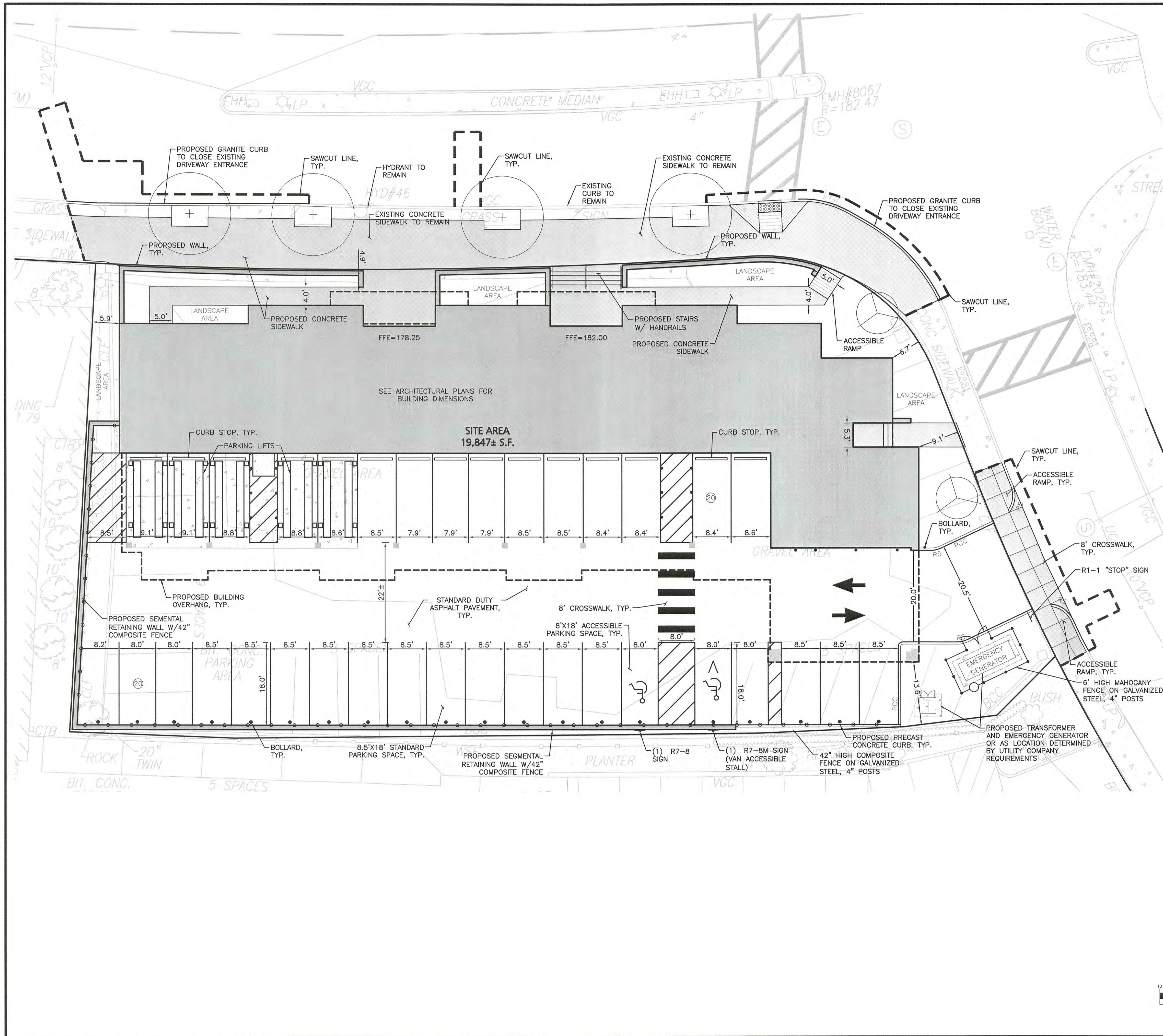
**ALLEN & MAJOR ASSOCIATES, INC.**  
 civil & structural engineering ♦ land surveying  
 environmental consulting ♦ landscape architecture  
 www.allenmajor.com  
 100 COMMERCE WAY  
 WOBURN MA 01801-8501  
 TEL: (781) 935-6889  
 FAX: (781) 935-2896  
 WOBURN, MA ♦ LAKEVILLE, MA ♦ MANCHESTER, NH

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<b>DRAWING TITLE:</b> <b>PROPOSED TREE &amp; EXISTING LEDGE SKETCH</b>	<b>SHEET No.</b> <b>SK-1</b>
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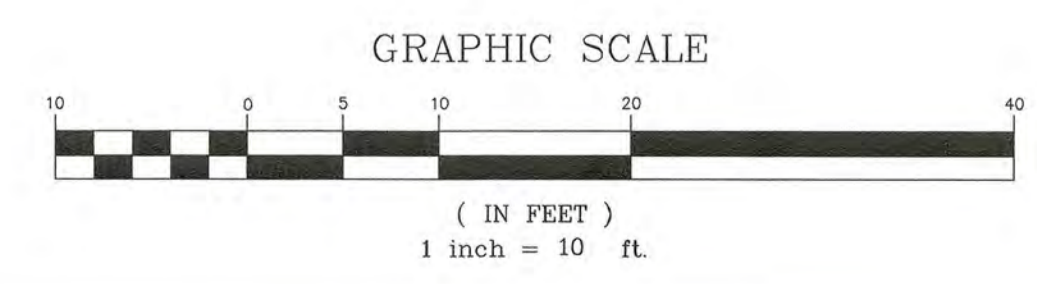




**LEGEND:**

- EX. PROPERTY LINE
- SIGN
- BOLLARD
- BUILDING
- BUILDING ARCHITECTURE
- BUILDING INTERIOR WALLS
- CURB
- RETAINING WALL
- PARKING STRIPING
- TRAFFIC ARROWS
- PARKING COUNT

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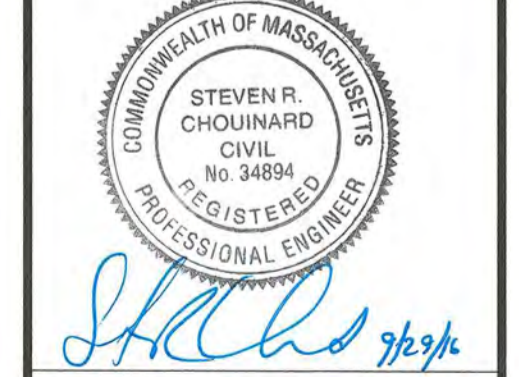
**TDA**

**TISE DESIGN ASSOCIATES**  
 Project Management  
 Architecture Site Planning  
 Suite 303  
 246 Walnut Street  
 Newtonville, Massachusetts 02460  
 617 . 581 . 6601 617 . 581 . 6611 fax

DATE: OCTOBER 1, 2016	PERMIT SET
SCALE: 1" = 10'	CONFORMED CONSTRUCTION SET
PROJECT NO.:	A&M # 1687-07

**THE ABERDEEN**  
 1650 COMMONWEALTH AVENUE, BOSTON, MA.  
 DRAWING TITLE:  
 LAYOUT & MATERIALS PLAN

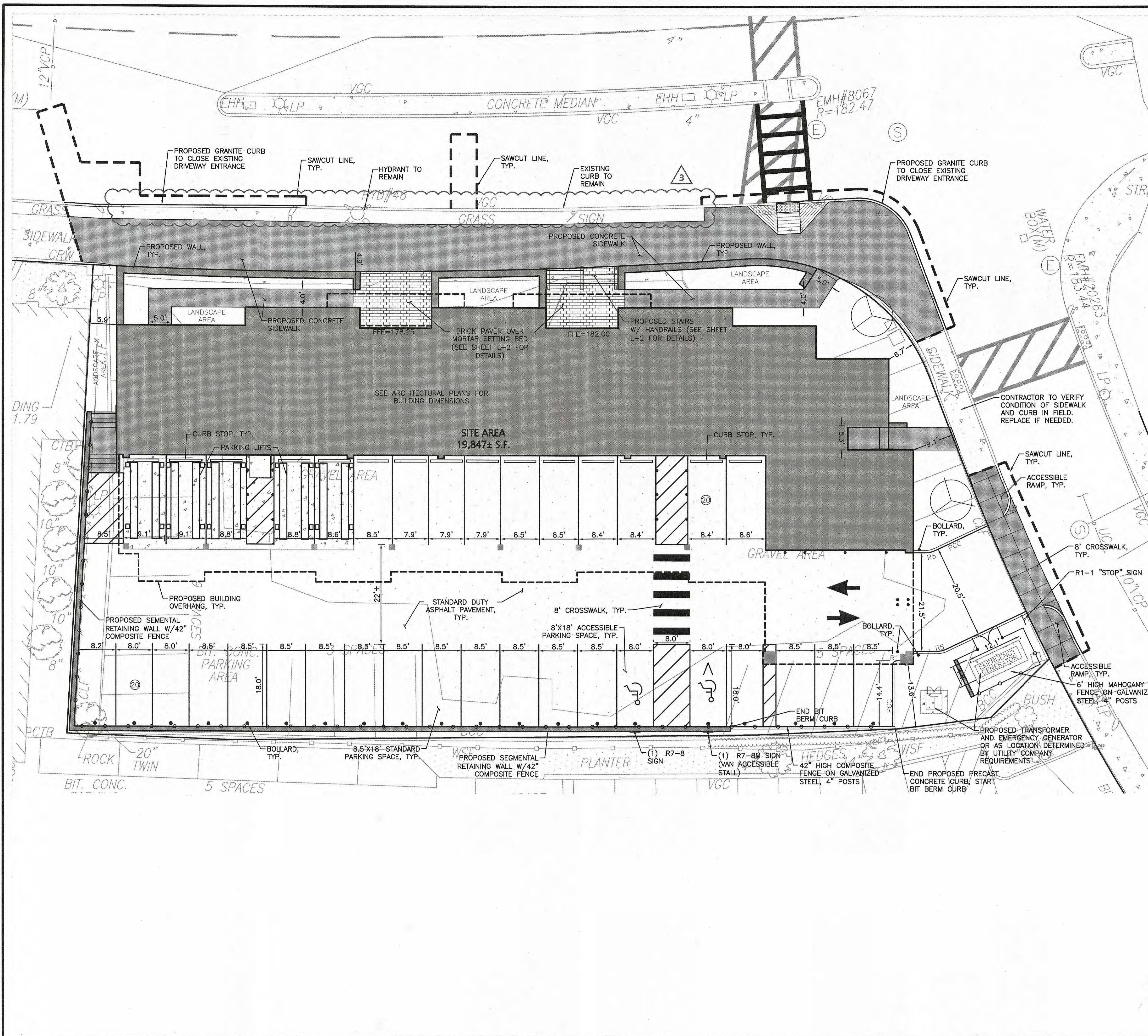
REGISTRATION



DRAWING NO.

**C-2**

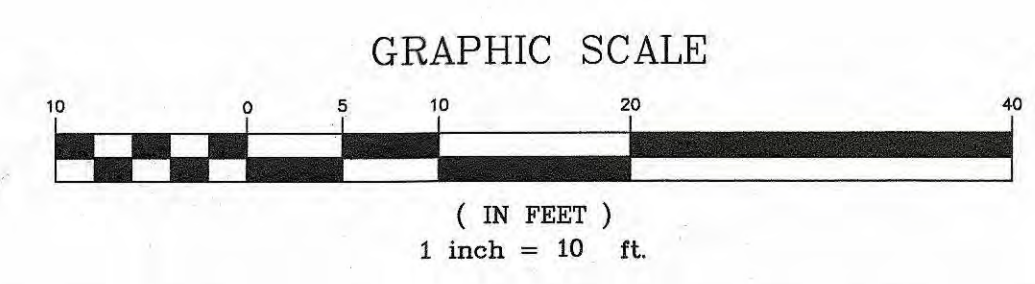




**LEGEND:**

- EX. PROPERTY LINE
- SIGN
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- BUILDING ARCHITECTURE
- BUILDING INTERIOR WALLS
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DATE: OCTOBER 1, 2016	PERMIT SET	01/09/2016
SCALE: 1" = 10'	CONFORMED CONSTRUCTION SET	10/01/2016
PROJECT NO.:	REVISION 1	11/10/2017
A&M #1687-07	REVISION 2	1/6/2018
	REVISION 3	1/23/2018

**THE ABERDEEN**  
 1650 COMMONWEALTH AVENUE, BOSTON, MA.  
 DRAWING TITLE:  
 LAYOUT & MATERIALS PLAN

