

5/15/2020

Construction Management Plan

Prepared For:

The Preserve at Abbyville

Prepared By:

Abbyville Development, LLC.
850 Franklin Street, Suite 16
Wrentham, Mass. 02093

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1.1 Project Names, Developer, Project Management and Descriptions

1.1.1 Project Names and Developers. The Project subject to this Construction Management Plan is: The Preserve at Abbyville (Abbyville) which will include a portion of the land that was formerly part of the Abbyville Commons Project, as well as a part of the land that was formerly part of the former Preserve at Abbyville Project. The Developer is Abbyville Development, LLC and Abbyville Residential, LLC where both entities are intended to be merged to maintain the Project under the Abbyville Development LLC entity. The onsite Project Management will be performed by DiPlacido Development Corp. having a principal place of business at 850 Franklin Street, Suite 16, Wrentham, Massachusetts. Office Tel: 508-384-6324; Emergency Cell: 508-726-9573; Fax: 508-384-1217; Email: tom@diplacidodevelopment.com

1.1.2 The Preserve at Abbyville Project Description. Abbyville is a community of forty-four (44) condominiums and 20 single family homes. The Condominiums will consist of twenty (22) duplex buildings located on one condominium lot. The single family homes will each be sited on their own buildable lot with private parking and landscaping maintained independently. However, they will all belong to a private HOA so that open space and other improvements that are part of Abbyville may be professionally maintained at all times.

1.2 Location

1.2.1 Projects Description. The Abbyville entrance is located at 67 Lawrence Street

Once the project receives approval the Town will develop the appropriate emergency/911 addresses for each project unit to ensure effective emergency response.

The primary entrance for all vehicles is located at 67 Lawrence Street, Norfolk.

1.3 Overview of Construction Plan

Of the 66.4+/- acres comprising Abbyville, approximately Forty-Eight (48+/-) acres will be developed as the Condominium Lot and Eighteen (18+/-) acres will be developed into single family homes and supporting road infrastructure. Furthermore, the Condominium Lot will have over Twenty-Five (25) acres that is remaining undeveloped.

While the roadway, utility and other infrastructure is being constructed, the dwelling construction will commence and subsequent occupancy will occur according to the Comprehensive Permit by the Town of Norfolk Zoning Board of Appeals. Abbyville sub-grade, infrastructure and road construction will be constructed in one continuous phase.

2.1 Preconstruction Schedule

The following tasks constitute the protocol for preconstruction management:

- 14 days prior to commencement of construction, schedule a Preconstruction Meeting with Town Planner, Police Chief, Fire Chief, Conservation Agent, Building Inspector and Town Administrator to review Construction Management Plan;
- After Preconstruction meeting, but no later than 7 days prior to construction commencement, notify immediate abutters on Lawrence Street of construction commencement;
- Erosion/sedimentation controls and construction barrier fencing will be installed and the Conservation Commission will be notified for site inspection.

2.2 Commencement Plan and Description:

Site work is planned to commence either in the Fall of 2020 or the Spring of 2021 pending Final Approval from the Town of Norfolk and Mass Housing.

It will continue for four to six months until the subgrade and development infrastructure is installed and then housing construction will begin.

Off Site Improvements: The improvements to Lawrence Street include the extension of the water main, hydrants and other miscellaneous water infrastructure as may be needed. This is to be commenced and completed prior to the first certificate of occupancy being issued.

2.3 Days & Hours of Operation:

In accordance with the Comprehensive Permit issued by the Zoning Board of Appeals, the Construction and Installation of the Roadway and Municipal services shall occur Monday through Friday between the hours of 7:00AM and 5:00PM and Saturday 8:00AM and 5:00PM, and there shall be no construction activity on State or Federal Holidays.

2.4 Primary Construction Schedule:*

The following summarizes the projected duration of specified construction activities on a task-specific basis:

2.4.1. Demolition (1-3 days): After securing permits, prepare the existing houses to be razed, remove all debris off site and dispose of properly before commencing Initial Set Up of Construction Entrance Driveway.

2.4.2. Initial Set Up (1-4 days): Prepare a construction entrance driveway. This driveway will be a stone-stabilized pad that is installed for the purpose of keeping mud and sediment off of public roads. The stone stabilization entrance/exit pad shall be constructed of 1- 3 inch stone placed 6 inches thick over a geotextile fabric that separates the stone and the earth surface to reduce migration of the soil particles from the underlying soil into the stone and vice versa. The minimum dimensions of this pad shall be 100 feet in length by 24 feet in width. This entrance will be maintained in a condition that will prevent tracking or the flow of sediment into the public right of way. The entrance/exit pad will be inspected daily while in operation and top dressed with new stone and/or replacing existing stone if the soil particles clog the voids and sufficiently limit the effectiveness of the pad.

2.4.3. Site Clearing (14-21 days): Tree clearing, chipping, stump removal, grubbing and partial stripping will be performed for the entire site.

There will further be a stump grindings/mulch stockpile that is located in an area that is either at grade or will require minimal preparation. The stump grindings are a great resource to re-use onsite for erosion control, sedimentation barriers, thermal barriers and composting to add nutrients into the soil. By utilizing these stump grindings on-site, we not only are recycling and repurposing a natural resource but we are also significantly reducing truck traffic by not removing many acres of stumps to an off-site disposal facility.

2.4.4. Stripping & Stockpiling Loam (14-21 days): Loam will be removed from the cleared areas and stockpiled in the designated short term stockpile area to be screened. Screening will commence as soon as possible to insure that there is an inventory of screened loam for groundcover, landscaping and seeding. Screening will continue on an as needed basis once a significant inventory is established. Any stockpiles not being processed will be covered with stump grindings or seeded after 60 days. Once a fill area is stripped of overburden and a cut area is opened, site leveling will commence.

2.4.5. Site Levelling & Earth Import (21-28 days): The entire site will be levelled and brought to subgrade for the preparation and installation of utilities and infrastructure. If required Earth Import will occur during this phase. Please see Appendix 2.4.5 for Earth Import Estimate.

2.4.6. Site Infrastructure (30-45 days): Commence installation of all infrastructure including drainage, water and underground utilities.

2.4.7. Unit Foundations, Site Work & Unit Construction (24-36 months): Unit foundations, site work for the units, and unit construction will continue until they are completed. Dependent on market conditions and other typical construction factors, we expect the units to be completed within a 24-36 month timeframe.

Once the units are complete, the sidewalks, curb, berm and bituminous concrete top course will be installed where there is no potential for damage due to construction vehicles or equipment.

*Note that the expected duration of each of the listed tasks is approximate only, is not exact, and will be affected by any number of factors like any typical residential construction project of this nature such as including but not limited to the following, delay, obstruction or interference resulting from: (i) an act of God, landslide, lightning, earthquake, fire, explosion, flood, sabotage or similar occurrence, acts of a public enemy, war, blockage or insurrection, riot or civil disturbance; (ii) any legal proceeding commenced by any party seeking judicial review of any governmental approvals, or any restraint of law (e.g., injunctions, court or administrative orders, or moratorium imposed by a court, or administrative or governmental authority); (iii) the failure of any utility or governmental entity required by law to provide and maintain utilities, services, water and sewer lines and power transmission lines to the project property, which are required for the construction of the Projects or for other obligations of the developer; (iv) any unexpected or unforeseen subsurface condition at the construction site inconsistent with typical background conditions of a similar site, which shall prevent construction, or require a material redesign or change in the construction of, or materially adversely affect the completion schedule for, the Projects, such determination to be made by a qualified engineer; (v) any unexpected or unforeseen subsurface environmental conditions on or from or otherwise affecting the property but not readily identifiable by visual inspection and which originated from the property; (vi) strikes, work stoppages or other substantial labor disputes; (vii) the failure or inability of any subcontractor or supplier to furnish supplies or services if such failure or inability is itself caused by an unavoidable delay and/or could not have been reasonably prevented and the affected party cannot reasonably obtain substitutes therefore; (viii) a change in project financing which could not have been reasonably anticipated by developer; or (ix) any unreasonable delay which is caused or created by a board or officer of the Town from whom a permit or approval is sought, provided that the developer shall have timely complied with the reasonable requests and requirements of any governmental authority. Accordingly, the schedules defined in this Plan shall be extended for the period of the delay, involving not only actual work stoppages but also any consequential delays resulting from such stoppages as well.“

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3.1 Anticipated Traffic Per Construction Schedule:

3.1.1 *Site Clearing:* Construction traffic during site clearing will consist of approximately six workers arriving at the site by 7:00AM to operate land clearing equipment until 5:00PM when they will leave the site.

3.1.2 *Stripping, Site Levelling & Earth Removal:* Construction traffic during the stripping, and site levelling will be approximately eight workers arriving at the site by 7:00AM to operate heavy equipment onsite until 4:00PM when they will park the equipment in a dedicated "Equipment Parking and Storage Area" (EPSA) before they leave and secure the site. Please see Appendix 3.1 for the proposed location of the EPSA.

3.1.3 *Site Infrastructure:* Construction traffic during the site infrastructure installation stage will be minimal and is expected to be approximately four to eight workers arriving at the site by 7:00AM to operate the equipment required to install water and drainage. The workers will work until approximately 4:00PM when they will park the equipment and leave the site. We would expect an average of 1 or 2 deliveries per day of water or drainage stock to be brought into the site and unloaded the EPSA.

3.1.4 *Retaining Wall Construction:* Prior to the start of the wall construction an engineered wall design shall be submitted and reviewed by the consultant for the Norfolk Zoning Board of Appeals. Then a building permit will be required. The wall on Lots 8-11 shall be completed before the start of dwelling construction on those lots.

To build the retaining wall a level working platform approximately 20 feet in width, running parallel to the lot line at an elevation of 229 (or as may be required by the engineer) will be installed the entire length of the wall. It will graded into the side of the slope and under the proposed wall so that construction equipment and stock can access the area where the wall is to be built. A properly sloped drive will allow equipment access to the working platform from the area of Lot 7 for the wall construction to start at the most northerly end, by Lot 12.

The wall will be built from Lot 12 and working towards the ramp on Lot 7. As the wall is built, it will be inspected by the design engineer, the town building inspector, then properly graded, loamed, seeded and erosion matting will be installed. We expect this construction take approximately 14 days from start to finish.

3.1.5 Unit Construction: Recent traffic studies that we have performed in a similar Residential development illustrate that there is an insignificant difference in the total traffic count in connection with traffic generated by either: (a) multiple houses under construction while at the same time homes are being occupied at the site; or, (b) houses that are occupied. If we estimate a delivery schedule of 24 units per year, and ten to twelve units are consistently under construction at any given time during that year, than we can project that those units under construction will generate between 110 to 140 trips per day for workers and deliveries. Please note that for purposes of Section 3.1.4 the term “Unit” is defined as a residential building within a duplex as well a single family home.

3.2 Site Staging & Stockpile Management

The existing site is well situated for onsite staging of vehicles, equipment, inventory, stock and deliveries so that there would not be any off-site parking or idling once tree clearing has been completed. Please see Appendix 3.1 for the proposed location of the EPSA.

3.3 Site Access and Egress

Subject to the Town of Norfolk Construction Vehicle General Bylaw described above

3.4 Truck/Contractor Routes

All vehicular traffic will be limited to the hours set forth in Section 2.3. Access to and from the Site for all vehicles other than loaded dump trucks will be either through Lawrence towards Park Street or Lawrence Street/Mill Street to Chestnut Street in Franklin. Loaded Earth Hauling Trucks (Dump Trucks) will enter the site from Mill Street and exit unloaded/empty onto Lawrence Street towards Park Street.

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4.1 Construction Period Noise

Construction will require the use of equipment that will be heard off-site, but ambient background noise conditions as well as the significant variation of topography and vegetation will lessen the impacts from construction noise.

Every reasonable effort will be made to minimize the noise impact of construction activities. Mitigation measures will be as follows:

- Scheduling work during daytime hours in accordance with Section 2.3 Days & Hours of Operation;
- Using appropriate mufflers on all equipment and providing ongoing maintenance of intake and exhaust mufflers;
- Maintaining muffler enclosures on continuously operating equipment such as generators and air compressors and locating them as far away as possible from residential receptor locations;
- Replacing specific construction operations by less noisy ones where feasible and practical. For instance, electric equipment instead of gas or diesel powered;
- Turn off idle equipment;
- Securing any decking on roadways so that there is no rattling when traffic passes;
- Using vehicles with either ambient sensitive or manually adjustable backup alarms; and,
- Posting speed limit and no tailgate slamming signs within the site to reduce the noise created by bouncing trucks and loud tailgate slams.

4.2 Dust Control

During the construction period of the Project, temporary effects on ambient air quality within the construction site may occur. Impacts associated with construction activities will generate fugitive dust, which may result in localized increases in particulate levels.

Principle on-site source particulates include the excavation process, exposed storage piles and unpaved areas. Exposed soil surfaces that are nearly level have little potential for runoff erosion, but may be subject to severe wind erosion.

Fugitive dust is not expected to significantly impact neighbors given the substantial buffers of tree vegetation and elevation between the proposed construction and existing residences. Nevertheless, the construction contract will provide for a number of measures to be utilized by contractors to reduce potential emissions and minimize impacts. These include:

- Using water on exposed unpaved haul roads on a scheduled basis can significantly reduce dust.
- Applying stump grindings to exposed non-vegetated areas not under construction;
- Applying stump grindings or seed to stockpiles after 60 days of inactivity;
- Using covered trucks for off-site hauling;
- Minimizing spoils on the construction site
- Minimizing storage of debris on the site
- Monitoring of actual construction practices to ensure that unnecessary transfers and mechanical disturbances of loose materials are minimized;
- Conduct as needed street sweeping & cleaning to minimize dust accumulations;
- Increasing the distance between vehicles traveling on the site. The distance placed between trucks can significantly minimize airborne dust.
- Post speed limits on all haul roads to minimize airborne dust.

4.3 Sanitation & Construction Waste

The Construction Manager will be responsible for processing and recycling of construction waste and will contract with a licensed waste hauler having off-site sorting capabilities. All construction debris will be taken off site by the waste hauler, sorted as either recycled debris or waste debris and sent to the proper recycling center or waste facility. As necessary, construction debris will be covered to minimize air born dust particles.

Portable sanitary facilities will be provided on-site as required by applicable codes at locations appropriate to the stage of construction. The facilities will be maintained on a regular basis to prevent offsite odor migration.

4.4 Security

The Main Construction Entrance will be secured while site work is active. The site staging areas will be secured within the site.

4.5 Erosion and Sedimentation Controls

The project will require the disturbance of more than one (1) acre of land and as a result, the Owner will be required to file with the EPA a Notice of Intent for Stormwater Discharges Associated with Construction Activities under an NPDES General Permit program and prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the NPDES permit requirements. The purpose of the SWPPP is to outline the erosion control best management practices (bmp's) to be installed and maintained by the contractor during the duration of construction for the purposes of preventing construction related sands/sediments discharging onto adjacent properties. Prior to the commencement of site work construction, the engineering team will review with the Owner and Contractor their respective roles and responsibilities as it pertains to the implementation, inspections, modifications to the erosion control best management practices (bmp's) and record keeping requirements of the SWPPP documents as required under the 2017 NPDES General Permit.

The construction activities associated with the project will require the contractor to implement a variety of erosion control best management practices (bmp's) designed to remove pollutants from stormwater runoff during the duration of construction. To achieve these measures during construction, the contractor will be required to minimize the area of exposed soil, control the rainfall discharge runoff rate and direction, and provide for stabilization of exposed areas upon the conclusion of earthwork activities. To minimize the potential for construction related impacts to adjacent properties, the erosion control bmp's will be inspected and maintained regularly as outlined in the SWPPP report and until such time the site has been stabilized with permanent ground cover.

Design, installation, and maintenance of soil erosion and sediment control best management practices (bmp's) implemented during construction will meet the performance standards outlined in the Massachusetts Stormwater Management Policy Guidelines and shall conform to the Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas. The erosion control bmp's will also be designed, installed and be maintained in accordance with the guidelines for coverage under the EPA NPDES 2017 General Permit for Stormwater Discharges Associated with Construction Activities.

The inspection and maintenance of the erosion and sediment control (bmp) measures is critical to their effectiveness. Maintenance will be an ongoing process for the duration of construction and will continue until the site has been deemed stabilized. As required by the NPDES permit, the erosion and sediment control measures will be inspected weekly, with repairs made as required and after each rainfall event of 0.25 inches or more. The contractor will be required to maintain an erosion control log book which documents the contractor's observations during inspection as well as document any changes and/or repairs made to the erosion control bmp's.

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4.5 **Blasting**

There is a likelihood that Blasting of Bedrock or Ledge may be required. However, we will try to avoid blasting by either constructing around it, integrating into the landscape or utilizing a hydraulic hammer. If it is necessary than applicable Federal, State and Local Procedures would be followed.

Specifically as required under local guide lines for obtaining a “Blasting Permit:”

A Permit for blasting operations would be obtained from the **Fire Chief**. When filing for a Blasting Permit (Form 13A), the following information will be required:

- * Certificate of Competency
- * Explosives User Certificate (copy)
- * Blast Design Plan
- * Blast Analysis
- * Pre-Blast Survey Documentation (must include list of addresses where Pre-Blast Inspection surveys were accepted/refused)

The Fire Department requires an on-site Fire Detail for all blasting operations. The cost of the Fire Detail, if for only one (1) day, is required to be paid in full. If the blasting operation involves multiple days, at least one-half of the total is required at the time the Permit is issued. Fire Detail rates are staffed in four (4) increments only.

Blasting Permits are issued for a maximum of thirty (30) days and are specifically issued solely for the licensed blaster who will be conducting the actual blasting. If more than one licensed blaster is anticipated to be working the site, then a separate Permit is required.

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5.1 Contact Information & Abutter Notification

A 24-hour emergency contact list will be distributed to all parties involved in the Project, as well as to designated Town personnel. This list shall contain at least three (3) representatives for the Developer/Contractor. A 24-hour complaint telephone number shall be provided and will be posted at the Project Trailer.

Access to the site for emergency vehicles will be coordinated with the Norfolk Police and Fire Departments and maintained at all times.

5.2 Site Inspections & Reporting

Site Inspections by the appropriate Town Inspectional Department or Review Engineer will be coordinated for all utility installation and road construction.

Weekly Inspections shall occur by the design engineer when any onsite road construction, earth removal or utility work is performed. Reports will be emailed to the Zoning Board of Appeals and the Building Inspector within 7 days of an inspection upon request.

The reports shall document site activity, the inspection of work completed and earth removal activities.

5.3 Compliance With Applicable Laws.

In connection with construction activities undertaken in accordance with this Plan, the developer and subcontractors shall comply with all applicable federal, state and local laws, including but not limited to, the best management practices contained within the Stormwater Pollution Prevention (SWPPP) Plan that will be issued in connection with a US EPA National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities which will be obtained by the developer/operator prior to commencement of construction activities at the site, as noted in Section 4.5 above.

APPENDIX 2.4.5
EARTH IMPORT ESTIMATE

EARTH IMPORT ESTIMATE

The most recent estimates of Cut and Fill are as follows:

| | |
|-------------|------------------|
| Site Cuts: | 88,215cy |
| Site Fills: | <u>105,921cy</u> |
| To Balance: | 17,706cy Import |

From a Development perspective this a significant decrease in the overall import and truck traffic that will be required to construct the road, infrastructure and dwellings.

Most importantly, with the cuts and fills that are involved with the development of this site, it should be stated that any fill area that is greater than 18" in depth will be brought up in 12" to 18" lifts and each lift will be tested for 95% compaction. This will be performed daily or as needed for each lift with a soil density gage by a certified testing firm before placement of material for the next lift. Reports for compaction can be supplied to the Town of Norfolk upon request.

Logistically, material management of any site is depends on the quality of material that is onsite. We believe that the quality of material on this site should be able to meet that of a "structural fill type" of material. With this quality of material, we believe that the roads and infrastructure should be able to be built without the import of "Fill."

However, dense graded gravel and bituminous concrete will need to be hauled in to grade the sub base of the road and to pave the road. If we breakdown these quantities the following is required:

Dense Graded Gravel:

- Public Road: 900+/- cy
- Condominium Road 450+/- cy

Bituminous Concrete:

- Public Road: 705+/- cy
- Condominium Road 370+/- cy

Total: 2,425+/- cy

Material displacement is another logistic which reduces the amount of import material. The typical house that is proposed for this development averages 1,175sf of subsurface basement area. If that area is 5.5 feet below grade, than each house would displace an average of 240cy. Therefore, the twenty typical houses would displace a total of 4,800cy of fill that would not have to be hauled in to the site.

The same material displacement formulas may be applied with the condominiums. There are twenty two buildings that average 1,712sf of subsurface basement area each. If that area is 5.5 feet below grade, than each building would displace 350cy. Therefore, twenty two buildings would displace a total of 7,675cy of fill that would not have to be hauled in to the site.

With the 4,800cy of fill displaced by the houses and 7,675cy of fill displaced by the condominium buildings, the net fill required becomes $17,706\text{cy} - 4,800\text{cy} - 7,675\text{cy}$ for a remainder of 5,231cy. If we than reduce that by 2,425cy of material required for the roads we are left with 2,806cy to be imported.

For this site, it is estimated that the precast structures, retaining walls, septic systems, concrete pipe, water main, conduit and other infrastructure required for the dwellings will more than offset the remaining 2,806cy of required structural fill.

Therefore, this site is not going to have trucks importing tens of thousands of cubic yards of material. It rather will be off and on hauling as construction continues to fill in and around house lots and infrastructure. If anything there may be some export of non-structural fill that cannot be used under infrastructure, road bases, sidewalks, septic systems or foundations. This will have a minimal impact to the surrounding neighborhood.

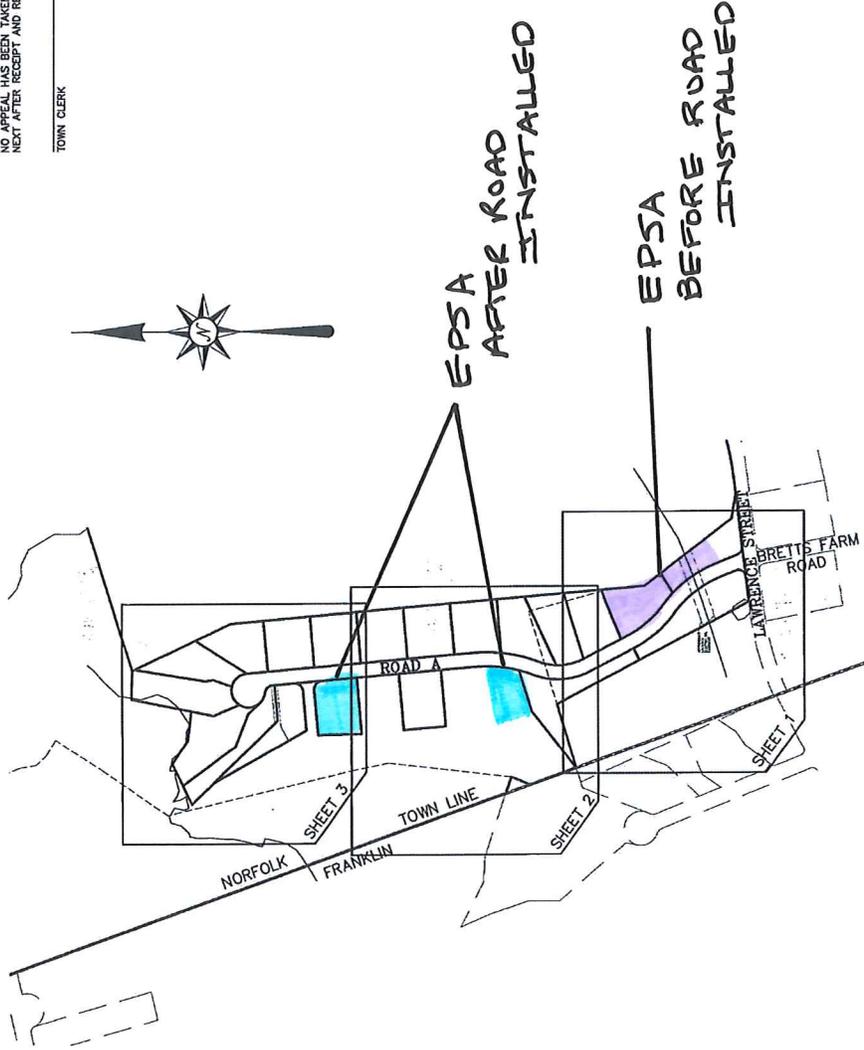
APPENDIX 3.1
EPSA

COVENANTS TO BE RECORDED HEREWITH.
 APPROVED _____ SUBJECT TO COVENANT
 CONDITIONS SET FORTH IN A COVENANT EXECUTED
 BY _____ DATED _____
 AND TO BE RECORDED HEREWITH.

I, TOWN CLERK OF THE TOWN OF NORFOLK,
 HEREBY CERTIFY THAT THE BOARD OF APPEALS APPROVAL OF THIS PLAN AND
 NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS
 NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

FOR REGISTRY USE ONLY



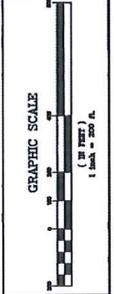
| NO. | DATE | DESCRIPTION | BY |
|-----|----------|------------------------|-----|
| 4 | 12/27/16 | REVISED LAYOUT | RCG |
| 3 | 1/24/17 | COMMENTS FROM HEARING | RCG |
| 2 | 1/14/17 | ROAD NAMES | RCG |
| 1 | 1/2/17 | ROUNDRY AND LOT LAYOUT | RCG |
| RCG | DATE | DESCRIPTION | BY |

| NORFOLK BOARD OF APPEALS | |
|--------------------------|---------------|
| DATE APPROVED | DATE ENDORSED |
| | |
| | |
| | |
| | |

THE PRESERVE AT ABBYVILLE
 EXISTING CONDITIONS AND
 GRADING AND UTILITY
 INDEX SHEET
 NORFOLK, MASSACHUSETTS
 FOR
 ABBYVILLE DEVELOPMENT LLC
 860 FRANKLIN STREET
 WRENTHAM, MASSACHUSETTS
 DATE: MARCH 15, 2017
 SCALE: 1" = 200'

UNITED CONSULTANTS INC
 860 FRANKLIN STREET, SUITE 410
 WRENTHAM, MASSACHUSETTS 01993
 508-384-8860 FAX 508-384-8868

DATE: MAR 15, 2017
 SCALE: 1" = 200'
 PROJECT: UC987
 SHEET: IP-1 OF 1



COVENANTS TO BE RECORDED HEREWITH.
 APPROVED SUBJECT TO COVENANT
 CONDITIONS SET FORTH IN A COVENANT EXECUTED
 BY _____ DATED _____
 AND TO BE RECORDED HEREWITH.

TOWN CLERK OF THE TOWN OF NORFOLK
 RECEIVED AND RECORDED FROM THE ZONING
 BOARD OF APPEALS APPROVAL OF THIS PLAN AND
 NO APPEAL HAS BEEN TAKEN FOR THIRTY DAYS
 NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____

LEGEND:

- ☒ PROPOSED FIRE WYRANT
- ☒ PROPOSED WATER GATE
- ☐ PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- ☐ TRANSFORMER
- ⚡ ELEC. TELEPHONE & CTV SERVICES

THIS PLAN HAS BEEN
 PREPARED IN CONFORMANCE WITH THE
 RULES AND REGULATIONS OF THE
 COMMONWEALTH OF MASSACHUSETTS



FOR REISTRY USE ONLY

| NO. | DATE | DESCRIPTION | BY |
|-----|---------|------------------------|-----|
| 1 | 1/24/19 | ROADWAY AND LOT LAYOUT | RJC |
| 2 | 1/24/19 | ROADWAY AND LOT LAYOUT | RJC |
| 3 | 1/24/19 | ROADWAY AND LOT LAYOUT | RJC |
| 4 | 1/24/19 | ROADWAY AND LOT LAYOUT | RJC |
| 5 | 1/24/19 | ROADWAY AND LOT LAYOUT | RJC |

NOTES:

- HOUSE, DRAINAGE AND SOIL ADDITION SYSTEMS (SAS) ARE SHOWN ON INDIVIDUAL SITE PLANS. THESE WILL BE PREPARED FOR EACH LOT.

GENERAL NOTES:

- SITE GRADING SHALL BE AS SHOWN ON THE SITE PLAN.
- ALL UTILITIES WITHIN THE DEVELOPMENT SHALL BE UNDERGROUND.
- ALL UTILITIES WITHIN THE DEVELOPMENT SHALL BE BASED ON M&D DATA.
- CONTRACTOR TO CONTACT DISCAGE A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WITH CONSTRUCTION.

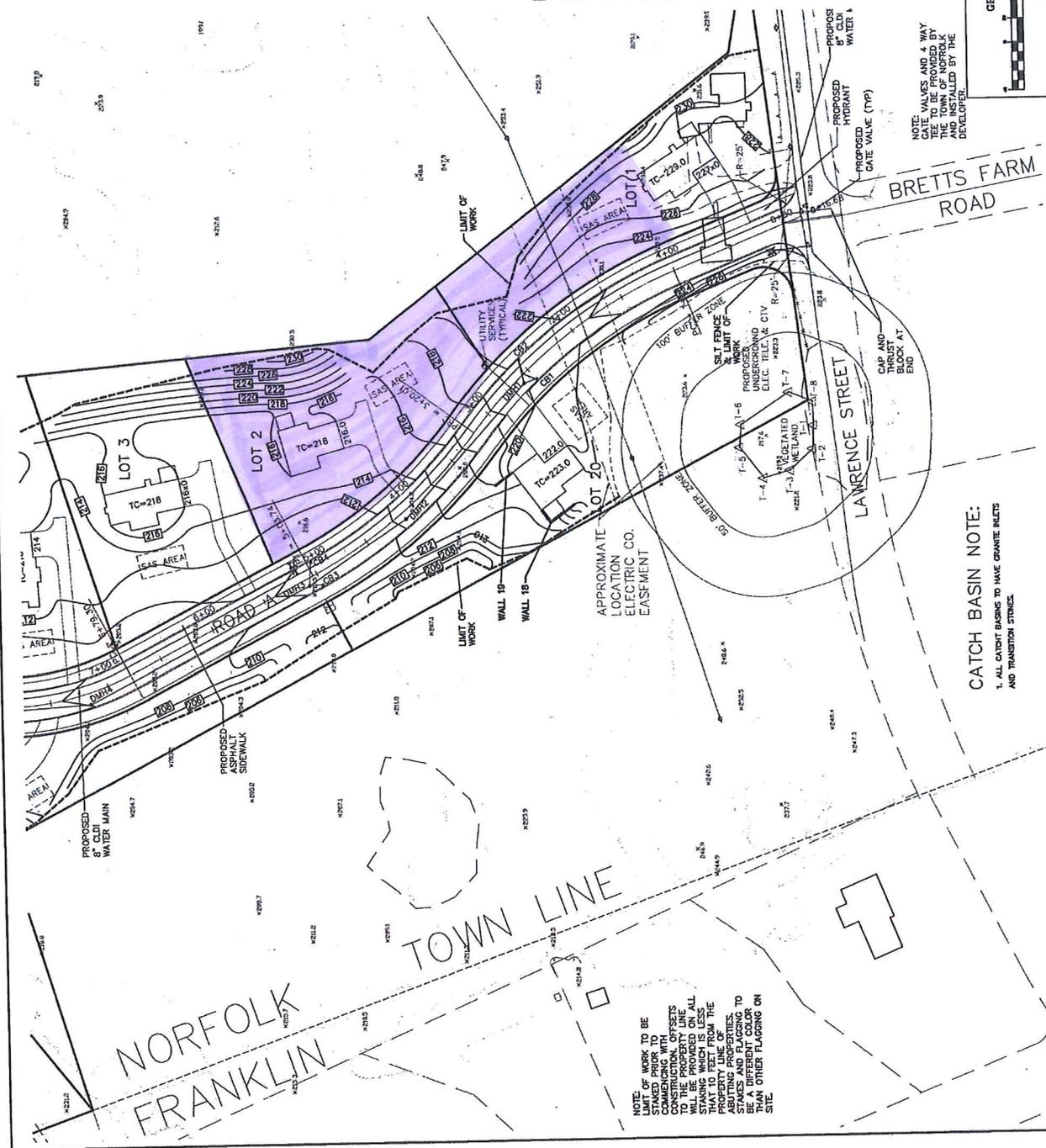
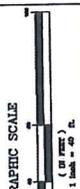
UTILITY NOTES:

- ALL CONSTRUCTION TO CONFORM TO THE APPROVED PLANS.
- ALL UTILITIES WITHIN THE DEVELOPMENT SHALL BE UNDERGROUND.
- ALL UTILITIES WITHIN THE DEVELOPMENT SHALL BE BASED ON M&D DATA.
- ALL UTILITIES SHOWN HEREON ARE TAKEN FROM AVAILABLE RECORDS AND A FIELD SURVEY. THEY SHALL BE FIELD VERIFIED PRIOR TO THE INSTALLATION OF ANY UTILITIES.
- ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO THE INSTALLATION OF THE WATER MAIN.

THIS PRESERVE AT ABBYVILLE
 GRADING AND UTILITY PLAN
 NORFOLK, MASSACHUSETTS
 FOR
 ABBYVILLE DEVELOPMENT LLC
 850 FRANKLIN STREET
 WRENTHAM, MASSACHUSETTS
 DATE: MARCH 15, 2017
 SCALE: 1" = 40'

UNITED CONSULTANTS INC.
 850 FRANKLIN STREET, SUITE 110
 WRENTHAM, MASSACHUSETTS 01963
 508-338-0866 FAX 508-338-0868

DATE: MAR. 15, 2017
 SCALE: 1" = 40'
 PROJECT: UC087
 SHEET: GU-1 OF 3



NOTE: VALVES AND 4 WAY
 GATE VALVES TO BE INSTALLED BY
 THE TOWN OF NORFOLK
 AND INSTALLED BY THE
 DEVELOPER.

NOTE: LIMIT OF WORK TO BE
 STAMPED PRIOR TO
 CONSTRUCTION. OFFSETS
 TO THE PROPERTY LINE
 SHALL BE AT LEAST
 THAT 10 FEET FROM THE
 PROPERTY LINE. ALL
 STAKES AND FLAGGING ON
 SITE
 SHALL BE A DIFFERENT COLOR
 FROM THE PROPERTY LINE
 STAKES AND FLAGGING ON
 SITE.

CATCH BASIN NOTE:
 1. ALL CATCH BASINS TO HAVE GRANITE BULBS
 AND TRANSITION STONES.

COVENANTS TO BE RECORDED HERewith.
 APPROVED _____ SUBJECT TO COVENANT
 CONDITIONS SET FORTH IN A COVENANT EXECUTED
 BY _____ DATED _____
 AND TO BE RECORDED HERewith.

I, TOWN CLERK OF THE TOWN OF NORFOLK,
 BOARD OF APPEALS APPROVAL OF THIS PLAN AND
 NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS
 NEXT AFTER RECEIPT AND RECORDING OF SAME.

TOWN CLERK _____ DATE _____



- LEGEND:**
- ☒ PROPOSED FIRE HYDRANT
 - ☒ PROPOSED WATER GATE
 - PROPOSED CATCH BASIN
 - PROPOSED DRAIN MANHOLE

DESIGNS THAT THIS PLAN HAS BEEN
 REVIEWED AND APPROVED UNDER THE
 RULES AND REGULATIONS OF THE
 BOARD OF APPEALS OF THE
 COMMONWEALTH OF MASSACHUSETTS



CARLOS A. QUINTAL, P.E., #100072

NOTES:

1. HOUSE, DRIVEWAY AND SOIL ABSORPTION SYSTEMS (SAS) ARE
 SHOWN SCHEMATICALLY. FINAL DESIGN TO BE A SHOWN ON INDIVIDUAL SITE
 PLANS, WHICH WILL BE PREPARED FOR EACH LOT.

GENERAL NOTES:

1. SITE GRADING SHALL BE AS SHOWN ON THE SITE PLAN.
2. ALL UTILITIES WITHIN THE ABBYVILLE SITE SHALL BE UNDERGROUND.
3. CONTRACTOR TO VERIFY ALL UTILITIES AND RECORDS PRIOR TO
 CONSTRUCTION TO AVOID DAMAGE TO EXISTING UTILITIES.

UTILITY NOTES:

1. ALL CONSTRUCTION TO CONFORM TO THE APPROVED PLANS.
2. ALL UTILITIES WITHIN THE ABBYVILLE SITE SHALL BE UNDERGROUND.
3. WATER SERVICE SHALL HAVE A MINIMUM 3" OF COVER.
4. ALL UTILITIES SHALL BE FIELD VERIFIED PRIOR TO THE
 INSTALLATION OF ANY UTILITIES.
5. DRAINAGE STRUCTURES ON LAWRENCE STREET SHALL BE EXPOSED AND
 MAINTAINED TO CONFORM TO CONFORM TO CONFORM TO THE
 INSTALLATION OF THE WATER MAIN.

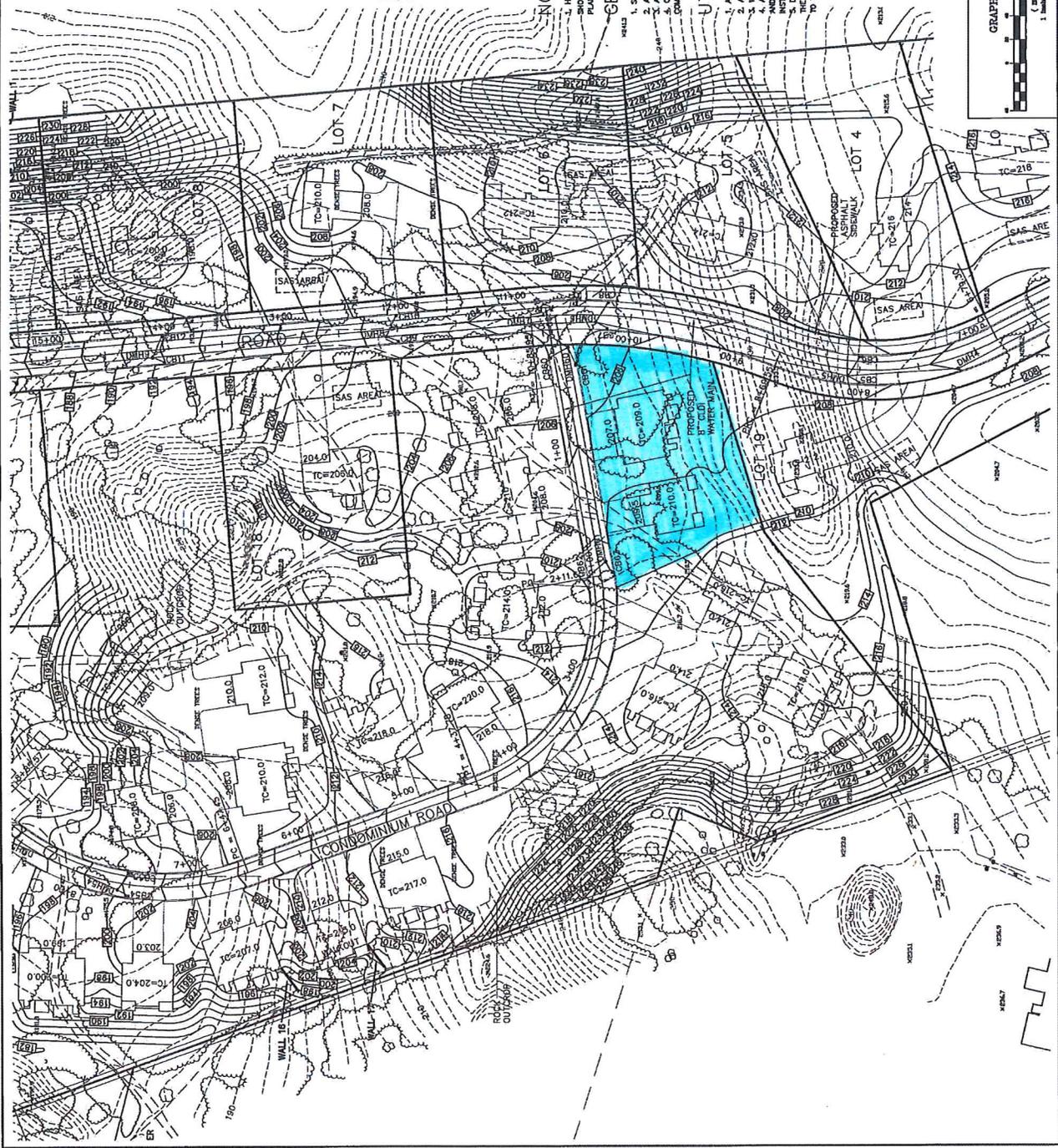
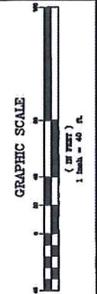
| NO. | DATE | REVISION | DESCRIPTION |
|-----|---------|------------------------|-------------|
| 1 | 1/24/19 | ROADWAY AND LOT LAYOUT | RRC |
| 2 | 1/24/19 | ROAD NAMES | RRC |
| 3 | 1/24/19 | COMMENTS FROM NEARBY | RRC |
| 4 | 1/24/19 | REVISED LAYOUT | RRC |

DATE APPROVED _____
 DATE ENDORSED _____

THE PRESERVE AT ABBYVILLE
 GRADING AND UTILITY PLAN
 NORFOLK, MASSACHUSETTS
 FOR
 ABBYVILLE DEVELOPMENT LLC
 850 FRANKLIN STREET
 WRENTHAM, MASSACHUSETTS
 DATE: MARCH 15, 2017
 SCALE: 1" = 40'

UNITED CONSULTANTS INC.
 850 FRANKLIN STREET, SUITE 110
 WRENTHAM, MASSACHUSETTS 01905
 508-384-8600 FAX 508-384-8605

DATE: MAR. 15, 2017
 SCALE: 1" = 40'
 PRODUCT: UC987
 SHEET: GU-2 OF 3



CONSENTS TO BE RECORDED HERewith.
 APPROVED _____ SUBJECT TO COVENANT
 CONDITIONS SET FORTH IN A COVENANT EXECUTED
 BY _____ DATED _____
 AND TO BE RECORDED HERewith.

I, TOWN CLERK OF THE TOWN OF NORFOLK,
 DO HEREBY CERTIFY THAT THE BOARD OF APPEALS APPROVAL OF THIS PLAN AND
 NO APPEAL HAS BEEN TAKEN FOR TWENTY DAYS
 NEXT AFTER RECEIPT AND RECORDING OF SAME.



FOR REESTRY USE ONLY

TOWN CLERK _____ DATE _____

| RETAINING WALL | BOTTOM WALL ELEV. | TOP WALL ELEV. |
|----------------|-------------------|----------------|
| 1 | 192.5 | 196.0 |
| 2 | 185.0 | 202.0 |
| 3 | 210.0 | 214.0 |
| 4 | 216.0 | 220.0 |
| 5 | 190.0 | 190.0 |
| 6 | 187.0 | 190.0 |
| 7 | 189.0 | 190.0 |
| 8 | 187.0 | 188.0 |
| 9 | 180.0 | 184.0 |
| 10 | 184.0 | 191.0 |
| 11 | 185.0 | 190.0 |
| 12 | 184.0 | 188.0 |
| 13 | 184.0 | 191.0 |
| 14 | 184.0 | 191.0 |
| 15 | 184.0 | 191.0 |
| 16 | 184.0 | 191.0 |
| 17 | 184.0 | 191.0 |
| 18 | 184.0 | 191.0 |
| 19 | 214.0 | 220.0 |
| 20 | 215.0 | 216.0 |
| | 186.6 | 170.0 - 177.0 |

LEGEND:

- ✕ PROPOSED FIRE HYDRANT
- PROPOSED WATER GATE
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE

I DECLARE THAT THIS PLAN HAS BEEN
 PREPARED IN ACCORDANCE WITH THE
 RULES AND REGULATIONS OF THE
 COMMONWEALTH OF MASSACHUSETTS



CARLOS A. SCANTALL, P.E. REGISTERED PROFESSIONAL ENGINEER
 STATE OF MASSACHUSETTS

NOTES:

1. HOUSE, DRIVEWAY AND SOIL ABSORPTION SYSTEMS (SAS) ARE SHOWN SCHEMATICALLY. FINAL DESIGN TO BE A SHOWN ON INDIVIDUAL SITE PLANS, WHICH WILL BE PREPARED FOR EACH LOT.

GENERAL NOTES:

1. SITE GRADING SHALL BE AS SHOWN ON THE SITE PLAN.
2. ALL UTILITIES WITHIN THE ABBYVILLE SITE SHALL BE UNDERGROUND.
3. ALL ELEVATIONS AND DIMENSIONS SHOWN ON THIS PLAN SHALL BE BASED ON THE DATUM OF MEAN SEA LEVEL UNLESS OTHERWISE NOTED.
4. ALL UTILITIES SHALL BE INSTALLED AT A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WITH CONSTRUCTION.

UTILITY NOTES:

1. ALL CONSTRUCTION TO CONFORM TO THE APPROVED PLANS.
2. ALL UTILITIES WITHIN THE ABBYVILLE SITE SHALL BE UNDERGROUND.
3. WATER SERVICE SHALL HAVE A MINIMUM OF 6" OF COVER.
4. ALL UTILITIES SHALL BE INSTALLED AT A MINIMUM OF 72 HOURS PRIOR TO COMMENCING WITH CONSTRUCTION.
5. BRANCH STRUCTURES ON LAWRENCE STREET SHALL BE EXPROSED AND THE DEPTH ADJUSTED TO CORRESPOND LOCATIONS PRIOR TO THE INSTALLATION OF THE WATER MAIN.

THE PRESERVE AT ABBYVILLE
 GRADING AND UTILITY PLAN
 NORFOLK, MASSACHUSETTS
 FOR
 ABBYVILLE DEVELOPMENT LLC
 860 FRANKLIN STREET
 WRENTHAM, MASSACHUSETTS
 DATE: MARCH 15, 2017
 SCALE: 1" = 40'

| | |
|---------|---------------|
| DATE | MAR. 15, 2017 |
| SCALE | 1" = 40' |
| PROJECT | UC9877 |
| SHEET | GU-3 OF 3 |

UNited CONSULTANTS INC.
 860 FRANKLIN STREET SUITE 110
 WRENTHAM, MASSACHUSETTS 02093
 508-361-6666 FAX 508-361-6666

