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CHARTERED JANUARY 1, 1991



TOWN OF NEWMARKET, NEW HAMPSHIRE
PLANNING OFFICE

LEGAL NOTICE

This notice replaces the previous public hearing notice

**Town of Newmarket
Planning Board**

In accordance with Governor Sununu's Emergency Order #12 issued on March 23, 2020, the Planning Board will hold a

Virtual Meeting at 7:00pm, April 14, 2020.

There will be a public hearing for an application for an 11-lot Open Space single family subdivision, with municipal water and sewer services, on a twelve acre lot, requested by 77 Hersey Lane, LLC-Walter Cheney/Chinburg Builders, Inc. The lot is located at 77 Hersey Lane, Tax Map R4, Lot 3, R2 Zone. The application is available to view at the Planning Board office during normal business hours.

The meeting is available to be viewed by the public on Channel 13. In addition, individuals may listen and comment by calling in to a specific phone number and using a specific access code. Those numbers will be received and posted closer to the meeting date. Please check back on the agenda posted under "Planning Board", then "Agendas" on our website www.newmarketnh.gov, or the individual public hearing notices posted on the same website under "Public Notices" on the home page, prior to the meeting to obtain the call-in information. This will be posted as soon as we receive it. You may also call the Planning Department at 603-659-8501 ext. 1310.



pd
#2,577,00
sg

Planning Board Comprehensive Application Form

TO: Applicants
FROM: Newmarket Planning Board
SUBJECT: Guidelines for Processing Applications

RECEIVED

JAN 7 2020

NEWMARKET, NH
PLANNING BOARD

The Newmarket Planning Board wants to process applications as speedily as possible. We understand that the Zoning Ordinance and our Regulations are complex and often confusing. These requirements are designed to deal with different situations from single-issue waivers and permits to large-scale residential developments and commercial site plans. Therefore, not all requirements may be applicable to your application.

Although it is not required, it is recommended that before you file your application if you have any questions or concerns, you should discuss your proposal informally with the Town Planner. The Town Planner will review your project conformance with the Town's Ordinances and Regulations and can advise you on procedures for obtaining approval as well as other governmental permits that may be required. Call (603) 659-8501 ext 1315 for an appointment or email: dhardy@newmarketnh.gov. Town of Newmarket Regulations and Ordinances are available online at www.newmarketnh.gov.

The key to receiving a prompt decision is to have all the necessary information in the Planning Department before the Planning Board meeting. All applications **MUST** be submitted to the Planning's office **TWENTY ONE DAYS** Prior to the Planning Board meeting at which it will formally be reviewed. The Town Planner will schedule you for a Public Meeting. In order to be scheduled, your application must be substantially complete.

Type and Description of Project (this description will be used for notification purposes):

<u>Application Type:</u>	<input checked="" type="checkbox"/>	<u>Description of project or application:</u>
Subdivision:	<input checked="" type="checkbox"/>	The proposal is for an 11-lot open space subdivision with municipal water & sewer services. Conditional Use permit previously approved.
Site Plan:	<input type="checkbox"/>	
Impact Fee Waiver:	<input type="checkbox"/>	
Special (Conditional) Use Permit:	<input type="checkbox"/>	
Other:	<input type="checkbox"/>	



TOWN OF NEWMARKET COMPREHENSIVE APPLICATION

Note: This form and all required information must be filed at least **15 days** before the date of the meeting at which it is to be submitted to the Board. Revised plans of any type must be in the office **7 days** prior to the hearing date. Filing is to be done at the **Planning Department, Newmarket Town Hall, 186 Main Street, Newmarket, NH 03857.**

** Note regarding information requested: Name, mailing address and telephone contacts must be supplied for an application to be scheduled for a hearing. Email addresses are optional and will be used to transfer electronic copies of notices, memoranda, and/or other documents.

1. Name, mailing address and telephone number of **owner of record**.

77 Hersey Lane LLC.
Walter Cheney
76 Exeter Road #B
Newmarket, NH 03857

*Alexx - (603) 969-9459
cell #*

2. Name, mailing address, telephone numbers (voice and fax) and email of **agent**. The agent is the entity with the legal authority to bring the application to the board on behalf of the landowner. If the owner is not the applicant, the 'Authorization to Act as Agent' section must be filed with the Board.

Beals Associates, PLLC
Christian Smith
70 Portsmouth Ave.
Stratham, NH 03885



3. Name, mailing address, and telephone numbers (voice and fax) of **applicant**. An applicant is the entity with authority to represent an agent and/or landowner before the Board and will be responsible for dissemination of all information to the landowner and/or agent. An applicant is often (but not necessarily) a surveyor, engineer, attorney, or real estate professional.

Chinburg Properties
3 Penstock Way
Newmarket, NH 03857

4. Street Location of Subject Parcel: 77 Hersey Lane
5. Tax Map R4 Lot 3
6. Zoning district property is located in R2
7. Overlay Districts or other regulations affecting Subject Property:
- | | |
|-----------------------|--------------|
| State Highway Permit: | _____ |
| Wetlands Overlay: | <u> x </u> |
| Shoreland Protection: | _____ |
| Aquifer Protection: | _____ |
| Scenic Roadway: | _____ |
| State Subdivision: | <u> x </u> |
| Current Use Tax: | _____ |
| Others (specify) | _____ |
| _____ | _____ |
| _____ | _____ |



APPLICATION FEES

In accordance with RSA 676:4, I(g), the applicant shall pay the following fees to compensate the Town for its expenses in processing, noticing and reviewing each application, one or more may apply, however, only one notice fee is required:

SUBDIVISION OF LAND

(A) Administration:

- (1) Lot Line Adjustment: \$70
- (2) Subdivision: \$500.00 plus \$175/lot
- (3) Minor Subdivision: \$250.00 plus \$75/lot

(B) Public Notice:

- (1) \$75.00 per notice; plus
- (2) \$7.00 per abutter or other party notified.

(C) \$26.00 per sheet. Recording: The applicant shall reimburse the Town the cost of recording at the Rockingham County Registry of Deeds, with specific amounts as set by the Register of Deeds. Payment for first sheet due with application. Additional sheets must be paid upon presentation of Mylars to the Planning Office. *No sheets will be recorded until this and all other fees are paid.*

(D) Other costs incurred by the Board in reviewing the application (such as engineering, legal, and planner review), as limited in RSA 676:4 and the Newmarket Subdivision Regulations, shall be passed through to the applicant by the Board unless specifically waived.

Each Lot/Parcel or Dwelling Unit

Public Notice Fee

Abutter Notification [11] (# of abutters) x \$7

Total

	<i>BASE FEE - 500 ✓</i> \$1,925 ✓
	\$75 ✓
	\$77 ✓
	\$ 2,577 ✓



SITE PLAN REVIEW

(A) Administration:

- (1) Minor Review: \$125.00
- (2) Major Review, one or more of the following shall apply:
 - (a) Residential Base Fee \$250
Per Unit \$125
 - (b) Commercial Base Fee \$250
Plus per square foot of floor space-
 - 0-1,000 \$0.12 per sq. ft.
 - 1,001-5,000 \$0.10 per sq. ft.
 - 5,001-10,000 \$0.08 per sq. ft.
 - 10,001+ \$0.05 per sq. ft.
 - (c) Industrial Base Fee \$250
Plus per square foot of floor space-
 - 0-1,000 \$0.06 per sq. ft.
 - 1,001-5,000 \$0.05 per sq. ft.
 - 5,001-10,000 \$0.04 per sq. ft.
 - 10,001+ \$0.03 per sq. ft.

(B) Public Notice:

- (1) \$75.00 per notice; plus
- (2) \$7.00 per abutter or other party notified.

(C) \$26.00 per sheet. Recording: The applicant shall reimburse the Town the cost of recording at the Rockingham County Registry of Deeds, with specific amounts as set by the Register of Deeds. Payment for first sheet due with application. Additional sheets must be paid upon presentation of Mylars to the Planning Office. *No sheets will be recorded until this and all other fees are paid.*

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Administration Fee

Public Notice Fee

Abutter Notification [____(# of abutters) x \$7]

Total

\$



IMPACT FEE WAIVER or SPECIAL USE PERMIT

(A) Public Notice:

- (1) \$75.00 per notice; plus
- (2) \$7.00 per abutter or other party notified.

(B) \$26.00 per sheet. Recording: The applicant shall reimburse the Town the cost of recording at the Rockingham County Registry of Deeds, with specific amounts as set by the Register of Deeds. Payment for first sheet due with application. Additional sheets must be paid upon presentation of Mylars to the Planning Office. *No sheets will be recorded until this and all other fees are paid.*

(C) Other costs incurred by the Board in reviewing the application (such as engineering, legal, and planner review), as limited in RSA 676:4 and the Newmarket Subdivision Regulations, shall be passed through to the applicant by the Board unless specifically waived.

Public Notice Fee

Abutter Notification [____(# of abutters) x \$7]

Total

\$



Verification & Signature Pages

1. The applicant and/or owner and/or agent, certifies that this application is correctly completed with all required attachments and requirements and that any additional reasonable costs for engineering or professional services incurred by the Planning Board or the Town of Newmarket in the final subdivision process of this property shall be borne by the following party:

Applicant *[Signature]* Owner *[Signature]* Agent *[Signature]*

** Failure to indicate a responsible party for fees and associated costs will result in the denial of the application without a public hearing in accordance with RSA 676:4.

2. The owner/agent hereby authorizes the Newmarket Planning Board and its agents to access the subject land for the purpose of reviewing this subdivision plan, performing road inspections and any other inspections deemed necessary by the Board or its agents, to insure conformance of the on-site improvements with the approved plan and all Town of Newmarket ordinances and regulations.
3. The undersigned owner/agent hereby submits to the Newmarket Planning Board a Completed Application Package and respectfully requests its approval of said plat. In considerations for approval and the privileges occurring thereto, the owner hereby agrees, as applicable:
 - To carry out the improvements agreed upon and as shown and intended by said plat, including any work made necessary by unforeseen conditions which become apparent during construction.
 - To provide and install standard street signs as approved by the Town for all street intersections.
 - To give the Town on demand, proper deeds for land or rights of ways reserved on the plat for streets, drainage or other purposes as agreed upon.
 - To save the Town harmless from any obligation it may incur, or repairs it may make, because of my failure to carry out any of the foregoing provisions.
 - To make no changes whatsoever in the Final Plat as approved by the Board unless a revised plan or a plat or new application is submitted and approved by the Board.



- To construct improvements or post the Planning Board's Performance Guarantee to insure completion of the improvements shown on the plat and related drawings.
- There are no known violations of the Town of Newmarket Zoning Ordinance or Newmarket Planning Board Regulations present on the property that have not been disclosed as part of this application.
- To insure proper boundary monumentation at the project's completion in accordance with the Town of Newmarket Subdivision Regulations.

Authorization to Act as Agent

Mr./Ms. Christian Smith of Beals Associates

is hereby designated as the person whom is authorized to act as my agent in securing any and all permits necessary from the Newmarket Planning Board for the development of my property, all communications to the owner may be addressed to the agent or applicant on the agent's behalf.

Signed: [Signature]

Dated: 6/18/19

Witness: Shawna Fournier

Owner Address: Same as #1

By WALTER W. CHESEBROUGH
 Owner/President or Treasurer if a Corporation

July 30, 2019

The proposed lots on Hersey Lane will have an average retail value of \$120,000 per lot. The closest comparable sales would be the 10 lots on Boulder Brook Drive that sold on 4/14/2018 and 9/10/2018. The 4 lots sold for \$110,000 each and the 6 lot package sold for \$100,000 each. This is considered a bulk sale to one builder and is considered a discounted value due to the number of lots purchased all at once.



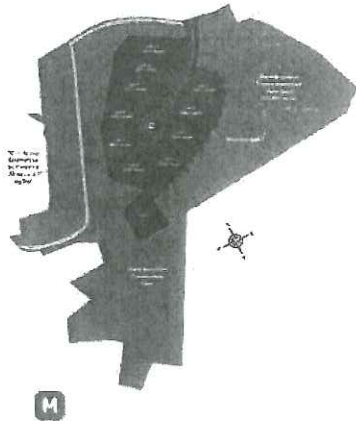
Scott Gove, Owner
The Gove Group Real Estate

Land
4717557
Closed

Boulder Brook Drive
Newmarket
Unit/Lot #

NH 03857

Listed: 9/10/2018 \$560,000
Closed: 9/10/2018 \$509,998
DOM: 0



County NH-Rockingham
VillDstLoc
Zoning R1
Lot Size Acres 0.500000
Lot - Sqft 21,780
Price Per Acre \$1,199,996.00
Taxes TBD Yes
Tax - Gross Amount
Tax Year
Water Body Access
Water Body Type
Water Frontage Length
Water Restrictions

Road Frontage TBD
Road Frontage Length
Surveyed Yes
Surveyed By Jones & Beach Engineers, Inc
ROW - Parcel Access
ROW - Length
ROW - Width
ROW to other Parcel
Total Lots 6
Total Leases
OpenSpc %

Delayed Showing No
Date - Showings Begin

Directions

Remarks - Public Final 6 lots in an 11 lot subdivision - surrounded by conserved land with trail going to Main St and the heart of Newmarket less than 1 mile away.

LOT/LOCATION

Development / Subdivision

Lot Description Conserved Land, Rolling

Pole Number
Permit Number
Roads Private

School - District
School - Elementary
School - Middle/Jr
School - High

UTILITIES

Water Private
Sewer Private
Electric On-Site

Fuel Company
Electric Company
Cable Company
Phone Company

PUBLIC RECORDS

Deed - Recorded Type Warranty
Deeds - Total
Deed - Book 5810
Deed - Page 2915
Plan Survey Number
Property ID

Map u2
Block 297
Lot 1
SPAN#

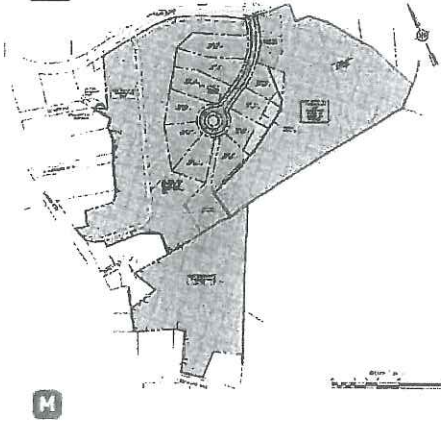
Tax Class
Tax Rate
Current Use No
Land Gains
Assessment Amount
Assessment Year
Assessments - Special

Land
4687204
Closed

36 Dame Road
Newmarket
Unit/Lot #

NH 03857

Listed: 1/5/2018 \$440,000
Closed: 4/14/2018 ~~\$440,000~~
DOM: 99



County NH-Rockingham
VillDstLoc
Zoning R1
Lot Size Acres 21.000000
Lot - Sqft 914,760
Price Per Acre \$20,952.38
Taxes TBD Yes
Tax - Gross Amount
Tax Year
Water Body Access
Water Body Type
Water Frontage Length
Water Restrictions

Road Frontage TBD
Road Frontage Length
Surveyed Yes
Surveyed By Jones & Beach Engineers, Inc
ROW - Parcel Access
ROW - Length
ROW - Width
ROW to other Parcel
Total Lots
Total Leases
OpenSpc %

Delayed Showing No
Date - Showings Begin

Directions

Remarks - Public 4 lots from an approved 10 lot subdivision in a prime Newmarket location. entire subdivision is situated on 21 acres - each of these lots is +/- .5 acre. .9 mi to the heart of downtown Newmarket / easy access to NH-4 and NH-16. Paved cul-de-sac road is already in place and building sites have been re-blasted. This setting will make a beautifully marketable development.

LOT/LOCATION

Development / Subdivision

Lot Description Level, Open, Sloping, Subdivision

Pole Number
Permit Number
Roads Other

School - District
School - Elementary
School - Middle/Jr
School - High

UTILITIES

Water Private
Sewer Private
Electric None

Fuel Company
Electric Company
Cable Company
Phone Company

PUBLIC RECORDS

Deed - Recorded Type Warranty
Deeds - Total
Deed - Book 5810
Deed - Page 2915
Plan Survey Number
Property ID

Map U2
Block 297
Lot 0
SPAN#

Tax Class
Tax Rate
Current Use No
Land Gains
Assessment Amount \$117,526
Assessment Year 2016
Assessments - Special

DISCLOSURES

Fee 2
Fee 3

Foreclosed/Bank-Owned/REO No **Flood Zone** Unknown
Monthly Lease Amount **Easements** Yes
Covenants Yes
Resort No

Financing-Current
Financing-Possible Opt

Auction
Date - Auction
Auction Time

Items Excluded

Auctioneer - Responsible
Auctioneer License Number
Auction Price Determined By

PREPARED BY

Colton Gove
Cell: 603-686-3188
cgove@thegovegroup.com



My Office Info:

The Gove Group Real Estate, LLC
70 Portsmouth Ave.

Stratham NH 03885
Off: 603-778-6400
speterson@thegovegroup.com

DISCLOSURES

Fee 2
Fee 3

Foreclosed/Bank-Owned/REO No **Flood Zone** Unknown
Monthly Lease Amount **Easements**
Covenants Yes
Resort No

Financing-Current
Financing-Possible Opt

Auction
Date - Auction
Auction Time

Auctioneer - Responsible
Auctioneer License Number
Auction Price Determined By

Items Excluded

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Listed by: Proulx Real Estate LLC

Proulx Real Estate LLC / Keller Williams Coastal Realty



SITE-SPECIFIC SOIL SURVEY REPORT
Residential Development
Hersey Lane
Newmarket, NH
GES # 2018083

1. MAPPING STANDARDS

Site-Specific Soil Mapping Standards for New Hampshire and Vermont. SSSNNE Special Publication No. 3, Version 5.0, December 2017. This map product is within the technical standards of the National Cooperative Soil Survey. It is a special product, intended for the submission to NH DES Alteration of Terrain and/or the Town of Newmarket. It was produced by a professional soil scientist and is not a product of the USDA Natural Resource Conservation Service.

2. DATE SOIL MAP PRODUCED
May 6, 2019

3. GEOGRAPHIC LOCATION AND SIZE OF SITE

Approximately 12.8 acres. Tax map R-4, Lot 3. The site is located in the Town of Newmarket, NH.

4. PURPOSE OF THE SOIL MAP

The preparation of this map was requested by Beals Associates, PLLC. The purpose was to meet the requirements of NH Alteration of Terrain and/or the Town of Newmarket.

5. SOIL IDENTIFICATION LEGEND

MAP UNIT	MAP NAME	HISS Conversion	HSG
115	Scarboro muck	621	D
135	Chatfield Variant (MWD) – Newfields Complex	328	B
140	Chatfield – Hollis – Canton Complex	228	B
547	Walpole, very stony	521	C

SLOPE PHASE:

0-3%	A
3-8%	B
8-15%	C
15-25%	D
25%+	E

6. SOIL MAP UNIT DESCRIPTIONS

115 map unit is Scarboro, muck. It is a very poorly drained soil with muck over sand or sandy till. It is found in wetland areas and has inclusions of the poorly drained Walpole.

135 map unit is a mix of soils classified as Chatfield Variant (moderately well drained) – Newfields Complex. These soils have a seasonal high water table of 15 to 40 inches, and have variable depths to bedrock from 20 to greater than 40 inches. These soils are located on the lower slopes of this site that is bedrock controlled topography. Inclusions would be the shallow Hollis soils.

140 map unit is a mix of soils classified as Chatfield-Hollis- Canton Complex. These soils have water tables below 40 inches, or have bedrock from 10 to 40 inches, which acts as a restrictive layer. Bedrock outcrops are a common inclusion in this map unit. Other inclusions might be Newfields in pockets between the knobs. These are found on steeply sloping areas of the site, and at the tops of knobs.

541 map unit is a poorly drained soil Walpole, very stony. It is found in pockets and drainage ways on the site. It is also a transitional area to the very poorly drained Scarboro, muck. These areas are wetlands. They are sandy loam to loamy sand textures in the substratum.

7. RESPONSIBLE SOIL SCIENTIST

James P. Gove, C.S.S. #004

8. OTHER DISTINGUISHING FEATURES OF SITE

Ledge outcrops on the steepest slopes.

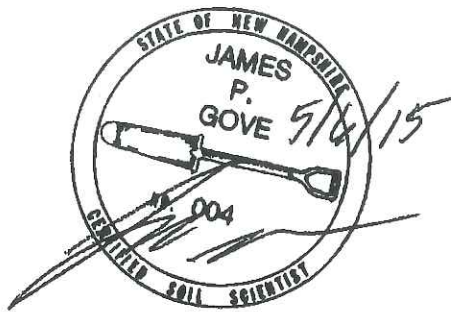


9. MAXIMUM SIZE OF LIMITING INCLUSIONS

15%.

10. SPECIAL FEATURE SYMBOLS

None used.





GOVE ENVIRONMENTAL SERVICES, INC.

2019 VERNAL POOL ASSESSMENT

Hersey Lane- Newmarket, NH

GES# 2018083

05/16/19

1.0 INTRODUCTION

Gove Environmental Services, Inc. (GES) presents this Vernal Pool Monitoring Report for approximately 13 acres of land located off of Hersey Lane in Newmarket, New Hampshire. The analysis contained in this report is based on the field assessment conducted during the 2019 breeding season

It addresses:

- Amphibian and other obligate species activity; and
- Existing conditions in the upland envelope surrounding the pool.

All field data collection and analysis for this report was conducted by GES.

Location and Site Description

This site is located to the west of Hersey Lane, where it connects to Durell Lane. A majority of the site is an undisturbed upland forest primarily composed of oak and white pine vegetation. Steep slopes run throughout the site and the two wetland on site are located in the depression of these slopes. Both wetlands found on site are a part of larger systems that continue off site.

Regulations

NH Department of Environmental Services defines vernal pools, under Env- Wt 101.99 as a surface water or wetland, including an area intentionally created for purposes of compensatory mitigation, which provides breeding habitat for amphibians and invertebrates that have adapted to the unique environments provided by such pools and which:

- (a) Is not the result of on-going anthropogenic activities that are not intended to provide compensatory mitigation, including but not limited to:
- (1) Gravel pit operations in a pit that has been mined at least every other year; and
 - (2) Logging and agricultural operations conducted in accordance with all applicable New Hampshire statutes and rules; and
- (b) Typically has the following characteristics:
- (1) Cycles annually from flooded to dry conditions, although the hydroperiod, size, and shape of the pool might vary from year to year;
 - (2) Forms in a shallow depression or basin;
 - (3) Has no permanently flowing outlet;
 - (4) Holds water for at least 2 continuous months following spring ice-out;
 - (5) Lacks a viable fish population; and
 - (6) Supports one or more primary vernal pool indicators, or 3 or more secondary vernal pool indicators.

8 Continental Dr Bldg 2 Unit H, Exeter, NH 03833-7526

Ph (603) 778 0644 / Fax (603) 778 0654

www.gesinc.biz

info@gesinc.biz

2.0 METHODOLOGY

A site visit was conducted on May 6th. One active vernal pool was found on site. The assessment of this area was based on depth of the pool, a lack of defined outlet or flow, and overall suitability of habitat for the amphibians to lay their eggs and for those eggs to persist.

Egg mass counts were conducted in this area by slowly wading the pool while wearing polarized glasses for a better view through the water. Egg mass species identification was made using the professional experience of the biologist in conjunction with the publication *Vernal Pools: Natural History and Conservation*.¹ During surveys, adult amphibians and other vernal pool indicator species were noted. Other factors, which contribute to the significance of the pool, were also recorded including ponding depth, canopy cover, the character of the surrounding upland, and the presence of predator species. The following section provides a brief description of the pools.

3.0 VERNAL POOL DESCRIPTIONS & DISCUSSION

Pool #1

This pool is located on the eastern side of the site. It is a part of a larger wetland system that continues off site. The pool is about one foot deep and is approximately 20x10 feet. It has about 50% canopy cover that is primarily composed of speckled alder and red maple. There were many downed branches and small shrubs for the masses to attach to. Ten wood frog egg masses and 4 spotted salamander egg masses were observed. Spire snails were also spotted throughout the pool which are a natural predator to amphibious egg masses.

¹ Colburn, Elizabeth A., Ph.D. *Vernal Pools: Natural History and Conservation*. Blacksburg, VA: McDonald and Woodward Publishing Company, 2004.





View of pool looking west.



View of pool looking east.



Spotted salamander egg mass observed in pool.

Vernal Pool Data Form





New Hampshire Vernal Pool Documentation Form

Purpose: This form is to provide a way to collect appropriate information necessary to document the presence of a vernal pool or potential vernal pool in New Hampshire. It is also appropriate to use this form to document the *absence* of certain physical and, especially, biological characteristics to describe a pool or depression within a wetland that may not meet the definition of a vernal pool.

I. Observer Contact information

Observer name	Shelby Hall & Brenden Walden
Observer phone #:	
Observer email	shall@gesinc.biz
Observer Mailing address:	

II. Location and Owner Identification

Town: Newmarket	
Property name (if applicable): Hersey Lane	
Location Description/ Property street address: 710 Hersey Lane	
Vernal Pool Coordinates <i>Coordinates obtained by GPS or other means. Report in degrees minutes seconds or decimal degrees: Latitude 43.2164 Longitude -71.5192. Datum: Use NAD83 or WGS84 for all coordinates</i>	Latitude: 43.0642 °N Longitude: 70.9520 °W
Source of coordinates: (circle one): GPS unit, Google Maps/Google Earth, Topo map, other	Tax map and lot # (if known): R4-3
Is observation on public land? Yes / No	Landowner permission obtained? (Yes) / No
Landowner name (if known)	
Landowner address (if different than property address)	
Landowner phone or email	

Note: Provide a map that shows property and location of vernal pool (tax map/ USGS)

Vernal Pool Site Name: 1

Project affiliation

- None
- Harris Center/AVEO
- Town
- Consultant
- Other

III. Survey Information

Date of survey:	05/04/19	Visit # (for season):	1 2 3 4
Survey start time:	_____ am /pm	Survey end time:	_____ am /pm
Air temperature (F):	60° F		

Weather/Other Comments: provide any information about precipitation, cloud cover, wind, humidity, ice cover, etc here:

Sunny & warm

IV. Vernal Pool Description

Photos: 1-3 photographs of vernal pool taken and provided with datasheet Yes / No

Pool characteristics

Vernal pool type (choose most appropriate description)

- Upland-isolated pool (not associated with a larger wetland)
- Wetland complex (pool within or associated with a larger wetland habitat, such as red maple swamp, marsh pond edge.)
- Floodplain pool

Origin of pool (select one)

- Unknown
- Natural depression
- Natural, but altered
- Small pond / constructed pond
- Quarry/sand pit excavation
- Ditch along road or rut from vehicle
- Created wetland/ pool (such as for wetland mitigation purposes)
- Other: _____

Pool size (dimensions): 20 feet X 10 feet (Area of open water in the pool depression)

If round, measure diameter; if long and narrow, provide length and width dimensions.

(check one): Measured Paced Estimated Other: _____

How long does the vernal pool hold water? (Hydroperiod)

- Seasonal (drying out entirely in most years)
- Semi-permanent (drying partially in most years)
- Permanent (Typically maintains water)
- Unknown

Maximum water depth on survey date

- < 6 inches (ankle deep)
- 6 inches – 1 foot (shin deep)
- 1 - 2 feet (knee deep)
- 2 - 3 feet (hip deep)
- 3 - 4 feet (chest deep)
- > 4 feet

Pool Outlet: Did you observe water flowing out of the pool on this date? Y N

Overstory/Shading of vernal pool depression

(Overstory is trees, shrubs, and associated limbs and leaves that block sunlight from penetrating the pool surface)

- Mostly shaded by trees (> 50%)
- Less shaded by trees (< 50%)
- Shaded only by vegetation in the pool (such as shrubs)

Vegetation in Pool (vernal pool depression)

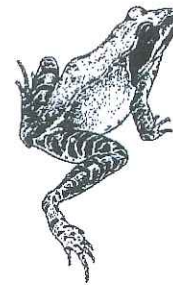
Check (X) **Vegetation type and proportion of vegetation in the pool** (percent coverage) that can provide egg attachment or offer concealment to aquatic or developing larvae.

Vegetation type	Percent coverage of pool by vegetation in the pool		
	<10%	10-50%	>50%
Shrubs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Emergent vegetation (Grasses, sedges, rushes, cattails)	<input checked="" type="checkbox"/>		
Submergent vegetation	<input checked="" type="checkbox"/>		

Are dead branches and downed woody material (branches/twigs) available in pool for egg attachment?
(Select one category) None 1 - 10 greater than 10

Pool substrate (select all that apply)

- Leaf litter
- Sand/gravel
- Muck
- Bedrock
- Other: _____



Disturbance to vernal pool observed (select all that apply)

Observe any disturbance to the pool (direct or indirect by siltation, for example)

- Dumping
- Ditching/drainage
- Ruts from wheeled vehicles
- Runoff /siltation from human sources
- Other: _____
- None

Surrounding habitat (within 100 feet of the pool)

Check habitat type and select/circle appropriate percentage

- Forest (< 10%, 10-50%, > 50%)
- Open (shrublands, agriculture, grassland, etc.) (< 10%, 10-50%, > 50%)
- Wetlands (< 10%, 10-50%, > 50%)
- Open water (lakes/ponds, rivers/streams) (< 10%, 10-50%, > 50%)
- Residential (lawn, little amount of pavement/structures) (< 10%, 10-50%, > 50%)
- Industrial/Urban (mostly pavement and structures) (< 10%, 10-50%, > 50%)
- Paved Roads/driveways (< 10%, 10-50%, > 50%)
- Unpaved roads/driveways (< 10%, 10-50%, > 50%)

Describe any disturbance observed in the 100 foot area around the pool: _____

V. Survey for vernal pool fauna (amphibians and macroinvertebrates)

NOTE: Provide photographs when possible.

Species information - Primary Vernal Pool Indicators

Species observed	Adults			Egg masses (#)		Tadpoles, Salamander Larvae and Transforming Juveniles	
	Seen #	Courtship/ amplexus (Y/N)	Heard Y/N	Counted	Estimated	Tadpole/ Larvae estimated	#Transforming juveniles (#)
Wood frog				10			
Spotted salamander			NA	4			
Marbled salamander			NA				
Blue spotted/ Jefferson salamander			NA				
Mole salamander (unknown species)			NA				
Fairy shrimp		NA	NA	NA	NA	NA	NA

Record other amphibian and reptile species observed (such as spring peepers, etc.):

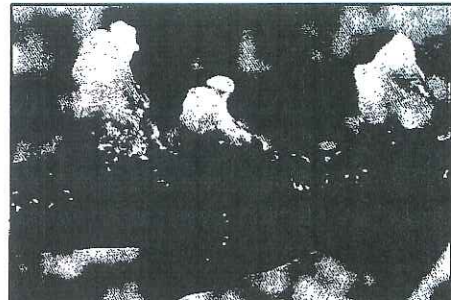
Species observed	Adults			Egg masses (#)		Tadpoles, Salamander Larvae and Transforming Juveniles	
	Seen #	Courtship/ amplexus (Y/N)	Heard Y/N	Counted	Estimated	Tadpole/ Larvae estimated	#Transforming juveniles (#)

Was entire pool surveyed for egg masses? Yes/ No If Yes, what percent of the pool? _____

(If the entire pool was not surveyed, is any part of the pool on an adjacent property? (Y/N)

Sampling methods used during your survey (check all that apply):

- Visual search
- Audible detection (Recorded: : Yes / No)
- Dip net
- Trapping
- None (incidental observation)



Were **spermatophores** observed (see photo right) ? Yes No

Were **fish** observed in the pool? Yes / No

Secondary vernal pool indicators - Invertebrates

During or after amphibian breeding season, there are other organisms whose presence or remains (larval cases, exuviae, or shells) indicate the presence of a vernal pool. These organisms are considered secondary vernal pool indicators.

The families or groups listed in the following table are among those **secondary vernal pool indicators** under the New Hampshire wetlands rules (Env-Wt 100). Additional species (family or groups) may qualify as secondary vernal pool indicators, hence blank spaces are provided to enter other species you observe.

Macroinvertebrate Common name of group	Common name of family members	Macroinvertebrate family	Observed? (X)	Photo?
Caddisfly larvae or cases	Unknown type	Unknown type		
	Northern caddisflies	Limnephilidae		
	Giant case makers	Phryganeidae		
	Tube or trumpet caddisflies	Polycentropodidae		
Clam shrimp or shells	Unknown type	Unknown type		
	Clam shrimp	Laevicaudata		
	Clam shrimp	Spinicaudata		
Fingernail clams or shells	Fingernail clams	Sphaeriidae		
Aquatic beetle larvae	Unknown type	Unknown type		
	Diving beetle	Dytiscidae		
	Whirligig beetle	Gyrinidae		
	Crawling water beetle	Halplidae		
	Water scavenger beetle	Hydrophilidae		
Dragonfly larvae or exuviae	Unknown type	Unknown type		
	Darners	Aeshnidae		
	Skimmers	Libellulidae		
Damselfly larvae or exuviae	Unknown type	Unknown type		
	Narrow-winged damselflies	Coenagrionidae		
	Spread-winged dragonflies	Lestidae		
True fly larvae or pupae	Unknown type	Unknown type		
	Mosquitoes	Culicidae		
	Phantom midges	Chaoboridae		
	Non-biting midges	Chironomidae		
Spire-shaped snails or shells	Unknown type	Unknown type	X	
	Tadpole snails or pouch snails	Physidae		
	Pond snails or limpets	Lymnaeidae		
Flat-spire snails or shells	Wheel snails, orb snail, or ram's horn snails	Planorbidae		
Other*:				
Other*:				

Completed datasheets can be submitted to NH Wildlife Sightings at: <http://nhwildlifesightings.unh.edu/> or mailed to NH Fish & Game Department, Nongame & Endangered Wildlife Program, 11 Hazen Drive, Concord NH 03301.

PREPARED FOR:

77 HERSHEY LANE, LLC
76 EXETER STREET
NEWMARKET, NH 03857

BEALS ASSOCIATES PLLC
70 PORTSMOUTH AVE. STRATHAM, N.H. 03885
PHONE: 603-533-4800, FAX: 603-533-4863

ZONE: R2-RESIDENTIAL

IMPERSONAL REQUIREMENTS:

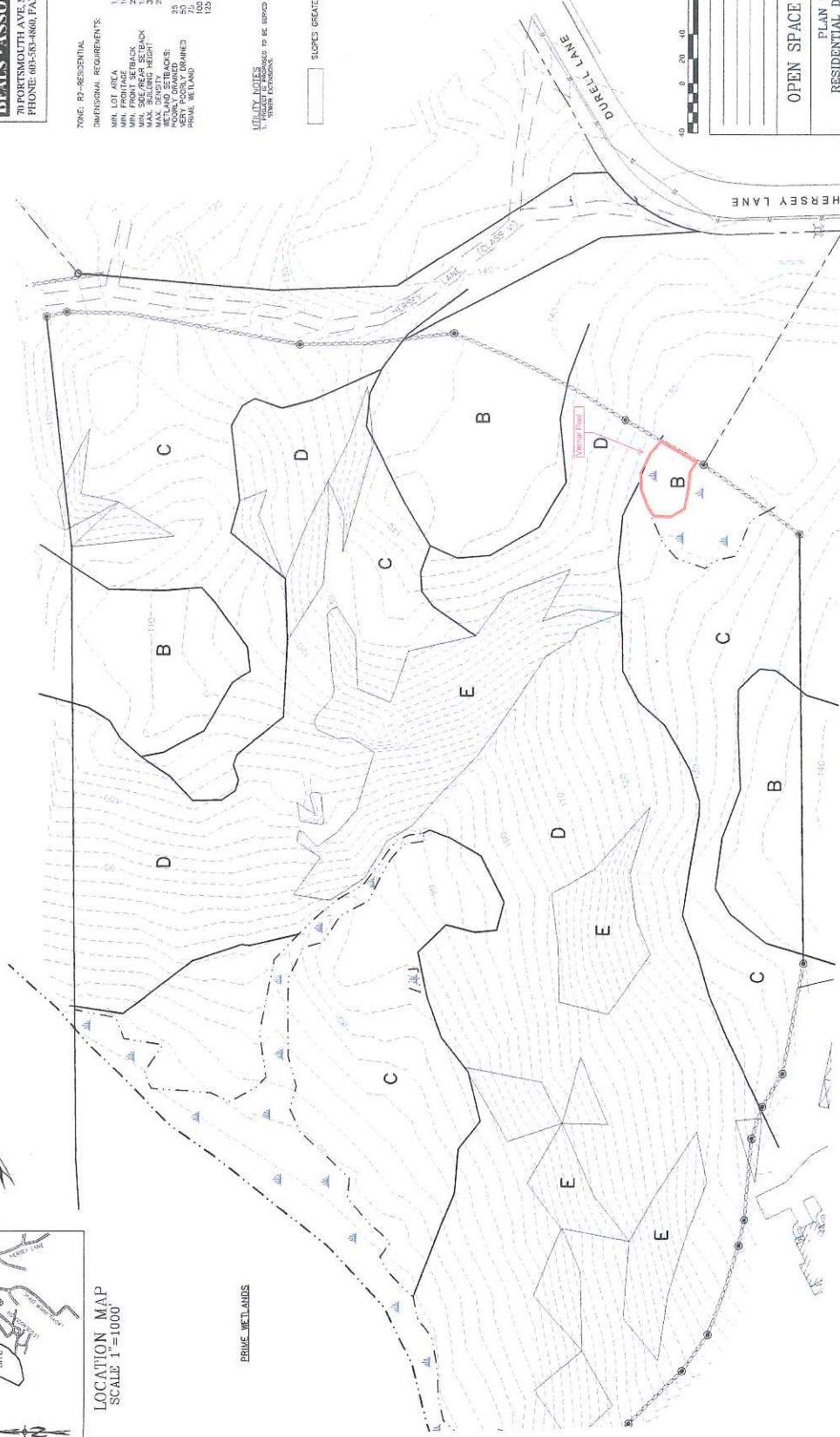
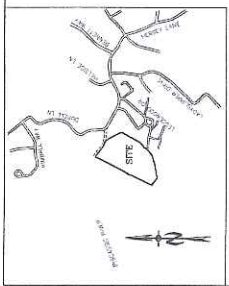
MIN. LOT AREA: 1/2 AC.
MIN. FRONT SETBACK: 25' FT.
MIN. SIDE SETBACK: 25' FT.
MIN. REAR SETBACK: 25' FT.
MAX. BUILDING HEIGHT: 35' FT.
MAX. GROUND COVER: 2 UNITS/AC.
MIN. DISTANCE TO ADJACENT PROPERTY: 25' FT.
MIN. DISTANCE TO WETLANDS: 75' FT.
MIN. DISTANCE TO WATER: 100' FT.

OPEN SPACE: 25%
30% SEPARATION

PRIME WETLANDS

LOT LINES: 1/4" = 100' (AS SHOWN)
PROPERTY LINES: 1/8" = 100' (AS SHOWN)
SETBACK EXTENSIONS: 1/8" = 100' (AS SHOWN)

SLOPES GREATER THAN 25%



DATE:	MARCH 2009	SCALE:	1" = 40'
PROJECT:	HERSEY LANE	SHEET NO.:	1 OF 1
DATE:		SCALE:	
PROJECT:		SHEET NO.:	
DATE:		SCALE:	
PROJECT:		SHEET NO.:	

OPEN SPACE SITE PLAN

PLAN FOR:
RESIDENTIAL DEVELOPMENT
HERSEY LANE
NEWMARKET, NH

DATE: MARCH 2009 SCALE: 1" = 40'
PROJECT: HERSEY LANE SHEET NO. 1 OF 1

**77 Hersey Lane Newmarket
NH-1145.1**

**STORMWATER MANAGEMENT/BMP INSPECTION & MAINTENANCE
PLAN**

Proper construction, inspections, maintenance and repair are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality.

For the purpose of this Stormwater Management Program, a significant rainfall event is considered an event of three (3) inches in a 24-hour period or 0.5 inches in a one-hour period. During construction, inspections should be conducted every two weeks or after a 0.25" rainfall event in a 24-hour period per the EPA NPDES Phase II SWPPP, until the entire disturbed area is fully restabilized. Upon full stabilization of the project and filing of an NOI, inspections need only be conducted after a significant rainfall event as described above or as described in the maintenance guidelines below.

During construction activities Chinburg Properties of 3 Penstock Way, Newmarket, NH 03857, (The Property Developer) (603-868-5995) or its heirs and/or assigns, shall be responsible for inspections and maintenance activities. Upon municipal approval of the public roadway, the Newmarket DPW shall be responsible for ongoing inspection and maintenance of the roadway and structures under the roadway. BMP drainage structures and treatment areas shall be inspected and maintained by Newmarket DPW. The owner shall document the transfer of responsibility in writing to the Town of Newmarket. The owner is responsible to ensure that any subsequent owner or owners association has copies of the Log Form and Annual Report records and fully understands the responsibilities of this plan. The grantor owner will ensure this document is provided to the grantee owner by duplicating the Ownership Responsibility Sheet which is found toward the back of this document, which will be maintained with the Inspection & Maintenance Logs, provided to the Town of Newmarket Inspector with the Annual Report upon request.

Documentation:

A maintenance log will be kept (i.e. report) summarizing inspections, maintenance, and any corrective actions taken. The log will include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task (see Stormwater Construction Site Inspection Report attached). If a maintenance task requires the clean-out of any sediments or debris, the location where the sediment and debris was disposed after removal will be indicated.

BMP Maintenance Guidelines

The following provides a list of recommendations and guidelines for managing the Stormwater facilities. The cited areas, facilities, and measures will be inspected and the identified deficiencies will be corrected. Clean-out must include the removal and legal disposal of any accumulated sediments and debris. The numbered drainage features below correspond to the specific numbered drainage feature locations on the attached plan.

During Construction:

1. STABILIZED CONSTRUCTION ENTRANCE

A temporary gravel construction entrance provides an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud and sediment transported onto paved municipal and state roads. The stone size for the pad should be between 1 and 2-inch coarse aggregate, and the pad itself constructed to a minimum length of 50' for the full width of the access road. The aggregate should be placed at least six inches thick. A plan view and profile are shown on Sheet E1 - Sediment and Erosion Control Detail Plan.

1a. ENVIRONMENTAL DUST CONTROL

Dust will be controlled on the site by the use of multiple Best Management Practices. Mulching and temporary seeding will be the first line of protection to be utilized where problems occur. If dust problems are not solved by these applications, the use of water and calcium chloride can be applied. Calcium chloride will be applied at a rate that will keep the surface moist but not cause pollution.

1b. TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES

Function – Temporary erosion and sediment control devices are utilized during construction period to divert, store and filter stormwater from non-stabilized surfaces. These devices include, but are not limited to: silt fences, hay bales, filters, sediment traps, stone check dams, mulch and erosion control blankets.

Maintenance – Temporary erosion and sediment control devices shall be inspected and maintained on a weekly basis and following a significant storm event (>0.5-inch rain event) throughout the construction period to ensure that they still have integrity and are not allowing sediment to pass. Sediment build-up in swales will be removed if it is deeper than six inches. Sediment is to be removed from sumps in the catch basin semi-annually. Refer to the Site Plan drawings for the maintenance of temporary erosion and sediment control devices.

1c. INVASIVE SPECIES - THE NH COMMISSIONER OF AGRICULTURE PROHIBITS THE COLLECTION, POSSESSION, IMPORTATION, TRANSPORTATION, SALE, PROPAGATION, TRANSPLANTATION, OR

CULTIVATION OF PLANTS BANNED BY NH LAW RSA 430:53 AND NH CODE ADMINISTRATIVE RULES AGR 3800. THE PROJECT SHALL MEET ALL REQUIREMENTS AND THE INTENT OF . RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES

Long Term Maintenance:

2. Catch Basins/Manholes:

Inspect catch basins 2 times per year (preferably in spring and fall) to ensure that the catch basins are working in their intended fashion and that they are free of debris. Clean structures when sediment depths reach 12" from invert of outlet. If the basin outlet is designed with a hood to trap floatable materials (i.e. Snout), check to ensure watertight seal is working. At a minimum, remove floating debris and hydrocarbons at the time of the inspection.

3. Culverts:

Inspect culverts 2 times per year (preferably in spring and fall) to ensure that the culverts are working in their intended fashion and that they are free of debris. Remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit and to repair any erosion damage at the culvert's inlet and outlet.

4. Bioretention Basin Maintenance

General inspection of the wetland and any structural components must occur at least annually. The perimeter is mowed at least annually.

- Systems should be inspected at least twice annually, and following any rainfall event exceeding 2.5 inches in a 24 hour period, with maintenance or rehabilitation conducted as warranted by such inspection.
 - Pretreatment measures should be inspected at least twice annually, and cleaned of accumulated sediment as warranted by inspection, but no less than once annually.
 - Trash and debris should be removed at each inspection.
 - At least once annually, system should be inspected for drawdown time. If bioretention system does not drain within 72-hours following a rainfall event, then a qualified professional should assess the condition of the facility to determine measures required to restore filtration function or infiltration function (as applicable), including but not limited to removal of accumulated sediments or reconstruction of the filter media.
 - Vegetation should be inspected at least annually, and maintained in healthy condition, including pruning, removal and replacement
1. The pre-treatment forebays will need occasional removal of sediment (every 5 years, or when 50% of capacity is lost, whichever occurs first). Inspections should ensure that no sediment is reaching the gravel.

2. All structural components, which include, but are not limited to, level spreader, vegetation, pipes, orifice structures, and spillway structures, should be inspected and any deficiencies repaired. This includes a visual inspection of all storm water control structures for damage and/or accumulation of sediment.
3. All dead or dying vegetation within the extents of the basin should be removed, as well as all herbaceous vegetation rootstock when overcrowding is observed and any vegetation that has a negative impact on storm water flowage through the facility. Any invasive vegetation encroaching upon the perimeter of the facility should be pruned or removed. Wetland plantings typically become well established, but occasional replanting to maintain minimum 50% coverage may be needed.

5. Pretreatment Structures

Inspect all upstream pre-treatment measures (fore bays, etc.) for sediment and floatables accumulation. Remove and dispose of sediments or debris as needed. Inspect structure on a semiannual basis by using inspection port and/or access structure. Remove sediment as needed when average depths reach 1”.

6. Drainage Swales/Stormwater Conveyances

Drainage swales will be stabilized with vegetation for long term cover as outlined below, and on Sheet 7 using seed mixture C. As a general rule, velocities in the swale should not exceed 3.0 feet per second for a vegetated swale although velocities as high as 4.5 FPS are allowed under certain soil conditions.

Maintenance

- Inspect annually for erosion, sediment accumulation, vegetation loss and presence of invasive species.
- Perform periodic mowing; frequency depends on location and type of grass. Do not cut shorter than Water Quality Flow depth (maximum 4 inches)
- Remove debris and accumulated sediment, based on inspection.
- Repair eroded areas, remove invasive species and dead vegetation, and reseed With applicable grass mix as warranted by inspection.

7. Vegetated Areas:

Inspect slopes and embankments early in the growing season to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows. The facilities will be inspected after major storms and any identified deficiencies will be corrected.

10. Roadway: Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader.

11. Invasive Species:

During maintenance activities, check for the presence of invasive plants and remove in a safe manner as described on the following pages. They should be controlled as described on the following pages.

Background:

Invasive plants are introduced, alien, or non-native plants, which have been moved by people from their native habitat to a new area. Some exotic plants are imported for human use such as landscaping, erosion control, or food crops. They also can arrive as "hitchhikers" among shipments of other plants, seeds, packing materials, or fresh produce. Some exotic plants become invasive and cause harm

by:

- becoming weedy and overgrown;
- killing established shade trees;
- obstructing pipes and drainage systems;
- forming dense beds in water;
- lowering water levels in lakes, streams, and wetlands;
- destroying natural communities;
- promoting erosion on stream banks and hillsides; and
- resisting control except by hazardous chemical.

Methods for Disposing Non-Native Invasive Plants

Prepared by the Invasives Species Outreach Group, volunteers interested in helping people control invasive plants. Assistance provided by the Piscataquog Land Conservancy and the NH Invasives Species Committee. Edited by Karen Bennett, Extension Forestry Professor and Specialist.

Non-native invasive plants crowd out natives in natural and managed landscapes. They cost taxpayers billions of dollars each year from lost agricultural and forest crops, decreased biodiversity, impacts to natural resources and the environment, and the cost to control and eradicate them.

Lonicera tatarica

USDA-NRCS PLANTS Database / Britton, N.L., and
A. Brown. 1913. An illustrated flora of the Southern United States, Canada and the British Possessions. Vol. 3: 282.

Invasive plants grow well even in less than desirable conditions such as sandy soils along roadsides, shaded wooded areas, and in wetlands. In ideal conditions, they grow and spread even faster. There are many ways to remove these non-native invasives, but once removed, care is needed to dispose the removed plant material so the plants don't grow where disposed.

Knowing how a particular plant reproduces indicates its method of spread and helps determine

the appropriate disposal method. Most are spread by seed and are dispersed by wind, water, animals, or people. Some reproduce by vegetative means from pieces of stems or roots forming new plants. Others spread through both seed and vegetative means.

New Hampshire Regulations

Prohibited invasive species shall only be disposed of in a manner that renders them nonliving and nonviable. (Agr. 3802.04)

No person shall collect, transport, import, export, move, buy, sell, distribute, propagate or transplant any living and viable portion of any plant species, which includes all of their cultivars and varieties, listed in Table 3800.1 of the New Hampshire prohibited invasive species list. (Agr 3802.01)

Because movement and disposal of viable plant parts is restricted (see NH Regulations), viable invasive parts can't be brought to most transfer stations in the state. Check with your transfer station to see if there is an approved, designated area for invasives disposal. This fact sheet gives recommendations for rendering plant parts non- viable.

Control of invasives is beyond the scope of this fact sheet. For information about control visit www.nhinvasives.org or contact your UNH Cooperative Extension office.

How and When to Dispose of Invasives?

To prevent seed from spreading remove invasive plants before seeds are set (produced). Some plants continue to grow, flower and set seed even after pulling or cutting. Seeds can remain viable in the ground for many years. If the plant has flowers or seeds, place the flowers and seeds in a heavy plastic bag "head first" at the weeding site and transport to the disposal site. The following are general descriptions of disposal methods. See the chart for recommendations by species.

Burning: Large woody branches and trunks can be used as firewood or burned in piles. For outside burning, a written fire permit from the local forest fire warden is required unless the ground is covered in snow. Brush larger than 5 inches in diameter can't be burned. Invasive plants with easily airborne seeds like black swallow-wort with mature seed pods (indicated by their brown color) shouldn't be burned as the seeds may disperse by the hot air created by the fire.

Bagging (solarization): Use this technique with softer- tissue plants. Use heavy black or clear plastic bags (contractor grade), making sure that no parts of the plants poke through. Allow the bags to sit in the sun for several weeks and on dark pavement for the best effect.

Tarpping and Drying: Pile material on a sheet of plastic

Japanese knotweed

Polygonum cuspidatum USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of the Southern United States, Canada and the British Possessions. Vol. 1: 676.

and cover with a tarp, fastening the tarp to the ground and monitoring it for escapes. Let the material dry for several weeks, or until it is clearly nonviable.

Chipping: Use this method for woody plants that don't reproduce vegetatively.

Burying: This is risky, but can be done with watchful diligence. Lay thick plastic in a deep pit before placing the cut up plant material in the hole. Place the material away from the edge of the plastic before covering it with more heavy plastic. Eliminate as much air as possible and toss in soil to weight down the material in the pit. Note that the top of the buried material should be at least three feet underground. Japanese knotweed should be at least 5 feet underground!

Drowning: Fill a large barrel with water and place soft-tissue plants in the water. Check after a few weeks and look for rotted plant material (roots, stems, leaves, flowers). Well- rotted plant material may be composted. A word of caution- seeds may still be viable after using this method. Do this before seeds are set. This method isn't used often. Be prepared for an awful stink!

Composting: Invasive plants can take root in compost. Don't compost any invasives unless you know there is no viable (living) plant material left. Use one of the above techniques (bagging, tarping, drying, chipping, or drowning) to render the plants nonviable before composting. Closely examine the plant before composting and avoid composting seeds.

Be diligent looking for seedlings for years in areas where removal and disposal took place.

Suggested Disposal Methods for Non-Native Invasive Plants

This table provides information concerning the disposal of removed invasive plant material. If the infestation is treated with herbicide and left in place, these guidelines don't apply. Don't bring invasives to a local transfer station, unless there is a designated area for their disposal, or they have been rendered non-viable. This listing includes wetland and upland plants from the New Hampshire Prohibited Invasive Species List. The disposal of aquatic plants isn't addressed.

Woody Plants	Method of Reproducing	Methods of Disposal
Norway maple (<i>Acer platanoides</i>)	Fruit and Seeds	Prior to fruit/seed ripening
European barberry (<i>Berberis vulgaris</i>)		Seedlings and small plants
Japanese barberry (<i>Berberis thunbergii</i>)		Pull or cut and leave on site with roots exposed.
autumn olive (<i>Elaeagnus umbellata</i>)		No special care needed.
burning bush (<i>Euonymus alatus</i>)		Larger plants
Morrow's honeysuckle (<i>Lonicera morrowii</i>)		Use as firewood.
Tatarian honeysuckle (<i>Lonicera tatarica</i>)		Make a brush pile.
showy bush honeysuckle (<i>Lonicera x bella</i>)		Chip.
common buckthorn (<i>Rhamnus cathartica</i>)		After fruit/seed is ripe
		Don't remove from site.
		Burn.
		Make a covered brush pile.
		Chip once all fruit has dropped from branches.
		Leave resulting chips on site and monitor.

<p>oriental bittersweet (Celastrus orbiculatus) multiflora rose (Rosa multiflora)</p>	<p>Fruits, Seeds, Plant Fragments</p>	<p>Prior to fruit/seed ripening Seedlings and small plants Pull or cut and leave on site with roots exposed. No special care needed. Larger plants Make a brush pile. Burn.</p> <hr/> <p>After fruit/seed is ripe Don't remove from site. Burn. Make a covered brush pile. Chip – only after material has fully dried (1 year) and all fruit has dropped from branches. Leave resulting chips on site and monitor.</p>
--	--	--

	Method of Reproducing	Methods of Disposal
<p>garlic mustard (Alliaria petiolata) spotted knapweed (Centaurea maculosa) Sap of related knapweed can cause skin irritation and tumors. Wear gloves when handling. black swallow-wort (Cynanchum nigrum) May cause skin rash. Wear gloves and long sleeves when handling. pale swallow-wort (Cynanchum rossicum) giant hogweed (Heracleum mantegazzianum) Can cause major skin rash. Wear gloves and long sleeves when handling. dame's rocket (Hesperis matronalis) perennial pepperweed (Lepidium latifolium) purple loosestrife (Lythrum salicaria)</p>	<p>Fruits and Seeds</p>	<p>Prior to flowering Depends on scale of infestation Small infestation Pull or cut plant and leave on site with roots exposed.</p> <p>Large infestation Pull or cut plant and pile. (You can pile onto or cover with plastic sheeting). Monitor. Remove any re-sprouting material.</p> <hr/> <p>During and following flowering Do nothing until the following year or remove flowering heads and bag and let rot.</p> <p>Small infestation Pull or cut plant and leave on site with roots exposed.</p> <p>Large infestation Pull or cut plant and pile remaining material. (You can pile onto plastic or cover with plastic sheeting). Monitor. Remove any re-sprouting material.</p>

<p>common reed (Phragmites australis) Japanese knotweed (Polygonum cuspidatum) Bohemian knotweed (Polygonum x bohemicum)</p>	<p>Fruits, Seeds, Plant Fragments Primary means of spread in these species is by plant parts. Although all care should be given to preventing the dispersal of seed during control activities, the presence of seed doesn't materially influence disposal activities.</p>	<p>Small infestation Bag all plant material and let rot. Never pile and use resulting material as compost. Burn.</p> <p>Large infestation Remove material to unsuitable habitat (dry, hot and sunny or dry and shaded location) and scatter or pile. Monitor and remove any sprouting material. Pile, let dry, and burn.</p>
--	---	--

In the event that invasive species are noticed growing in any of the stormwater management practices, the invasive vegetation shall be removed completely to include root matter and disposed of properly. Prior to disposal, the vegetation shall be placed on and completely cover with a plastic tarp for a period of two – three weeks until plants are completely dead. If necessary or to expedite the process, spray only the invasive vegetation and roots with a systemic nonselective herbicide after placement on the tarp (to prevent chemical migration) and then cover as described above.

Annual Report:

Description: The owner is responsible to keep an **I & M Activity Log** that documents inspection, maintenance and repairs to the storm water management system, and a **Deicing Log** is to be provided by the Newmarket DPW to track the amount and type of deicing material applied to the site. The original owner is responsible to ensure that any subsequent owner(s) have copies of the Stormwater System Operation and Maintenance Plan & Inspection and Maintenance Manual, copies of past logs and check lists. This includes any owner association for potential condominium conversion of the property. The Annual Report will be prepared and submitted to the Newmarket DPW upon request.

STORMWATER CONSTRUCTION SITE INSPECTION REPORT

Inspection & Maintenance Manual Checklist

77 Hersey Lane
Newmarket, NH

BMP / System	Minimum Inspection Frequency	Minimum Inspection Requirements	Maintenance / Cleanout Threshold
Pavement Sweeping	Twice Per Year (Town)	N/A	N/A
Litter/Trash Removal	Routinely	Inspect ponds and swale areas.	Site will be free of litter/trash.
Deicing Agents	N/A	N/A	Use salt as the primary agent for roadway safety during winter.
Drainage Pipes/Catch Basins & DMH's	1 time per 2 years	Check for sediment accumulation & clogging.	Less than 2" sediment depth
Bioretention System / Rain Garden	Twice Annually After every 2.5" or rain or greater.	72-Hour drawdown time evaluation and vegetation evaluation.	Remove dead & diseased vegetation along with all debris; take corrective measures of filtration media if required.

Chinburg Properties
Newmarket, NH

1/3/20

Riprap Outlet Protection	Annually	Check for sediment buildup and structure damage.	Remove excess sediment and repair damage.
Annual Report	1 time per year	Submit Annual Report to Town of Newmarket Inspector upon request	

Inspection Notes:

CHECKLIST FOR INSPECTION OF BIORETENTION SYSTEM / TREE FILTERS

Location:	Inspector:
Date:	Time:
Date Since Last Rain Event:	Site Conditions:

Inspection Items	Satisfactory (S) or Unsatisfactory (U)	Comments/Corrective Action
1. Initial Inspection After Planting and Mulching		
Plants are stable, roots not exposed	S U	
Surface is at design level, typically 4" below overpass	S U	
Overflow bypass / inlet (if available) is functional	S U	
2. Debris Cleanup (2 times a year minimum, Spring & Fall)		
Litter, leaves, and dead vegetation removed from the system	S U	
Prune perennial vegetation	S U	
3. Standing Water (1 time a year, After large storm events)		
No evidence of standing water after 72 hours	S U	
4. Short Circuiting & Erosion (1 times a year, After large storm events)		
No evidence of animal burrows or other holes	S U	
No evidence of erosion	S U	
5. Drought Conditions (As needed)		
Water plants as needed	S U	
Dead or dying plants	S U	
6. Overflow Bypass / Inlet Inspection (1 times a year, After large storm events)		
No evidence of blockage or accumulated leaves	S U	
Good condition, no need for repair	S U	
7. Vegetation Coverage (once a year)		
50 % coverage established throughout system by first year	S U	
Robust coverage by year 2 or later	S U	
8. Mulch Depth (if applicable)(once every 2 years)		
Mulch at original design depth after tilling or replacement	S U	
9. Vegetation Health (once every 3 years)		
Dead or decaying plants removed from the system	S U	
10. Tree Pruning (once every 3 years)		
Prune dead, diseased, or crossing branches	S U	
Corrective Action Needed		Due Date
1.		
2.		
3.		

Anti-icing Data Log Form

Truck:

Date:

Air Temperature

Pavement
Temperature

Sky

Reason for applying:

Road Name:

Chemical: Sand/Salt - Salt - Other (List below)
(Circle one)

Application Time:

Application Amount:

Name:

ENGINEERING SERVICES REQUEST
AUTHORIZATION TO PROCEED

To: Underwood Engineers, Inc.
25 Vaughan Mall
Portsmouth, New Hampshire 03801

ESR No.: **PD-21, Amendment #1**
File No.: 2475
Description: 77 Hershey Lane Subdivision
Engineering Review

From: Town of Newmarket
186 Main Street
Newmarket, New Hampshire 03857

Date: **January 20, 2020**

Town of Newmarket Contact(s):

Diane Hardy, Town Planner

Underwood Engineers Contact(s) (this project):

Robert J. Saunders P.E., Project Manager

Under agreement for Professional Services as Consulting Engineer for the Town of Newmarket, NH, (Underwood File #2025), you are authorized to proceed with the following work:

Background Purpose:

Underwood Engineers, Inc. (UE) will provide additional engineering design review services relating to the Subdivision plan set for a proposed Open-Space Subdivision on Tax Map U2; Lot 297-1, Plan Drawings prepared by Beals Associates, PLLC., dated January 2020.

Scope of Work:

The following additional engineering services will be provided:

Task 1: Additional Review Services

- Review plans and calculations for density, parking, impervious cover, stormwater treatment, etc. as identified in the Town's regulations.
- Identify applicable state and local permitting requirements
- Review waiver requests
- Review onsite water, sewer and drainage systems for possible impacts to Town resources and/or infrastructure
- Review proposed offsite improvements
- Review drainage study
- Review plan notes and related construction details
- Prepare a letter presenting review comments.
- Attend one (1) TRC or other staff meeting to discuss review comments and suggestions to resolve any site design issues that are identified.
- Review of Applicant's response to design review comments and preparation of subsequent letter report to the Town concerning the resolution of outstanding items and/or items not addressed by the Applicant.

Work Not Included

- Design Services
- Geotechnical Engineering
- Traffic studies or reviews
- Construction Phase Engineering Services

Engineering Fees/Budget

The work outlined in the scope of work will be completed on a time charge basis within the following budget:

	Previous	Increase	Total
Task 1 – Design Review Engineering	\$ 1,500	\$ 4,000	\$ 5,500

Engineering fees will be billed at standard hourly rates for personnel assigned plus reimbursable expenses. Billings for services will be monthly and will be due to Underwood Engineers, Inc. within thirty (30) days of the billing date.

Budgets:

Suggested budgets, as used herein, are best estimates by Underwood Engineers. The budgets are based on available information and contractor's adherence to established project schedules, and reasonable communications to the Engineer. Budgets are not intended to be fixed prices but are reasonable estimates of average costs to complete projects of similar size. Engineer will not exceed the budget without written authorization.

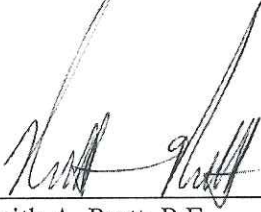
Schedule:

Underwood Engineers, Inc. will complete the initial design review within twenty (20) days from authorization to proceed. Revised application materials must be provided to the Engineer a minimum of two (2) weeks prior to a scheduled meeting, to permit time for the follow-up reviews in advance of scheduled Planning Board meetings.

Approval and authorization to proceed:

Steve Fournier
Town Administrator
Newmarket, NH

Date



Keith A. Pratt, P.E.
President, Underwood Engineers, Inc.

1/21/20
Date

CHINBURG DEVELOPMENT, LLC
3 PENSTOCK WAY
NEWMARKET, NH 03857


Kennebunk Savings
52-7450/2112

3988

1/30/2020

PAY TO THE ORDER OF **Town Of Newmarket**

\$ ****4,000.00**

Four Thousand and 00/100*****

DOLLARS

Town Of Newmarket
186 Main Street
Newmarket, NH 03857-1838



AUTHORIZED SIGNATURE

MEMO **77 Hersey Engineering Review**

⑈003988⑈ ⑆211274502⑆ 44 006547⑈

CHINBURG DEVELOPMENT, LLC
Town Of Newmarket

1/30/2020

3988

4,000.00

Kennebunk Savings C **77 Hersey Engineering Review**

4,000.00

Security features. Details on back.

PROPOSED RESIDENTIAL DEVELOPMENT HERSEY LANE TAX MAP R4, LOT 3

NOT FOR CONSTRUCTION

APPLICANT:

CHINBURG PROPERTIES, INC.
3 PENSTOCK WAY
NEWMARKET, N.H. 03857

CIVIL ENGINEERS:

BEALS ASSOCIATES PLLC
70 PORTSMOUTH AVE,
STRATHAM, NEW HAMPSHIRE
PHN. 603-583-4860, FAX. 603-583-4863



LAND SURVEYORS:

DOUCET SURVEY INC.
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857
(603) 559-8550 <http://www.doucetsurvey.com>

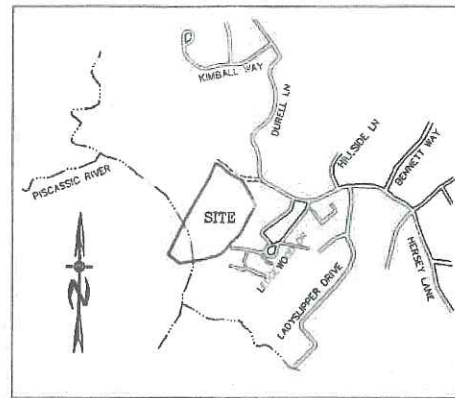


**WETLAND / SOIL
CONSULTANT:**

GOVE ENVIRONMENTAL SERVICES INC.
8 CONTINENTAL DRIVE,
BLDG 2 UNIT H
EXETER, NH 03833
1-603-778-0644



LOCATION MAP



NOT TO SCALE

INDEX

- TITLE SHEET
- 1-2 SUBDIVISION PLANS
- 3 EASEMENT PLAN
- 4 EXISTING CONDITIONS PLAN
- 5 SUBDIVISION SITE PLAN
- 6 ROADWAY PLAN AND PROFILE
- 7 UTILITY PLAN AND PROFILE
- 8 POND PLAN
- 9 CONSTRUCTION DETAIL SHEET
- 10 WATER DETAIL SHEET
- 11 SEWER DETAIL SHEET
- 12 EROSION CONTROL DETAILS
- Y1 ENVIRONMENTAL YIELD PLAN

PLAN SET LEGEND

- | | | | |
|----------------------|---|------------------------|-------|
| UTILITY POLE | ⊙ | FENCING | — x — |
| EXISTING LIGHT POLE | ⊠ | DRAINAGE LINE | — D — |
| EXISTING CATCH BASIN | ⊞ | STONE WALL | — D — |
| EXISTING HYDRANT | ⊞ | TREE LINE | — x — |
| SINGLE POST SIGN | ⊞ | ABUT. PROPERTY LINES | — x — |
| PINES, ETC. | ⊞ | EXIST. PROPERTY LINES | — x — |
| MAPLES, ETC. | ⊞ | BUILDING SETBACK LINES | — x — |
| EXIST. SPOT GRADE | ⊞ | EXIST. CONTOUR | — x — |
| PROP. SPOT GRADE | ⊞ | PROP. CONTOUR | — x — |
| TEST PIT | ⊞ | SOIL LINES | — x — |

REQUIRED PERMITS

NHDES SUBDIVISION APPROVAL NUMBER: SA
NHDES SEWER DISCHARGE PERMIT
EPA-CGP

OWNER OF RECORD
77 HERSEY LANE LLC.
WALTER CHENEY
76 EXETER ROAD, #B
NEWMARKET, NH 03857

REVISIONS:	DATE:
REVISED PER TRC COMMENTS	3-2-20
PLANS ISSUED	1-7-20

NH-1123 PROPOSED SUBDIVISION PLAN

NOTES:

1. REFERENCE: TAX MAP R4 LOT 3
 2. TOTAL PARCEL AREA: 558,011 SQ. FT. OR 12.81 AC.
 3. OWNER OF RECORD: 77 HERSEY LANE LLC
76 EXETER STREET
NEWMARKET NH 03857
R.C.R.D. BOOK 5025, PAGE 703
 4. ZONE: R2-RESIDENTIAL
- OPEN SPACE DIMENSIONAL REQUIREMENTS:
- | | |
|------------------------|-----------------------------|
| MIN. LOT AREA | N/A |
| MIN. FRONTAGE | 25 FT. |
| MIN. FRONT SETBACK | 25 FT. FROM PAVED ROAD |
| MIN. SIDE/REAR SETBACK | 30 FT. STRUCTURE SEPARATION |
| MAX. BUILDING HEIGHT | N/A |
| MAX. DENSITY | N/A |

WETLAND SETBACKS:

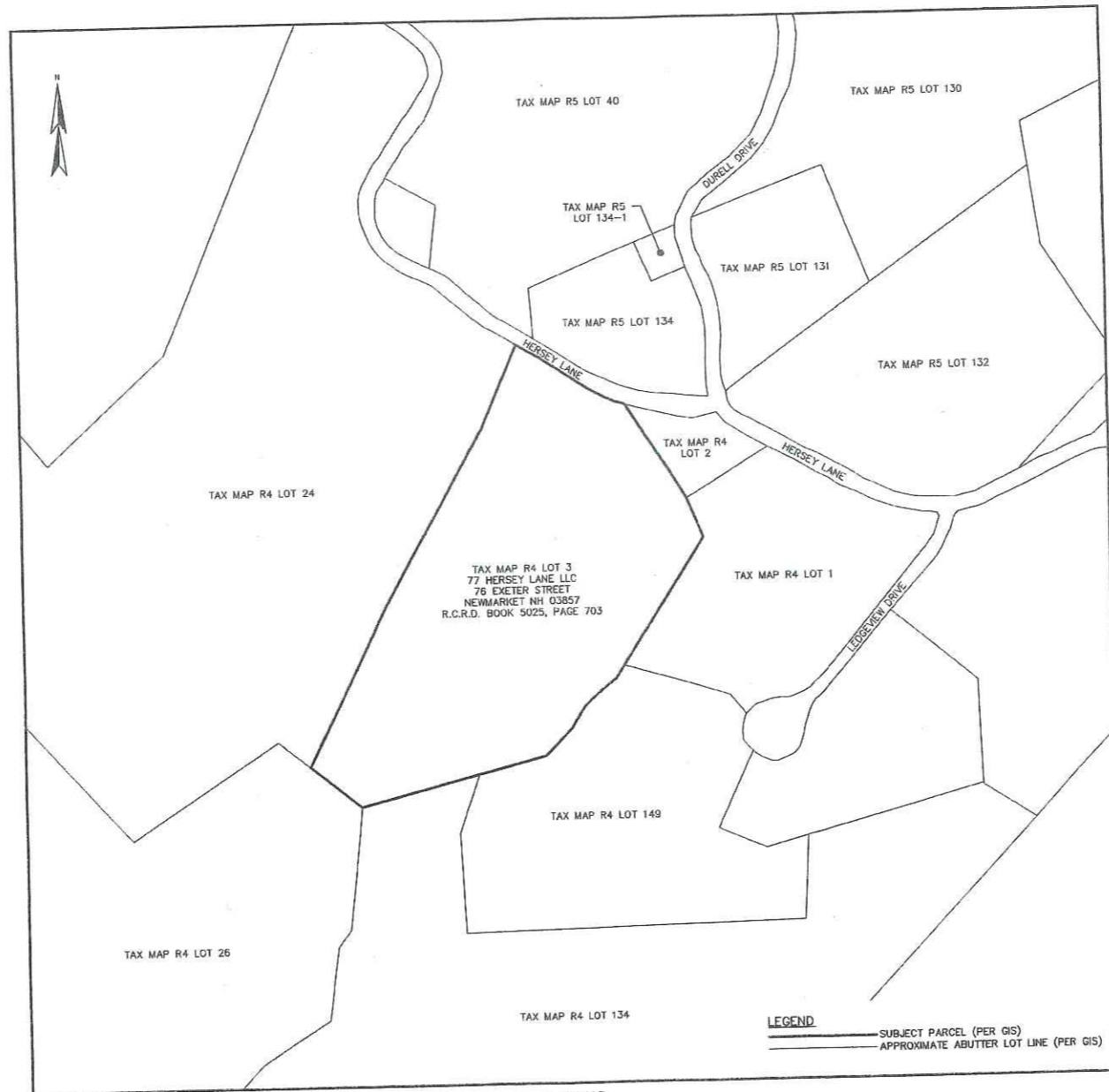
POORLY DRAINED	25 FT.
VERY POORLY DRAINED	50 FT.
PRIME WETLAND	75 FT. NO DISTURB 100 FT. NO STRUCTURE 125 FT. NO SEPTIC

ZONING INFORMATION LISTED HEREON IS BASED ON THE TOWN OF NEWMARKET ZONING ORDINANCE DATED MAY 23, 2018 AS AVAILABLE ON THE TOWN WEBSITE ON JANUARY 2, 2020. ADDITIONAL REGULATIONS APPLY, AND REFERENCE IS HEREBY MADE TO THE EFFECTIVE ZONING ORDINANCE. THE LAND OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS.

5. FIELD SURVEY PERFORMED BY DOUCET SURVEY DURING MARCH, 2005 USING A GEDIMETER 600 PRO TOTAL STATION. UPDATED WETLAND SURVEY PERFORMED DURING JULY 2018.
6. FLOOD HAZARD ZONE: "X", PER FIRM MAP #3301360005B, DATED MAY 2, 1991.
7. VERTICAL DATUM IS BASED ON NGVD29.
8. HORIZONTAL DATUM BASED ON REFERENCE PLAN 1.
9. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.
10. JURISDICTIONAL WETLANDS DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING JULY, 2018 IN ACCORDANCE WITH THE FOLLOWING:
 - US ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JAN 1987) AND REGIONAL SUPPLEMENT TO CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH CENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.
 - FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.0, 2016 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, NEHSTC (MAY 2017).
 - NORTH AMERICAN DIGITAL FLORA: NATIONAL WETLAND PLANT LIST, CURRENT VERSION.

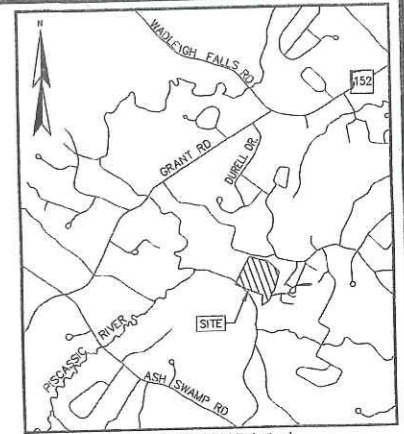
REFERENCE PLANS:

1. "AS BUILT CONDOMINIUM SITE PLAN OF SEWALL FARM CONDOMINIUM PHASE VI FOR DEVELOCO OF STRATHAM, INC. TAX MAP R4, LOT 1 LEDGEVIEW DRIVE & HERSEY LANE NEWMARKET, NEW HAMPSHIRE" PREPARED BY DOUCET SURVEY, INC. DATED FEBRUARY 7, 2005. R.C.R.D. PLAN D-32395.
2. "TAKING PLAN OF LAND OF CROMMET CREEK, LLC FOR THE TOWN OF NEWMARKET, HERSEY LANE, NEWMARKET, NEW HAMPSHIRE" BY DOUCET SURVEY, INC. DATED NOV. 7, 2014. R.C.R.D. PLAN D-38611.
3. "BOUNDARY PLAN OF LAND ESTATE OF HANNAH WEBB HERSEY LANE NEWMARKET, N.H." PREPARED BY R.C. MOYNIHAN DATED MARCH 1989. R.C.R.D. PLAN D-15157.
4. "FINAL SUBDIVISION AND SITE PLAN SEWALL FARM NEWMARKET, N.H." PREPARED BY FREDERICK E. DREW ASSOCIATES DATED APRIL 1986 LAST REVISED SEPTEMBER 1986. R.C.R.D. PLAN D-16121.
5. "LOT LINE REVISION PLAN, LAND OF CROMMET CREEK LLC, TAX MAP R5 LOT 134, 40 DURELL WOODS LOT LINE REVISION PLAN LAND OF CROMMET CREEK LLC TAX MAP R5 LOT 134 40 DURELL DRIVE AND THE TOWN OF NEWMARKET HERSEY LANE NEWMARKET, NEW HAMPSHIRE" PREPARED BY DOUCET SURVEY, LLC MARCH 5, 2020.

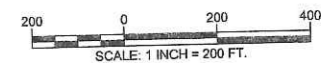


KEY MAP

LEGEND
 ——— SUBJECT PARCEL (PER GIS)
 - - - - - APPROXIMATE ABUTTER LOT LINE (PER GIS)



LOCATION MAP (n.l.s.)



SUBDIVISION PLAN
 FOR LAND OF
77 HERSEY LANE LLC
 TAX MAP R4 LOT 3
 77 HERSEY LANE
 NEWMARKET, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY: W.D.C. / M.T.L.	DATE: MARCH 5, 2020
CHECKED BY: J.F.K.	DRAWING NO.: 1609E
JOB NO.: 1609	SHEET 1 OF 3

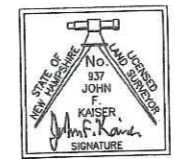
ABUTTERS LIST:

- | | | | | | | | | | | |
|--|---|--|--|--|---|---|--|--|---|---|
| TAX MAP R4 LOT 1
LEDGEVIEW ASSOCIATION
(COMMON LAND)
LEDGEVIEW DRIVE
NEWMARKET, NH 03857
R.C.R.D. BOOK 4372 PAGE 1181 | TAX MAP R4 LOT 2
DURELL ASSOCIATION
75 HERSEY LANE
NEWMARKET, NH 03857 | TAX MAP R4 LOT 24
ROBERT MACINTOSH SR
121 ASH SWAMP ROAD
NEWMARKET, NH 03857
R.C.R.D. BOOK 3234 PAGE 138 | TAX MAP R4 LOT 26
BRUCE W. & JEANNETTE M.
HAUSCHEL TRUSTEES
C/O B & J TRUST
47 LEDDY DRIVE
EPPING, NH 03042
R.C.R.D. BOOK 3275 PAGE 2642 | TAX MAP R4 LOT 134
SEWALL FARM ASSOCIATION
LADYSLIPPER COMMON
NEWMARKET, NH 03857 | TAX MAP R4 LOT 149
LEDGEVIEW ASSOCIATION
(MAGNOLIA COMMON LAND)
PO BOX 309
NEWMARKET, NH 03857
R.C.R.D. BOOK 4166 PAGE 277 | TAX MAP R5 LOT 131
CROMMET CREEK LLC
76 EXETER ROAD
NEWMARKET, NH 03857
R.C.R.D. BOOK 4526 PAGE 227 | TAX MAP R5 LOT 40
DURELL WOODS ASSOCIATION
(COMMON LAND) | TAX MAP R5 LOT 134-1
TOWN OF NEWMARKET
(BLENDING FACILITY)
186 MAIN STREET
NEWMARKET, NH 03857
R.C.R.D. BOOK 5846 PAGE 2969 | TAX MAP R5 LOT 134
CROMMET CREEK LLC
76 EXETER ROAD
NEWMARKET, NH 03857
R.C.R.D. BOOK 4526 PAGE 224 | TAX MAP R5 LOT 132
CFC FUTURE CORP
56 EXETER ROAD
NEWMARKET, NH 03857
R.C.R.D. BOOK 4116 PAGE 703 |
|--|---|--|--|--|---|---|--|--|---|---|

APPROVED BY

 Chairman's Signature

 Date
 Planning Board
 Newmarket, New Hampshire



I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

John F. Kaiser L.L.S. #937
 3/5/20 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

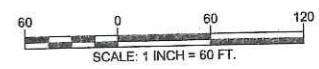
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 10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
<http://www.doucetsurvey.com>

LEGEND

- EXISTING LOT LINE
- - - PROPOSED LOT LINE
- BUILDING SETBACK LINE
- APPROXIMATE ABUTTERS LOT LINE
- - - EASEMENT LINE
- STONE WALL
- EDGE OF WETLAND
- WETLAND SETBACK
- PRIME WETLAND SETBACK
- DRILL HOLE
- IRON PIPE/ROD FOUND
- FENCE POST
- TREE STUMP
- DECIDUOUS TREE
- TYP. TYPICAL
- LP.F. IRON PIPE FOUND
- D.H.F. DRILL HOLE FOUND
- D.H.S. DRILL HOLE SET
- EP EDGE OF PAVEMENT
- 4"x4" GRANITE BOUND TO BE SET
- 5/8" REBAR W/D CAP TO BE SET

LOT AREA TABLE

LOT	SQ. FT.	ACRES	FRONTAGE
1	10,382	0.238	94.42
2	10,872	0.250	69.42
3	14,251	0.327	118.67
4	9,127	0.210	60.97
5	11,579	0.266	35.50
6	9,817	0.225	65.60
7	13,156	0.302	34.03
8	12,311	0.283	46.36
9	14,346	0.329	25.29
10	17,732	0.407	46.82
11	17,325	0.398	25.29



SUBDIVISION PLAN
 FOR LAND OF
77 HERSEY LANE LLC
 TAX MAP R4 LOT 3
 77 HERSEY LANE
 NEWMARKET, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

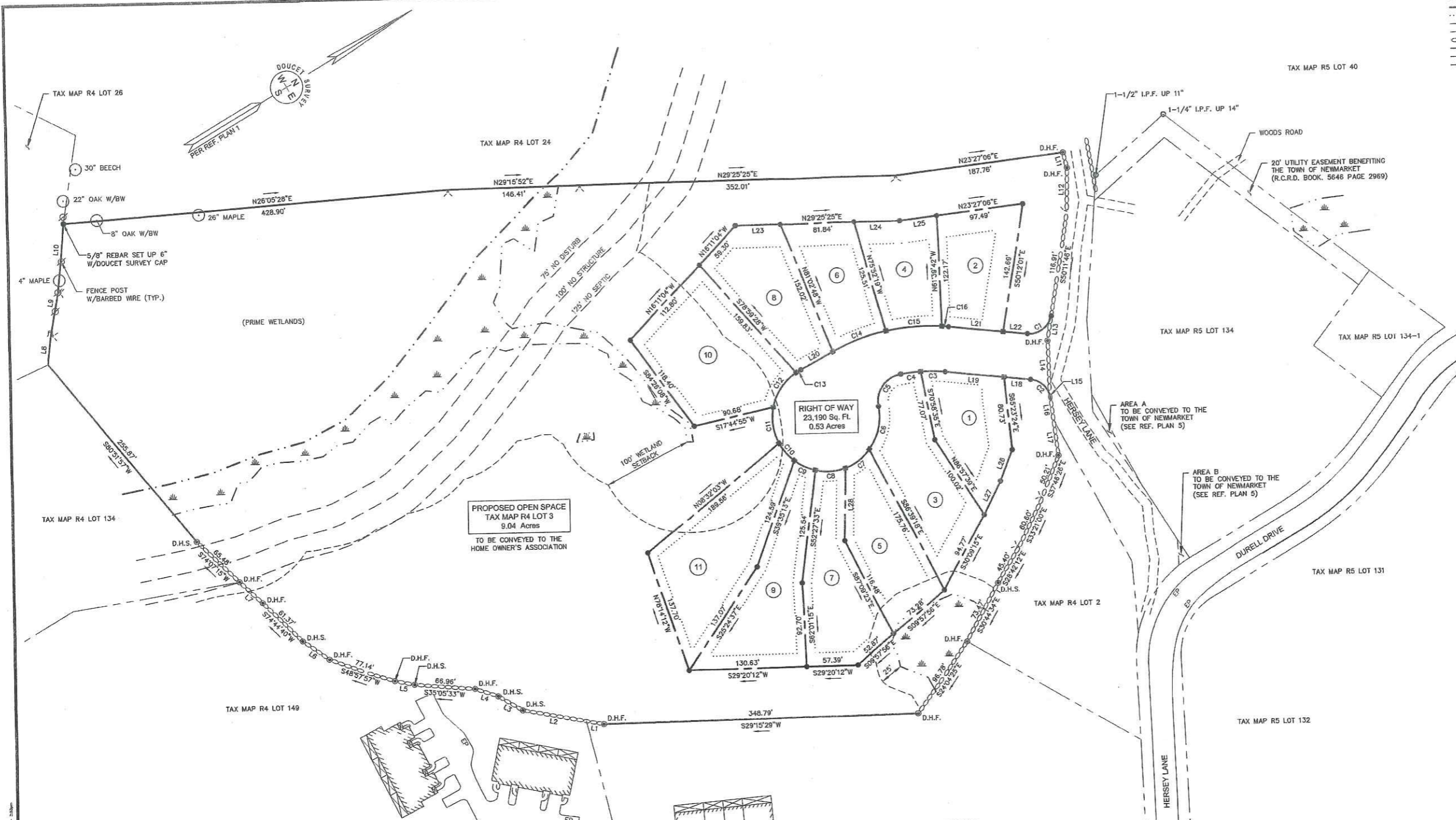
DRAWN BY: W.D.C./M.T.L.	DATE: MARCH 5, 2020
CHECKED BY: J.F.K.	DRAWING NO.: 1609E
JOB NO.: 1609	SHEET 2 OF 3

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

John F. Kama L.L.S. #937
 3/5/20 DATE

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 10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
<http://www.doucetsurvey.com>



CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	35.95'	25.00'	82°23'55"	N04°59'46"W	32.93'
C2	33.53'	25.00'	76°50'20"	S74°37'21"W	31.07'
C3	27.70'	175.00'	9°04'14"	S31°40'05"W	27.68'
C4	21.10'	175.00'	6°54'25"	S23°40'45"W	21.08'
C5	47.43'	30.00'	90°35'07"	S25°04'01"E	42.64'
C6	50.14'	60.00'	47°53'03"	N46°25'03"W	48.70'
C7	35.50'	60.00'	33°53'53"	N05°31'34"W	34.98'
C8	34.03'	60.00'	32°29'58"	N27°40'21"E	33.58'
C9	25.29'	60.00'	24°08'49"	N55°59'45"E	25.10'
C10	25.29'	60.00'	24°08'49"	N80°08'34"E	25.10'
C11	41.25'	60.00'	39°23'21"	S68°05'21"E	40.44'
C12	46.82'	60.00'	44°42'29"	S26°02'26"E	45.64'
C13	5.95'	60.00'	5°41'08"	S00°50'37"E	5.95'
C14	65.80'	225.00'	16°42'17"	S10°21'05"W	65.37'
C15	60.97'	225.00'	15°31'30"	S26°27'59"W	60.78'
C16	7.75'	225.00'	1°58'27"	S35°12'58"W	7.75'

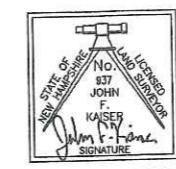
LINE TABLE

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	S41°12'49"W	19.71'	L17	S66°57'29"E	40.00'
L2	S40°32'30"W	71.50'	L18	S36°12'12"W	29.25'
L3	S61°20'19"W	31.20'	L19	S36°12'12"W	66.72'
L4	S48°22'28"W	27.18'	L20	N01°59'57"E	40.41'
L5	S41°53'40"W	22.11'	L21	N36°12'12"E	61.67'
L6	S65°13'12"W	36.47'	L22	N36°12'12"E	26.68'
L7	S73°33'48"W	34.39'	L23	N29°25'25"E	50.02'
L8	N52°36'04"W	32.26'	L24	N29°25'25"E	51.10'
L9	N49°52'20"W	48.20'	L25	N23°27'06"E	40.61'
L10	N54°02'17"W	76.22'	L26	S37°57'17"E	36.87'
L11	S73°30'48"E	17.44'	L27	S33°21'00"E	41.33'
L12	S58°35'43"E	48.10'	L28	S58°33'47"E	80.21'
L13	S50°11'46"E	27.39'			
L14	S61°09'59"E	57.82'			
L15	S66°57'29"E	6.89'			
L16	S66°57'29"E	23.15'			

APPROVED BY

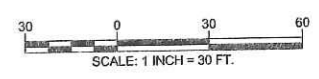
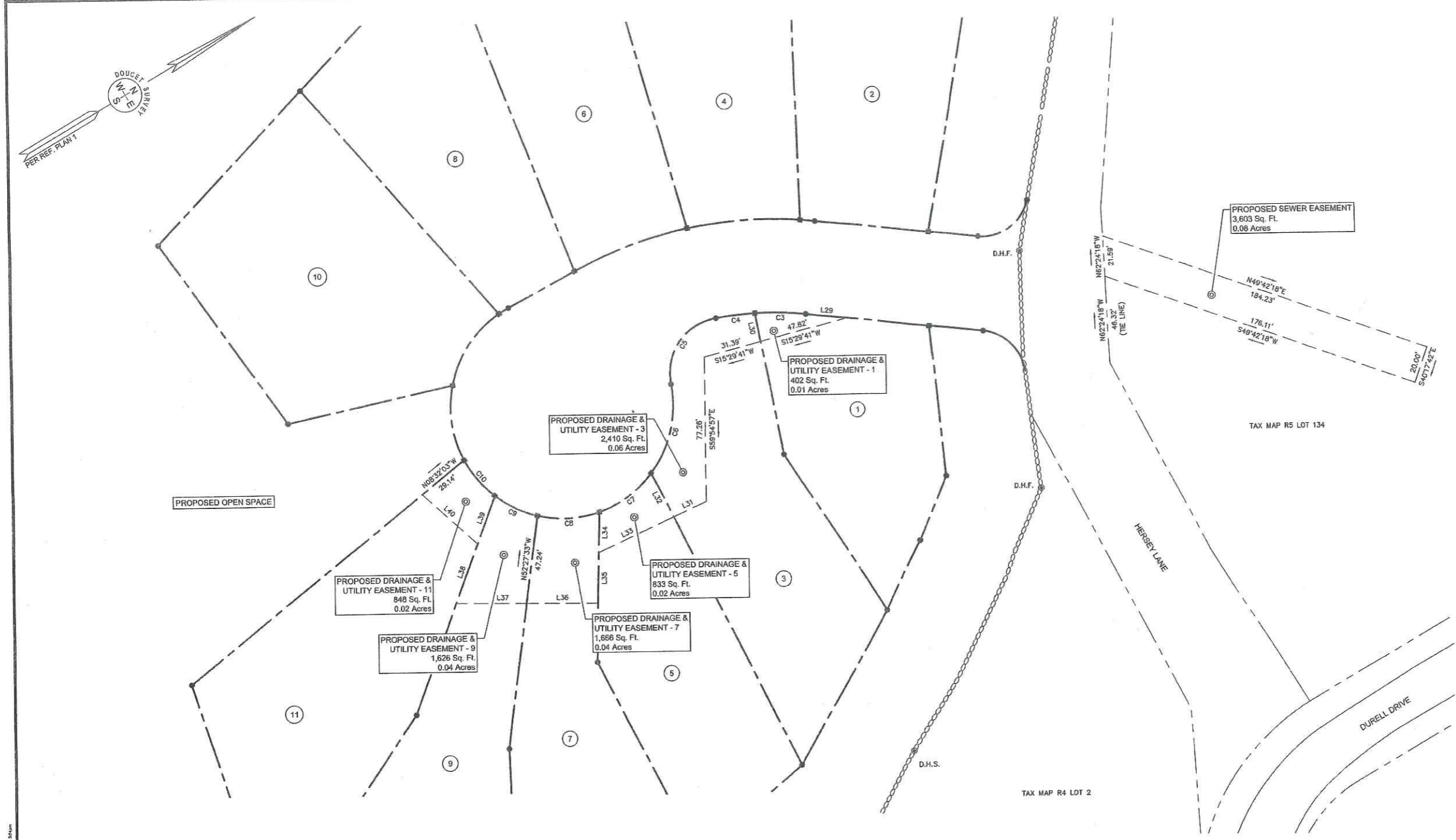
 Chairman's Signature

 Date
 Planning Board
 Newmarket, New Hampshire



LEGEND

---	EXISTING LOT LINE
- - -	PROPOSED LOT LINE
- · - · -	PROPOSED EASEMENT LINE
- · - · -	APPROXIMATE ADJUTERS LOT LINE
○ ○ ○ ○ ○	STONE WALL
⊙	DRILL HOLE
○	IRON PIPE/ROD FOUND
○	TYP.
○	IRON PIPE FOUND
○	D.H.F.
○	DRILL HOLE FOUND
○	DRILL HOLE SET
■	4"x4" GRANITE BOUND TO BE SET
●	5/8" REBAR W/10 CAP TO BE SET



PROPOSED EASEMENT PLAN
 FOR LAND OF
77 HERSEY LANE LLC
 TAX MAP R4 LOT 3
 77 HERSEY LANE
 NEWMARKET, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY

DRAWN BY: W.D.C. / M.T.L.	DATE: MARCH 5, 2020
CHECKED BY: J.F.K.	DRAWING NO.: 1609E
JOB NO.: 1609	SHEET 3 OF 3

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C3	27.70'	175.00'	9°04'14"	S31°40'05"W	27.68'
C4	21.10'	175.00'	6°54'25"	S23°40'45"W	21.08'
C5	47.43'	30.00'	90°35'07"	S25°04'01"E	42.64'
C6	50.14'	60.00'	47°53'03"	N46°25'03"W	48.70'
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C9	25.29'	60.00'	24°08'49"	N55°59'45"E	25.10'
C10	25.29'	60.00'	24°08'49"	N80°08'34"E	25.10'

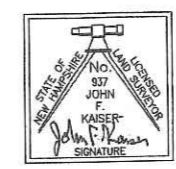
LINE TABLE

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L29	N36°12'12"E	21.69'	L37	S30°45'21"W	37.70'
L30	N70°58'35"W	15.41'	L38	N39°35'13"W	33.77'
L31	S05°36'28"W	19.13'	L39	N39°35'13"W	27.40'
L32	N86°39'18"W	26.34'	L40	S72°25'13"W	39.72'
L33	N05°36'28"E	44.83'			
L34	S58°33'47"E	21.73'			
L35	S58°33'47"E	26.99'			
L36	S30°45'21"W	38.53'			

APPROVED BY

 Chairman's Signature

 Date
 Planning Board
 Newmarket, New Hampshire



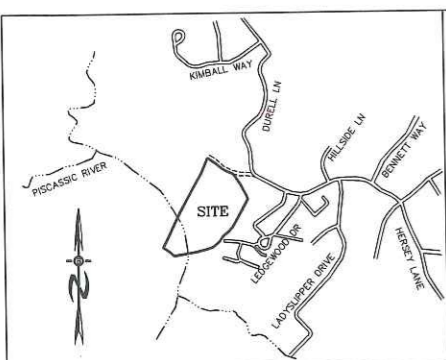
I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

John F. Kaiser L.L.S. #937
 3/5/20 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

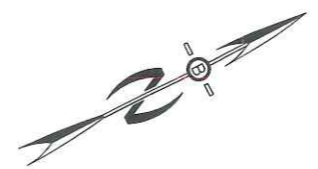
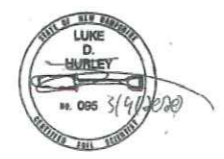
DOUCET SURVEY
 Serving Your Professional Surveying & Mapping Needs
 102 Kent Place, Newmarket, NH 03857 (603) 659-6560
 2 Commerce Drive (Suite 202) Bedford, NH 03110 (603) 614-4060
 10 Siorer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
 http://www.doucetsurvey.com

FILE NAME: V:\PROJECTS\1609\1609E.DWG DATE PLOTTED: 03/05/2020 10:28:10 AM PLOTTER: HP DesignJet T1100e



OPEN SPACE NOTE
 ALL OPEN SPACE LAND TO BE RESTRICTED SHALL INCLUDE A NOTATION ON THE RECORDED MYLAR INDICATING THAT THIS LAND IS DESIGNATED AND RESTRICTED AS OPEN SPACE IN ACCORDANCE WITH RSA 874:21-A AND SHALL BE ENFORCEABLE BY THE TOWN OF NEWMARKET

☐ SLOPES GREATER THAN 25%



ZONE: R2-RESIDENTIAL
 DIMENSIONAL REQUIREMENTS: OPEN SPACE
 MIN. LOT AREA N/A
 MIN. FRONTAGE 25'
 MIN. FRONT SETBACK 25' FROM EP
 MIN. SIDE/REAR SETBACK 10' (30' SEPARATION)
 MAX. BUILDING HEIGHT 35 ft.
 MAX. DENSITY 2 UNITS/AC
 WETLAND SETBACKS:
 POORLY DRAINED 25 ft.
 VERY POORLY DRAINED 50 ft.
 PRIME WETLAND 75 ft. NO DISTURB
 100 ft. NO STRUCTURE
 125 ft. NO SEPTIC

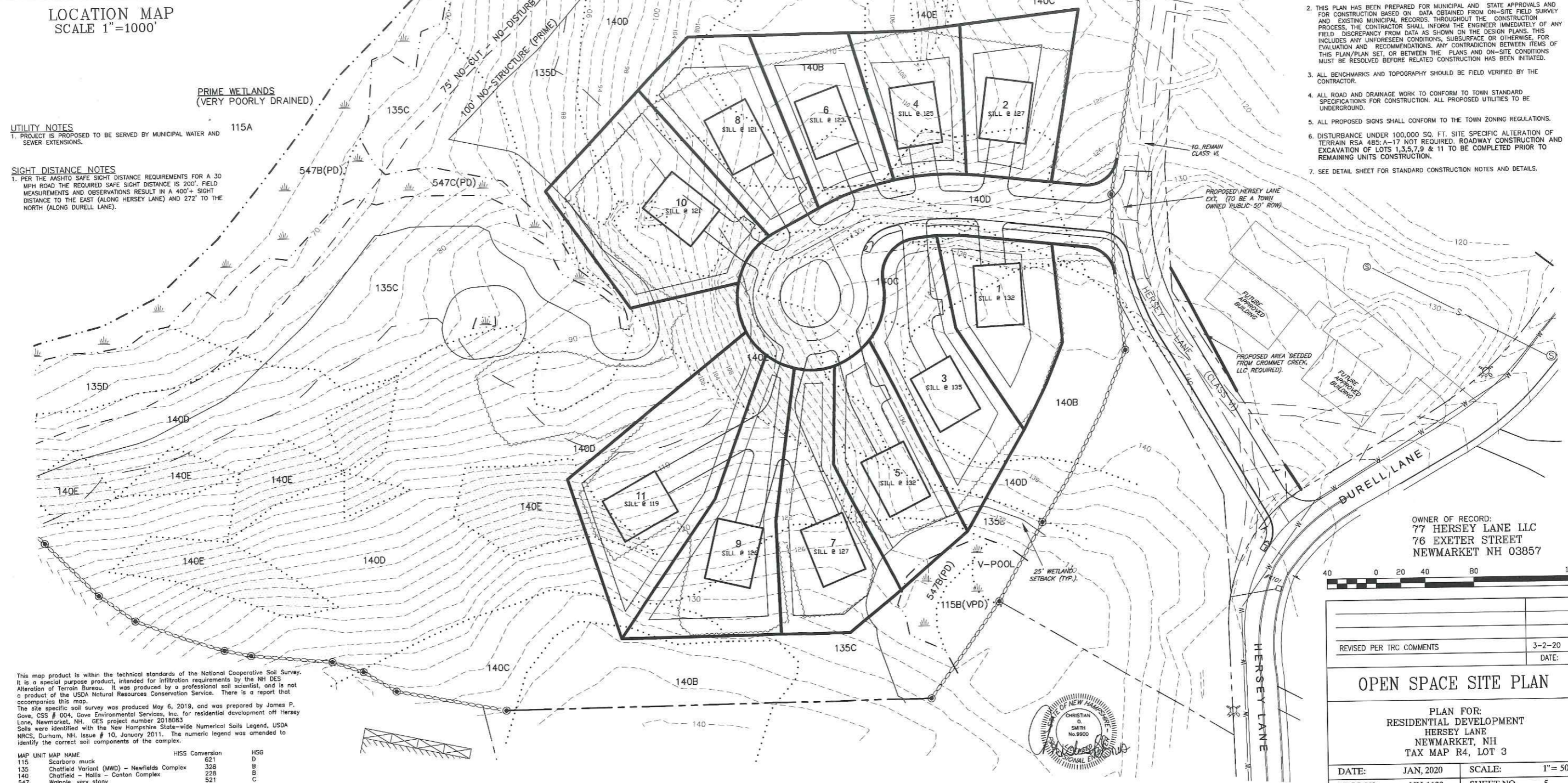
PREPARED FOR:
CHINBURG PROPERTIES INC
 3 PENSTOCK WAY
 NEWMARKET, NH 03857
BEALS ASSOCIATES PLLC
 70 PORTSMOUTH AVE, STRATHAM, N.H. 03885
 PHONE: 603-583-4860, FAX: 603-583-4863

- NOTES**
- UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN LOCATED FROM FIELD OBSERVATIONS AND THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. BEALS ASSOCIATES OR ANY OF THEIR EMPLOYEES TAKE NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND UTILITIES OR STRUCTURES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE.
 - THIS PLAN HAS BEEN PREPARED FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNFORESEEN CONDITIONS, SUBSURFACE OR OTHERWISE FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET, OR BETWEEN THE PLANS AND ON-SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
 - ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
 - ALL ROAD AND DRAINAGE WORK TO CONFORM TO TOWN STANDARD SPECIFICATIONS FOR CONSTRUCTION. ALL PROPOSED UTILITIES TO BE UNDERGROUND.
 - ALL PROPOSED SIGNS SHALL CONFORM TO THE TOWN ZONING REGULATIONS.
 - DISTURBANCE UNDER 100,000 SQ. FT. SITE SPECIFIC ALTERATION OF TERRAIN RSA 485:A-17 NOT REQUIRED. ROADWAY CONSTRUCTION AND EXCAVATION OF LOTS 1, 3, 5, 7, 9 & 11 TO BE COMPLETED PRIOR TO REMAINING UNITS CONSTRUCTION.
 - SEE DETAIL SHEET FOR STANDARD CONSTRUCTION NOTES AND DETAILS.

UTILITY NOTES
 1. PROJECT IS PROPOSED TO BE SERVED BY MUNICIPAL WATER AND SEWER EXTENSIONS.

SIGHT DISTANCE NOTES
 1. PER THE FASTHO SAFE SIGHT DISTANCE REQUIREMENTS FOR A 30 MPH ROAD THE REQUIRED SAFE SIGHT DISTANCE IS 200'. FIELD MEASUREMENTS AND OBSERVATIONS RESULT IN A 400'+ SIGHT DISTANCE TO THE EAST (ALONG HERSEY LANE) AND 272' TO THE NORTH (ALONG DURELL LANE).

LOCATION MAP
 SCALE 1"=1000'



OWNER OF RECORD:
 77 HERSEY LANE LLC
 76 EXETER STREET
 NEWMARKET NH 03857



REVISED PER TRC COMMENTS	3-2-20
	DATE:

OPEN SPACE SITE PLAN

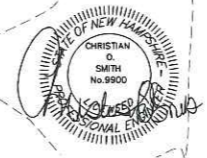
PLAN FOR:
 RESIDENTIAL DEVELOPMENT
 HERSEY LANE
 NEWMARKET, NH
 TAX MAP R4, LOT 3

DATE:	JAN, 2020	SCALE:	1"= 50'
PROJ. NO:	NH-1123	SHEET NO.	5

This map product is within the technical standards of the National Cooperative Soil Survey. It is a special purpose product, intended for infiltration requirements by the NH DES Alteration of Terrain Bureau. It was produced by a professional soil scientist, and is not a product of the USDA Natural Resources Conservation Service. There is a report that accompanies this map.
 The site specific soil survey was produced May 6, 2019, and was prepared by James P. Gove, CSS # 004, Gove Environmental Services, Inc. for residential development off Hersey Lane, Newmarket, NH. GES project number 2018083.
 Soils were identified with the New Hampshire State-wide Numerical Soils Legend, USDA NRCS, Durham, NH, Issue # 10, January 2011. The numeric legend was amended to identify the correct soil components of the complex.

MAP UNIT	MAP NAME	HSS Conversion	HSG
115	Scarboro muck	621	D
135	Chatfield Variant (MWD) - Newfields Complex	328	B
140	Chatfield - Hollis - Canton Complex	228	B
547	Walpole, very stony	521	C

SLOPE PHASE:
 A=0-3%, B=3-8%, C=8-15%, D=15-25%, E=25%+



PREPARED FOR:

CHINBURG PROPERTIES INC
3 PENSTOCK WAY
NEWMARKET, NH 03857

BEALS ASSOCIATES PLLC

70 PORTSMOUTH AVE, STRATHAM, N.H. 03885
PHONE: 603-583-4860, FAX: 603-583-4863

CONSTRUCTION CRITERIA

- SUBGRADE PREPARATION: AREA SHALL BE CLEARED OF TREES, LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOIL AND RUBBISH. SUBGRADE SURFACE TO BE ROLLED BEFORE PLACEMENT OF FILL MATERIAL. THE SURFACE SHALL HAVE MOISTURE ADDED OR IT SHALL BE COMPACTED IF NECESSARY SO THAT THE FIRST LAYER OF FILL MATERIAL CAN BE COMPACTED AND BONDED TO THE SUBBASE MATERIAL.
- FILL PLACEMENT: FILL SHALL BE FREE OF SOIL, ROOTS, FROZEN SOIL, STONES MORE THAN 8 INCHES IN DIA., AND OTHER OBJECTIONABLE MATERIAL.
 - FILL TO BE PLACED EQUALLY AROUND SUBSURFACE STRUCTURES & PIPES TO PREVENT DAMAGE FROM UNEQUAL LOADING.
 - PLACING AND SPREADING OF FILL MATERIAL SHALL BE STARTED AT SUBGRADE ELEVATION AND BROUGHT UP IN HORIZONTAL LAYERS OF THICKNESS ALLOWING ADEQUATE COMPACTION.
 - DISTRIBUTION AND GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFER SUBSTANTIALLY IN TEXTURE OF GRADATION FROM SURROUNDING MATERIAL.
 - MAXIMUM THICKNESS OF GRAVEL LIFTS TO 1 FOOT (12 INCHES).
- MOISTURE CONTROL: MOISTURE CONTENT OF THE FILL SHALL BE ADEQUATE FOR OBTAINING THE REQUIRED COMPACTION. IF THE MATERIAL IS TOO WET IT SHALL BE DRIED TO MEET THIS REQUIREMENT, IF THE MATERIAL IS TOO DRY IT SHALL HAVE WATER ADDED AND MIXED UNTIL REQUIREMENT IS MET.
- COMPACTION: CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER THE AREAS OR EACH LAYER OF FILL TO INSURE THAT THE REQUIRED COMPACTION IS OBTAINED.
 - EACH LAYER SHALL BE COMPACTED TO OBTAIN 95% OF THE PROTOR VALUE (ASTM 1557 OR AASHTO 1180).
 - FILL ADJACENT TO STRUCTURES, PIPES, ETC SHALL BE COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY THE MEANS OF HAND TAMPERING OR MANUALLY DIRECTED POWER TAMPER OR PLATE VIBRATORS.
- EROSION PROTECTION: A PROTECTIVE COVER OF VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SURFACES OF THE EMBANKMENT (CUT/FILL) SLOPE, SPILLWAY, AND BORROW AREA IF SOIL AND CLIMATIC CONDITIONS PERMIT. IF CONDITIONS PRECLUDE THE USE OF VEGETATION AND PROTECTION IS NEEDED, NON-VEGETATION MEANS SUCH AS EROSION BLANKETS OR RIPRAP SLOPE PROTECTION MAY BE USED.
 - SEEDING, FERTILIZING, AND MULCHING SHALL COMPLY WITH THE APPROPRIATE VEGETATIVE BMP'S.

NOTES

- ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR, ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY.
- ALL CONSTRUCTION METHODS AND MATERIALS WILL CONFORM TO N.H.D.O.T. STANDARDS AND REGULATIONS.
- ALL DRAINAGE STRUCTURE AND SWALES WILL BE BUILT AND STABILIZED PRIOR TO HAVING RUN-OFF DIRECTED TO THEM.
- SEE DETAIL SHEETS FOR STANDARD CONSTRUCTION NOTES AND DETAILS.



PROFILE SCALES:
HORIZONTAL: 1"=40' VERTICAL: 1"=4'
0 20 40 80 160

REVISED PER TRC COMMENTS	3-2-20
DATE:	DATE:
PLAN AND PROFILE	
PLAN FOR: RESIDENTIAL DEVELOPMENT HERSEY LANE NEWMARKET, NH	
DATE: JAN, 2020	SCALE: 1"=40'
PROJ. NO: NH-1123	SHEET NO. 6



DRIVEWAY CULVERT DATA

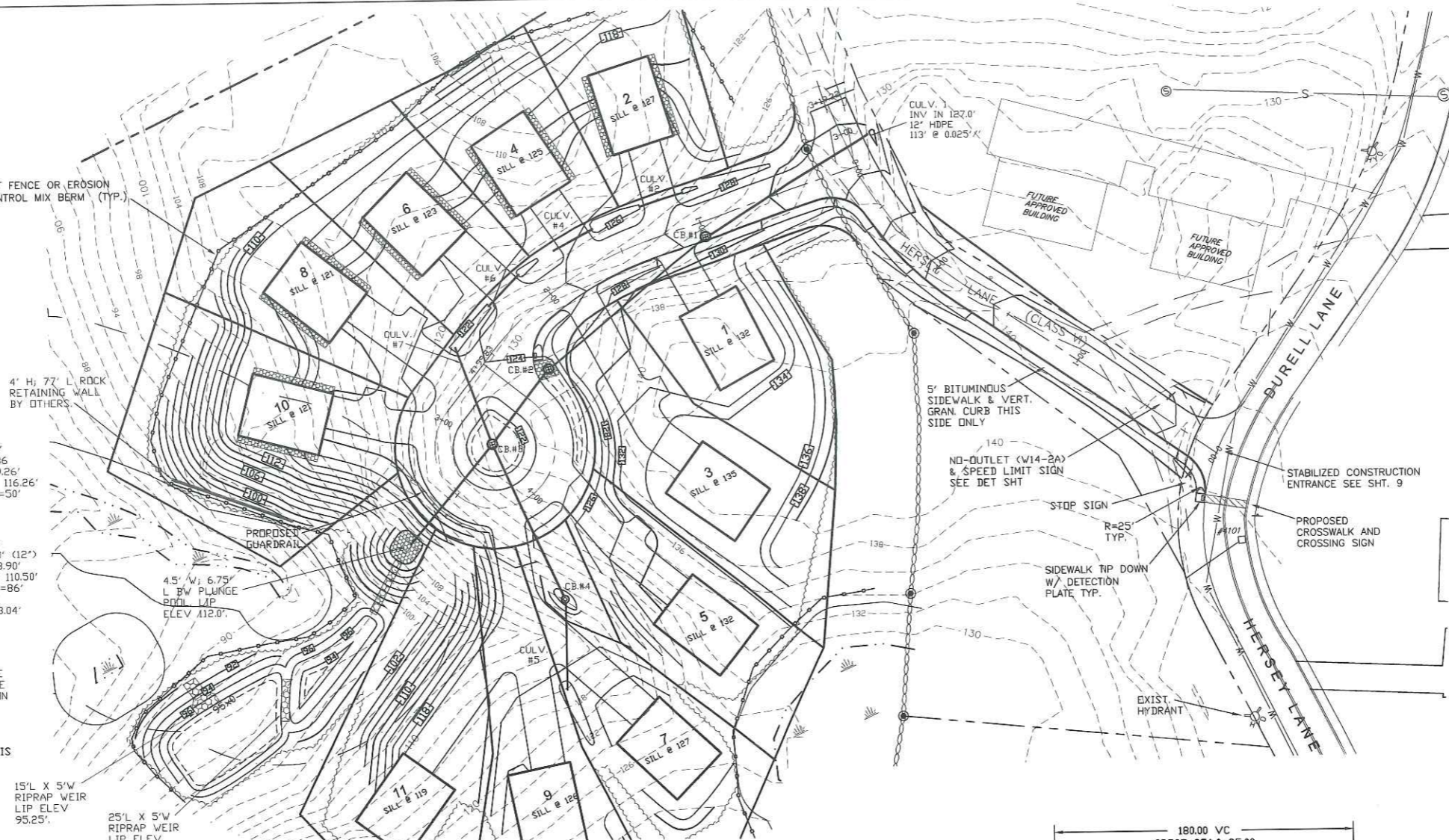
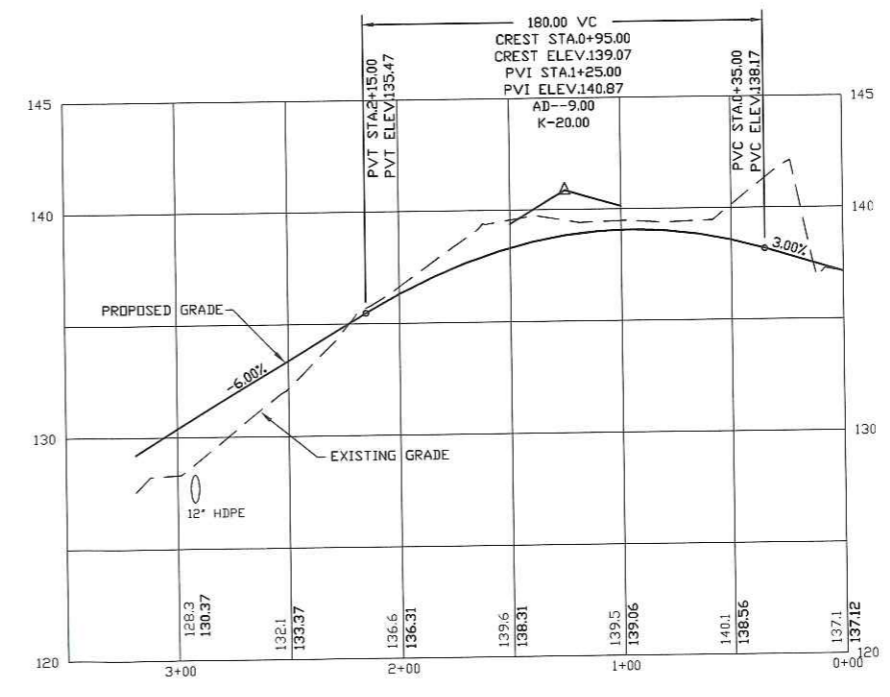
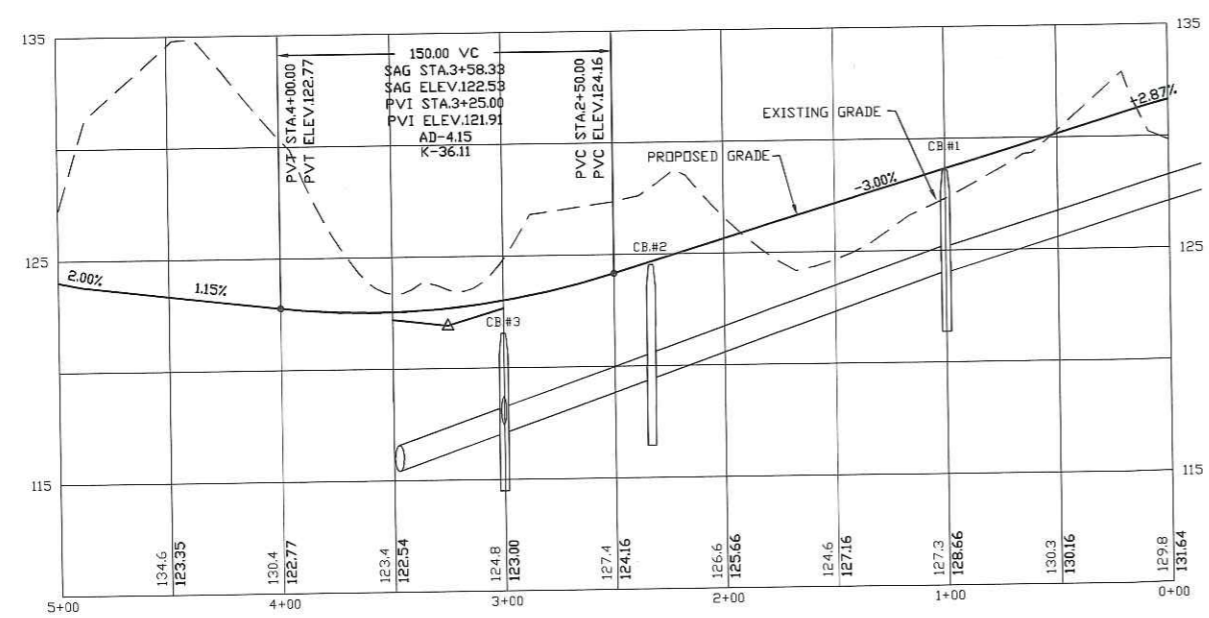
CULV. 2 INV IN 127.0' INV OUT 126.4' 12" HDPE 30' @ 0.02%/	CULV. 6 INV IN 122.5' INV OUT 121.9' 12" HDPE 29' @ 0.02%/
CULV. 4 INV IN 124.5' INV OUT 124.0' 12" HDPE 27' @ 0.02%/	CULV. 7 INV IN 121.0' INV OUT 117.26' 12" HDPE 60' @ 0.062%/
CULV. 5 INV IN 121.0' 12" HDPE 53' @ 0.132%/	

CB DATA

CB 1 GRATE 128.4' INV IN 124.19' INV OUT 124.08' SUMP ELEV. 121.08' 12" HDPE; L=118' S=0.04%/	CB 2 GRATE 122.5' INV IN 119.36' INV OUT 119.26' SUMP ELEV. 116.26' 12" HDPE; L=50' S=0.04%/
CB 3 GRATE 120.5' INV IN 117.26' (CB2) INV IN 117.26' (CLV7) INV IN 113.04' (CB4) INV OUT 113.0' SUMP ELEV. 111.0' 15" HDPE; L=70' S=0.014%/	CB 4 GRATE 117.0' INV IN 114.0' (12") INV OUT 113.90' SUMP ELEV. 110.50' 15" HDPE; L=86' S=0.011%/ INV OUT 113.04'

NOTE:
UNITS 2, 4, 6, 8 & 10 SHALL HAVE 4' WIDE BY 5' DEEP WASHED STONE DRIP EDGES FOR ROOF INFILTRATION

ALL 2:1 SLOPES TO BE ARMORED WITH CURLEX SINGLE NET MATTING STAPLED INTO THE TOPSOIL UNTIL VEGETATION IS FULLY ESTABLISHED.



PREPARED FOR:
CHINBURG PROPERTIES INC
 3 PENSTOCK WAY
 NEWMARKET, NH 03857

BEALS ASSOCIATES PLLC
 70 PORTSMOUTH AVE, STRATHAM, N.H. 03885
 PHONE: 603-583-4860, FAX: 603-583-4863

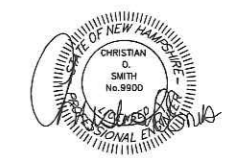
- UTILITY NOTES**
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, ARCHITECT AND/OR OWNER, IN ORDER TO OBTAIN AND/OR PAY ALL THE NECESSARY LOCAL PERMITS, FEES AND BONDS.
 - THE CONTRACTOR SHALL PROVIDE NOTICE TO ALL COMPANIES AND LOCAL AUTHORITIES OWNING OR HAVING A JURISDICTION OVER UTILITIES RUNNING TO, THROUGH OR ACROSS PROJECT AREAS PRIOR TO DEMOLITION AND/OR CONSTRUCTION ACTIVITIES.
 - THE SPECIFICATIONS FOR PROPOSED PRIVATE UTILITY SERVICES SHALL BE TO THE STANDARDS AND REQUIREMENTS OF THE RESPECTIVE UTILITY CO. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES FOR PROPER UTILITY CROSSING REQUIREMENTS.
 - A PRECONSTRUCTION MEETING SHALL BE HELD WITH THE OWNER, ENGINEER, ARCHITECT, CONTRACTOR, LOCAL OFFICIALS, AND ALL UTILITY COMPANIES (PUBLIC AND PRIVATE) PRIOR TO START OF CONSTRUCTION.
 - ALL CONSTRUCTION SHALL CONFORM TO NEWMARKET STANDARDS AND REGULATIONS, UNLESS OTHERWISE SPECIFIED. ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO LABOR (OSHA) RULES AND REGULATIONS. BUILDINGS ARE TO BE SERVICED BY UNDERGROUND UTILITIES.
 - THE CONTRACTOR IS TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITY STUBS PRIOR TO CONSTRUCTION AND DISCONNECT ALL EXISTING SERVICE CONNECTIONS AT THEIR RESPECTIVE MAINS (IF REQUIRED) IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS.
 - SEWER AND WATER INFRASTRUCTURE ON PRIVATE PROPERTY SHALL REMAIN PRIVATE, HOWEVER, THE TOWN RESERVES THE RIGHT TO ENTER THE PROPERTY IN ORDER TO INSPECT, REPAIR AND/OR TERMINATE INDIVIDUAL SEWER OR WATER SERVICES (AT OWNER'S EXPENSE).
 - ALL WATER AND SANITARY LEADS TO BUILDING SHALL END 5' OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLANS AND SHALL BE PROVIDED WITH A TEMPORARY CAP AND WITNESS AT END.
 - THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES AND MECHANICAL JOINTS.
 - WATER VALVES ARE TO BE OPERATED ONLY BY MUNICIPAL STAFF.
 - THE INSTALLATION OF SMOKE, HEAT, FIRE OR CARBON MONOXIDE ALARMS OR SYSTEMS SHALL COMPLY WITH NFPA 72 REQUIREMENTS.

STREET TREE KEY

SYMBOL	NAME	QUANTITY
PD	PIN OAK Quercus Palustris 2 1/2 - 3' cal.	4 (PD)
RM	RED MAPLE Acer rubrum 'October Glory' 2 1/2 - 3' cal.	4 (RM)

NOTES:

ALL PLANTINGS TO BE ACCOMPLISHED BY A PROFESSIONAL LANDSCAPER.
 ALL MASSSED PLANTINGS TO BE IN MULCH BEDS UNLESS OTHERWISE SPECIFIED.
 ALL DECIDUOUS TREE STOCK TO BE TRIMMED OF HORIZONTALLY PROJECTING BRANCHES UP TO 8' ABOVE GROUND.

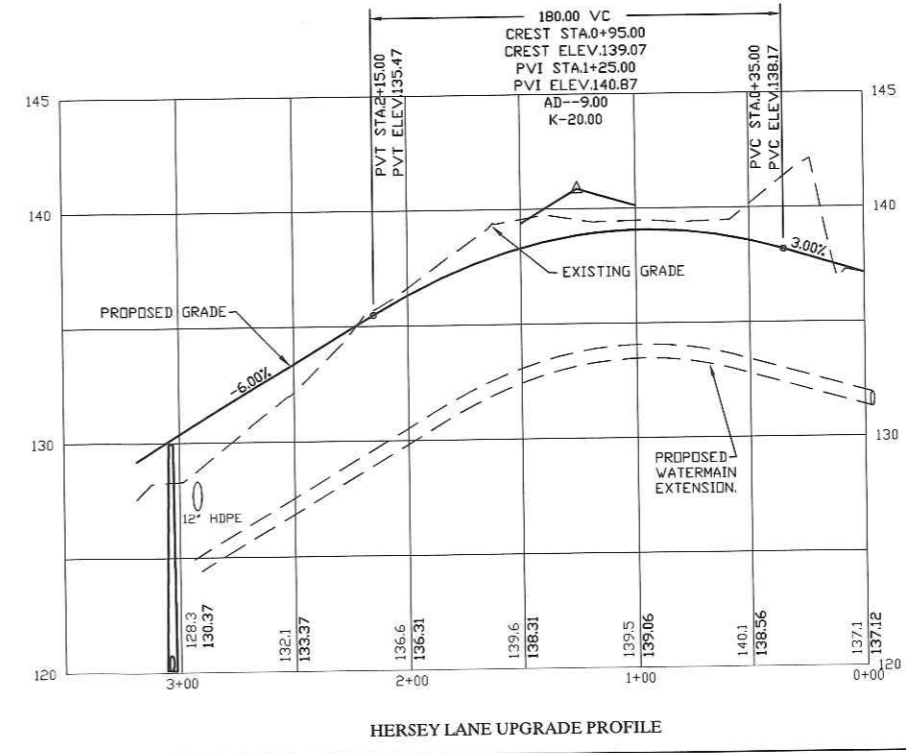
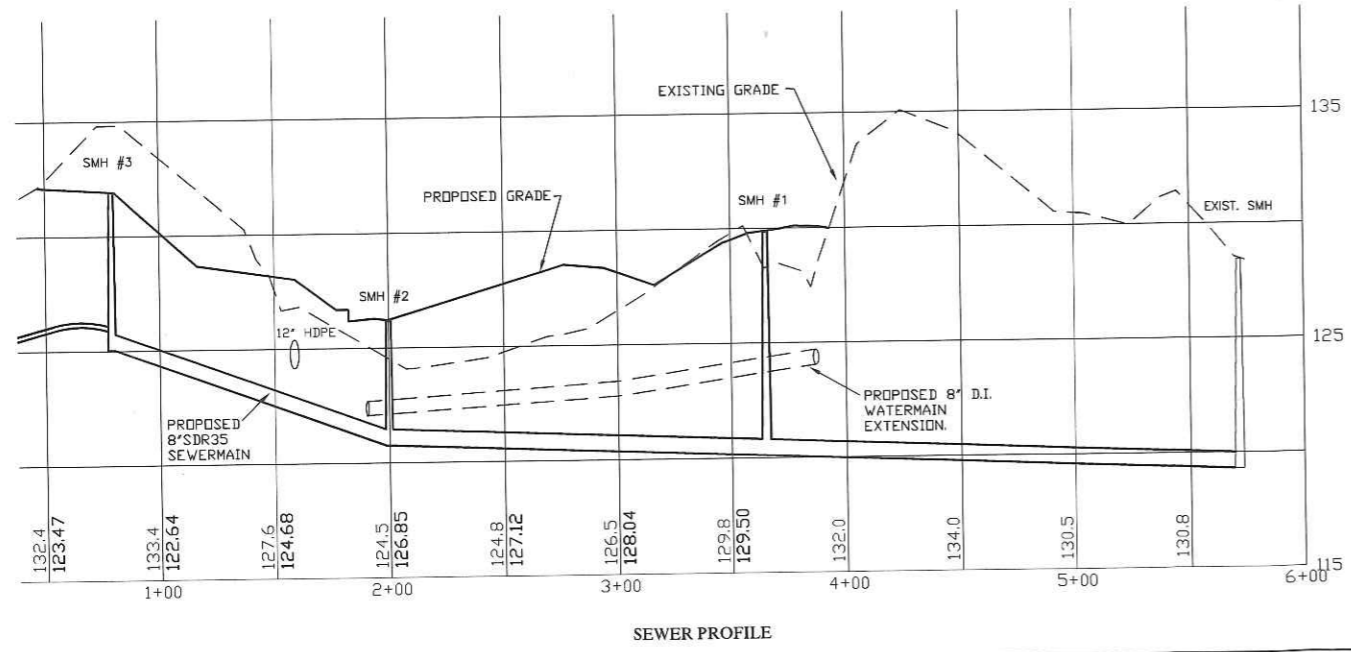
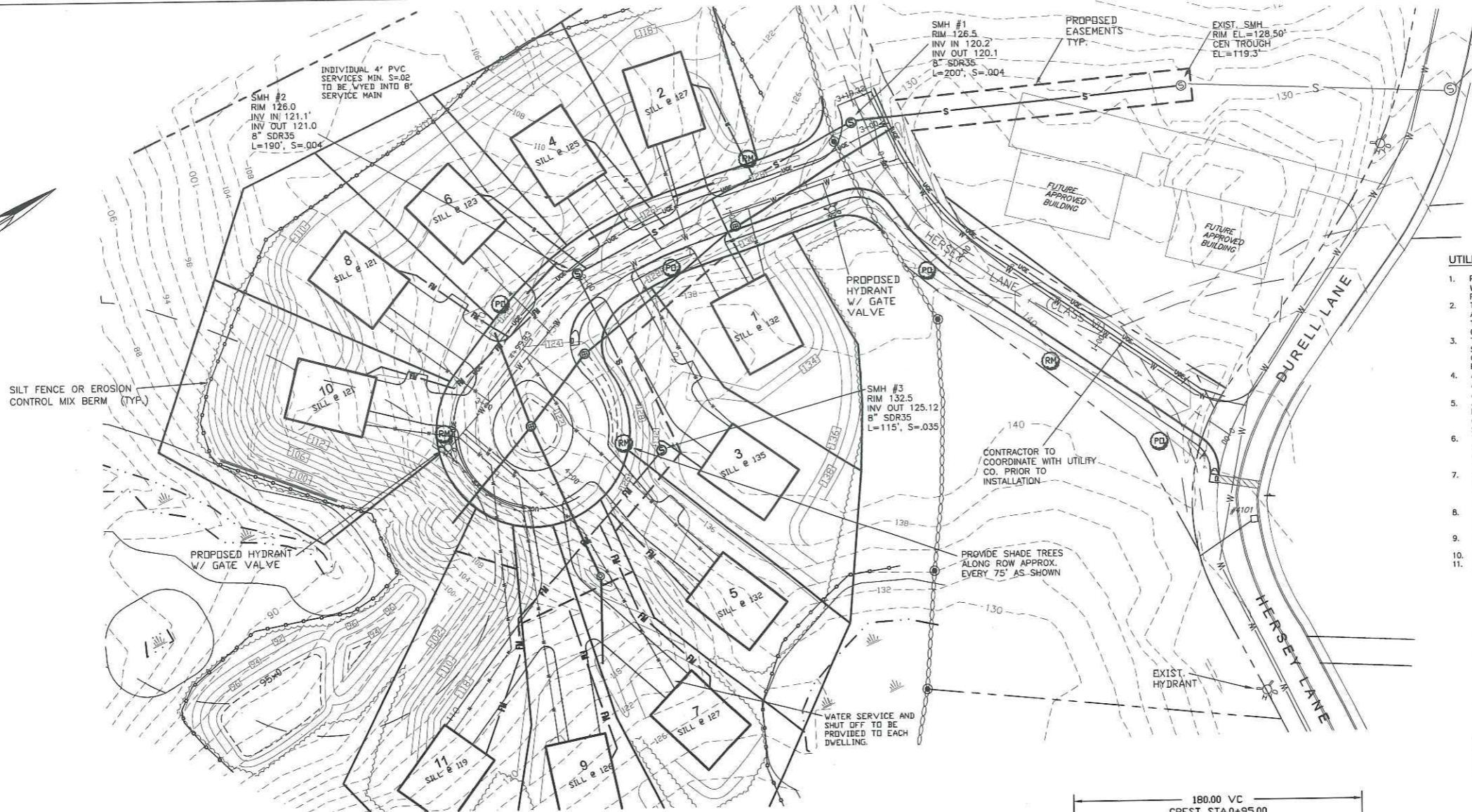


PROFILE SCALES:
 HORIZONTAL: 1"=40' VERTICAL: 1"=4'
 0 20 40 60 80 100 120 140 160

DATE: MARCH, 2020 SCALE: 1"=40'
 PROJ. NO: NH-1123 SHEET NO. 7

UTILITY PLAN AND PROFILE

PLAN FOR:
 RESIDENTIAL DEVELOPMENT
 HERSEY LANE
 NEWMARKET, NH

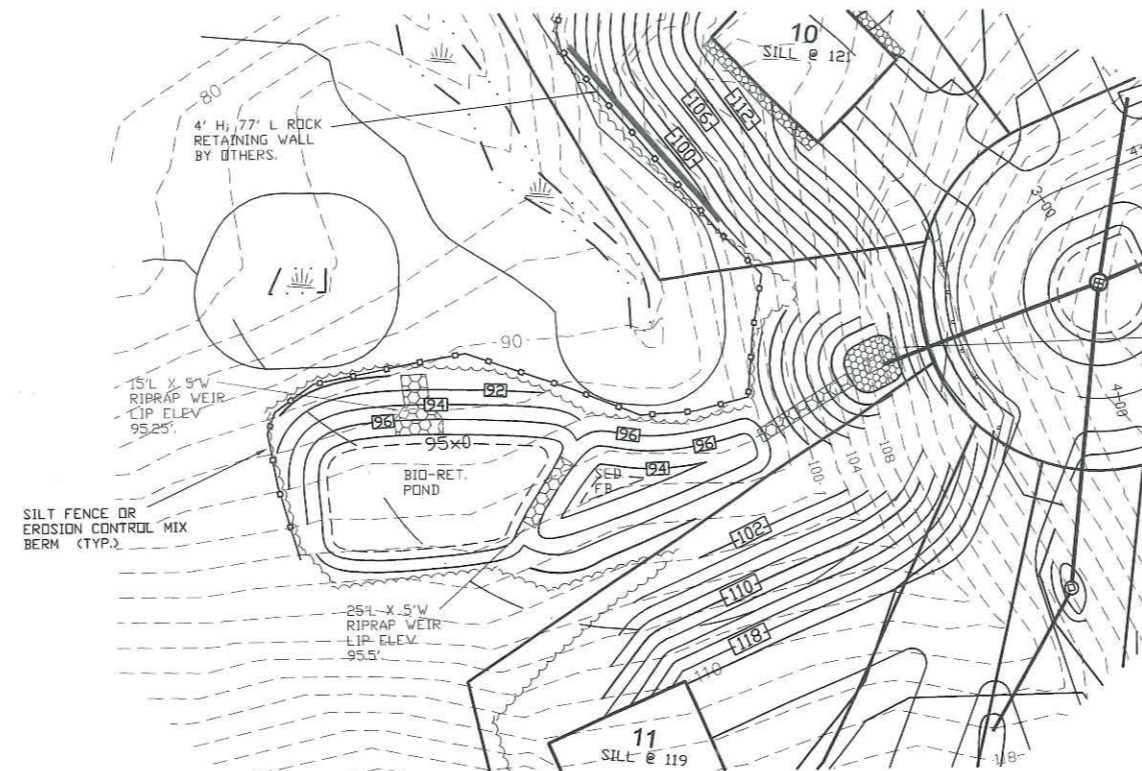
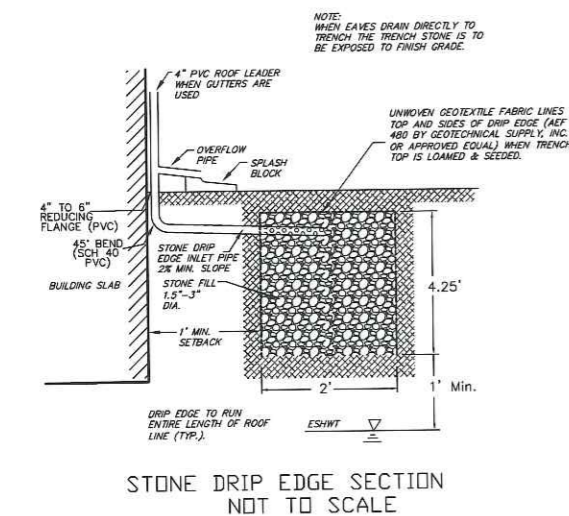
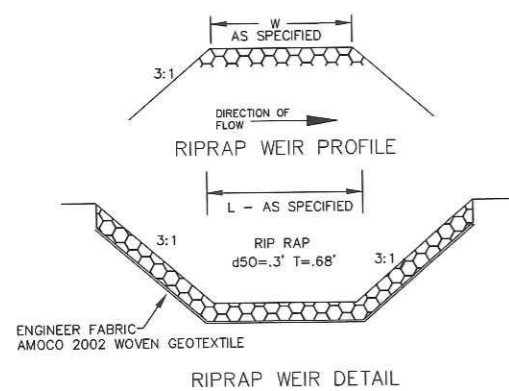
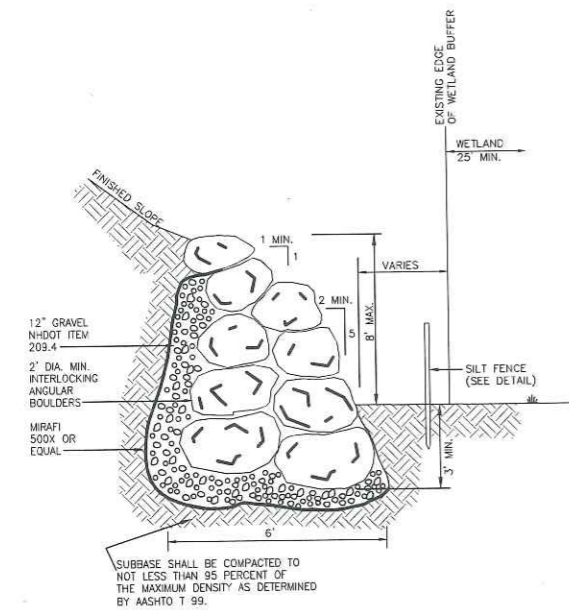


PREPARED FOR:

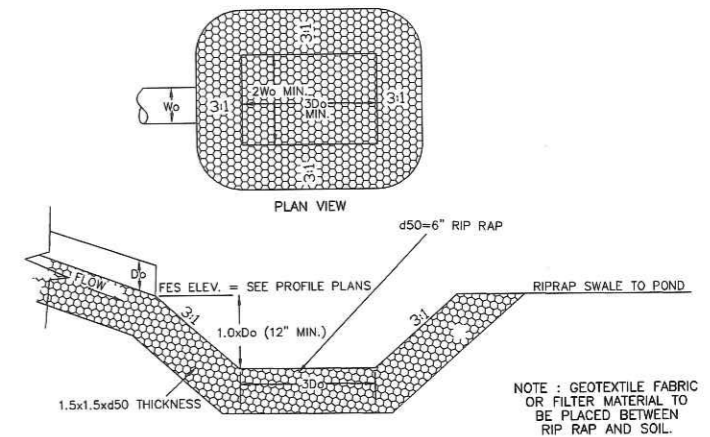
CHINBURG PROPERTIES INC
3 PENSTOCK WAY
NEWMARKET, NH 03857

BEALS ASSOCIATES PLLC

70 PORTSMOUTH AVE, STRATHAM, N.H. 03885
PHONE: 603-583-4860, FAX: 603-583-4863

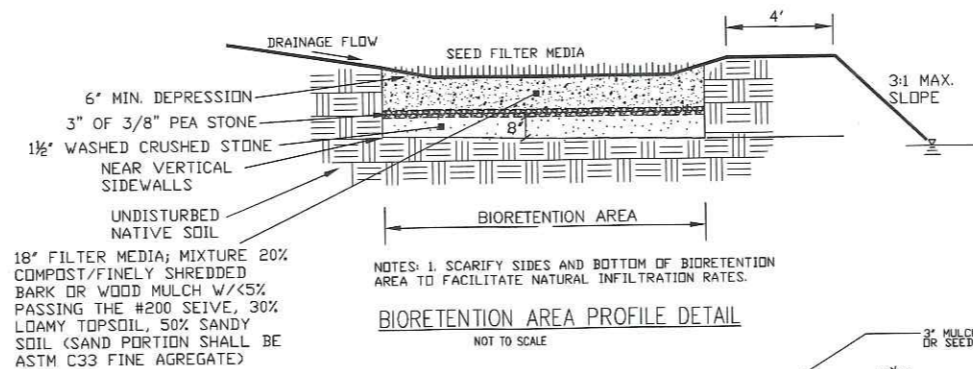


4.5' W, 6.75' L BY PLUNGE POOL. LIP ELEV 112.0'



PLUNGE POOL DETAIL
NOT TO SCALE

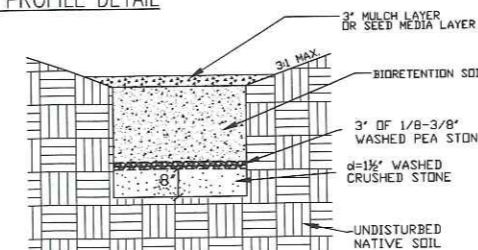
THICKNESS OF RIP RAP = 1.125 FEET	d50 SIZE =	
	0.50 FEET	6 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM	TO
100%	9	12
85%	8	11
50%	6	9
15%	2	3



BIORETENTION AREA PROFILE DETAIL
NOT TO SCALE

18" FILTER MEDIA; MIXTURE 20% COMPOST/FINELY SHREDDED BARK OR WOOD MULCH W/45% PASSING THE #200 SEIVE, 30% LOAMY TOPSOIL, 50% SANDY SOIL (SAND PORTION SHALL BE ASTM C33 FINE AGGREGATE)

DRAINAGE NOTES:
DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
DO NOT PLACE SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE BIO-RETENTION AREA DURING ANY STAGE OF CONSTRUCTION.



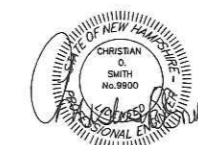
BIORETENTION SECTION
NOT TO SCALE

REVISED PER TRC COMMENTS	3-2-20
DATE:	

POND PLAN

PLAN FOR:
RESIDENTIAL DEVELOPMENT
HERSEY LANE
NEWMARKET, NH

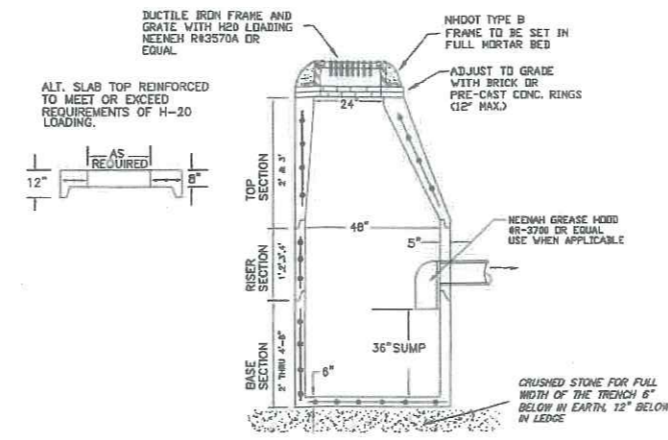
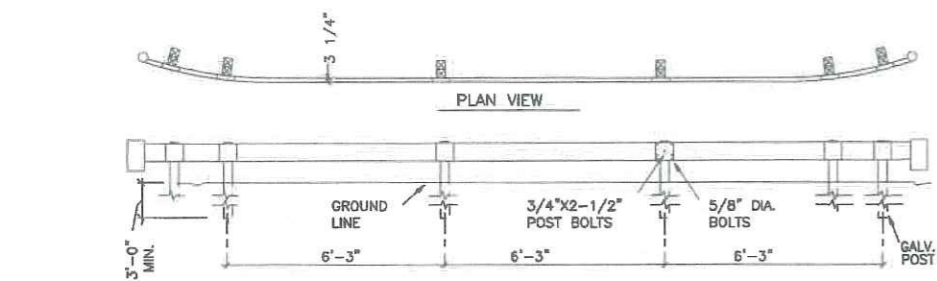
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PROJ. NO:	NH-1123	SHEET NO.	8



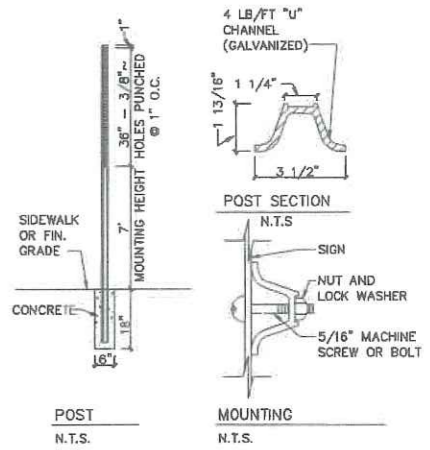
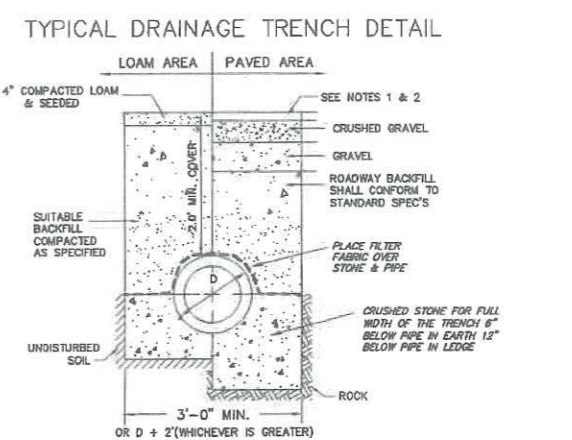
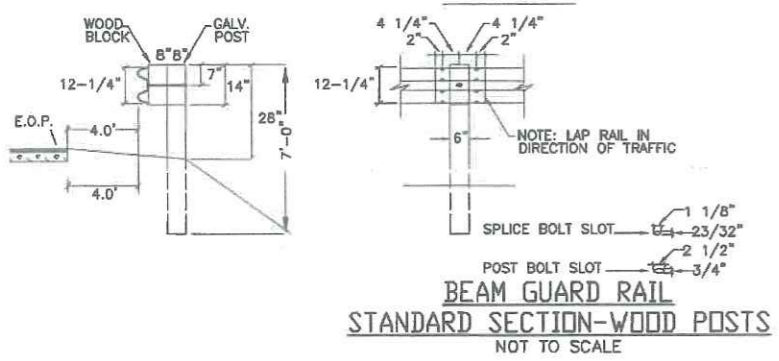
PREPARED FOR:
CHINBURG PROPERTIES, INC.
 3 PENSTOCK WAY
 NEWMARKET, N.H. 03857

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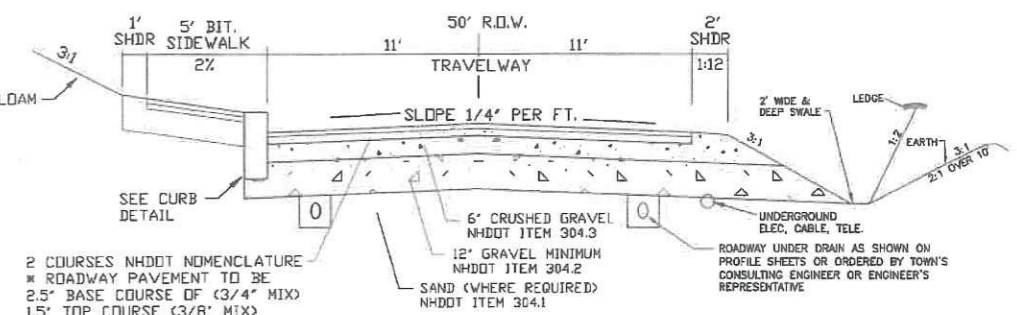
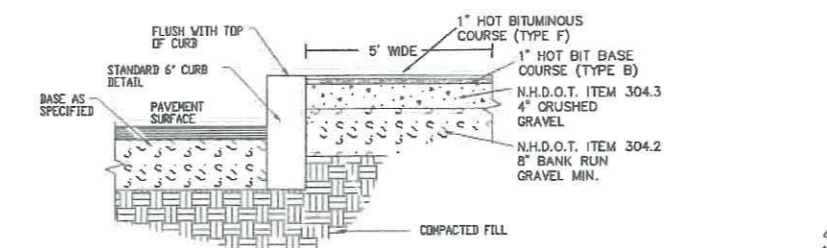
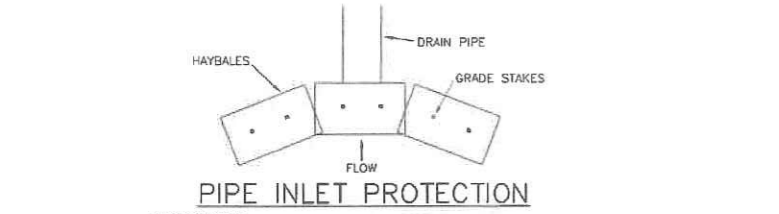
TRAFFIC CONTROL SCHEDULE						
SIGN NUMBER	SIGN	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	DESCRIPTION	MOUNT TYPE	MOUNT HEIGHT
R1-1	STOP	30"	30"	WHITE ON RED	CHANNEL	7'-0"
R2-1	SPEED LIMIT 25	18"	24"	BLACK ON WHITE	CHANNEL	7'-0"
41-0342	NO LEFT TURN	30"	30"	BLACK ON YELLOW	CHANNEL	8'-6"
W14-2	NO OUTLET	24"	24"	BLACK ON YELLOW	CHANNEL	7'-0"



- NOTES:**
- USE IN HEAVY TRAFFIC AREAS.
 - STEEL BRACKET TO BE 10 OR 12 GAGE STEEL.
 - USE 6"-0" POSTS WHEN FILL SLOPE IS 4:1 OR FLATTER
 - RAIL SHEET THICKNESS TO BE 12 GA.

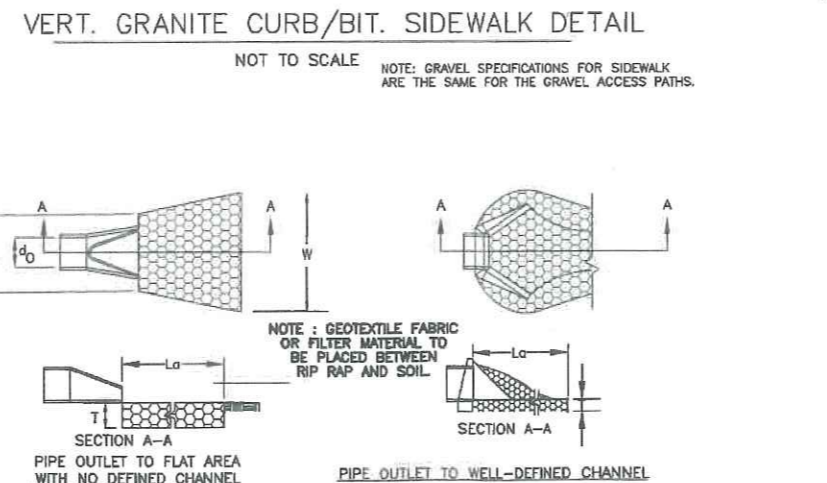


- NOTE:**
- PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
 - NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S.

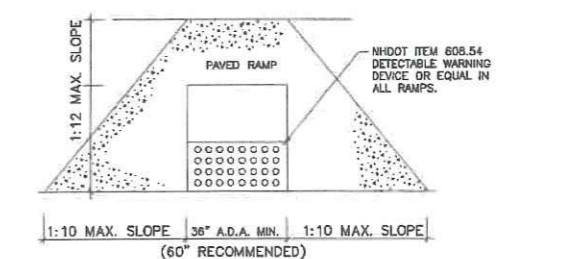
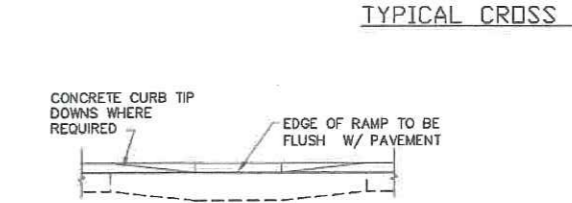
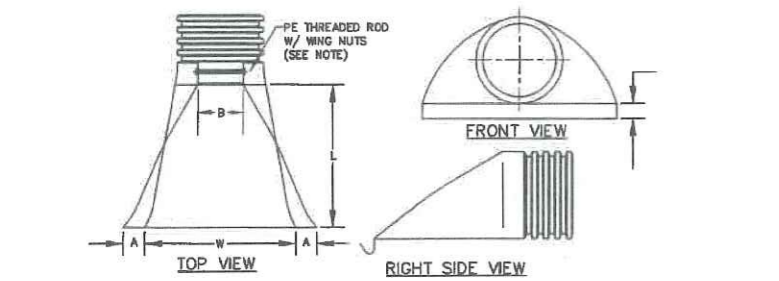


SPECIFICATIONS

SEDIMENT BARRIERS SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. BALES SHOULD BE PLACED IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER. THE ENDS OF THE BARRIER SHOULD BE FLARED UP SLOPE. BARRIERS SHOULD NOT BE CONSTRUCTED MORE THAN ONE BALE HIGH. ALL BALES SHOULD BE EITHER WIRE-BOUND OR STRING-TIED. BALES SHOULD BE INSTALLED SO THAT BINDINGS ARE ORIENTED AROUND THE SIDES, PARALLEL TO THE GROUND SURFACE TO PREVENT DETERIORATION OF THE BINDINGS. THE BARRIER SHOULD BE ENTRENCHED AND BACKFILLED. A TRENCH SHOULD BE EXCAVATED THE WIDTH OF A BALE AND THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED AND CHINNED, THE EXCAVATED SOIL SHOULD BE BACKFILLED AGAINST THE BARRIER. BACKFILL SOIL SHOULD CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHOULD BE BUILT UP 4 INCHES AGAINST THE UPHILL SIDE OF THE BARRIER. IDEALLY, BALES SHOULD BE PLACED 10 FEET AWAY FROM THE TOE OF SLOPE. AT LEAST TWO STAKES DRIVEN THROUGH THE BALE AND PENETRATING AT LEAST 18 INCHES INTO THE GROUND, SHOULD SECURELY ANCHOR EACH BALE. THE FIRST STAKE IN EACH BALE SHOULD BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. STAKES SHOULD BE DRIVEN DEEP ENOUGH INTO THE GROUND TO SECURELY ANCHOR THE BALES. THE GAPS BETWEEN BALES SHOULD BE CHINNED (FILLED BY HAND) WITH HAY TO PREVENT WATER FROM ESCAPING BETWEEN THE BALES. INSPECTION SHOULD BE FREQUENT AND REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED. BALE BARRIERS SHOULD BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.



ALL MATERIALS TO BE INSPECTED AND APPROVED BY TOWN ENGINEER AND MEET NHDOT STANDARDS. TOWN MAY REQUIRE UNDERDRAIN OR ADDITIONAL DRAINAGE TO INCLUDE OVER EXCAVATION OF UNSUITABLE MATERIALS AND INSTALLATION OF GEOTEXTILE FABRIC. SEE ADDITIONAL NOTES ON DETAIL SHEETS.



PART No.	PIPE SIZE	A	B(MAX)	H	L	W
1510-NP	15"	6.5"	10"	6.5"	25"	29"
	375 mm	165 mm	254 mm	165 mm	635 mm	735 mm
1810-NP	18"	7.5"	15"	6.5"	32"	35"
	450 mm	190 mm	380 mm	165 mm	812 mm	890 mm
2410-NP	24"	7.5"	18"	6.5"	36"	45"
	600 mm	190 mm	450 mm	165 mm	900 mm	1140 mm
3010-NP	30"	10.5"	N/A	7.0"	53"	66"
	750 mm	266 mm	N/A	178 mm	1345 mm	1725 mm
3610-NP	36"	10.5"	N/A	7.0"	53"	66"
	900 mm	266 mm	N/A	178 mm	1345 mm	1725 mm

NOTE: PE THREADED ROD W/ WING NUTS PROVIDED FOR END SECTIONS 15"-24". 30" & 36" END SECTIONS TO BE WELDED PER MANUFACTURER'S RECOMMENDATIONS.

ADS N-12 FLARED END SECTIONS
 NOT TO SCALE (ALL DIMENSIONS ARE NOMINAL)

CONSTRUCTION SPECIFICATIONS

- THE SUB GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- THE ROCK OR GRAVEL USED FOR FILTER OF RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
- STONE FOR RIPRAP SHALL BE ANGULAR OR SUBANGULAR. THE STONES SHOULD BE SHAPED SO THAT THE LEAST DIMENSION OF THE STONE FRAGMENT SHALL BE NOT LESS THAN ONE-THIRD OF THE GREATEST DIMENSION OF THE FRAGMENT.
- FLAT ROCKS SHALL NOT USED FOR RIP RAP. VOIDS IN THE ROCK RIPRAP SHOULD BE FILLED WITH SPALLS AND SMALLER ROCKS.

MAINTENANCE

- THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO OUTLET PROTECTION.



CONSTRUCTION DETAILS	
REVISED PER TRC COMMENTS	3-2-20
REVISIONS:	DATE:
CONSTRUCTION DETAILS	
PLAN FOR: RESIDENTIAL DEVELOPMENT HERSEY LANE NEWMARKET, NH	
DATE: JAN, 2020	SCALE: AS NOTED
PROJ. NO: NH-1123	SHEET NO. 9

PREPARED FOR:

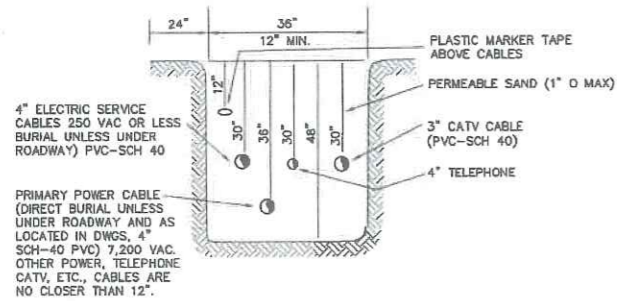
CHINBURG PROPERTIES, INC.
3 PENSTOCK WAY
NEWMARKET, N.H. 03857

BEALS ASSOCIATES PLLC

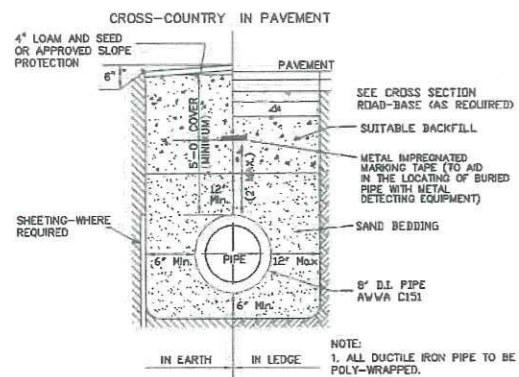
70 PORTSMOUTH AVE, STRATHAM, N.H. 03885
PHONE: 603-583-4860, FAX: 603-583-4863

NOTE: ALL UTILITIES SHALL BE REVIEWED AND APPROVED BY APPROPRIATE UTILITY COMPANY.

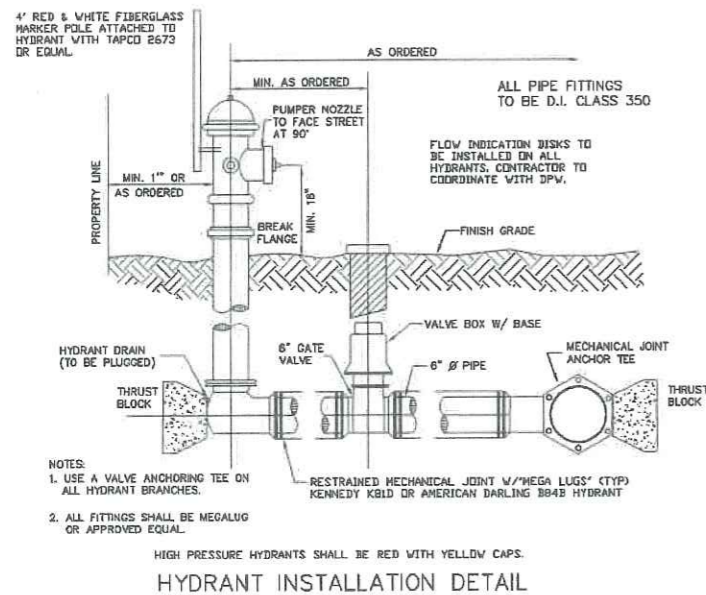
SERVICE BOX CONNECTIONS SHALL BE "FLUSH MOUNT" TO GREATEST EXTENT POSSIBLE AND LOCATED AT PROPERTY LINE CORNERS.



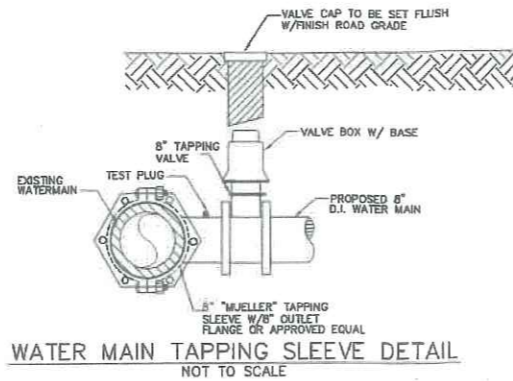
UTILITY TRENCH DETAIL



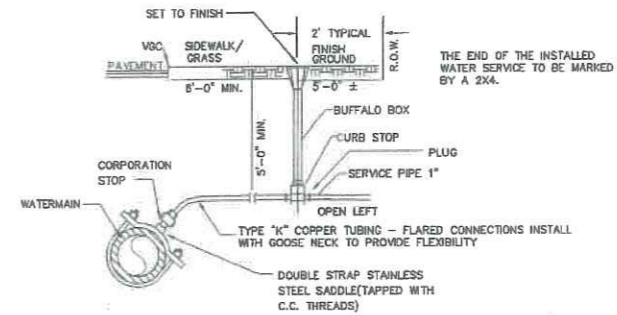
TYPICAL TRENCH DETAIL FOR WATER SYSTEM



HYDRANT INSTALLATION DETAIL



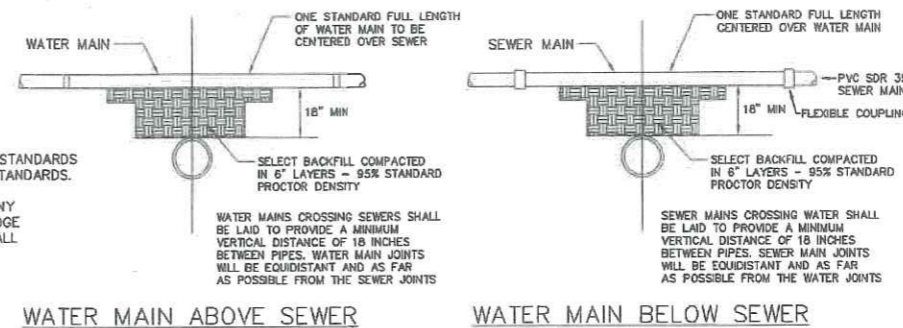
WATER MAIN TAPPING SLEEVE DETAIL
NOT TO SCALE



TYPICAL WATER SERVICE CONNECTION

SEPERATION NOTES:

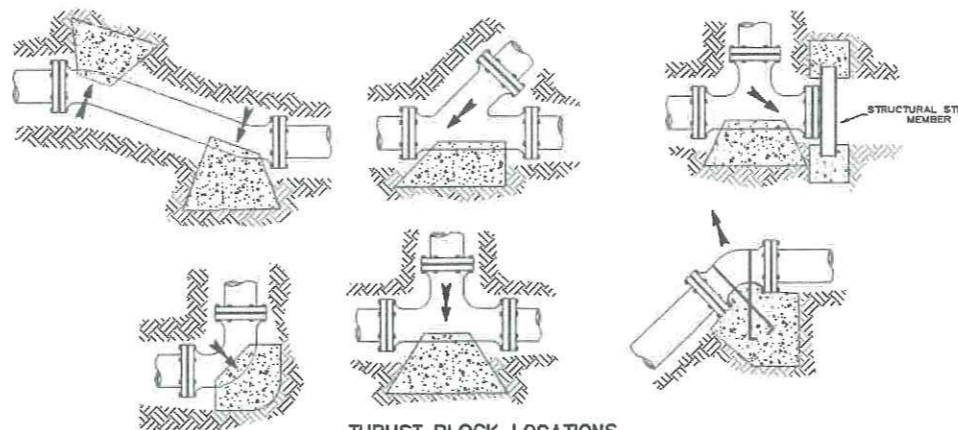
1. WATER MAIN RELATIONS TO SHALL BE IN ACCORDANCE WITH THE "RECOMMENDED STANDARDS FOR WATER WORKS" SO-CALLED TEN STATE STANDARDS AND NEW HAMPSHIRE WATER SUPPLY AND POLLUTION CONTROL DESIGN STANDARDS.
2. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWERS. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF THIS DISTANCE CANNOT BE OBTAINED, THEN THE PIPES SHALL BE INSTALLED IN A SEPARATE TRENCH WITH A VERTICAL SEPERATION AT LEAST 18 INCHES APART.



WATER MAIN ABOVE SEWER

WATER MAIN BELOW SEWER

TYPICAL WATER/SEWER SEPERATION DETAILS
NOT TO SCALE



THRUST BLOCK LOCATIONS
TYPICAL THRUST BLOCK DETAILS
NOT TO SCALE

- THE FOLLOWING PRECAUTIONS MUST BE OBSERVED WHEN CONSTRUCTING BLOCKS:
1. BLOCKS MUST BE POURED AGAINST UNDISTURBED SOIL.
 2. PIPE JOINTS AND BOLTS MUST BE ACCESSIBLE.
 3. CONCRETE SHOULD BE CURED AT LEAST 5 DAYS AND SHALL HAVE A COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
 4. BLOCKS MUST BE POSITIONED TO COUNTERACT THE DIRECTION OF THE RESULTANT THRUST FORCE.

RESTRAINED PUSH-ON AND MECHANICAL JOINTS ARE AVAILABLE FOR ALL PIPE SIZES AND PRESENT NO INSTALLATION PROBLEMS. THEY ARE USED FOR RESISTING THRUST FORCES WHERE THERE IS NO SPACE OR WHERE SOIL BEHIND THE FITTING WILL NOT PROVIDE ADEQUATE SUPPORT. THIS RESTRAINING METHOD INVOLVES THE PLACEMENT OF THESE SPECIAL JOINTS AT APPROPRIATE FITTINGS AND FOR A PREDETERMINED NUMBER OF PIPE LENGTHS ON EACH SIDE. THE RODS MAY BE USED BY THEMSELVES OR IN COMBINATION WITH OTHER RESTRAINT DEVICES. WHEN THE RODS ARE USED WITH STEEL BANDS AROUND THE PIPE BARREL, ONLY ONE(1) ROD SHALL BE ATTACHED TO EACH BAND AND THE BAND SHALL BE COCKED TO PREVENT SLIPPAGE ALONG THE PIPE BARREL. A BAND PLACED BEHIND A BELL MAY BE USED WITH TWO(2) RODS. FOR MECHANICAL JOINT PIPE, THE RODS MAY BE THREADED THROUGH THE BOLT HOLES IN A FLANGE AND SECURED BY NUTS. ALL RODS SHALL BE MADE OF OR COATED WITH CORROSION RESISTANT MATERIALS TO PREVENT RUST AND DETERIORATION. RESTRAINT MAY BE NECESSARY FOR MORE THAN ONE (1) PIPE LENGTH ON EACH SIDE OF ANY CHANGE IN DIRECTION, DEADEND OR TEE.

SOILS BEARING CAPACITY	SOIL	BEARING LOAD/PSF
1	CLAY	1000
2	SANDY CLAY	1500
3	SAND	2000
4	SANDY SILT	2500
5	SILT	3000
6	CLAY	3500

THRUST FORCES ARE CREATED IN A PIPELINE AT CHANGES IN DIRECTION, TEE, DEADENDS OR WHERE CHANGES IN PIPE SIZE OCCUR AT REDUCERS. AVAILABLE RESTRAINT METHODS INCLUDE CONCRETE THRUST BLOCKS, RESTRAINED JOINTS AND TIE RODS. FORCES TO BE RESTRAINED ARE SHOWN BELOW:

NOM. PIPE DIA. (IN.)	DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	1010	2500	1365	708	355
6	2720	6800	3600	1910	950
8	5570	13900	7200	3770	1890
10	9970	25000	13000	6800	3400
12	15800	40000	21000	11200	5600
14	23000	58000	30000	16000	8000
16	31500	78000	41000	21500	10800
18	41200	100000	54000	28000	14000
20	52000	125000	69000	36000	18000
24	81000	195000	105000	54000	27000
30	130000	320000	170000	90000	45000
36	200000	480000	250000	130000	65000
42	290000	680000	350000	180000	90000
48	400000	920000	480000	240000	120000
54	530000	1200000	630000	320000	160000

TO DETERMINE THE SIZE OF A CONCRETE THRUST BLOCK, DIVIDE THE TOTAL FORCE BY THE BEARING VALUE OF THE CONSTITUENT SOIL. THE QUOTIENT WILL BE THE SIZE OF THE BEARING OF THE THRUST BLOCK IN SQUARE FEET. APPROXIMATE VALUES FOR VARIOUS TYPES OF SOIL ARE LISTED BELOW. NO RESPONSIBILITY CAN BE ASSUMED FOR THE ACCURACY OF THE DATA REPRESENTED DUE TO THE WIDE VARIATION OF BEARING VALUES FOR EACH SOIL TYPE.

NOTES

- 1) ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: REFILL WITH BEDDING MATERIAL. (SEE NOTE 6 ALSO)
- 2) BEDDING: MINIMUM 12" SAND BLANKET AS SPECIFIED AND REMAINING FILL AS SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C-33 STONE SIZE No. 67

PERCENT PASSING	PERCENT PASSING	SCREEN SIZE
100%	PASSING	1 INCH SCREEN
90-100%	PASSING	3/4 INCH SCREEN
20-50%	PASSING	3/8 INCH SCREEN
0-10%	PASSING	No. 4 SIEVE
0-5%	PASSING	No. 8 SIEVE
- 3) SUITABLE MATERIAL IN ROADS, ROAD SHOULDERS, WALKWAYS, AND TRAVELED WAYS: SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUD, PEAT OR CLAY. ALL EXCAVATED LEAVE MATERIAL, AND ALL ROCKS OVER SIX INCHES IN LARGEST DIMENSION.
- 4) BASE COURSE: IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION.
- 5) WOOD SHEETING: IF REQUIRED, WHERE SHEETING IS PLACED ALONG SIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN ONE FOOT ABOVE THE TOP OF THE PIPE.
- 6) W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS. W SHALL BE NO MORE THAN 36 INCHES; FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D., W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
- 7) FOR CROSS COUNTRY CONSTRUCTION: BACKFILL OR FILL SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- 8) DUCTILE-IRON PIPE, FITTINGS AND JOINTS:
 - 1- DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE UNITED STATES OF AMERICA STANDARDS INSTITUTE
 - ANSI A21.50/AWWA C150 THICKNESS DESIGN OF DUCTILE-IRON PIPE AND WITH ASTM A-536 DUCTILE-IRON CASTINGS
 - ANSI A21.51/AWWA C151 DUCTILE-IRON PIPE, CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS FOR WATER OR OTHER LIQUIDS
 - 2- JOINTS SHALL BE OF THE MECHANICAL OR PUSH-ON TYPE JOINTS AND GASKETS SHALL CONFORM TO ANSI A21.11/AWWA C111 RUBBER GASKET JOINTS FOR DUCTILE IRON PRESSURE PIPE AND FITTINGS
- 9) ALL WATER LINES SHALL BE DISINFECTED AND PRESSURE TESTED TO THE APPROVAL OF THE SEWER COMMISSION. MIN. TEST PRESSURE 150 PSI OR 1 1/2 TIMES THE WORKING PRESSURE WHICH EVER IS GREATER.



REVISIONS: _____ DATE: _____

UTILITY DETAILS

PLAN FOR:
RESIDENTIAL DEVELOPMENT
HERSEY LANE
NEWMARKET, NH

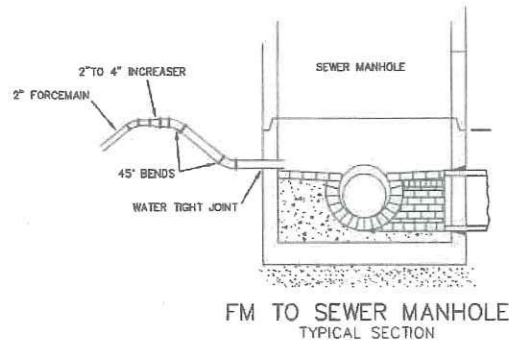
DATE: JAN, 2020 SCALE: NTS
PROJ. NO: NH-1123 SHEET NO. 10

NOTES

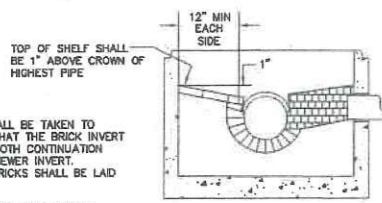
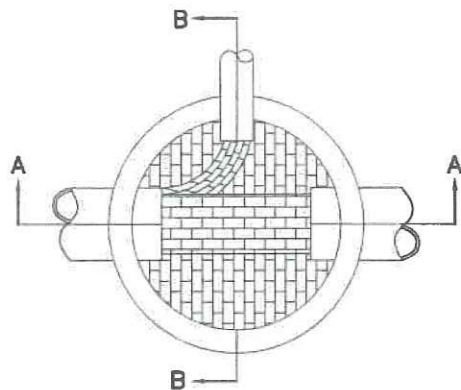
- IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY BY THE COMMISSION FOR THE INTENDED SERVICE SPACE REQUIREMENTS AND CONFIGURATIONS, SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT, WITH ADEQUATE JOINTING. IN ANY APPROVED MANHOLE, THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE CONTINUOUSLY FOR THE LIFE OF THE STRUCTURE. A PERIOD GENERALLY IN EXCESS OF 25 YEARS IS TO BE UNDERSTOOD IN BOTH CASES.
- BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED.
- PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478
- LEAKAGE TEST:
 - ALL NEW SEWERS, AND MANHOLES SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF EITHER WATER OR LOW-PRESSURE AIR TESTS.
 - LOW-PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH THE FOLLOWING TESTING STANDARDS IN EFFECT AT THE TIME THE TEST IS CONDUCTED:
 - ASTM F1417 "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR", AVAILABLE AS NOTED IN APPENDIX D; OR
 - UNI-BELL PVC PIPE ASSOCIATION UNI-B-6, "LOW-PRESSURE AIR TESTING OF INSTALLED SEWER PIPE", AVAILABLE AS NOTED IN APPENDIX D.
 - ALL NEW GRAVITY SEWERS SHALL BE:
 - CLEANED AND VISUALLY INSPECTED USING A LAMP TEST AND BY INTRODUCING WATER TO DETERMINE THAT THERE IS NO STANDING WATER IN THE SEWER; AND
 - TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR TO USE.
 - ALL PLASTIC SEWER PIPE SHALL BE VISUALLY INSPECTED AND DEFLECTION TESTED NOT LESS THAN 30 DAYS NOR MORE THAN 90 DAYS FOLLOWING INSTALLATION.
 - THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5% PERCENT OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANDREL WITH A DIAMETER OF AT LEAST 95% OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES. ENV-WQ 704.17
- MANHOLES: TESTING.
 - MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST IN ACCORDANCE WITH THE ASTM C124 STANDARD IN EFFECT WHEN THE TESTING IS PERFORMED, AVAILABLE AS NOTED IN APPENDIX D. A MANHOLE MAY BE BACKFILLED PRIOR TO PERFORMING A VACUUM TEST, BUT IF THE MANHOLE FAILS THE VACUUM TEST, BACKFILL SHALL BE REMOVED SO REPAIRS TO THE MANHOLE CAN BE MADE FROM THE OUTSIDE OF THE MANHOLE PRIOR TO RETESTING.
 - THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
 - THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES HG; AND
 - THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH HG PRESSURE DROP TO 9 INCHES HG SHALL BE:
 - NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP IN DEPTH;
 - NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP; AND
 - NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP;
 - THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (B), ABOVE.
 - INVERTS AND SHELVES SHALL NOT BE INSTALLED UNTIL AFTER SUCCESSFUL TESTING IS COMPLETED.
 - IMMEDIATELY FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN, OR ANIMALS, UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENT TO GRADE.
 - INVERTS AND SHELVES:
 - MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW AT CHANGES IN DIRECTION. THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE THROUGH CHANNEL UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY.
 - MATERIALS OF CONSTRUCTION FOR MANHOLE GRADE ADJUSTMENT SHALL BE AS FOLLOWS:
 - GRADE ADJUSTMENT RINGS SHALL BE CONSTRUCTED WITH EITHER GRADE SS HARD BRICK THAT HAS BEEN CERTIFIED BY ITS MANUFACTURER AS MEETING THE ASTM C32 STANDARD IN EFFECT AT THE TIME THE BRICK WAS MANUFACTURED OR REINFORCED CONCRETE MEETING THE REQUIREMENTS OF THIS SECTION;
 - GRADE ADJUSTMENT RINGS SHALL:
 - BE SIZED TO THE OPENING OF THE MANHOLE; AND
 - NOT OBSTRUCT THE ACCESS TO THE MANHOLE.
 - MORTAR USED IN MANHOLE CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:
 - MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION;
 - PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE AS SHOWN IN TABLE 704-4;
 - CEMENT SHALL BE TYPE II PORTLAND CEMENT THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C150/C150M STANDARD IN EFFECT AT THE TIME THE CEMENT WAS MANUFACTURED;
 - HYDRATED LIME SHALL BE TYPE S THAT IS CERTIFIED BY ITS MANUFACTURER AS CONFORMING TO THE ASTM C207 STANDARD IN EFFECT AT THE TIME THE HYDRATED LIME WAS PROCESSED;
 - SAND SHALL CONSIST OF INERT NATURAL SAND THAT IS CERTIFIED BY ITS SUPPLIER AS CONFORMING TO THE ASTM C33 STANDARD IN EFFECT AT THE TIME THE SAND IS PROCESSED BY "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES".
 - FRAMES AND COVERS: MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN EQUAL TO CLASS 30 AND CERTIFIED BY THEIR MANUFACTURER AS COMPLYING WITH ASTM A48 AND PROVIDE A 30 INCH DIA. CLEAR OPENING. THE WORD "SEWER" OR "DRAIN" SHALL BE CAST INTO THE CENTER OF THE UPPER FACE OF EACH COVER WITH RAISED, 3" LETTERS.
 - BEDDING: MINIMUM 12" SAND BLANKET. (SAND BLANKET MATERIAL SHALL BE GRADED SAND, FREE FROM ORGANIC MATERIALS, GRADED SUCH THAT 100% PASSES A 1/2-INCH SIEVE AND A MAXIMUM OF 15% PASSES A #200 SIEVE) AND REMAINING FILL AS SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATERIAL AND MEETING ASTM C-33 STONE SIZE NO. 67.

100% PASSING	1 INCH SCREEN
90-100% PASSING	3/4 INCH SCREEN
20-50% PASSING	3/8 INCH SCREEN
0-10% PASSING	No. 4 SIEVE
0-5% PASSING	No. 8 SIEVE

 WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED SCREENED GRAVEL OR CRUSHED STONE 3/4 INCH TO 1-1/2 INCH SHALL BE USED.
 - FLEXIBLE JOINT: A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:
 - P.V.C. PIPE - ALL SIZES - 48"
 - CONTRACTOR SHALL PLACE 2" WIDE METAL WIRE IMPREGNATED GREEN PLASTIC WARNING TAPE OVER ENTIRE LENGTH OF ALL GRAVITY SEWERS.

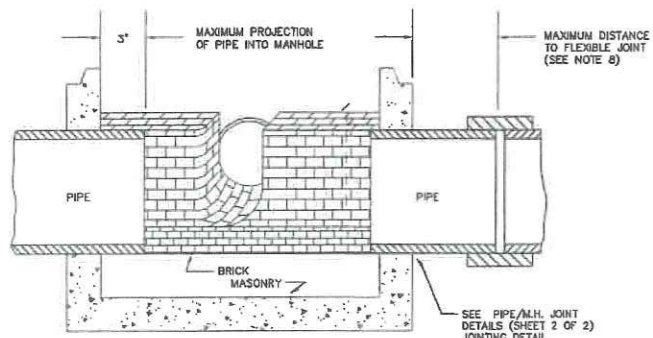


FM TO SEWER MANHOLE
TYPICAL SECTION

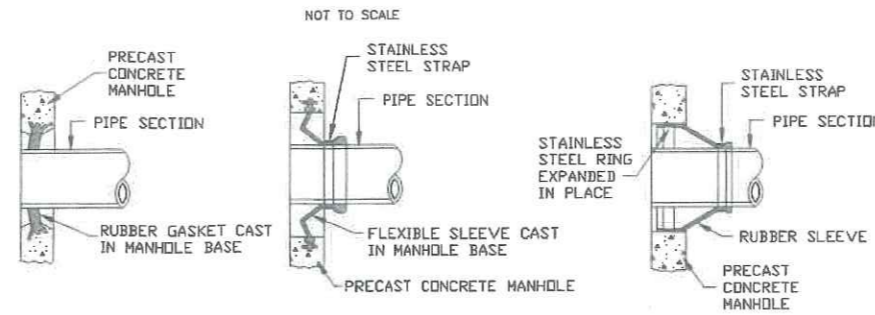


- NOTES:
- CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT. INVERT BRICKS SHALL BE LAID ON EDGE.
 - INVERT AND SHELF TO BE PLACED AFTER LEAKAGE TEST.

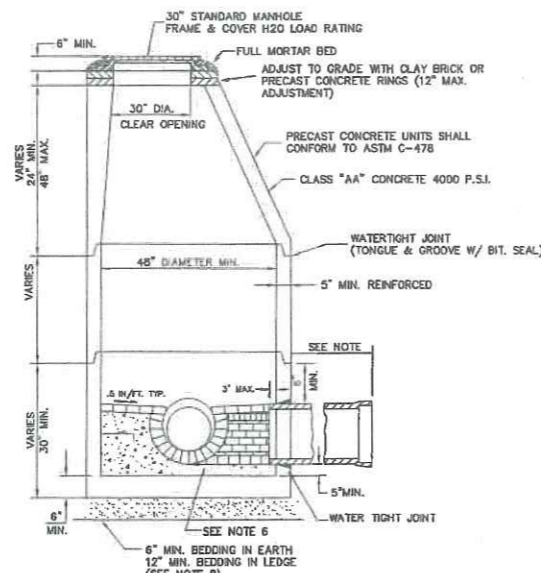
SECTION B-B



SECTION A-A



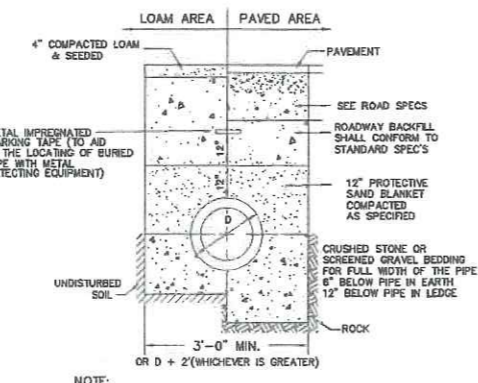
MANHOLE SEAL DETAILS
N.T.S.



NOTE:

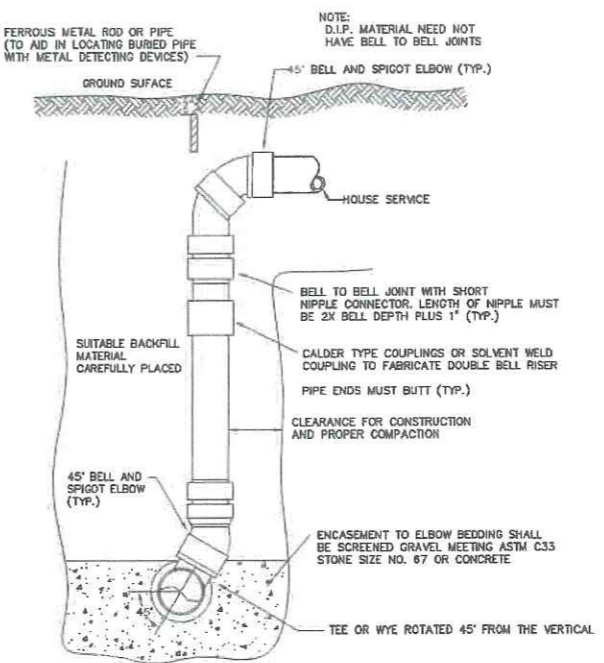
TYPE OF PIPE	SIZE	MAX. DISTANCE TO FIRST JOINT
R.C.P. C.I.	ALL	48"
V.C.	0-12"	18"
V.C.	> 12"	38"

SEWER MANHOLE
TYPICAL SECTION



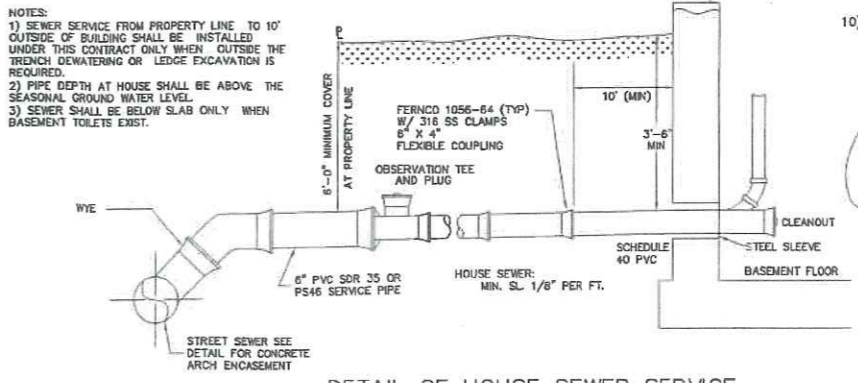
- NOTE:
- PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
 - NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPEC'S.

TYPICAL SEWER TRENCH DETAIL
NOT TO SCALE



- NOTE:
- IF THE VERTICAL DROP INTO A SEWER MAIN IS GREATER THAN 4 FT. A CHIMNEY SHALL BE CONSTRUCTED FOR THE HOUSE CONNECTION (A SLOPING CONNECTION OF 45° FROM THE SEWER TO THE PROPERTY MAY BE PERMITTED IN LIEU OF A VERTICAL DROP OR CHIMNEY.)

P.V.C. CHIMNEY DETAIL



DETAIL OF HOUSE SEWER SERVICE



REVISED PER TRC COMMENTS	3-2-20
REVISIONS:	DATE:
SEWER DETAILS	
PLAN FOR: RESIDENTIAL DEVELOPMENT HERSEY LANE NEWMARKET, NH	
DATE:	SCALE: NTS
PROJ. NO: NH-1123	SHEET NO. 11

PIPE OUTLET PROTECTION

d50 SIZE=	0.25 FEET	3 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM	TO
100%	5	6
85%	4	5
50%	3	5
15%	1	2

d50 SIZE=	0.50 FEET	6 INCHES
% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM	TO
100%	9	12
85%	8	11
50%	6	9
15%	2	3

TEMPORARY EROSION CONTROL MEASURES

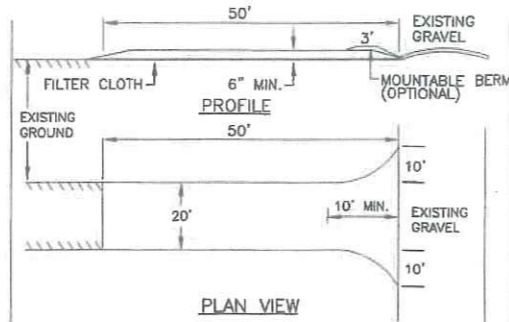
1. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT NO MORE THAN 5 ACRES OF LAND SHALL BE EXPOSED BEFORE DISTURBED AREAS ARE STABILIZED.
2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED OR DIRECTED BY THE ENGINEER ALL DISTURBED AREAS SHALL BE RETURNED TO ORIGINAL GRADES AND ELEVATIONS.
3. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 4" OF LOAM AND SEEDED WITH NOT LESS THAN 1.10 POUNDS OF SEED PER 1000 SQUARE FEET OF AREA. (48 POUNDS PER ACRE) SEE SEED SPECIFICATIONS THIS SHEET.
4. SILT FENCES AND OTHER EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAIN EVENT GREATER THAN 0.5" DURING THE LIFE OF THE PROJECT. ALL DAMAGED AREAS SHALL BE REPAIRED, SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
5. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
6. AREAS MUST BE SEEDED AND MULCHED WITHIN 3 DAYS OF FINAL GRADING, PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF SOIL.
- * AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
 - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS RIPRAP HAS BEEN INSTALLED.
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

CONSTRUCTION SPECIFICATIONS

1. STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION AND AIR AND WATER POLLUTION WILL BE MINIMIZED.
3. WHEN TIMBER STRUCTURES ARE USED, THE TIMBER SHALL EXTEND AT LEAST 18" INTO THE SOIL.
4. STRAW BALES SHALL BE ANCHORED INTO THE SOIL USING 2" X 2" STAKES DRIVEN THROUGH THE BALES AND AT LEAST 18 INCHES IN TO THE SOIL.
5. SEEDING, FERTILIZING, AND MULCHING SHALL CONFORM TO THE RECOMMENDATIONS IN THE APPROPRIATED VEGETATIVE BMP.
6. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.
7. THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES THE CONTRACTOR SHALL TAKE PRECAUTIONS AND INSTRUCTIONS FROM THE PLANNING DEPARTMENT IN ORDER TO PREVENT, ABATE AND CONTROL THE EMISSION OF FUGITIVE DUST INCLUDING BUT NOT LIMITED TO WETTING, COVERING, SHIELDING, OR VACUUMING.
8. THE NH COMMISSIONER OF AGRICULTURE PROHIBITS THE COLLECTION, POSSESSION, IMPORTATION, TRANSPORTATION, SALE, PROPAGATION, TRANSPLANTATION, OR CULTIVATION OF PLANTS BANNED BY NH LAW RSA 430:53 AND NH CODE ADMINISTRATIVE RULES AGR 3800. THE PROJECT SHALL MEET ALL REQUIREMENTS AND THE INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES
9. IN THE EVENT THAT GREATER THAN ONE ACRE OF CONTIGUOUS DISTURBANCE OCCURS, THE CONSTRUCTION SITE OPERATOR AND OWNER SHALL SUBMIT A NOTICE OF INTENT (NOI) TO USEPA, WASHINGTON, DC, STORMWATER NOTICE PROCESSING CENTER AT LEAST FOURTEEN DAYS PRIOR TO COMMENCEMENT OF WORK ON SITE. EPA WILL POST THE NOI AT <http://cfpub.epa.gov/npdas/stormwater/noi/noisearch.cfm>. AUTHORIZATION IS GRANTED UNDER THE PERMIT ONCE THE NOI IS SHOWN IN "ACTIVE STATUS".

CONSTRUCTION SEQUENCE

1. CUT AND REMOVE TREES IN CONSTRUCTION AREAS AS REQUIRED OR DIRECTED.
2. CONSTRUCT AND/OR INSTALL TEMPORARY AND PERMANENT SEDIMENT EROSION AND DETENTION CONTROL FACILITIES AS REQUIRED. EROSION, SEDIMENT AND DETENTION CONTROL FACILITIES SHALL BE INSTALLED AND STABILIZED PRIOR TO ANY EARTH MOVING OPERATION AND PRIOR TO DIRECTING RUNOFF TO THEM.
3. CLEAR, CUT, GRUB AND DISPOSE OF DEBRIS IN APPROVED FACILITIES. STUMPS AND DEBRIS ARE TO BE REMOVED FROM SITE AND DISPOSED OF PER STATE AND LOCAL REGULATIONS.
4. EXCAVATE AND STOCKPILE TOPSOIL/LOAM. ALL AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING.
5. CONSTRUCT TEMPORARY CULVERTS AS REQUIRED OR DIRECTED.
6. CONSTRUCT THE ROADWAY AND ITS ASSOCIATED DRAINAGE STRUCTURES. ALL ROADWAYS, AND CUT/FILL SLOPES SHALL BE STABILIZED AND/OR LOAMED AND SEEDED WITHIN 72-HOURS OF ACHIEVING FINISH GRADE AS APPLICABLE.
7. INSTALL PIPE AND CONSTRUCTION ASSOCIATED APPURTENANCES AS REQUIRED OR DIRECTED. ALL DISTURBED AREAS SHALL STABILIZED IMMEDIATELY AFTER GRADING.
8. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES AND DISTURBED AREAS SHALL BE SEEDED OR MULCHED AS REQUIRED, OR DIRECTED.
9. DAILY OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINAGE CHECK DAMS, DITCHES, SEDIMENT TRAPS, ETC. TO PREVENT EROSION ON THE SITE AND PREVENT ANY SILTATION OF ABUTTING WATERS OR PROPERTY.
10. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION
11. COMPLETE PERMANENT SEEDING AND LANDSCAPING
12. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES AND SITE IMPROVEMENTS ARE COMPLETE. SMOOTH AND REVEGETATE ALL DISTURBED AREAS.
13. ALL SWALES AND DRAINAGE STRUCTURES WILL BE CONSTRUCTED AND STABILIZED PRIOR TO HAVING RUNOFF DIRECTED TO THEM.
14. FINISH PAVING ALL ROADWAYS.
15. LOT DISTURBANCE OTHER THAN THAT SHOWN ON THE APPROVED PLANS SHALL NOT COMMENCE UNTIL THE ROADWAY HAS THE CRUSHED STONE COURSE TO DESIGN ELEVATION/REQUIRED COMPACTION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.



1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

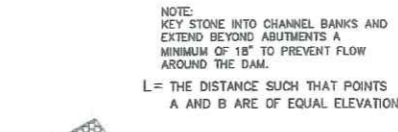
STABILIZED CONSTRUCTION ENTRANCE

WINTER MAINTENANCE

1. ALL DISTURBED AREAS THAT DO NOT HAVE AT LEAST 85% VEGETATIVE COVERAGE PRIOR TO OCTOBER 15TH, SHALL BE STABILIZED BY APPLYING MULCH AT A RATE OF 3-4 TONS PER ACRE. ALL SIDE SLOPES, STEEPER THAN 4:1, THAT ARE NOT DIRECTED TO SWALES OR DETENTION BASINS, SHALL BE LINED WITH BIODEGRADABLE/PHOTODEGRADABLE "JUTE MATTING" (EXCELSIOR'S CURLEX II OR EQUAL). ALL OTHER SLOPES SHALL BE MULCHED AND TACKED AT A RATE OF 3-4 TONS PER ACRE. THE APPLICATION OF MULCH AND/OR JUTE MATTING SHALL NOT OCCUR OVER EXISTING SNOW COVER. IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY SNOW THAT ACCUMULATES ON DISTURBED AREAS SHALL BE REMOVED. PRIOR TO SPRING THAW ALL AREAS WILL BE STABILIZED, AS DIRECTED ABOVE.
2. ALL SWALES THAT DO NOT HAVE FULLY ESTABLISHED VEGETATION SHALL BE EITHER LINED WITH TEMPORARY JUTE MATTING OR TEMPORARY STONE CHECK DAMS (APPROPRIATELY SPACED). STONE CHECK DAMS WILL BE MAINTAINED THROUGHOUT THE WINTER MONTHS. IF THE SWALES ARE TO BE MATTED WITH PERMANENT LINERS OR RIPRAP WITH ENGINEERING FABRIC, THIS SHALL BE COMPLETED PRIOR TO WINTER SHUTDOWN OR AS SOON AS THEY ARE PROPERLY GRADED AND SHAPED.
3. PRIOR TO NOV. 15TH ALL ROADWAY AND PARKING AREAS SHALL BE BROUGHT UP TO AND THROUGH THE BANK RUN GRAVEL APPLICATION. IF THESE AREAS' ELEVATIONS ARE PROPOSED TO REMAIN BELOW THE PROPOSED SUBGRADE ELEVATION, THE SUBGRADE MATERIAL SHALL BE ROUGHLY CROWNED AND A 3" LAYER OF CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED. THIS WILL ALLOW THE SUBGRADE TO SHED RUNOFF AND WILL REDUCE ROADWAY EROSION. THIS CRUSHED GRAVEL DOES NOT HAVE TO CONFORM TO NH DOT 304.3, BUT SHALL HAVE BETWEEN 15-25% PASSING THE #200 SIEVE AND THE LARGEST STONE SIZE SHALL BE 2". IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY ACCUMULATED SNOW SHALL BE REMOVED FROM ALL ROADWAY AND PARKING AREAS.
4. AFTER OCTOBER 15TH, THE END OF NEW HAMPSHIRE'S AVERAGE GROWING SEASON, NO ADDITIONAL LOAM SHALL BE SPREAD ON SIDE SLOPES AND SWALES. THE STOCKPILES THAT WILL BE LEFT UNDISTURBED UNTIL SPRING SHALL BE SEED BY THIS DATE. AFTER OCTOBER 15TH, ANY NEW OR DISTURBED PILES SHALL BE MULCHED AT A RATE OF 3-4 TONS PER ACRE. ALL STOCKPILES THAT WILL REMAIN THROUGHOUT THE WINTER SHALL BE SURROUNDED WITH SILT FENCING.

SEEDING SPECIFICATIONS

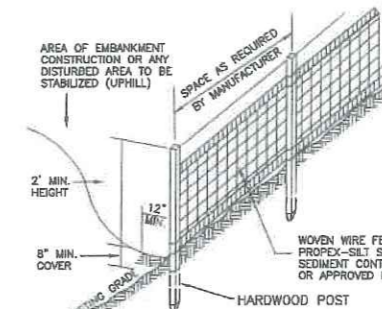
1. GRADING AND SHAPING
 - A. SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
 - A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
 - B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. IF FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEEDBED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
3. ESTABLISHING A STAND
 - A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
 - AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100 LBS PER 1,000 SQ. FT.
 - NITROGEN(N), 50 LBS PER ACRE OR 1.1 LBS PER 1,000 SQ.FT.
 - PHOSPHATE(P2O5), 100 LBS PER ACRE OR 2.2 LBS PER 1,000 SQ.FT.
 - POTASH(K2O), 100 LBS PER ACRE OR 2.2 LBS PER 1,000 SQ.FT.
 (NOTE: THIS IS THE EQUIVALENT OF 500 LBS PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS PER ACRE OF 5-10-10.)
 - B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
 - C. REFER TO TABLE(G-E1 THIS SHEET) FOR APPROPRIATE SEED MIXTURES AND TABLE(H-E1 THIS SHEET) FOR RATES OF SEEDING. ALL LEGUMES (CROWN VETCH, BIRDS FOOT TREFLOIL, AND FLAT PEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT.
 - D. WHEN SEEDING AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDING AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.
4. MULCH
 - A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
 - B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90 LBS PER 1000 SQ. FT.
5. MAINTENANCE TO ESTABLISH A STAND
 - A. PLANTED AREA SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
 - B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIAL STAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
 - C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.



TEMPORARY STONE CHECK DAM

- NOTE: KEY STONE INTO CHANNEL BANKS AND EXTEND BEYOND ABUTMENTS A MINIMUM OF 18" TO PREVENT FLOW AROUND THE DAM.
- L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.
- MAINTENANCE: TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED STORMS. ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED AND MULCHED. WHILE THIS PRACTICE IS NOT INTENDED TO BE USED PRIMARILY FOR SEDIMENT TRAPPING, SOME SEDIMENT WILL ACCUMULATE BEHIND THE STRUCTURES. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.
- REMOVAL: AFTER VEGETATION HAS STABILIZED, THESE TEMPORARY STRUCTURES SHALL BE REMOVED WITH SPECIAL CARE AS TO AVOID DISTURBING ANY UNDERLYING EROSION CONTROL FABRIC AND/OR EXISTING VEGETATION.

TEMPORARY STONE CHECK DAM



SILT FENCE

- CONSTRUCTION SPECIFICATIONS
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES AND FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP MID AND BOTTOM SECTIONS AND BE EMBEDDED INTO GROUND A MINIMUM OF 8".
 2. THE FENCE POSTS SHALL BE A MINIMUM 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 18" INTO THE GROUND.
 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING.
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND PROPERLY DISPOSED OF.
 5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
 6. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND RE-VEGETATED.
- MAINTENANCE
1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
 2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
 3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
 4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

SEEDING GUIDE

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	FAIR	EXCELLENT	POOR
WATERWAYS, EMERGENCY SILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	GOOD	GOOD	GOOD	GOOD
	B	GOOD	GOOD	EXCELLENT	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	EXCELLENT	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	FAIR	GOOD	GOOD	EXCELLENT
PLAY AREAS AND ATHLETIC FIELDS (TOPSOIL IS ESSENTIAL FOR GOOD TURF)	F	FAIR	EXCELLENT	EXCELLENT	2/
	G	FAIR	EXCELLENT	EXCELLENT	2/

GRAVEL PIT, SEE NH-PH-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE 7-36.

2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

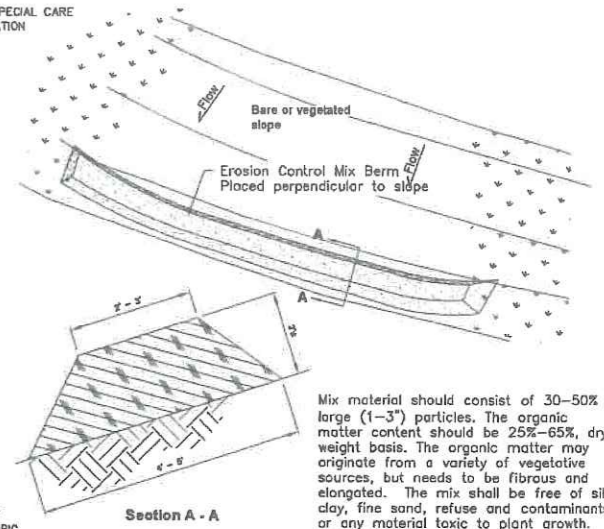
NOTE: TEMPORARY SEED MIX FOR STABILIZATION OF TURF SHALL BE WINTER RYE OR DATS AT A RATE OF 2.5 LBS. PER 1000 S.F. AND SHALL BE PLACED PRIOR TO OCT. 15. IF PERMANENT SEEDING NOT YET COMPLETE.

PREPARED FOR:

CHINBURG PROPERTIES, INC.
3 PENSTOCK WAY
NEWMARKET, N.H. 03857

BEALS ASSOCIATES PLLC

70 PORTSMOUTH AVE, STRATHAM, N.H. 03885
PHONE: 603-583-4860, FAX: 603-583-4863



Mix material should consist of 30-50% large (1-3") particles. The organic matter content should be 25%-65%, dry weight basis. The organic matter may originate from a variety of vegetative sources, but needs to be fibrous and elongated. The mix shall be free of silt, clay, fine sand, refuse and contaminants or any material toxic to plant growth. Erosion Control Mix berms are effective filters for overland flow conditions and should not be used to filter concentrated flow such as that found in drainage ditches, streams, etc.

Erosion Control Mix Berm

SEEDING RATES

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.
A. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREeping RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	20	0.45
CREeping RED FESCUE	20	0.45
BIRDS FOOT TREFLOIL	8	0.20
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREeping RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/2	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60

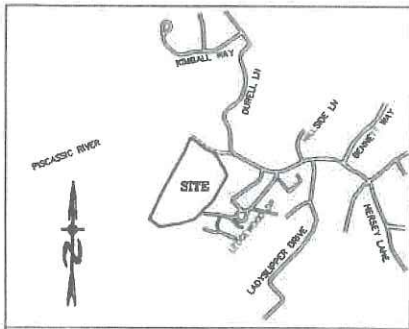
1/ FOR HEAVY USE ATHLETIC FIELDS CONSULT THE UNIVERSITY OF NEW HAMPSHIRE COOPERATIVE EXTENSION TURF SPECIALIST FOR CURRENT VARIETIES AND SEEDING RATES.

REVISIONS: _____ DATE: _____

EROSION CONTROL DETAILS

PLAN FOR:
RESIDENTIAL DEVELOPMENT
HERSEY LANE
NEWMARKET, NH

DATE: JAN, 2020 SCALE: AS NOTED
PROJ. NO: NH-1123 SHEET NO. 12



LOCATION MAP
SCALE 1"=1000'

- 22" OAK W/BW
0" OAK W/BW
26" MAPLE
- R-4-134 SEVALL FARM ASSOCIATION LADYSLIPPER COMMON NEWMARKET, NH 03857 4" MAPLE
- LEGEND**
- UTILITY POLE
 - ☆ LIGHT POLE
 - TEST PIT W/ NO.
 - STONE WALL
 - TREE LINE
 - EXISTING CONTOUR - 10'
 - EXISTING CONTOUR - 2'
 - SOILS BOUNDARY LINE
 - ABUTTER PROPERTY LINE
 - EXISTING PROPERTY LINE
 - PROPOSED PROPERTY LINE
 - BUILDING SETBACK
 - WETLAND BOUNDARY
 - PRIME WETLAND BOUNDARY

JURISDICTIONAL WETLANDS DELINEATED BY GOWE ENVIRONMENTAL SERVICES, INC. DURING JULY, 2018 IN ACCORDANCE WITH THE FOLLOWING:
US ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1 (JAN 1987) AND REGIONAL SUPPLEMENT TO CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, NORTH-CENTRAL AND NORTH-EAST REGION, VERSION 2.0, JANUARY 2012.
FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.0, 2016 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, NENHC (MAY 2017).
NORTH AMERICAN DIGITAL FLORA: NATIONAL WETLAND PLANT LIST, CURRENT VERSION.

This map product is within the technical standards of the National Cooperative Soil Survey. It is a special purpose product, intended for information requirements by the NH DES Alteration of Terrain Bureau. It was produced by a professional soil scientist, and is not a product of the USDA Natural Resources Conservation Service. There is a report that accompanies this map.

The atlas specific soil survey was produced May 6, 2019, and was prepared by James P. Gow, CSS # 024, Gowe Environmental Services, Inc. for residential development off Hersey Lane, Newmarket, NH. GCS project number 2019053.

Soils were identified with the New Hampshire State-wide Numerical Soils Legend, USDA NRCS, Durham, NH, issue # 10, January 2011. The numeric legend was amended to identify the correct soil components of the complex.

MAP UNIT	MAP NAME	HSSS	Conservation	HSD
115	Sarabene musk (Very Poorly Drained)	921	D	B
135	Chotfield Vortant (HSD) - Hestfield Complex	328	B	B
140	Chotfield - Hestfield - Canton Complex	228	B	B
547	Waspole, very stony (Poorly Drained)	521	C	C

SLOPE PHASE:
A=0-3%, B=3-5%, C=5-15%, D=15-25%, E=25%+

LOT #	FRONTAGE (FEET) MIN. 100'	LOT AREA (SF) MIN. 21780	-WETLAND PD (-SF)	-WETLAND VPD (-SF)	-25%+ SLOPES (-SF)	WETLAND BUFFERS (-SF)	DEV. LAND (MIN. 16,335 SF)
1	107.59	21781	-	-	147	-	21634
2	138.86	21930	-	-	2330	-	19600
3	101.41	23948	-	-	-	372	23576
4	113.86	43271	2116	2828	5018	14515	18794
5	206.40	114448	14854	58048	-	21461	22085
6	101.14	143008	6795	52810	19531	21216	42656
7	112.58	23222	-	-	1277	-	21945
8	101.62	24985	-	-	1239	-	23746
9	135.11	27267	-	-	5236	-	22031
10	124.91	28573	924	-	7148	3946	16555
11	108.87	24425	4325	-	2411	1209	16480
12	100.00	21780	905	-	632	1305	18938



SLOPES GREATER THAN 25%

UTILITY NOTES
1. PROJECT IS PROPOSED TO BE SERVED BY MUNICIPAL WATER AND SEWER EXTENSIONS.

ZONE: R2-RESIDENTIAL

DIMENSIONAL REQUIREMENTS:

- MIN. LOT AREA: 1/2 AC.
- MIN. FRONTAGE: 100 FT.
- MIN. FRONT SETBACK: 25 FT.
- MIN. SIDE/REAR SETBACK: 15 FT.
- MAX. BUILDING HEIGHT: 35 FT.
- MAX. DENSITY: 2 UNITS/ACRE

WETLAND SETBACKS:

- POORLY DRAINED: 25 FT.
- VERY POORLY DRAINED: 50 FT.
- PRIME WETLAND: 75 FT. NO DISTURB, 100 FT. NO STRUCTURE, 125 FT. NO SEPTIC

PREPARED FOR:
CHINBURG PROPERTIES INC
3 PENSTOCK WAY
NEWMARKET, NH 03857

BEALS ASSOCIATES PLLC
70 PORTSMOUTH AVE, STRATHAM, N.H. 03885
PHONE: 603-583-4860, FAX: 603-583-4863

- NOTES**
- UNDERGROUND FACILITIES, UTILITIES AND STRUCTURES HAVE BEEN LOCATED FROM FIELD OBSERVATIONS AND THEIR LOCATIONS MUST BE VERIFIED BY THE CONTRACTOR. BEALS ASSOCIATES OR ANY OF THEIR EMPLOYEES TAKE NO RESPONSIBILITY FOR THE LOCATION OF ANY UNDERGROUND STRUCTURES OR UTILITIES NOT SHOWN. THAT MAY EXIST. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL UNDERGROUND UTILITIES OR STRUCTURES LOCATED PRIOR TO EXCAVATION WORK BY CALLING 1-888-DIG-SAFE.
 - THIS PLAN HAS BEEN PREPARED FOR MUNICIPAL AND STATE APPROVALS AND FOR CONSTRUCTION BASED ON DATA OBTAINED FROM ON-SITE FIELD SURVEY AND EXISTING MUNICIPAL RECORDS. THROUGHOUT THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY FIELD DISCREPANCY FROM DATA AS SHOWN ON THE DESIGN PLANS. THIS INCLUDES ANY UNEXPECTED CONDITIONS, SUBSURFACE OR OTHERWISE, FOR EVALUATION AND RECOMMENDATIONS. ANY CONTRADICTION BETWEEN ITEMS OF THIS PLAN/PLAN SET OR BETWEEN THE PLANS AND ON-SITE CONDITIONS MUST BE RESOLVED BEFORE RELATED CONSTRUCTION HAS BEEN INITIATED.
 - ALL BENCHMARKS AND TOPOGRAPHY SHOULD BE FIELD VERIFIED BY THE CONTRACTOR.
 - ALL ROAD AND DRAINAGE WORK TO CONFORM TO TOWN STANDARD SPECIFICATIONS FOR CONSTRUCTION. ALL PROPOSED UTILITIES TO BE UNDERGROUND.
 - ALL PROPOSED SIGNS SHALL CONFORM TO THE TOWN ZONING REGULATIONS.
 - PROPOSED DISTURBANCE IS UNDER 100,000 SQ. FT. MIN. ALTERATION TERRAIN RSA 485A-17 NOT REQUIRED.
 - SEE DETAIL SHEET FOR STANDARD CONSTRUCTION NOTES AND DETAILS.

PROPOSED SEWER CONNECTION LOCATION (EASEMENT FROM CROMMET CREEK, LLC REQUIRED).

AREA CALCULATIONS

TOTAL LOT AREA = 12.81 ACRES

METHOD 1 - NOT INCLUDED:

- (A) OPEN WATER: 0.00 ACRES
- (B) VERY POORLY DRAINED SOILS & BUFFERS: 3.81 ACRES
- (C) SLOPES EQUAL TO OR GREATER THAN 25%: 1.34 ACRES

TOTAL AREA TO BE EXCLUDED: 4.95 ACRES (38.6%)

TOTAL DEVELOPABLE LAND BASE: 7.86 ACRES (61.4%)

LESS 10% FOR ROAD/UTILITIES = 7.08-0.78 = 7.07 ACRES

DENSITY = 7.07/0.5 ACRE = 14 LOTS

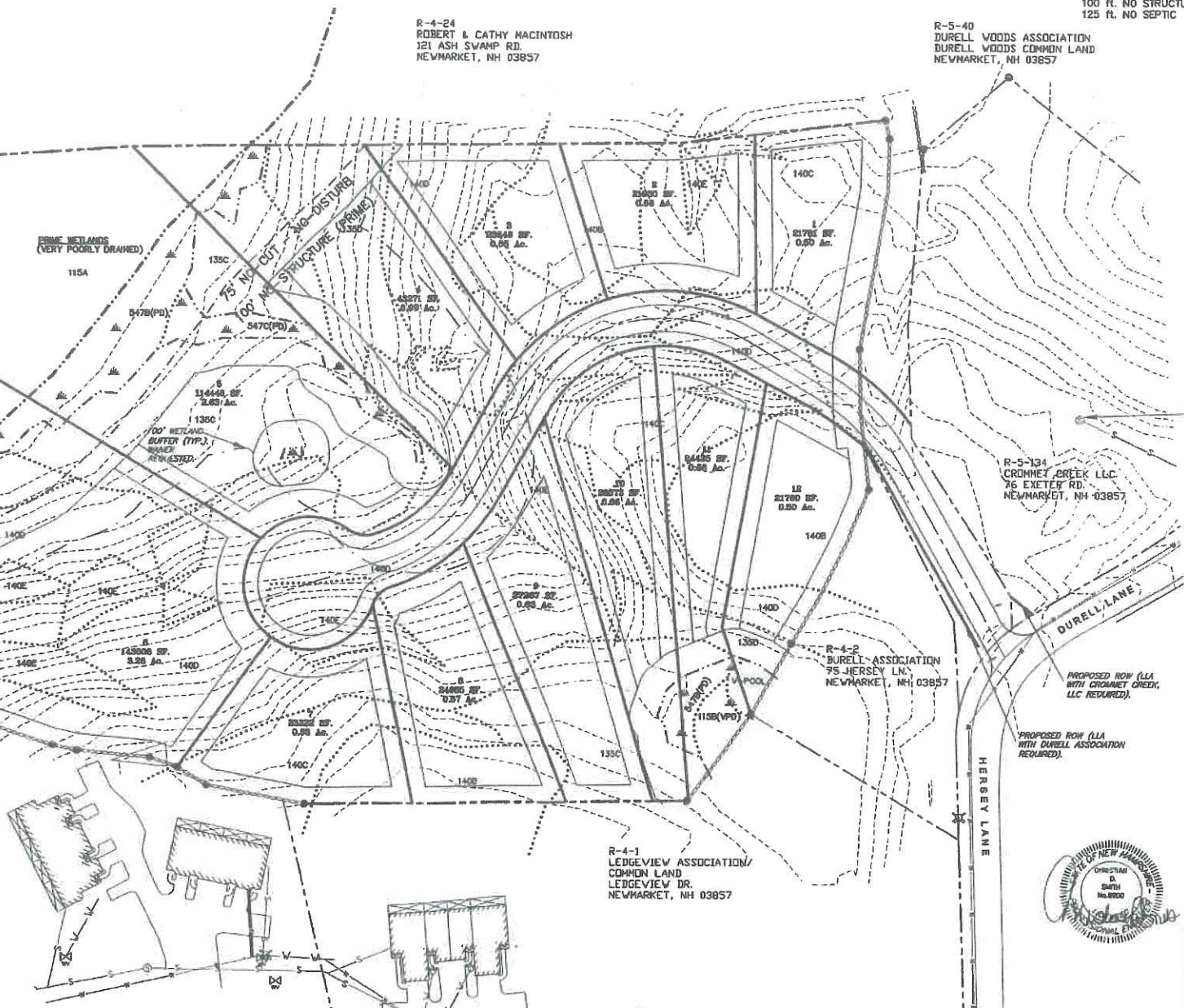
METHOD 2 - INCLUDED UP TO 25%:

- (A) POORLY DRAINED SOILS: 0.88 ACRES
- (B) LANDS THAT ARE WITHIN UTILITY EASEMENTS: 0.00 ACRES
- (C) LANDS WITHIN THE 100-YEAR FLOODPLAIN: 0.00 ACRES

40% OF "DEVELOPABLE LAND BASE" = MIN. DESIGNATED REQUIRED FOR OPEN SPACE

TOTAL DEVELOPABLE LAND BASE = 7.88 ACRES X 40% = 3.14 ACRES (A-97-4C PROVIDED).

TOTAL OPEN-SPACE = 0.99-ACRES



R-4-149 LEDGEVIEW ASSOCIATION COMMON LAND PO BOX 309 NEWMARKET, NH 03857

OWNER OF RECORD:
77 HERSEY LANE LLC
76 EXETER STREET
NEWMARKET NH 03857

PER TRC COMMENTS AND REVIEW: 10-28-19 DATE:

ENVIRONMENTAL YIELD PLAN

PLAN FOR:
RESIDENTIAL DEVELOPMENT
HERSEY LANE
NEWMARKET, NH
TAX MAP R4, LOT 3

DATE: MARCH, 2019 SCALE: 1"= 50'
PROJ. NO.: NH-1123 SHEET NO. 1 OF 1