

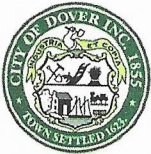


CITY OF DOVER

PLANNING TECHNICAL REVIEW COMMITTEE –AGENDA

Meeting Type: Regular Meeting
Meeting Location: 1st Floor Conference Room – City Hall, Dover NH
Meeting Date: **Thursday, March 21, 2019**
Meeting Time: **10:30 am**

1. 10:30 AM - 11:15 AM: Subdivision using Transfer of Development Rights for Graystone Builders Inc., Assessor's Map G, Lot 35-E, zoned R-40, and located at 32 Old Stage Road. (Proposal is to construct a 700 ft. long private roadway off Old Stage Road providing access to 9 new lots and the existing single family home. Six of the lots will be purchased utilizing the Transfer of Development Rights. A TDR application will also appear before the Planning Board). (P19-20)



City of Dover, New Hampshire

TRANSFER OF DEVELOPMENT RIGHTS APPLICATION

[Revision Date: August 16, 2018]

Office Use Only	Project #:	_____	Date Received:	_____
	Amount Paid:	_____	Time Received:	_____

APPLICANT AND OWNER INFORMATION

Name of Applicant: Graystone Builders Inc. Telephone # 603-664-5757

Address of Applicant: 38 Beechwood Drive, Strafford N.H., 03884

E-Mail Address: DBSIsland@yahoo.com

Name of Property Owner (if different from applicant): Raymond & Claire Howe Telephone # 603-969-6632

Address of Property Owner: 32 Old Stage Road, Dover N.H. 03820

PROPERTY INFORMATION

Assessor's Map # G Lot(s) # 35-E

Address of Property: 32 Old Stage Road

Zoning District(s) Rural Residential (R-40) Overlay District(s) N/A

Existing Use of Property: 1 Existing Single Family Residence

TRANSFER OF DEVELOPMENT RIGHTS INFORMATION

Type of TRANSFER OF DEVELOPMENT RIGHT REQUEST (Check All That Apply):

☐ Residential ☒ Residential (reduced size) ☐ Industrial | ☐ Purchase ☐ Land Preservation

Relief sought (Check All That Apply):

☐ Lot Size ☐ Frontage ☐ Setback ☒ Increase by 9 units

Describe Proposed Use or Activity that requires TDR; describe any impacts and document mitigation:

See attached narrative

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: NHDES Sewer Discharge (PENDING)

Kenneth A. Berry, PE, LLS

Christopher R. Berry

Name of Professional That Prepared TDR Plans: Berry Surveying & Engineering

Address 335 Second Crown Point Rd, Barrington, NH 03825 Telephone #: 603-332-2863

Professional License #: 14243

K.Berry@BerrySurveying.com

E-mail address: crberry@metrocast.net

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 2-26-19

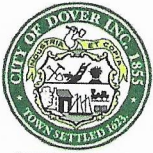
Signature of Applicant (if different from owner): Same as owner Paul Sun Date: 2-26-19

Signature of Agent: _____ Date: 2-26-19

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 2-26-19



City of Dover, New Hampshire SUBDIVISION APPLICATION

[Revision Date: August 02, 2017]

Office Use Only	Project #:	_____	Date Received:	_____
	Amount Paid:	_____	Time Received:	_____

APPLICANT AND OWNER INFORMATION

Name of Applicant: Graystone Builders Inc. Telephone # 603-664-5757
Address of Applicant: 38 Beechwood Drive, Strafford N.H., 03884
Name of Property Owner (if different from applicant): Raymond & Claire Howe Telephone # 603-969-6632
Address of Property Owner: 32 Old Stage Road, Dover N.H. 03820
E-Mail Address: darlene@ceg-re.com

PROPERTY INFORMATION

Address of Property: 32 Old Stage Road
Assessor's Map # G Lot(s) # 35-E
Zoning District(s) Rural Residential (R-40) Overlay District(s) _____
Size of Parcel: 211,777 SF, 4.86 Acres Property Deed: Book 936 Page: 331
Existing Use of Property: 1 Existing Single Family Residence

SUBDIVISION INFORMATION

Subdivision Type: Major (4 + net new lots): ☒ Open Space: TDR
Existing Number of Lots: 1 Unit Proposed Number of Lots: 10 Units
City Water? ☒ Yes ☐ No How far is city water from the property? Approx. 23 Feet
City Sewer? ☒ Yes ☐ No How far is city sewer from the property? Approx. 8 Feet
Highway Access (check where applicable): ☒ City Street ☐ State Highway
Estimated Length of Proposed Roads: 700 feet Public or Private Road? Private

WAIVER REQUESTS

Subdivision Regulations section(s) to be waived: 155-33 Street Design Section G, Road Grade
155-48 Private Roads Section A, R.O.W. Width
155-48 Private Roads Section A, Shoulder Width

Justification for waiver request(s) (attach additional sheets as needed): _____

See attached waiver request narrative.

SURVEYOR INFORMATION

Name of Surveyor and Company (Licensed in N.H.) Kenneth A. Berry, PE, LLS
Berry Surveying & Engineering

Address 335 Second Crown Point Rd, Barrington, NH 03825 Telephone #: 603-332-2863

Professional License #: 14243 E-mail address: K.Berry@BerrySurveying.com

ENGINEER INFORMATION

Name of Engineer and Company (Licensed in N.H.) Kenneth A. Berry, PE, LLS
Berry Surveying & Engineering

Address 335 Second Crown Point Rd, Barrington, NH 03825 Telephone #: 603-332-2863

Professional License #: 14243 E-mail address: K.Berry@BerrySurveying.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. Furthermore, I/We submit that the existing conditions sheet of the plan represents the lot in question, and that no alteration of the site shall take place during Planning Board review up to and including the pre-construction meeting. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 2-26-19

Signature of Applicant (if different from owner): Dan Surt Date: 2-26-19

Signature of Agent: [Signature] Date: 2-26-19

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 2-26-19

AUTHORIZATION TO COMPLETE THE PROJECT ON SUBJECT PROPERTY

I, and my successors, hereby authorize the City of Dover and its assigns to enter my property for the purpose of completing the site work as required by the approved plan should the letter or credit or other surety be called. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date: 2-26-19

Signature of Applicant (if different from owner): Dan Guro Date: 2-26-19

CERTIFICATION OF FEES

I, and my successors, hereby certify that I understand that the City of Dover collects impact fees, utility investment fees and inspection fees for projects developed in Dover. Said fees must be paid before a Certificate of Occupancy can be obtained for a structure, unless a different payment schedule is agreed to by the applicant and the City prior to approvals being issued by the Dover Planning Board. Additionally, should the property be in "Current Use" it will be subject to the Land Use Change Tax.

Signature of Property Owner: _____ Date: 2-26-19

Signature of Applicant (if different from owner): Dan Guro Date: 2-26-19

CERTIFICATION OF PUBLIC ROADWAY ACCEPTANCE

I, and my successors, hereby certify that I understand that the acceptance of a roadway as a public road is an action of the City Council in its sole and complete discretion. In order for the City Council to consider accepting a road as public, it must be free of encumbrances. No roadway with private utility easements shall be accepted as a public road by the City unless the easements are expunged prior to the transfer of land to the City. License agreements for any and all private utilities within the right of way may be granted by the City upon acceptance of the unencumbered roadway consistent with applicable state law.

Signature of Property Owner: _____ Date: 2-26-19

Signature of Applicant (if different from owner): Dan Guro Date: 2-26-19

PLANNING BOARD ESTIMATED FEE SCHEDULE

This is only provided to give you an estimate of the application fees. After you submit an application, staff will invoice you a total. All fees must be paid two weeks before the Planning Board meeting. If the Fee has not been paid, the item will not be placed upon the agenda.

A. TOTAL FEE paid by cash or check made payable to "City of Dover"

1. Application fee for the following:

- SUBDIVISION \$150.00 x # 9 new lots created = \$ 1,350.00
- LOT LINE ADJUSTMENT \$200.00 (if more than two lots involved, add \$100.00 per lot) = \$ _____
- SITE REVIEW - RESIDENTIAL \$100.00 x # _____ per dwelling unit = \$ _____
- SITE REVIEW - NON-RESIDENTIAL (not to exceed \$10,000)
New construction \$.15 sq. ft. x # _____ sq. ft. = \$ _____
Additions (new floor space) \$.10 per sq. ft. x # _____ sq. ft. = \$ _____
- IMPERVIOUS PAVED AREA (for new development) OR IMPERVIOUS PARKING LOT ADDITIONS (not to exceed \$10,000) \$.07 sq. ft. x # 26,036 = \$ 1,822.52
- MOTEL/HOTEL \$35.00 x # _____ per lodging unit = \$ _____
- CHANGE OF USE (not to exceed \$5,000)
Existing floor space \$.10 per sq. ft. x # _____ sq. ft. = \$ _____
- CONDITIONAL USE PERMIT \$150.00 x # _____ per application = \$ _____
- GRAVEL PIT/ EXCAVATIONS - Application fee \$50.00 & Permit fee \$75.00 = \$ _____
- EXTENSIONS OF/AMENDMENTS TO/WAIVERS FOR AN APPROVED PLAN (\$150.00 minimum) \$50.00 x # _____ per hour of review \$ _____
- REQUEST FOR REZONING \$150.00 = \$ _____
- DRIVEWAY WAIVER - \$100.00 application fee = \$ _____
Letter of rejection from Engineering Department, diagram & letter from owner \$ _____

B. Abutter Notification/Mailing Labels - this office will create and print the abutter list and provide labels in triplicate for each abutter. The applicant/owner will need to provide to this office the engineer, architect, land surveyor or soil scientist whose professional seal appears on the plan with names and addresses for notices. You will be notified with the amount due, once this has been completed.

1. Applicant & Owner, engineer, architect, land surveyor or soil scientist
Certified letters fee # _____ of x \$8.00 = \$ _____
2. Certified letters fee: # of abutters _____ X \$8.00 = \$ _____
3. First Class Mail fee (for individual owner of units within a condominium or other collective form of ownership): # of abutters _____ X \$1.00 = \$ _____
4. Creating/Printing Abutter Labels in triplicate per sheet _____ x \$10.00 = \$ _____

C. Foster's newspaper public notice fee

\$ 80.00

D. Digital Version of the Plan in PDF/A format or Archive Fee \$1.00 x # _____
per sheet of plan set =

\$ _____

(Revised May 15, 2017)

TOTAL FEE \$ 3,252.52



City of Dover, New Hampshire **SUBDIVISION SUBMISSION CHECKLIST**

[Revision Date: December 15, 2017]

This review checklist is intended to assist the applicant in the planning process of preparing a Subdivision application for Planning Board action. The size of the project will determine the types of information required for review, therefore, a **pre-application conference** with the Planning Department to determine the list of items that must be completed is strongly encouraged.

Fees will be invoiced and are due along with fifteen (15), folded, copies of the plan set and materials, including response to TRC comments, will be due 3 weeks prior to the Planning Board meeting.

The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all subdivision requirements. Please refer to the Subdivision Regulations for full details.

APPLICANT: Graystone Builders File Number: _____

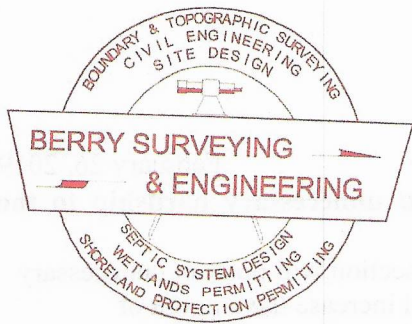
PROJECT TITLE: Lundy Pony Drive

PROPERTY LOCATION: 32 Old Stage Road Tax Map: G Lot: 35-E

	Explain How Provided	Reviewed
1. Completed and signed Application form	X	
2. Electronic copy of the surveyed plat layout	CD	
3. Electronic copy of supplementary materials and application	CD	
4. Traffic Impact Assessment and Analysis (Standard or Advanced)	CD Standard	
5. Fiscal Impact Analysis (For more than 10 units)	N/A	
6. Waiver requests to the Subdivision Regulations, with written justification	X	
7. Conditional Use Permit applications	N/A	
8. Narrative describing yield plan and cost analysis	N/A	
9. List of all professional agents to be notified for Planning Board	BS+E	
10. Letter to Serve from Public and Private Utilities	X	
11. Eight folded copies of subdivision plan w/scale of not less than 1"=50' or 1"=100' for larger subdivisions, for TRC. Plans shall contain the following items as appropriate:	X	
Location map at appropriate scale	X	
Proposed subdivision name and title and Planning File #	X	
Date, north arrow and scale	X	
Names of all abutting property owners	X	
Name and address of owners and/or applicants	X	
Signature & stamp of NH licensed land surveyor and/or engineer	X	
Zoning District boundaries, including any special or overlay districts	X	
Location of Conservation District areas	N/A	
Location, names and widths of existing and proposed streets, including pavement widths, grades, curbs and crosswalks	X	
Location and widths of existing & proposed easements & right of ways	X	
Location and widths of existing and proposed sidewalks	N/A	
Existing and proposed property lines with dimensions and bearings tied into Dover's Geographic Information System coordinate system	X	
Existing and proposed lot areas in square feet	X	
Existing and proposed topographic information at two foot intervals	X	

	Explain How Provided	Reviewed
Existing and proposed buildings and structure locations	X	
Minimum building setbacks or build to lines on all lots	X	
Location and size of existing and proposed electric, telephone, gas cable and other underground utilities	X	
Existing and proposed water lines and fire hydrants, including materials and capacity needed	X	
Location and materials of sanitary sewage facilities within project site and projected additional peak hour sewer load	X	
Existing and proposed septic system, including test pit locations and results and NHDES subdivision permit number	N/A	
Existing and proposed stormwater lines and facilities	X	
Existing and proposed streetlights	N/A	
Location of Flood Hazard Zone	X	
Location of all bodies of water and watercourses	N/A	
Location of wetlands and buffers	N/A	
Neighborhood plan with aerial underlay showing how project relates to abutting uses	X	
Existing natural features and/or significant vegetation on property	X	
Depict existing contours up to 100 ft. beyond project limits	X	
Soil types	X	
Map and lot numbers for existing and proposed lots as assigned by Tax Assessor	X	
Location of all land offered for dedication for public use or land to be held in common by property owners of the subdivision	X	
Location, material and size of existing and proposed permanent monuments	X	
Existing railroad lines	N/A	
Note regarding solid waste disposal	X	
All applicable Dover Common Subdivision notes	X	
12. Construction Detail Sheets shall contain the following information:		
Profiles showing existing & proposed elevations along the center lines of proposed streets & within 100' of intersections with existing streets	X	
Profiles showing the locations & a typical cross-section detail of streets	X	
Location of street trees, street lighting poles and street signs	X	
Location, size and invert elevations of existing and proposed sanitary sewers, stormwater drains and fire hydrants	X	
Location and size of all water, gas and other underground utilities	X	
13. Additional Information if appropriate		
Stormwater Management Plan depicting the existing and proposed storm drainage system and engineered drainage analysis	X	
Stormwater Management System Operation and Maintenance Plan	X	
Erosion and Sedimentation Control Plan	X	
Perimeter Landscaping Plan	X	
Proposed restrictive covenants or homeowners association documents	X	
Dates and permit numbers of all required state and federal permits	X	
If wetland buffer, indicate placards locations, as applicable	N/A	
Hydrogeologic study if located in Groundwater Protection Zone	N/A	
Provide additional exhibits/technical data determined appropriate by the Planning Board or its staff as required	N/A	

REVIEWED BY: _____ DATE _____ TRC DATE _____



BERRY SURVEYING & ENGINEERING

335 Second Crown Point Road
Barrington, NH 03825

Phone: (603) 332-2863

Fax: (603) 335-4623

www.BerrySurveying.Com

February 26, 2019

City of Dover Planning Board
Attn: Assistant City Planner Donna Benton
288 Central Ave
Dover, NH 03820

RE: Graystone Builders Inc.
Raymond and Claire Howe
Residential Subdivision (TDR)
32 Old Stage Road
Dover, NH
Tax Map G, Lot 35-E

Mr. Chairperson & Members of the Dover Planning Board:

In accordance with to the subdivision standards Article 155-51, the following waiver is hereby requested:

1. **Identification of Waiver Request:** Subdivision Regulation 155-33.G Maximum road grade of 3% within 75 feet of an intersection.
 - Proposed roadway with a grade of 4 % within 75 feet of an intersection.

2. **Explanation:**

The applicant is proposing to construct a 24' roadway off Old Stage Road, in order to provide access to the Tax Map G, Lot 35-E. The proposed roadway will service a proposed TDR development of 9 new units, and the existing single family residence. The proposed development will be serviced by City Water and on site City Sewer. In addition to the construction of the roadway, a rain garden will also be constructed to capture, treat and re-infiltrate the runoff generated from the site.

3. **Waiver Justification:**

- a. **Granting the waiver will properly carry out the purpose and intent of the regulations.**

The purpose and intent of the 3% roadway within 75 feet of the intersection is to allow for vehicles to safely approach and stop at intersections. The proposed roadway was designed to come off Old Stage Road as close to the existing grade as possible in order to limit the amount of cut needed at the existing house, in order to limit the disturbance in this area and allow for a smoother transition into the proposed subdivision. Furthermore, the existing driveway has a grade of 7% within 75 feet of the intersection. Although the proposed roadway has a grade of 4%, it is still improving the intersection and making it more nearly conforming.

February 26, 2019

1. Identification of Waiver Request: Subdivision Regulation 155-48. Minimum shoulder width of 3 feet.

- Proposed shoulder width of 2 feet.

2. Explanation:

The applicant is proposing to construct a 24' roadway with 2' shoulders off Old Stage Road, in order to provide access to the Tax Map G, Lot 35-E. The proposed roadway will service a proposed TDR development of 9 new units, and the existing single family residence.

3. Waiver Justification:

a. Granting the waiver will properly carry out the purpose and intent of the regulations.

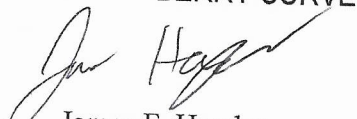
The intent and purpose of the 3' shoulders is to allow for vehicles to safely pull off the road if needed. Given the relatively low traffic volume that will be generated from the development, a 24' wide roadway with 2' foot shoulders was deemed sufficient to allow for safe vehicular traffic in and out of the site.

b. Strict conformity to the regulations would pose an unnecessary hardship to the applicant.

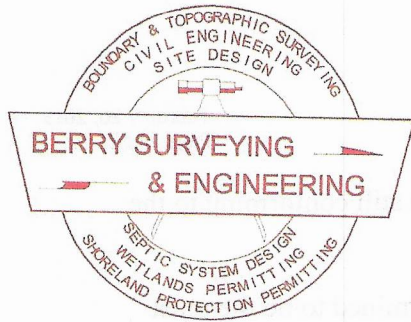
Strict conformity to the regulation would pose an unnecessary hardship on the applicant. Requiring the applicant to have 3' shoulders along the roadway would increase the amount of fill required, which would increase the disturbance generated by the road construction. Furthermore it would push the proposed swales out of the right away, requiring the need for several grading and drainage easements.

Thank you for your time and attention to this matter and we hope you look favorably upon the request.

BERRY SURVEYING & ENGINEERING


James F. Hayden
Engineering Technician


Christopher R. Berry
Principal, President



BERRY SURVEYING & ENGINEERING

335 Second Crown Point Road

Barrington, NH 03825

Phone: (603) 332-2863

Fax: (603) 335-4623

www.BerrySurveying.Com

crberry@metrocast.net

February 26, 2019

City of Dover

Attention: Assistant City Planner Donna Benton

288 Central Ave

Dover, NH 03820

Re: Graystone Builders Inc.
Raymond and Claire Howe
Residential Subdivision (TDR)
32 Old Stage Road
Dover, NH
Tax Map G, Lot 35-E

Dear Mrs. Benton,

On behalf of our client Graystone Builds Inc. and the owners Raymond and Claire Howe, Berry Surveying & Engineering (BS&E) is submitting for TRC to discuss a proposed development at 32 Old Stage Road, known as Lundy Pony Drive.

Background and General Narrative:

Raymond and Claire Howe own the 4.86 acre parcel known as 32 Old Stage Road in Dover, NH (Tax Map G, Lot 35-E). Berry Surveying and Engineering has conducted an on-site survey of the parcel which includes a topographic analysis as well as a wetlands analysis. Please note there are no wetlands found on the parcel or within 50 feet of the parcel. The site contains a single family house with a detached garage towards the front of the parcel, and a barn that sits in the middle of the lot. The site slopes up from Old Stage Road to a high point in front of the existing house, then slopes down towards the rear of the property. The site is mostly open with tree line being held along the property lines. There is an existing cemetery at the front of the parcel. A soils analysis was done and it was determined that the on-site soils are sandy.

The Proposal:

The proposal is to construct a 24 foot private roadway off Old Stage Road over the footprint of the existing driveway. The proposed roadway will be 700 feet long and provide access to 9 new lots and the existing single family home for a total of 10 lots, six of which will be purchased utilizing the Transfer of Development Rights. The roadway was designed with a

TABLE OF CONTENTS:

SHEET 1	~ NEIGHBORHOOD PLAN
SHEET 2	~ BOUNDARY PLAN
SHEET 3	~ EXISTING CONDITIONS PLAN
SHEET 4	~ SITE SPECIFIC SOILS MAP (SSSM)
SHEET 5	~ SUBDIVISION PLAN
SHEET 6	~ EASEMENT PLAN
SHEET 7	~ OVERVIEW SITE PLAN
SHEET 8	~ SITE PLAN (ENTRANCE)
SHEET 9	~ SITE PLAN (END)
SHEET 10	~ OVERVIEW GRADING PLAN & DRAINAGE PLAN
SHEET 11	~ LUNDY PONY DRIVE PLAN & PROFILE 0+00 - 5+25
SHEET 12	~ LUNDY PONY DRIVE PLAN & PROFILE 5+25 - END
SHEET 13	~ RAIN GARDEN (R-101)
SHEET 14	~ RAIN GARDEN (R-102)
SHEET 15	~ EROSION AND SEDIMENT CONTROL PLAN
SHEET 16	~ EROSION AND SEDIMENT CONTROL PLAN
SHEET 17	~ UTILITY PLAN LUNDY PONY DRIVE 0+00 - 3+00
SHEET 18	~ UTILITY PLAN LUNDY PONY DRIVE 3+00 - END
SHEET 19	~ CROSS SECTIONS LUNDY PONY DRIVE 0+00 - END
SHEET 20	~ SIGHT DISTANCE LUNDY PONY DRIVE (HWA-1)
SHEET 21-22	~ EROSION & SEDIMENT CONTROL DETAILS (E101 & E102)
SHEET 23	~ DRAINAGE CONSTRUCTION DETAILS (D101)
SHEET 24-25	~ CONSTRUCTION DETAILS (C101 & C102)
SHEET 26-28	~ UTILITY CONSTRUCTION DETAILS (U101, U102 & U103)
SHEET 29	~ LANDSCAPING CONSTRUCTION DETAILS (L101)

TDR SUBDIVISION PLAN
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, N.H.
TAX MAP G, LOT 35-E

NOTE:
BERRY SURVEYING & ENGINEERING HAS PREPARED AN INSPECTION & MAINTENANCE MANUAL AS PART OF THIS PROJECTS DOCUMENTATION. ALL USERS ARE BOUND TO THIS DOCUMENT AS PART OF THE APPROVAL OF THE PLANNING BOARD. COPIES OF THE YEARLY INSPECTIONS ARE TO BE DELIVERED TO THE CITY OF DOVER COMMUNITY SERVICES DEPARTMENT.

OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820

SURVEYOR OF RECORD:

KENNETH A. BERRY, PE, LLS
CPSWQ, CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332-2863

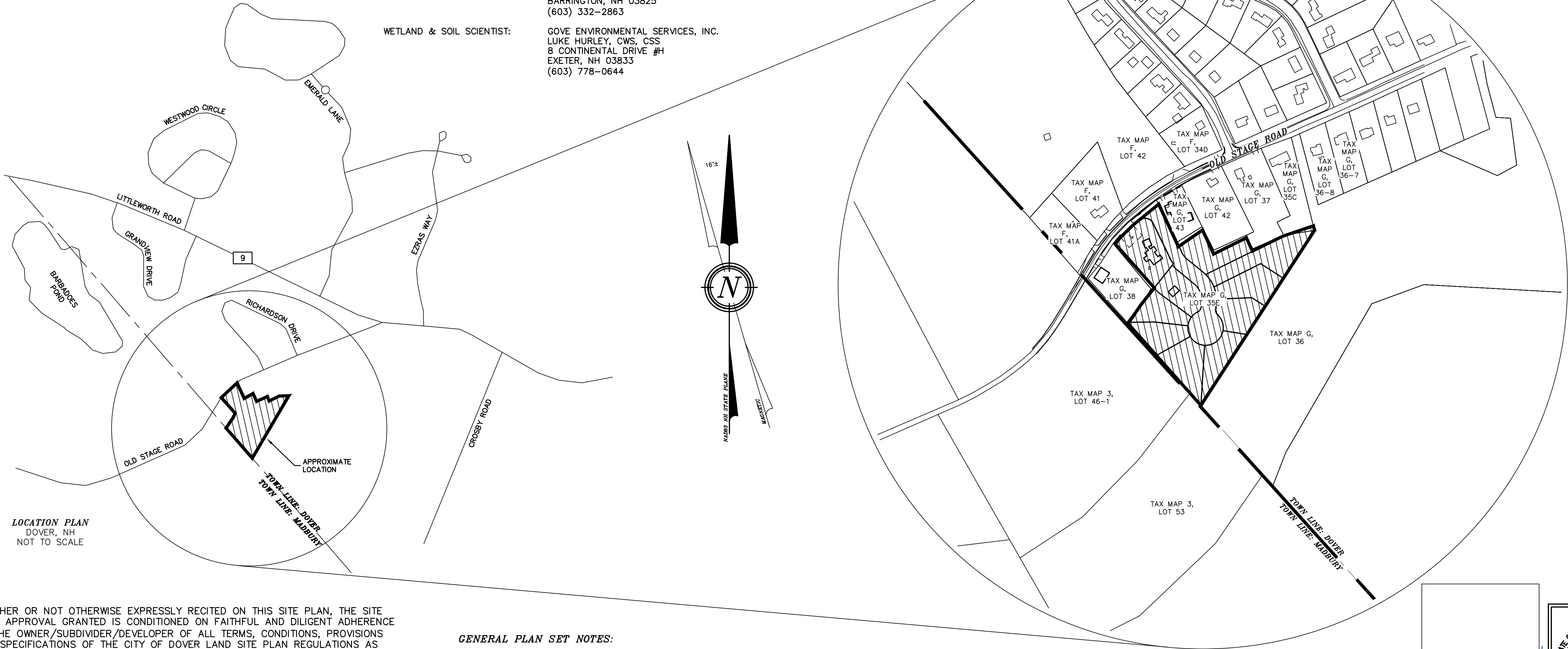
APPLICANT: GRAYSTONE BUILDERS, INC.
38 BEECHWOOD DRIVE
STRAFFORD, NH 03884

ENGINEER OF RECORD:

KENNETH A. BERRY, PE, LLS
CPSWQ, CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332-2863

WETLAND & SOIL SCIENTIST:

GOVE ENVIRONMENTAL SERVICES, INC.
LUKE HURLEY, CWS, CSS
8 CONTINENTAL DRIVE #1
EXETER, NH 03833
(603) 778-0644



WHETHER OR NOT OTHERWISE EXPRESSLY RECITED ON THIS SITE PLAN, THE SITE PLAN APPROVAL GRANTED IS CONDITIONED ON FAITHFUL AND DILIGENT ADHERENCE BY THE OWNER/SUBDIVIDER/DEVELOPER OF ALL TERMS, CONDITIONS, PROVISIONS AND SPECIFICATIONS OF THE CITY OF DOVER LAND SITE PLAN REGULATIONS AS AMENDED OR AS MAY LATER BE AMENDED, IN EFFECT ON THE DATE OF APPROVAL, UNLESS OR EXCEPT INsofar AS EXPRESSLY WAIVED, IN ANY PARTICULAR, BELOW. NON - ADHERENCE MAY RESULT IN A REVOCATION OF APPROVAL. ANY VARIATION FROM THE APPROVED PLAN WILL REQUIRE A RESUBMISSION FOR SITE PLAN APPROVAL.

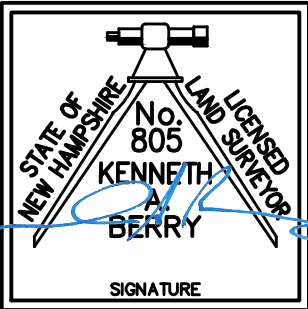
GENERAL PLAN SET NOTES:

- 1.) 11x17" PLANS ARE HALF THE PUBLISHED SCALE.
- 2.) ALL PLANS ARE CONSIDERED TO BE "NOT FOR CONSTRUCTION" UNLESS THEY CONTAIN THE APPROVAL STAMP OF THE CITY OF DOVER.

REQUIRED PERMITS:

- 1.) NHDES SEWER DISCHARGE PERMIT ~ PENDING
- 2.) EPA NOTICE OF INTENT (NOI) ~ PENDING

APPROVED DOVER



BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : AS SHOWN
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

KENNETH A. BERRY
No. 805
LICENSED PROFESSIONAL ENGINEER

TRANSFER OF DEVELOPMENT RIGHTS SUBDIVISION
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

REVISION	DATE	DESCRIPTION

ABBREVIATION LEGEND:

V.G.C. VERTICAL GRANITE CURB
E.O.P. EDGE OF PAVEMENT
BITUM. BITUMINOUS
E.S.H.W.T. ESTIMATED SEASONAL HIGH WATER TABLE
TYP. TYPICAL
U.G.E. UNDER GROUND ELECTRIC / UTILITY
HDPE HIGH DENSITY POLYETHYLENE
F.G. FINISHED GRADE
E.G. EXISTING GRADE
L.F. LINEAR FOOT
F.D. FINISHED FLOOR
FND FOUND
T.B.R. TO BE REMOVED
P.L. PROPERTY LINE
E.L. EASEMENT LINE
T.B.M. TEMPORARY BENCHMARK
'/. FEET / FEET

SSL () ~ {SIZE} SINGLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
DSL () ~ {SIZE} DOUBLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
SSB () ~ {SIZE} SINGLE SOLID W/ BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
SBL () ~ {SIZE} SINGLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
DBL () ~ {SIZE} DOUBLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)

EXISTING LEGEND:

IRON BOUND ~FND~
REBAR ~FND~
RAILROAD SPIKE ~FND~
UTILITY POLE / GUY WIRE
SINGLE POST SIGN
CURB STOP
GATE VALVE
FIRE HYDRANT
CATCH BASIN
SEWER MANHOLE
TREE

E113.83 EXISTING SPOT ELEVATION

BUILDING SETBACK LINE
EXISTING GAS LINE
EXISTING WATER LINE
EXISTING SEWER LINE
EXISTING DRAIN LINE
OVERHEAD UTILITIES
EXISTING CONTOUR MINOR
EXISTING CONTOUR MAJOR

PROPOSED LEGEND:

1/2" EASEMENT IRON BOUND W/D CAP ~TBS~
3/4" REBAR W/ ID CAP ~TBS~
GRANITE BOUND ~TBS~
OUTLET STRUCTURE
SIGNAGE
CHECK DAM-MATERIAL AS SPECIFIED
FLOW ARROW
WELL
TEMPORARY BENCH MARK (T.B.M.)
CATCH BASIN
SEWER MANHOLE
DETAIL SHEET / DETAIL
CONTOUR MINOR
CONTOUR MAJOR
PROPOSED WATER LINE
PROPOSED SEWER LINE
FORCE MAIN
CULVERT W/ FLARED END SECTION (F.E.S.)
PROPOSED TREE LINE
GUARD RAIL
SHOULDER
CENTER LINE
BUILDING SETBACK LINE
SUBDIVISION BOUNDARY LINE
SAW CUT & MILL
TRANSFORMER / J.BOX
UNDERGROUND UTILITY
UNDER DRAIN
SILT FENCE / EROSION MIX BERM
FILTREXX 8" - 12" SILT SOXX AS SPECIFIED
ORANGE CONSTRUCTION PERIMETER FENCE
NRCS SOIL DELINEATION
SOIL TYPE

RIP RAP
RAIN GARDEN
BERM

SIGN ID NUMBER	SIGN SIZE (WIDTH x HEIGHT)	SIGN	TEXT DIMENSIONS	NO. OF SIGNS	BACKGROUND	LEGEND	BORDER	POST SIZE & QUANTITY
R1-1	30"x30"	STOP	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT - FHWA	1	RED	WHITE	WHITE	SQUARE (1)
R2-1	24"x30"	SPEED LIMIT 25	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT - FHWA	1	WHITE	GREEN	GREEN	SQUARE (1)
R6-1L	36"x12"	ONE WAY	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT - FHWA	1	BLACK W/ WHITE ARROW	BLACK	WHITE	SQUARE (1)
W14-2	30"x30"	NO OUTLET	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT - FHWA	1	YELLOW	BLACK	BLACK	SQUARE (1)

ABUTTERS WITHIN 200':

N/F ASKEW, ERIC
17 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP F, LOT 34D
S.C.R.D. BOOK 4561, PAGE 207
N/F HARTY, THOMAS & JENNIFER DOHERTY
25 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP F, LOT 41
S.C.R.D. BOOK 3952, PAGE 765
N/F TAPSCOTT, LYNN H. & ADAMS, ROBERT C.
27 OLD STAGE ROAD
DOVER, NH 03820-4323
TAX MAP F, LOT 41A
S.C.R.D. BOOK 1695, PAGE 265
N/F CITY OF DOVER
288 CENTRAL AVENUE
DOVER, NH 03820
TAX MAP F, LOT 42
N/F GERALD F & INA JOYCE RILEY REV TST
24 OLD STAGE ROAD
DOVER, NH 03820
BOOK 4215, PAGE 894
TAX MAP G, LOT 36C
N/F PAUL J. ROULLARD & MARIA D.
ROULLARD REVOCABLE LIVING TRUST
ROULLARD, PAUL J. & MARIA D. TRUSTEES
4 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP G, LOT 36
S.C.R.D. BOOK 2505, PAGE 373

ABUTTERS WITHIN 200' CONT.:

N/F CARREIRO, KEVIN L. & SAMANTHA
18 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP G, LOT 36-7
S.C.R.D. BOOK 4337, PAGE 319
N/F GRUCEL, JASON ALEXANDER & PERKINS, GARRETT
20 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP G, LOT 36-8
S.C.R.D. BOOK 4328, PAGE 405
N/F BUTLAND, MICHAEL W. & KAUFMAN, DANIELLE
26 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP G, LOT 37
S.C.R.D. BOOK 3349, PAGE 251
N/F PROCHLOPEX, ALI & ADAMS, NICHOLAS
46 FOURTH STREET, APT 2
DOVER, NH 03820
TAX MAP G, LOT 38
S.C.R.D. BOOK 4599, PAGE 283

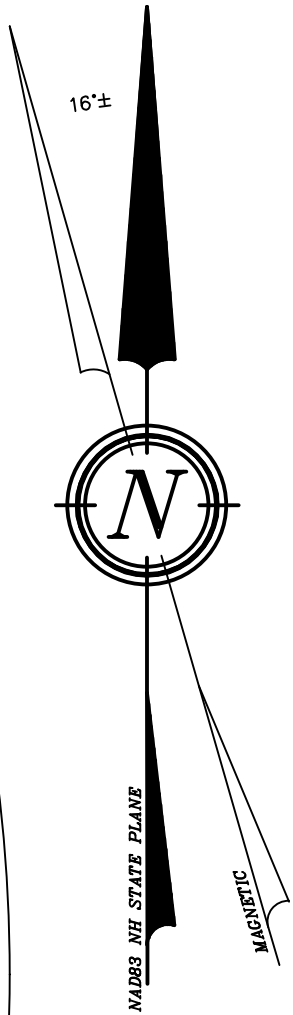
ABUTTERS WITHIN 200' CONT.:

N/F CORCORAN, JEFFREY R.
28 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP G, LOT 42
S.C.R.D. BOOK 1899, PAGE 125
N/F LOUISE VARNEY REVOCABLE LIVING TRUST
VARNEY, LOUISE TRUSTEE
30 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP G, LOT 43
S.C.R.D. BOOK 4607, PAGE 073
N/F ROULLARD PAUL J. & MARIA REVOCABLE LIVING TRUST
ROULLARD, PAUL J. & MARIA D. TRUSTEES
4 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP G, LOT 43
S.C.R.D. BOOK 4607, PAGE 073

ABUTTERS WITHIN 200' CONT.:

N/F STATE OF NEW HAMPSHIRE
DIVISION OF PUBLIC WORKS & HIGHWAYS
CONCORD ROAD
DOVER, NH 03820
TAX MAP 3, LOT 53

GIS SKETCH
DOVER, NH
SCALE: 1" = 200' ±



TEST HOLE DATA:

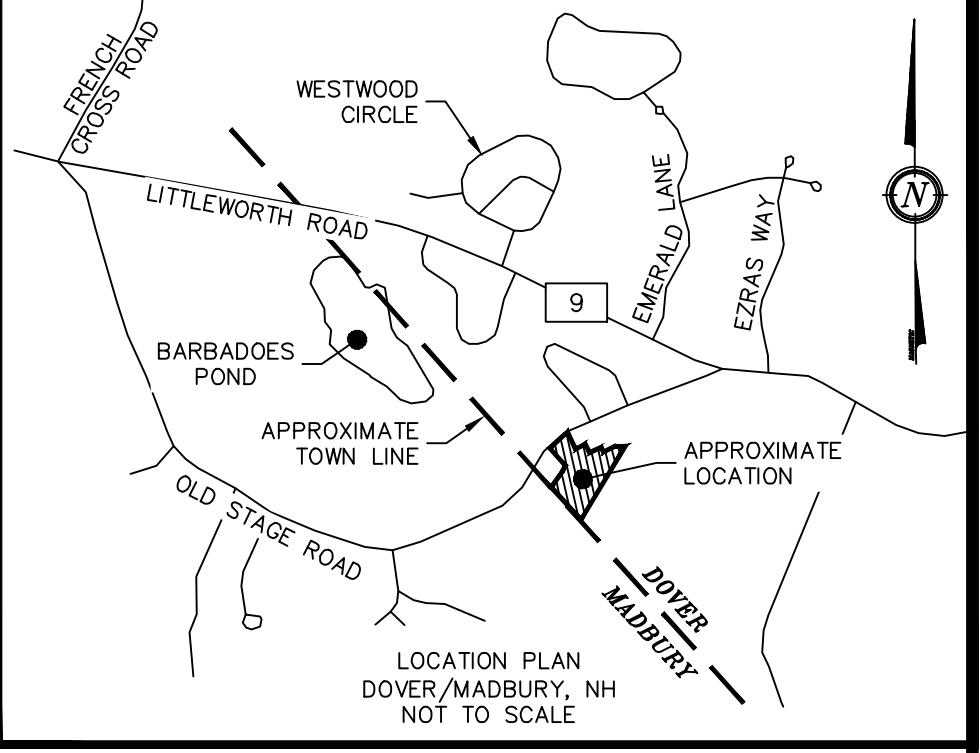
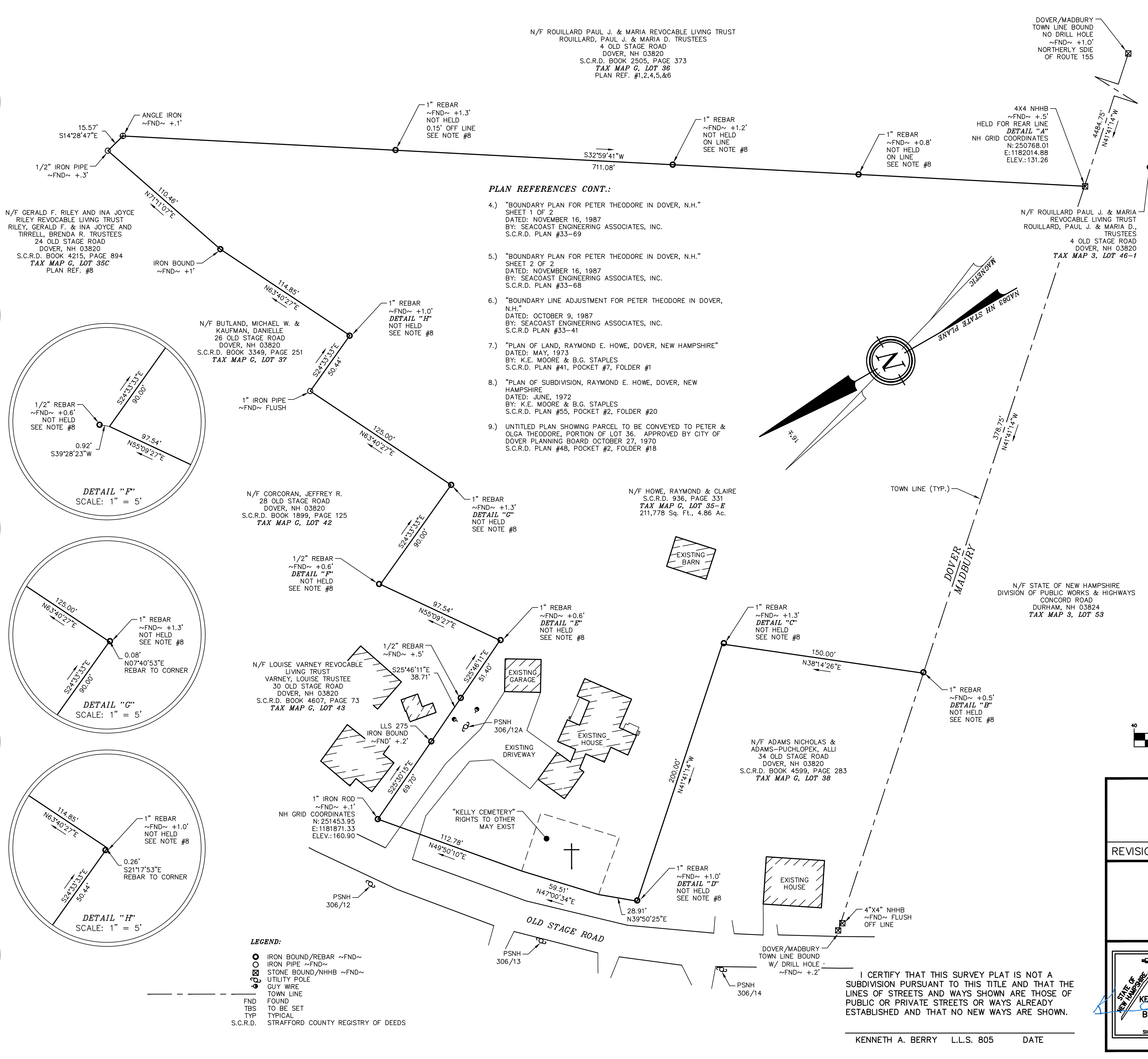
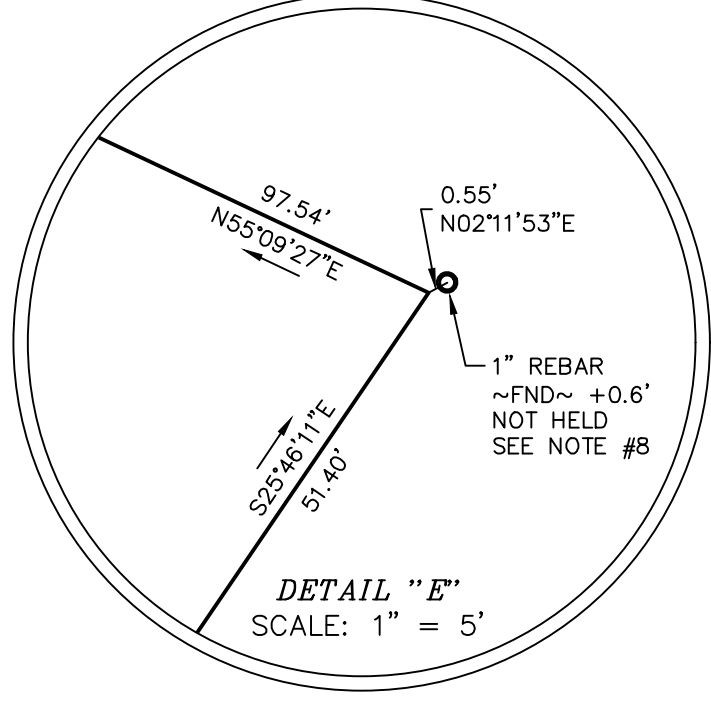
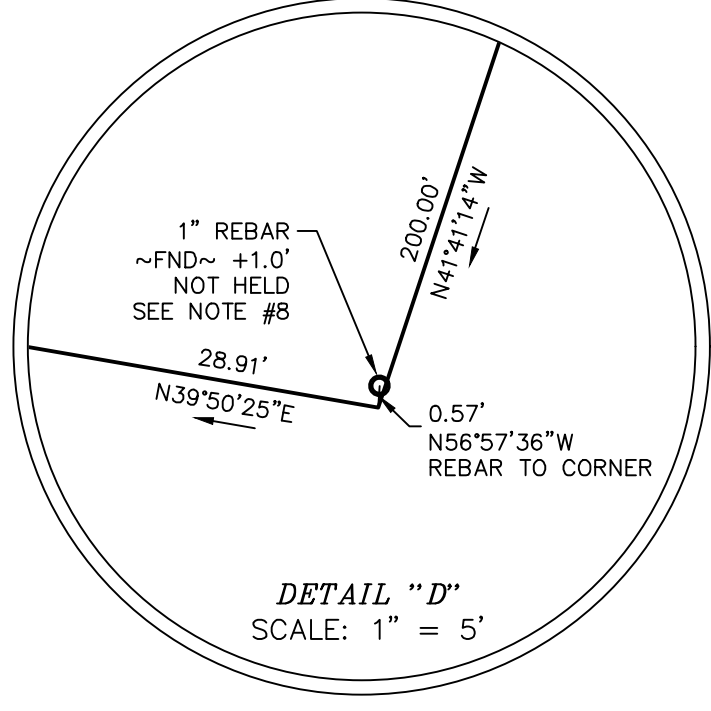
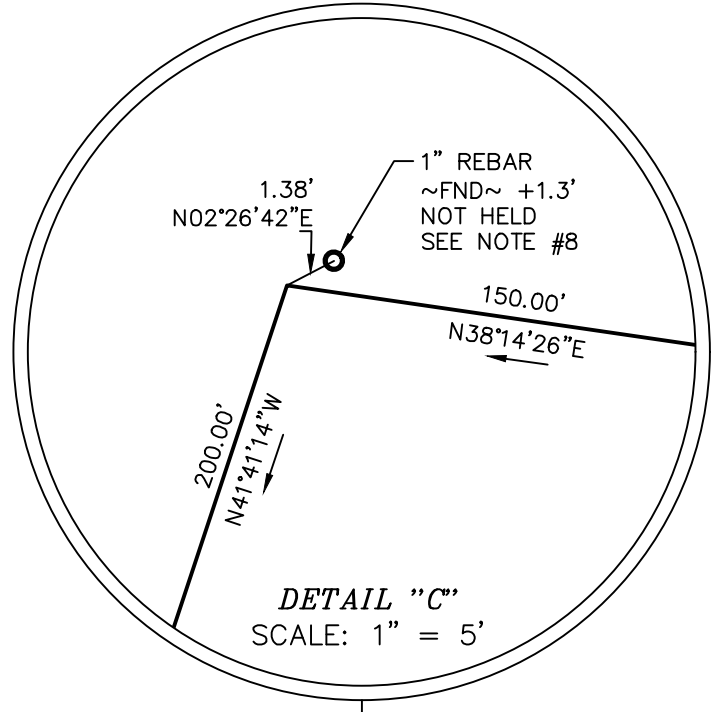
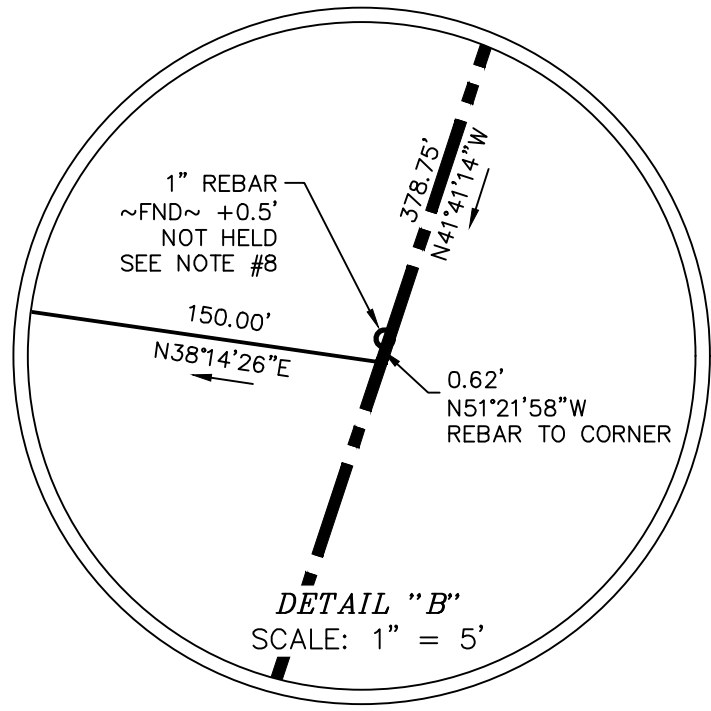
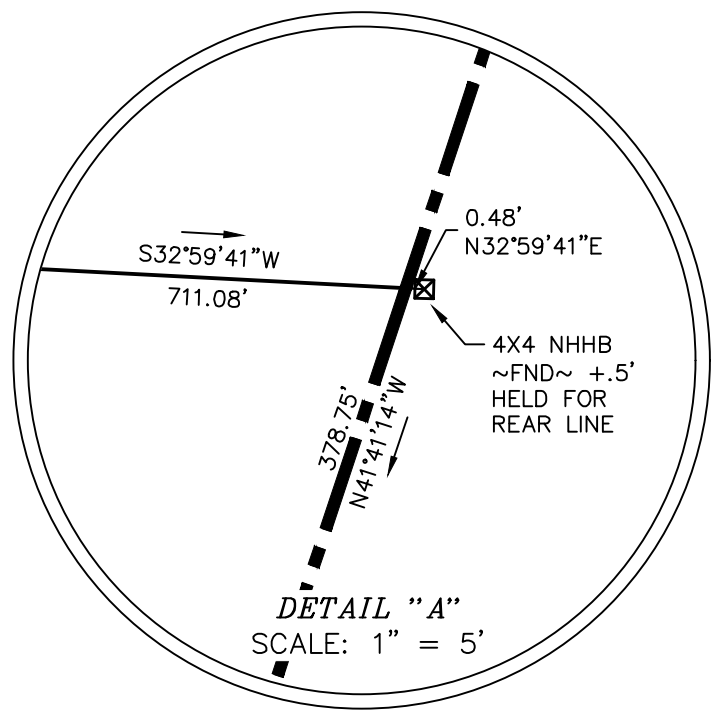
TEST HOLE #101
0-5' 10YR 3/2 FINE SANDY LOAM, FRIABLE, GRANULAR
6-5.5' 10YR 5/8 MIXED VERY FINE SAND, LOOSE, SINGLE GRAIN
5.5'-8.0' 5YR 5/8 COURSE SAND, LOOSE, SINGLE GRAIN
DEPLECTIONS 10% 2.5Y 7/2
GROUND WATER @ 8'
E.S.H.W.T. 5.5'
NO LEDGE FOUND
NO ROOTS FOUND
P = 2 MIN/IN
TEST HOLE #102
0-0.4' 10YR 3/2 FINE SANDY LOAM, FRIABLE, GRANULAR
0.4'-4.5' 10YR 7/2 FINE SAND, LOOSE, SINGLE GRAIN
4.5'-9' 5YR 6/8 COURSE SAND, LOOSE, SINGLE GRAIN
NO GROUND WATER FOUND
NO E.S.H.W.T. FOUND
NO LEDGE FOUND
NO ROOTS FOUND
P = 2 MIN/IN
TEST HOLE #103
0-5' 10YR 3/2 FINE SANDY LOAM, FRIABLE, GRANULAR
6-5.5' 10YR 5/8 MIXED VERY FINE SAND, LOOSE, SINGLE GRAIN
5.5'-8.0' 5YR 5/8 COURSE SAND, LOOSE, SINGLE GRAIN
DEPLECTIONS 10% 2.5Y 7/2
GROUND WATER @ 8'
E.S.H.W.T. 5.5'
NO LEDGE FOUND
NO ROOTS FOUND
P = 2 MIN/IN

REVISION	DATE	DESCRIPTION

NEIGHBORHOOD PLAN
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

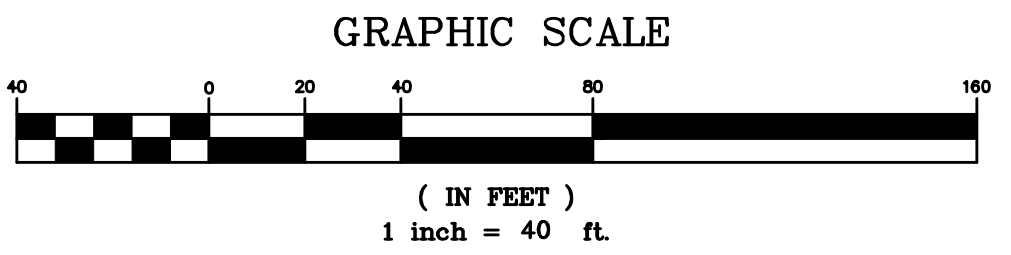
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : AS SHOWN
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

KENNETH A. BERRY
No. 1243
LICENSED PROFESSIONAL ENGINEER



- NOTES:**
- 1.) OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
 - 2.) TAX MAP G, LOT 35-E
 - 3.) LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
 - 4.) S.C.R.D. BOOK 936, PAGE 331
 - 5.) THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES OF TAX MAP G, LOTS 35-E IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT AND ORIGINAL LEGAL DESCRIPTIONS, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.
 - 6.) NH STANDARD PROPERTY SURVEY WITH A CLOSURE BETTER THAN 1:10,000.
 - 7.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.
 - 8.) PAROL EVIDENCE BY LAND OWNER STATING HE SET THE 1" REBAR IN PLACE OF THE PIPES ON EXISTING PLANS. THIS LED TO THE DECISION TO NOT HOLD THESE REBARS. ALL UNMONUMENTED LOT CORNERS WILL BE SET WITH 3/4" REBAR W/ ID CAPS.
 - 9.) SEE S.C.R.D. BOOK 924, PAGE 402 FOR MENTION OF RIGHT OF WAY. ALSO SEE S.C.R.D. PLAN #107-24 AND S.C.R.D. BOOK 4212, PAGE 380 FOR DISCONTINUANCE.
 - 10.) THIS PLAN TO BE RECORDED SIMULTANEOUSLY WITH PROPOSED TRANSFER OF DEVELOPMENT RIGHTS SUBDIVISION.

- PLAN REFERENCES:**
- 1.) "KELLY BROOK MEADOWS SUBDIVISION OVERALL SUBDIVISION PLAN PREPARED FOR TUCK REALTY CORP. TAX MAP G, LOT NO. 36, 4 OLD STAGE ROAD, CITY OF DOVER, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE" DATED: DECEMBER 3, 2013 BY: MCNEANEY SURVEY ASSOCIATES, INC. S.C.R.D. PLAN #107-24
 - 2.) "KELLY BROOK MEADOWS SUBDIVISION DETAIL SUBDIVISION PLAN PREPARED FOR TUCK REALTY CORP. TAX MAP G, LOT NO. 36, 4 OLD STAGE ROAD, CITY OF DOVER, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE" DATED: DECEMBER 3, 2013 BY: MCNEANEY SURVEY ASSOCIATES, INC. S.C.R.D. PLAN #107-25
 - 3.) "PLAN OF LAND FOR RAYMOND AND CLAIRE HOWE. TAX MAP G, LOT 35E, 14 1/2 OLD STAGE ROAD, DOVER, STRAFFORD COUNTY, NEW HAMPSHIRE" DATED: OCTOBER 2007 BY: K E M LAND SURVEY, INC. S.C.R.D. PLAN #92-12



REVISION	DATE	DESCRIPTION
BOUNDARY SURVEY LAND OF RAYMOND & CLAIRE HOWE 32 OLD STAGE ROAD DOVER, N.H. TAX MAP G, LOTS 35-E		
BERRY SURVEYING & ENGINEERING 335 SECOND CROWN POINT RD. BARRINGTON, N.H. (603)332-2863		
SCALE : 1 IN. EQUALS 40 FT.		
DATE : FEBRUARY 20, 2019		
FILE NO. : DB 2018-174		

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

KENNETH A. BERRY L.L.S. 805 DATE



WETLAND NOTES:

WETLANDS WERE DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. IN FEBRUARY 2019 UTILIZING THE FOLLOWING STANDARDS:

1. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.
2. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, VERSION 8.0. UNITED STATES DEPARTMENT OF AGRICULTURE (2016).
3. NATIONAL WETLAND PLANT LIST (CURRENT VERSION).

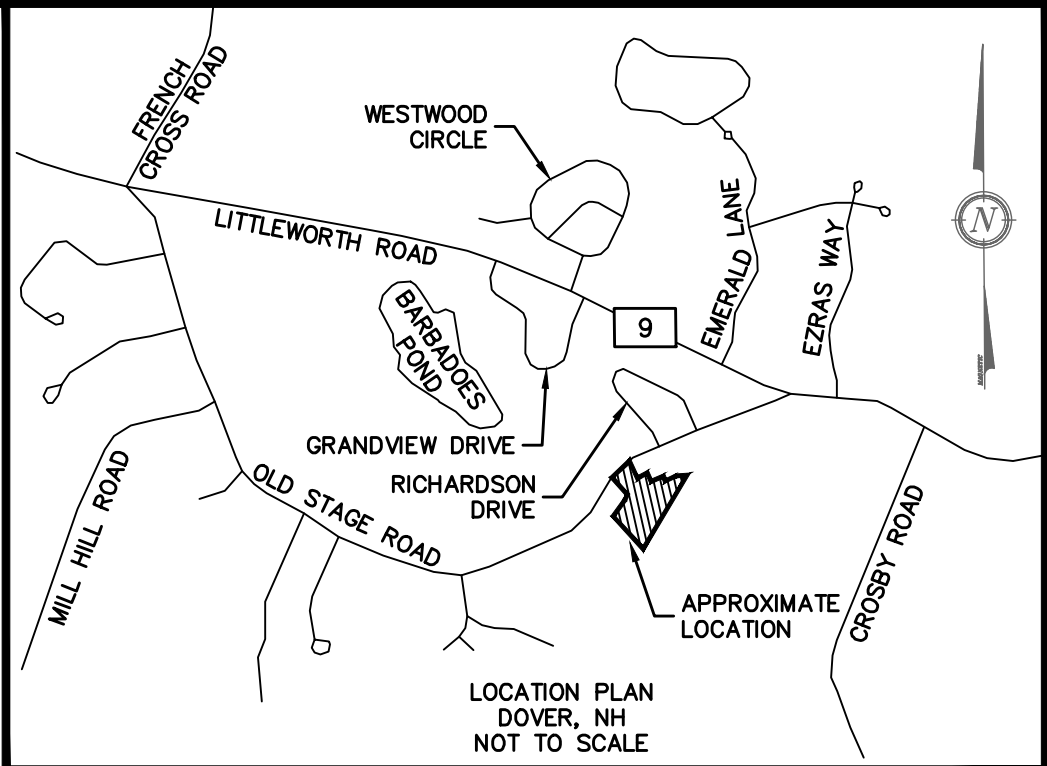
GOVE ENV. SERVICES, INC.
LUKE D. HURLEY, CWS

N/F ROULLARD PAUL J. & MARIA REVOCABLE LIVING TRUST
ROULLARD, PAUL J. & MARIA D. TRUSTEES
4 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 2505, PAGE 373
TAX MAP G, LOT 36

SOILS:

EAB - ELMWOOD FINE SANDY LOAM, 3-8% SLOPES
HaC - HINKLEY LOAMY SAND, 8-15% SLOPES
SEE WEBSOIL USDA-NRCS

N/F ROULLARD PAUL J. & MARIA
REVOCABLE LIVING TRUST
ROULLARD, PAUL J. & MARIA D. TRUSTEES
4 OLD STAGE ROAD
DOVER, NH 03820
TAX MAP 3, LOT 46-1



NOTES:

- 1.) OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
APPLICANT: GRAYSTONE BUILDERS, INC.
38 BEECHWOOD DRIVE
STRAFFORD, NH 03884
- 2.) TAX MAP G, LOT 35-E
- 3.) LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
- 4.) S.C.R.D. BOOK 936, PAGE 331
- 5.) ZONING: R-40 / RURAL RESIDENTIAL DISTRICT
FRONTAGE ~ 150.0'
MINIMUM LOT SIZE ~ 40,000 SQUARE FEET
FRONT SETBACK ~ 40.0'
ABUT A STREET SET BACK: ~ 40'
SIDE SETBACK ~ 25.0'
REAR SETBACK ~ 30.0'
WETLANDS/WATER BODY SETBACK ~ 50.0'
MAX. STRUCTURE HEIGHT: 35.0'
MAX. LOT COVERAGE: 10%

6.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE & BELIEF, PART OF THIS PARCEL DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF.: FEMA COMMUNITY# -330145, MAP# -3301700310E, DATED: SEPTEMBER 30, 2015.

7.) VERTICAL DATUM BASED ON USGS NAVD88 ELEVATIONS. HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.

8.) THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING CONDITIONS OF TAX MAP G LOT 35-E AS OF THE DATE OF FIELD SURVEY CONDUCTED IN THE FALL & WINTER OF 2018 / 2019

- PLAN REFERENCES:**
- 1.) "KELLY BROOK MEADOWS SUBDIVISION OVERALL SUBDIVISION PLAN PREPARED FOR TUCK REALTY CORP. TAX MAP G, LOT NO. 36, 4 OLD STAGE ROAD, CITY OF DOVER, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE" DATED: DECEMBER 3, 2013 BY: MCNEANEY SURVEY ASSOCIATES, INC. S.C.R.D. PLAN #107-24
 - 2.) "KELLY BROOK MEADOWS SUBDIVISION DETAIL SUBDIVISION PLAN PREPARED FOR TUCK REALTY CORP. TAX MAP G, LOT NO. 36, 4 OLD STAGE ROAD, CITY OF DOVER, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE" DATED: DECEMBER 3, 2013 BY: MCNEANEY SURVEY ASSOCIATES, INC. S.C.R.D. PLAN #107-25
 - 3.) "PLAN OF LAND FOR RAYMOND AND CLAIRE HOWE, TAX MAP G, LOT 35E, 14 1/2 OLD STAGE ROAD, DOVER, STRAFFORD COUNTY, NEW HAMPSHIRE" DATED: OCTOBER 2007 BY: K E M LAND SURVEY, INC. S.C.R.D. PLAN #92-12

- 4.) "BOUNDARY PLAN FOR PETER THEODORE IN DOVER, N.H." SHEET 1 OF 2 DATED: NOVEMBER 16, 1987 BY: SEACOAST ENGINEERING ASSOCIATES, INC. S.C.R.D. PLAN #33-69
- 5.) "BOUNDARY PLAN FOR PETER THEODORE IN DOVER, N.H." SHEET 2 OF 2 DATED: NOVEMBER 16, 1987 BY: SEACOAST ENGINEERING ASSOCIATES, INC. S.C.R.D. PLAN #33-68
- 6.) "BOUNDARY LINE ADJUSTMENT FOR PETER THEODORE IN DOVER, N.H." DATED: OCTOBER 9, 1987 BY: SEACOAST ENGINEERING ASSOCIATES, INC. S.C.R.D. PLAN #33-41
- 7.) "PLAN OF LAND, RAYMOND E. HOWE, DOVER, NEW HAMPSHIRE" DATED: MAY, 1973 BY: K.E. MOORE & B.G. STAPLES S.C.R.D. PLAN #41, POCKET #7, FOLDER #1
- 8.) "PLAN OF SUBDIVISION, RAYMOND E. HOWE, DOVER, NEW HAMPSHIRE" DATED: JUNE, 1972 BY: K.E. MOORE & B.G. STAPLES S.C.R.D. PLAN #65, POCKET #2, FOLDER #20
- 9.) UNTITLED PLAN SHOWING PARCEL TO BE CONVEYED TO PETER & OLGA THEODORE, PORTION OF LOT 36. APPROVED BY CITY OF DOVER PLANNING BOARD OCTOBER 27, 1970 S.C.R.D. PLAN #48, POCKET #2, FOLDER #18

I CERTIFY THAT THIS PLAT EXCEEDS THE MINIMUM REQUIREMENT FOR ACCURACY AND COMPLETENESS OF THE STATE OF N.H. AND OF THE CITY OF DOVER, N.H.- 1:10,000 -

KENNETH A. BERRY LLS 805 DATE

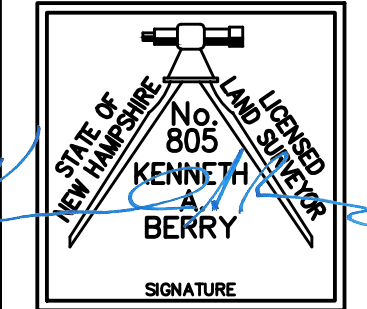
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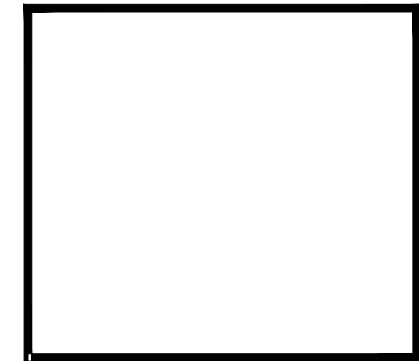
REVISION

DATE

EXISTING CONDITIONS PLAN FOR GRAYSTONE BUILDERS, INC. LAND OF RAYMOND & CLAIRE HOWE 32 OLD STAGE ROAD DOVER, NH TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 40 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174



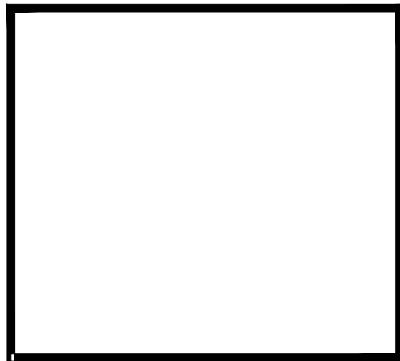


GOVE ENV. SERVICES, INC.
LUKE D. HURLEY, CWS #232

WETLAND NOTES:

WETLANDS WERE DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. IN FEBRUARY 2019 UTILIZING THE FOLLOWING STANDARDS:

1. REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, (VERSION 2.0) JANUARY 2012, U.S. ARMY CORPS OF ENGINEERS.
2. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, VERSION 8.0. UNITED STATES DEPARTMENT OF AGRICULTURE (2016).
3. NATIONAL WETLAND PLANT LIST (CURRENT VERSION).



GOVE ENVIRONMENTAL SERVICES, INC.
LUKE D. HURLEY, CSS #95

SOIL NOTE:

SOILS WERE DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. IN JANUARY 2019 UTILIZING THE FOLLOWING 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 NH DES ALTERATION OF TERRAIN. IT WAS PRODUCED BY A PROFESSIONAL SOIL SCIENTIST AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE.

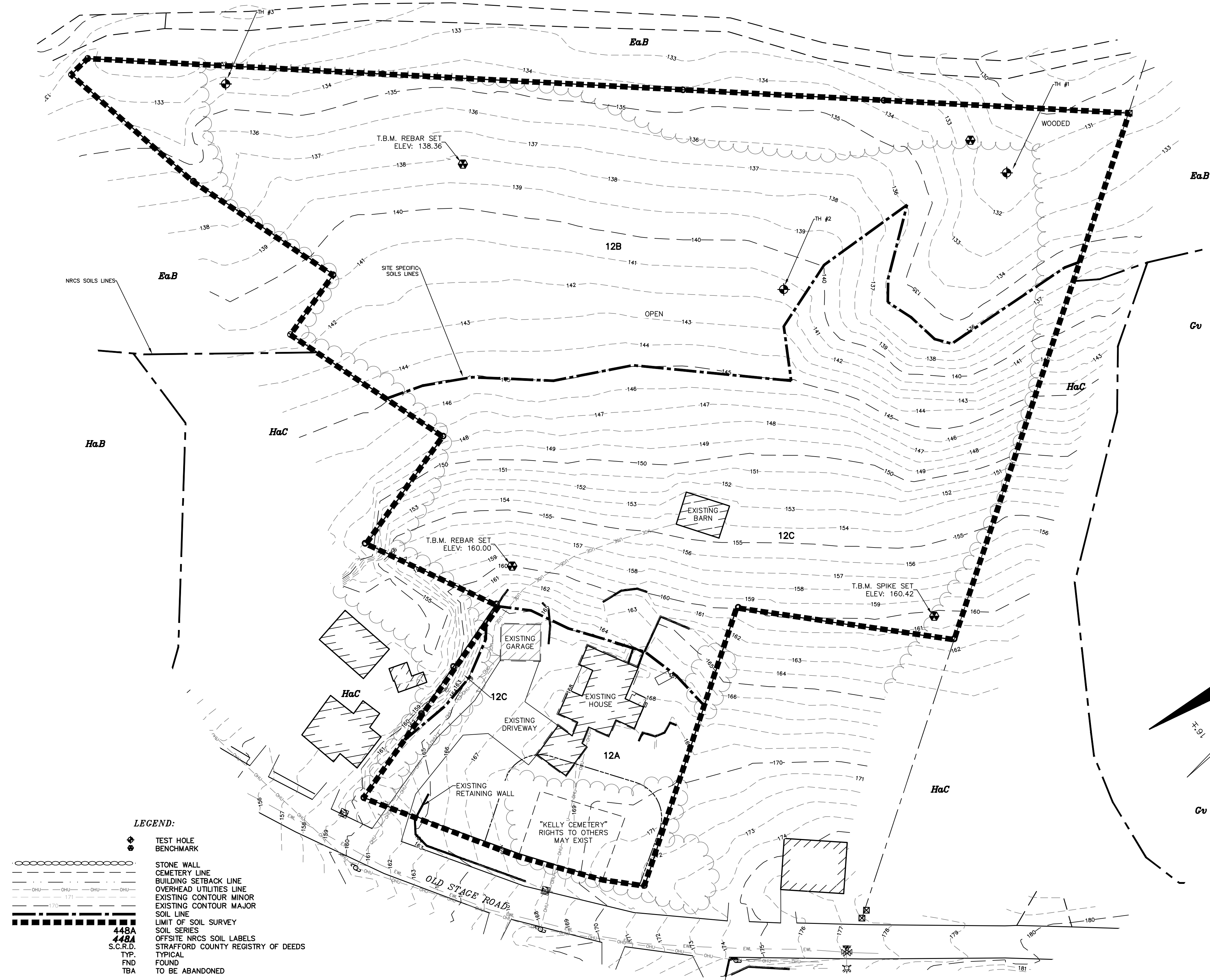
OFF SITE NRCS SOILS:

HaB - HINKLEY LOAMY SAND, 3-8% SLOPES
HaC - HINKLEY LOAMY SAND, 8-15% SLOPES
Cu - GRAVEL AND BARROW PITS
SEE WEBSOIL USDA-NRCS

NOTES:

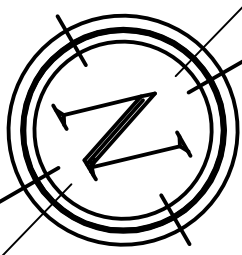
- 1.) OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
- APPLICANT: GRAYSTONE BUILDERS, INC.
38 BEECHWOOD DRIVE
STRAFFORD, NH 03884
- 2.) TAX MAP G, LOT 35-E
- 3.) LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
- 4.) S.C.R.D. BOOK 936, PAGE 331
- 5.) THE INTENT OF THIS PLAN IS TO SHOW THE ON SITE, SITE SPECIFIC SOILS CONDITIONS OF TAX MAP G LOT 35-E.

SOILS LEGEND				
SYMBOL	SOIL TAXONOMIC NAME	HYDROLOGIC SOIL GROUP		
12A	HINKLEY, SANDY-SKELETAL	A		
12B	HINKLEY, SANDY-SKELETAL	A		
12C	HINKLEY, SANDY-SKELETAL	A		
SLOPES:	0-3% A	3-8% B	8-15% C	15-25% D
				25%-50% E
DENOMINATOR: /PD = POORLY DRAINED				
/VP = VERY POORLY				



LEGEND:

- TEST HOLE
- BENCHMARK
- STONE WALL
- CEMETERY LINE
- BUILDING SETBACK LINE
- OVERHEAD UTILITIES LINE
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- SOIL LINE
- LIMIT OF SOIL SURVEY
- SOIL SERIES
- OFFSITE NRCS SOIL LABELS
- STRAFFORD COUNTY REGISTRY OF DEEDS
- TYP. TYPICAL
- FND FOUND
- TBA TO BE ABANDONED



TEST HOLE DATA:

TEST HOLES PERFORMED BY CHRISTOPHER R. BERRY OF BERRY SURVEYING & ENGINEERING, DESIGNER #1886, FEBRUARY 20, 2019

TEST HOLE #101
0-5' 10YR 3/2 FINE SANDY LOAM, FRIABLE, GRANULAR
6-5.5' 10YR 5/8 MIXED VERY FINE SAND, LOOSE, SINGLE GRAIN
5.5'-8.0' 5YR 5/8 COURSE SAND, LOOSE, SINGLE GRAIN
DEPLETIONS 10% 2.5Y 7/2

GROUND WATER @ 8'
E.S.H.W.T. 5.5'
NO LEDGE FOUND
NO ROOTS FOUND
P = 2 MIN/IN

TEST HOLE #102
0-0.4' 10YR 3/2 FINE SANDY LOAM, FRIABLE, GRANULAR
0.4'-4.5' 10YR 7/2 FINE SAND, LOOSE, SINGLE GRAIN
4.5'-9' 5YR 6/8 COURSE SAND, LOOSE, SINGLE GRAIN

NO GROUND WATER FOUND
NO E.S.H.W.T. FOUND
NO LEDGE FOUND
NO ROOTS FOUND
P = 2 MIN/IN

TEST HOLE #103
0-5' 10YR 3/2 FINE SANDY LOAM, FRIABLE, GRANULAR
6-5.5' 10YR 5/8 MIXED VERY FINE SAND, LOOSE, SINGLE GRAIN
5.5'-8.0' 5YR 5/8 COURSE SAND, LOOSE, SINGLE GRAIN
DEPLETIONS 10% 2.5Y 7/2

GROUND WATER @ 8'
E.S.H.W.T. 5.5'
NO LEDGE FOUND
NO ROOTS FOUND
P = 2 MIN/IN

GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft.

REVISION		DATE	DESCRIPTION

SITE SPECIFIC SOILS MAP
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 40 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

THIS RESIDENTIAL SUBDIVISION
USES TRANSFER OF DEVELOPMENT
(TDR) CHAPTER 170:27.2. UNITS 2, 3,
4, 5, 6, & 10 ARE TO REMAIN TO
REMAIN 1,400 SF OR LESS IN LIVING
SPACE SEE CHAPTER 170:27.2 FOR
OTHER USES AND RESTRICTIONS.

TDR UNIT CALCULATIONS

- 1.) 211,881 SF. - CONSERVATION = 211,881
- 2.) 211,881 * .85 = 180,098.85
- 3.) 180,098.85 * .85 = 153,084.02
- 4.) 153,084.02 SF./40,000 SF. = 3.83 UNITS,
RESULTING IN 4 UNITS.
- 5.) REMAINING 6 UNITS TO BE PURCHASED,
THUS ALLOWING FOR 10 UNITS

NOTES CONTINUED:

- 18.) CONSTRUCTION HOURS SHALL BE LIMITED TO MONDAY-FRIDAY 7AM-6PM, NO SATURDAY OR SUNDAY HOURS. HOURS OF CONSTRUCTION SHALL BE DOCUMENTED ON A SITE CONSTRUCTION SIGN ALONG WITH THE CONTACT INFORMATION FOR THE GENERAL CONTRACTOR. SAID SIGNAGE SHALL BE LOCATED AND APPROVED BY THE CITY ENGINEER OR DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT.
- 19.) ALL CONSTRUCTION SHALL CONFORM WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", HEREINAFTER REFERRED TO AS THE "CITY OF DOVER STANDARD SPECIFICATIONS"
- 20.) SUBJECT PARCEL IS NOT IN CURRENT USE.
- 21.) THERE IS CEMETERY ALONG THE FRONTAGE OF THIS PARCEL.
- 22.) LUNDY PONY DRIVE IS A PRIVATE ROAD WHICH CAN NEVER BE ACCEPTED BY THE CITY OF DOVER AS A MUNICIPAL STREET.

PLAN REFERENCES:

- 1.) "KELLY BROOK MEADOWS SUBDIVISION OVERALL SUBDIVISION PLAN PREPARED FOR TUCK REALTY CORP. TAX MAP G, LOT NO. 36, 4 OLD STAGE ROAD, CITY OF DOVER, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE"
DATED: DECEMBER 3, 2013
BY: MCNEANEY SURVEY ASSOCIATES, INC.
S.C.R.D. PLAN #107-24
- 2.) "KELLY BROOK MEADOWS SUBDIVISION DETAIL SUBDIVISION PLAN PREPARED FOR TUCK REALTY CORP. TAX MAP G, LOT NO. 36, 4 OLD STAGE ROAD, CITY OF DOVER, COUNTY OF STRAFFORD, STATE OF NEW HAMPSHIRE"
DATED: DECEMBER 3, 2013
BY: MCNEANEY SURVEY ASSOCIATES, INC.
S.C.R.D. PLAN #107-25
- 3.) "PLAN OF LAND FOR RAYMOND AND CLAIRE HOWE. TAX MAP G, LOT 35E, 14 1/2 OLD STAGE ROAD, DOVER, STRAFFORD COUNTY, NEW HAMPSHIRE"
DATED: OCTOBER 2007
BY: K.E.M. LAND SURVEY, INC.
S.C.R.D. PLAN #92-12
- 4.) "BOUNDARY PLAN FOR PETER THEODORE IN DOVER, N.H."
SHEET 1 OF 2
DATED: NOVEMBER 16, 1987
BY: SEACOAST ENGINEERING ASSOCIATES, INC.
S.C.R.D. PLAN #33-69
- 5.) "BOUNDARY PLAN FOR PETER THEODORE IN DOVER, N.H."
SHEET 2 OF 2
DATED: NOVEMBER 16, 1987
BY: SEACOAST ENGINEERING ASSOCIATES, INC.
S.C.R.D. PLAN #33-68
- 6.) "BOUNDARY LINE ADJUSTMENT FOR PETER THEODORE IN DOVER, N.H."
DATED: OCTOBER 9, 1987
BY: SEACOAST ENGINEERING ASSOCIATES, INC.
S.C.R.D. PLAN #33-41
- 7.) "PLAN OF LAND, RAYMOND E. HOWE, DOVER, NEW HAMPSHIRE"
DATED: MAY, 1973
BY: K.E. MOORE & B.G. STAPLES
S.C.R.D. PLAN #41, POKET #7, FOLDER #1
- 8.) "PLAN OF SUBDIVISION, RAYMOND E. HOWE, DOVER, NEW HAMPSHIRE"
DATED: JUNE, 1972
BY: K.E. MOORE & B.G. STAPLES
S.C.R.D. PLAN #55, POKET #2, FOLDER #20
- 9.) UNTITLED PLAN SHOWING PARCEL TO BE CONVEYED TO PETER & OLGA THEODORE, PORTION OF LOT 36. APPROVED BY CITY OF DOVER PLANNING BOARD OCTOBER 27, 1970
S.C.R.D. PLAN #48, POKET #2, FOLDER #18
- 10.) "BOUNDARY SURVEY FOR GRAYSTONE BUILDERS, INC. LAND OF RAYMOND & CLAIRE HOWE, 32 OLD STAGE ROAD, DOVER, NH, TAX MAP G, LOT 35-E
DATED: FEBRUARY 20, 2019
BY: BERRY SURVEYING & ENGINEERING
FILE NO.: DB 2018-174 (TO BE RECORDED)

LEGEND:

- 3/4" REBAR W/ ID CAP ~TBS~
- GRANITE BOUND ~TBS~
- IRON BOUND/REBAR ~FND~
- IRON PIPE ~FND~
- STONE BOUND/NHHB ~FND~
- UTILITY POLE
- PROPOSED BOUNDARY LINE
- BUILDING SETBACK LINE
- TOWN LINE
- 25' CEMETERY SETBACK
- FOUND
- TO BE SET
- TYPICAL
- S.C.R.D.

STRAFFORD COUNTY REGISTRY OF DEEDS

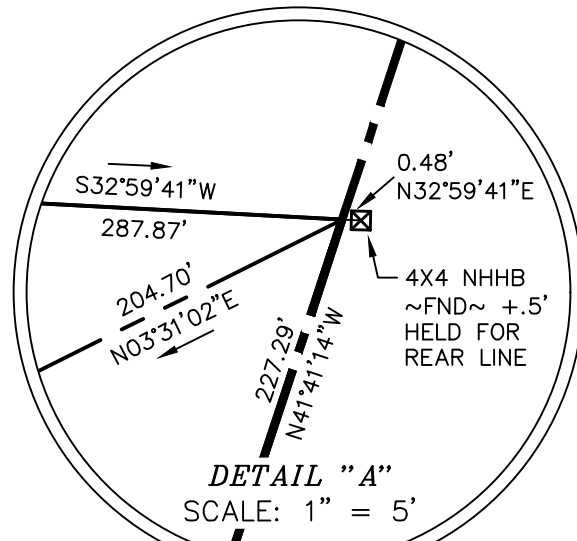
N/F GERALD F. RILEY AND INA JOYCE
RILEY REVOCABLE LIVING TRUST
RILEY, GERALD F. & INA JOYCE AND
TIRRELL, BRENDA R. TRUSTEES
24 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 4215, PAGE 894
TAX MAP G, LOT 35C

N/F BUTLAND, MICHAEL W. &
KAUFMAN, DANIELLE
26 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 3349, PAGE 251
TAX MAP G, LOT 37

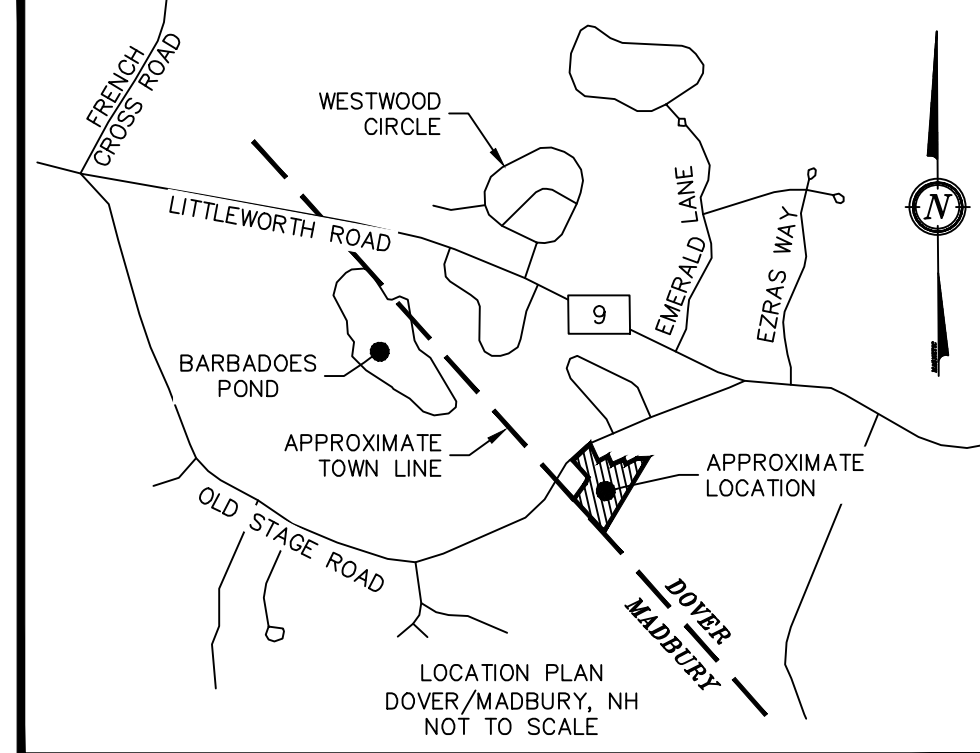
N/F CORCORAN, JEFFREY R.
28 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 1899, PAGE 125
TAX MAP G, LOT 42

N/F LOUISE VARNEY
REVOCABLE LIVING TRUST
VARNEY, LOUISE TRUSTEE
30 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 4607, PAGE 73
TAX MAP G, LOT 43

N/F ROULLARD PAUL J. & MARIA REVOCABLE LIVING TRUST
ROULLARD, PAUL J. & MARIA D. TRUSTEES
4 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 2505, PAGE 373
TAX MAP G, LOT 36



N/F ROULLARD PAUL J. &
MARIA REVOCABLE LIVING TRUST
ROULLARD, PAUL J. &
MARIA D. TRUSTEES
4 OLD STAGE ROAD
MADBURY, NH 03823
TAX MAP G, LOT 46-1



NOTES:

- 1.) OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
- 1A.) APPLICANT: GRAYSTONE BUILDERS, INC.
38 BEECHWOOD DRIVE
STRAFFORD, NH 03864
- 2.) TAX MAP G, LOT 35-E
- 3.) LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
- 4.) S.C.R.D. BOOK 936, PAGE 331
- 5.) ZONING: RURAL RESIDENTIAL (R-40) DISTRICT:
FRONTAGE ~ 150.0 FT.
MINIMUM LOT SIZE ~ 40,000 Sq. Ft.
FRONT SETBACK ~ 40 FT.
ABUT A STREET SETBACK ~ 40 FT.
REAR SETBACK ~ 30 FT.
SIDE SETBACK ~ 25 FT.
WETLAND BUFFER ~ 50 FT.
MAX. BUILDING HEIGHT: 35 FT.
MAX. LOT COVERAGE: 10%
- 6.) TRANSFER OF DEVELOPMENT RIGHTS REGULATIONS
ABUTTING A ROAD SETBACK ~ 20'
ABUTTING A LOT LINE SETBACK ~ 10'
STREET SIDES OF UNITS ~ 20.0'
ABUTTING STRUCTURES ~ 20.0'
NO CUT BUFFER FROM EXTERIOR PROPERTY LINE ~ 10.0'
- 7.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE & BELIEF, THIS PARCEL DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF.: FEMA COMMUNITY #330145, MAP #33017C0310E, DATED: SEPTEMBER 30, 2015.
- 8.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.
- 9.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN FEBRUARY OF 2019, WITH AN ERROR OF CLOSURE OF 1 PART IN 19,664.
- 10.) THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED 10 LOT TRANSFER OF DEVELOPMENT RIGHTS SUBDIVISION ON TAX MAP G, LOT 35-E.
- 11.) IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE CITY OF DOVER.
- 12.) AS-BUILT PLANS OF THE SUBDIVISION SHALL BE SUBMITTED ON PAPER AND IN DIGITAL FORMAT IN PDF AND AUTOCAD DWG, AUTOCAD DXF OR ERSI FORMAT TO THE CITY OF DOVER ENGINEERS OFFICE UPON COMPLETION OF PROJECT. AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E. DIGITAL FILE SHALL BE GEO-REFERENCED TO NEW HAMPSHIRE STATE PLANE COORDINATES NAD83 AND SHALL BE EXPRESSED IN FEET.
- 13.) THE CURRENT USE OF THE PROPERTY IS FOR RESIDENTIAL SINGLE FAMILY HOME. ALL PROPOSED LOTS WILL BE FOR RESIDENTIAL SINGLE FAMILY HOMES.
- 14.) ALL LOTS WILL BE SERVICED BY MUNICIPAL WATER AND SEWER.
- 15.) FINAL LOT NUMBERS SHALL BE ASSIGNED BY THE ASSESSING OFFICE. ADDRESSES TO BE ASSIGNED BY BUILDING OFFICIAL.
- 16.) THIS IS A MULTI PAGE PLAN SET WITH ADDITIONAL ENGINEERING INFORMATION PROVIDED AND ON FILE AT THE CITY OF DOVER PLANNING OFFICE.
- 17.) WRITTEN DIMENSIONS ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR.

GRAPHIC SCALE

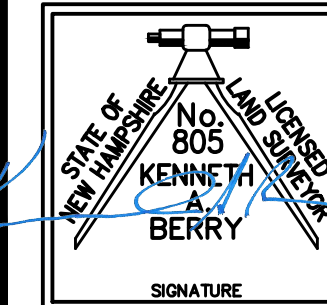


I CERTIFY THAT THIS PLAT EXCEEDS THE
MINIMUM REQUIREMENT FOR ACCURACY AND
COMPLETENESS OF THE STATE OF N.H. AND
OF THE CITY OF DOVER, N.H. - 1:10,000-

KENNETH A. BERRY L.L.S. 805 DATE

TRANSFER OF DEVELOPMENT RIGHTS SUBDIVISION PLAN
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 40 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174



N/F ROUILLARD PAUL J. & MARIA REVOCABLE LIVING TRUST
ROUILLARD, PAUL J. & MARIA D. TRUSTEES
4 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 2505, PAGE 373
TAX MAP G, LOT 36

N/F ROUILLARD PAUL J. & MARIA REVOCABLE LIVING TRUST
ROUILLARD, PAUL J. & MARIA D. TRUSTEES
4 OLD STAGE ROAD
MADBURY, NH 03823
TAX MAP 3, LOT 46-1

4X4 NHHB
~FND~ +.5'
NH GRID COORDINATES
N:250768.01
E:1182014.88
ELEV.:131.26

PROPOSED GRADING & DRAINAGE
EASEMENT #3
6,583 Sq. Ft.

PROPOSED GRADING & DRAINAGE
EASEMENT #4
7,808 Sq. Ft.

N/F STATE OF NEW HAMPSHIRE
DIVISION OF PUBLIC WORKS & HIGHWAYS
CONCORD ROAD
DURHAM, NH 03824
TAX MAP 3, LOT 53

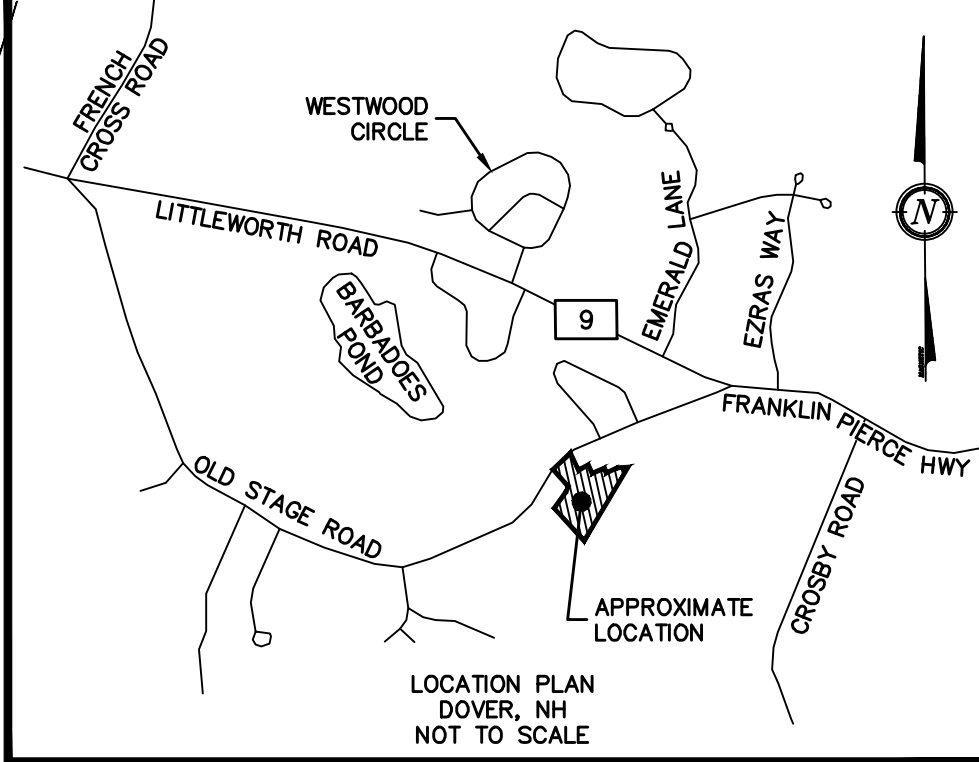
N/F ADAMS NICHOLAS & ADAMS-PUCHLOPEK, ALLI
34 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 4599, PAGE 283
TAX MAP G, LOT 38

N/F LOUISE VARNEY REVOCABLE LIVING TRUST
VARNEY, LOUISE TRUSTEE
30 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 4607, PAGE 73
TAX MAP G, LOT 43

N/F CORCORAN, JEFFREY R.
28 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 1899, PAGE 125
TAX MAP G, LOT 42

N/F BUTLAND, MICHAEL W. & KAUFMAN, DANIELLE
26 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 3349, PAGE 251
TAX MAP G, LOT 37

N/F GERALD F. RILEY AND INA JOYCE RILEY REVOCABLE LIVING TRUST
RILEY, GERALD F. & INA JOYCE AND TIRRELL, BRENDA R. TRUSTEES
24 OLD STAGE ROAD
DOVER, NH 03820
S.C.R.D. BOOK 4215, PAGE 894
TAX MAP G, LOT 35C



NOTES:

- 1.) OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
- 1A.) APPLICANT: GRAYSTONE BUILDERS, INC.
38 BEECHWOOD DRIVE
STRAFFORD, NH 03864
- 2.) TAX MAP G, LOT 35-E
- 3.) LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
- 4.) S.C.R.D. BOOK 936, PAGE 331
- 5.) ZONING: RURAL RESIDENTIAL (R-40) DISTRICT:
FRONTAGE ~ 150.0 Ft.
MINIMUM LOT SIZE ~ 40,000 Sq. Ft.
FRONT SETBACK ~ 40 Ft.
ABUT A STREET SETBACK ~ 40 Ft.
REAR SETBACK ~ 30 Ft.
SIDE SETBACK ~ 25 Ft.
WETLAND BUFFER ~ 50 Ft.
MAX. BUILDING HEIGHT: 35 Ft.
MAX. LOT COVERAGE: 10%
- 6.) TRANSFER OF DEVELOPMENT RIGHTS REGULATIONS
ABUTTING A ROAD SETBACK ~ 20'
ABUTTING A LOT LINE SETBACK ~ 10'
STREET SIDES OF UNITS ~ 20.0'
ABUTTING STRUCTURES ~ 20.0'
NO CUT BUFFER FROM EXTERIOR PROPERTY LINE ~ 10.0'
- 7.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE & BELIEF, THIS PARCEL DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF.: FEMA COMMUNITY #330145, MAP #33017C0310E, DATED: SEPTEMBER 30, 2015.
- 8.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.
- 9.) THE BOUNDARY LINES SHOWN ON THIS PLAN ARE THE RESULT OF A CLOSED TRAVERSE PERFORMED BY THIS OFFICE IN FEBRUARY OF 2019, WITH AN ERROR OF CLOSURE OF 1 PART IN 19,664.
- 10.) THE INTENT OF THIS PLAN IS TO SHOW THE PROPOSED EASEMENTS RELATING THE TRANSFER OF DEVELOPMENT RIGHTS SUBDIVISION. THIS PLAN IS TO BE RECORDED SIMULTANEOUSLY WITH THE BOUNDARY SURVEY (PLAN REFERENCE #10) AND THE PROPOSED SUBDIVISION (PLAN REFERENCE #11)
- 11.) THIS IS SHEET 6 IN A MULTI PAGE ENGINEERING PLAN SET.

LEGEND:

- 1/2" EASEMENT IRON BOUND W/ID CAP (TBS)
- GRANITE BOUND (TBS)
- DRILL HOLE (FND OR SET)
- IRON BOUND (FND)
- NH HIGHWAY BOUND (FND)
- PROPOSED BOUNDARY LINE
- PROPOSED EASEMENT LINE
- TBS TO BE SET
- FND FOUND
- TYP TYPICAL
- S.C.R.D. STRAFFORD COUNTY REGISTRY OF DEEDS

GRAPHIC SCALE



I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

KENNETH A. BERRY L.L.S. 805 DATE

DESCRIPTION

DATE

REVISION

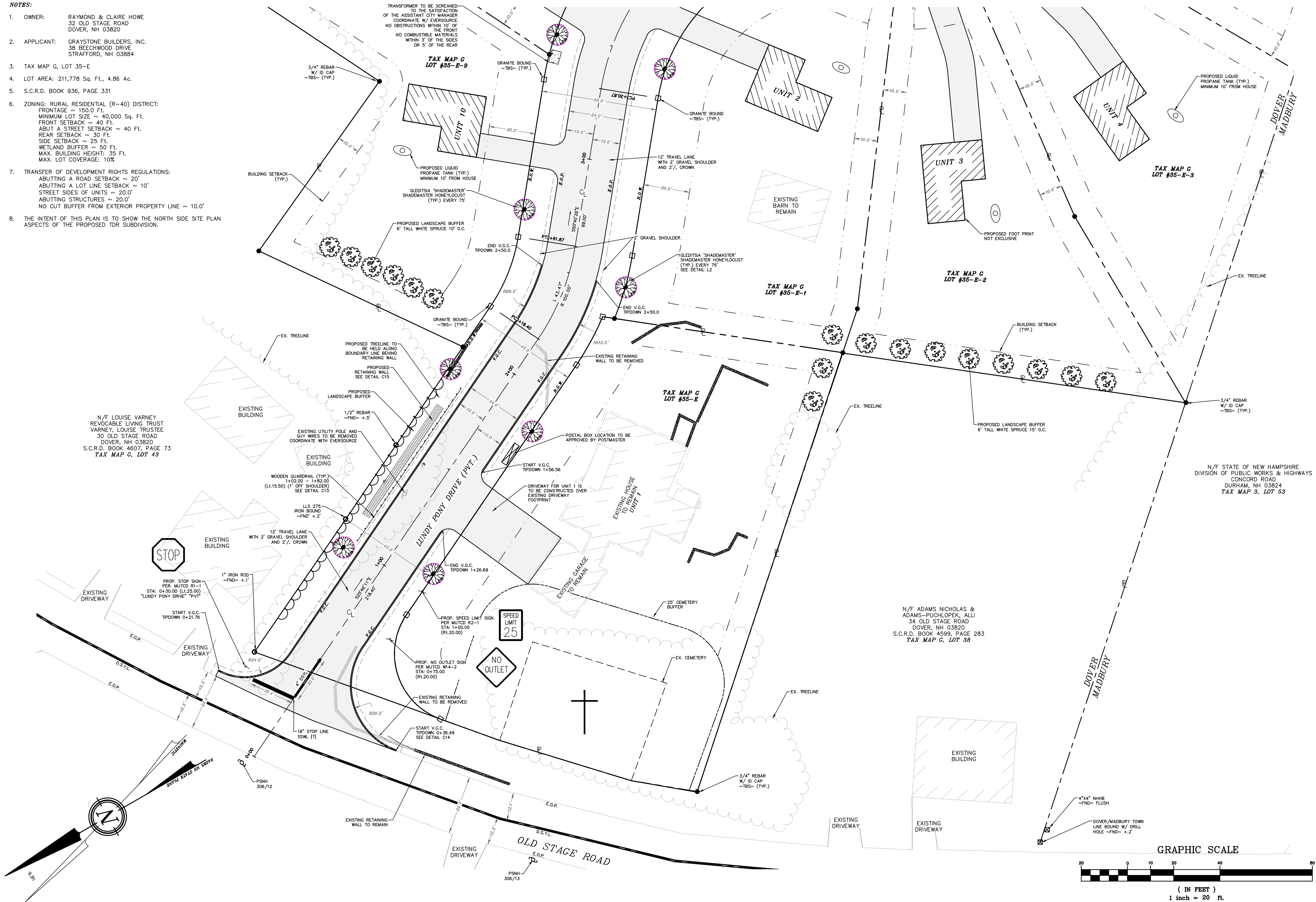
EASEMENT PLAN
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 40 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

STATE OF NEW HAMPSHIRE
No. 805
KENNETH A. BERRY
SIGNATURE

NOTES:

1. OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
2. APPLICANT: GRAYSTONE BUILDERS, INC.
38 BEECHWOOD DRIVE
STRAFFORD, NH 03884
3. TAX MAP G, LOT 35-E
4. LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
5. S.C.R.D. BOOK 936, PAGE 331
6. ZONING: RURAL RESIDENTIAL (R-40) DISTRICT:
FRONTAGE ~ 150.0 FT.
MINIMUM LOT SIZE ~ 40,000 Sq. Ft.
FRONT SETBACK ~ 40 FT.
ABUT A STREET SETBACK ~ 40 FT.
REAR SETBACK ~ 30 FT.
SIDE SETBACK ~ 25 FT.
WETLAND BUFFER ~ 50 FT.
MAX. BUILDING HEIGHT: 35 FT.
MAX. LOT COVERAGE: 10%
7. TRANSFER OF DEVELOPMENT RIGHTS REGULATIONS:
ABUTTING A ROAD SETBACK ~ 20'
ABUTTING A LOT LINE SETBACK ~ 10'
STREET SIDES OF UNITS ~ 20.0'
ABUTTING STRUCTURES ~ 20.0'
NO CUT BUFFER FROM EXTERIOR PROPERTY LINE ~ 10.0'
8. THE INTENT OF THIS PLAN IS TO SHOW THE NORTH SIDE SITE PLAN ASPECTS OF THE PROPOSED TDR SUBDIVISION.



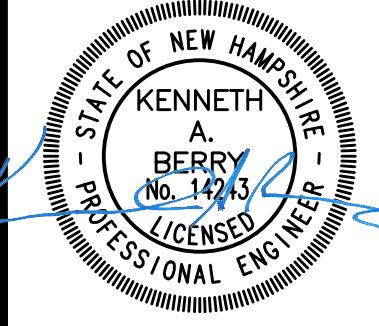
REVISION

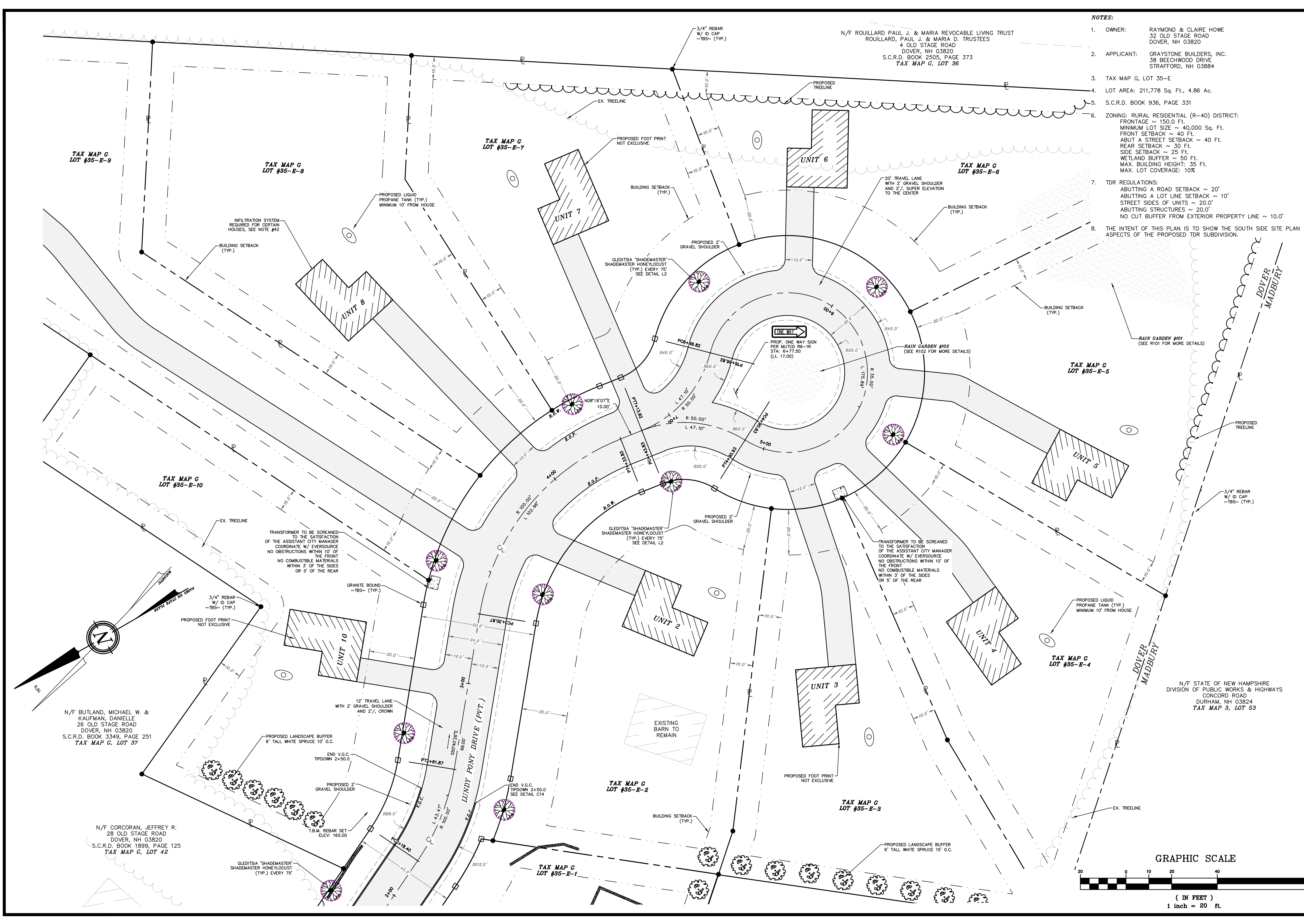
DATE

DESCRIPTION

SITE PLAN ENTRANCE
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 20 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174





- NOTES:**
1. OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
 2. APPLICANT: GRAYSTONE BUILDERS, INC.
38 BEECHWOOD DRIVE
STRAFFORD, NH 03884
 3. TAX MAP G, LOT 35-E
 4. LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
 5. S.C.R.D. BOOK 936, PAGE 331
 6. ZONING: RURAL RESIDENTIAL (R-40) DISTRICT:
FRONTAGE ~ 150.0 Ft.
MINIMUM LOT SIZE ~ 40,000 Sq. Ft.
FRONT SETBACK ~ 40 Ft.
ABUT A STREET SETBACK ~ 40 Ft.
REAR SETBACK ~ 30 Ft.
SIDE SETBACK ~ 25 Ft.
WETLAND BUFFER ~ 50 Ft.
MAX. BUILDING HEIGHT: 35 Ft.
MAX. LOT COVERAGE: 10%
 7. TDR REGULATIONS:
ABUTTING A ROAD SETBACK ~ 20'
ABUTTING A LOT LINE SETBACK ~ 10'
STREET SIDES OF UNITS ~ 20.0'
ABUTTING STRUCTURES ~ 20.0'
NO CUT BUFFER FROM EXTERIOR PROPERTY LINE ~ 10.0'
 8. THE INTENT OF THIS PLAN IS TO SHOW THE SOUTH SIDE SITE PLAN ASPECTS OF THE PROPOSED TDR SUBDIVISION.

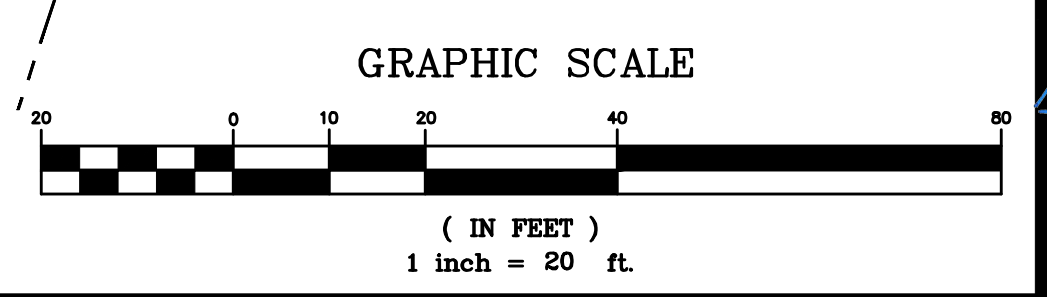
REVISION	DATE	DESCRIPTION

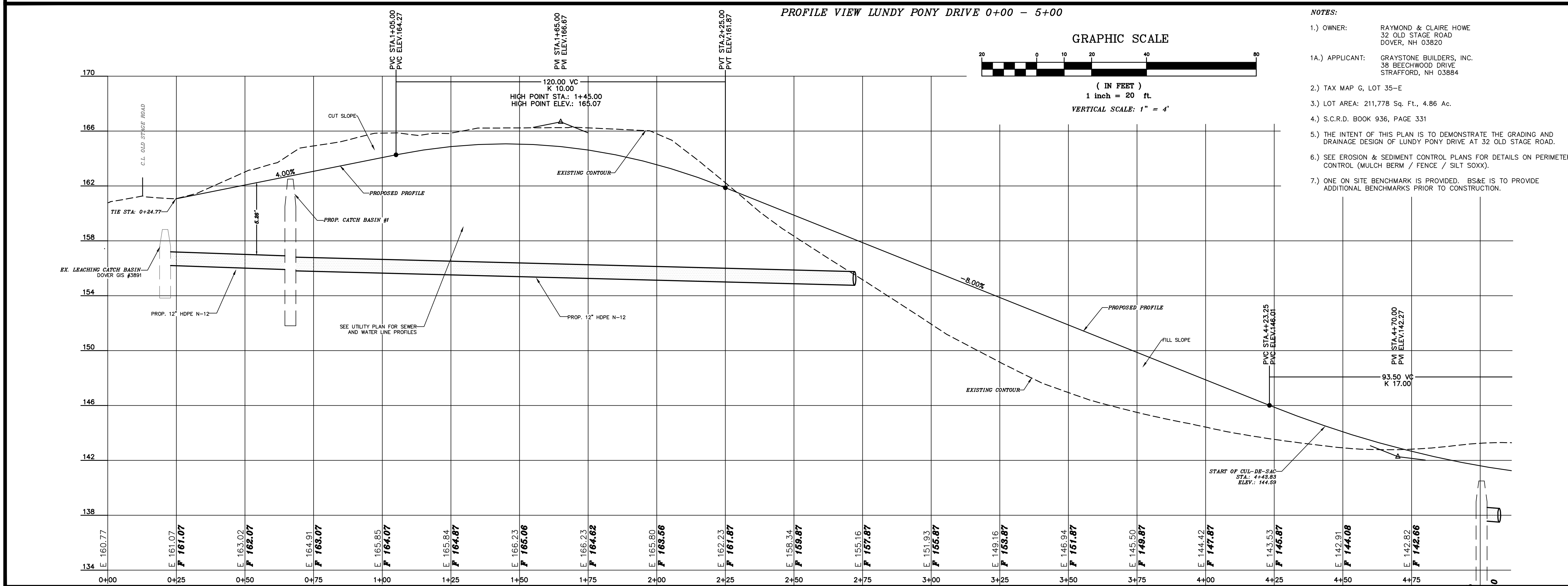
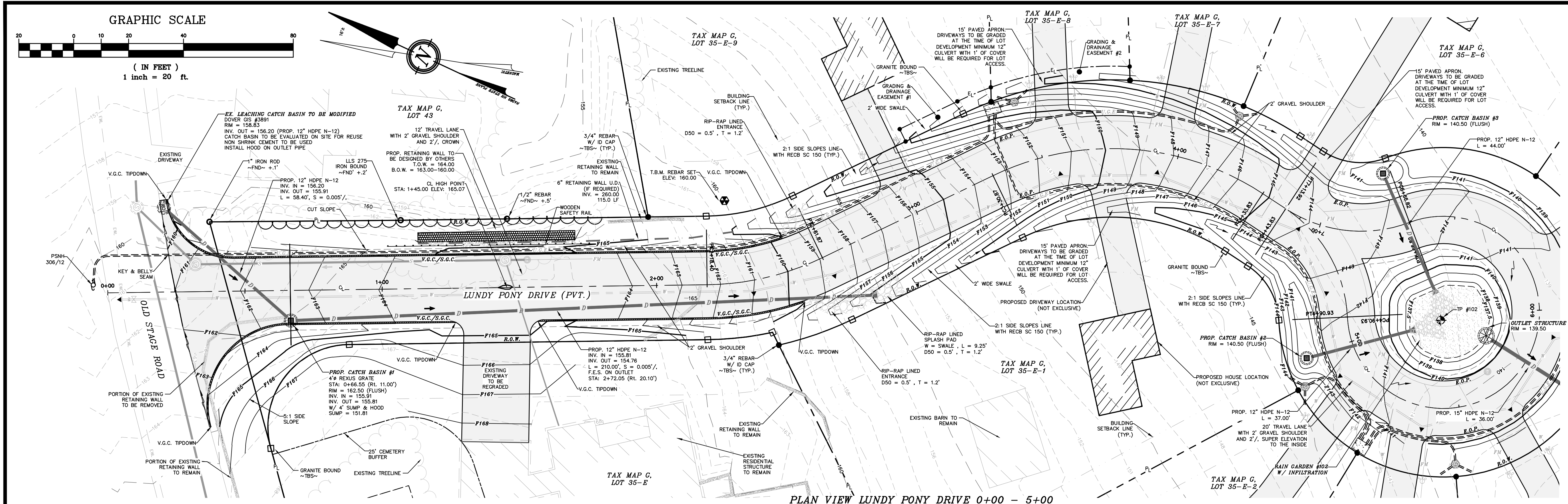
SITE PLAN END
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

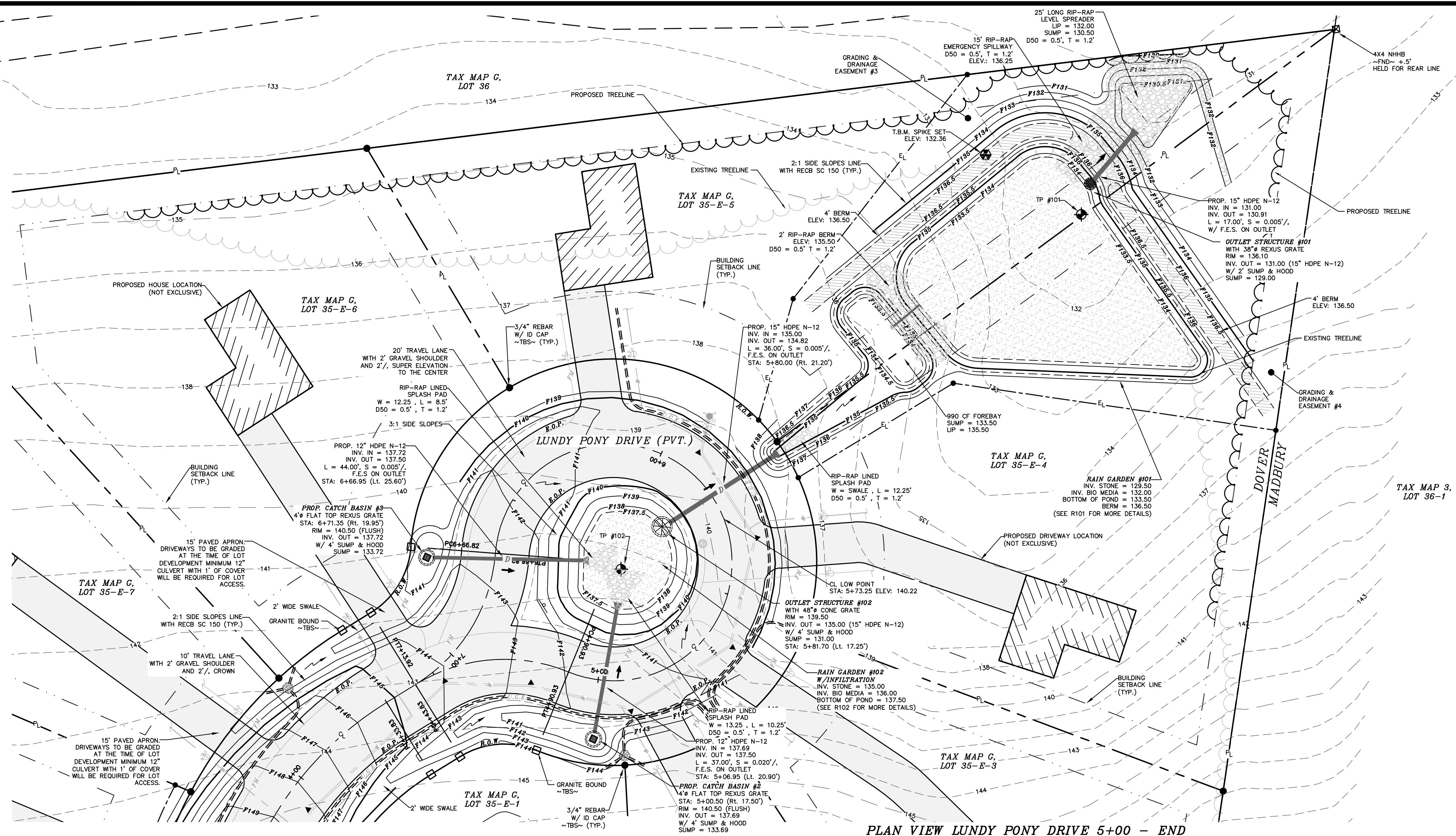
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 20 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

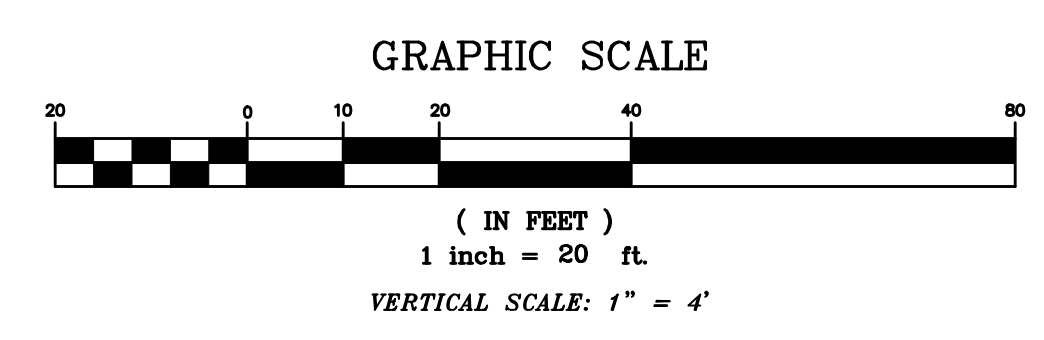
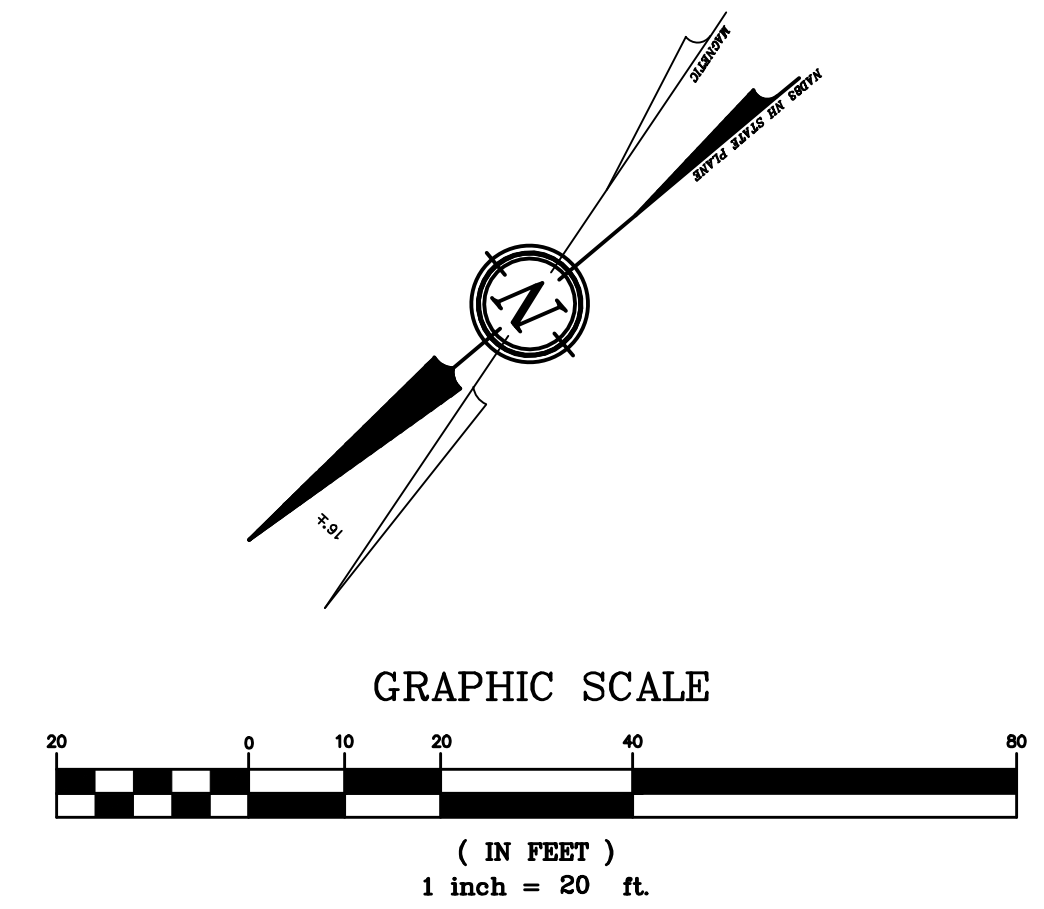
SHEET 9 OF 29







- NOTES:**
- 1.) OWNER: RAYMOND & CLAIRE HOWE
 32 OLD STAGE ROAD
 DOVER, NH 03820
 - 1A.) APPLICANT: GRAYSTONE BUILDERS, INC.
 38 BEECHWOOD DRIVE
 STRAFFORD, NH 03864
 - 2.) TAX MAP G, LOT 35-E
 - 3.) LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
 - 4.) S.C.R.D. BOOK 936, PAGE 331
 - 5.) THE INTENT OF THIS PLAN IS TO DEMONSTRATE THE GRADING AND DRAINAGE DESIGN OF LUNDY PONY DRIVE AT 32 OLD STAGE ROAD.
 - 6.) SEE EROSION & SEDIMENT CONTROL PLANS FOR DETAILS ON PERIMETER CONTROL (MULCH BERM / FENCE / SILT SOXX).
 - 7.) ONE ON SITE BENCHMARK IS PROVIDED. BS&E IS TO PROVIDE ADDITIONAL BENCHMARKS PRIOR TO CONSTRUCTION.



		BERRY SURVEYING & ENGINEERING 335 SECOND CROWN POINT ROAD BARRINGTON, NH 03825 (603) 352-2863	
SCALE : 1 IN. EQUALS 20 FT.		DATE : FEBRUARY 20, 2019	
FILE NO. : DB 2018 - 174		PLAN AND PROFILE LUNDY PONG DRIVE 5+00 - END FOR GRAYSTONE BUILDERS, INC. LAND OF RAYMOND & CLAIRE HOWE 32 OLD STAGE ROAD DOVER, NH <i>TAX MAP G, LOT 35-F</i>	
REVISION	DATE	DESCRIPTION	

BIORETENTION FILTER MEDIA MIXTURES			
Component Material	Percent of Mixture by Volume	Gradation of material	
		Sieve No.	Percent by Weight Passing Standard Sieve
Bioretention Filter Media Option A			
ASTM C-33 concrete sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5

3/8" WASHED CRUSHED STONE*

SIEVE SIZE	% PASSING BY WEIGHT
1/2"	100
3/8"	95 - 100
# 4	22 - 55
# 8	0 - 10

* EQUIVALENT TO STANDARD WASHED STONE - SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

3/4" WASHED CRUSHED STONE*

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 - 100
1/2"	15 - 55
# 10	0 - 5

* EQUIVALENT TO STANDARD WASHED STONE - SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

NOTES

1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL BIORETENTION FILTER MEDIA SHALL BE AS SHOWN ABOVE. "BIO MEDIA" MEANS BIORETENTION FILTER MEDIA. COMPACTION IS NOT TO OCCUR IN THE RAIN GARDEN AREAS PRIOR TO CONSTRUCTION. SCARIFICATION REQUIRED IN THE EVENT COMPACTION TAKES PLACE.
3. DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
4. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
5. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.

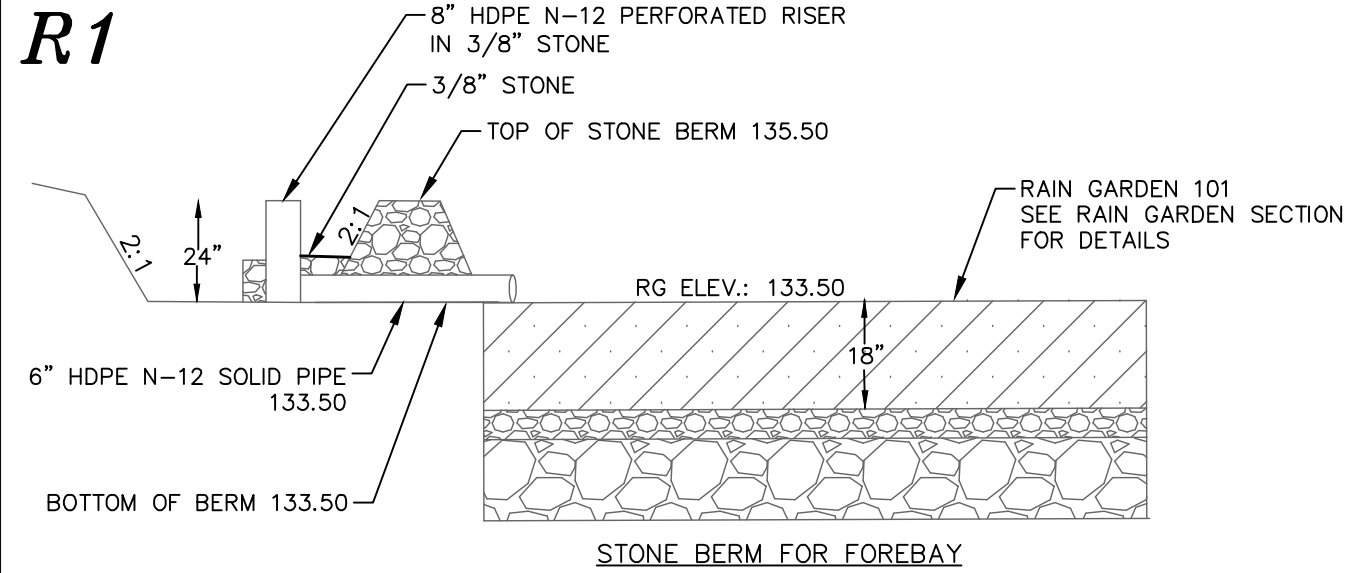
MAINTENANCE REQUIREMENTS

1. SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.
2. PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NOT LESS THAN ONCE ANNUALLY.
3. 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.
4. VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

DESIGN REFERENCES

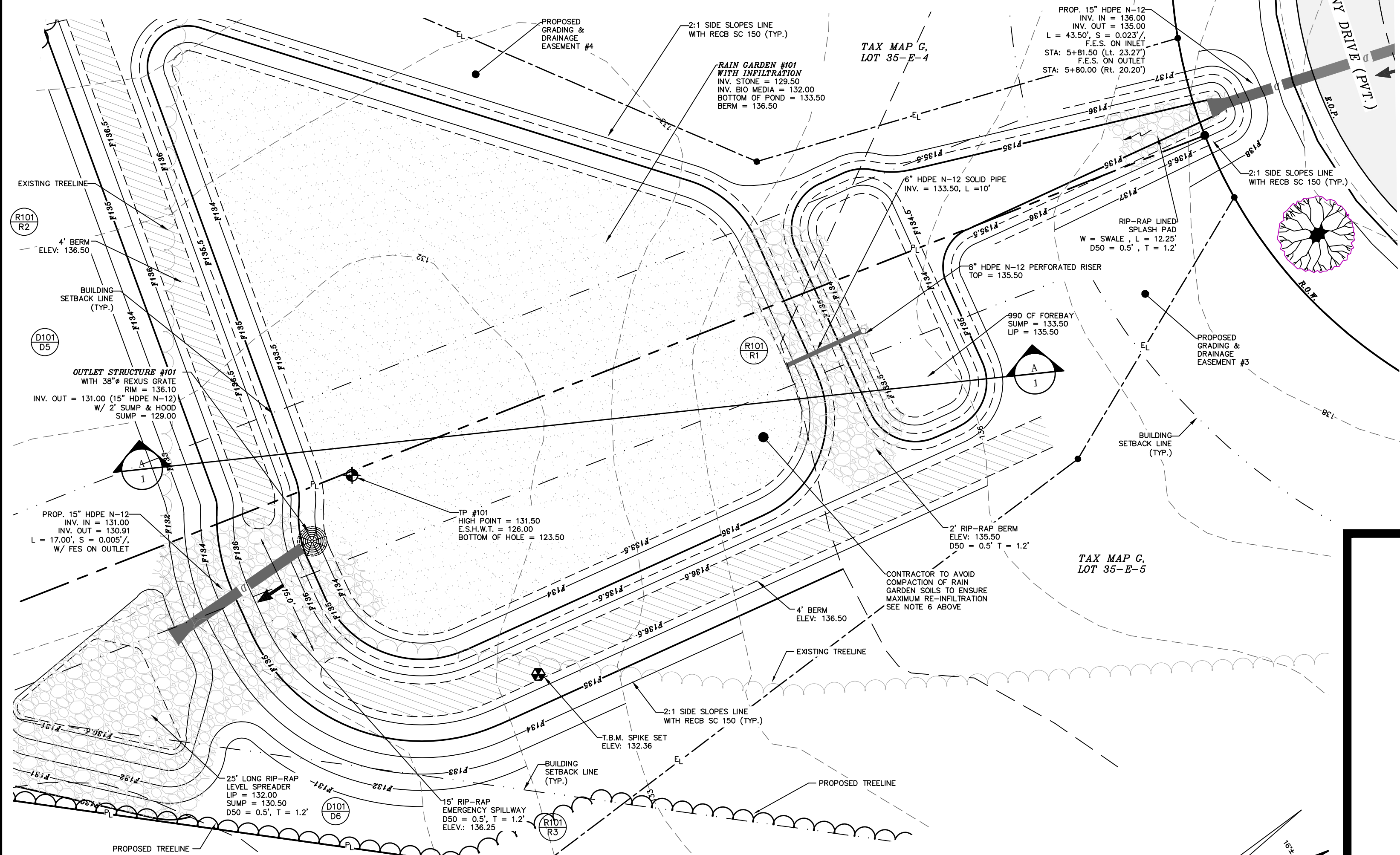
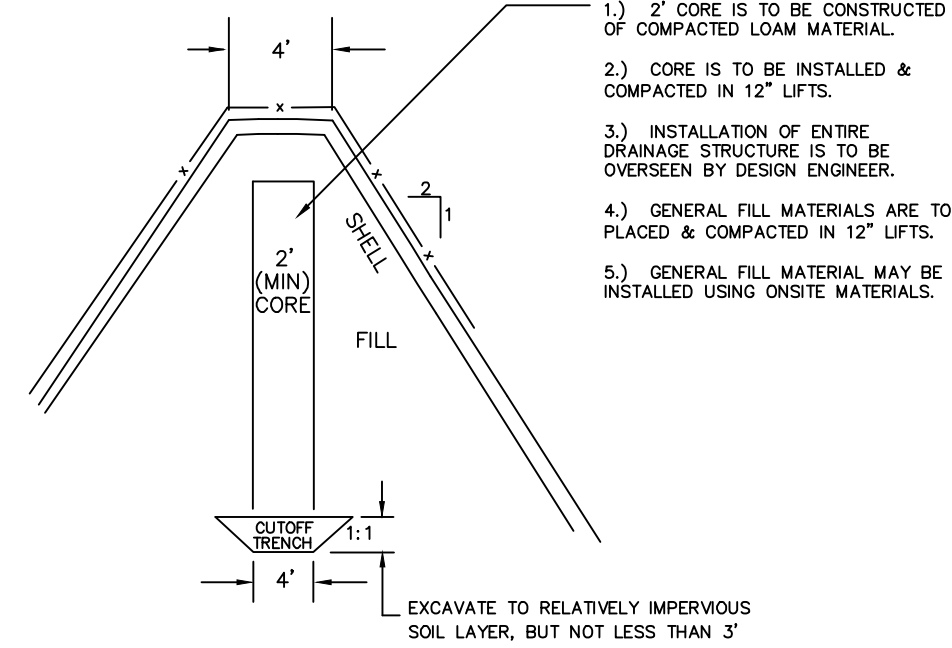
1. UNH STORMWATER CENTER
2. NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

R1

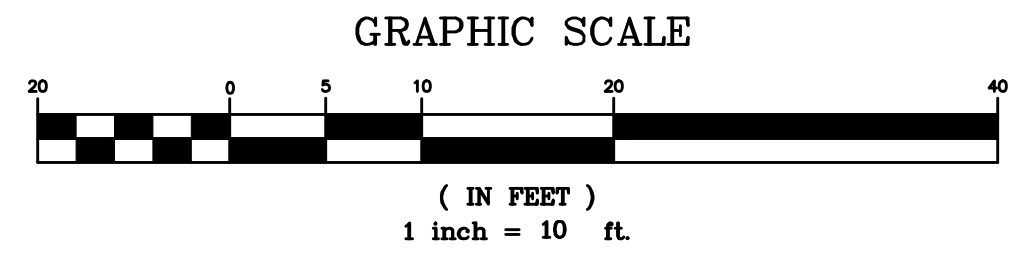
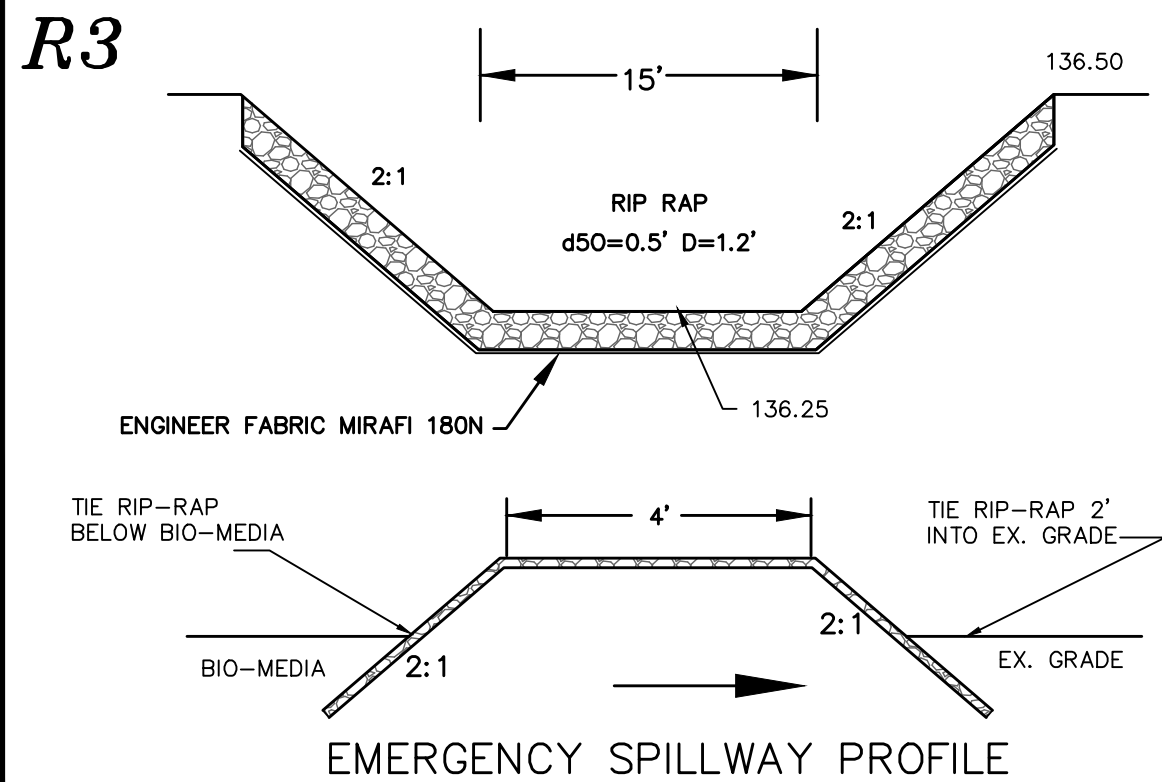


LOW PERMEABILITY MATERIAL GRADATION	
SIEVE SIZE	% PASSING BY WEIGHT
#4	95 - 100
#40	60 - 95
#100	40 - 60
#200	25 - 45

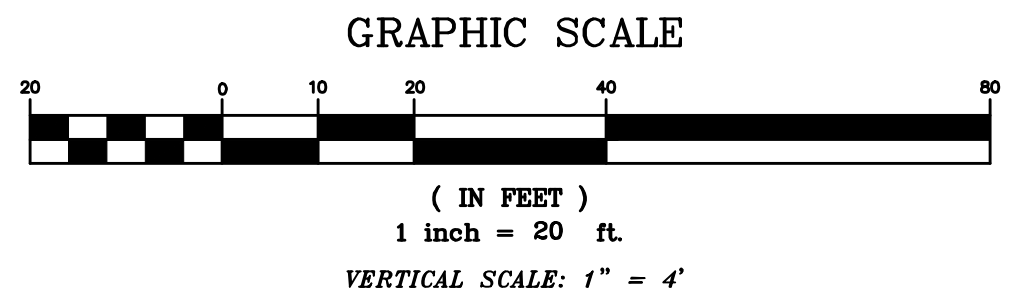
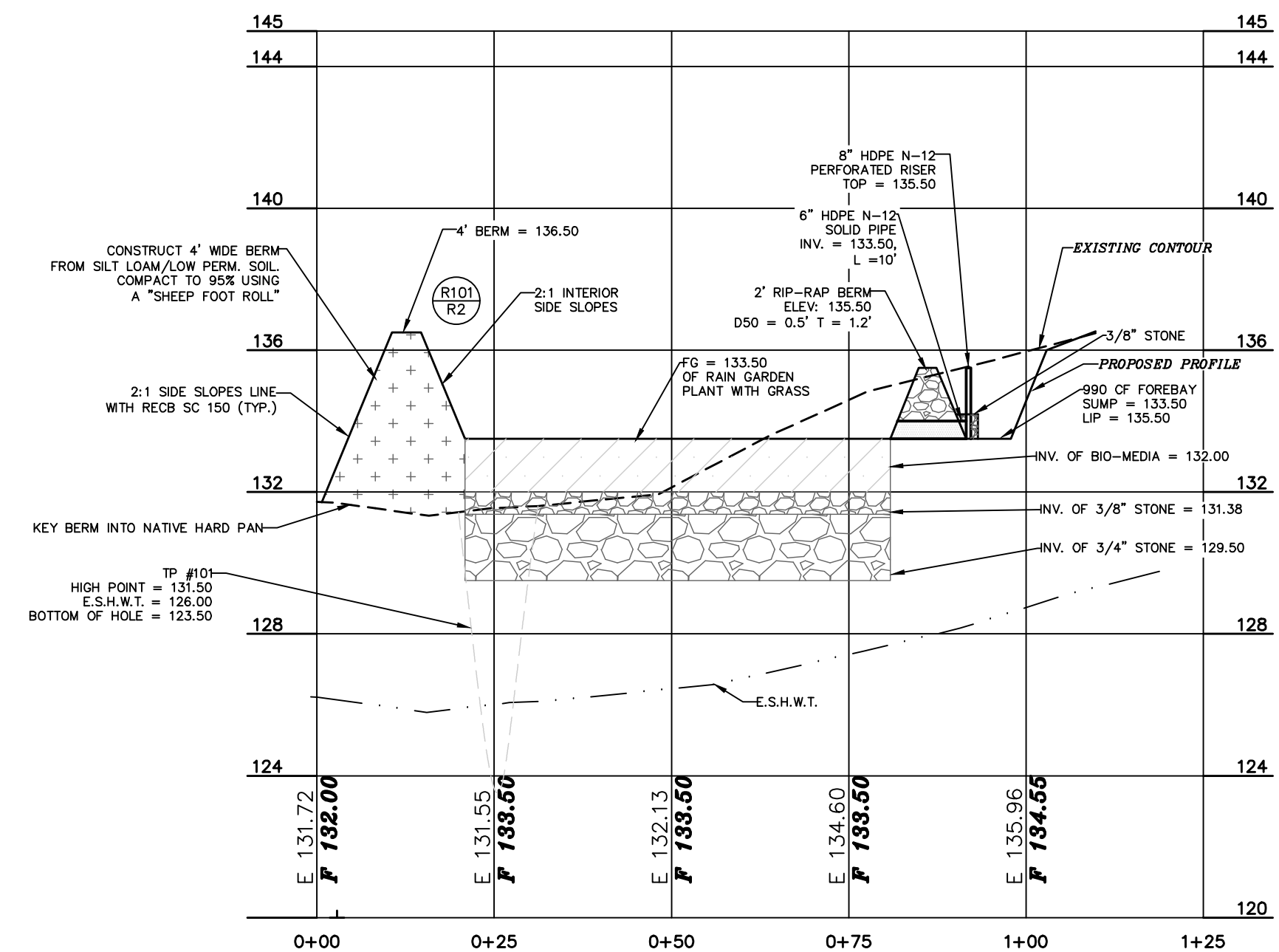
R2



R3



PLAN VIEW RAIN GARDEN #101



SECTION OF RAIN GARDEN R101

R101

REVISION	DATE	DESCRIPTION

RAIN GARDEN #101 FOR GRAYSTONE BUILDERS, INC. LAND OF RAYMOND & CLAIRE HOWE 32 OLD STAGE ROAD DOVER, NH TAX MAP C, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : AS SHOWN
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

KENNETH A. BERRY
No. 14243
LICENSED PROFESSIONAL ENGINEER

SHEET 13 OF 29

BIORETENTION FILTER MEDIA MIXTURES			
Component Material	Percent of Mixture by Volume	Gradation of material	
		Sieve No.	Percent by Weight Passing Standard Sieve
Bioretention Filter Media Option A			
ASTM C-33 concrete sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5

3/8" WASHED CRUSHED STONE*

SIEVE SIZE	% PASSING BY WEIGHT
1/2"	100
3/8"	95 - 100
# 4	22 - 55
# 8	0 - 10

* EQUIVALENT TO STANDARD WASHED STONE - SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

3/4" WASHED CRUSHED STONE*

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 - 100
1/2"	15 - 55
# 10	0 - 5

* EQUIVALENT TO STANDARD WASHED STONE - SECTION 702 OF NHDOT NHDOT STANDARD SPECIFICATIONS

NOTES

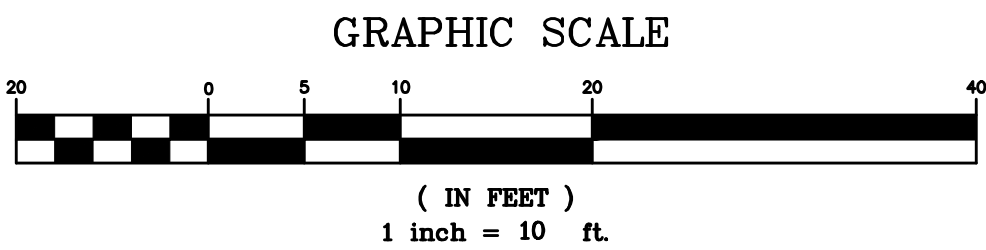
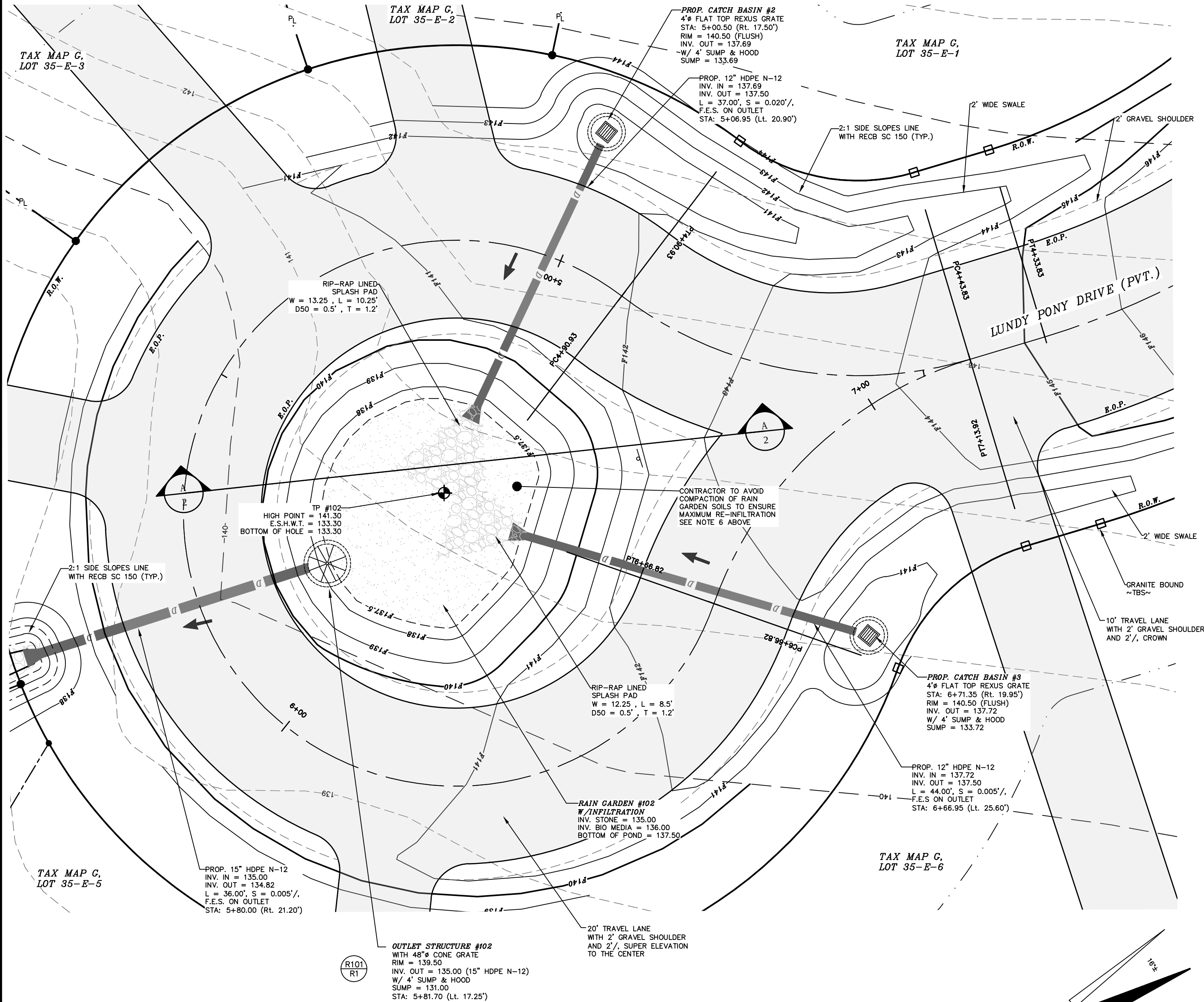
- WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
- SOIL BIORETENTION FILTER MEDIA SHALL BE AS SHOWN ABOVE. "BIO MEDIA" MEANS BIORETENTION FILTER MEDIA. COMPACTION IS NOT TO OCCUR IN THE RAIN GARDEN AREAS PRIOR TO CONSTRUCTION. SCARIFICATION REQUIRED IN THE EVENT COMPACTION TAKES PLACE.
- DO NOT PLACE THE BIORETENTION 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 BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
- DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.

MAINTENANCE REQUIREMENTS

- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A 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.
- 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 OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

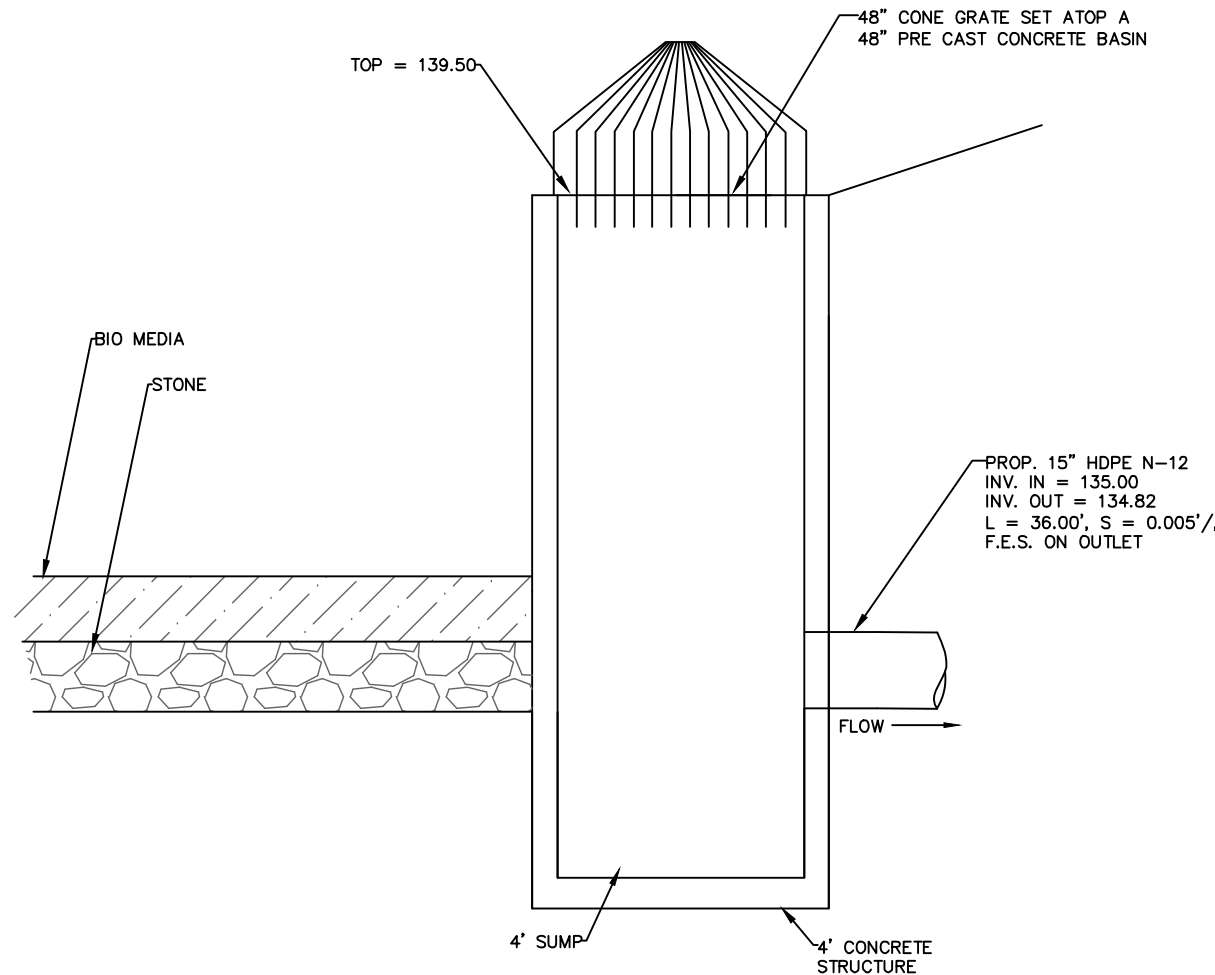
DESIGN REFERENCES

- UNH STORMWATER CENTER
- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

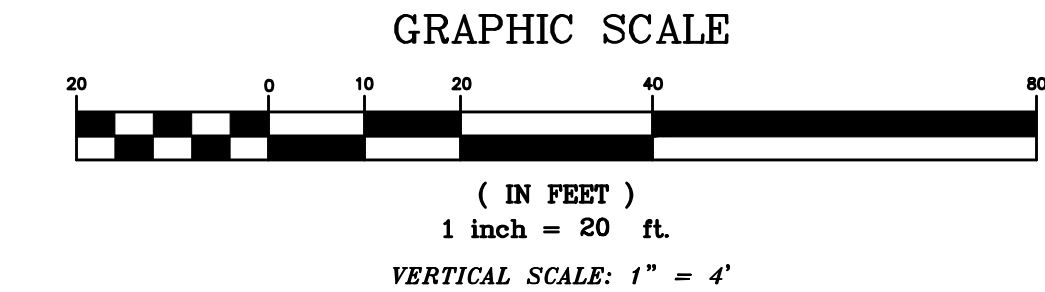
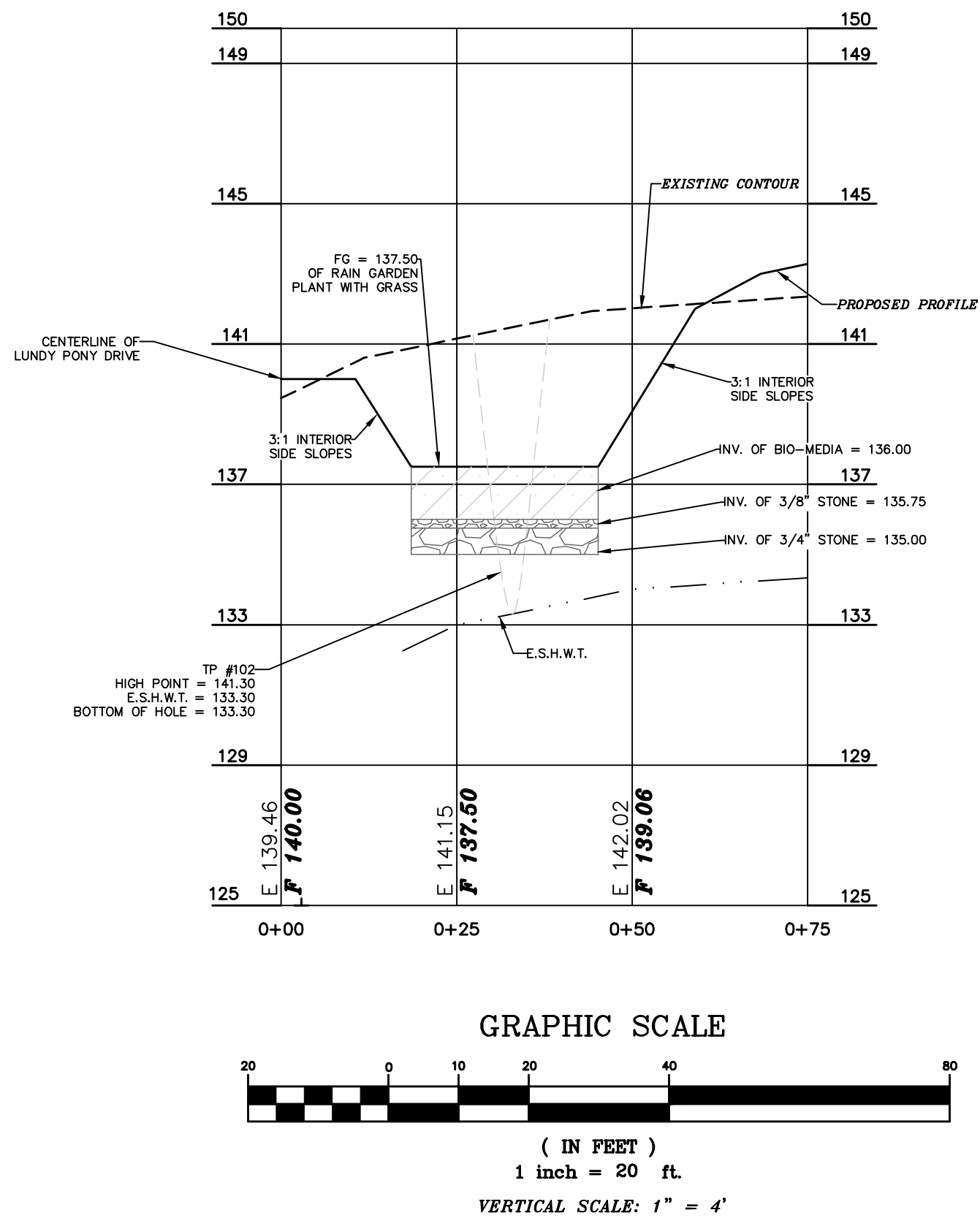


PLAN VIEW RAIN GARDEN #102

R1



OUTLET STRUCTURE #102



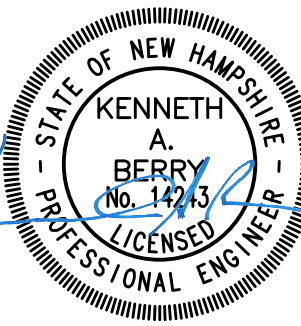
SECTION OF RAIN GARDEN R102

R102

REVISION	DATE	DESCRIPTION

RAIN GARDEN #102 FOR GRAYSTONE BUILDERS, INC. LAND OF RAYMOND & CLAIRE HOWE 32 OLD STAGE ROAD DOVER, NH TAX MAP G, LOT 35-E
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BERRY SURVEYING & ENGINEERING 335 SECOND CROWN POINT ROAD BARRINGTON, NH 03825 (603)332-2863 SCALE : AS SHOWN DATE : FEBRUARY 20, 2019 FILE NO. : DB 2018 - 174
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NOTES:

- OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
- APPLICANT: GRAYSTONE BUILDERS INC.
38 BEECHWOOD DRIVE
STARFFORD, NH 03884
- THE PROJECT PARCEL IS TAX MAP G, LOT 35-E
- LOT AREA: 211,778 Sq. Ft., 4.86 Ac.
- UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE AND BELOW GROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY UTILITY CONFLICTS SHOULD BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.
- THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
- ALL DRAINAGE PIPE IS TO BE HDPE N-12. INDIVIDUAL PIPE SIZES ARE SPECIFIED ON GRADING AND DETAIL PLAN SHEETS, GREEN PIPE.
- ALL ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY. TEMPORARY BENCHMARKS (T.B.M.) ARE TO BE PROVIDED BY THE DESIGN ENGINEER.
- UPON FINAL COMPLETION AND 85% STABILIZATION, THE DRAINAGE SYSTEM IS TO BE CLEANED OF ALL DEBRIS. SEDIMENT CONTROL PRACTICES REMOVED AND DISPOSED OF PROPERLY, AND ANNUAL MAINTENANCE PREFORMED ON ALL DRAINAGE PRACTICES.
- EROSION AND SEDIMENT CONTROL INSPECTIONS TO BE CONDUCTED ONCE PER EVERY SEVEN DAYS AND AT AN INCREASED FREQUENCY INCLUDING WITHIN 24-HOURS OF A 0.25 INCH RAIN EVENT. INSPECTIONS TO BE CONDUCTED BY A "QUALIFIED PERSON" AS DEFINED BY EPA CGP 4.1.1 AND INSPECTION REPORTS SUBMITTED TO THE CITY OF DOVER, NH, ENGINEERING DEPARTMENT WITHIN 24 HOURS IN ACCORDANCE WITH CGP 4.1.7 AND MAINTAINED BY THE OWNER FOR A PERIOD OF THREE YEARS AFTER THE PROJECT IS COMPLETED. SEE ALSO CITY OF DOVER ADDITIONAL INSPECTION REQUIREMENTS BELOW.
- SILT FENCE MAY BE SUBSTITUTED WITH FILTREXX SILT SOXX OR EROSION CONTROL MIX BERM. SILT FENCE IS NOT A SUBSTITUTE FOR FILTREXX SILT SOXX OR APPROVED EQUAL.
- PER EPA CGP 2.1.2.2 (INSTALL PERIMETER CONTROL), "YOU MUST INSTALL SEDIMENT CONTROLS ALONG THOSE PERIMETER AREAS OF YOUR SITE THAT WILL RECEIVE STORMWATER FROM EARTH DISTURBING ACTIVITIES." AS A RESULT OF SWPPP INSPECTIONS, THE CONTRACTOR MAY HAVE TO EXPAND PERIMETER CONTROLS TO MEET THIS REQUIREMENT. THE E&S PLAN IS INITIAL GUIDANCE AS TO THE ANTICIPATED REQUIREMENTS AND IT THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT STORMWATER VIOLATION DO NOT OCCUR.
- CITY OF DOVER: IN ACCORDANCE WITH SITE PLAN REVIEW REGULATIONS (149-14) THE FOLLOWING STORMWATER MEASURES ARE REQUIRED. THIS SITE DEVELOPMENT QUALIFIES AS A REDEVELOPMENT PROJECT. THE EXISTING IMPERVIOUS AREA IS 92.0% AND PROPOSED IMPERVIOUS AREA IS 85.2%. THE CONTIGUOUS LAND DISTURBANCE IS 25,800 SQUARE FEET.
 - ALL PROPOSED BMPs WILL CONFORM TO THE NH STORMWATER MANUAL VOLUME 3.
 - EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL LAND DISTURBANCE AND MUST BE REVIEWED AND APPROVED BY COMMUNITY SERVICE.
 - TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN CALENDAR DAYS FOR EXPOSED SOILS AREAS THAT ARE WITHIN ONE HUNDRED FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOIL AREAS.
 - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL STABILIZATION IS ACCOMPLISHED.
 - COMMUNITY SERVICES DEPARTMENT OR THEIR DESIGNATED AGENT SHALL HAVE ACCESS TO THE SITE TO COMPLETE ROUTINE INSPECTIONS AND SHALL BE NOTIFIED 24-HOURS PRIOR TO INSTALLATION OF A STORMWATER BMP IN ORDER TO SCHEDULE AN INSPECTION, DURING NORMAL WORKING HOURS.
 - THE PLANNING BOARD OR COMMUNITY SERVICES MAY REQUIRE THE DESIGN ENGINEER AND/OR AN INDEPENDENT, THIRD-PARTY INSPECTION AND OVERSIGHT OF THE CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES AND EROSION AND SEDIMENT CONTROL AT THEIR DISCRETION. THE OWNER / APPLICANT IS RESPONSIBLE FOR ALL FEES ASSOCIATED WITH INSPECTIONS.
 - ALL SWPPP INSPECTIONS MUST BE CONDUCTED BY A QUALIFIED PROFESSIONAL SUCH AS A PROFESSIONAL ENGINEER (PE), A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORMWATER INSPECTOR (CESSWI), OR A CERTIFIED PROFESSIONAL IN STORMWATER QUALITY (CPSWQ). INSPECTION REPORTS WILL BE SUBMITTED TO THE COMMUNITY SERVICES DEPARTMENT.
- CONTRACTOR IS RESPONSIBLE FOR SWEEPING THE ROAD TO ENSURE THAT NO SEDIMENT IS BEING TRACKED ONTO OLD STAGE ROAD.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING AND MAINTAINING THE INLET PROTECTION ONCE INSTALLED.
- FUGITIVE DUST IS TO BE CONTROLLED THROUGHOUT THE CONSTRUCTION PROCESS IN ACCORDANCE WITH ENV-A 1000.
- CONTRACTOR IT TO MEET THE REQUIREMENTS SPECIFIED IN RSA 430:51-57 AND AGR 3800, RELATING TO INVASIVE SPECIES.
- CATCH BASIN HOODS WILL BE INSTALLED AS SOON AS THE BASIN IS PUT ON LINE. RIM IS TO BE RAISED WITH FINAL GRADE SO THAT STORMWATER RUNOFF CAN DRAIN PROPERLY THROUGHOUT CONSTRUCTION.
- CHECK DAMS ARE REQUIRED TO BE INSTALLED IN THE ROADSIDE SWALES ONCE THE SWALES ARE GRADED. RIP-RAP CHECK DAMS ARE SHOWN ON THE PLAN WITH 25' SPACING. CONTRACTOR MAY USE TEMPORARY SILT SOXX CHECK DAMS INSTEAD BUT THEY HAVE TO BE SPACED EVERY 12.5'.
- PERIMETER CONTROL IS TO BE INSTALLED AND MAINTAINED IN THE REAR CORNER OF PROPOSED LOT 35-E-B, TO PREVENT SEDIMENT FROM RUNNING OFF ONTO ADJUTING PARCELS.

SOILS & DEWATERING:

ELMWOOD FINE SANDY LOAM K= 0.32
HINCKLEY LOAMY SAND K= 0.17

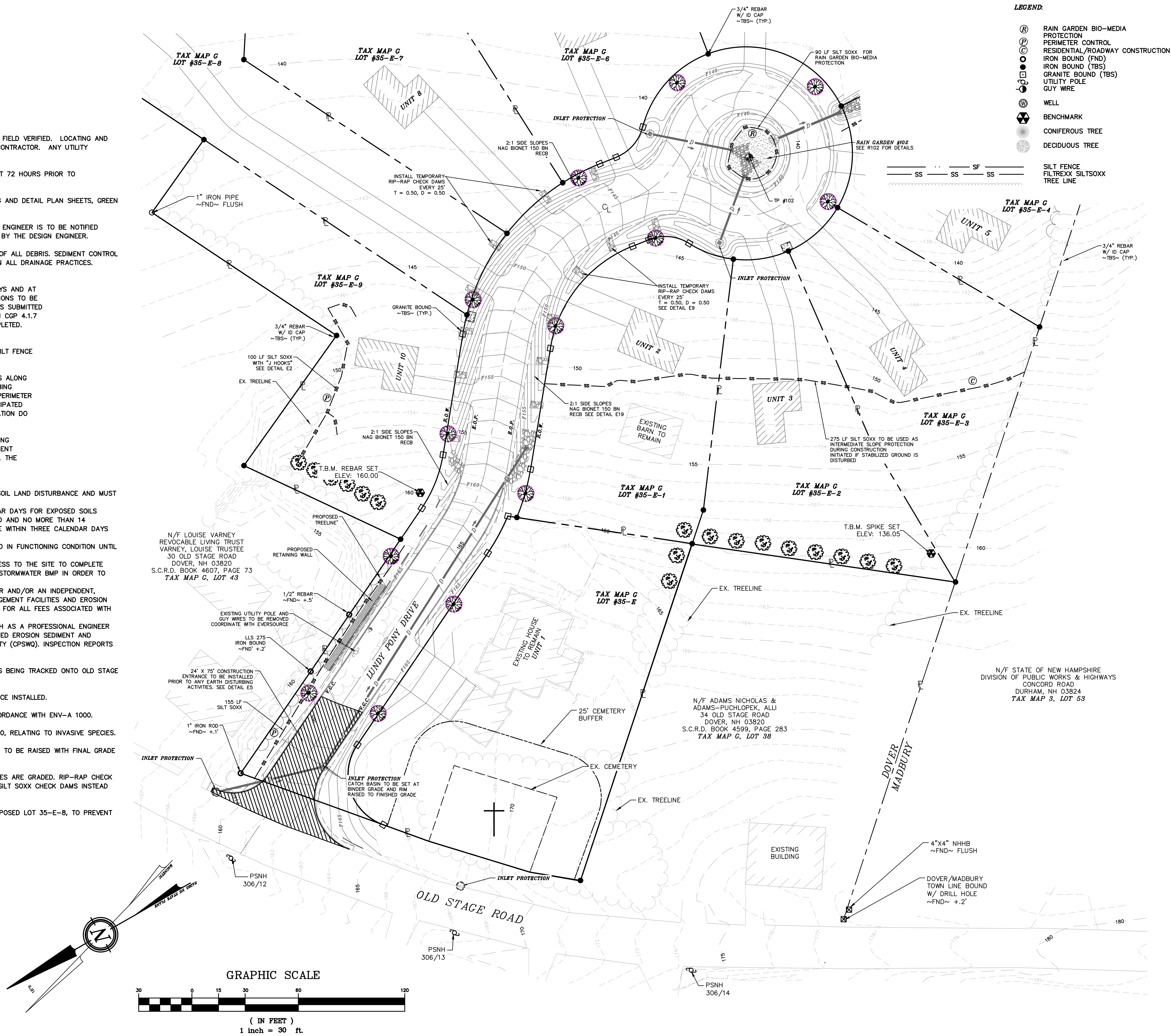
SEE SITE SPECIFIC SOILS MAP (SSSM)

SEE WEBSOIL USDA-NRCS
ERODIBILITY FACTOR - K, CPESC MANUAL, ENVIROCERT INTERNATIONAL INC. &
ROCKINGHAM COUNTY SOIL SURVEY, ROCKWEB SOIL ATTRIBUTES.

CONTRACTOR TO BE AWARE OF THE SOIL PROFILES AND ENSURE THAT PROPER EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE TAKEN AT ALL TIMES. ANY DEWATERING REQUIREMENTS IN NEW HAMPSHIRE REQUIRE SPECIAL PROVISIONS IN ACCORDANCE WITH THE "CLARIFICATION OF SECTION 9.1.2 (STATE OF NEW HAMPSHIRE CONDITIONS) AND OTHER NH SPECIFIC INFORMATION FOR THE U.S. EPA 2012 NPDES CONSTRUCTION GENERAL PERMIT (CGP)" DATED MAY 3, 2012 INCLUDED IN THE SWPPP.

COVER MANAGEMENT DURING CONSTRUCTION FOR EXPOSED SOIL WILL INCLUDE HAY / STRAW APPLIED AT A RATE OF 2.0 TONS PER ACRE. TEMPORARY SEEDING OF ANNUAL RYE GRASS, AND PERMANENT SEEDING AT THE EARLIEST OPPORTUNITY. SEE ADDITIONAL REQUIREMENT FOR STABILIZATION ON THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS, E-101 AND E-102.

THE CONSTRUCTION SCHEDULE WILL BE MANAGED SO THAT ALL STORMWATER STRUCTURES WILL BE BUILT AND STABILIZED PRIOR TO RECEIVING SURFACE WATER RUNOFF. CONTRACTOR TO BE RESPONSIBLE FOR ALL DIVERSIONS DURING CONSTRUCTION AND FOR INTERIM SEDIMENT AND EROSION CONTROL MEASURES.



LEGEND:

- RAIN GARDEN BIO-MEDIA
- PROTECTION PERIMETER CONTROL
- RESIDENTIAL/ROADWAY CONSTRUCTION
- IRON BOUND (FND)
- IRON BOUND (TBS)
- GRANITE BOUND (TBS)
- UTILITY POLE
- GUY WIRE
- WELL
- BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE
- SILT FENCE
- FILTREXX SILT SOXX
- TREE LINE

REVISION	DATE	DESCRIPTION

EROSION AND SEDIMENT CONTROL PLAN NORTH
GRAYSTONE BUILDERS, INC. LAND OF RAYMOND & CLAIRE HOWE 32 OLD STAGE ROAD DOVER, NH TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING 335 SECOND CROWN POINT ROAD BARRINGTON, NH 03825 (603)332-2863 SCALE : 1 IN. EQUALS 30 FT. DATE : FEBRUARY 20, 2019 FILE NO. : DB 2018 - 174
KENNETH A. BERRY No. 1243 LICENSED PROFESSIONAL ENGINEER

NOTES:

- OWNER: RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH 03820
- APPLICANT: GRAYSTONE BUILDERS INC.
38 BEECHWOOD DRIVE
STARFFORD, NH 03884
- THE PROJECT PARCEL IS TAX MAP G, LOT 35-E
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- EROSION AND SEDIMENT CONTROL INSPECTIONS TO BE CONDUCTED ONCE PER EVERY SEVEN DAYS AND AT AN INCREASED FREQUENCY INCLUDING WITHIN 24-HOURS OF A 0.25 INCH RAIN EVENT. INSPECTIONS TO BE CONDUCTED BY A "QUALIFIED PERSON" AS DEFINED BY EPA CGP 4.1.1 AND INSPECTION REPORTS SUBMITTED TO THE CITY OF DOVER, NH, ENGINEERING DEPARTMENT WITHIN 24 HOURS IN ACCORDANCE WITH CGP 4.1.7 AND MAINTAINED BY THE OWNER FOR A PERIOD OF THREE YEARS AFTER THE PROJECT IS COMPLETED. SEE ALSO CITY OF DOVER ADDITIONAL INSPECTION REQUIREMENTS BELOW.
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- CITY OF DOVER: IN ACCORDANCE WITH SITE PLAN REVIEW REGULATIONS (149-14) THE FOLLOWING STORMWATER MEASURES ARE REQUIRED. THIS SITE DEVELOPMENT QUALIFIES AS A REDEVELOPMENT PROJECT. THE EXISTING IMPERVIOUS AREA IS 92.0% AND PROPOSED IMPERVIOUS AREA IS 85.2%. THE CONTIGUOUS LAND DISTURBANCE IS 25,800 SQUARE FEET.
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 - TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN CALENDAR DAYS FOR EXPOSED SOILS AREAS THAT ARE WITHIN ONE HUNDRED FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOIL AREAS.
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- CONTRACTOR IS RESPONSIBLE FOR SWEEPING THE ROAD TO ENSURE THAT NO SEDIMENT IS BEING TRACKED ONTO OLD STAGE ROAD.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING AND MAINTAINING THE INLET PROTECTION ONCE INSTALLED.
- FUGITIVE DUST IS TO BE CONTROLLED THROUGHOUT THE CONSTRUCTION PROCESS IN ACCORDANCE WITH ENV-A 1000.
- CONTRACTOR IT TO MEET THE REQUIREMENTS SPECIFIED IN RSA 430:51-57 AND AGR 3800, RELATING TO INVASIVE SPECIES.
- CATCH BASIN HOODS WILL BE INSTALLED AS SOON AS THE BASIN IS PUT ON LINE. RIM IS TO BE RAISED WITH FINAL GRADE SO THAT STORMWATER RUNOFF CAN DRAIN PROPERLY THROUGHOUT CONSTRUCTION.
- CHECK DAMS ARE REQUIRED TO BE INSTALLED IN THE ROADSIDE SWALES ONCE THE SWALES ARE GRADED. RIP-RAP CHECK DAMS ARE SHOWN ON THE PLAN WITH 25' SPACING. CONTRACTOR MAY USE TEMPORARY SILT SOXX CHECK DAMS INSTEAD BUT THEY HAVE TO BE SPACED EVERY 12.5'.
- PERIMETER CONTROL IS TO BE INSTALLED AND MAINTAINED IN THE REAR CORNER OF PROPOSED LOT 35-E-8, TO PREVENT SEDIMENT FROM RUNNING OFF ONTO ABUTTING PARCELS.

SOILS & DEWATERING:

PaB ELWOOD FINE SANDY LOAM $K = 0.32$
HaC HINCKLEY LOAMY SAND $K = 0.17$

SEE SITE SPECIFIC SOILS MAP (SSSM)

SEE WEBSOIL USDA-NRCS
ERODIBILITY FACTOR - K, CPESC MANUAL, ENVIROCERT INTERNATIONAL INC. & ROCKINGHAM COUNTY SOIL SURVEY, ROCKWEB SOIL ATTRIBUTES.

CONTRACTOR TO BE AWARE OF THE SOIL PROFILES AND ENSURE THAT PROPER EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE TAKEN AT ALL TIMES. ANY DEWATERING REQUIREMENTS IN NEW HAMPSHIRE REQUIRE SPECIAL PROVISIONS IN ACCORDANCE WITH THE "CLARIFICATION OF SECTION 9.1.2 (STATE OF NEW HAMPSHIRE CONDITIONS) AND OTHER NH SPECIFIC INFORMATION FOR THE U.S. EPA 2012 NPDES CONSTRUCTION GENERAL PERMIT (CGP)" DATED MAY 3, 2012 INCLUDED IN THE SWPPP.

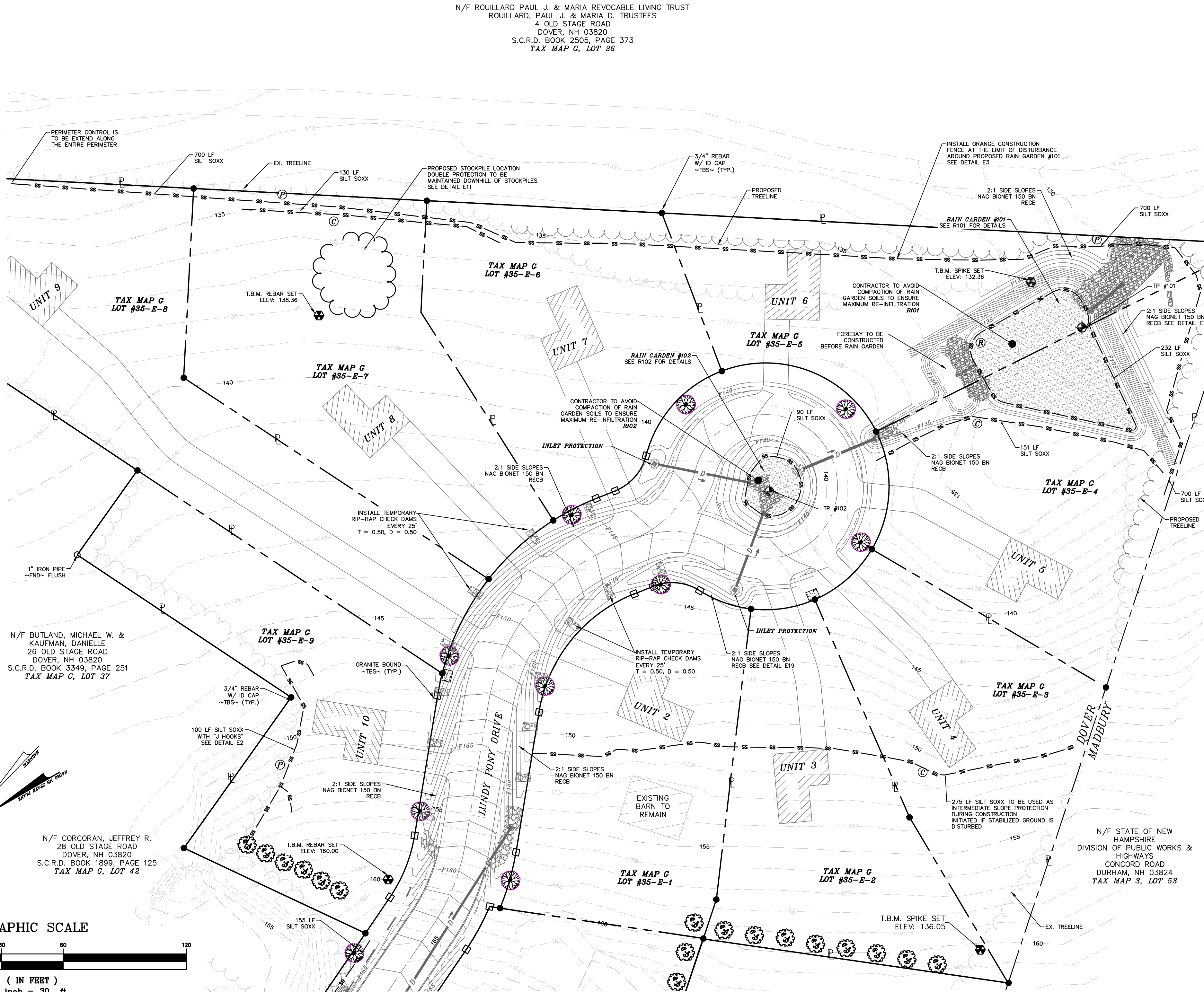
COVER MANAGEMENT DURING CONSTRUCTION FOR EXPOSED SOIL WILL INCLUDE HAY / STRAW APPLIED AT A RATE OF 2.0 TONS PER ACRE, TEMPORARY SEEDING OF ANNUAL RYE GRASS, AND PERMANENT SEEDING AT THE EARLIEST OPPORTUNITY. SEE ADDITIONAL REQUIREMENT FOR STABILIZATION ON THE EROSION AND SEDIMENT CONTROL DETAIL SHEETS, E-101 AND E-102.

THE CONSTRUCTION SCHEDULE WILL BE MANAGED SO THAT ALL STORMWATER STRUCTURES WILL BE BUILT AND STABILIZED PRIOR TO RECEIVING SURFACE WATER RUNOFF. CONTRACTOR TO BE RESPONSIBLE FOR ALL DIVERSIONS DURING CONSTRUCTION AND FOR INTERIM SEDIMENT AND EROSION CONTROL MEASURES.

LEGEND:

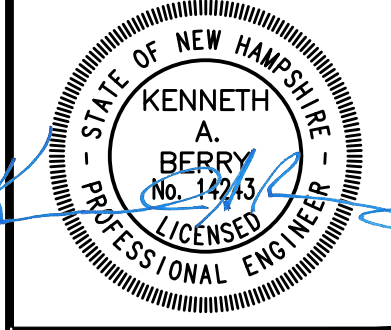
- RAIN GARDEN BIO-MEDIA PROTECTION
- PERIMETER CONTROL
- RESIDENTIAL/ROADWAY CONSTRUCTION
- IRON BOUND (FND)
- IRON BOUND (TBS)
- GRANITE BOUND (TBS)
- UTILITY POLE
- GUY WIRE
- WELL
- BENCHMARK
- CONIFEROUS TREE
- DECIDUOUS TREE

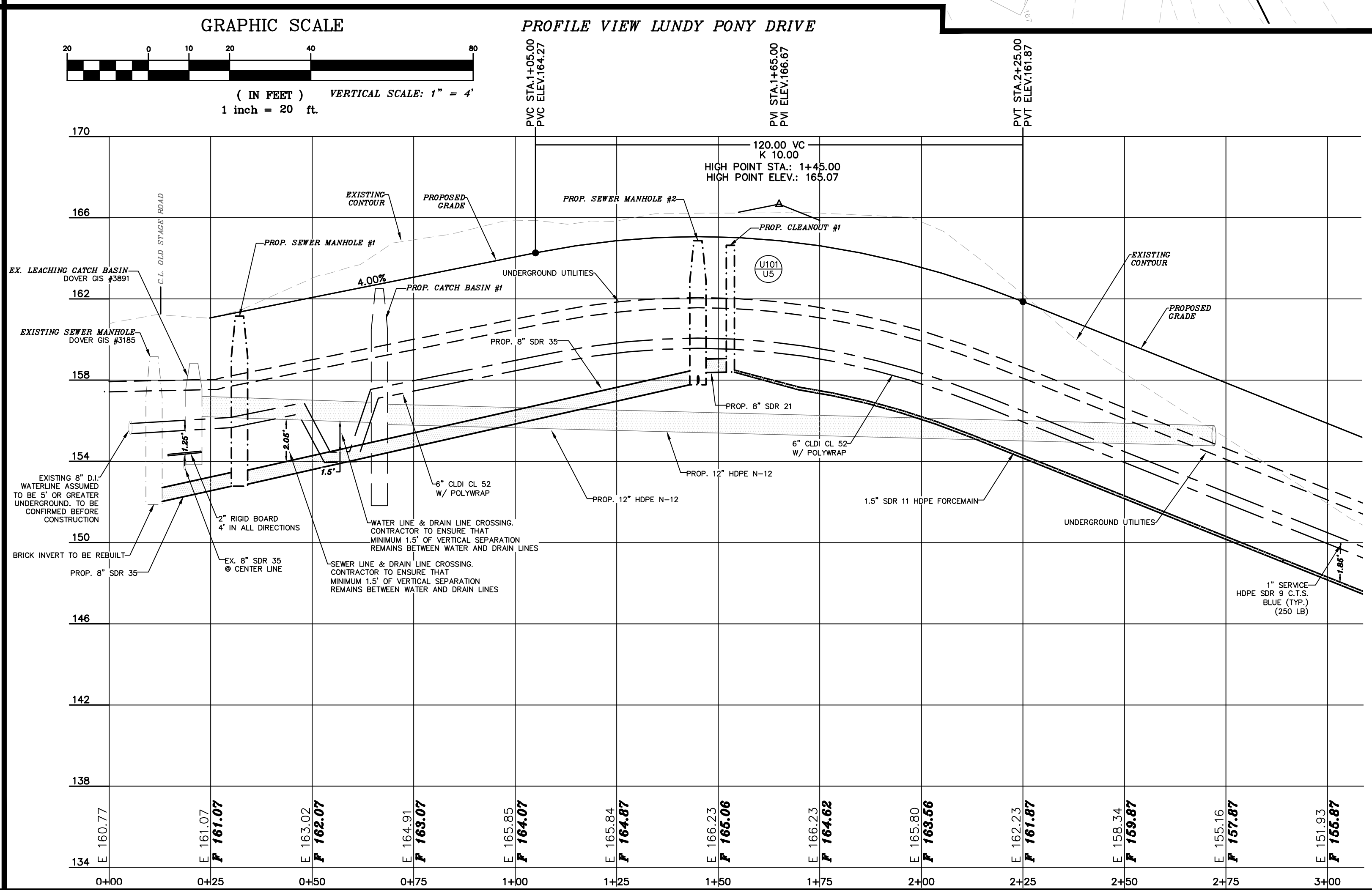
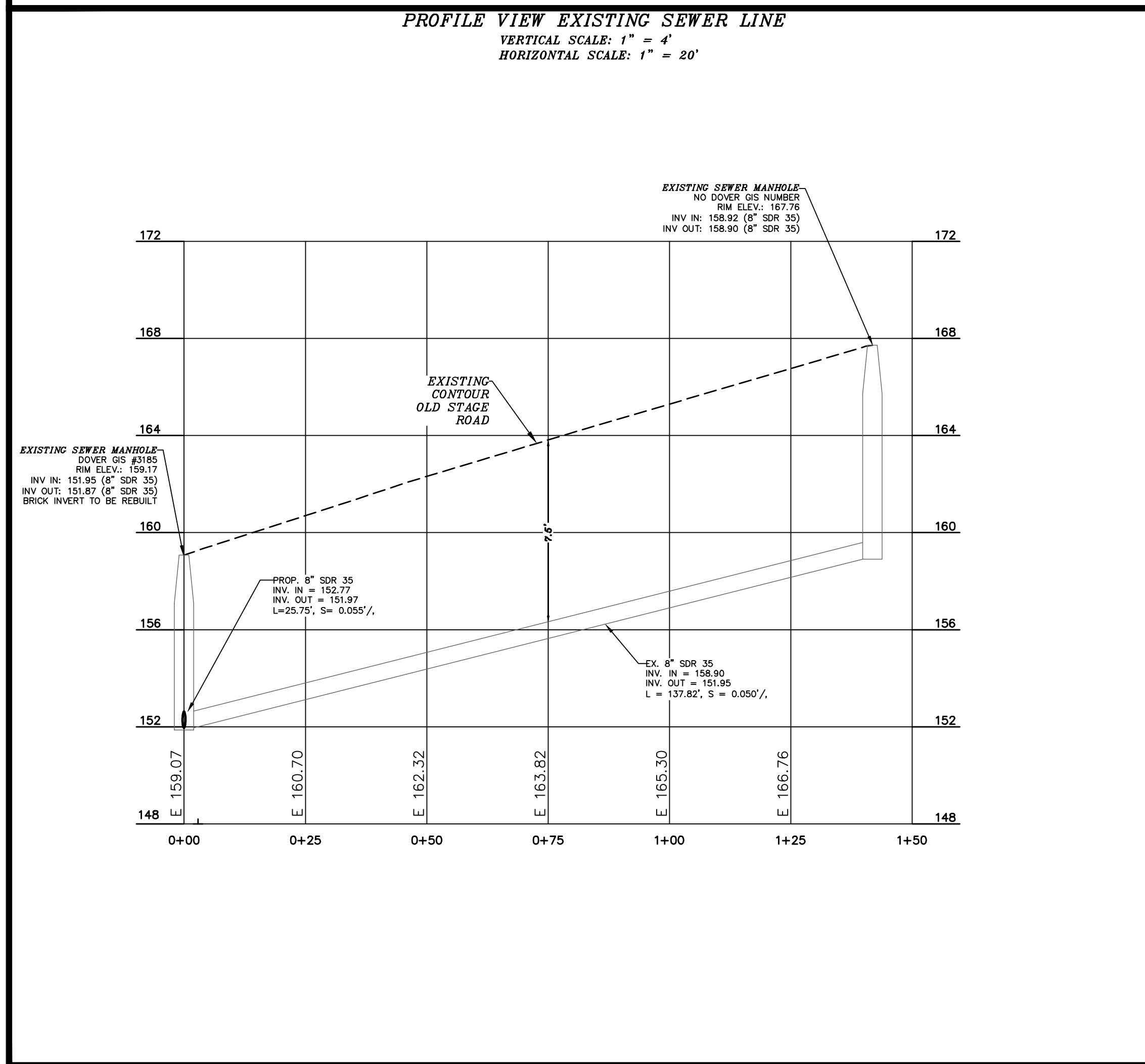
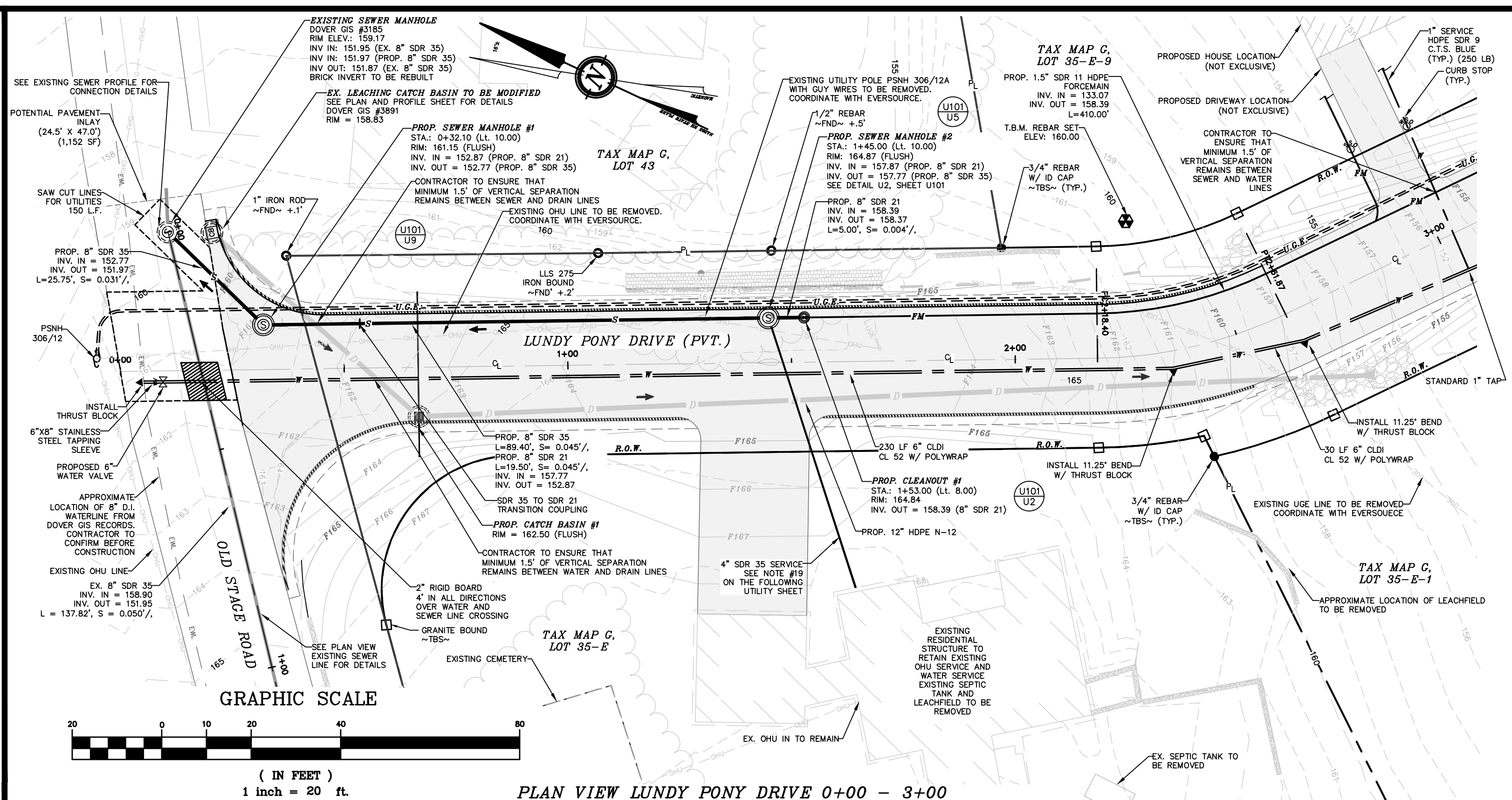
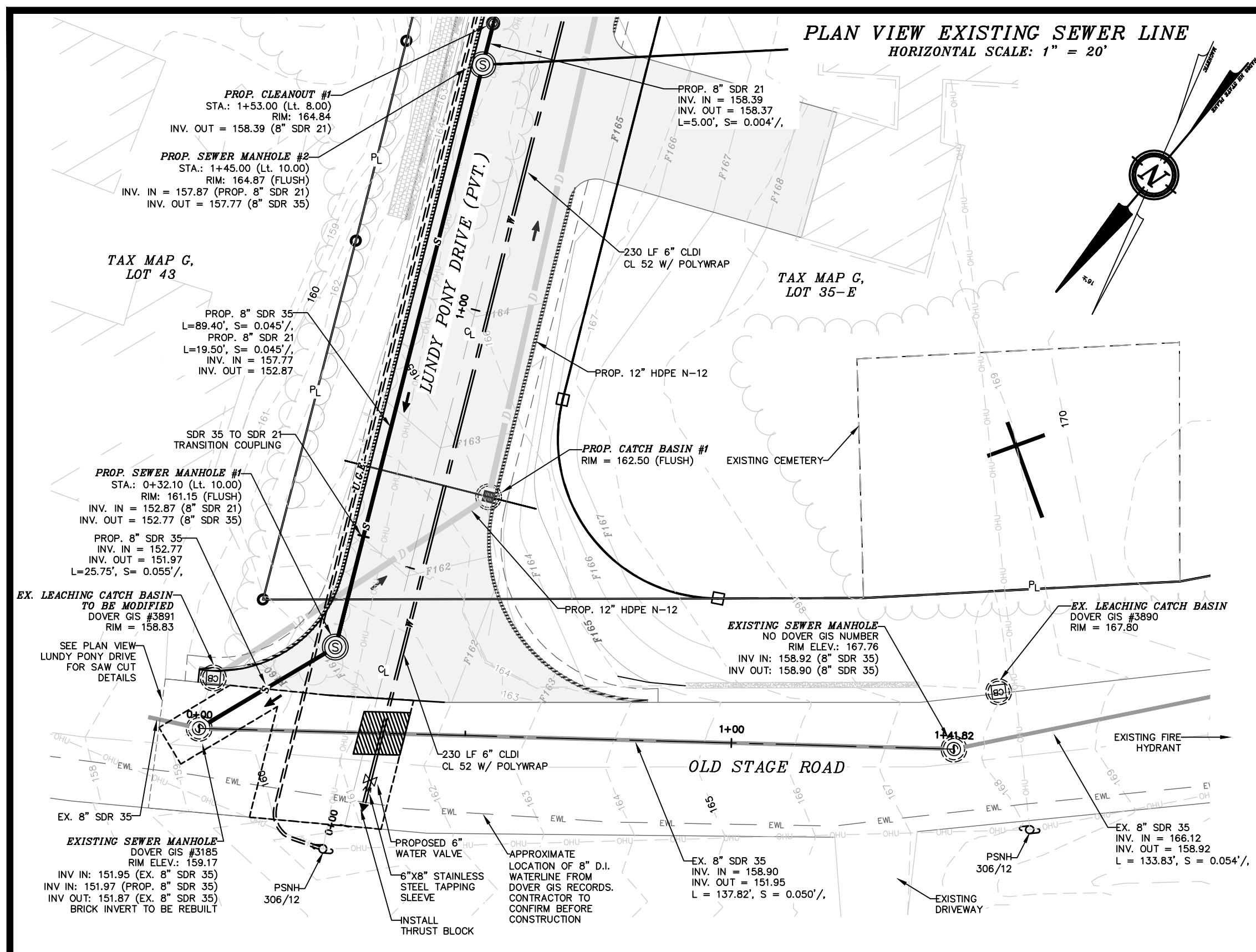
SILT FENCE
FILTREXX SILT SOXX
TREE LINE



EROSION AND SEDIMENT CONTROL PLAN SOUTH
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 30 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174



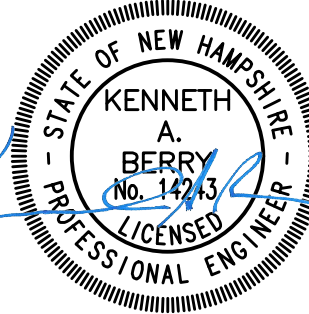


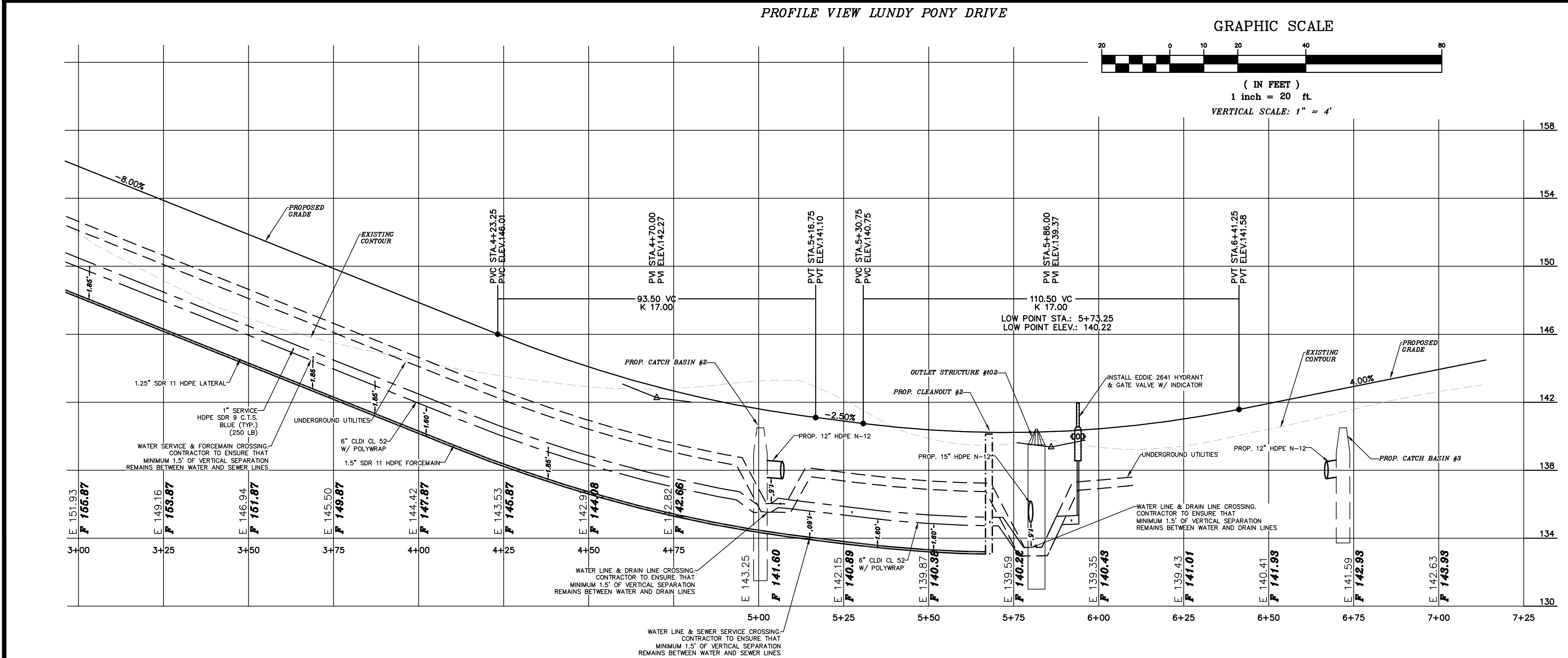
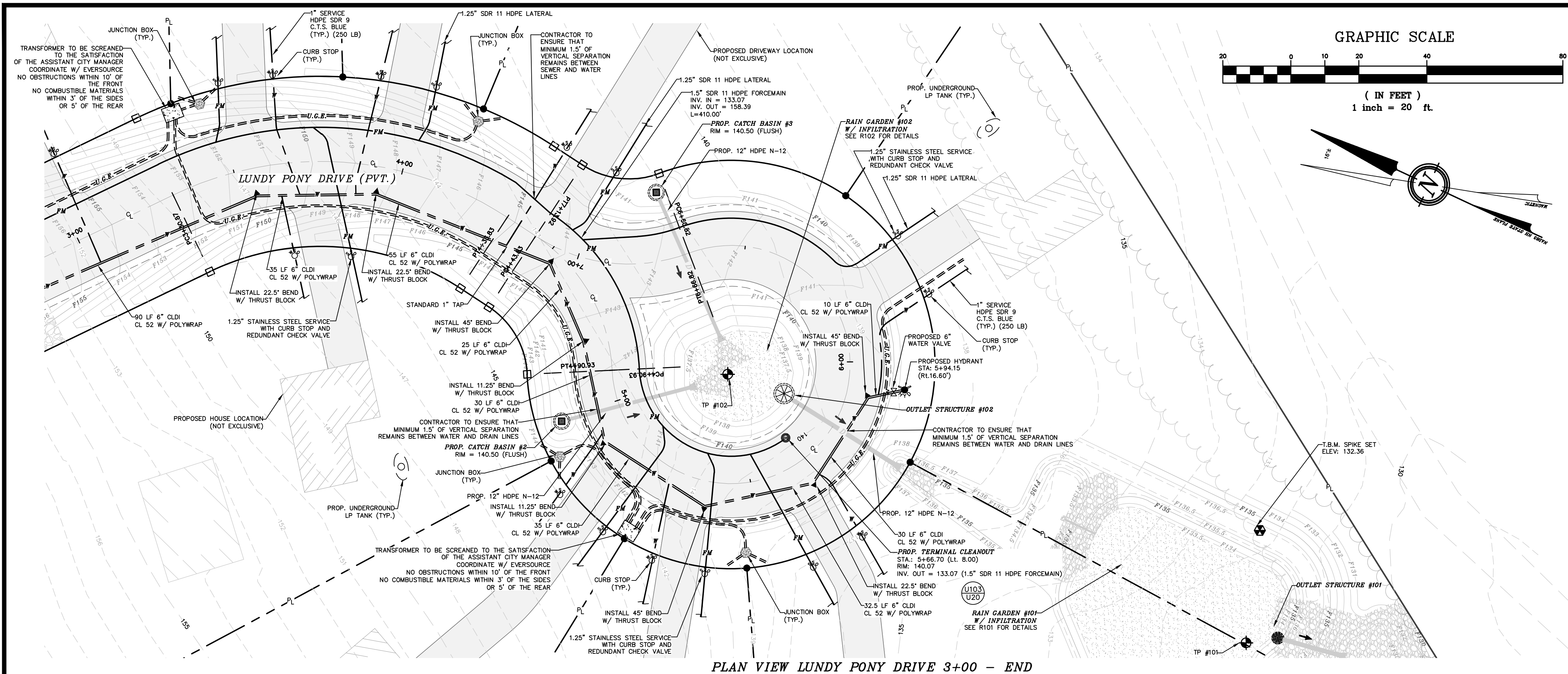
REVISION	DATE	DESCRIPTION

UTILITY PLAN LUNDY PONY DRIVE 0+00 — 3+00
FOR
GRAYSTONE BUILDERS, INC.
32 OLD STAGE ROAD
RAYMOND & CLAIRE HOWE
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE :	1 IN. EQUALS 20 FT.
DATE :	FEBRUARY 20, 2019



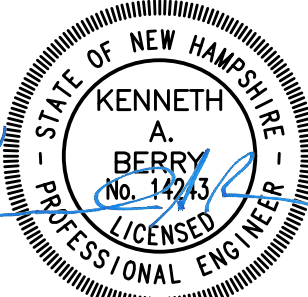


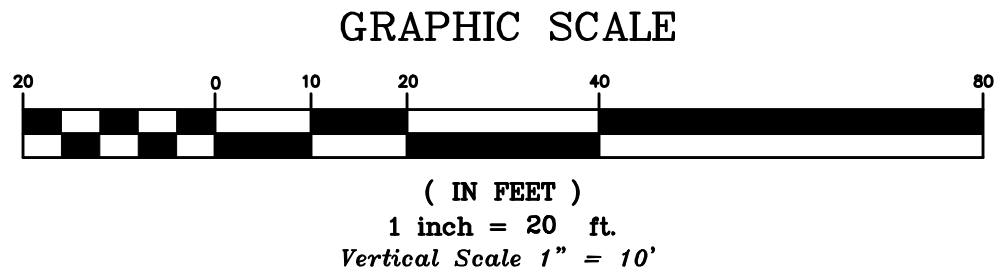
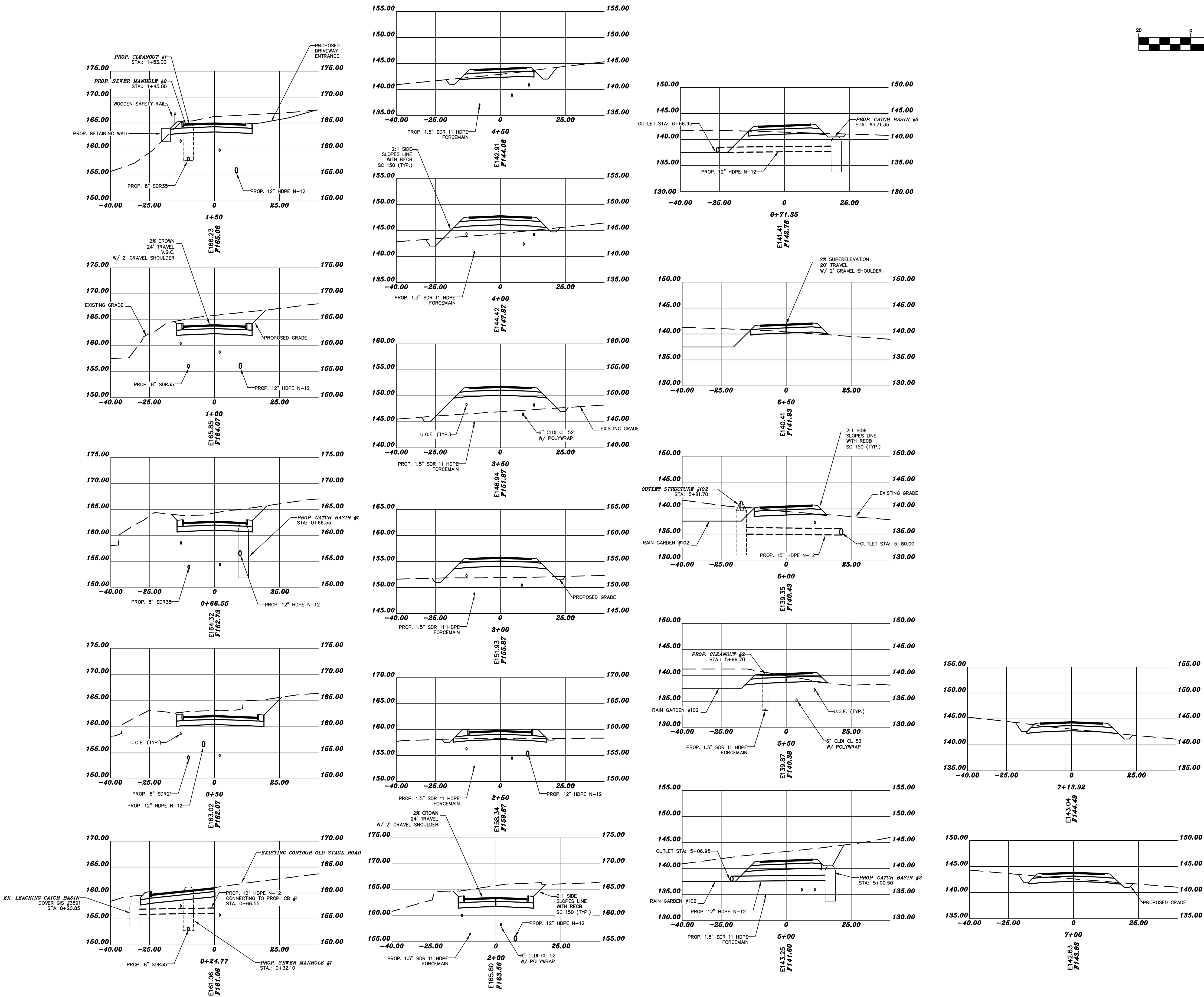
- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO DEMONSTRATE THE OVERVIEW PRIVATE UTILITIES WITHIN THE SITE PLAN.
 - UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE AND BELOW GROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY UTILITY CONFLICTS SHOULD BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.
 - THE CONTRACTOR SHALL CALL AND COORDINATE WITH DISSAFE 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.
 - PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES, TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL MEETING THE ENGINEERS SPECIFIC RECOMMENDED CRITERIA.
 - IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER (NOT ALLOWED IN CITY R.O.W.), EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATION. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
 - PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION. VOIDS BETWEEN STONES AND CLUMPS OF MATERIAL SHALL BE FILLED WITH FINE MATERIALS.
 - FINAL UTILITY LOCATIONS TO BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES AND THE DOVER DPW.
 - CONTRACTOR TO CONTACT DOVER DPW A MINIMUM OF TWO WEEKS PRIOR TO ANY CONSTRUCTION TO COORDINATE ALL WORK CONCERNING INSTALLATION OF ANY PROPOSED WATER LINE IMPROVEMENTS.
 - ALL WATER MAIN AND SERVICE INSTALLATIONS SHALL CONFORM TO CITY OF DOVER STANDARDS. ALL HIGHWAY CONSTRUCTION WILL MEET THE CITY OF DOVER STANDARDS.
 - CONTRACTOR SHALL COORDINATE ALL ELECTRICAL INSTALLATIONS WITH EVERSOURCE AT (800) 662-7764. ALL ELECTRIC CONDUIT INSTALLATION SHALL BE INSPECTED BY EVERSOURCE PRIOR TO BACKFILL. A 48-HOUR MINIMUM NOTICE IS REQUIRED.
 - ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & DOVER DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV-WQ 704.05 (c)-(e) AND CONFORM WITH ASTM D3034. PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121.
 - CONTRACTOR SHALL COORDINATE ALL TELECOMMUNICATIONS INSTALLATIONS WITH FAIRPOINT COMMUNICATIONS AT (603) 427-5525.
 - CONTRACTOR SHALL COORDINATE ALL CABLE INSTALLATIONS WITH METROCAST.
 - CONTRACTOR SHALL COORDINATE ALL GAS INSTALLATIONS WITH UNTIL.
 - ALL SEWER MAN HOLE RIMS & COVERS ARE TO BE PAMREX.
 - ALL WATER SERVICES ARE TO BE WITNESSED WITH A 2"x4" PAINTED BLUE. ALL SEWER SERVICES ARE TO BE WITNESSED WITH A 2"x4" PAINTED YELLOW, IS STUBBED PRIOR TO BUILDING CONSTRUCTION.
 - CURB BOXES SHOULD BE PLACED IN THE LAWN AREA, OR IF PLACED IN PAVEMENT, A ROAD BOX IS REQUIRED.
 - SEE EXISTING CONDITIONS PLAN FOR DATUM. VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. HORIZONTAL DATUM BASED ON NAD83 STATE PLANE COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS.
 - MINIMUM SLOPE FOR ALL SEWER SERVICE CONNECTIONS IS TO BE NO LESS THAN 0.02%.
 - ALL SEWER INSTALLATIONS SHALL CONFORM TO THE REQUIREMENTS OF NHDES & DOVER DPW SEWER DIVISION STANDARDS. ALL PVC SEWER PIPE IS TO CONFORM WITH ENV-WQ 704.05 (c)-(e) AND CONFORM WITH ASTM D3034. PVC JOINT SEALS SHALL CONFORM WITH ASTM D3121.
 - VERTICAL DATUM BASED ON NAVD88 ELEVATIONS HORIZONTAL COORDINATES BASED ON NAD83. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS RECEIVERS.
 - CONTRACTOR TO TRANSFER TEMPORARY BENCHMARK TO A SUITABLE BENCHMARK TO CONTROL CONSTRUCTION. ANY ELEVATION DISCREPANCIES ARE TO BE REPORTED TO THE THE DESIGN ENGINEER IMMEDIATELY.
 - LOTS 2 THROUGH 10 WILL UTILIZE A MODEL DH 071-93 OUTDOOR GRINDER PUMP WITH BAL-LAST™ WITH CONTROLS AS SPECIFIED ON SHEET U-103 UTILITY DETAILS AND IN E/ONE PRESSURE SYSTEM DESIGN REPORT FOR LUNDY PONY DRIVE DATED FEBRUARY 22, 2019 BY F.R. MAHONY & ASSOCIATES, INC. DESIGN SUBSTITUTIONS TO BE PREPARED BY DESIGN ENGINEER W/ APPROVAL OF THE CITY ENGINEER.

REVISION	DATE	DESCRIPTION

UTILITY PLAN LUNDY PONY DRIVE 3+00 - END
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 95-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : 1 IN. EQUALS 20 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

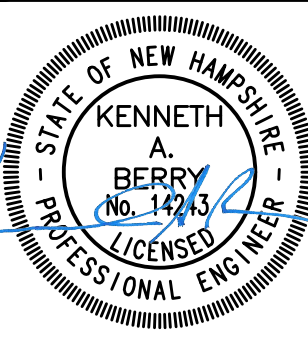




REVISION	DATE	DESCRIPTION

CROSS SECTIONS LUNDY PONY DRIVE 0+24.77 - END
 FOR
 GRAYSTONE BUILDERS, INC.
 LAND OF
 RAYMOND & CLAIRE HOWE
 32 OLD STAGE ROAD
 DOVER, NH
 TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
 335 SECOND CROWN POINT ROAD
 BARRINGTON, NH 03825 (603)332-2863
 SCALE : 1 IN. EQUALS 20 FT.
 DATE : FEBRUARY 20, 2019
 FILE NO. : DB 2018 - 174



8.) THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH NHDOT STANDARD SPECIFICATIONS DATED 2010. CURRENT STANDARD PLANS, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

SE (1) DOUBLE SOLID LINE (YELLOW)

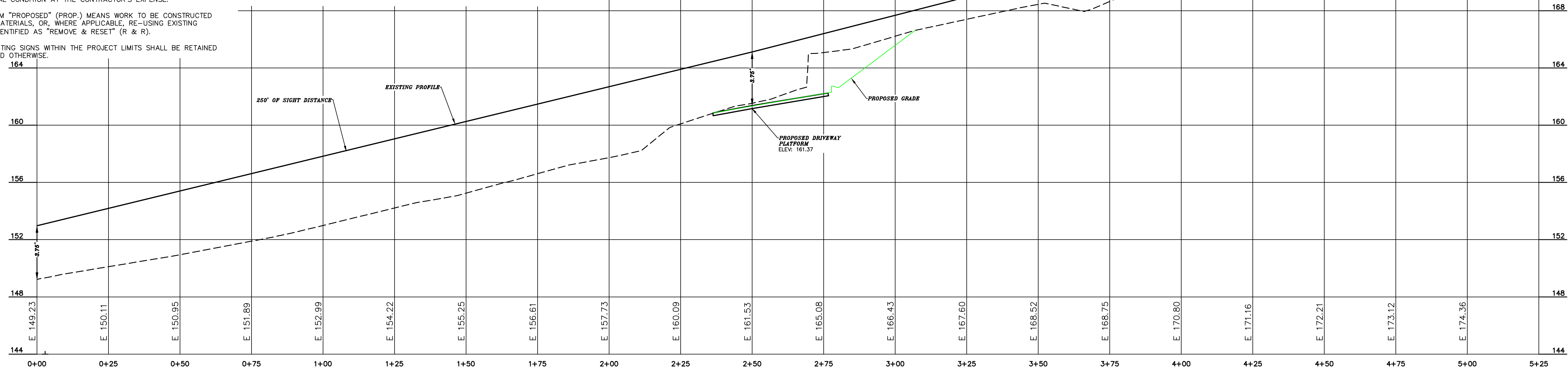
1000

PROFILE VIEW SIGHT LINE

15.) ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE.

18.) THE SPEED LIMIT ON OLD STAGE ROAD IS 30 MPH.

(IN FEET)
1 inch = 20 ft.
VERTICAL SCALE: 1" = 4

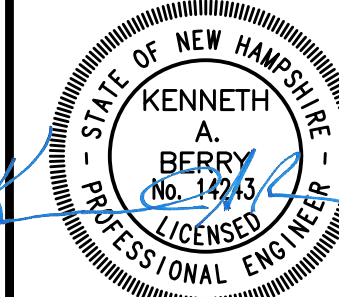


FROM AASHTO GEOMETRIC DESIGN OF HIGHWAYS AND STREETS (2011) EXHIBIT 3.2

HWA-1

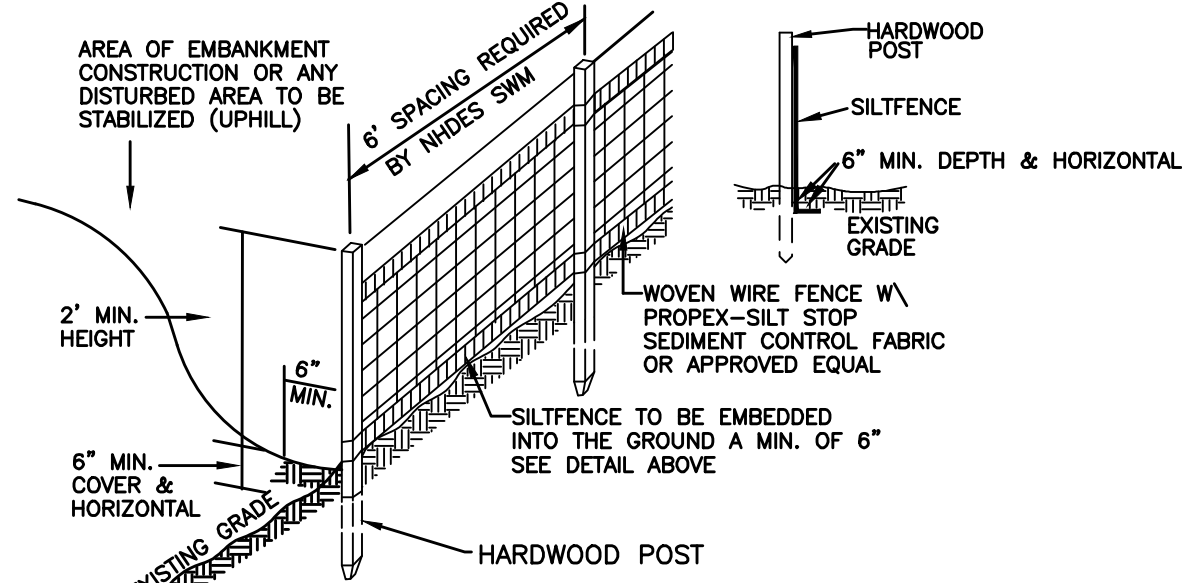
DISTANCE LUNDY PONY DRIVE
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2880
SCALE : 1 IN. EQUALS 20 FT.
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174



SHEET 20 OF 29

E1



SILT FENCE CONSTRUCTION SPECIFICATIONS

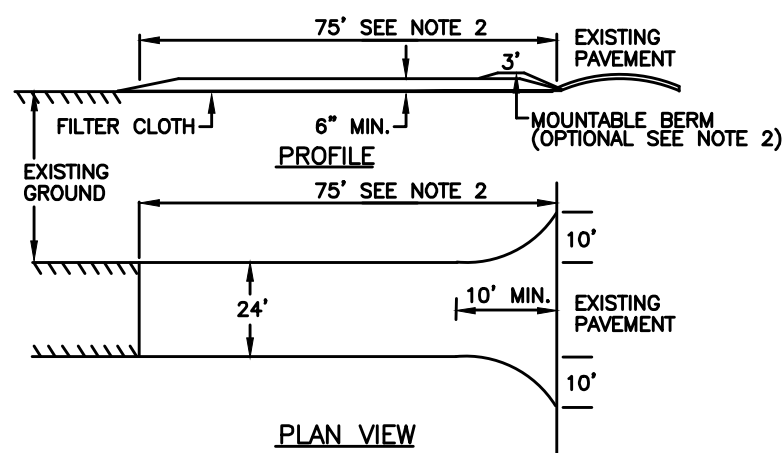
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES AND FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP MID AND BOTTOM SECTIONS AND BE EMBEDDED INTO GROUND A MINIMUM OF 8" THE FENCE POSTS SHALL BE A MINIMUM 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
2. 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.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND PROPERLY DISPOSED OF. SEE MAINTENANCE NOTE BELOW, REMOVAL OF SEDIMENT REQUIRED AT A DEPTH OF 6-INCHES.
4. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE.
5. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER.
6. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND RE-VEGETATED.
7. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, SILT FENCE, PAGE 90.

SILT FENCE 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 REMOVED WHEN THEY REACH SIX-INCHES IN DEPTH.
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.

SILT FENCE DETAIL
NOT TO SCALE

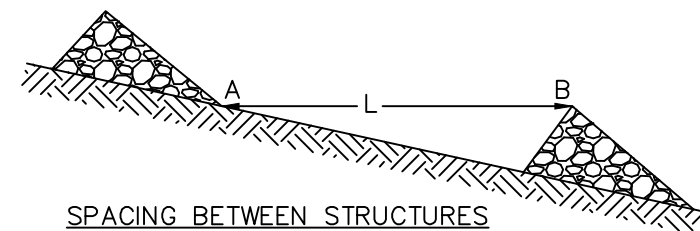
E4 STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
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, WHICHEVER IS GREATER.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE ENTRANCE.
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.
8. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY CONSTRUCTION EXIT, PAGE 124.

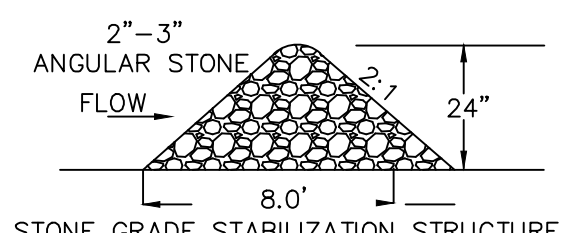
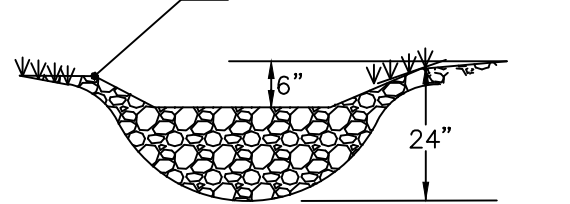
STONE CHECK DAM
NOT TO SCALE

THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.



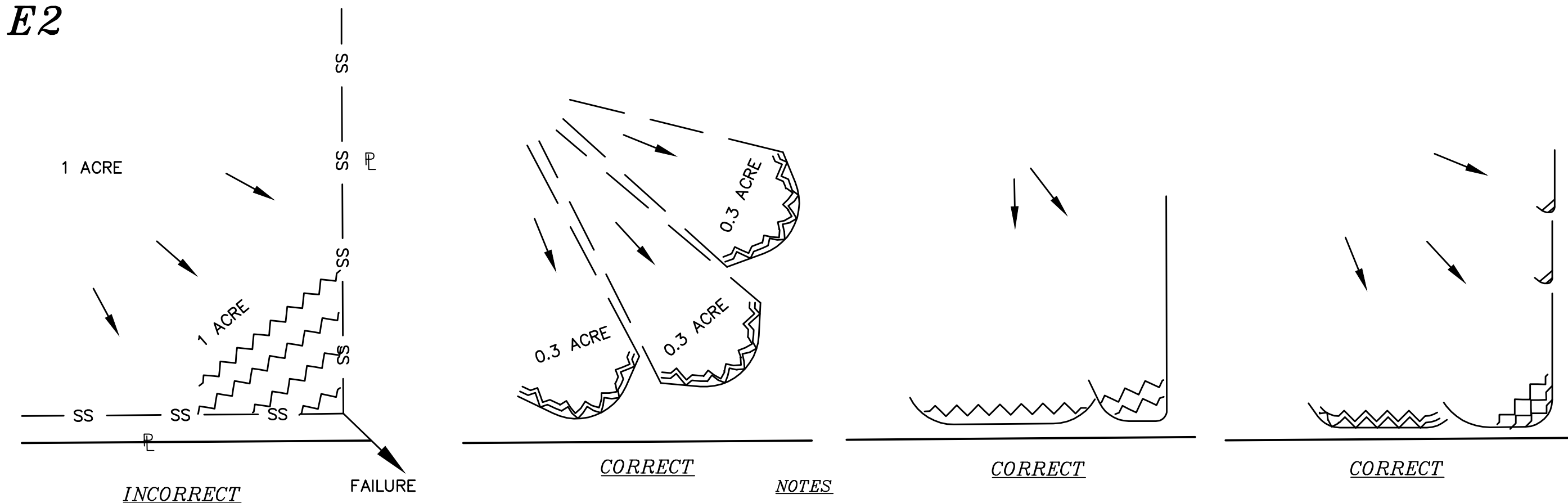
1. CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHOULD BE LESS THAN ONE ACRE.
3. THE MAXIMUM HEIGHT OF THE DAM SHOULD BE TWO FEET.
4. THE CENTER OF THE DAM SHOULD BE AT LEAST SIX INCHES LOWER THAN THE OUTER EDGES.
5. THE MAXIMUM SPACING IS AS SHOWN ON THE PROJECT SITE PLANS.
6. CHECK DAMS WILL NOT BE USED IN A FLOWING STREAM.
7. TEMPORARY CHECK DAMS WILL BE REMOVED ONCE THE SWALE OR DITCH IS DETERMINED STABLE.
8. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY CHECK DAMS, PAGE 114.

NOTE: KEY STONE INTO CHANNEL, BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" TO PREVENT FLOW AROUND THE DAM.



STONE GRADE STABILIZATION STRUCTURE

E2



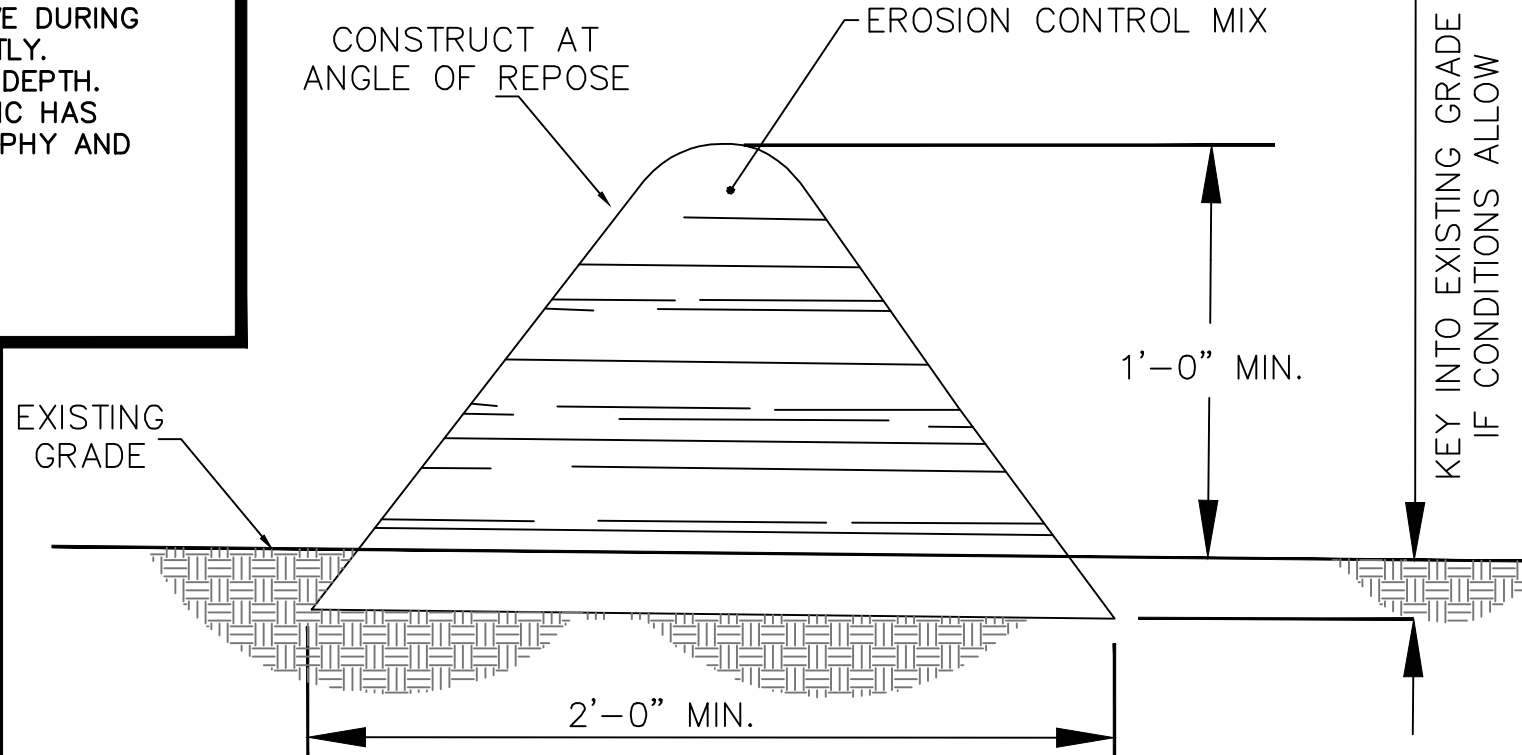
NOTES

1. DO NOT LAYOUT SILT SOXX ALONG PROPERTY PERIMETER WITHOUT INSTALLING "J HOOKS" AT HIGH CONCENTRATION AREAS. RUNOFF WILL CONCENTRATE AND CAUSE FAILURES ALONG THE PERIMETER. "J HOOKS" CAN BE USED TO HELP LIMIT THE CONCENTRATION OF RUNOFF AND PROVIDE MORE STABILITY TO THE PERIMETER.
2. SEE HAMPSHIRE STORM WATER MANUAL: VOLUME 3, PAGE 99 FOR FURTHER DETAILS AND SPECIFICATIONS

SILT SOXX

NOT TO SCALE

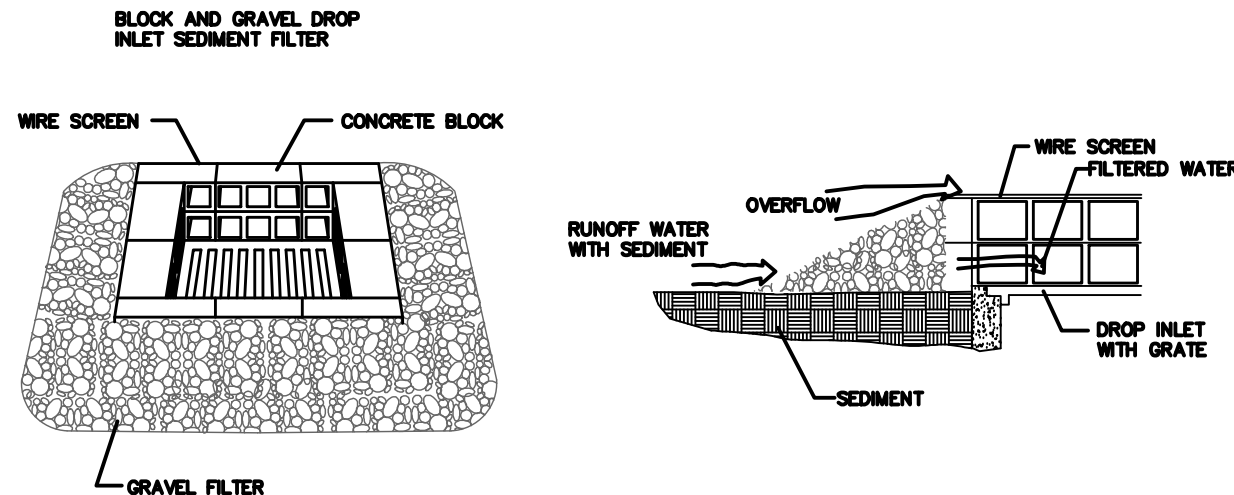
E5 EROSION CONTROL MIX BERM
NOT TO SCALE



EROSION CONTROL MIX BERMS SHALL BE USED ONLY AS FOLLOWS:

1. BERMS SHALL BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE BERM.
2. THE BERMS SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSELY AS POSSIBLE.
3. THE BERMS SHALL BE INSTALLED ON SLOPES LESS THAN 5%.
4. SUBJECT TO (E), BELOW, THE MIX SHALL HAVE AN ORGANIC PORTION BETWEEN 80 AND 100% DRY WEIGHT BASIS, AND BE FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS SHALL NOT BE USED AS ORGANIC MATERIAL.
5. THE MIX SHALL NOT CONTAIN SILTS, CLAY, OR FINE SANDS.
6. THE MIX SHALL HAVE A PARTICLE SIZE BY WEIGHT OF 70 TO 85% PASSING A 6-INCH SCREEN AND A MAXIMUM OF 85% PASSING THE 0.75-INCH SCREEN.
7. THE MIX PH SHALL BE BETWEEN 5.0 AND 8.0.
8. THE BERM SHALL BE AT LEAST 12 INCHES HIGH AND AT LEAST 2 FEET WIDE.
9. TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, EROSION CONTROL MIX BERMS, PAGE 106.

E6



MAINTENANCE

ALL STRUCTURES SHOULD BE INSPECTED AFTER EVERY RAIN STORM AND REPAIRS MADE AS NECESSARY. SEDIMENT SHOULD BE REMOVED FROM TRAPPING DEVICES AFTER THE SEDIMENT HAS REACHED A MAXIMUM OF ONE HALF THE DEPTH OF THE TRAP. THE SEDIMENT SHOULD BE DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURE OR VEGETATIVE MEANS. THE TEMPORARY TRAPS SHOULD BE REMOVED AND THE AREA REPAIRED AS SOON AS THE CONTRIBUTING DRAINAGE AREA TO THE INLET HAS BEEN COMPLETELY STABILIZED.

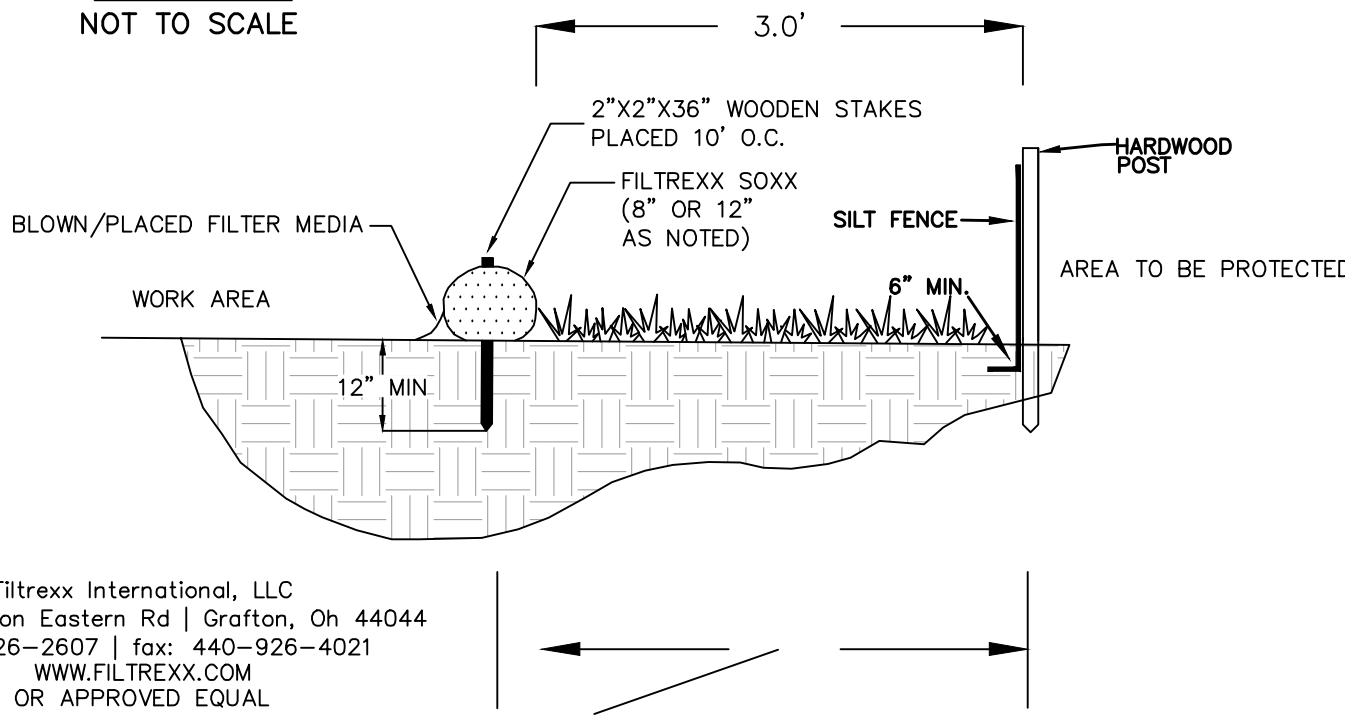
BLOCK & GRAVEL DROP INLET SEDIMENT FILTER

NOT TO SCALE

TO BE USED IN ALL AREAS WHERE THERE WILL BE NO TRAFFIC.

TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY STORM DRAIN INLET PROTECTION, PAGE 118.

FILTREXX SEDIMENT CONTROL
NOT TO SCALE



NOTE: FOR AREAS REQUIRING DOUBLE PERIMETER CONTROL WITHIN 50' OF JURISDICTIONAL WETLANDS AND NOT FOR ALL SILT SOXX APPLICATIONS. THIS DUPLICATION MAY BE SPECIFIED AS 12" SILT SOXX OR ORANGE CONSTRUCTION FENCE AS NOTED.

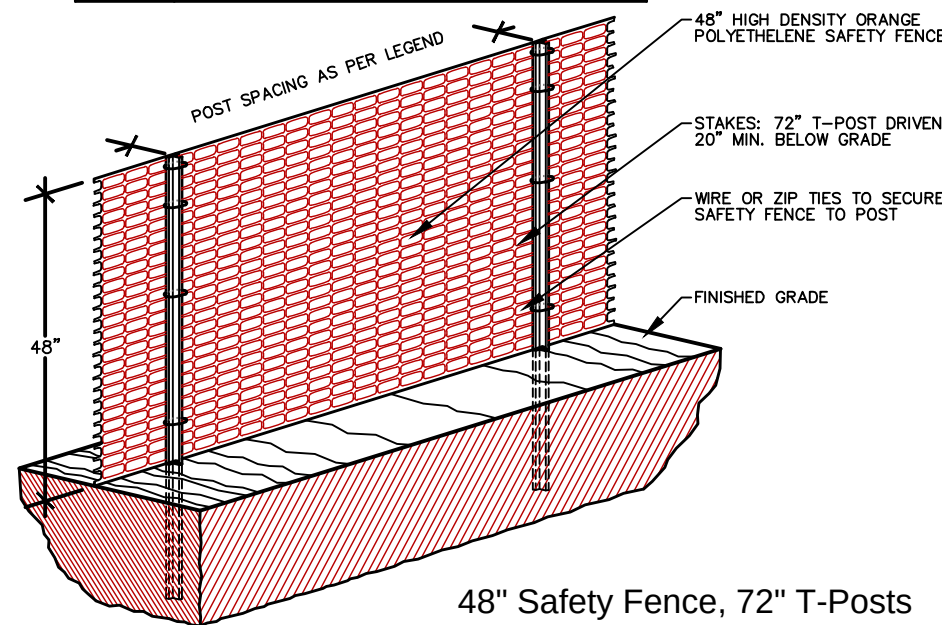
SECTION NOT TO SCALE

E3

CONSTRUCTION SAFETY FENCE

NOT TO SCALE

LEGEND	
SAF12	48" ORANGE FENCE, 12 FEET O.C.
SAF11	48" ORANGE FENCE, 11 FEET O.C.
SAF10	48" ORANGE FENCE, 10 FEET O.C.
SAF9	48" ORANGE FENCE, 9 FEET O.C.
SAF8	48" ORANGE FENCE, 8 FEET O.C.
SAF7	48" ORANGE FENCE, 7 FEET O.C.
SAF6	48" ORANGE FENCE, 6 FEET O.C.

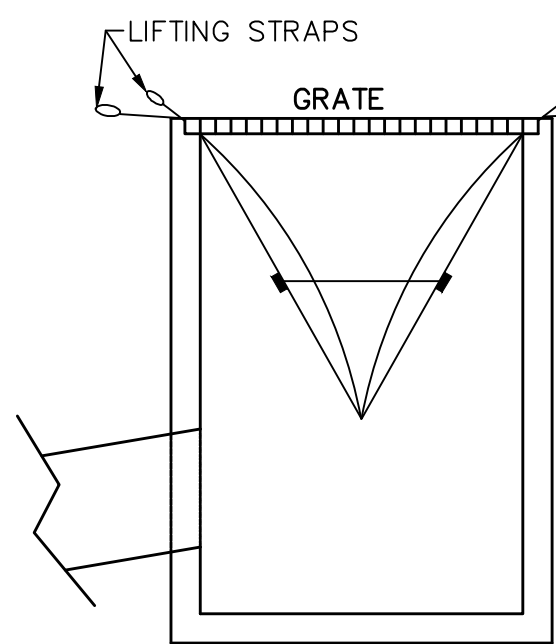


1. ALL SENSITIVE AREAS SHALL BE PROTECTED AS PER PLAN.
2. ALL TREES IN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED AND PROTECTED WITH HIGH VISIBILITY FENCE AS PER PLAN.
3. WHEN PRACTICABLE, INSTALL HIGH VISIBILITY 3 FEET OUTSIDE OF THE DRIP LINE OF THE TREE.
4. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.
5. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION; ANY CHANGE OF THE PROTECTIVE FENCING MUST BE APPROVED.

E9 TEMPORARY EROSION CONTROL MEASURES

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER.
3. ALL DISTURBED AREAS SHALL BE RETURNED TO ORIGINAL GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 4" OF LOAM AND SEEDING WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA. (SEE SEED SPECIFICATIONS THIS SHEET)
4. ALL DISTURBED AREAS WILL BE RESTABILIZED WITHIN 45 DAYS. AT ANY ONE TIME, NO MORE THAN 5 ACRES, (217,800 Sq. Ft.) WILL BE DISTURBED.
5. SILT FENCES AND PERIMETER BARRIERS SHALL BE INSPECTED PERIODICALLY AND AFTER EVERY RAIN DURING THE LIFE OF THE PROJECT. ALL DAMAGED AREAS SHALL BE REPAIRED, SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
6. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED.
7. PER THE EPA CGP REQUIREMENTS THERE WILL BE REPORTS OF THE EROSION CONTROL INSPECTIONS IAW SWPPP PREPARED BY BS&E. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OR GREATER RAIN EVENT.
8. DITCHES, SWALES, AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
9. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
10. DRIVEWAYS AND CUT AND FILL SLOPES MUST BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINAL GRADE.
11. STABILIZATION MEANS:
 - 11.1. A MINIMUM OF 85% OF VEGETATIVE COVER HAS BEEN ESTABLISHED.
 - 11.2. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED, OR
 - 11.3. EROSION CONTROL BLANKETS HAVE BEEN INSTALLED.
12. THIS PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
13. THE NHDES STORMWATER MANUAL, IN THREE VOLUMES, DATED DECEMBER 2008, IS A PART OF THIS PLAN SET AND THE MORE RESTRICTIVE WILL GOVERN. (NH SWM)

E10



RECOMMENDED MAINTENANCE SCHEDULE
-EACH SILTSACK SHOULD BE INSPECTED AFTER EVERY MAJOR RAIN EVENT, AND MUST BE MAINTAINED.
-IF THERE HAVE BEEN NO MAJOR EVENTS, SILTSACK SHOULD BE INSPECTED EVERY 2-3 WEEKS.
-THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF CORD IS COVERED WITH SEDIMENT, THE SILTSACK SHOULD BE EMPTIED.

-TO BE USED IN ALL AREAS WHERE THERE WILL BE TRAFFIC.
- ARE SUBJECT TO DAMAGE BY SNOW PLOWS, AND MUST BE INSPECTED AFTER ANY SNOW EVENT AND REPLACED AS REQUIRED.

TO BE CONSTRUCTED IAW NH SWM #3 4-2 SEDIMENT CONTROL PRACTICES, TEMPORARY STORM DRAIN INLET PROTECTION, PAGE 118.

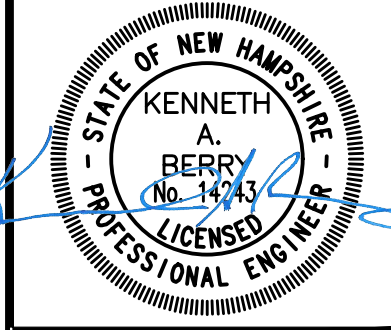
SILTSACK DETAIL
NOT TO SCALE

E-101

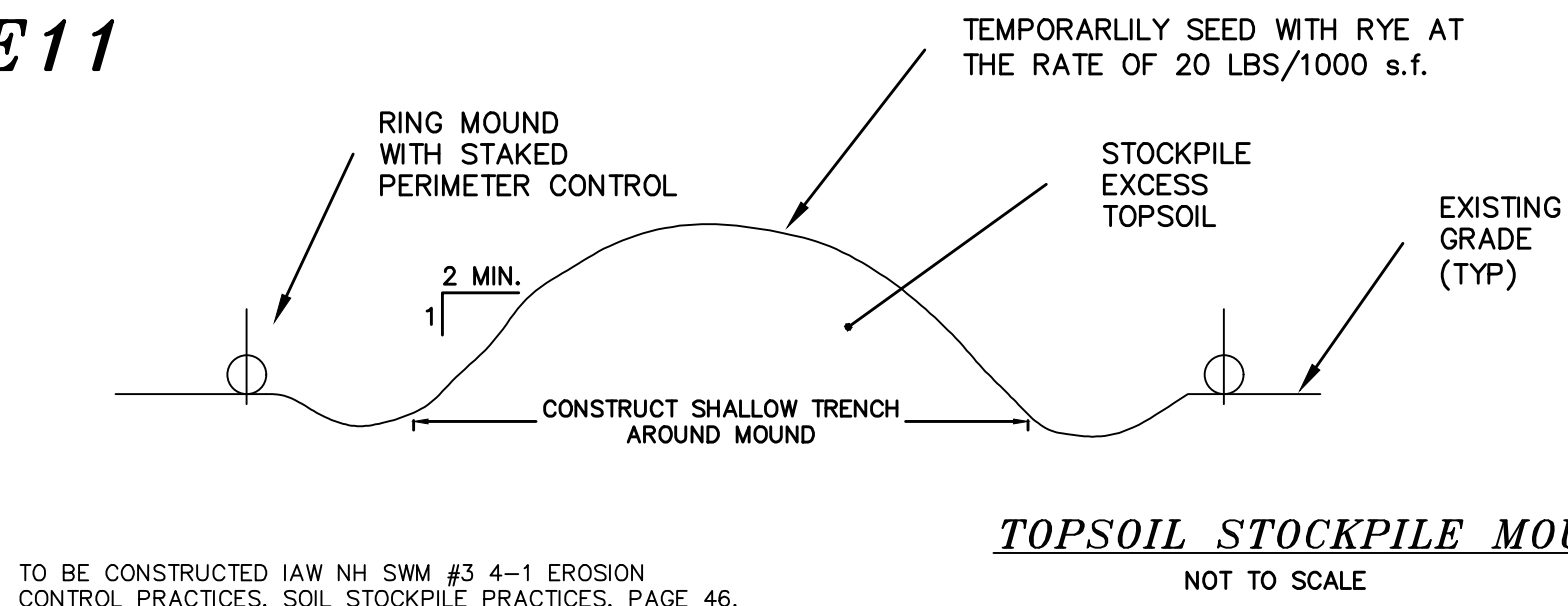
DESCRIPTION	
REVISION	DATE

EROSION & SEDIMENT CONTROL DETAILS	
FOR GRAYSTONE BUILDERS, INC. LAND OF RAYMOND & CLAIRE HOWE 32 OLD STAGE ROAD DOVER, NH	
TAX MAP G. LOT 95-E	

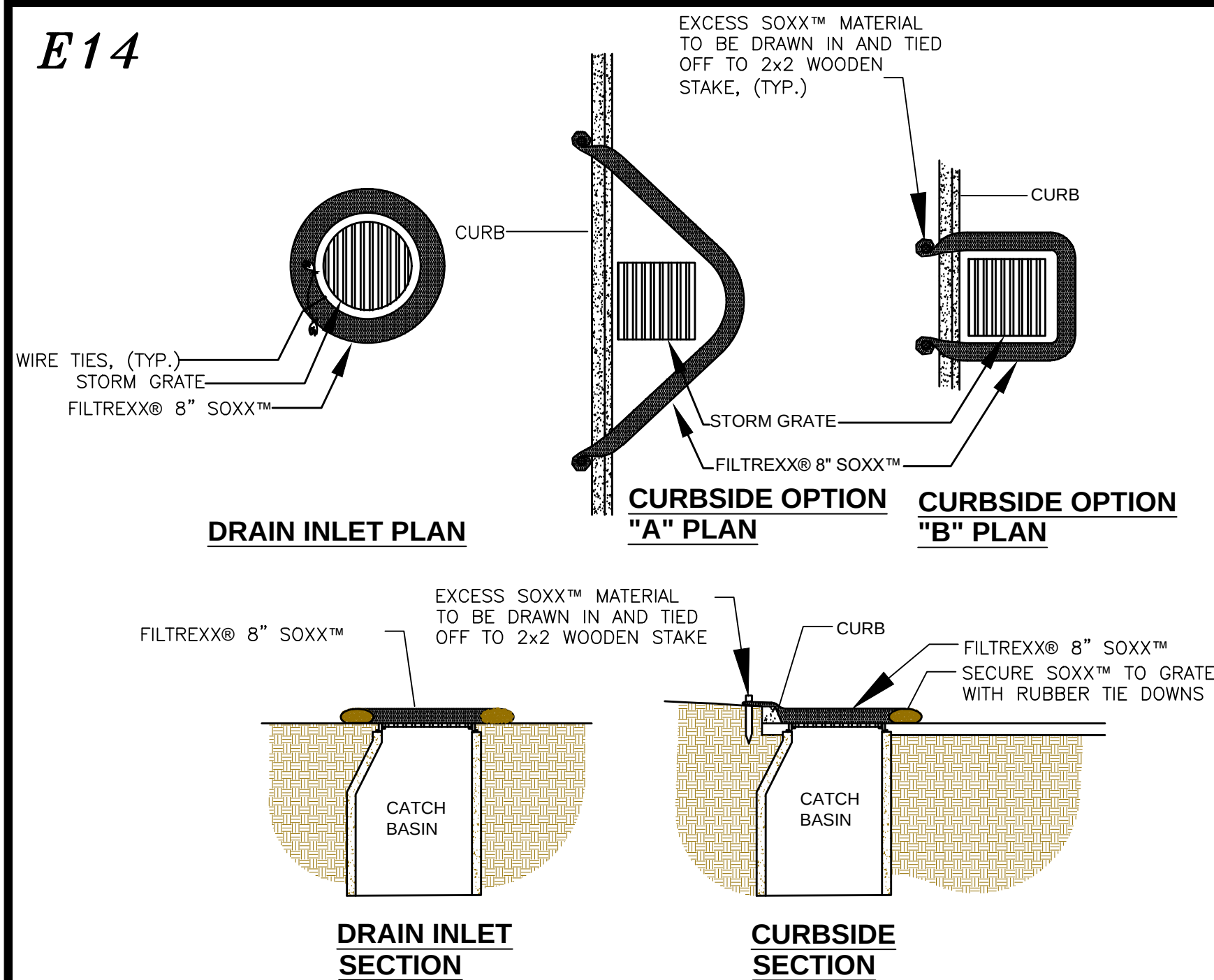
BERRY SURVEYING & ENGINEERING	
335 SECOND CROWN POINT ROAD BARRINGTON, NH 03825 (603)332-2863	
AS NOTED	
DATE :	FEBRUARY 20, 2019
FILE NO. :	DB 2018 - 174



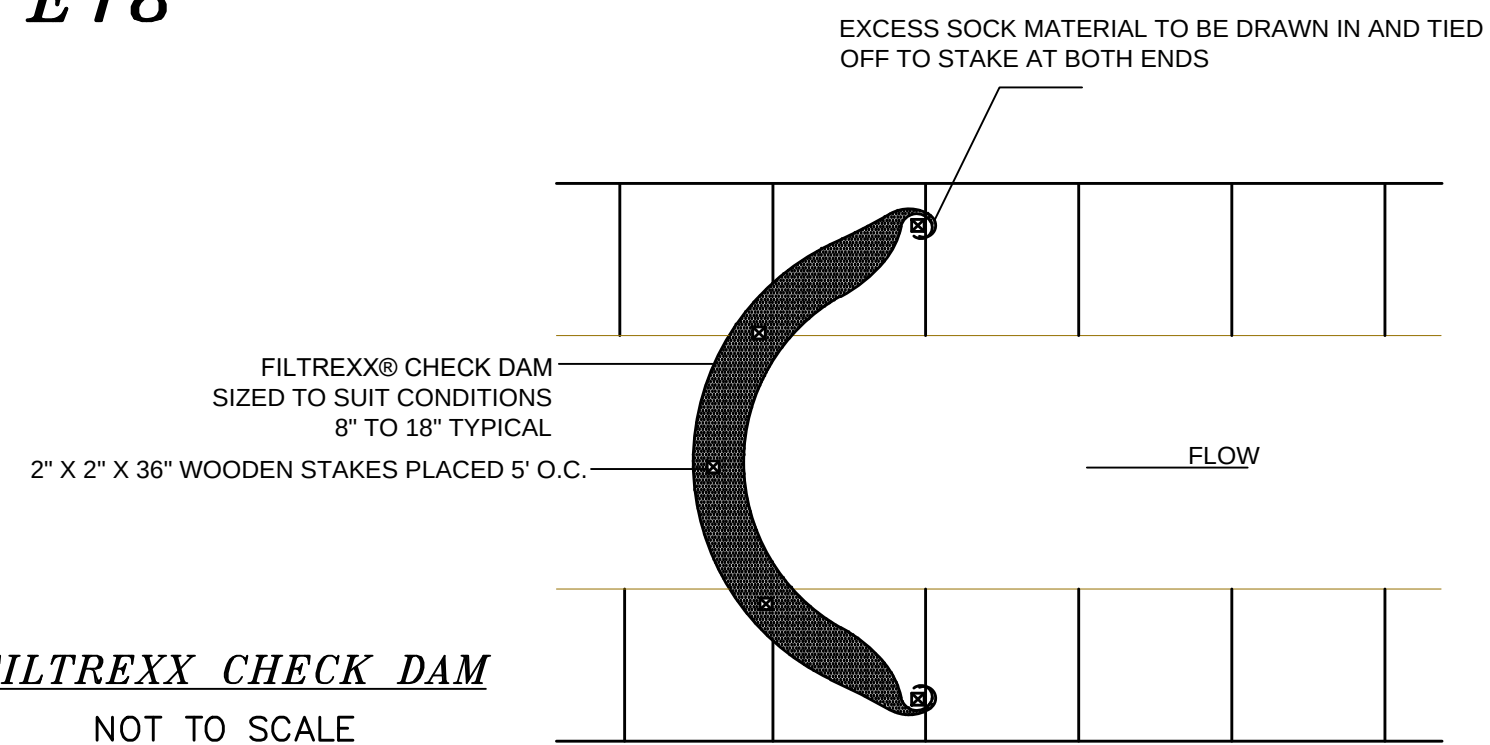
E11



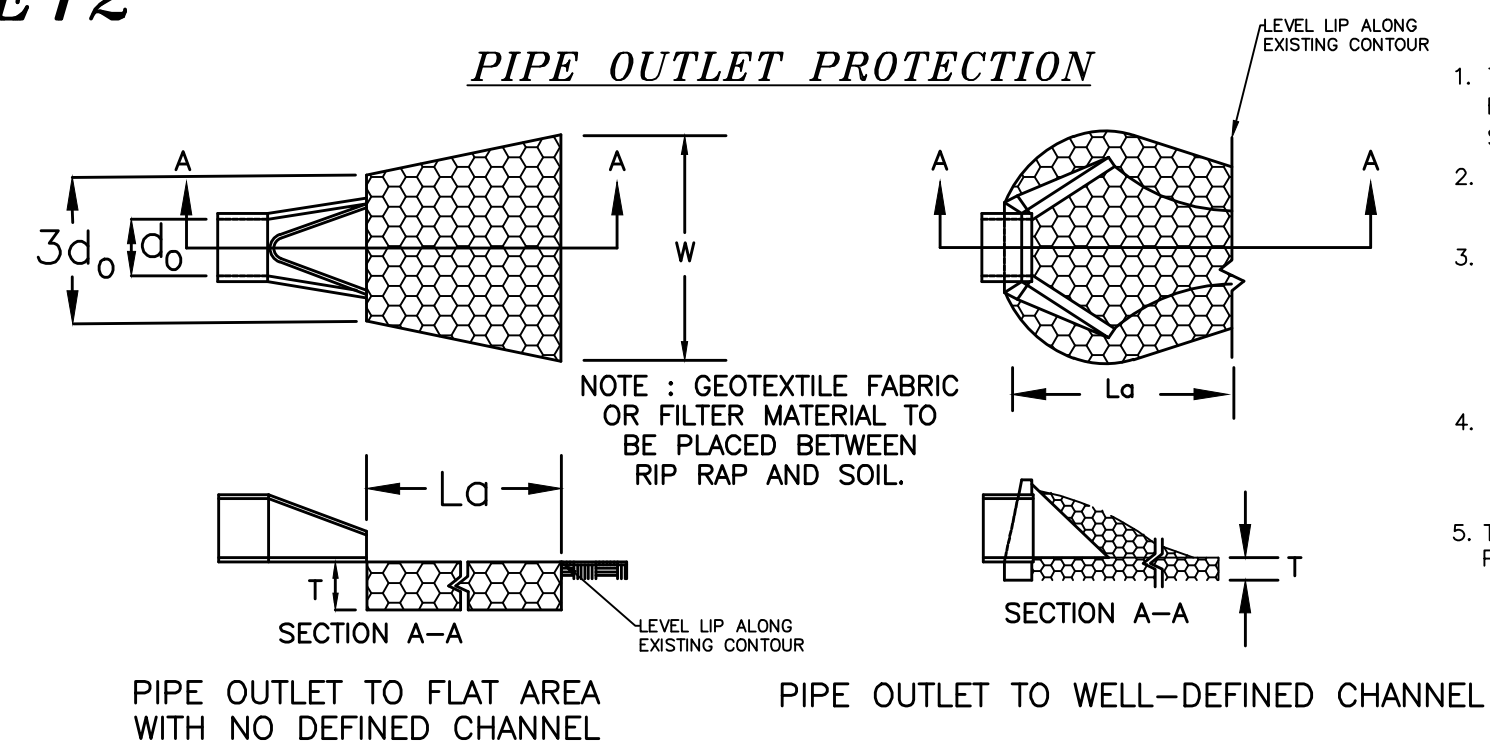
E14



E18



E12



E15

NOTE: Temporary seed mix for stabilization of turf shall be winter rye or oats 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.

SEEDING GUIDE				
USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED
STEEP CUTS AND FILLS, BORROW AREAS	A	FAIR	GOOD	GOOD
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER FLOWING WATER	B	POOR	GOOD	GOOD
LIGHTLY USED PARKING LOTS, GOLF COURSES, UNIMPAVED LANDS, AND LOW INTENSITY RECREATION SITES	C	FAIR	FAIR	GOOD
PLAY AREAS AND ATHLETIC FIELDS (TOPSOIL IS ESSENTIAL FOR GOOD TURF)	D	GOOD	EXCELLENT	EXCELLENT
GRAVEL PIT, SEE NH-FM-24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.	E	GOOD	EXCELLENT	EXCELLENT
1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE 7-36	F	FAIR	EXCELLENT	EXCELLENT
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.	G	FAIR	EXCELLENT	EXCELLENT

SEEDING SPECIFICATIONS

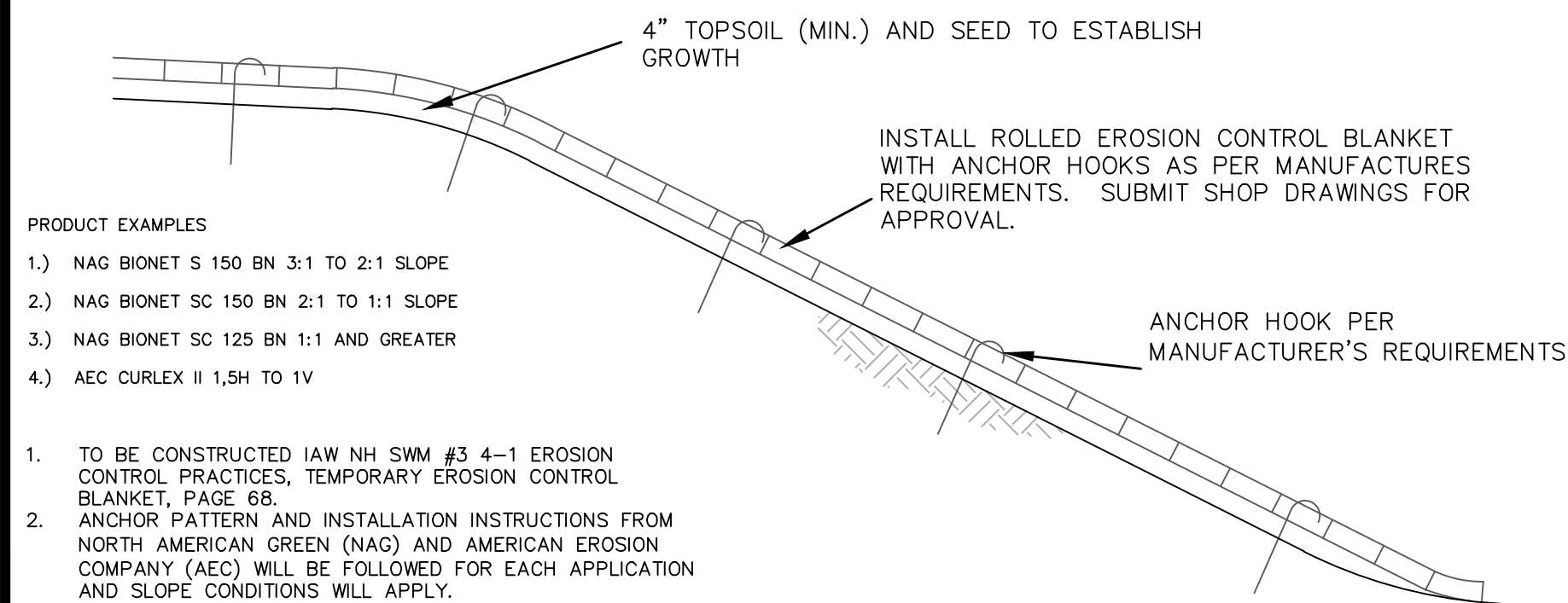
1. GRADING AND SHAPING
 - A. SLOPES SHALL NOT BE STEEPER THAN 2:1; 3:1 SLOPES OR FLATTER ARE PREFERRED.
 - WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
 - A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER 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. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEED BED 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 100LBS. PER 1,000 SQ.FT.
 - NITROGEN(N), 50LBS. PER ACRE OR 1.1LBS. PER 1,000 SQ.FT.
 - PHOSPHATE(P2O5), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
 - POTASH(K2O), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
 - (NOTE: THIS IS THE EQUIVALENT OF 500LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000LBS. PER ACRE OF 5-10-10.)

SEEDING RATES		
MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 S.F.
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
FLAT PEA	40	0.95
TOTAL	80	1.95
C. TALL FESCUE	24	0.55
CREeping RED FESCUE	24	0.55
BIRDS FOOT TREFOIL	24	0.55
TOTAL	72	1.65
D. TALL FESCUE	20	0.45
FLAT PEA	20	0.45
TOTAL	40	0.90
E. CREeping RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 2/	100	2.30
TOTAL	150	3.45
F. TALL FESCUE 1	150	3.60

CONSERVATION MIX	POUNDS PER ACRE	POUNDS PER 1,000 S.F.
RED FESCUE (35%)	75	1.75
TALL FESCUE (25%)	55	1.25
ANNUAL RYEGRASS (12%)	33	0.75
PERENNIAL RYEGRASS (10%)	26	0.60
KENTUCKY BLUEGRASS (10%)	22	0.50
WHITE CLOVER (3%)	7	0.15

- 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.
- 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 TREFOIL, AND FLAT PEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT.
- 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.
- 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 90LBS PER 1000 S.F.
- 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.
- TO BE CONSTRUCTED IAW NH SWM #3 4-1 EROSION CONTROL PRACTICES, PERMANENT VEGETATION, PAGE 60.

E19



1. TO BE CONSTRUCTED IAW NH SWM #3 4-1 EROSION CONTROL PRACTICES, TEMPORARY EROSION CONTROL BLANKET, PAGE 68.
2. ANCHOR PATTERN AND INSTALLATION INSTRUCTIONS FROM NORTH AMERICAN GREEN (NAG) AND AMERICAN EROSION COMPANY (AEC) WILL BE FOLLOWED FOR EACH APPLICATION AND SLOPE CONDITIONS WILL APPLY.

PIPE OUTLET PROTECTION
CONSTRUCTION SPECIFICATIONS

1. THE SUB GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS. SPECIFIED GRADATION.
2. THE ROCK OR GRAVEL USED FOR FILTER OF RIP RAP SHALL CONFORM TO NHDOT SECTION 583.
3. 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.
4. 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.
5. TO BE CONSTRUCTED IAW NH SWM #2 4-6 CONVEYANCE PRACTICES, 6. OUTLET PROTECTION, PAGE 172.

E13

TABLE 7-24--RECOMMENDED RIP RAP GRADATION RANGES			
d50 SIZE=	0.5 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	

E16

CONSTRUCTION SEQUENCE:

- 1.) CUT AND REMOVE TREES IN CONSTRUCTION AREA ONLY AS REQUIRED, RELOCATE ANY PROJECT T.B.M.
 - 2.) CONSTRUCT AND/OR INSTALL TEMPORARY AND PERMANENT SEDIMENT EROSION AND DETENTION CONTROL FACILITIES AS SPECIFIED. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SOIL LAND DISTURBANCE AND MUST BE REVIEWED AND APPROVED BY THE COMMUNITY SERVICES DEPARTMENT.
 - 3.) EROSION, SEDIMENT AND DETENTION CONTROL FACILITY SHALL BE INSTALLED & STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM. TEMPORARY DIVERSIONS MAY BE REQUIRED. POST CONSTRUCTION STORM WATER MANAGEMENT PRACTICES MUST BE INITIATED AND STABILIZED EARLY IN THE PROCESS.
 - 4.) CLEAR, CUT AND DISPOSE OF DEBRIS IN APPROVED FACILITY
 - 5.) CONSTRUCT TEMPORARY CULVERTS AS REQUIRED, OR DIRECTED
 - 6.) CONSTRUCT ROADWAYS FOR ACCESS TO DESIRED CONSTRUCTION AREAS. ALL ROADS SHALL BE STABILIZED IMMEDIATELY
 - 7.) START BUILDING CONSTRUCTION
 - 8.) INSTALL PIPE AND CONSTRUCTION ASSOCIATED APPURTENANCES AS REQUIRED OR DIRECTED. INSTALL RAIN GARDENS. ALL DISTURBED AREAS SHALL STABILIZED IMMEDIATELY AFTER GRADING.
 - 9.) BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES AND DISTURBED AREAS SHALL BE SEED OR MULCHED AS REQUIRED, OR DIRECTED. NO AREA IS ALLOWED TO BE DISTURBED FOR A LENGTH OF TIME THAT EXCEEDS 60 DAYS BEFORE BEING STABILIZED. DAILY, OR AS REQUIRED. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES. ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES.
 - 10.) CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
 - 11.) INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. ALL SWPPP INSPECTIONS MUST BE CONDUCTED BY A QUALIFIED PROFESSIONAL SUCH AS A PROFESSIONAL ENGINEER (PE), A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), A CERTIFIED EROSION SEDIMENT AND STORM WATER INSPECTOR (CESSWI), OR A CERTIFIED PROFESSIONAL IN STORM WATER QUALITY (CPSWQ). INSPECTION REPORTS SHALL BE SUBMITTED TO THE COMMUNITY SERVICES DEPARTMENT.
 - 12.) COMPLETE PERMANENT SEEDING AND LANDSCAPING.
 - 13.) REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES AND SITE IMPROVEMENTS ARE COMPLETE.
 - 14.) SMOOTH AND REVEGETATE ALL DISTURBED AREAS.
 - 15.) FINISH PAVING ALL ROADWAYS.
- NOTE: QTY OF DOVER'S "CONSTRUCTION GUIDELINES, PERMITS, RULES AND REGULATIONS" ARE A PART OF THIS PLAN SET AND THE MORE RESTRICTIVE WILL GOVERN. (D-CGPRR)

E18 DEFINITION OF STABLE:

PER ENV-WQ 1500 ALTERATION OF TERRAIN

1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
 2. A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED..
 3. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED.
 4. OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- ADDITION STABILIZATION NOTES:
5. HAY MULCH OR OTHER APPROVED METHODS SHALL BE USED TO CONTROL EROSION OF NEWLY GRADED AREAS. ALL CUT AND FILL SLOPES SHALL BE SEED AND MULCHED WITHIN 72 HOURS AFTER THEIR CONSTRUCTION.
 6. DISTURBED SOIL AREAS SHALL BE EITHER TEMPORARILY OR PERMANENTLY STABILIZED. IN AREAS WHERE FINAL GRADING HAS NOT OCCURRED, TEMPORARY STABILIZATION MEASURES SHOULD BE IN PLACE WITHIN SEVEN (7) CALENDAR DAYS FOR EXPOSED SOIL AREAS THAT ARE WITHIN ONE HUNDRED (100) FEET OF A SURFACE WATER BODY OR A WETLAND AND NO MORE THAN 14 CALENDAR DAYS FOR ALL OTHER AREAS. PERMANENT STABILIZATION SHOULD BE IN PLACE WITHIN THREE (3) CALENDAR DAYS FOLLOWING COMPLETION OF FINAL GRADING OF EXPOSED SOIL AREAS.

E20

WINTER STABILIZATION NOTES

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.

E-102

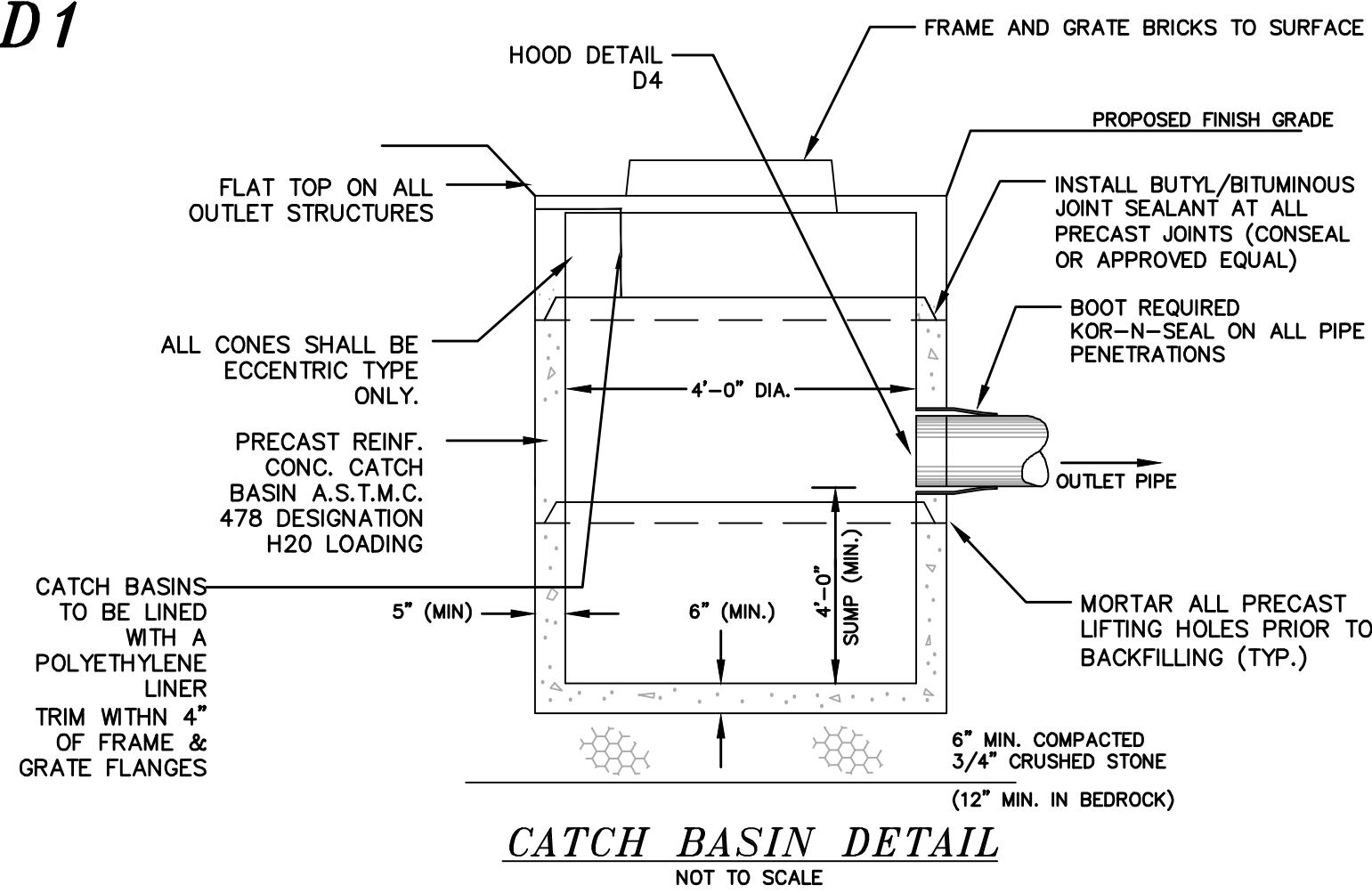
DESCRIPTION	DATE	REVISION

EROSION & SEDIMENT CONTROL DETAILS
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 95-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
AS NOTED
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

KENNETH A. BERRY
No. 1223
LICENSED PROFESSIONAL ENGINEER

D1



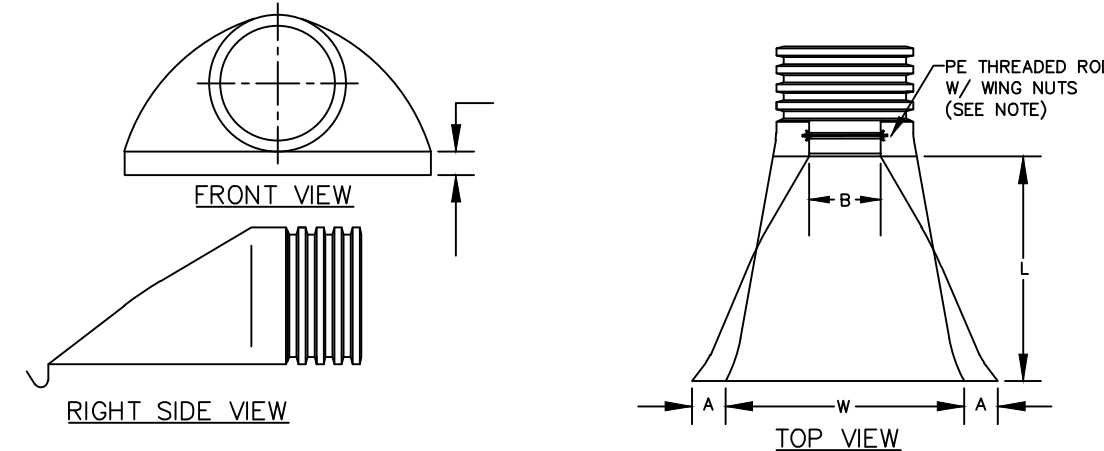
CATCH BASIN FRAME AND GRATE WILL BE REXUS, OR APPROVED EQUAL, 24 INCH OPENING, DUCTILE IRON, H2O LOADING.

D2

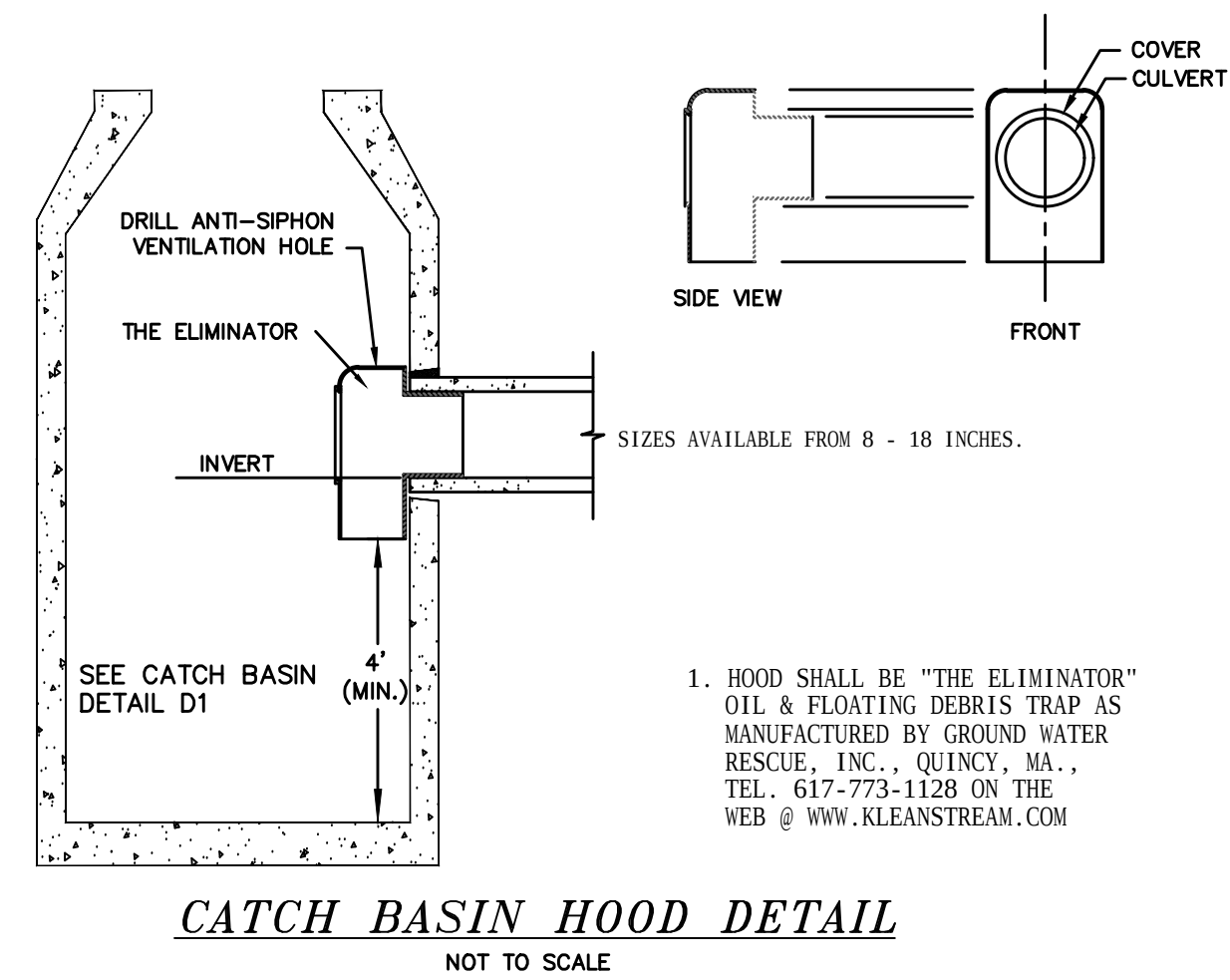
PART No.	PIPE SIZE	A	B(MAX)	H	L	W
1510-NP	15"	6.5"	10"	6.5"	25"	29"
	375 mm	165 mm	254 mm	165 mm	635 mm	735 mm
1810-NP	18"	7.5"	15"	6.5"	32"	35"
	450 mm	190 mm	380 mm	165 mm	812 mm	890 mm
2410-NP	24"	7.5"	18"	6.5"	36"	45"
	600 mm	190 mm	450 mm	165 mm	900 mm	1140 mm
3010-NP	30"	10.5"	N/A	7.0"	53"	68"
	750 mm	266 mm		178 mm	1345 mm	1725 mm
3610-NP	36"	10.5"	N/A	7.0"	53"	68"
	900 mm	266 mm		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)

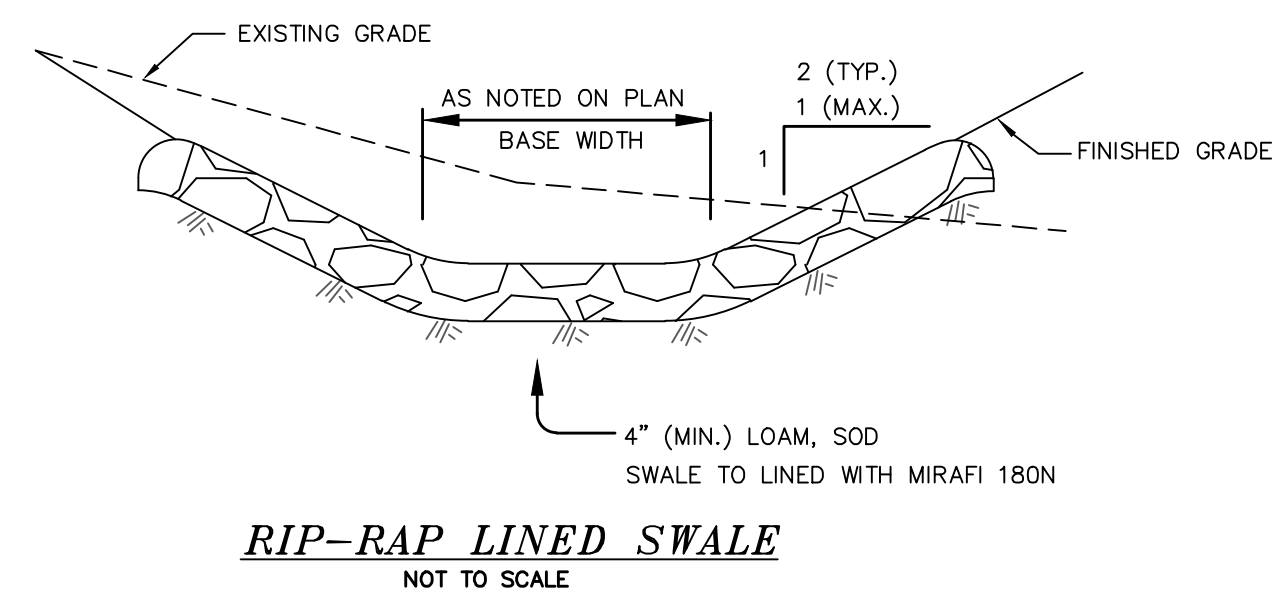


D3



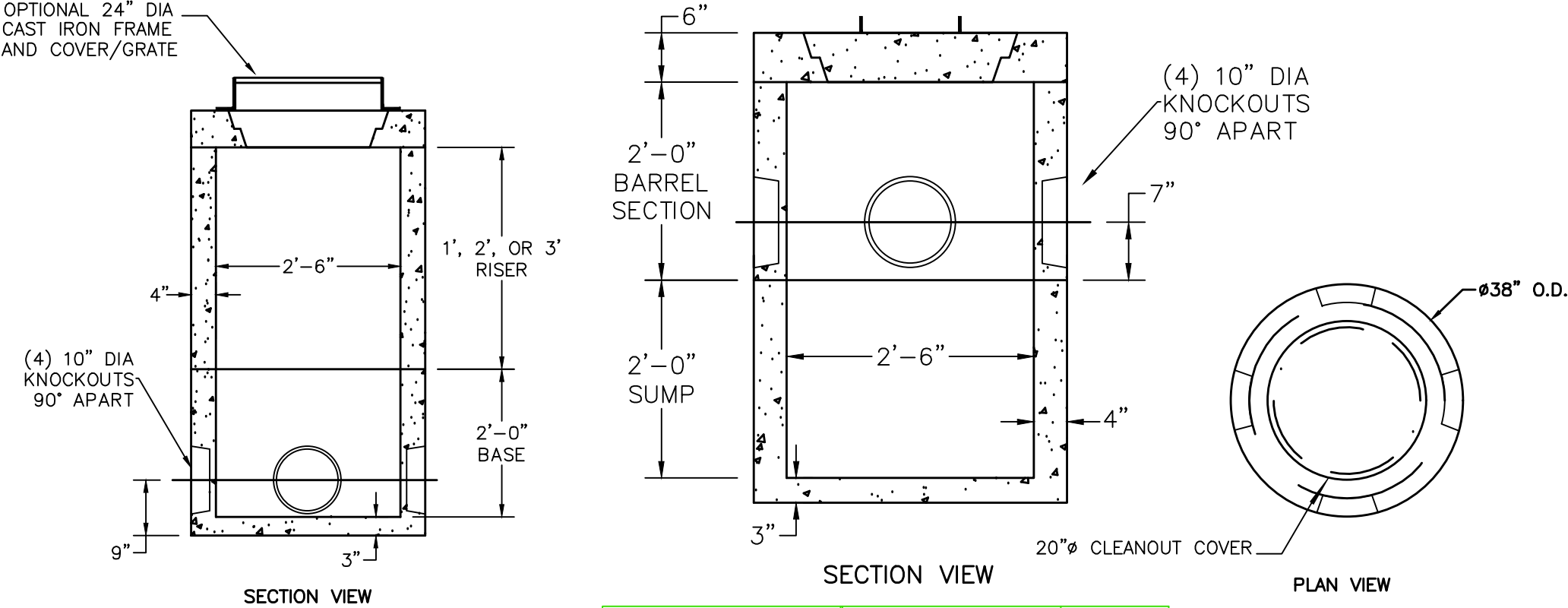
1. HOOD SHALL BE "THE ELIMINATOR" OIL & FLOATING DEBRIS TRAP AS MANUFACTURED BY GROUND WATER RESCUE, INC., QUINCY, MA., TEL. 617-773-1128 ON THE WEB @ WWW.KLEANSTREAM.COM

D4



NOTES:
1. INSTALL CHECK TEMPORARY SILT SOXX CHECK DAM UNTIL SWALES ARE STABILIZED
2. SEE GRADING PLAN FOR DEGRADATION AND THICKNESS

D5

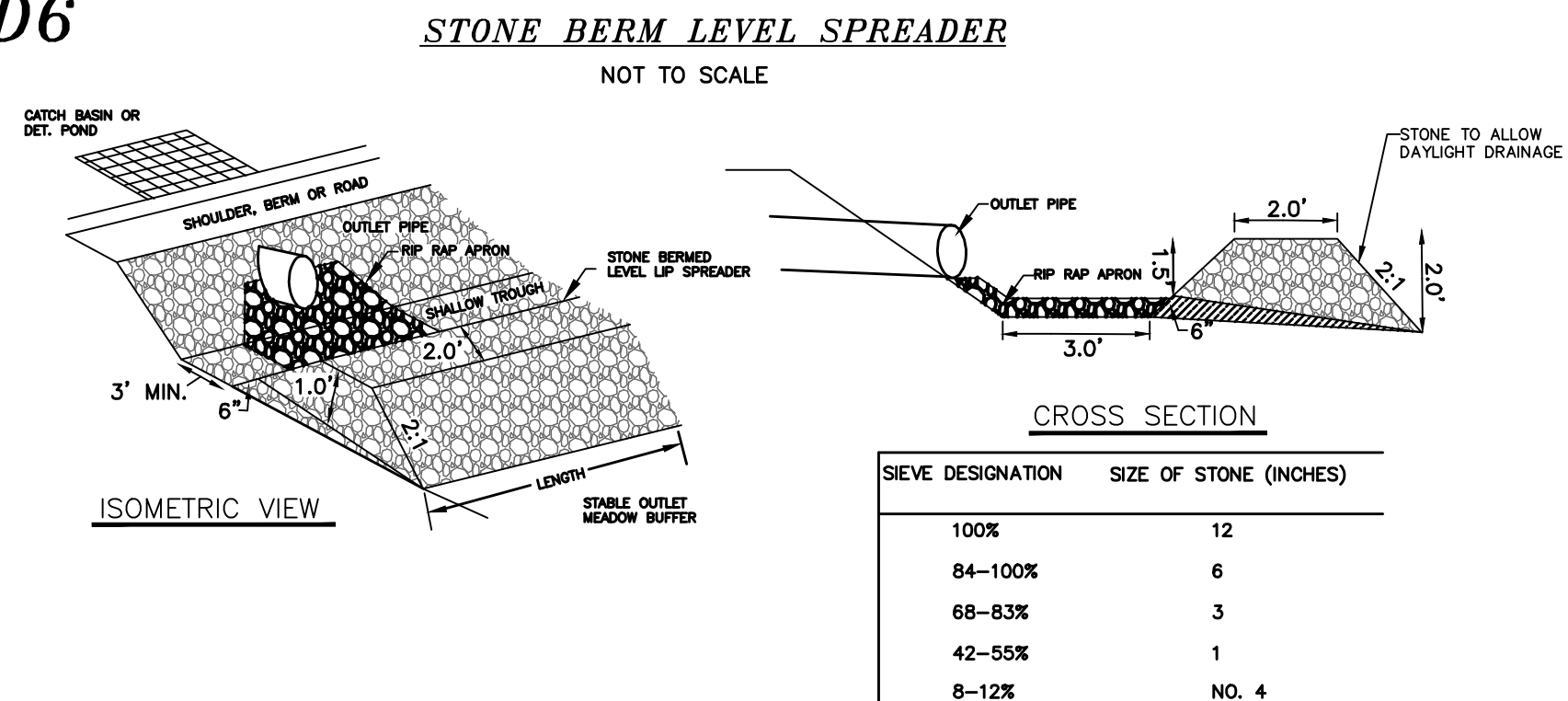


NOTES:
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1-5 FEET COVER
3. MUST BE SHEA CONCRETE OR EQUAL.

38" MINI CATCH BASIN
NOT TO SCALE

SECTIONS	ITEM NO	WEIGHT
1'-0" RISER	MC-MCB12RH	440#
2'-0" RISER	MC-MCB24RH	880#
3'-0" RISER	MC-MCB36RH	1320#
2'-0" BASE	MC-MCB24SH	1175#
2'-0" BARREL	MC-MCB24BSH	880#
38" COVER	MC-MCB38CH	585#

D6



1. CONSTRUCT THE LEVEL SPREADER LIP ON A 0% GRADE TO INSURE UNIFORM SPREADING OF RUNOFF.
2. LEVEL SPREADER SHALL BE CONSTRUCTED ON UNDISTURBED SOIL AND NOT ON FILL.
3. THE ENTIRE LEVEL LIP AREA SHALL BE PROTECTED BY PLACING EXCELSIOR ENFORCER MATTING BENEATH THE STONE. EACH STRIP SHALL OVERLAP BY AT LEAST SIX INCHES.
4. THE FLOW FROM THE LEVEL SPREADER SHALL OUTLET ONTO STABILIZED AREAS. WATER SHOULD NOT RE-CONCENTRATE IMMEDIATELY BELOW THE SPREADER.
5. MAINTENANCE: THE LEVEL SPREADER SHOULD BE CHECKED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE IF THE LIP HAS BEEN DAMAGED AND THE DESIGN CONDITIONS HAVE NOT CHANGED. ANY DETRIMENTAL SEDIMENT ACCUMULATION SHOULD BE REMOVED. IF STONE REMOVAL HAS TAKEN PLACE ON THE LIP, THEN THE DAMAGE SHOULD BE REPAIRED.
6. REFERENCE IS MADE TO NHDES SWM VOL. 2, 4-6, STONE BERM LEVEL SPREADERS, PAGE 162

D7

Cone Grates Top Mount



CG12TM
Part No. CG12TM

[Save Trees](#)

Top Mount Cone Grates are designed to mount on the top of round manhole inlet or outlet structures to keep debris from entering the storm water system. Top mount cone grates are easy to install and allow for at grade manhole installations but can be used in a variety of applications. Grates 96" and larger are made as a two piece, bolt together design.

- Plate and bar hybrid design is both clean and cost effective
- Made from 1/2" plate with 3/4" or 1" round bars depending on grate size
- Anti vortex plate can be added upon request
- Hinged and lockable access doors can be added upon request
- Galvanized steel construction. Can be made from aluminum or stainless steel.

CONE GRATE
NOTE: MUST BE HAALA INDUSTRIES INC. OR EQUAL.

REFERENCE IS MADE TO A LONG TERM MAINTENANCE MANUAL PREPARED BY BERRY SURVEYING & ENGINEERING, WHICH IS ON FILE AT THE CITY OF DOVER PLANNING DEPARTMENT, AND CAN BE FOUND AT THE OFFICE OF BERRY SURVEYING & ENGINEERING. (603) 332-2863

D-101

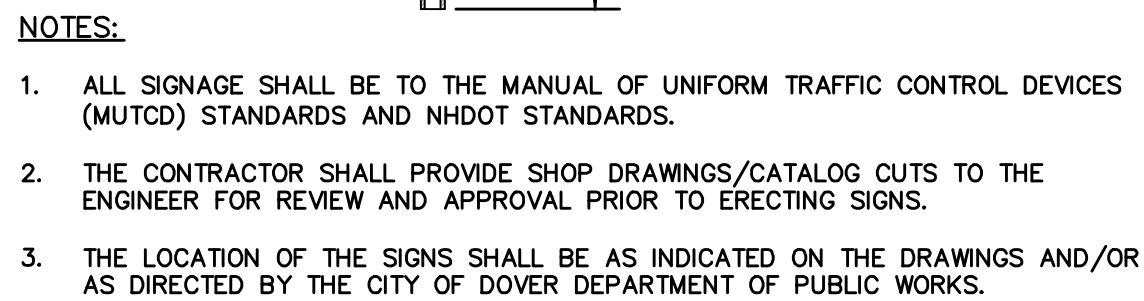
REVISION	DATE	DESCRIPTION

FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 95-E

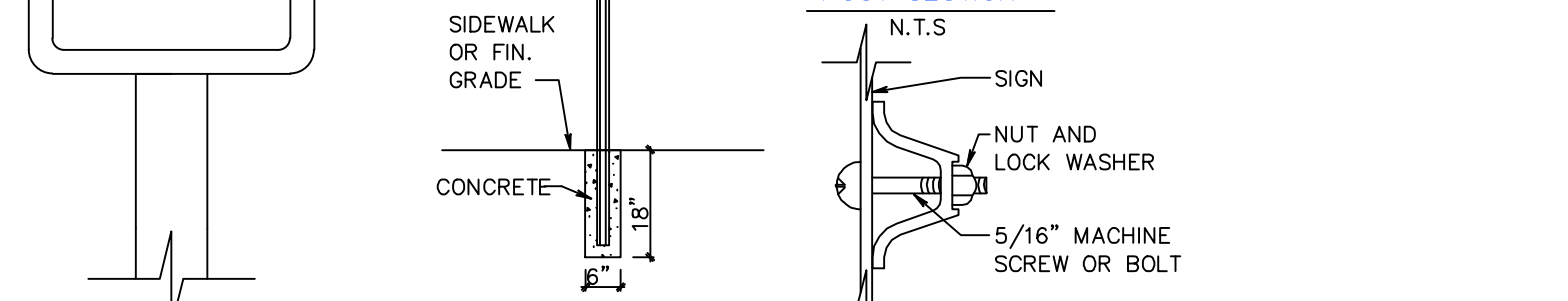
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
AS NOTED

DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

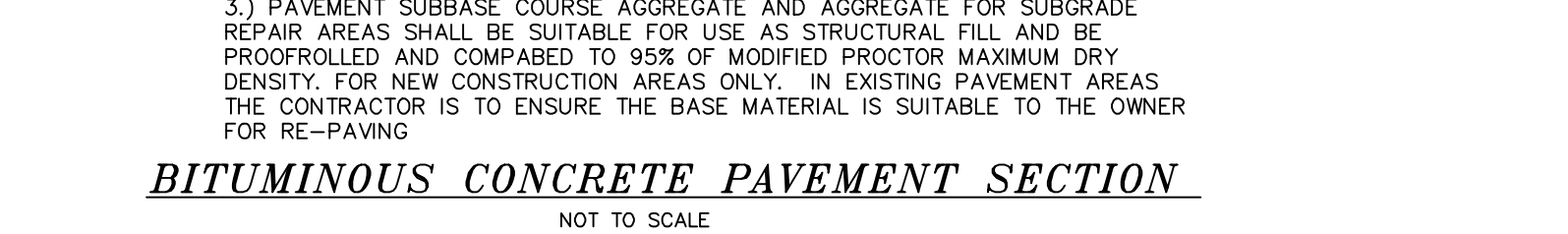
KENNETH A. BERRY
No. 1223
LICENSED PROFESSIONAL ENGINEER



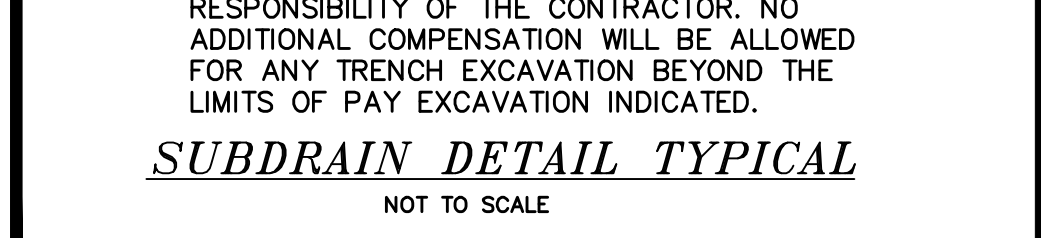
TYPICAL SIGN POST
(NOT TO SCALE)



MOUNTING
N.T.S.



BITUMINOUS CONCRETE PAVEMENT SECTION
NOT TO SCALE



SUBDRAIN DETAIL TYPICAL

SECTION B-B

C5 TYPICAL EDGE LINE CONSTRUCTION
NOT TO SCALE

ELECTRICAL, TELEPHONE, AND GAS TRENCH
NOT TO SCALE

TYPICAL DRAIN AND SEWER PIPE TRENCH
NOT TO SCALE

SECTION A-A

PEDESTAL PLACEMENT
NOT TO SCALE

NOTES:

1. CONCRETE MINIMUM STRENGTH 4,000 PSI AFTER 28 DAYS
2. REINFORCEMENT STEEL CONFORMS TO ASTM A615 GRADE 60 #6 REBAR.
3. MEETS OR EXCEEDS EVERSOURCE SPECIFICATIONS.
4. MUST BE A SHEA CONCRETE PRODUCT OR EQUAL.

TRANSFORMER AND PAD DETAIL
NOT TO SCALE

BOLLARD DETAIL
NOT TO SCALE

TYPICAL TRENCH PATCH
NOT TO SCALE

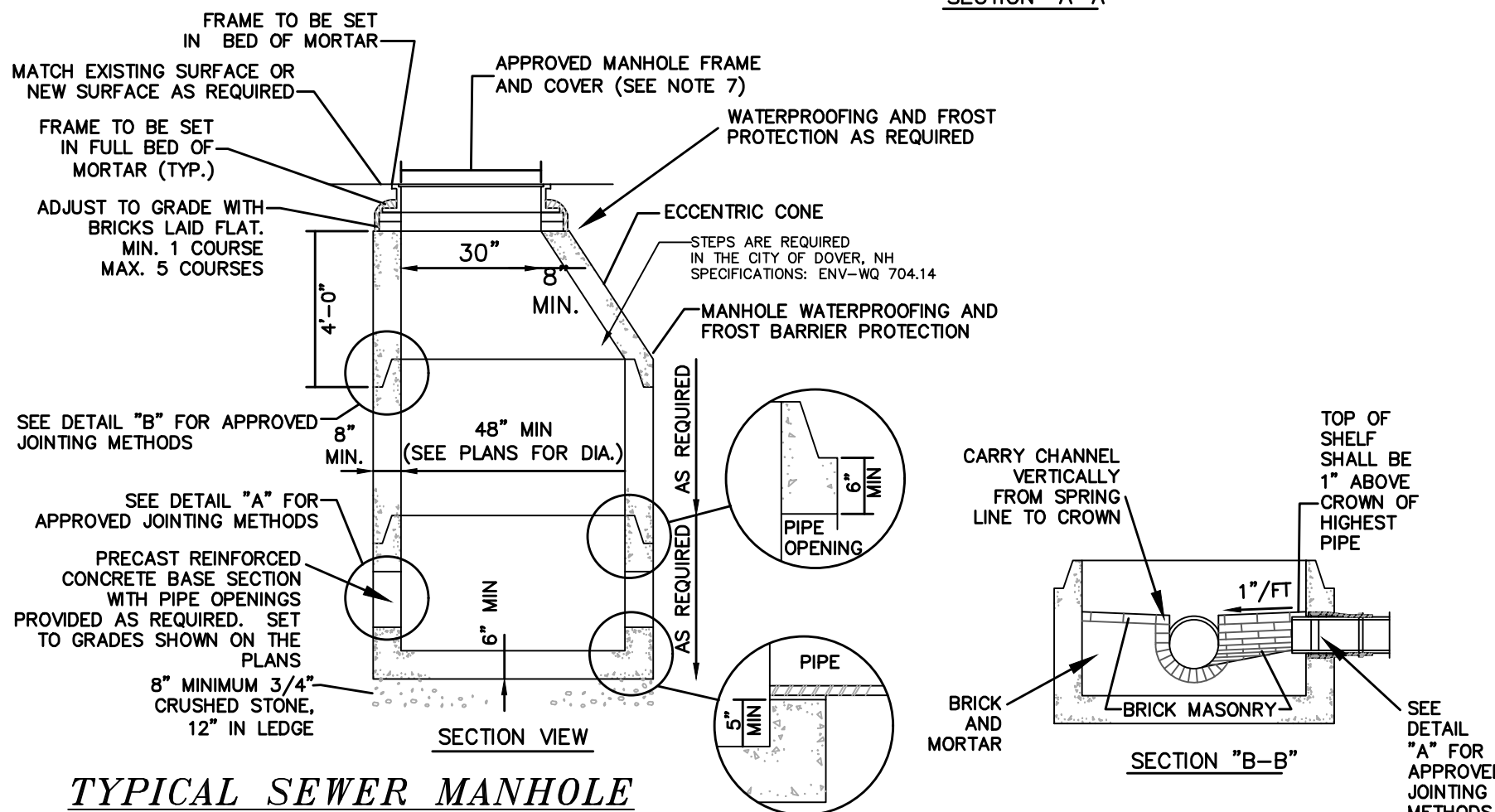
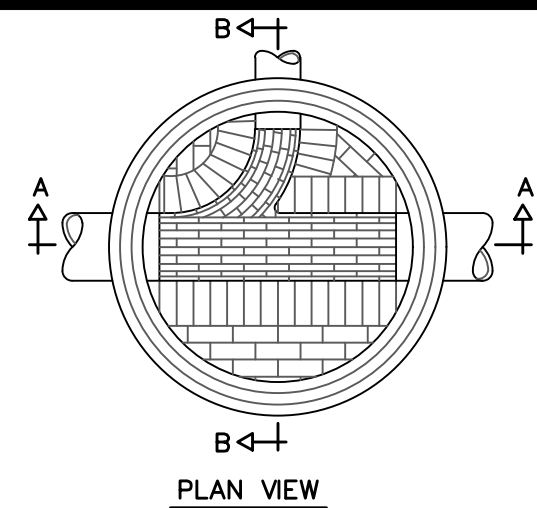
SECTION

CONSTRUCTION DETAILS
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

	BERRY SURVEYING & ENGINEERING 335 SECOND CROWN POINT ROAD BARRINGTON, NH 03825 (603)332-2800
	AS NOTED
DATE :	FEBRUARY 20, 2019
FILE NO. :	DB 2018 - 174

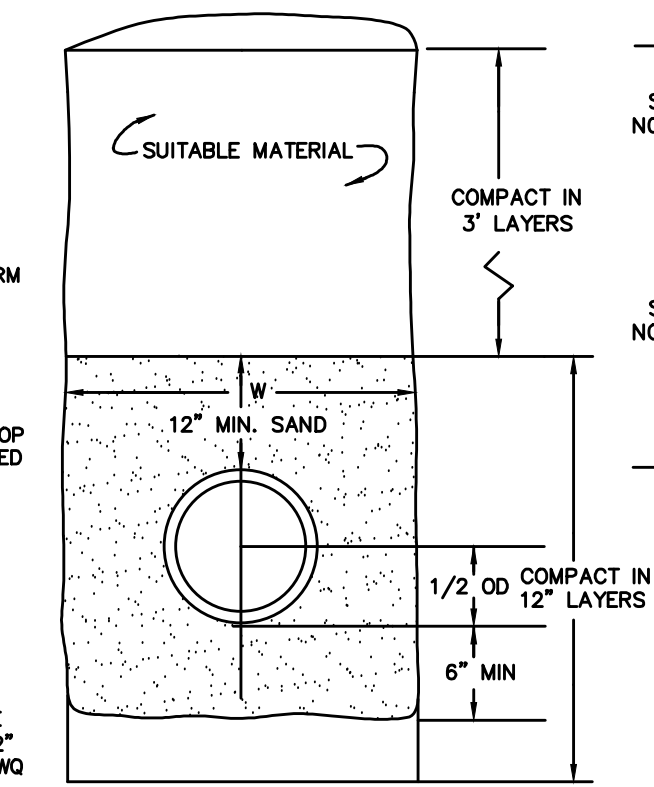
NOTES ON MANHOLE AND SEWER CONSTRUCTION:

- 1) IT IS THE INTENTION THAT THE MANHOLE, INCLUDING ALL COMPONENT PARTS, HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENTS AND LEAKPROOF QUALITIES SHALL BE SHOWN ON THE DRAWING. MANHOLES SHALL BE AN ASSEMBLY OF PRECAST SECTIONS, WITH STEEL REINFORCEMENT AND ADEQUATE JOINTING. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND HS-20-44 LOADING, INCLUDING OVERLOADS, AND SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING: (a) WQ 704.13 ADOPTED OCTOBER 15, 2014.
- 2) BARRELS AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE. (IAW ENV-WQ 704-12 (d))
- 3) SEWER MANHOLE DIAMETER SHALL BE AS INDICATED ON THE PLANS.
- 4) PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL CONFORM TO ASTM C478.
- 5) GRAVITY SEWER PIPE TESTING WILL BE IN ACCORDANCE WITH ENV-WQ 704.06 AND MAN HOLE TESTING IAW ENV-WQ 704.17 DATED OCTOBER 15, 2014.
- 6) INVERTS AND SHELVES: MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF THE PIPE AND FLOW INVERT BRICKS SHALL BE LAID ON EDGE AND THE BRICK SECTION SHALL BE LAID AT CHANGES IN DIRECTIONS. THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. CARE SHALL BE TAKEN TO ENSURE THAT THE INVERTS OR SHELVES CONFORM TO THE SLOPE OF THE SEWER PIPES. INVERTS AND SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. (IAW ENV-WQ 704.13 (c) (9)), MORTAR SHALL CONFORM WITH REQUIREMENTS OF IAW ENV-WQ 704.13 (c).
- 7) FRAMES AND COVERS: MANHOLES FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE 10-INCH CLEAR OPENING, 3-INCH (MINIMUM HEIGHT) LETTERS WITH THE WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH MANHOLE COVER. (IAW ENV-WQ 704.13 (4)-(6)) SEWER MAN HOLE COVERS ARE TO PAMFEX.
- 8) SHALLOW MANHOLE: IN USE OF A CONE SECTION, WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED HAVING AN ECCENTRIC ENTRANCE OPENING AND CAPABLE OF SUPPORTING H-20 LOADS.
- 9) HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF A TYPE APPROVED BY THE DOVER DPW, WHICH TYPE SHALL, IN GENERAL, DEPEND FOR WATERIGHTNESS UPON A DOUBLE ROW OF ALL OVERLAPPING JOINTS. JOINTS SHALL BE INSTALLED WITH CASQUE, APPROVED ELASTOMERIC SEALANTS ARE: RAM-NEX, KENT SEAL NO. 2, EZ, OR EASQUEL.
- 10) IN CROSS COUNTRY AREAS OUTSIDE OF THE PAVED ROADWAY SURFACE, THE MANHOLE FRAME ELEVATION SHALL BE A MINIMUM OF 6" ABOVE FINISHED GRADE. GRADE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE MANHOLE. SEE TYPICAL TRENCH DETAIL ON SHEET D-102.
- 11) ALL FRAMES AND GRATES ARE TO BE U.S.A. MADE. MANHOLE STEPS ARE REQUIRED IN THIS MUNICIPALITY AND MUST CONFORM TO THE REQUIREMENTS OF ENV-WQ 704.14.
- 12) THE CONTRACTOR TO WORK WITH CITY OF DOVER REVIEW ENGINEER AND SEWER DEPARTMENT ON THE MEANS AND METHODS USED TO INSTALL ALL SEWER STRUCTURES. SPECIFIC ATTENTION IS TO BE PAID TO THE INSTALLATION OF SMH 14; WHEREAS THE EXISTING PIPE SLOPE IS UNKNOWN; DURING LOW FLOW CONDITIONS, CUT AND FILL SHALL BE USED TO ESTABLISH A V-C LINE IN THE EXISTING PIPE (OF EQUAL SIZE). AFTER INSTALLATION OF NEW BASIN, FERROCE THE NEW SDR 35 PIPES TO THE EXISTING VC LINES. THIS INSTALLATION IS TO BE COORDINATED WITH THE CITY OF DOVER SEWER DEPARTMENT.
- 13) ANY WORK INVOLVING THE CUTTING INTO THE EXISTING A.C. PIPE SHALL MEET THE REQUIREMENTS OF ENV-A 1800.
- 14) THE "CITY OF DOVER, NEW HAMPSHIRE, DEPARTMENT OF COMMUNITY SERVICES, CONSTRUCTION GUIDELINES, PERMITS, RULES, AND REGULATIONS" (DATED MARCH 13, 2018) ARE A PART OF THE CONSTRUCTION DETAILS AND TO BE FOLLOWED. SEE APPENDIX B, PAGE 14 FOR INTERNAL DROP DETAILS.

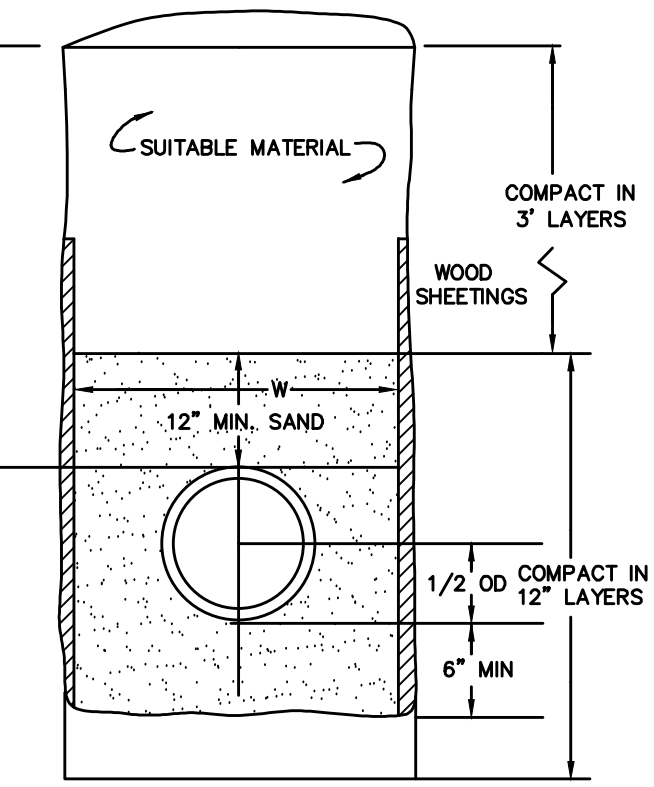


TYPICAL SEWER MANHOLE
NOT TO SCALE

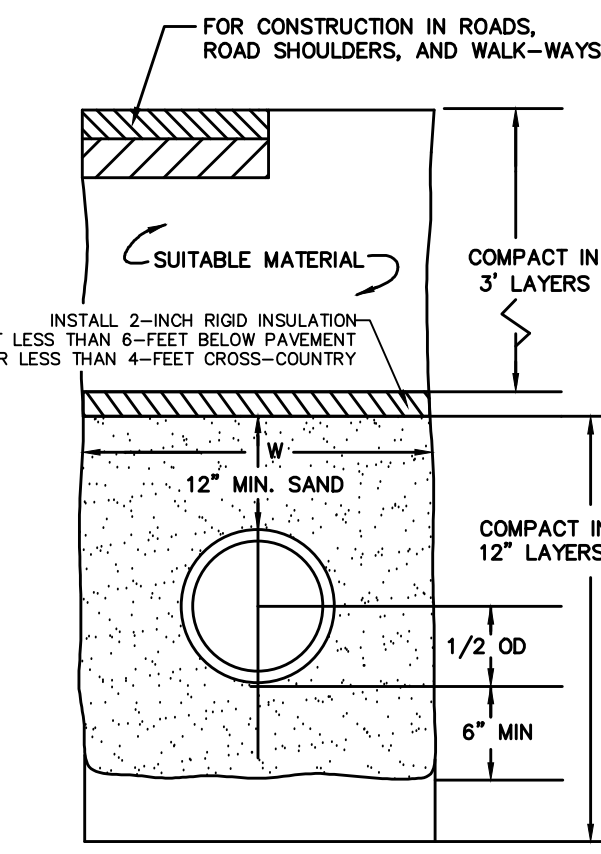
LEDGE CONSTRUCTION
NOT TO SCALE



EARTH CONSTRUCTION
NOT TO SCALE



EARTH CONSTRUCTION
WITH SHEETING
NOT TO SCALE



TRENCH INSULATION
NOT TO SCALE

U3

INSIDE FACE OF MANHOLE

FILL WITH MORTAR

PIPE

STAINLESS STEEL CLAMP

RUBBER-LIKE KOR-N-SEAL BOOT

KOR-N-SEAL JOINT SLEEVE
(OR ACCEPTABLE SUBSTITUTE)

INSIDE FACE OF MANHOLE

FILL WITH MORTAR

PIPE

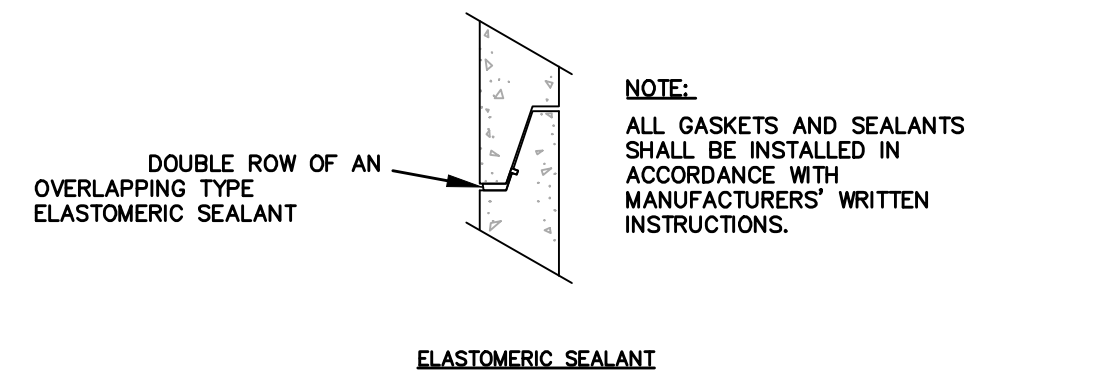
STAINLESS STEEL STRAP

RUBBER-LIKE FLEXIBLE SLEEVE

LOCK-JOINT FLEXIBLE MANHOLE SLEEVE
(OR ACCEPTABLE SUBSTITUTE)

ALL GASKETS, SEALANTS, MORTAR, ETC... SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS

DETAIL "A" - PIPE TO MANHOLE JOINTS
NOT TO SCALE



DETAIL "B" HORIZONTAL JOINTS
NOT TO SCALE

U6

6" TRANSITION GASKET
M.J. x SDR 35

6" SDR 35

GATE VALVE WITH
BOX TO SURFACE
SEE DETAIL U9

6" TRANSITION GASKET
M.J. x SDR 35

FULL LENGTH
OF PIPE

6" SDR 35

*NOTE: GATE VALVE WRENCH
TO BE STORED ON SITE

SHUTOFF VALVE DETAIL
NOT TO SCALE

SEPARATION NOTES:

1. WATER MAIN 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, ENV-WQ 700 ADOPTED OCTOBER 14, 2014.
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 AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
3. VERTICAL SEPARATION REQUIREMENTS APPLY TO WATER AND SEWER MAINS AND SERVICE LINES. WHERE SEWER CROSSES WATER MAIN AND WATER SERVICE CROSSES SEWER MAIN, 18 INCH VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER OVER SEWER.

Diagram illustrating the separation of a water main and a sewer main. The water main is shown crossing the sewer main. The water main is labeled "WATER MAIN" and the sewer is labeled "SEWER". The water main is shown with a "ONE STANDARD FULL LENGTH OF WATER MAIN TO BE CENTERED OVER SEWER". The sewer is shown with "SELECT BACKFILL COMPACTED IN 6\" LAYERS - 95% STANDARD PROCTOR DENSITY". The vertical clearance is labeled "18\" MIN". The horizontal distance is labeled "10.0'".

Diagram illustrating the separation of a water main and a sewer main. The water main is shown crossing the sewer main. The water main is labeled "WATER MAIN" and the sewer is labeled "SEWER". The water main is shown with a "ONE STANDARD FULL LENGTH OF WATER MAIN TO BE CENTERED OVER SEWER". The sewer is shown with "SELECT BACKFILL COMPACTED IN 6\" LAYERS - 95% STANDARD PROCTOR DENSITY". The vertical clearance is labeled "18\" MIN". The horizontal distance is labeled "10.0'".

WATER MAIN ABOVE SEWER

WATER MAIN BELOW SEWER

TYPICAL WATER/SEWER SEPERATION DETAILS
NOT TO SCALE

TYPICAL TRENCH DETAIL
FOR WATER SYSTEM
NOT TO SCALE

U7

ROYAL Building Products

www.royalbuildingproducts.com

Page 1 of 1

Issue Date: July 14, 2014

MOLDED

FABRICATED (APPEARANCE MAY VARY)

ASTM D3004, F3036, CSA B182.2
ASTM D7568, F7860, CSA B181.1
WHERE APPLICABLE

GASKETED DWV ADAPTER COUPLING GxODW G SDR 26 GASKET SEWER HUB x GASKET DWV HUB

PART NO.	SIZE IN INCHES	L1	H1	H2	W	D1	D2
*F4507	4-1/8	10	2,502	2,780	6-1/8	176/52	2,774
*F4508	6-1/8	15,016	3,732	2,820	7-1/8	8-1/8	5,260
*F4509	8-1/8	20	2,722	3,152	8-1/8	8-1/8	7,115
06189	8-1/8	1,14	5-1/8	5	—	—	—
06193	10x10	0	2	5	16	—	—
06192	22-1/2	1	11	4,570	19-1/2	—	—

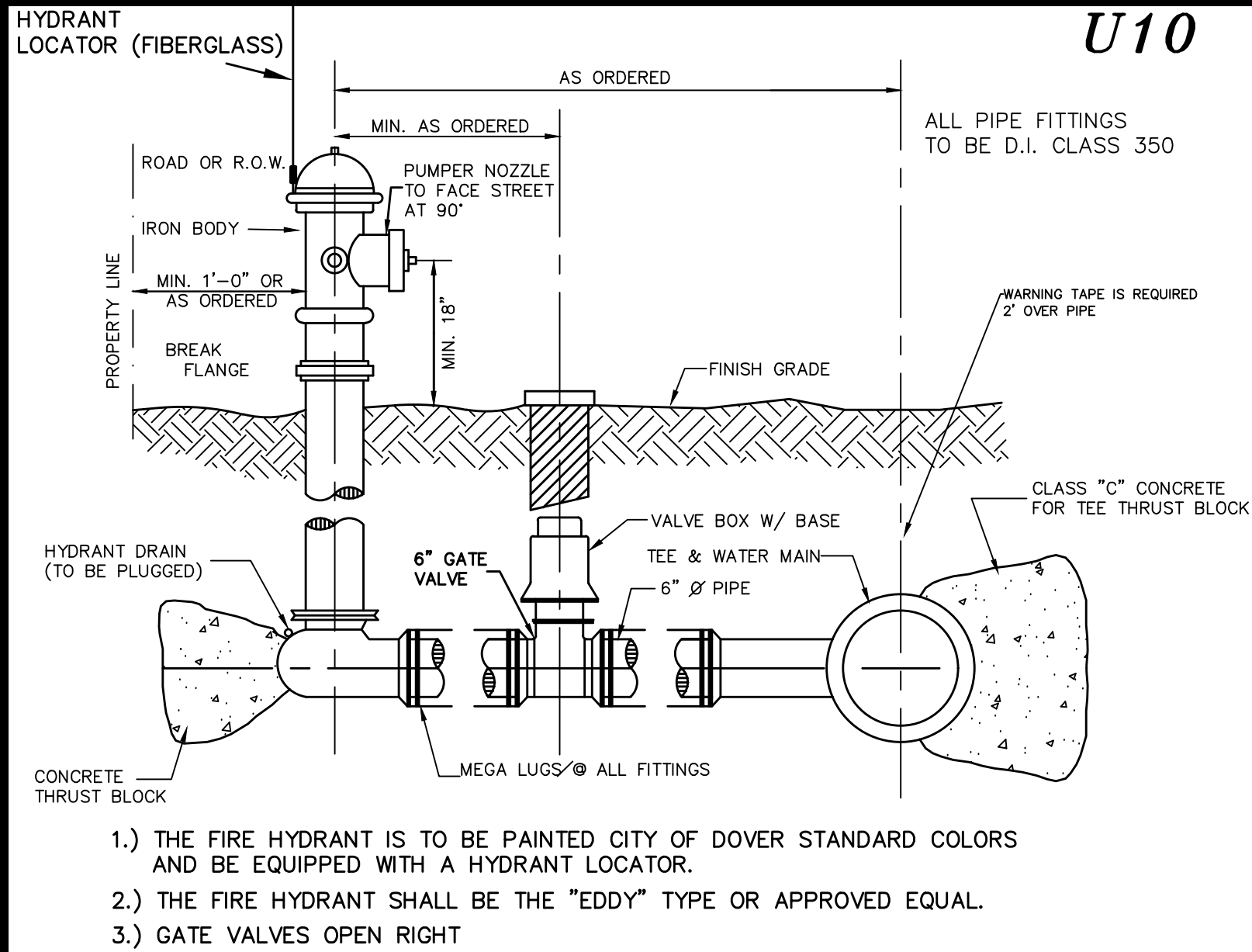
COUPLING DETAIL
NOT TO SCALE

REVISION	DATE	DESCRIPTION

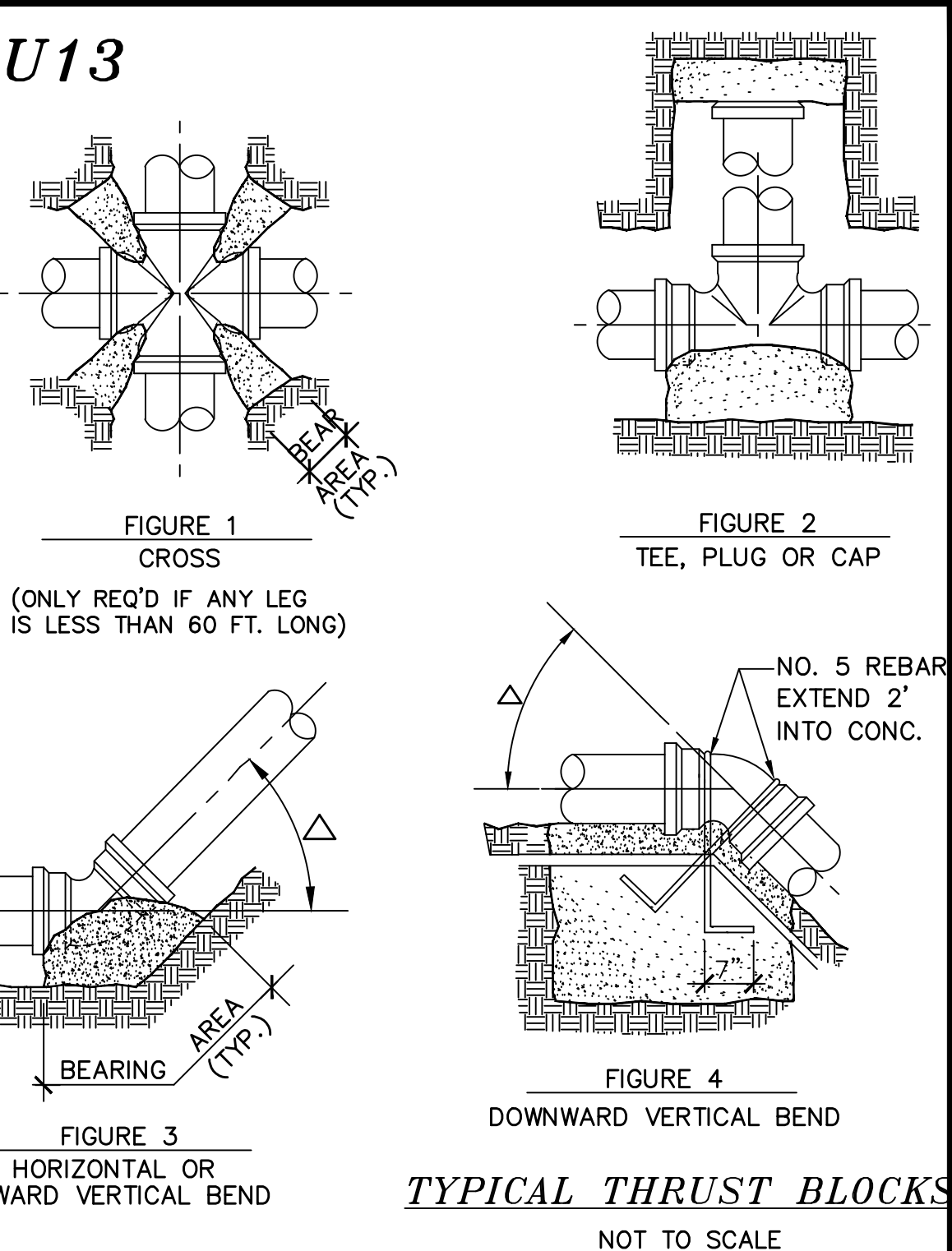
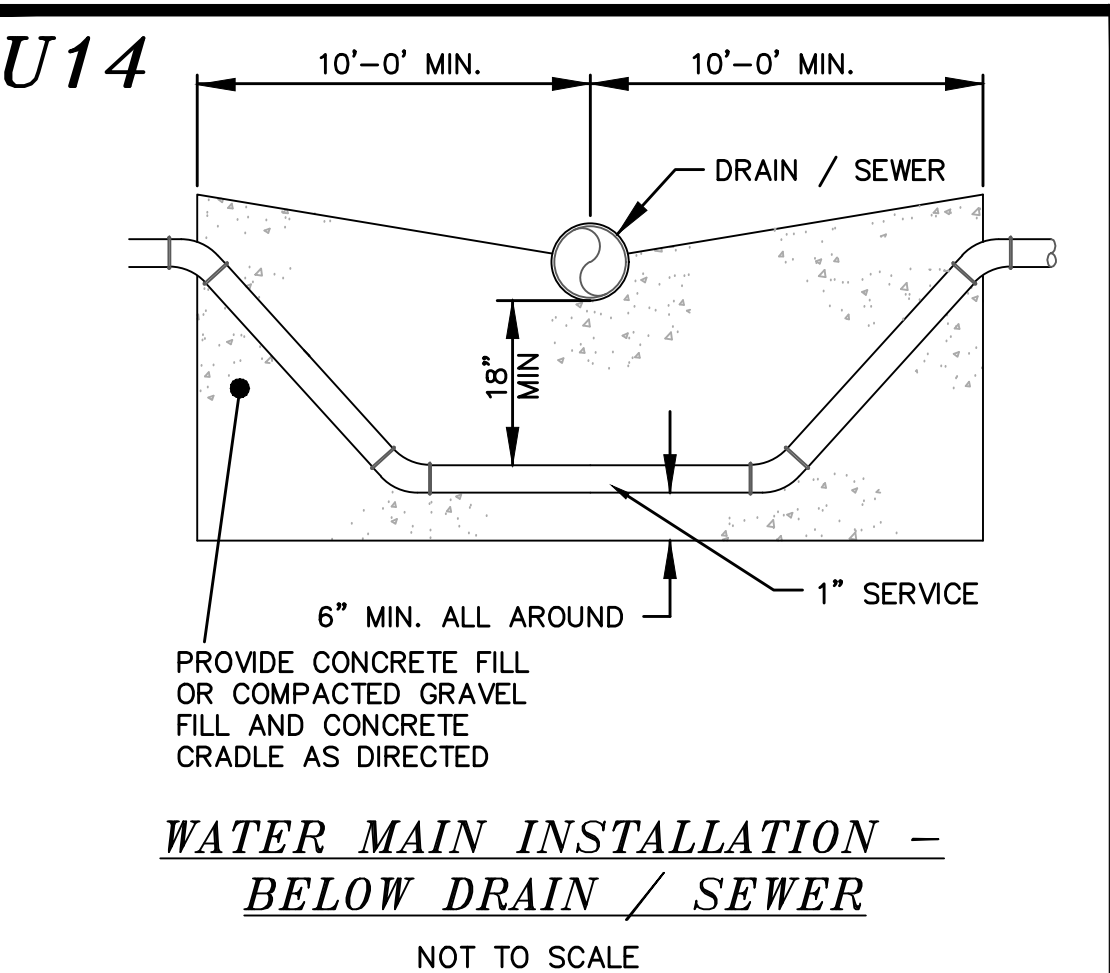
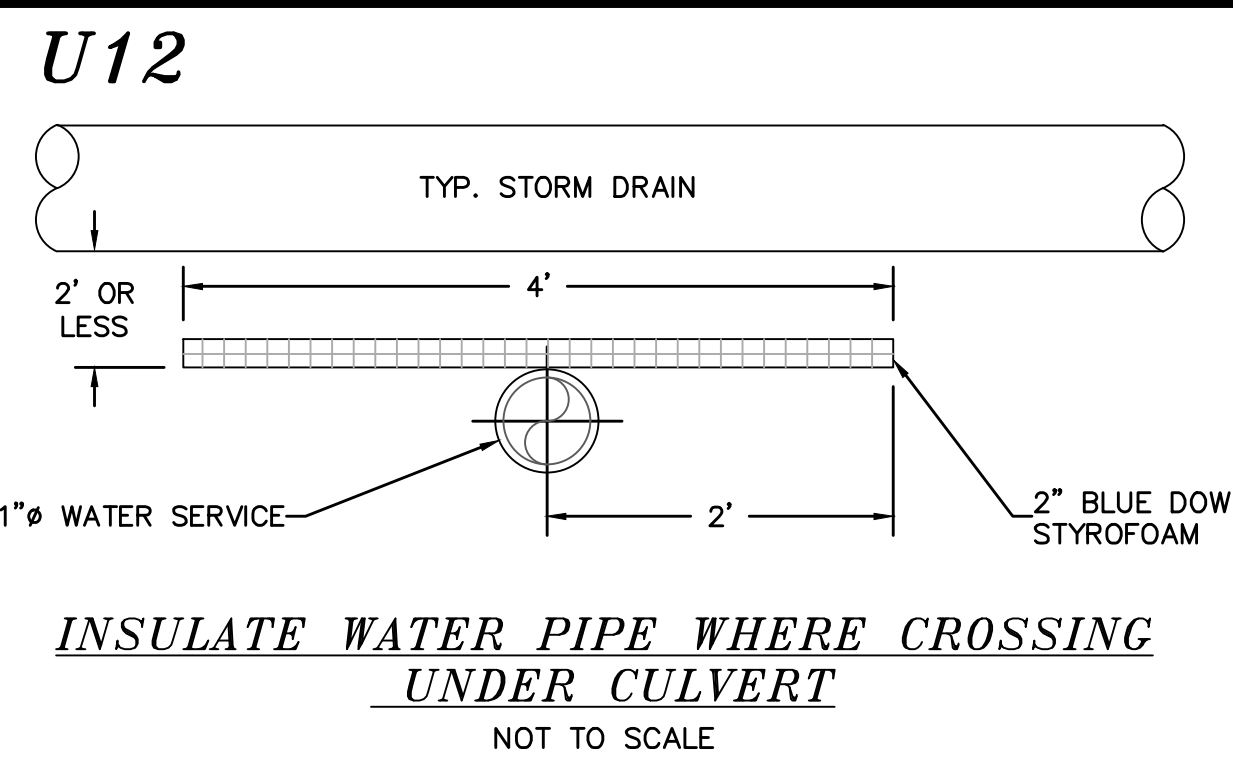
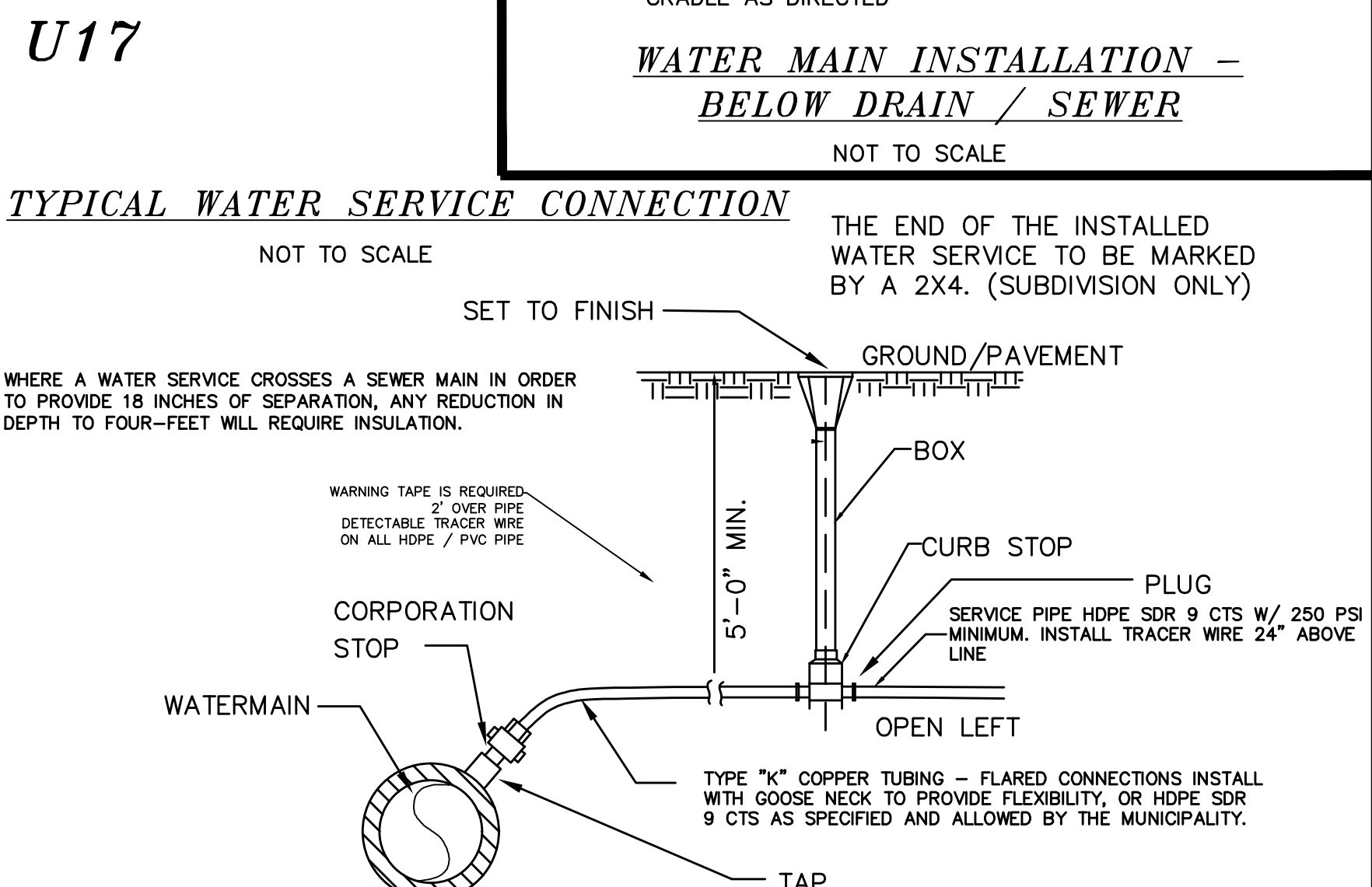
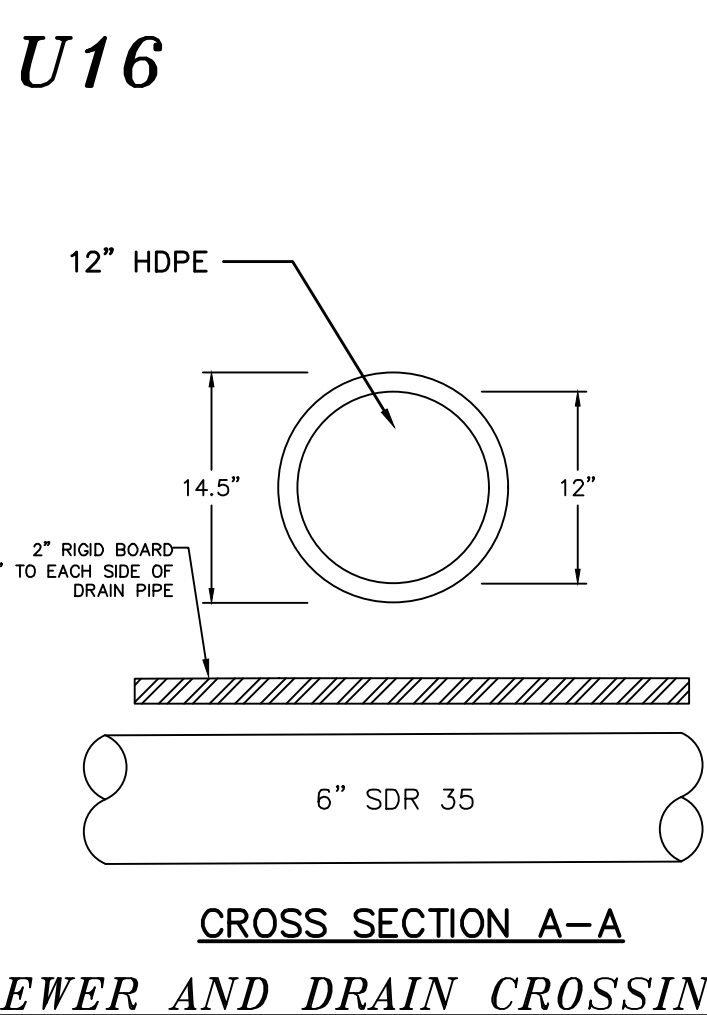
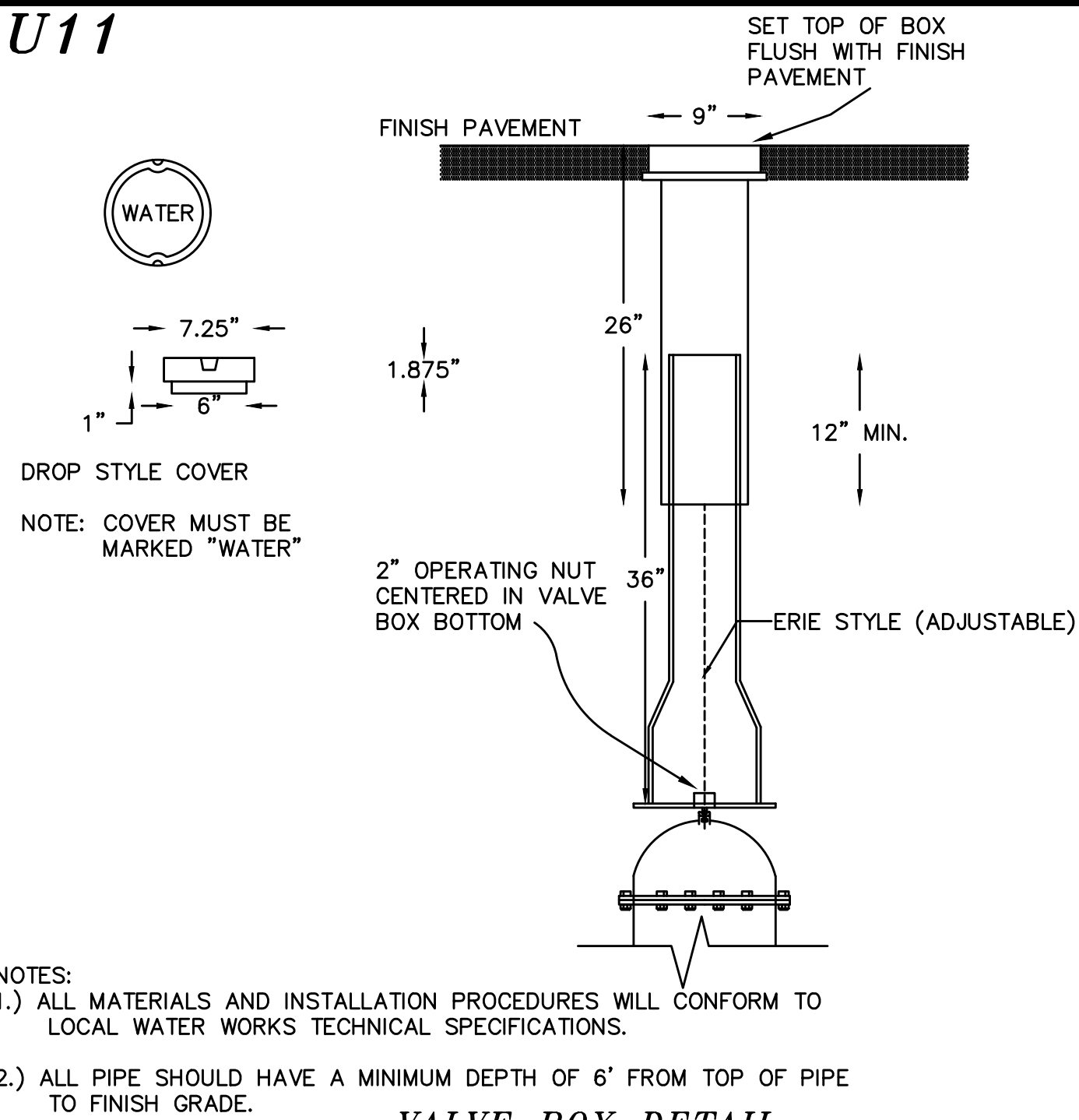
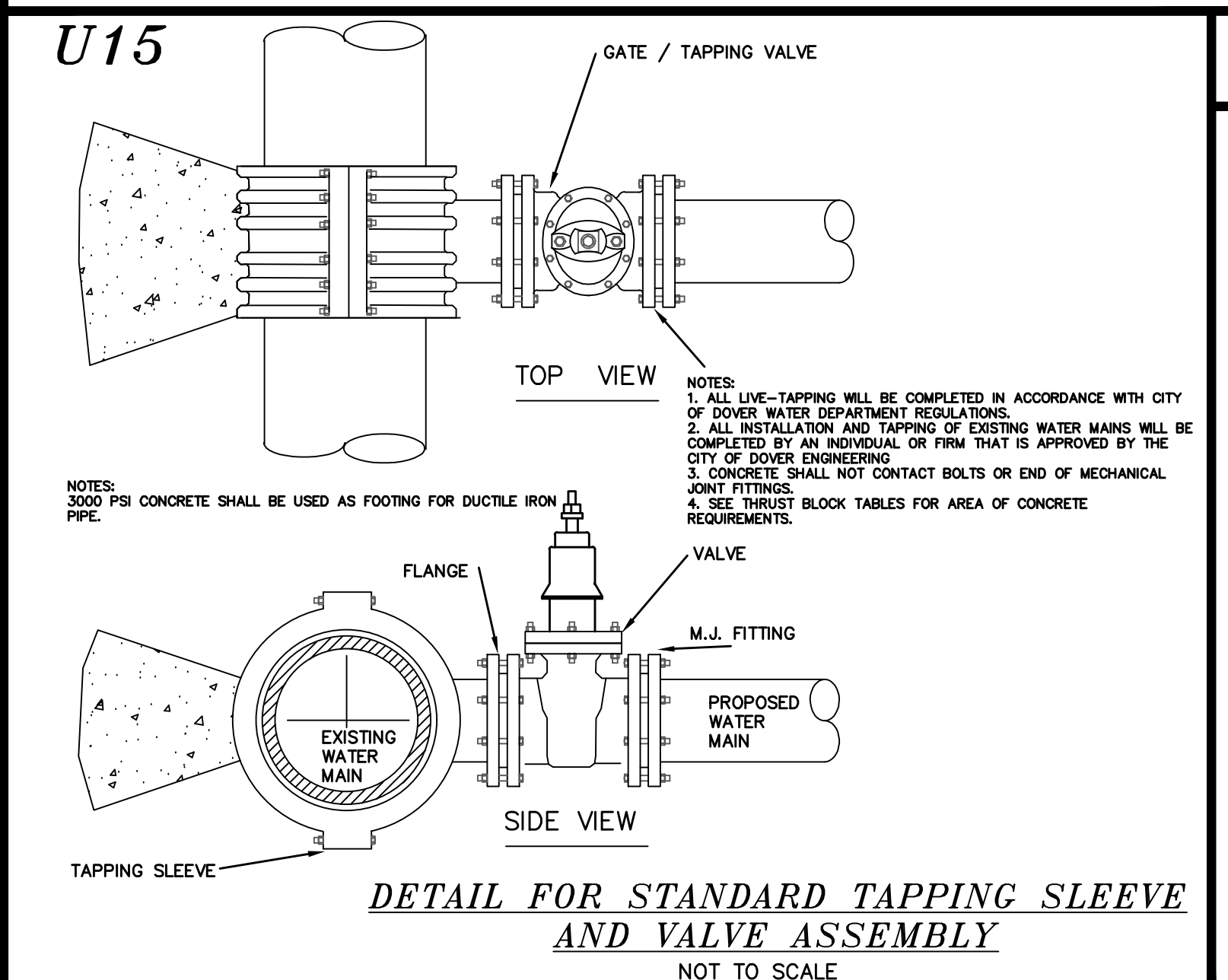
UTILITY DETAILS
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HODGINS
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35

BERKT SURVIVING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863

SCALE :	AS SHOWN
DATE :	FEBRUARY 20, 2019



HYDRANT INSTALLATION DETAIL
NOT TO SCALE



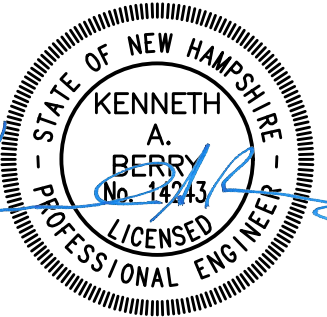
PIPE I.D.	BEARING AREA, SQUARE FEET				VOLUME OF CONC. CU.YD			
	FIGURE 1	FIGURE 2	FIGURE 3, Δ	FIGURE 4, Δ	FIGURE 1	FIGURE 2	FIGURE 3, Δ	FIGURE 4, Δ
4"	2	2	2	2	1.0	1.0	1.0	1.0
6"	2	3	3	3	1.5	1.0	1.0	1.0
8"	2	5	6	3	2.0	1.0	1.0	1.0
10"	3	7	10	5	4.0	2.0	2.0	1.0
12"	3	10	14	8	4	2		
14"	4	14	20	10	5	3		
16"	4	20	24	12	7	4		
18"	5	24	30	16	10	5		
20"	5	28	40	20	12	6		

- GENERAL NOTES:**
- ALL FITTINGS & EXPOSED REBAR TO BE RAPPED W/ TWO LAYERS OF 6 MIL. POLYETHYLENE WHERE COVERED WITH CONCRETE.
 - ALL CONCRETE SHALL BE CLASS C 3000 P.S.I. MINIMUM 28 DAYS COMPRESSIVE STRENGTH.
 - PLACE CONCRETE AGAINST UNDISTURBED EARTH.
 - TABLE DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN FOR EACH INSTALLATION IS REQUIRED IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 P.S.F.
 - VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.
 - KEEP CONCRETE AWAY FROM FLANGE BOLTS AND FITTINGS.
 - MECHANICAL JOINTS AT ALL FITTINGS IE: BENDS, TEES, CROSSES, AND VALVES SHALL BE THRUST RESTRAINT. (MEGA-LUG OR APPROVED EQUAL)

REVISION	DATE	DESCRIPTION

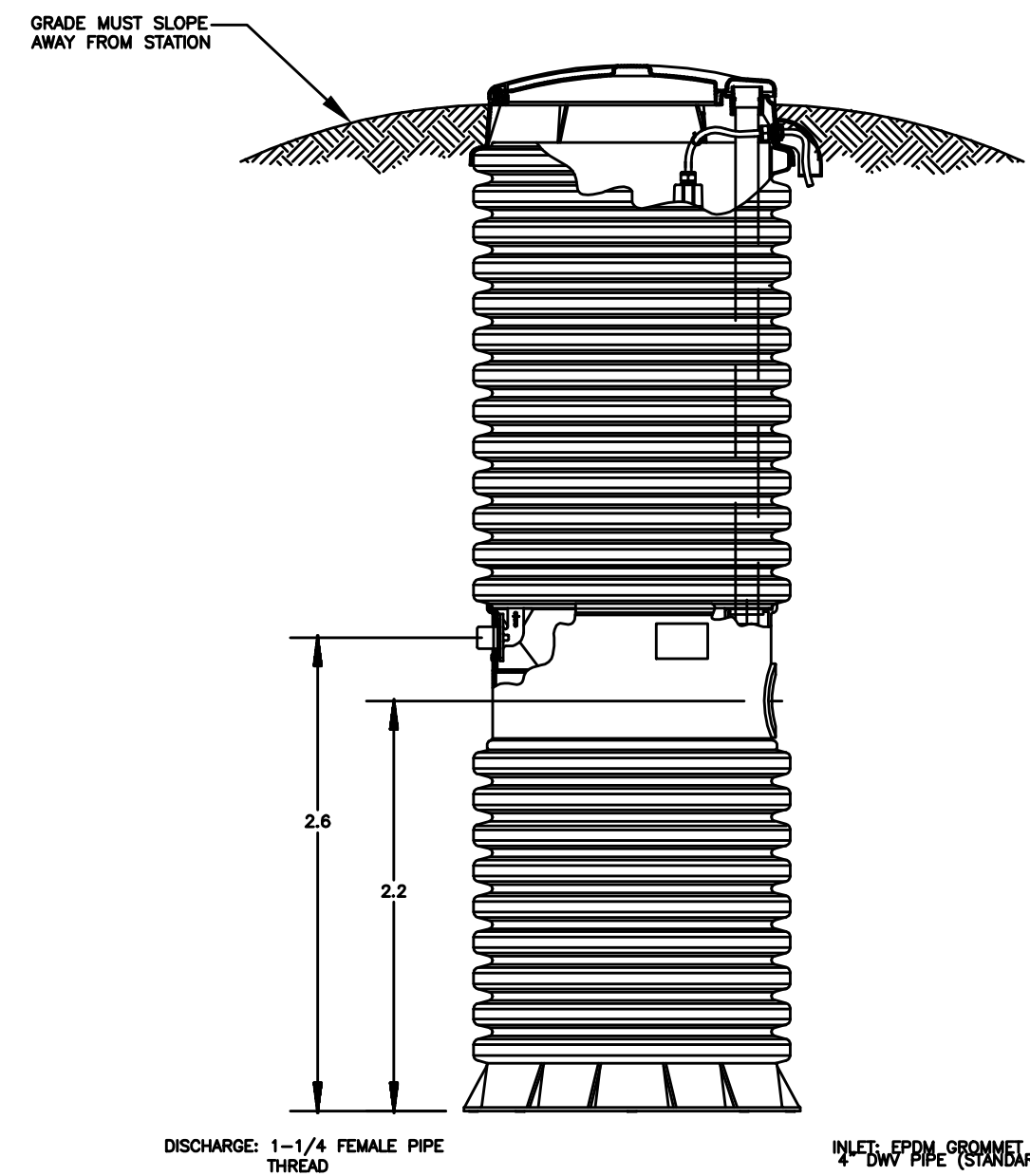
UTILITY DETAILS
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : AS SHOWN
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174



U18

OPTIONS: ☐ DH071-93 (HARD WIRED LEVEL CONTROLS)
☐ DR071-93 (WIRELESS LEVEL CONTROLS)

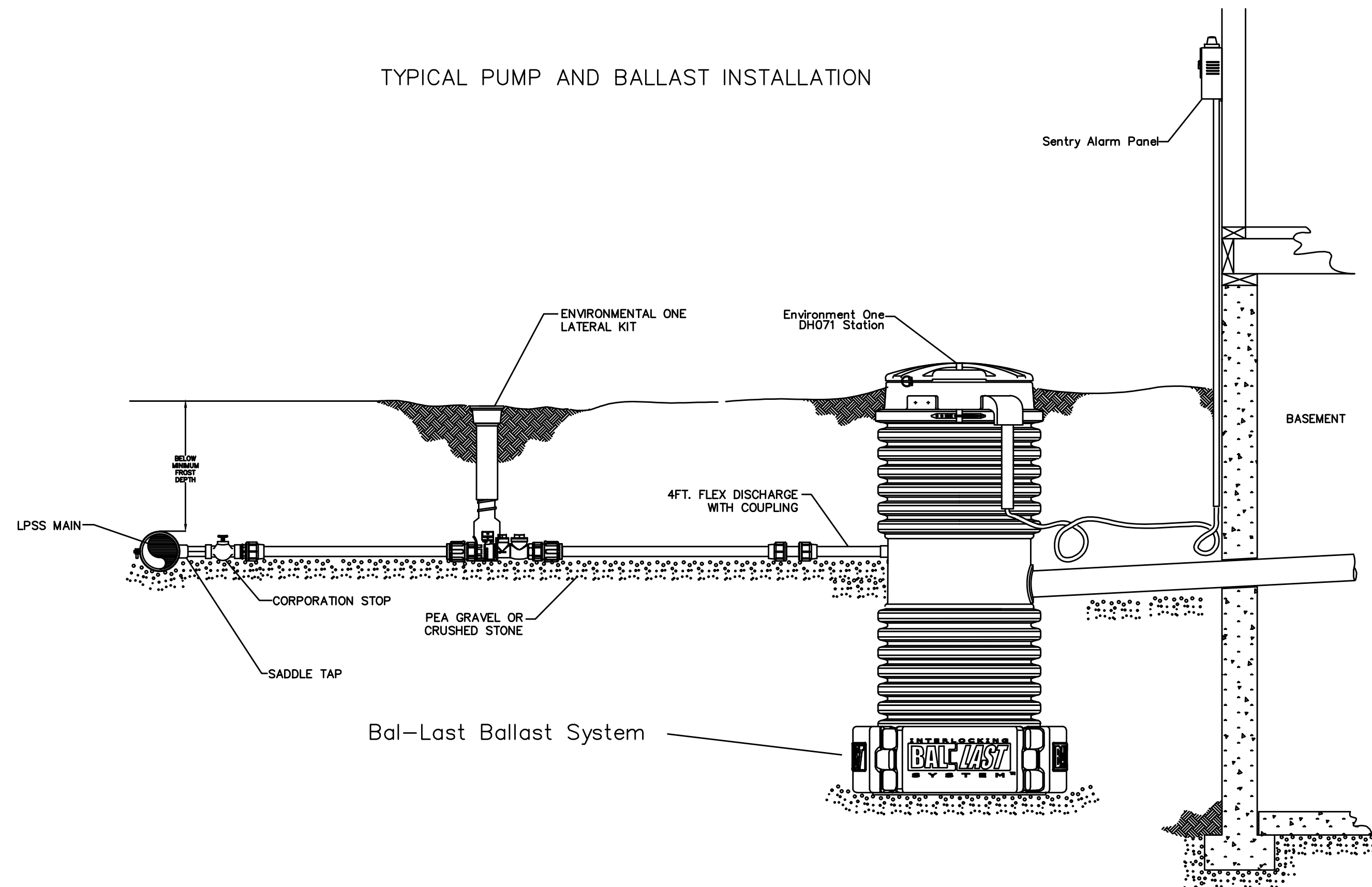


CONCRETE BALLAST MAY BE REQUIRED
SEE INSTALLATION INSTRUCTIONS
FOR DETAILS
BAL-LAST (TM)
E/ONE

UL	NSF	SP		
AD	CAH	07/12/07	A	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE
eone SEWER SYSTEMS				
MODEL DH071-93 / DR071-93				
NA0050P06				

U19

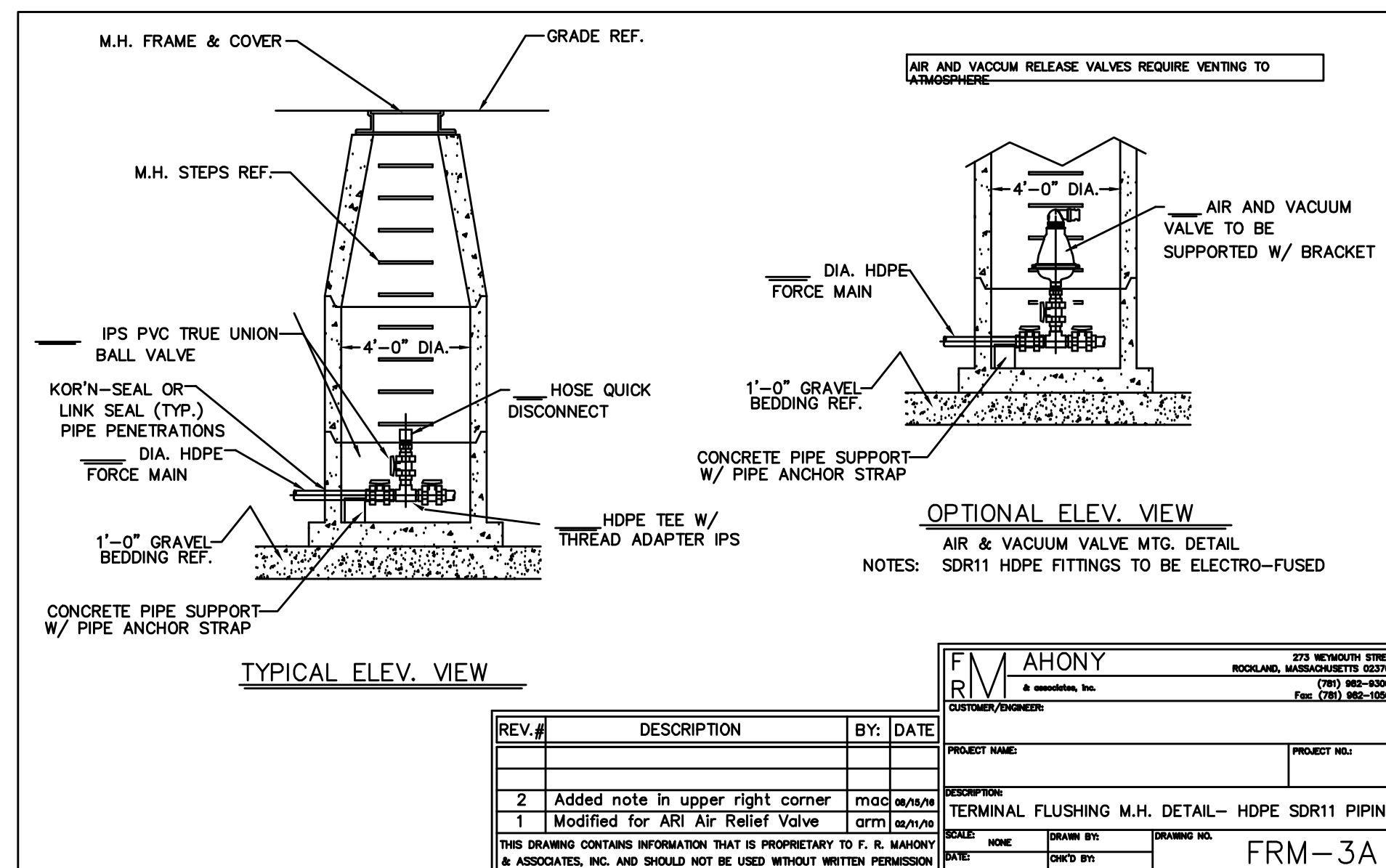
TYPICAL PUMP AND BALLAST INSTALLATION



Bal-Last Ballast System

Bal-Last 114C

U20

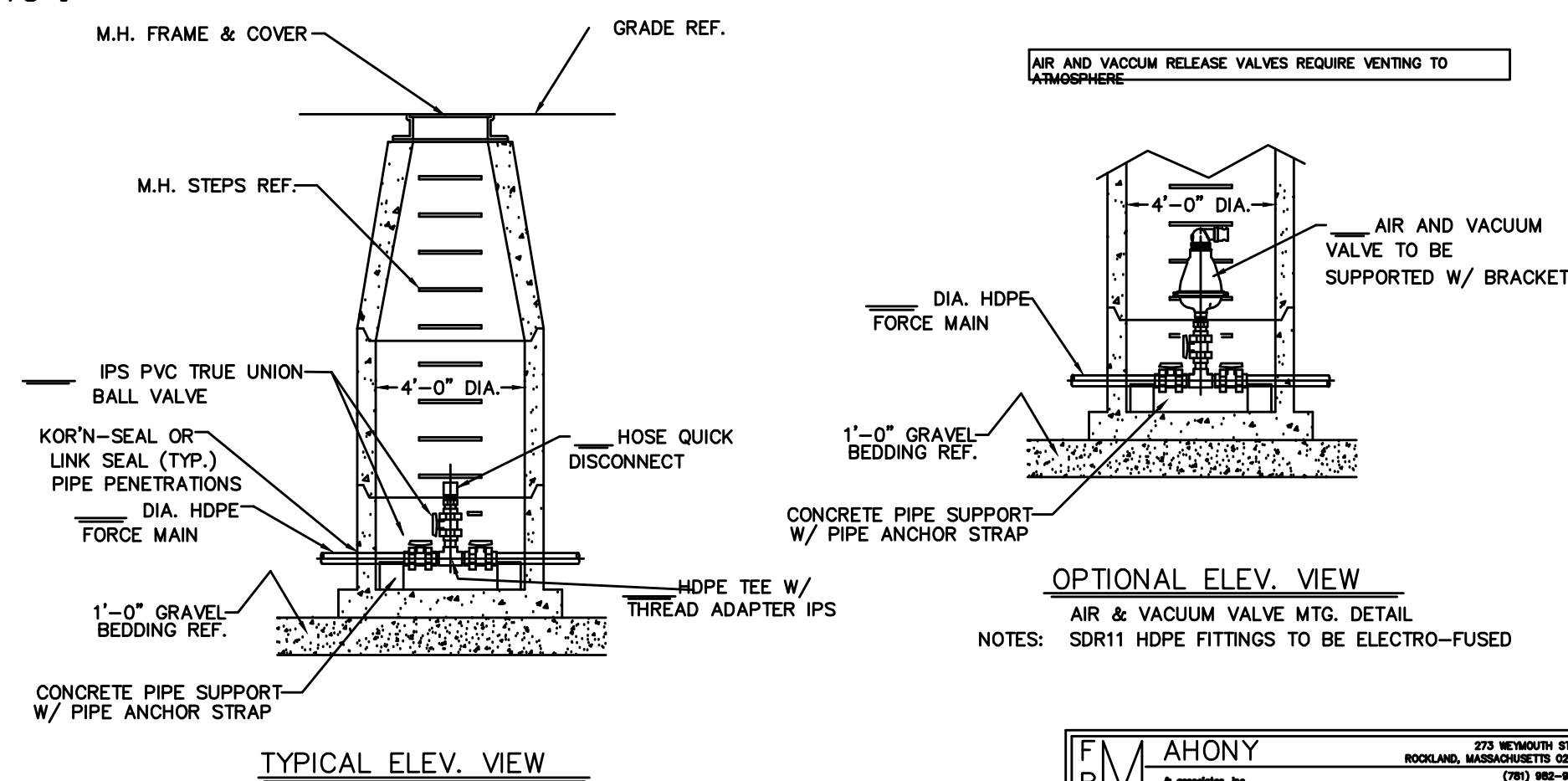


REV.#	DESCRIPTION	BY	DATE
2	Added note in upper right corner	mac	08/15/18
1	Modified for ARI Air Relief Valve	arm	08/15/18

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO F. R. MAHONY & ASSOCIATES, INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

FRM-3A

U21



REV.#	DESCRIPTION	BY	DATE
3	Added note in upper right corner	mac	08/15/18
2	Added 2 valves	mac	08/15/18
1	Modified for ARI Air Relief Valve	arm	08/15/18

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO F. R. MAHONY & ASSOCIATES, INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

FRM-3B

U22

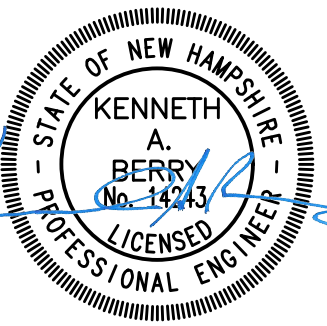
NOTE:
1.) LOTS 2 THROUGH 10 WILL UTILIZE A MODEL DH 071-93 OUTDOOR GRINDER PUMP WITH BAL-LAST™ WITH CONTROLS AS SPECIFIED ON SHEET U-103 UTILITY DETAILS AND IN E/ONE PRESSURE SYSTEM DESIGN REPORT FOR LUNDY PONY DRIVE DATED FEBRUARY 22, 2019 BY F.R. MAHONY & ASSOCIATES, INC. DESIGN SUBSTITUTIONS TO BE PREPARED BY DESIGN ENGINEER W/ APPROVAL OF THE CITY ENGINEER.

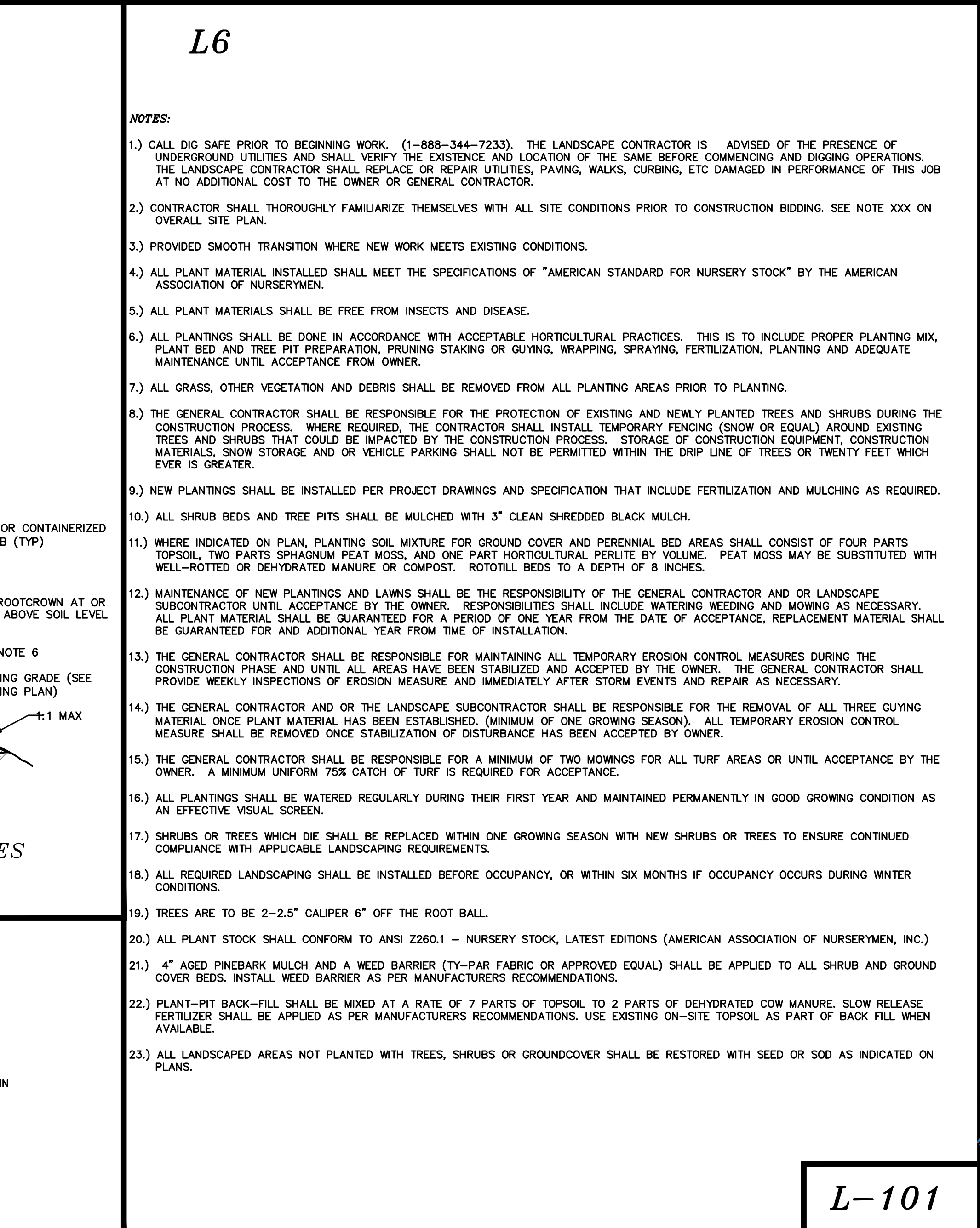
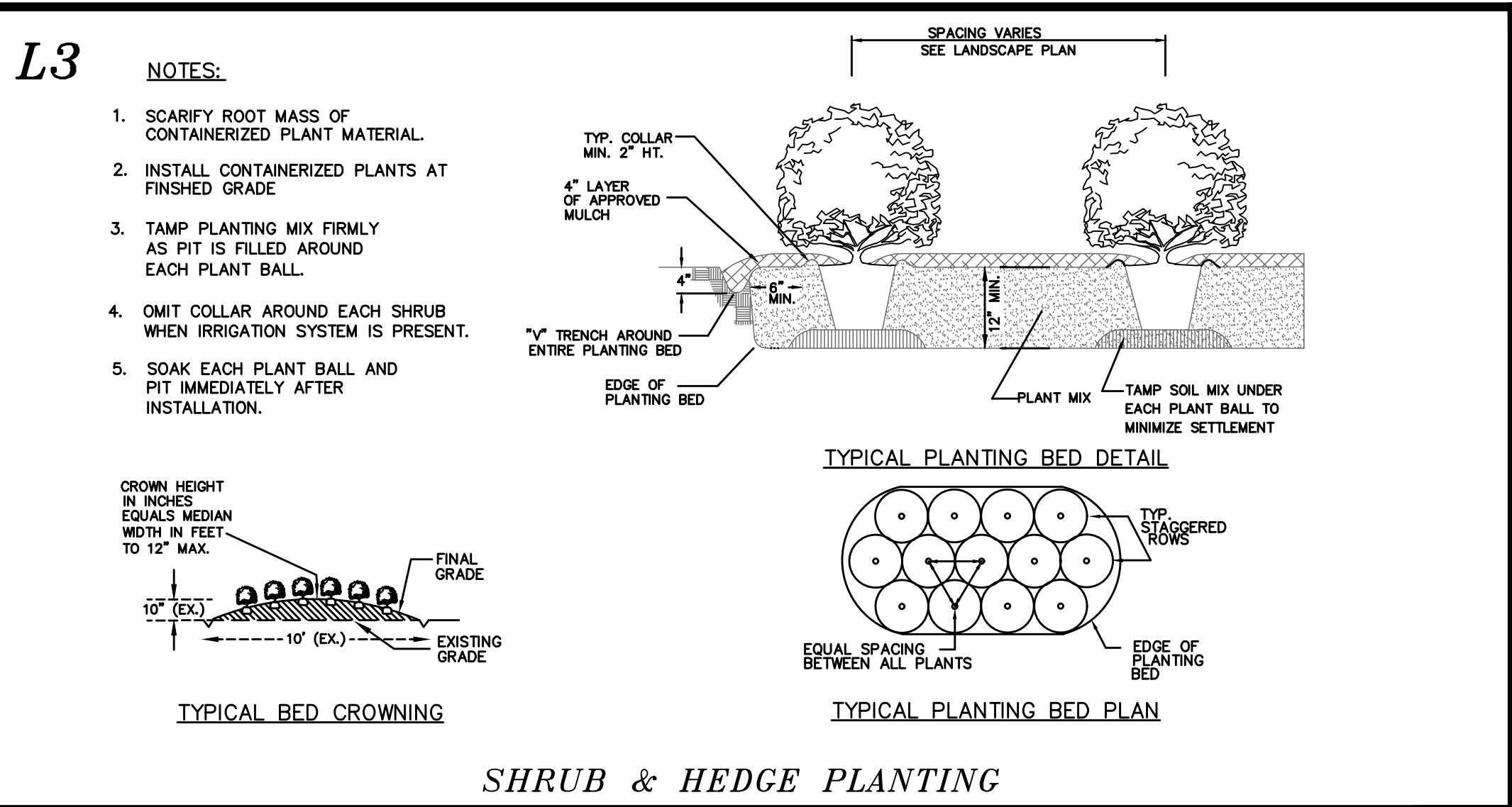
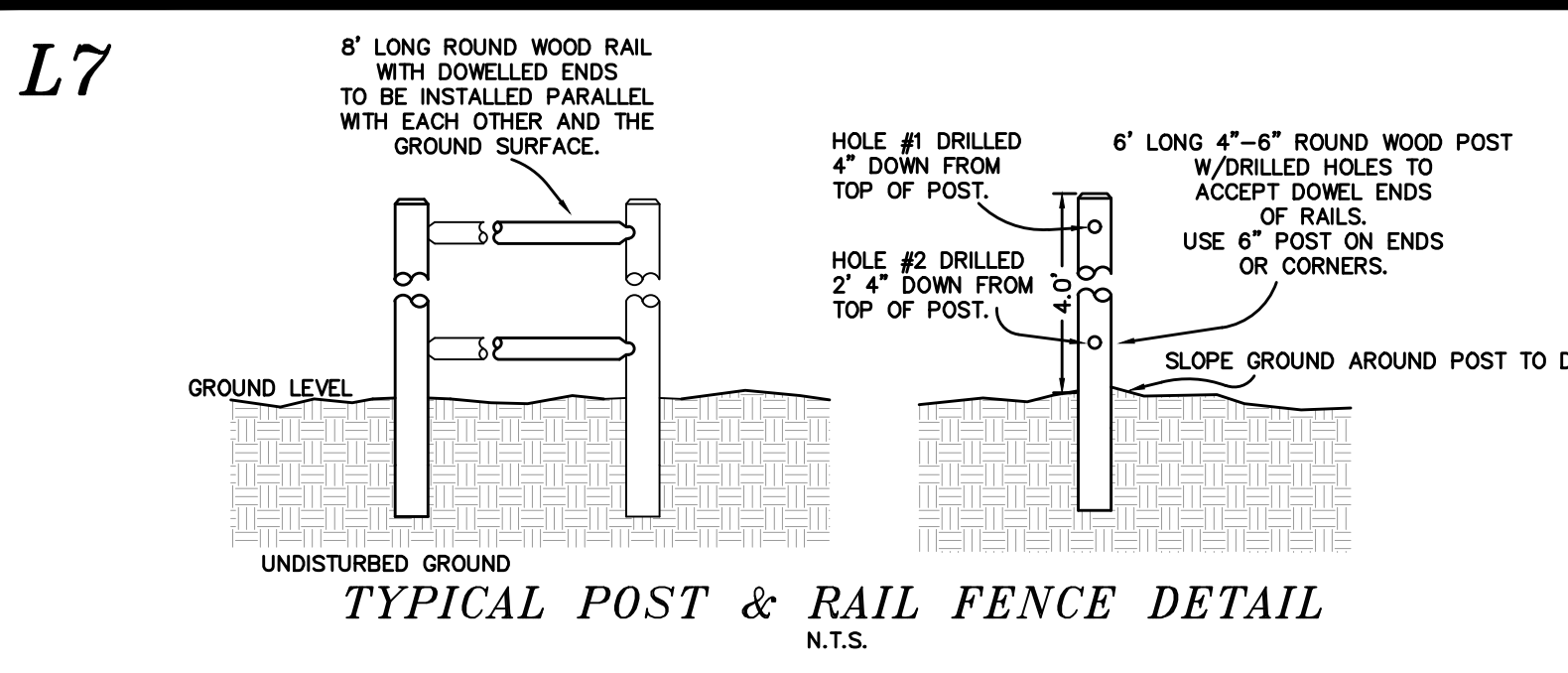
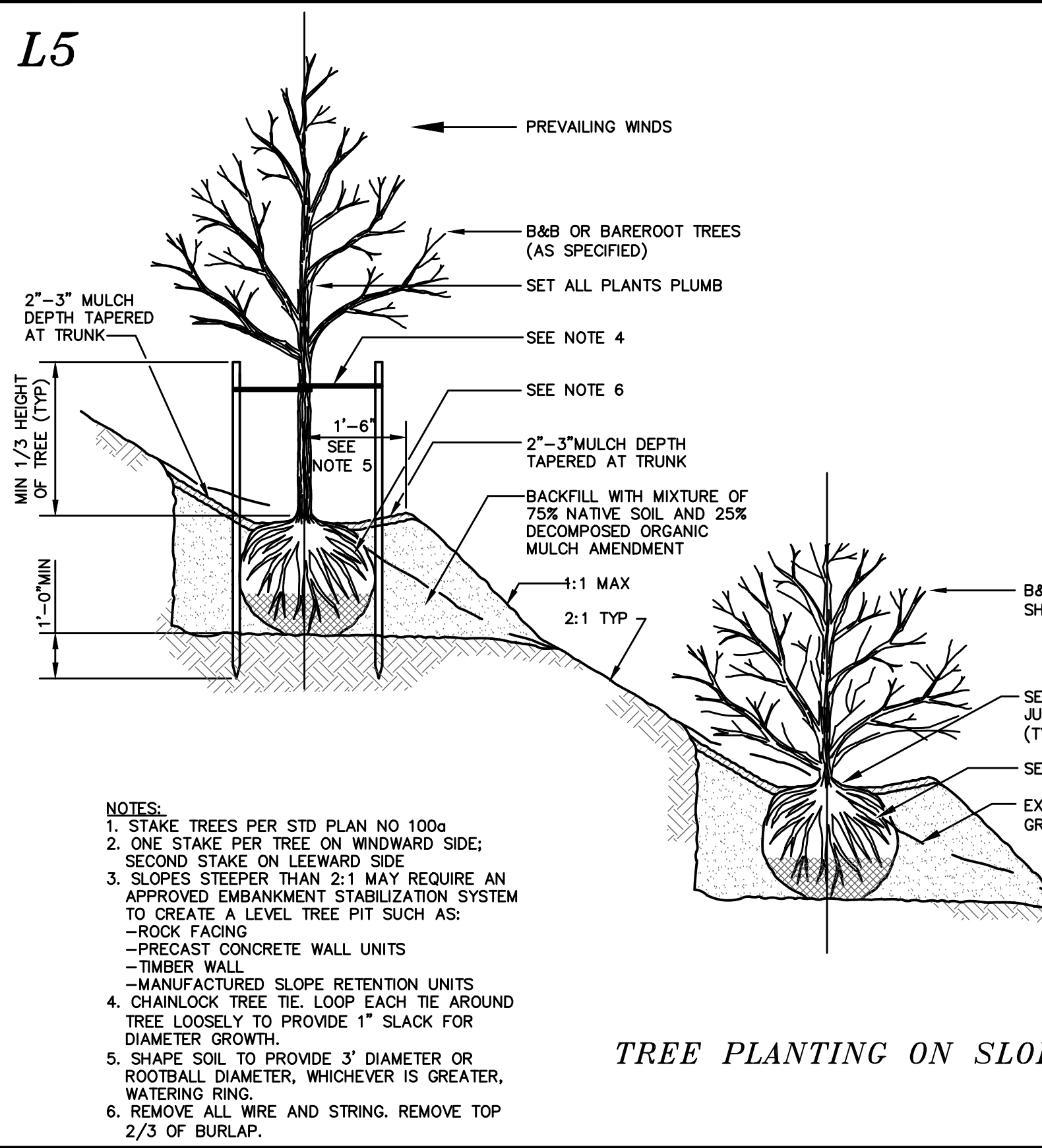
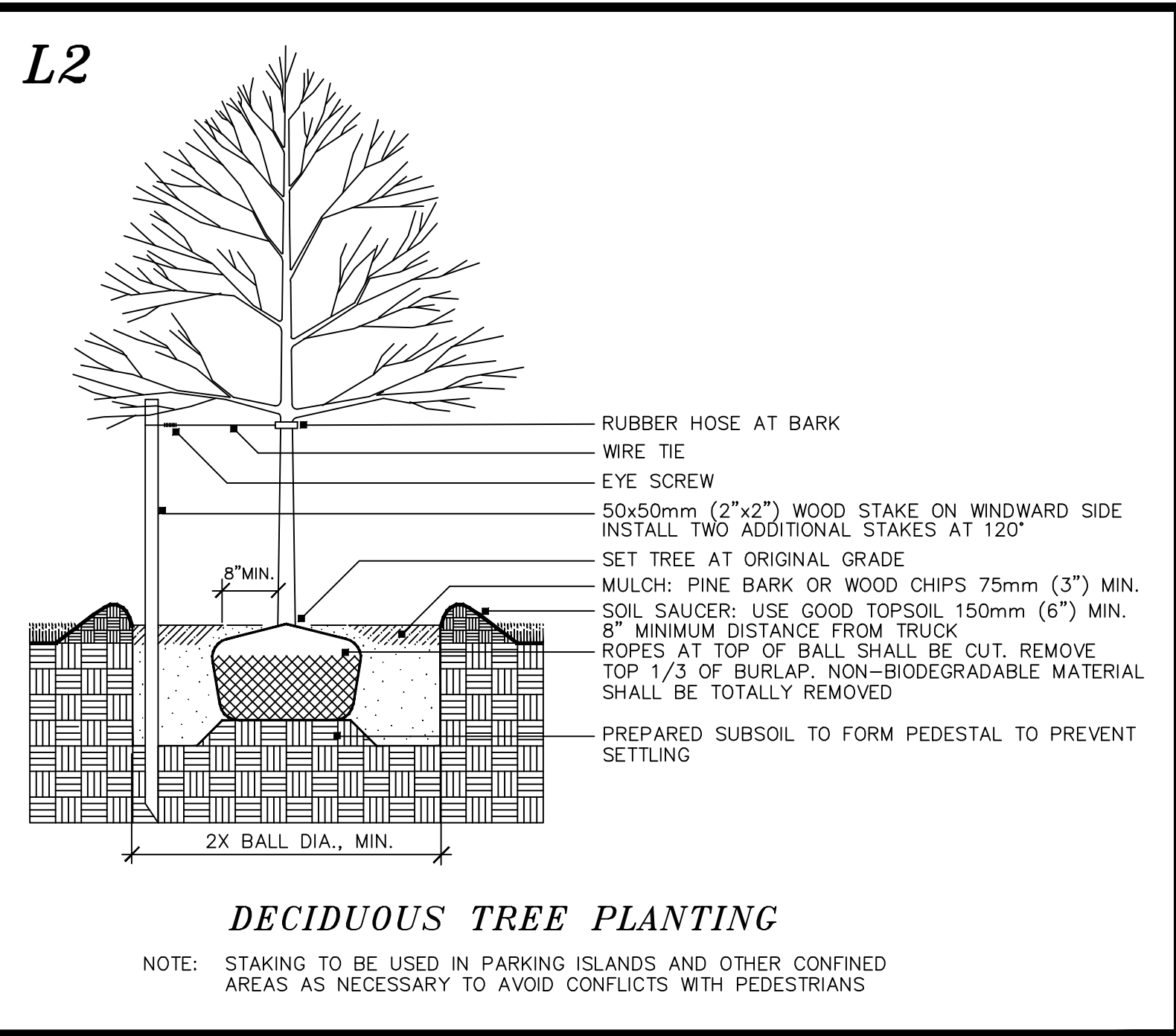
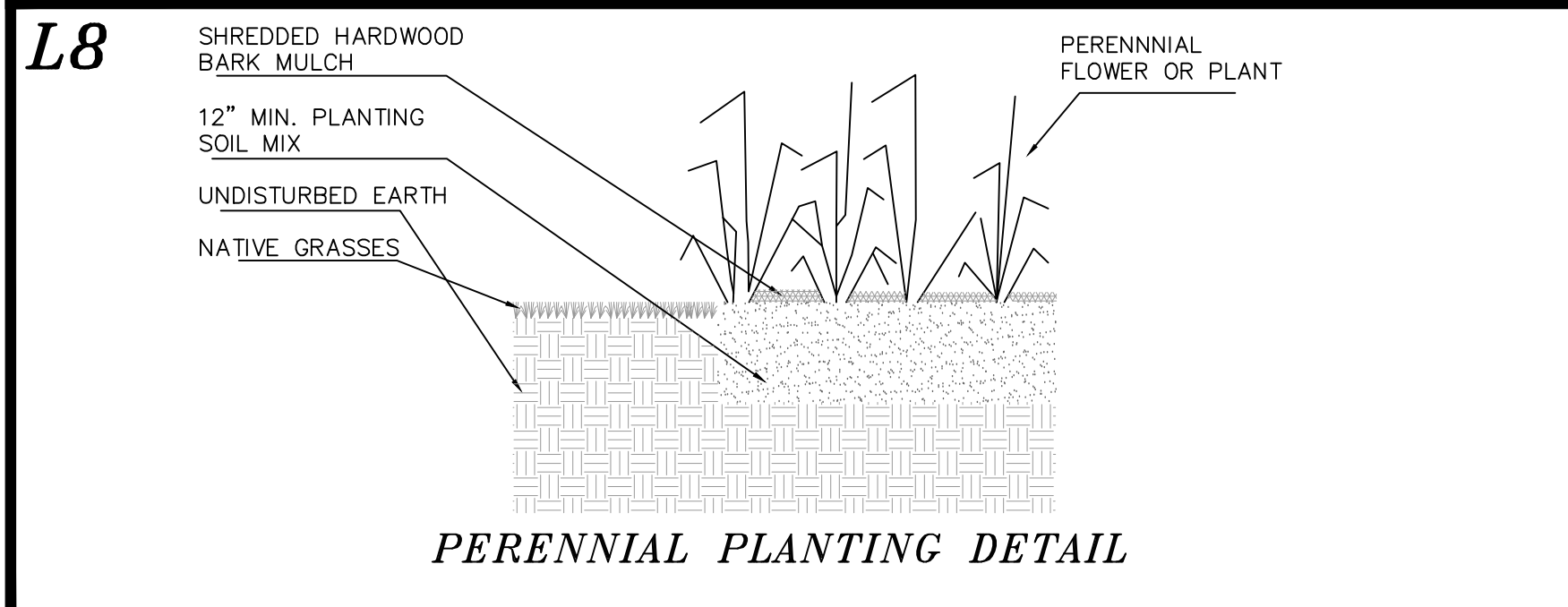
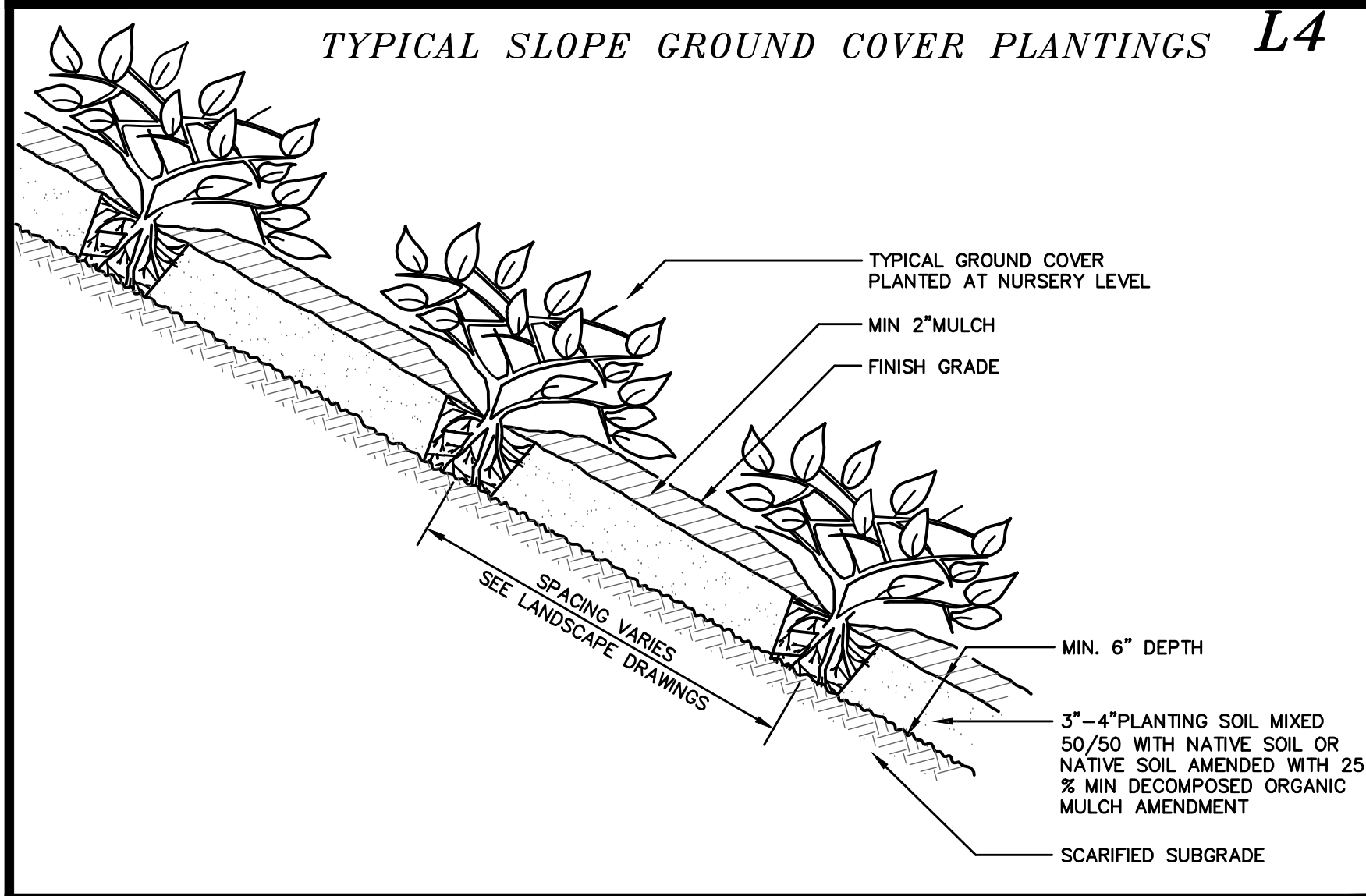
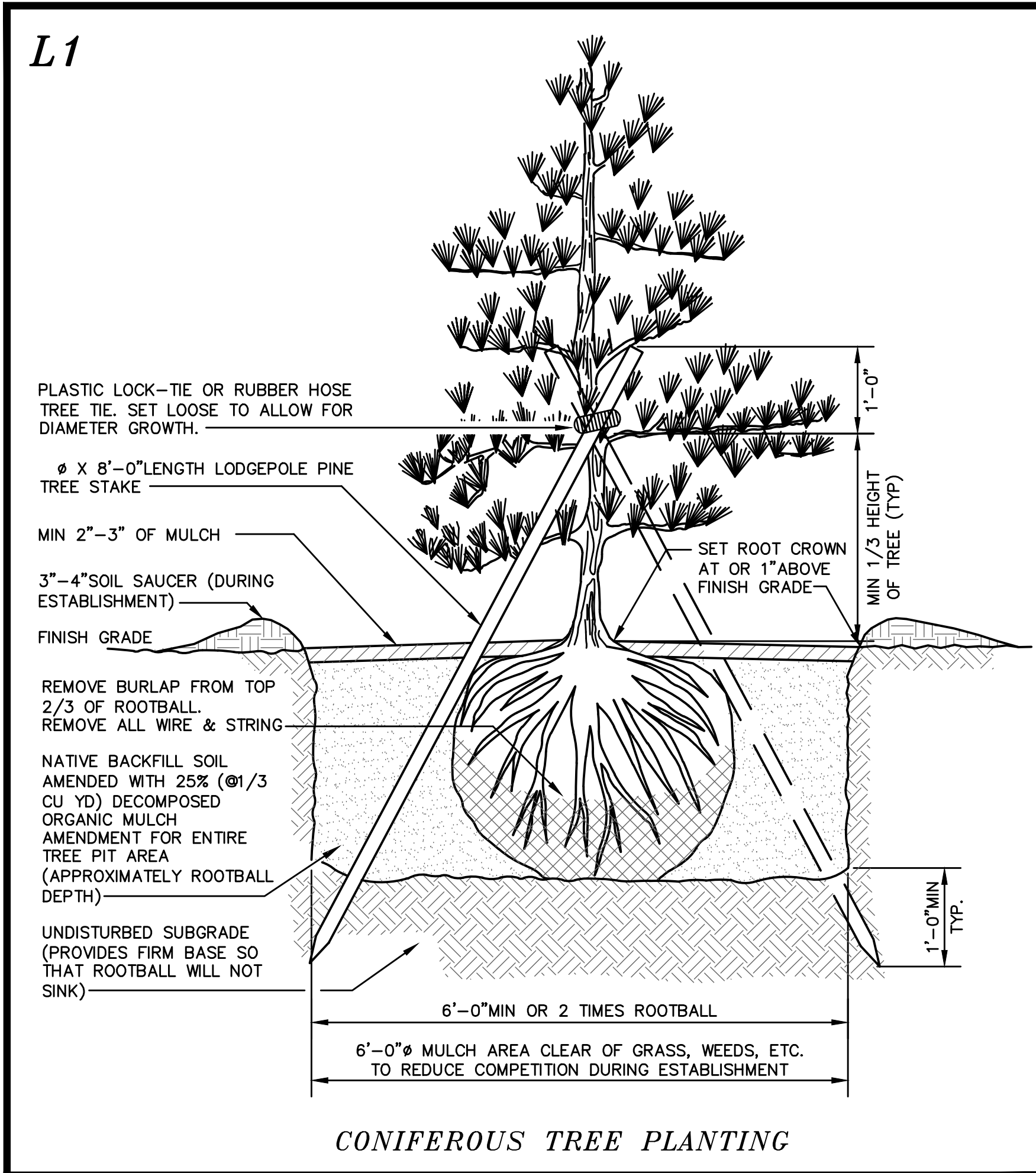
U-103

REVISION	DATE	DESCRIPTION

UTILITY DETAILS
FOR
GRAYSTONE BUILDERS, INC.
LAND OF
RAYMOND & CLAIRE HOWE
32 OLD STAGE ROAD
DOVER, NH
TAX MAP G, LOT 35-E

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (603)332-2863
SCALE : AS SHOWN
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174





REVISION	DATE	DESCRIPTION

LANDSCAPING CONSTRUCTION DETAILS FOR GRAYSTONE BUILDERS, INC. LAND OF RAYMOND & CLAIRE HOWE 32 OLD STAGE ROAD DOVER, NH TAX MAP G, LOT 95-E

BERRY SURVEYING & ENGINEERING 335 SECOND CROWN POINT ROAD BARRINGTON, NH 03825 (603)332-2863
AS NOTED
DATE : FEBRUARY 20, 2019
FILE NO. : DB 2018 - 174

STATE OF NEW HAMPSHIRE KENNETH A. BERRY No. 14213 LICENSED PROFESSIONAL ENGINEER
