City of Biddeford
Planning Board
November 08, 2022 4:00 PM City Hall
Council Chambers, & Zoom
https://biddeford.zoom.us/j/98239125188?pwd=SElzaWg1WFUvVDBzNGN2cTROLzhVdz09
Webinar ID #982 3912 5188 Passcode #793240

STATUS: Planning Board-Council Chambers-Tuesday, November 8, 2022 at 4:00 PM

1. **PLEDGE OF ALLEGIANCE**
2. **DECLARATION OF QUORUM/VOTING MEMBERS**
3. **ADJUSTMENTS TO THE AGENDA**
4. **PLANNER'S BUSINESS**
5. **UNFINISHED BUSINESS**
6. **NEW BUSINESS**

6.A. 2022.30 Public Hearing and take comments to review a Final Subdivision Plan for Shawn Brown to create a 5-lot subdivision in the Residential 2 Zone at 355 Pool Street (Tax Map 44, Lot 21).

2022.30 - 355 Pool Street - Final Subdivision SR.pdf
FINAL FOF for 355 Pool Street.pdf
Opinion Letter to Planning Board.pdf
355 Pool Final Amend Major Subd Packet 10-12-22.pdf
Brown Final Plan.pdf
ddEdgewaterEstatesLot3.pdf
ddEdgewaterEstatesLot4.pdf
ddEdgewaterEstatesLot5.pdf
Letter from Abutter to Surveyor 11-2-22.pdf
TARTRE Pool St Walking Easement_ Plan sent from Tarte with Email 11-2-22.pdf

6.B. 2022.43 Public Meeting and take comments to review a Shoreland Zoning Permit Application for The Engineering Department of the City of Biddeford to install an under soil drain filter. Property is located in the Industrial Zone and within the Shoreland Zone at 26 Morin Street (Tax Map 11, Lot 8).

2022.43 26 Morin SR.pdf
2022.43 26 Morin Street FOF.pdf
1.1 - Sterling Rope Soil Filter - Planning Board Narrative-New.pdf
2 - Sterling Rope Soil Filter - Planning Board Application.pdf
3 - Thacher Brook 319 Grant - Watershed Map.pdf
4 - Construction Drawings.pdf
5 - Tax Map.pdf
6 - Zoning Map.pdf
7 - FEMA Map.pdf
8 - SWM Sizing Calculations.pdf

DEP Permit-By-Rule.pdf
Phase 3 Workplan.pdf

7. OTHER BUSINESS

8. ADJOURN

The Board reserves the right to halt official business at 9:30 p.m. Items not heard at tonight's meeting shall be rescheduled to the next meeting of the Board. All materials pertaining to items on the agenda are available for public review at the Biddeford Planning Department, second floor, Biddeford City Hall during normal business hours.

CITY OF BIDDEFORD

Planning and Development Department

Matthew Grooms, AICP
Deputy Director/City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
Matthew.Grooms@biddefordmaine.org

PLANNING BOARD REPORT

TO: Chair Southwick and the Biddeford Planning Board

FROM: Matthew Grooms, AICP, City Planner

DATE: November 3, 2022

RE: 2022.30 Final Plan Review for a proposed 5-lot residential subdivision at 355 Pool Street.

MEETING DATE: Tuesday, November 8, 2022 at 4:00 pm

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1. INTRODUCTION

This application contains materials for the Final Plan review for a five-lot subdivision created from the parcel located at 355 Pool Street (Tax Map 44, Lot 21). The property is located in the SR-1 (Suburban Residential) and LR (Limited Residential Shoreland Overlay) Zones. The existing parcel is approximately 8.3 acres, and the five proposed lots may range from 27,318 square feet to 137,700 square feet. All lots are proposed to have adequate frontage along Pool Street, as required in the SR-1 zone. A Wetland study for the property has been prepared by Jones Associates, and is included in the application package.

This proposal does not involve the development of new roadways, or major extension of public utilities. Driveways and connections to available water service will be directly into Pool Street, and will occur as part of each individual lot development. The properties will utilize individual septic systems to service each property. Given the nature of this project, and the fact that it does not involve physical improvements as part of this proposal, the application has not undergone full engineering review.

2. PROJECT INFORMATION

	SUBJECT	DATA/INFORMATION
1.	Applicant	Shawn Brown 5 Buckthorn Circle Saco, ME 04072
2.	Property Owner	Shawn and Lee-Marie Brown 5 Buckthorn Circle Saco, ME 04072
3.	Agent	Walter Pelkey, BH2M 380B Main Street Gorham, ME 04038

4.	Engineer/Surveyor	Same as Agent
5.	Project Location	355 Pool Street
6.	Map/Lot	Map 44, Lot 21
7.	City Approvals Required	Residential Subdivision
8.	Existing Zoning	SR-1 (Suburban Residential)
9.	Overlay Zoning	Limited Residential (partial)
10.	Existing Use	Vacant
11.	Proposed Use	Residential Subdivision
12.	Uses in the Vicinity	Residential
13.	Parcel Size	8.2 acres
14.	Water Supply	Public Water
15.	Sewerage Disposal	Private Septic
16.	Fire Protection	City of Biddeford
17.	Ownership of Road	Public
18.	Additional Approvals/Permits Needed	None
19.	Fees Paid (LDR Attachment A)	All fees paid
20.	Planning Board Review History	August 3, 2022, October 5, 2022, October 19, 2022 and November 8, 2022.

3. COMPLIANCE WITH CITY ORDINANCES

Per the City of Biddeford Code of Ordinances Chapter 66 Subdivisions, Section 30, projects classified as a major subdivision, are required to go before the Planning Board for Sketch Plan, Preliminary Plan and Final Plan review. The Board determined the application to be a major subdivision at their August 3rd meeting, which resulted in the applicant having to submit all information required for a Preliminary Subdivision Review, as stipulated under Section 66-35. The Preliminary Plan was approved by the Planning Board at their October 19th meeting.

All proposed lots are in conformance with the City of Biddeford LDR Article V, Table B Dimensional Requirements with a minimum lot size of 20,000 square feet, and a minimum frontage of 100 feet.

4. PLANNING BOARD REVIEW

The Planning Board has reviewed this application over three separate meetings, approving the Preliminary Plan on October 19th. The review has generally focused on the following items:

- **Maine State Subdivision Statute (30-A M.R.S.A. §§ 4404).** Initially, due to Saco River Corridor Commission Performance Standards, requiring that each buildable lot feature a minimum of 100 feet of river frontage, the applicant proposed a lot configuration that did not meet state requirements around lot depth to shore frontage ratio requirements. This necessitated a revision to the plan to eliminate shore frontage for Lots 4 and 5.

- **Saco River Corridor Commission (SRCC) Requirements:** The SRCC requires a minimum of 100 feet of shore frontage to issue permits for new building construction on residential lots. The applicant has confirmed that they are unable to meet these requirements without drawing lot boundaries that do

not comply with State subdivision requirements. Noting this, the applicant has identified on the final plan that Lots 4 and 5 will remain unbuildable, unless the SRCC revises its performance standards.

- **Title Dispute with Abutter:** The abutter to this development has requested that the Planning Board table this application until a pending legal dispute over easement rights is resolved. Attorneys for both the applicant and the abutter have submitted written legal opinions stating their positions. The City's attorney has also provided a legal opinion, which argues that the applicant is within their rights to seek final approval on this subdivision application as they have demonstrated sufficient right, title and interest in the property. If the litigation ends up favoring the abutter, the applicant may be required to submit a plan amendment to identify the easement as an encumbrance on the property.

- **Scope of Work:** Based upon the materials submitted, and testimony received in prior meetings, staff's review of this application has been with the understanding that applicant intends to legally subdivide the land into 5 separate lots, 3 of which would be buildable lots. No other improvements are being proposed, and the limit of work thus far has been to dig test pits to determine the viability of the soil for septic systems.

5. STAFF RECOMMENDATION

In reviewing the final subdivision application for 355 Pool Street, staff found the application to be complete, and generally consistent with Biddeford's local subdivision requirements. While this is the case, staff would again note that the application appears to be in conflict with the Saco River Corridor performance standards, which would make Lots 4 and 5 unbuildable. This is reflected on the proposed final plan as a note. As stated above, this does not prevent the Planning Board from taking action on the proposed subdivision.

6. SAMPLE MOTIONS

1. *Motion to determine the application is "complete" for review purposes.*
2. *Motion to grant Final Subdivision Approval for the proposed 5-lot subdivision at 355 Pool Street (Tax Map 44, Lot 21) conditioned as follows:*
   - ***a. The applicant shall submit a final copy of the subdivision plat to be signed by the Planning Board and recorded at the York County Registry of Deeds.***
   - ***b.* The applicant shall obtain all other pertinent local, state and federal permits, licenses, and insurance such as blasting, building, electrical, plumbing, etc., prior to commencing business, unless authority issuing said permit allows for such actions.**
   - *c.* ***Standard Conditions of Approval apply***

CITY OF BIDDEFORD

Planning and Development Department

Matthew Grooms, AICP
Deputy Director/City Planner
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P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
Matthew.Grooms@biddefordmaine.org

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Pursuant to the provisions of the City of Biddeford Code of Ordinances Chapter 66 (Subdivisions), the Biddeford Planning Board has considered the application of Shawn Brown for a 5-lot subdivision **at 355 Pool Street,** including supportive data, public hearing testimony and related materials contained in the record. Based on Public Comment and Staff's review and recommendation, the Planning Board makes the following Findings of Fact and Conclusions of Law:

Findings of Fact:

	SUBJECT	DATA/INFORMATION
1.	Applicant	Shawn Brown 5 Buckthorn Circle Saco, ME 04072
2.	Property Owner	Shawn and Lee-Marie Brown 5 Buckthorn Circle Saco, ME 04072
3.	Agent	Walter Pelkey, BH2M 380B Main Street Gorham, ME 04038
4.	Engineer/Surveyor	Same as Agent
5.	Project Location	355 Pool Street
6.	Map/Lot	Map 44, Lot 21
7.	City Approvals Required	Residential Subdivision
8.	Existing Zoning	SR-1 (Suburban Residential)
9.	Overlay Zoning	Limited Residential (partial)
10.	Existing Use	Vacant
11.	Proposed Use	Residential Subdivision
12.	Uses in the Vicinity	Residential
13.	Parcel Size	8.2 acres
14.	Water Supply	Public Water
15.	Sewerage Disposal	Private Septic
16.	Fire Protection	City of Biddeford
17.	Ownership of Road	Public

18.	Additional Approvals/Permits Needed	None
19.	Fees Paid (LDR Attachment A)	All fees paid
20.	Planning Board Review History	August 3, 2022, October 5, 2022, October 19, 2022 and November 8, 2022.

Conclusions of Law:

The Planning Board concludes based on the application information submitted, peer-review and staff reports prepared and testimony provided at their meetings, the application conforms to the following provisions:

A. Section 66-39 (below) applicable standard and requirements of Chapter 66 of the City's subdivision ordinance:

1. The project will not result in undue water or air pollution.
2. The project has sufficient water available for the reasonably foreseeable needs of the subdivision;
3. The project will not cause an unreasonable burden on an existing water supply, if one is utilized;
4. The project will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy, condition may result;
5. The project will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highways or public roads existing or proposed;
6. The project will provide for adequate sewage waste disposal;
7. The project will not cause unreasonable burden on the ability of the municipality to disposal of solid waste and sewage if municipal services are to be utilized;
8. The project will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, or rare and irreplaceable natural areas or public rights for physical or visual access to the shoreline. Environmentally sensitive areas, including but not limited to wetlands, steep slopes, floodplains, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, and sand and gravel aquifers will be maintained and preserved to the maximum extent;
9. The project is in conformance with a duly adopted subdivision regulation or ordinance, Comprehensive Plan, development plan, or land use plan, if any.
10. The subdivider has adequate financial and technical capacity to meet the above stated standards;
11. Whenever situated, in whole or in part, within 250 feet of any lake, pond, river or tidal waters, the project will not adversely affect the quality of that body of water, or unreasonably affect the shoreline of that body of water, as indicated on the City of Biddeford, Official Zoning Map and referenced in the City's Comprehensive Plan;
12. The project will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of ground water;
13. The project is not in a flood prone area;

14. The project will not unreasonably obstruct abutting properties or structures access to direct sunlight;
15. If any portion of the site has been identified as containing historic or archaeological resources, the development shall include appropriate measures for protecting these resources, including but not limited to modification of the proposed design of the site, timing of construction, and limiting the extent of construction.

Determination:

Based on the evidence available and the conclusions above, the Biddeford Planning Board approves the application with the following conditions:

Conditions of Approval:

1. **The applicant shall submit a final copy of the subdivision plat to be signed by the Planning Board and recorded at the York County Registry of Deeds.**
2. **The applicant shall obtain all other pertinent local, state and federal permits, licenses, and insurance such as blasting, building, electrical, plumbing, etc., prior to commencing business, unless authority issuing said permit allows for such actions.**
3. **Standard Conditions of Approval apply.**

_____
Planning Board Chairman

_____
Date

WOODMAN EDMANDS DANYLIK AUSTIN SMITH & JACQUES, P.A.

ATTORNEYS-AT-LAW

ROBERT B. WOODMAN
THOMAS DANYLIK
RALPH W. AUSTIN
RICHARD A. HULL, III
KEITH R. JACQUES
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November 3, 2022

Matthew R. Grooms, AICP
City Planner/Deputy Director
Department of Planning and Development
City of Biddeford
205 Main Street
Biddeford, ME 04005

Re: 355 Pool Street – 5 Lot Subdivision Pending Before Planning Board

Dear Mr. Grooms:

On behalf of the City of Biddeford's Planning Board, you have asked me for a legal opinion in my capacity as City Attorney, regarding an abutter's request for a stay of the above-referenced pending subdivision application. It is my understanding that the application for subdivision approval at 355 Pool Street is on the Planning Board's November 8, 2022, meeting agenda for a final hearing. For the foregoing reasons, it is my opinion that the Planning Board should consider this application on its merits, and there is no legal requirement or authority to table the application. The request to table the application should be denied.

I have carefully reviewed the letter submitted by the applicant's attorney dated August 18, 2022, along with the referenced attachments. I have carefully reviewed and considered the abutter's attorney's letter dated October 13, 2022, and I have received and reviewed the applicant's attorney's "rebuttal" letter dated October 17, 2022. Additionally, I have reviewed the City's applicable ordinances, as well as case law on the issues raised by the parties.

There is absolutely no doubt that the applicant, Shawn Brown has sufficient right, title and interest to proceed with this application. He is the record owner, and the inquiry on that issue simply ends at that point. By virtue of being the deeded, record owner of the parcel, Mr. Brown squarely fits within the ordinance requirement of showing right, title and interest, which specifically references "copy of a Deed . . . " (City's Subdivision Ordinance § 66-35(a)(14) and Appendix B of the Ordinance.)

The issue is whether the pending civil litigation between the applicant and an abutter has any impact on the Planning Board's consideration of the proposed subdivision. It is my opinion that the civil litigation has absolutely no effect on the Planning Board's jurisdiction nor ability to consider and determine whether the application is consistent with the City's ordinances. Numerous Maine Supreme Court decisions have held that a municipal body is not the proper forum for a private property dispute between neighbors. *Rockland Plaza Realty Corp. v. Laverdier's Enters., Inc., 531 A.2d 1272 (Me. 1987).* This type of dispute in this matter has been the subject of many prior Maine Supreme Judicial Court cases, and consistently the Maine Supreme Court has confirmed that a municipal body, such as the City of Biddeford Planning Board, is not the proper forum to determine private rights or disputes. *Thomasino v. Town of Casco, 2022 Me. 96.*

To finalize my opinions and advice to the Planning Board, I want to address the abutter's attorney's arguments that the aforementioned case *Thomasino v. Town of Casco,* provides a legal basis for the Planning Board to table the pending application of Mr. Brown. The case of *Thomasino v. the Town of Casco* does not provide such authority. *Thomasino v. Town of Casco* involved a request for a building permit to cut down three trees that were located within a disputed easement area. A planning board application was not involved in *Thomasino.* The Town of Casco's Code Enforcement Officer issued a permit to remove the trees, and the Town Zoning Board vacated that decision, which was supported by both the Superior Court and the Maine Supreme Judicial Court on the grounds that it was a question of law as to whether or not the scope of the easement allowed for the cutting of trees. This has absolutely nothing to do with a subdivision application. *Thomasino* involved the review of the issuance of a permit as opposed to a planning board review of a project. That case does not provide a precedent to allow this board to table the applicant's pending application.

The last issue I want to address to the Board is the abutter's argument that Section 66-35(d)(9) of the City's Subdivision Ordinance requires disclosure of covenants or deed restrictions as are intended to all or part of the parcel. The abutter's attorney misconstrues the ordinance requirement. Terms or expressions in a city ordinance are to be construed

reasonably with regard to both the objectives sought to be obtained and the general structure of the ordinance as a whole. *Jordan v. City of Ellsworth, 203 Me. 82.* This requirement set forth in Subsection (d)(9) relates to the applicant's proposal of covenants or deed restrictions which are intended to be a part of the subdivision which is before the board to be approved or denied. Construing the ordinance as a whole, this section only makes sense if it is interpreted to require an applicant who is proposing a subdivision, to disclose any and all deed restrictions or covenants which will become part of that subdivision. That ordinance provision has no bearing on the private legal rights that are at issue between the applicant and the abutter and pending in the York County Superior Court.

Therefore, in conclusion, it is my opinion that the Planning Board may consider the above-referenced application in due course, and there is no legal basis to table the application because of the abutter's arguments and/or the pending civil litigation between the applicant and the abutter. I hope these satisfactorily answers your questions. If you need anything further, please do not hesitate to contact me.

Sincerely,

Harry B. Center, II, Esq.

HBC/jc

BH2M

Civil Engineering | Surveying

October 12, 2022

Matthew Grooms, City Planner
City of Biddeford
205 Main Street
Biddeford, ME

RE: Final Amended Major Subdivision
Shawn Brown
355 Pool Street

Dear Matthew,

On behalf of the applicant, Shawn Brown, we are submitting Amended Subdivision documents for Final Plan review.

The project is as shown on City Tax Map 44, Lot 21 and will consist of 5 single family house lots with public water, electric, communications and private individual septic systems. All lots will be accessed by individual driveways as depicted on the plan and shall comply with the attached covenants for the lots created by this amendment.

Maine Water Company, The Maine DOT and The Biddeford Fire Chief have completed their review and confirmed any required services by each. Mark Hampton Associates has performed test pits for individual private septic, those results are also included.

Please find enclosed 10 copies of the following information in support of the Final Amended Major Subdivision Application for the above referenced project:

- Attachment 1: Cover Letter
- Attachment 2: Application
- Attachment 3: Parcel Deed
- Attachment 4: USGS Map
- Attachment 5: Location Map/Abutters
- Attachment 6: Covenants
- Attachment 7: Financial Capacity
- Attachment 8: Technical Capacity
- Attachment 9: Letters of Approval
- Attachment 10: Septic Test Pit Results
- Attachment 11: Medium Intensity Soils Map
- Attachment 12: Flood Map
- Attachment 13: Lot Deed Descriptions

- Attachment 14: Final Amended Plan

Please contact me if you have any questions or if any additional information is needed.

Sincerely,

Walter Pelkey
Project Manager

CITY OF BIDDEFORD, MAINE
PLANNING BOARD

P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

APPLICATION FORM

Type of Application:

☐ Shoreland Zoning Permit ☐ Site Plan Review ☐ Extraction
☐ Conditional Use Permit ☒ Subdivision ☐ Private Way
☐ Other: _____

Applicant Information:

Applicant's Name: Shawn Brown
Applicant's Mailing Address: 5 Buckthorn Circle, Saco, ME
Applicant's Telephone: _____
What is Applicant's legal interest in the property?
☒ Owner ☐ Potential Buyer with Contract ☐ Lease/Rental Agreement

Owner's Name: Same
Owner's Address: _____
Owner's Telephone: _____

Agent's Name: Walter Pelkey - BH2M
Agent's Address: 380B Main Street, Gorham, ME 04038
Telephone: (207) 839-2771

Engineer/Surveyor: Robert Libby Jr. - BH2M
Engineer/Surveyor's Address: 380B Main Street, Gorham, ME 04038
Telephone: (207) 839-2771

Project Location and Lot Information:

Street Address: 355 Pool Street, Biddeford, ME
Tax Map: 44 Lot: 21
Current Zoning: Suburban Residential (SR1) Shoreland Zoning: _____

Size of lot: +/-8.21 ☒ acres ☐ s.f. Lot Frontage: 589.23'

Existing Use of Property: The parcel is currently undeveloped.

Property currently serviced by:

- ☒ City Road
- ☐ Private Road
- ☐ Public Sewer
- ☐ Septic System
- ☒ Public Water
- ☐ Private Well
- ☐ Public Trash
- ☐ Private Hauler

Slope Conditions in Area of Construction (if applicable):

☐ Flat (0-3 % slope) ☒ Rolling (3-8% slope) ☐ Hilly (8-15% slope) ☒ Steep (15% + slope)

Are there any wetlands or waterbodies on the site? ☒ Yes ☐ No If yes, attach information

Do you plan to bring fill onto the lot? ☐ Yes ☒ No If yes, attach information

Description of proposed use of property:

Project/Proposed Use Description: The applicant is proposing to create 5 New Family House Lots

Property to be serviced by:

- ☐ City Road
- ☐ Private Road
- ☐ Public Sewer
- ☒ Septic System
- ☒ Public Water
- ☐ Private Well
- ☐ Public Trash
- ☐ Private Hauler

Is this project part of a larger project? ☐ Yes ☒ No

☐ If in a Shoreland Zone:

Percent of residential lot coverage (Max. 20%): _____

Percent of structure expansion (Max. 30%): _____

☒ If Subdivision Review, number of lots proposed: 5 lots

☐ If a Private Way is proposed, number of lots served: _____

☐ **If Site Plan Review, you must provide the following information:**

Total new square feet footprint of structures: _____

Total new square feet paving/parking: _____

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

<u>Attachments:</u>

A. Letters of Approval

☒ Fire Department - Contact Chief or Deputy Chief - 282-9986

☒ Ability to Serve for Water Service – Maine Water - 282-1543

☐ Ability to Serve for Sewer Service- Engineering Dept (Sewer) - Tom Milligan 284-9118

☐ Police Department - E-911 Road Name Designation - Contact Joanne Fisk - 282-5127

B. Letter to Planning Board describing project, waiver requests, proposed improvements, addressing permit requirements, etc.

C. Photographs of site.

D. Architectural renderings/drawings of proposed buildings, as required.

E. Engineered Plans, as required.

Fees (due at time of application):

Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and it's attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting this application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

☐ Project proposed to have 1 acre or more of site disturbance:

-Project may need to apply for a Maine Construction General Permit and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.

Signature of applicant: Shawn Brown Date: 10-12-2022

Signature of owner of property: Shawn Brown Date: 10-12-2022

IF PLAN APPROVAL IS ANTICIPATED, PROVIDE 2 FULL SIZE MYLARS & 2 FULL SIZE PAPER COPIES FOR BOARD SIGNATURE (AS APPLICABLE). CHECK WITH PLANNING STAFF FOR CLARIFICATION.

CHECKLIST FOR *SITE PLAN* REQUIREMENTS

YES	NO	
☒	☐	Be on sheet size of 24 by 36 inches.
☒	☐	The scale of said plan shall be not less than one inch equals 50 feet and shall be indicated on the plat by use of a bar scale.
☒	☐	The plan shall bear the date, title, north point.
☒	☐	The plan shall contain a location or vicinity sketch (suggested scale one inch equals 800 feet).
☒	☐	The plan shall contain the name and address of the developer and applicant.
☒	☐	All appropriate dimensional requirements.
☒	☐	Existing and proposed easements.
☒	☐	Plan of the site showing existing watercourses and water bodies, seasonal wet areas.
☒	☐	Plan of the site showing soil type and location of test borings.
☒	☐	Location of all existing and proposed utilities.
☒	☐	Topographic contours (every five percent for zero to three percent slope; or every two feet for steeper areas).
☒	☐	Plan should include preservation and supplementation of existing dominant vegetation.
☒	☐	Plan shall indicate which features are to be retained and which are to be removed or altered.
☒	☐	Location of stonewalls, graveyards, fences, stands of trees, and other important unique natural areas and site features, including but not limited to floodplains, deer wintering areas, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, sand and gravel aquifers, and historic and/or archaeological resources, together with description of such features.
☐	☐	Plan view of all buildings with their use, size, location, and first-floor elevation in respect to grade.
☐	☐	Standard elevation view of existing and proposed buildings or structures on-site.

YES	NO	
☐	☐	Outline of any buildings located within 200 feet of such existing or proposed buildings or structures indicating their shape, size, location, heights and volume.
☒	☐	Existing use of abutting properties shall be identified with approximate location of any structures thereon including access roads.
☐	☐	Location, width, curbing, and paving of access ways, egress ways, and streets within the site for both pedestrian and vehicular use.
☐	☐	The location of off-street parking and loading spaces with a layout of the parking indicated.
☐	☐	The size and proposed location of water mains and sanitary sewerage facilities will all necessary engineering data.
☐	☐	The size and location of all other existing and proposed public service connections including, without limitation, gas lines, power lines, telephone lines, and fire alarm connections and locations, indicating whether above or below ground.
☐	☐	The type, nature, and composition of all solid, liquid, and gaseous waste, industrial or otherwise, and the location, type, and design criteria of the storage and disposal facilities dealing with such waste.
☐	☐	A landscape plan and open space areas indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening; plus size, location, purpose and type of vegetation.
☐	☐	A drainage plan including location, elevation, layout of catch basins and other surface and subsurface drainage features.
☐	☐	Location, size and design of proposed signs and other advertising or instructional devices.
☒	☐	Existing and proposed contours and finished grade elevations as well as the type, extent, and location of existing and proposed landscaping and open space areas which will be retained.
☐	☐	Location and type of lighting for outdoor facilities.
☒	☐	Lines of existing and proposed abutting streets showing width.
☒	☐	Surveyed property lines showing their bearing and distances and monument locations.
☒	☐	If subdivision is involved, the lines and names of all proposed streets, lanes, ways, or easements intended to be dedicated for public or private use.

YES	NO	
☐	☐	Provide copies of any covenants or restrictions that are intended to cover all or part of the land area to be developed.
☒	☐	Indicate limits of the wetland areas on the property.
☒	☐	Delineate existing zoning boundaries within 1,000 feet of the site.
☐	☐	Stamp and signature of either a Maine licensed land surveyor, professional engineer, or architect responsible for said plan.
☐	☐	Any other exhibits or data deemed necessary by the Planning Board to evaluate the proposed development for site plan review purposes.

NANCY E HAMMOND, REGISTER OF DEEDS
Bk 18863 PG 185
Instr # 2021065214
11/08/2021 09:50:17 AM
Pages 4 YORK CO

TRUSTEE'S DEED

DLN: _____

CRAIG G. COFFIN, not individually but solely in his capacity as **Successor Trustee** of the **POOL STREET REALTY TRUST** under Declaration of Trust dated August 21, 1992, as amended, having a mailing address c/o First Atlantic Healthcare, 100 Waterman Drive, Suite 401, South Portland, Maine 04106, by the power conferred by law, and every other power, grants to **SHAWN BROWN** and **LEE-MARIE BROWN** with a mailing address of 5 Buckthorn Circle, Saco, Maine 04072 as joint tenants, the land, with any improvements thereon, located in Biddeford, York County, Maine more particularly described in Exhibit A attached hereto and made a part hereof.

Maine R.E. Transfer Tax Paid

I hereby covenant that I am the current Trustee of the Trust; that said Trust is still in full force and effect; that I have the power thereunder to convey as aforesaid; and that, in the making of this conveyance, I have, in all respects, acted pursuant to the authority vested in and granted to me therein.

Signature Page Follows

Ingraham Title Company
705 Portland Road
Saco, ME 04072

48 ↑

18259842.2

WITNESS my hand and seal this ~~25th~~ 29th day of October 2021

WITNESS:

_____

_____
By Craig G. Coffin, Successor
Trustee of Pool Street Realty Trust
duly authorized

STATE OF MAINE

COUNTY OF YORK

Oct 29 2021

Personally appeared the above-named Craig G. Coffin, Successor Trustee of Pool Street Realty Trust and acknowledged before me the foregoing instrument to be his free act in his said capacity.

Before me,

_____
Notary Public/Attorney-at-Law
Print Name: Kimbaly A. Phinney
Commission Expires: 11/09/22
(Affix Notarial Seal)

SEAL

18259842.2

EXHIBIT A

A certain lot or parcel of land situated in Biddeford, Maine and lying on the northeasterly side of Pool St: and being further bounded and described as follows:

BEGINNING at an iron pipe driven into the ground on the northeasterly side of Pool Street, a/k/a Pool Road, said pipe being in the center of a brook and at the land now or formerly of Robert Hunter; thence running S 40° 30' 12" E by and along the northeasterly side of Pool Street 590 feet, more or less, to a point and other land which Perspective Associates conveyed to Henry A. Tartre by deed dated November 6, 1987 recorded in the York County Registry of Deeds in Book 4521, Page 1; thence turning a running by and along the land now or formerly of said Henry Tartre by the following courses and distances: N 32° 36" E 396.65 feet to a point; N 01° 38' 56" E 109.49 feet to a point; N 22° 57' 28" E 41.95 feet to a point; N 68° 58' 31" E 109.04 feet a point; N 67° 24' 39" E 79.64 feet to a point; N 30° 37' 03" E 62.69 feet to a point; N 38° 20' 06" E 103.76 feet; N 04° 01' 03" W 48.64 feet to a point; N 85° 58' 57" E 10 feet to a point and the Saco River; thence running northerly and northwesterly by the Saco River to said brook; thence running southerly and southwesterly by said brook to the point of beginning.

The courses and distances are derived from a plan entitled "Tartre Realty Subdivision Plan of Land To-Be Conveyed by Perspective Associates, Pool Street, Biddeford, Maine," dated September 26, 1986 and recorded in the York County Registry of Deeds in Plan Book 156, Page 27.

The above-described premise is subject to a 50 foot right of way for the purpose of access by foot or motor vehicle and for utilities to and from the abutting parcel now or formerly of Henry Tartre and Pool Street. Said easement is bounded and described as follows:

BEGINNNING at the southerly most corner of the above-described property at the northeasterly sideline of Pool Street and the westerly corner of the land now or formerly of Henry Tartre; thence running northwesterly by and along the northeasterly sideline of Pool Street 51.47 feet to a point; thence running N 32° 36' 36" E 137.80 feet to a point; thence running S 57° 23' 24" E 50.00 feet to a point and the westerly sideline of the land now or formerly of said Tartre; thence running S 32° 36' 36" W 150.00 feet to the westerly sideline of Pool Street and the point of beginning.

The above-described premise is further subject to a water line easement 15 feet in width for the purpose of installation, repair and maintenance of a water line. Said easement is further bounded and described as follows:

BEGINNING at a point 97 feet, more or less, from the southerly most corner of the above described lot and approximately 97 feet, more or less, from the most westerly corner of said lot now or formerly of Henry Tartre; thence N 62° 44' 17" W, 218.25 feet to a point; thence N 27° 15' 43" E 15.00 feet to a point; thence S 62° 44' 17" E, 219.6 feet to the westerly line of land of Henry Tartre; thence S 32° 36' 36 W, 15.07 feet just to the point of beginning.

Also, right of access easement to and from the Saco River for purpose of accessing boat moorings for personal use said easement shall run with the land.

The above-described premise is further subject to a 25 foot wide access easement for foot or vehicle access, which easement is further bounded and described as follows:

BEGINNING at a point, said point being the most northerly corner of above described 50 foot right of way easement; thence N 32° 36' 36" E, 130.00 feet to a point; thence along a curve concaved to the west having a radius of 162.50 feet, a distance of 158.82 feet to a point; thence N 23° 23' 24" W 85.00 feet to a point; thence N 66° 36' 36" E, 25.00 feet to a point; thence S 23° 23' 24" E, 85.00 feet to a point; thence along a curve concave westerly having a radius of 187.50 feet, a distance of 183.26 feet to a point; thence S 32° 36' 36" W 130.00 feet to the northerly line of above described 50 foot right of way access easement; thence N 57° 23' 24" W, 25.00 fee to the point of beginning.

The above-described premise is conveyed together with a 25.00 wide easement to construct, maintain, operate, repair and replace a sanitary sewer discharge pipe and appurtenant structure over the property now of formerly of Henry Tartre. The centerline of said easement shall be located along the existing discharge pipe which is shown and delineated on the above noted plan.

This easement is conveyed together with the right to go upon the adjoining land now or formerly of Henry Tartre and the right to cut trees, brush, bushes, shrubs, remove roots and earth and to do any other work necessary to construct, maintain, operate, repair or replace the existing sewer line, discharge pipe and related structures.

For source of title, reference is made to a deed from Daniel D. Sowerby as Trustee of the Riverwood Realty Trust to Daniel W. Hourihan in his capacity as Trustee of Pool Street Realty Trust dated August 21, 1992 and recorded in the York County Registry of Deeds in Book 6222, Page 13. Additional reference is made to an amendment to Pool Street Realty Trust dated December 10, 1997 and recorded in said Registry in Book 8850, Page 224, wherein Daniel W. Hourihan was removed as Trustee of the Trust and Craig G. Coffin appointed as his Successor.

BK6222 PG013

43330

DEED

KNOW ALL BY THESE PRESENTS, THAT I, DANIEL D. SOWERBY as TRUSTEE of the RIVERWOOD REALTY TRUST dated December 7, 1987, of York, Maine, for consideration paid,

HEREBY GRANT to DANIEL W. HOURIHAN in his capacity as TRUSTEE of POOL STREET REALTY TRUST under Declaration of Trust dated August 21, 1992, 1992 with a mailing address of 151 Middle Street, P.O. Box 578, Portland, ME 04112,

The premises located on Pool Road in the Town of Biddeford, County of York and State of Maine, further described as follows:

See Schedule A attached hereto and made a part hereof.

Being the same premises described in a deed to Grantor dated December 7, 1987 and recorded in the York County Registry of Deeds in Book 4553, 41 and as depicted on a plan entitled "Tarte Realty Subdivision" dated September 26, 1986 as revised April 14, 1987 by Aliberti, LaRochelle & Hodson as recorded in said Registry of Deeds in Plan Book 156, Page 27, subject to the matters set forth therein, and together with all and singular the rights and appurtenances pertaining thereto (the "Premises");

Togther with all right title and interst of the Grantor in and to all buildings, improvements, machinery, furniture, fixtures and equipment now located on the Premises.

SUBJECT TO 1992-93 property taxes which the Grantee assumes and agrees to pay.

This deed is executed pursuant to an order of the York County Superior Court dated August 5, 1992 in the matter of Casco Northern Bank N.A. v. DDS, INC., Docket #91-745 concering the grantor's authority to execute this instrument of conveyance and pursuant to every other power of the trustee.

TO HAVE AND TO HOLD the same, together with all the priviledges and appurtenances thereunto belonging, to the said DANIEL W. HOURIHAN, as TRUSTEE of POOL STREET REALTY TRUST, his successors or assigns forever.

WITNESS my hand and seal on August 21, 1992.

Witness

Daniel D. Sowerby, as Trustee
of the Riverwood Realty Trust

MAINE REAL ESTATE TRANSFER TAX PAID

23
10

State of Maine
County of Cumberland

August 21, 1992

Then personally appeared the above-named Daniel D. Sowerby in his said capacity, and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Laurene W. Warner
Notary Public/~~Attorney At Law~~
Name: 7-19-96
Laurene W. Warner

7626H

Poor copy at time of recording

A certain lot or parcel of land with the buildings thereon situate in Biddeford, Maine and lying on the northeasterly side of Pool St and being further bounded and described as follows:

BEGINNING at an iron pipe driven into the ground on the northeasterly side of Pool Street, a/k/a Pool Road, said pipe being in t center of a brook and at the land now or formerly of Robert Hunter; thence running S 40° 30' 12" E by and along the northeasterly sidel of Pool Street 590 feet, more or less, to a point and other land wh the Grantor is this day conveying to Henry Tartre; thence turning a running by and along the land which the Grantor is this day conveyi said Henry Tartre by the following courses and distances: N 32° 36" E 396.65 feet to a point; N 01° 38' 56" E 109.49 feet to a poin N 22° 57' 28" E 41.95 feet to a point; N 68° 58' 31" E 109.04 feet a point; N 67° 24' 39" E 79.64 feet to a point; N 30° 37' 03" E 62. feet to a point; N 38° 20' 06" E 103.76 feet; N 04° 01' 03" W 48.64 feet to a point; N 85° 58' 57" E 10 feet to a point and the Saco River; thence running northerly and northwesterly by the Saco River to said brook; thence running southerly and southwesterly by said brook to the point of beginning.

The courses and distances are derived from a plan entitled "Tartre Realty Subdivision Plan of Land To Be Conveyed by Perspective Associates, Pool Street, Biddeford, Maine," dated September 26, 198 and recorded in the York County Registry of Deeds.

The above-described premise is subject to a 50 foot right of way fo the purpose of access by foot or motor vehicle and for utilities to and from the abutting parcel to be conveyed to Henry Tartre and Poo Street. Said easement is bounded and described as follows:

BEGINNNING at the southerly most corner of the above-described property at the northeasterly sideline of Pool Street and the wester corner of the land to be conveyed to Henry Tartre; thence running northwesterly by and along the northeasterly sideline of Pool Street 51.47 feet to a point; thence running N 32° 36' 36" E 137.80 feet tc a point; thence running S 57° 23' 24" E 50.00 feet to a point and th westerly sideline of the land to be conveyed to Tartre; thence runni S 32° 36' 36" W 150.00 feet to the westerly sideline of Pool Street and the point of beginning.

The above-described premise is further subject to a water line easement 15 feet in width for the purpose of installation, repair an maintenance of a water line. Said easement is further bounded and described as follows:

BEGINNING at a point 97 feet, more or less, from the southerly most corner of the above described lot and approximately 97 feet, mo or less, from the most westerly corner of said lot to be conveyed to Henry Tartre; thence N 62° 44' 17" W, 218.25 feet to a point; thence N 27° 15' 43" E 15.00 feet to a point; thence S 62° 44' 17" E, 219.6 feet to the westerly line of land of Henry Tartre; thence S 32° 36' 3 W, 15.07 feet just to the point of beginning.

Also, right of access easement to and from the Saco River for purpos of accessing boat moorings for personal use said easement shall run with the land.
The above-described premise is further subject to a 25 foot wide access easement, for foot or vehicle access, which easement is further bounded and described as follows:

BEGINNING at a point, said point being the most northerly corne of above described 50 foot right of way easement; thence N 32° 36' 36" E, 130.00 feet to a point; thence along a curve concaved to the west having a radius of 162.50 feet, a distance of 158.82 feet to a point; thence N 23° 23' 24" W 85.00 feet to a point; thence N 66° 36' 36" E, 25.00 feet to a point; thence S 23° 23' 24" E, 85.00 feet to a point; thence along a curve concave westerly having a radius of 187.50 feet, a distance of 183.26 feet to a point; thence S 32° 36' 36" W 130.00 feet to the northerly line of above described 50 foot right of way access easement; thence N 57° 23' 24" W, 25.00 fee to the point of beginning.

The above-described premise is conveyed together with a 25.00 wide easement to construct, maintain, operate, repair and replace a sanitary sewer discharge pipe and appurtenant structure over the property to be conveyed to Henry Tartre. The centerline of said easement shall be located along the existing discharge pipe which is shown and delineated on the above noted plan.

This easement is conveyed together with the right to go upon the adjoining land to be conveyed to Henry Tartre and the right to cut trees, brush, bushes, shrubs, remove roots and earth and to do any other work necessary to construct, maintain, operate, repair or replace the existing sewer line, discharge pipe and related structures.

RECEIVED YORK S.S.
92 AUG 25 PM 3:47
ATTEST: Anne M Stone
REGISTER OF DEEDS

BK4553 PG041

FORM 1202 MAINE Warranty Deed—Corporation

TUTBLANX REGISTERED U. S. PAT. OFFICE
TUTTLE LAW PRINT, PUBLISHERS, RUTLAND, VT 05701

58954

Know all Men by these Presents

That DDS, INC.

XXXXXXXXX

a corporation organized and existing under the laws of the State of Maine

and located at Biddeford,

in the County of York *and State of* Maine

in consideration of One-Dollar and other valuable considerations,

paid by **DANIEL D. SOWERBY, TRUSTEE OF THE RIVERWOOD REALTY TRUST**

the receipt whereof it *does hereby acknowledge, does hereby*

give, grant, bargain, sell and convey *unto the said* **DANIEL D. SOWERBY, TRUSTEE OF THE RIVERWOOD REALTY TRUST,**

its successors ~~heirs~~ *and assigns forever,*

a certain lot or parcel of land with the buildings thereon situated in Biddeford, Maine and lying on the northeasterly side of Pool Street and being further bounded and described as follows:

BEGINNING at an iron pipe driven into the ground on the northeasterly side of Pool Street, a/k/a Pool Road, said pipe being in the center of a brook and at the land now or formerly of Robert Hunter; thence running S 40° 30' 12" E by and along the northeasterly sideline of Pool Street 590 feet, more or less, to a point and land of Henry Tartre; thence turning and running by and along the land of said Henry Tartre by the following courses and distances: N 32° 36' 36" E 396.65 feet to a point; N 01° 38' 56" E 109.49 feet to a point; N 22° 57' 28" E 41.95 feet to a point; N 68° 58' 31" E 109.04 feet to a point; N 67° 24' 39" E 79.64 feet to a point; N 30° 37' 03" E 62.69 feet to a point; N 38° 20' 06" E 103.76 feet; N 04° 01' 03" W 48.64 feet to a point; N 85° 58' 57" E 10 feet to a point and the Saco River; thence running northerly and northwesterly by the Saco River to said brook; thence running southerly and southwesterly by said brook to the point of beginning.

The courses and distances are derived from a plan entitled "Tartre Realty Subdivision Plan of Land To Be Conveyed by Perspective Associates, Pool Street, Biddeford, Maine," dated September 26, 1986 and recorded in the York County Registry of Deeds.

The above-described premise is subject to a 50 foot right of way for the purpose of access by foot or motor vehicle and for utilities to and from the abutting parcel of Henry Tartre and Pool Street. Said easement is bounded and described as follows:

BEGINNING at the southerly most corner of the above-described property at the northeasterly sideline of Pool Street and the westerly corner of the land of Henry Tartre; thence running northwesterly by and along the northeasterly sideline of Pool Street 51.47 feet to a point; thence running N 32° 36' 36" E 137.80 feet to a point; thence running S 57° 23' 24" E 50.00 feet to a point and the westerly sideline of the land of Henry Tartre; thence running S 32° 36' 36" W 150.00 feet to the westerly sideline of Pool Street and the point of beginning.

The above-described premise is further subject to a water line easement 15 feet in width for the purpose of installation, repair and maintenance of a water line. Said easement is further bounded and described as follows:

NO R.E. TRANSFER TAX PAID

BEGINNING at a point 97 feet, more or less, from the southerly most corner of the above described lot and approximately 97 feet, more or less, from the most westerly corner of said lot of Henry Tartre; thence N 62° 44' 17" W, 218.25 feet to a point; thence N 27° 15' 43" E 15.00 feet to a point; thence S 62° 44' 17" E, 219.65 feet to the westerly line of land of Henry Tartre; thence S 32° 36' 36" W, 15.07 feet just to the point of beginning.

Also, right of access easement to and from the Saco River for purposes of accessing boat moorings for personal use. Said easement shall run with the land.

The above-described premise is further subject to a 25 foot wide access easement, for foot or vehicle access, which easement is further bounded and described as follows:

BEGINNING at a point, said point being the most northerly corner of above described 50 foot right of way easement; thence N 32° 36' 36" E, 130.00 feet to a point; thence along a curve concaved to the west having a radius of 162.50 feet, a distance of 158.82 feet to a point; thence N 23° 23' 24" W 85.00 feet to a point; thence N 66° 36' 36" E, 25.00 feet to a point; thence S 23° 23' 24" E, 85.00 feet to a point; thence along a curve concave westerly having a radius of 187.50 feet, a distance of 183.26 feet to a point; thence S 32° 36' 36" W 130.00 feet to the northerly line of above described 50 foot right of way access easement; thence N 57° 23' 24" W, 25.00 feet to the point of beginning.

The above-described premise is conveyed together with a 25.00 foot wide easement to construct, maintain, operate, repair and replace a sanitary sewer discharge pipe and appurtenant structure over the property owned by Henry Tartre. The centerline of said easement shall be located along the existing discharge pipe which is shown and delineated on the above noted plan.

This easement is conveyed together with the right to go upon the adjoining land of Henry Tartre and the right to cut trees, brush, bushes, shrubs, remove roots and earth and to do any other work necessary to construct, maintain, operate, repair or replace the existing sewer line, discharge pipe and related structures.

Meaning and intending to convey a portion only of the premises conveyed to Perspective Associates by Deed of The Webber Hospital Association, dated November 9, 1981 and recorded in the York County Registry of Deeds at Book 2865, Page 215, excepting and reserving only said premises and easements conveyed to Henry A. Tartre of even date to be recorded herewith. Subject to the Saco River Corridor Commission's order dated February 24, 1987 recorded with said deed.

Meaning and intending to convey and hereby conveying the same premises conveyed to the Grantor by Deed of Perspective Associates, dated November 6, 1987 and recorded in the York County Registry of Deeds.

BK4553 PG043

To Have and to Hold *the aforegranted and bargained premises with all the privileges and appurtenances thereof to the said*
RIVERWOOD REALTY TRUST, its successors

~~heirs~~ *and assigns, to* it *and their use and behoof forever.*

And *does COVENANT with the said Grantee* , its successors ~~heirs~~ *and assigns, that* it is *lawfully seized in fee of the premises that they are free of all encumbrances:*

that it has ~~have~~ *good right to sell and convey the same to the said Grantee to hold as aforesaid; and that* it *and* its *successors and assigns will WARRANT and DEFEND the same to the said Grantee* , its *heirs and assigns forever, against the lawful claims and demands of all persons.*

In Witness Whereof, *the said* **DDS, INC.**

has caused this instrument to be sealed with its corporate seal and signed in its corporate name by **DANIEL D. SOWERBY**

, its President

thereunto duly authorized, this seventh *day of* December *in the year one thousand nine hundred and* eighty-seven.

Signed, Sealed and Delivered in presence of

DDS, INC.

By **Daniel D. Sowerby, President**

(Corporate Seal)

State of Maine, York } ss.

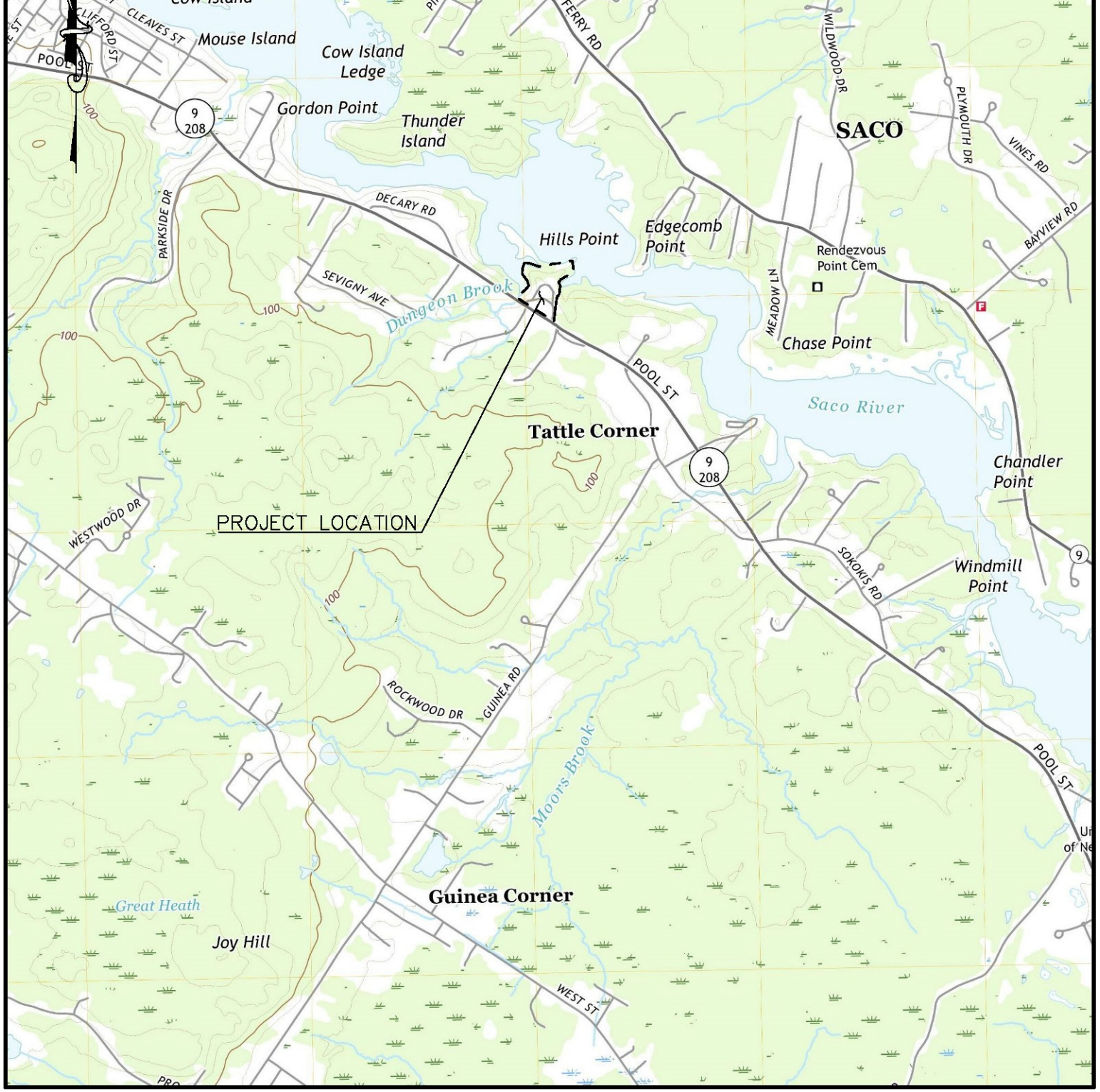
December 7, *19* 87

Then personally appeared the above named **DANIEL D. SOWERBY,** **President** *of said Grantor Corporation as aforesaid, and acknowledged the foregoing instrument to be his free act and deed in his said capacity, and the free act and deed of said corporation.*

Before me, Jeffery D. Clark

~~*Justice of the Peace*~~ *- Attorney at Law* ~~*- Notary Public*~~

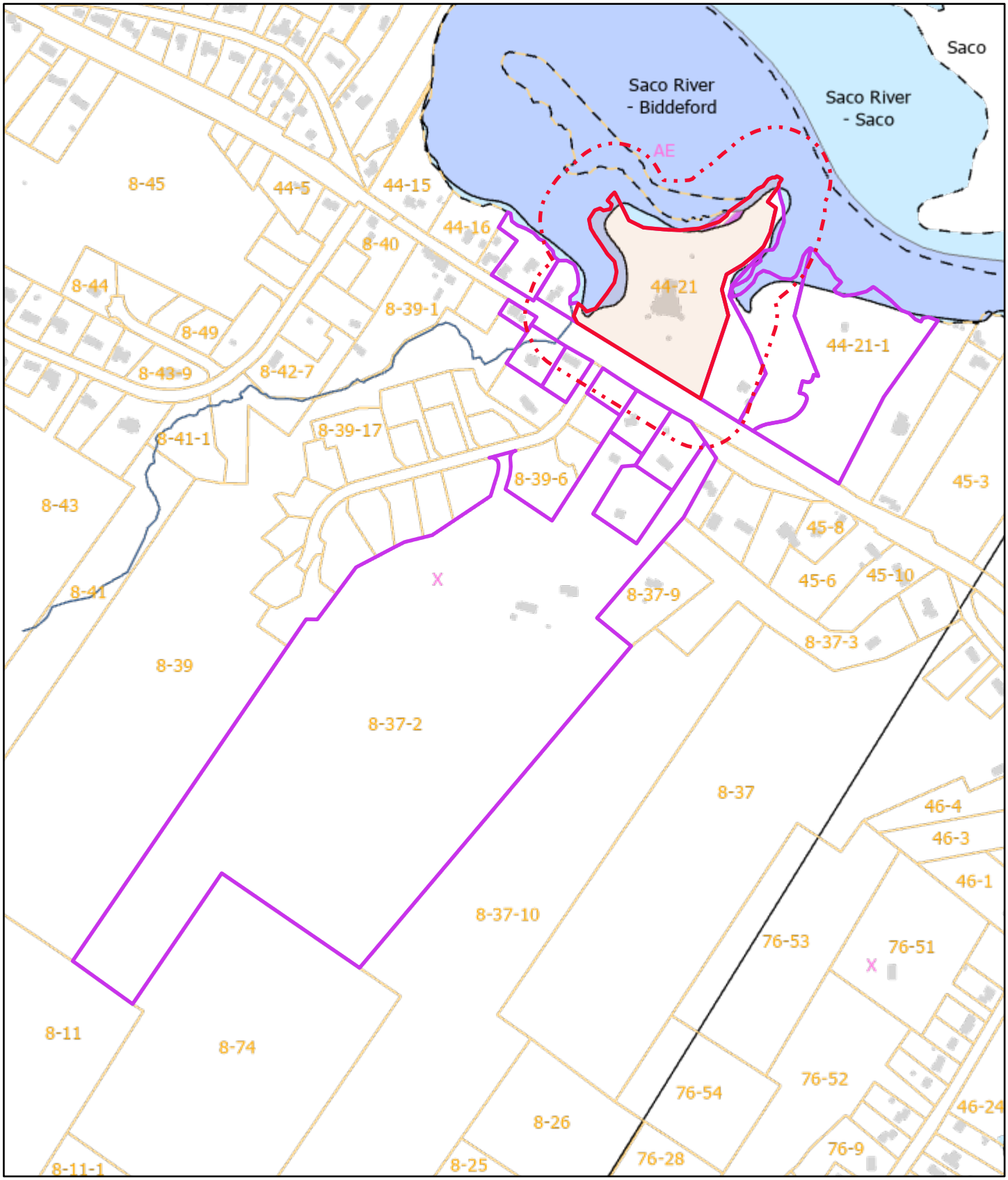
RECEIVED YORK, SS.
1987 DEC -9 AM 9:15
RECORDED REGISTRY OF DEEDS
ATTEST: Anne M Pongetti
REGISTER



REFERENCES:
1. USGS QUADRANGLE BIDDEFORD, ME 2021

BH2M

Abutter's Map



September 8, 2022

1:9,028

0 300 600 1,200 ft

0 90 180 360 m

Rivers

Parcels

Flood Zones

Streams

AE

Road Names

X

Surrounding Towns

X500

Buildings

Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Data and scale shown on this map are provided for planning and

Powered by Esri Technology

Abutting Properties for
355 POOL ST
44/ 21/ / /
(200 Feet)

Location:
8/ 37/ 5/ /
356 POOL ST
Owner:
AL TAIE, HAIDER
356 POOL ST
BIDDEFORD, ME 04005

Location:
44/ 18/ / /
347 POOL ST
Owner:
BUTLER, VIRGINIA E &
BUTLER, CHARLES L JR
347 POOL ST
BIDDEFORD, ME 04005-9714

Location:
44/ 21/ 1/ /
8 EAGLE ROCK POINT
Owner:
LABBE, NORMAND R & DAVID P
174 GUINEA RD
BIDDEFORD, ME 04005

Location:
44/ 23/ / /
352 POOL ST
Owner:
SANBORN, HEIDI A
SANBORN, KEVIN S
312 WAYNE WOOD LN
LYNDONVILLE, VT 05851

Location:
44/ 21/ 3/ /
0 EAGLE ROCK POINT
Owner:
JOSLIN, CHRISTOPHER SCOTT
25 BRIXHAM RD
YORK, ME 03909

Location:
8/ 37/ 6/ /
358 POOL ST
Owner:
BOISSONNAULT, GERARD D & TINA S
LIVING TRUST
BOISSONNAULT, GERARD D & TINA S
TRUSTEES
358 POOL ST
BIDDEFORD, ME 04005

Location:
44/ 20/ / /
351 POOL ST
Owner:
DONALDSON, JUDITH M & NORMAN S
351 POOL ST
BIDDEFORD, ME 04005-9714

Location:
44/ 21/ 2/ /
365 POOL ST
Owner:
TARTRE II, JOSEPH ANDREW
SHEEHAN-TARTRE, KATHLEEN SUSAN
157 SIMPSON RD
SACO, ME 04072

Location:
8/ 37/ 2/ /
10 DANNYS WAY
Owner:
COTE, RICHARD A & LAURETTE
10 DANNYS WAY
BIDDEFORD, ME 04005-9317

Location:
44/ 1/ / /
350 POOL ST
Owner:
PIKE, ERIN
350 POOL ST
BIDDEFORD, ME 04005

Location:
44/ 21/ / /
355 POOL ST
Owner:
POOL ST REALTY TRUST
C/O 1ST ATLANTIC HEALTHCARE
100 WATERMAN DR STE 401
SOUTH PORTLAND, ME 04106

Location:
44/ 22/ / /
354 POOL ST
Owner:
ROY, JOY-ANN T
354 POOL ST
BIDDEFORD, ME 04005

Location:
8/ 39/ 3/ /
3 BLANDINGS WAY
Owner:
VACATION PROPERTIES INC
150 GUINEA RD
BIDDEFORD, ME 04005

EDGEWATER ESTATES AT 355 POOL RD
DECLARATION OF PROTECTIVE COVENANTS, CONDITIONS AND RESTRICTIONS

Made as of this _____ day of _____20_____, by Seacoast Development, LLC, a Maine limited Liability Company, with its place of business in the city of Saco, County of York, State of Maine (Herein Called "Developer").

Whereas, the developer is the owner of certain real property situated at 355 Pool Road in the City of Biddeford, County of York and State of Maine, and being Lots No. 1 through 5 inclusive, as more particularly shown on a plan entitled "AMENDED PLAN, TARTRE REALTY SUBDIVISION, EDGEWATER ESTATES AT 355 POOL ROAD" Biddeford, Maine, by BH2M, dated July 2021 and recorded in the York County Registry of Deeds in Plan book -----, Page ---- (The "plan); and

Whereas, developer desires to develop a residential subdivision on lots 1 through 5 of the property known as EDGEWATER ESTATES AT 355 POOL ROAD SUBDIVISION (called "Property" the "Lots" or in the singular "Lot")

Whereas, lots 1 through 5 as shown on the aforesaid Plan shall be affected by this Declaration of Protective Covenants, Conditions and Restrictions.

Now, therefore, Developer hereby declares that the Property described above shall be held, sold and conveyed subject to the following easements, restrictions, covenants and conditions which are for the purpose of protecting the value and desirability of, and which shall run with, the real property and be binding on all parties having any right, title or interest in the described property or any part hereof, their heirs, successors and assigns, and shall insure the benefit of each owner thereof.

ARTICLE I
DEFINITIONS:

Section1: **"Owner"** shall mean and refer to the record owner, whether one or more persons or entities, of a fee simple title to any lot which is part of the property, including contract sellers, but excluding those having such interest merely as security for the performance of an obligation.

Section 2: **"Property"** shall mean and refer to that certain real property hereinbefore described.

Section 3: **"Lot"** shall mean and refer to those numbered building sites shown upon the recorded subdivision map of the property.

Section 4: **"Developer"** shall mean and refer to Seacoast Development, LLC, its successors and assigns, if such successors or assigns should acquire more than one undeveloped lot from the developer for the purpose of development.

Section 5: **"Declaration"** shall mean and refer to the Declaration of Covenants, Conditions and Restrictions applicable to the property recorded in the York County Registry of Deeds.

ARTICLE II
COVENANTS AND RESTRICTIONS:

Each lot in EDGEWATER ESTATES AT 355 POOL ROAD SUBDIVISION located in Biddeford, York County, Maine, is and will be conveyed **SUBJECT TO** the following restrictions and conditions which shall run with the land, shall remain in effect until midnight, December 31, 2047 and shall be enforceable by the original Developer, Seacoast Development, its successors and assigns, and also by all other owners of lots on said plan whose property is similarly burdened.

1. Each lot shall be used for residential purposes and shall be occupied by not more than one residential structure, said residential structure to include no buildings or structures other than the following, viz: one detached dwelling structure designated as a residence for one or two families, a garage and/or barn for private use constructed either as an integral part of the dwelling or as a detached building and adapted for the storage of not more than four (6) automobiles in total. A swimming pool, a swimming pool apparatus housing shed, suitable garden structures including a greenhouse and such additional structures as shall from time to time be used in connection with residential uses situated in similar neighborhoods. EXCEPT as permitted under the provisions of paragraph 15 Hereof, no such lot shall be used for access to any other land or for the use, introduction, maintenance or repair of utility services benefitting any other land not part of EDGEWATER ESTATES AT 355 POOL ROAD SUBDIVISION.

2. The keeping of poultry, swine, or any livestock, other than household pets normally housed in a dwelling house, shall not be permitted. No kennels, automobile trailers, house trailers, boat trailers or similar shall be brought upon or be maintained and permitted to remain on the above-described premises unless completely enclosed within a structure permitted under paragraph 1. These items must be stored in such a manner that they are not visible from any street.

3. All residential structures shall be reviewed by Developer before any construction can begin and shall be placed on permanent masonry foundations. The placement and elevation of residential structures must be submitted in writing to, and approved by, the Developer. All above ground propane or other utility tanks must be enclosed and finished to match the exterior residence.

4. The use of simulated or artificial brick or stone composition sidings shall be prohibited unless the appearance, finish and durability of the same shall be comparable to natural materials.

5. Until the expiration of two (2) years of the sale of Seacoast Development, LLC, entire interest in the 355 Pool Road Subdivision, all plans, specifications and designs including, but not limited to, the exterior finish, color and building placement, for structures to be located on such lots must receive written approval of the original Developer, Seacoast Development, LLC, its successors and specific assigns. Such approval shall not be

unreasonably withheld but such plans, specifications and designs must, in the opinion of Seacoast Development, LLC, be harmonious with other structures in the subdivision.

6. All exterior finishing on any building and all landscaping to the grounds must be completed within one year of the commencement of construction. Mailboxes shall be set on granite posts, unless otherwise approved by the developer. Completed, as used herein, includes, but not limited to, porches, steps, decks, platforms, carports, other outdoor living terraces, grading and seeding of lawns. Lawns and landscaping areas must be regularly maintained as to be similar as other properties in the subdivision.

7. No junk, abandoned, unregistered or commercially registered dual rear wheeled three axle 10,000 GVWR or more vehicle shall be allowed on the premises, except as may be permitted under paragraph 2. No accumulations of trash or debris shall be allowed on the premises. Trash & Recycling barrels shall be kept in an area out of sight from the public view while not at curbside awaiting removal.

8. No clotheslines shall be permitted and no satellite television antennas or similar receiving devices shall be permitted unless 18 inches in diameter or less and shall be located at the rear of the building structure in a non-visible location from the curbside frontal view to be approved by the developer.

9. Seacoast Development, LLC, reserves the right to use all driveways shown and depicted on said plan for use, introduction and maintenance of all utility services to any other adjacent or nearby land owned by it or its specific assigns or hereinafter acquired by it or them. It is further agreed or understood that no purchaser of such adjacent or near land from Seacoast Development, LLC, shall have the right to use such driveways and lots for such purposes unless such right shall have been specifically granted to such purchaser by Seacoast Development, LLC.

10. Seacoast Development, LLC, reserves for itself, its successors and assigns, the right and privilege to alter, amend, reconfigure, combine or re-subdivide any unsold lots in the EDGEWATER ESTATES AT 355 POOL ROAD SUBDIVISION plan or any adjacent real estate in its ownership or to use any such lots for access to and for the use, introduction, installation and maintenance of utility services to any adjacent land owned by Seacoast Development, LLC, or hereinafter acquired by it or its assigns and to alter, amend or change the location of any driveways, rights-of-ways or access roads shown on said plan to a location of its choosing provided the access to the premises to be conveyed is not materially impaired or affected.

11. The within grantees, their heirs and assigns, shall not alter the area encompassed within the bounds of the proposed drainage swales as indicated on the aforesaid plan in any manner which would impede or adversely affect the drainage of the subdivision in which the above-described premises are situated.

ARTICLE III
AMENDMENT OF DECLARATION

The "Developer" may amend this declaration at any time as long as the Developer still owns a lot in the development.

No amendment or termination of this Declaration shall be effective unless approved by the City of Biddeford Planning Board. All other items in this Declaration may be amended at any time and from time-to-time written instruments duly executed by the owners of the lots and by all mortgagees of record and recorded in the York County Registry of Deeds.

All present and future owners of lots are subject to the terms and provisions contained or referred to in this Declaration. The acceptance of a deed and conveyance of a lot other than as security, or the entering into if occupancy of any lot, shall signify the provisions contained or referred to in this Declaration are accepted and ratified by such owner or occupant and shall further signify that the owners acknowledge the authority of the lot owners to enforce the covenants and restrictions which run with the land, by suit or otherwise. All the provisions contained or referred to herein shall be deemed and taken to the covenants running with the land and shall bind any person having at any time having an interest or estate in a lot (except as mortgage security) as though such provision were recited and stimulated at length in each and every deed or conveyance of a lot.

If any one or more of these covenants, or any part thereof, shall be invalid or unenforceable, such invalid yet or unenforceability shall not affect the remaining portions hereof which shall remain in full force and effect.

IN WITNESS WHEREOF, COASTAL DEVELOPMENT, LLC, has caused this instrument to be signed in its name and behalf by Shawn D. Brown its manager thereunto duly authorized, all as of day and date first above written.

WITNESS: **SEACOAST DEVELOPMENT, LLC**

_____

BY: _____

Managers Shawn D. Brown, its
Thereunto duly authorized

STATE OF MAINE
YORK, ss.

Then personally appeared the above-named Shawn D. Brown, in his said capacity and acknowledged the foregoing to be his free act and deed and free act and deed of said Seacoast Development, LLC.

Before Me,

BH2M

Berry, Huff, McDonald, Milligan Inc.

COMPANY OVERVIEW

Founded in 1978 in Gorham, Maine to provide quality civil-site engineering and surveying services. Over the past 41 years BH2M has worked on over 6,200 projects for our diverse client base, which consists of Municipal and Private Sector clients.

BH2M has developed a reputation for a strong committment to excellence in all portions of a project.

The staff structure at BH2M is unique in that all the engineers and project managers are partners within the company. This has been a successful formula that has resultsed in many long standing relationships with our clients. Each project at BH2M is overseen by a senior principal within the company to assure the highest level of quality of work and performance.

SERVICES

- Site Development Design
- Subdivision Design
- Stormwater Management Analysis & Design
- Utility Design
- Roadway Design
- Development Permitting
- Construction Administration & Services
- Full Service Survey Department

28 State Street Gorham, Maine 04038 (207) 839-2771

From: Marcus Knipp
Sent: Monday, October 3, 2022 11:41 AM
To: Walter Pelkey
Subject: RE: 355 Pool Street

Hi Walter,

No issues with Capacity. Maine Water can confirm there is plenty of capacity from the existing 8-inch cast iron main on Pool Street to serve the domestic water needs of these 5 proposed lots from normal residential water usage as assumed single family dwellings on each lot. For additional capacity beyond single family homes, I'll want to see a demand schedule with specifics of what each lot is proposing individually.

(GIS image is approximate, for illustration purposes only, needs field verified and is not GPS or survey grade)

From Hydrant B-137 – water main is 7' away
From Hydrant B-138 – water main is 5' away Should be fairly straight between those two connections as shown on GIS image)

Reach out with any questions over this for now.
Thanks,
Marcus

Marcus Knipp, EI
Engineer

93 Industrial Park Road
Saco, ME 04072
Office: 207-294-6943
Cell: 207-468-2089

PS (working on getting you the final review for 58 Portland Ave at the moment – will send shortly)

From: Walter Pelkey <wpelkey@bh2m.com>
Sent: Monday, September 12, 2022 10:38 AM
To: Marcus Knipp <Marcus.Knipp@MaineWater.com>
Subject: 355 Pool Street

CAUTION: This email originated outside the SJWG organization.

Hi Marcus,

Attached is a plan for a property located at 355 Pool Street in Biddeford. Our client is proposing a lot split for 5 lots to be served by public water and private individual sewer systems. First, could you confirm the watermain size and approximate location for the plan. Second, could you provide us with a letter or email with the ability to serve for the proposed lots.

Thanks.

Walter E. Pelkey
Vice President

BH2M
380 B Main Street
Gorham, ME 04038
www.bh2m.com
(207) 839-2771 Ext. 201

From: Gagne, Scott
Sent: Monday, October 3, 2022 8:08 AM
To: Walter Pelkey
Subject: Pool street lots

The Biddeford Fire Department has the ability to serve the 5 lots as proposed located off Pool St. We would ask that all building location are no more than 1,000 feet from the nearest hydrant. Thank you.

Scott Gagne
Fire Chief

Biddeford Fire Department
152 Alfred St.
Biddeford, ME 04005

(207) 282-6632 Office

Biddeford Fire Department

The contents of this e-mail message and any attachments are confidential and are intended solely for addressee. The information may also be legally privileged. This transmission is sent in trust, for the sole purpose of delivery to the intended recipient. If you have received this transmission in error, any use, reproduction or dissemination of this transmission is strictly prohibited. If you are not the intended recipient, please immediately notify the sender by reply e-mail or phone and delete this message and its attachments, if any.

Under Maine law, documents - including e-mails - in the possession of public officials or city employees about government business may be classified as public records. There are very few exceptions. As a result, please be advised that what is written in an e-mail could be released to the public and/or the media if requested.

From: Walter Pelkey
Sent: Wednesday, September 7, 2022 10:19 AM
To: Terrell, Van
Subject: RE: Pool Street

Thanks Van.

Walter E. Pelkey
Vice President

BH2M
380 B Main Street
Gorham, ME 04038
www.bh2m.com
(207) 839-2771 Ext. 201

From: Terrell, Van
Sent: Wednesday, September 7, 2022 9:45 AM
To: Walter Pelkey
Subject: RE: Pool Street

Good morning Walter,

The location you provided on Rte.9/Pool Street in Biddeford is in an Urban Compact area and outside MaineDOT jurisdiction. You would need to contact the municipality for driveway cuts.

Thank you,

Van Terrell
Permit Specialist
Southern Region
Maine Department of Transportation
51 Pleasant Hill Rd
P.O. Box 358
Scarborough, ME 04070-0358
Office (207) 885-7040

From: Walter Pelkey <wpelkey@bh2m.com>
Sent: Tuesday, September 6, 2022 3:53 PM

To: Terrell, Van <Van.Terrell@maine.gov>
Subject: Pool Street

EXTERNAL: This email originated from outside of the State of Maine Mail System. Do not click links or open attachments unless you recognize the sender and know the content is safe.
Hi Van,

We are working on a 5 lot subdivision located along Route 9 (Pool Street) in Biddeford. I am wondering if you can give me some guidance on driveway cuts for the project? Plan and location map of the project is attached. I'd appreciate any direction you could give me on this, what we need, if anything for driveway cuts.

Thanks.

Walter E. Pelkey
Vice President

BH2M
380 B Main Street
Gorham, ME 04038
www.bh2m.com
(207) 839-2771 Ext. 201

MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

7203

September 1, 2022

Mr. Walter Pelkey
BH2M
380B Main Street
Gorham, ME 04038

Re: Preliminary soil evaluation, 5 lot subdivision, 355 Pool Street Biddeford, ME

Dear Walter,

I have completed a preliminary soil evaluation on the proposed five lot subdivision located at 355 Pool Street in Biddeford for Shawn Brown. The soil evaluation was conducted in accordance with the Maine Subsurface Wastewater Disposal Rules dated August 2015, as amended. I evaluated two machine excavated soil test pits on each lot. The lots contain a variety of soils, including stratified glacial drift, mixed origin soils, marine lacustrine deposits, and glacial till. All of the soils are moderately well drained to somewhat excessively drained, with a limiting factor ranging from approximately 15 to greater than 48 inches.

The soils as evaluated meet the minimum requirements of the state rules. In my opinion, there are suitable soils and area on each lot for a septic system. The size of a septic system for a 3-bedroom home will either be sized 20 feet wide by 35 feet long, or 20 feet by 45 feet for a stone and pipe bed. Septic designs can be completed at some time in the future.

If you have any questions or require additional information, please contact me.

Sincerely,

Hope Hampton

Hope Hampton L.S.E.
Licensed Site Evaluator #427

P.O. BOX 1931 • PORTLAND, ME 04104-1931 • 207-756-2900 • mhampto1@maine.rr.com

Quality services that meet your deadline

7203

FORM F Rev. 07/11

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
355 Pool St Subdivision	Shawn Brown	Biddeford

Exploration Symbol # TP-1

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0	Loamy Sand	Friable	Dark Brown	
10	Gravelly Loamy Sand	Friable	Yellow Brown	
20	Gravelly Loamy Sand	Firm Cemented	Olive Gray	Common and Distinct
30	Loamy Sand	Friable	Yellow Brown	
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
3 Profile	C Condition	2 Percent	15 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP-2

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0	Loamy Sand	Friable	Dark Brown	
10	Gravelly Loamy Sand	Friable	Yellow Brown	
20	Gravelly Loamy Sand	Firm Cemented	Olive Gray	Common and Distinct
30	Loamy Sand	Friable	Yellow Brown	
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
3 Profile	C Condition	2 Percent	15 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP-3

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0	Loamy Sand	Friable	Dark Brown	
10	Gravelly Loamy Sand	Friable	Yellow Brown	
20	Gravelly Loamy Sand	Firm	Olive Brown	Common and Distinct
30				
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
3 Profile	C Condition	2 Percent	20 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP-4

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)

Depth	Texture	Consistency	Color	Redox Features
0	Loamy Sand	Friable	Dark Brown	
10	Gravelly Loamy Sand	Friable	Yellow Brown	
20				
30	Gravelly Loamy Sand	Friable	Tan Gray	Common and Distinct
40				
50				
60				

Soil Details by S.E. ▸▸ S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
5 Profile	C Condition	2 Percent	26 " Depth	☒ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Hope Hampton	Date: 8/30/22
Name Printed: Hope Hampton	Cert/Lic/Reg. #: 427

Title: ☒ Licensed Site Evaluator ☐ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

affix professional seal

7203

FORM F Rev. 07/11

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
355 Pool St Subdivision	Shawn Brown	Biddeford

Exploration Symbol # TP-5

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches): 0, 10, 20, 30, 40, 50, 60

Texture	Consistency	Color	Redox Features
Loamy Sand	Friable	Dark Brown	
Loamy Sand	Friable	Yellow Brown	
Silty Clay Loam	Firm	Yellow Gray	Common and Distinct

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
7 Profile	C Condition	2 Percent	18 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP-6

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches): 0, 10, 20, 30, 40, 50, 60

Texture	Consistency	Color	Redox Features
Fine Sandy Loam	Friable	Dark Brown	
Fine Sandy Loam	Friable	Brown	
Silty Clay Loam	Firm	Yellow Gray	Common and Distinct

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
8 Profile	C Condition	2 Percent	15 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP-7

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches): 0, 10, 20, 30, 40, 50, 60

Texture	Consistency	Color	Redox Features
Loamy Sand	Friable	Dark Brown	
Loamy Sand	Friable	Yellow Brown	
Sand	Friable	Tan	None Noted

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
5 Profile	B Condition	0 Percent	>48 " Depth	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP-8

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches): 0, 10, 20, 30, 40, 50, 60

Texture	Consistency	Color	Redox Features
Loamy Sand	Friable	Dark Brown	
Gravelly Loamy Sand	Friable	Yellow Brown	
Sand			
Silty Clay Loam	Firm	Yellow Gray	Common and Distinct

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
7 Profile	C Condition	2 Percent	34 " Depth	☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature	Hope Hampton	Date	8/30/22
Name Printed	Hope Hampton	Cert/Lic/Reg. #	427

Title ☒ Licensed Site Evaluator ☐ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

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7203

FORM F Rev. 07/11

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:	Applicant Name:	Project Location (municipality):
355 Pool St Subdivision	Shawn Brown	Biddeford

Exploration Symbol # TP-9

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Loamy Sand	Friable	Dark Brown	
10	Loamy Sand	Friable	Yellow Brown	
20	Sand	Friable	Tan	None Noted
30				
40				
50				
60				

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
5 Profile	B Condition	2 Percent	>48 " Depth	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP-10

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Loamy Sand	Friable	Dark Brown	
10	Loamy Sand	Friable	Yellow Brown	
20	Sand	Friable	Tan	None Noted
30				
40				
50				
60				

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
5 Profile	B Condition	2 Percent	>48 " Depth	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # TP-11

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

48 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Loamy Sand	Friable	Dark Brown	
10	Loamy Sand	Friable	Yellow Brown	
20	Sand	Friable	Tan	None Noted
30				
40				
50				
60				

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
5 Profile	B Condition	2 Percent	>48 " Depth	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☒ Non-hydric Hydrologic Soil Group

Exploration Symbol # _____

☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by S.E. ▸▸ / S.S. ▸▸

Soil Classification		Slope	Limiting Factor	
Profile	Condition	Percent	" Depth	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: ☐ Hydric ☐ Non-hydric Hydrologic Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature: Hope Hampton	Date: 8/30/22
Name Printed: Hope Hampton	Cert/Lic/Reg. #: 427

Title: ☒ Licensed Site Evaluator ☐ Certified Soil Scientist ☐ Certified Geologist ☐ Professional Engineer

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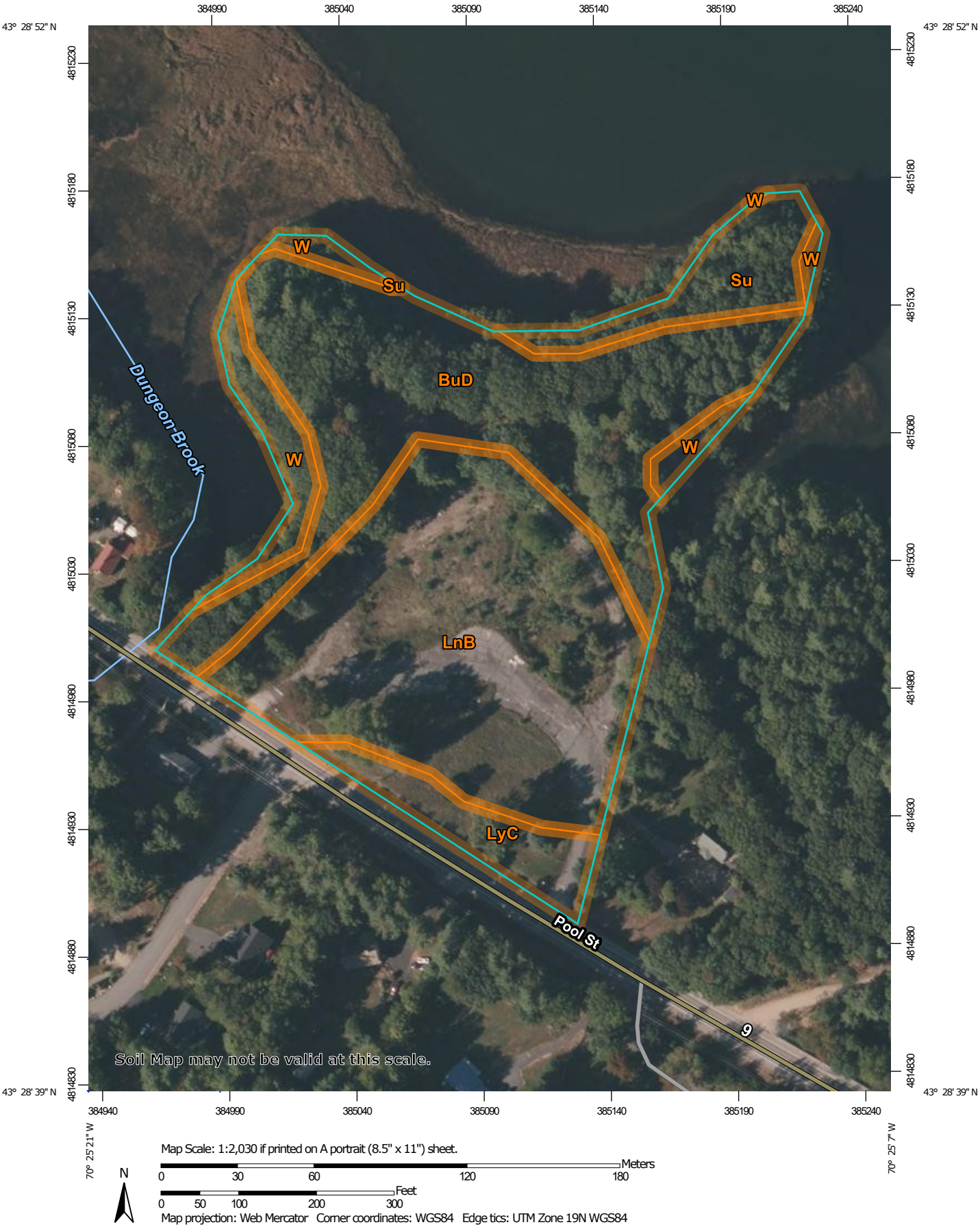
Soil Map—York County, Maine
(Brown Pool Street)



Map Scale: 1:2,030 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 50 100 200 300

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

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: York County, Maine
Survey Area Data: Version 21, Aug 30, 2022

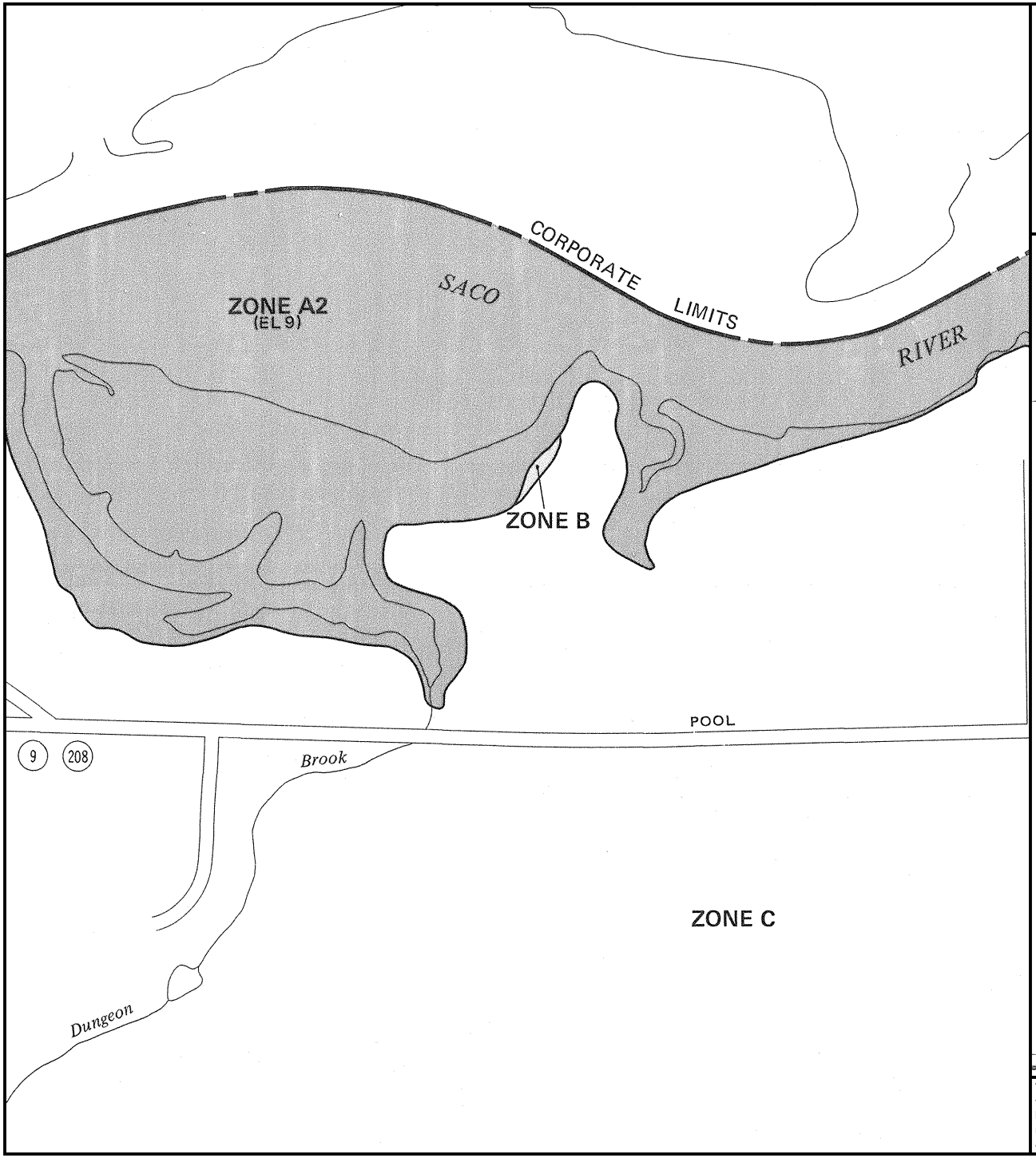
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BuD	Buxton silt loam, 15 to 25 percent slopes	3.5	37.4%
LnB	Lyman loam, 3 to 8 percent slopes, rocky	4.0	43.1%
LyC	Lyman-Rock outcrop complex, 8 to 15 percent slopes	0.6	6.1%
Su	Pemaquid, Todds point, and Damariscotta soils, 0 to 2 percent slopes	0.6	6.7%
W	Water bodies	0.6	6.7%
Totals for Area of Interest		**9.3**	**100.0%**



Program, at (800) 638-6620.

APPROXIMATE

400 0

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CITY OF
BIDDEFORD,
MAINE
YORK COUNTY

PANEL 4 OF 11
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230145 0004 B

EFFECTIVE DATE:
MAY 15, 1984

Federal Emergency Management Agency

This is an official FIRMette showing a portion of the above-referenced flood map created from the MSC FIRMette Web tool. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For additional information about how to make sure the map is current, please see the Flood Hazard Mapping Updates Overview Fact Sheet available on the FEMA Flood Map Service Center home page at https://msc.fema.gov.

SUGGESTED DEED DESCRIPTION
LOT 1
TARTRE REALTY SUBDIVISION
EDEWATER ESTATES AT 355 POOL ROAD
POOL STREET
BIDDEFORD, MAINE

October 11, 2022

A certain lot or parcel of land located on the northeasterly sideline of Pool Street, so-called, in the City of Biddeford, County of York and State of Maine and shown as Lot 1 on the plan titled "Amended Plan, Tartre Realty Subdivision, Edgewater Estates at 355 Pool Road, 355 Pool Street, Biddeford, Maine", for Shawn Brown, dated July 2021 as revised through 10/12/22, by BH2M, Inc. to be recorded; said Lot 1 being more particularly described as follows:

Beginning at a capped iron rod to be set (PLS #2190) on the northeasterly sideline of said Pool Street at the southwesterly corner of Lot 2 as shown on aforesaid plan;

thence N 40°-30'-12" W along the northeasterly sideline of said Pool Street a distance of 125.00 feet to a capped iron rod to be set (PLS #2190) and land now or formerly of Judith M. & Norman S. Donaldson and the centerline of an existing brook;

thence in a general northerly direction along the land of said Donaldson and along the centerline of said existing brook a distance of 57 feet more or less to a point and the Saco River, so-called;

thence in a general northerly and northeasterly direction along the Saco River a distance of 373 feet more or less to said Lot 2;

thence S 31°-21'-09" E along said Lot 2 a distance of 59 feet more or less to a capped iron rod to be set (PLS #2190); said capped iron rod set being N 39°-28'-07" E a tie distance of 313.35 feet from said previous capped iron rod to be set;

thence continuing S 31°-21'-09" E along said Lot 2 a distance of 248.91 feet to a capped iron rod to be set (PLS #2190);

thence S 41°-14'-32" W along said Lot 2 a distance of 118.48 feet to a capped iron rod to be set (PLS #2190);

thence S 86°-10'-03" W along said Lot 2 a distance of 139.30 feet to a capped iron rod to be set (PLS #2190);

thence S 49°-29'-48" W along said Lot 2 a distance of 40.00 feet to the point of beginning.

The above described Lot 1 contains 50,000 s.f. more or less. All bearings refer to magnetic north as observed in 1986.

The above described Lot 1 is subject to and conveyed together with a certain electrical easement for the benefit of Lot 1, Lot 2, Lot 3 and Lot 4 as shown on the aforesaid plan for a more particular description.

ddEdgewaterEstatesLot1

STATE OF MAINE
ROBERT G. LOBBY, JR.
2190
PROFESSIONAL
LAND SURVEYOR

SUGGESTED DEED DESCRIPTION
LOT 2
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
POOL STREET
BIDDEFORD, MAINE

October 11, 2022

A certain lot or parcel of land located on the northeasterly sideline of Pool Street, so-called, in the City of Biddeford, County of York and State of Maine and shown as Lot 2 on the plan titled "Amended Plan, Tartre Realty Subdivision, Edgewater Estates at 355 Pool Road, 355 Pool Street, Biddeford, Maine", for Shawn Brown, dated July 2021 as revised through 10/12/22, by BH2M, Inc. to be recorded; said Lot 2 being more particularly described as follows:

Beginning at a capped iron rod to be set (PLS #2190) on the northeasterly sideline of said Pool Street at the southwesterly corner of Lot 3 as shown on aforesaid plan;

thence N 40°-30'-12" W along the northeasterly sideline of said Pool Street a distance of 100.00 feet to a capped iron rod to be set (PLS #2190) and Lot 1 as shown on aforesaid plan;

thence N 49°-29'-48" E along said Lot 1 a distance of 40.00 feet to a capped iron rod to be set (PLS #2190);

thence N 86°-10'-03" E along said Lot 1 a distance of 139.30 feet to a capped iron rod to be set (PLS #2190);

thence N 41°-14'-32" E along said Lot 1 a distance of 118.48 feet to a capped iron rod to be set (PLS #2190);

thence N 31°-21'-09" W along said Lot 1 a distance of 248.91 feet to a capped iron rod to be set (PLS #2190);

thence continuing N 31°-21'-09" W along said Lot 1 a distance of 59 feet more or less to the Saco River, so-called;

thence in a general northerly, northeasterly and easterly direction along said Saco River a distance of 454 feet more or less to a point and said Lot 3;

thence S 30°-30'-13" E along said Lot 3 a distance of 45 feet more or less to a capped iron rod to be set (PLS #2190); said capped iron rod to be set being N 75°-54'-12" E a tie distance of 204.97 feet from said previous capped iron rod to be set;

thence continuing S 30°-30'-13" E along said Lot 3 a distance of 180.00 feet to a capped iron rod to be set (PLS #2190);

thence S 41°-14'-32" W along said Lot 3 a distance of 368.60 feet to a capped iron rod to be set (PLS #2190);

thence S 86°-10'-03" W along said Lot 3 a distance of 69.96 feet to a capped iron rod to be set (PLS #2190);

thence S 49°-29'-48" W along said Lot 3 a distance of 40.00 feet to the point of beginning.

The above described Lot 2 contains 98,000 s.f. more or less. All bearings refer to magnetic north as observed in 1986.

The above described Lot 2 is subject to and conveyed together with a certain electrical easement for the benefit of Lot 1, Lot 2, Lot 3 and Lot 4 as shown on the aforesaid plan for a more particular description.

ddEdgewaterEstatesLot2

STATE OF MAINE
ROBERT C. LIBBY, JR.
2190
PROFESSIONAL LAND SURVEYOR

SUGGESTED DEED DESCRIPTION
LOT 3
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
POOL STREET
BIDDEFORD, MAINE

October 11, 2022

A certain lot or parcel of land located on the northeasterly sideline of Pool Street, so-called, in the City of Biddeford, County of York and State of Maine and shown as Lot 3 on the plan titled "Amended Plan, Tartre Realty Subdivision, Edgewater Estates at 355 Pool Road, 355 Pool Street, Biddeford, Maine", for Shawn Brown, dated July 2021 as revised through 10/12/22, by BH2M, Inc. to be recorded; said Lot 3 being more particularly described as follows:

Beginning at a capped iron rod to be set (PLS #2190) on the northeasterly sideline of said Pool Street at the southwesterly corner of Lot 4 as shown on aforesaid plan;

thence in a general northwesterly direction along the northeasterly sideline of said Pool Street and along a circular curve to the right, circumscribed by a radius of 5679.65 feet, an arc length of 76.67 feet to a point; said point being N 40°-53'-24" W a tie distance of 76.67 feet from said previous capped iron rod to be set;

thence N 40°-30'-12" W along the northeasterly sideline of said Pool Street a distance of 23.87 feet to a capped iron rod to be set (PLS #2190) and Lot 2 as shown on aforesaid plan;

thence N 49°-29'-48" E along said Lot 2 a distance of 40.00 feet to a capped iron rod to be set (PLS #2190);

thence N 86°-10'-03" E along said Lot 2 a distance of 69.96 feet to a capped iron rod to be set (PLS #2190);

thence N 41°-14'-32" E along said Lot 2 a distance of 368.60 feet to a capped iron rod to be set (PLS #2190);

thence N 30°-30'-13" W along said Lot 2 a distance of 180.00 feet to a capped iron rod to be set (PLS #2190);

thence continuing N 30°-30'-13" W along said Lot 2 a distance of 45 feet more or less to the Saco River, so-called;

thence in a general easterly, northeasterly and easterly direction along said Saco River a distance of 627 feet more or less to a point and land now or formerly of Josephy Andrew Tartre II;

thence S 85°-58'-57" W along the land of said Tartre a distance of 21 feet more or less to a capped iron rod found (PLS #2057); said capped iron rod found being N 89°-41'-17" E a tie distance of 493.81 feet from said previous capped iron rod to be set;

thence S 04°-01'-03" E along the land of said Tartre a distance of 48.64 feet to a capped iron rod found (PLS #2057);

thence S 38°-20'-00" W along the land of said Tartre a distance of 103.76 feet to a capped iron rod found (PLS #2057);

thence S 30°-37'-03" W along the land of said Tartre a distance of 62.69 feet to a capped iron rod found (PLS #2057);

thence S 67°-24'-39" W along the land of said Tartre a distance of 79.64 feet to a capped iron rod found (PLS #2057);

thence S 68°-58'-31" W along said Tartre a distance of 109.04 feet to a capped iron rod found (PLS #2057);

thence S 22°-57'-28" W along said land of said Tartre a distance of 41.95 feet to a capped iron rod found (PLS #2057);

thence S 01°-38'-56" W along land of said Tartre a distance of 109.49 feet to a capped iron rod found (PLS #2057) and Lot 5 as shown on aforesaid plan;

thence N 84°-47'-52" W along said Lot 5 and along said Lot 4 a distance of 243.80 feet to a capped iron rod to be set (PLS #2190);

thence S 41°-19'-35" W along said Lot 4 a distance of 180.80 feet to a capped iron rod to be set (PLS #2190);

thence S 48°-43'-24" W along said Lot 4 a distance of 40.00 feet to the point of beginning.

The above described Lot 3 contains 137,700 s.f. more or less. All bearings refer to magnetic north as observed in 1986.

The above described Lot 3 is subject to and conveyed together with a certain electrical easement for the benefit of Lot 1, Lot 2, Lot 3 and Lot 4 as shown on the aforesaid plan for a more particular description.

The above described Lot 3 is also subject to a certain 10 foot wide access easement to and from the Saco River for the benefit of Lot 4, Lot 5 and land of said Tartre located along the land of said Tartre and shown on the aforesaid plan for a more particular description.

The above described Lot 3 is conveyed together with a certain 25 foot easement to construct, maintain, operate, repair and replace a discharge pipe across the land of said Tartre as described in Deed Book 18863, Page 185 and shown on aforesaid plan.

ddEdgewaterEstatesLot3

STATE OF MAINE
ROBERT C. LIBBY, JR.
2190
PROFESSIONAL LAND SURVEYOR

SUGGESTED DEED DESCRIPTION
LOT 4
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
POOL STREET
BIDDEFORD, MAINE

October 12, 2022

A certain lot or parcel of land located on the northeasterly sideline of Pool Street, so-called, in the City of Biddeford, County of York and State of Maine and shown as Lot 4 on the plan titled "Amended Plan, Tartre Realty Subdivision, Edgewater Estates at 355 Pool Road, 355 Pool Street, Biddeford, Maine", for Shawn Brown, dated July 2021 as revised through 10/12/22, by BH2M, Inc. to be recorded; said Lot 4 being more particularly described as follows:

Beginning at a capped iron rod to be set (PLS #2190) on the northeasterly sideline of said Pool Street at the southwesterly corner of Lot 5 as shown on aforesaid plan;

thence in a general northwesterly direction along the northeasterly sideline of said Pool Street and along a circular curve to the right, circumscribed by a radius of 5679.65 feet, an arc length of 100.88 feet to a capped iron rod to be set (PLS #2190) and Lot 3 as shown on aforesaid plan; said capped iron rod to be set being N 41°-47'-08" W a tie distance of 100.88 feet from said previous capped iron rod to be set;

thence N 48°-43'-24" E along said Lot 3 a distance of 40.00 feet to a capped iron rod to be set (PLS #2190);

thence N 41°-19'-35" E along said Lot 3 a distance of 180.80 feet to a capped iron rod to be set (PLS #2190);

thence S 84°-47'-52" E along said Lot 3 a distance of 174.98 feet to a capped iron rod to be set and said Lot 5;

thence S 60°-12'-15" W along said Lot 5 a distance of 143.24 feet to a capped iron rod to be set (PLS #2190);

thence S 41°-19'-35" W along said Lot 5 a distance of 200.20 feet to the point of beginning.

The above described Lot 4 contains 27,318 s.f.. All bearings refer to magnetic north as observed in 1986.

The above described Lot 4 is subject to and conveyed together with a certain electrical easement for the benefit of Lot 1, Lot 2, Lot 3 and Lot 4 and shown on the aforesaid plan for a more particular description.

The above described Lot 4 also is subject to a certain 15 foot wide waterline easement as shown on aforesaid plan for a more particular description.

The above described Lot 4 is conveyed together with a certain 10 foot wide access easement in common with others across said Lot 5 and Lot 3 for a right of access to and from the Saco River for the benefit of Lot 4, Lot 5 and land of said Tartre and shown on the aforesaid plan for a more particular description.

ddEdgewaterEstatesLot4

STATE OF MAINE
ROBERT C. LIBBY, JR.
2190
PROFESSIONAL LAND SURVEYOR

SUGGESTED DEED DESCRIPTION
LOT 5
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
POOL STREET
BIDDEFORD, MAINE

October 11, 2022

A certain lot or parcel of land located on the northeasterly sideline of Pool Street, so-called, in the City of Biddeford, County of York and State of Maine, and shown as Lot 5 on the plan titled "Amended Plan, Tartre Realty Subdivision, Edgewater Estates at 355 Pool Road, 355 Pool Street, Biddeford, Maine" for Shawn Brown, dated July 2021 as revised through 10/12/22, by BH2M, Inc. to be recorded; said Lot 5 being more particularly described as follows:

Beginning at a capped iron rod found (PLS #2057) on the northeasterly sideline of said Pool Street at the southwesterly corner of land now or formerly of Joseph Andrew Tartre II as shown on aforesaid plan;

thence in a general northwesterly direction along the northeasterly sideline of said Pool Street and along a circular curve to the right, circumscribed by a radius of 5679.65 feet, an arc length of 162.81 feet to a capped iron rod to be set (PLS #2190) and Lot 4 as shown on aforesaid plan; said capped iron rod to be set being N 43°-06'-56" W a tie distance of 162.81 feet from said previous capped iron rod found;

thence N 41°-19'-35" E along said Lot 4 a distance of 200.20 feet to a capped iron rod to be set (PLS #2190);

thence N 60°-12'-15" E along said Lot 4 a distance of 143.24 feet to a capped iron rod to be set (PLS #2190) and Lot 3 as shown on aforesaid plan;

thence S 84°-47'-52" E along said Lot 3 a distance of 68.82 feet to a capped iron rod found (PLS #2057) and land of said Tartre;

thence S 32°-36'-36" W along the land of said Tartre a distance of 396.65 feet to the point of beginning.

The above described Lot 5 contains 44,385 s.f.. All bearings refer to magnetic north as observed in 1986.

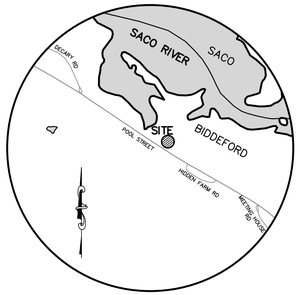
The above described Lot 5 is subject to a certain 50 foot wide access easement for the benefit of land of Joseph Andrew Tartre II located on the northeasterly sideline of said Pool Street and shown on the aforesaid plan for a more particular description.

The above Lot 5 is also subject to a certain 15 foot wide waterline easement as shown on the aforesaid plan for a more particular description.

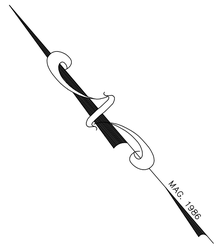
Also, the above described Lot 5 is subject to and conveyed together with a certain 10 foot wide access easement across Lot 5 and Lot 3 for a right of access to and from the Saco River for the benefit of Lot 4, Lot 5 and land of said Tartre as shown on the aforesaid plan for a more particular description.

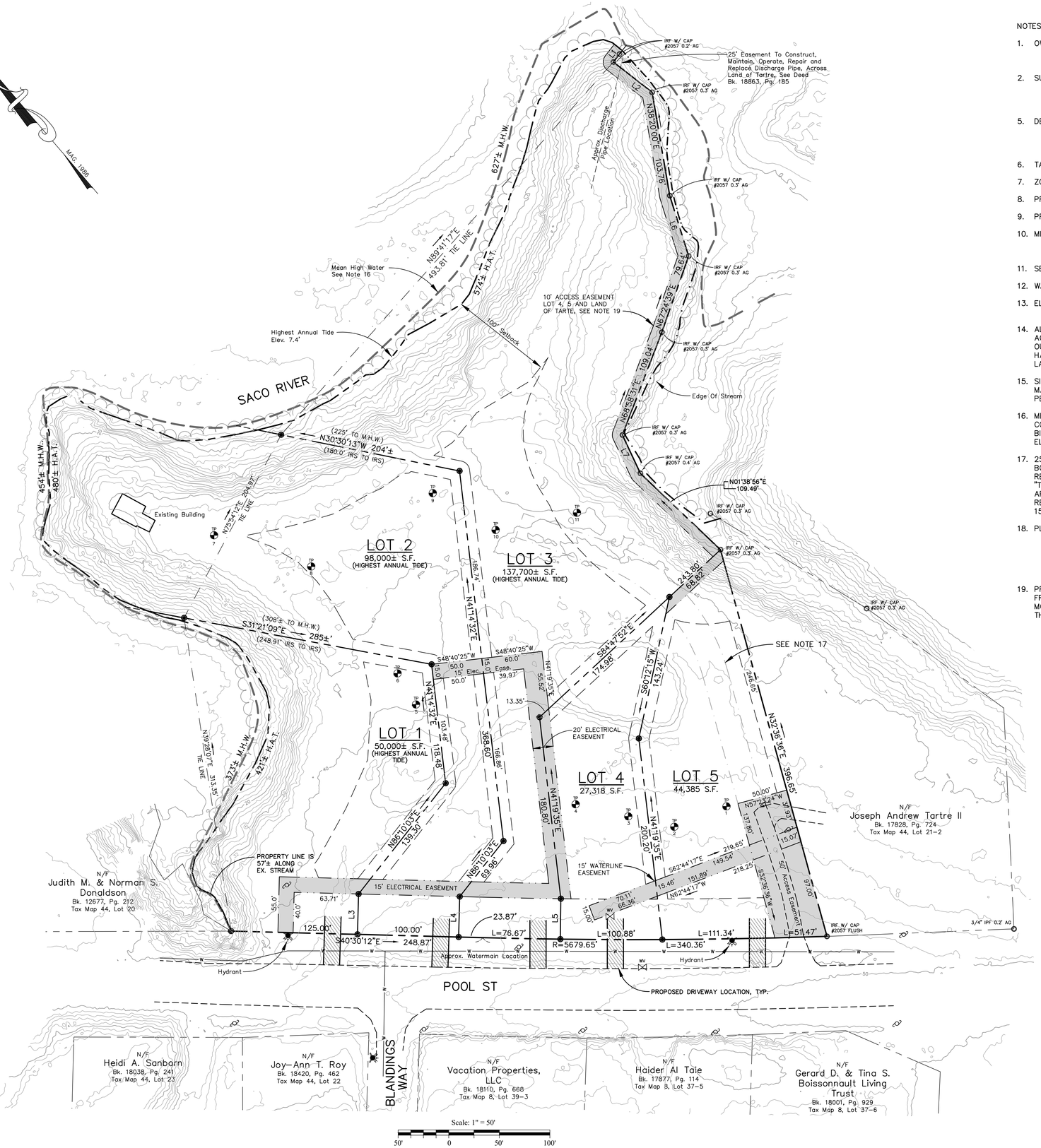
ddEdgewaterEstatesLot5

STATE OF MAINE
ROBERT C. LIBBY, JR.
2190
PROFESSIONAL LAND SURVEYOR



LOCATION MAP
SCALE: 1" = 1000'





LINE DATA

L1	– S85°58'57"W	14'± TO H.A.T. 21' TO M.H.W.
L2	– N04°01'03"W	48.64'
L3	– S49°29'48"W	40.00'
L4	– S49°29'48"W	40.00'
L5	– S48°43'24"W	40.00'
L6	– N30°37'03"E	62.69'
L7	– N22°57'28"E	41.95'

LEGEND

SYMBOL	DESCRIPTION
Ⓢ	EXISTING SEWER MANHOLE
●	CAPPED IRON ROD TO BE SET
TP	TEST PIT
IRF/IRF	IRON ROD/PIPE FOUND
GMF	GRANITE MONUMENT FOUND
	UTILITY POLE
A.G.	ABOVE GRADE
N/F	NOW OR FORMERLY
175	MAJOR CONTOUR LINE
174	MINOR CONTOUR LINE
	PROPERTY LINE
	ABUTTER PROPERTY LINE
	EXISTING RIGHT OF WAY
	EASEMENT LINE
W	APPROXIMATE WATER MAIN LOCATION
WV	WATER VALVE

THIS PLAN REVIEWED AND APPROVED BY THE CITY OF BIDDEFORD PLANNING BOARD.

DATE

CHAIR

NOTES:

1. OWNER/APPLICANT: SHAWN BROWN
5 BUCKTHORN CIRCLE
SACO, MAINE

2. SURVEYOR: ROBERT C. LIBBY JR., PLS #2190
BH2M
380B MAIN STREET
GORHAM, MAINE

5. DEED REFERENCE: BK. 18863, PGS. 185-188
BK. 6222, PGS. 13 THRU 16
BK. 4553, PGS. 41-43
BK. 4521, PGS. 10-12

6. TAX MAP REFERENCE: MAP 44, LOT 21

7. ZONING: SUBURBAN RESIDENTIAL (SR1)

8. PROJECT AREA: 8.21± ACRES

9. PROPOSED USE: 5 SINGLE FAMILY LOTS

10. MINIMUM STANDARDS: LOT SIZE - 20,000 S.F. (PUBLIC WATER)
FRONTAGE - 100' (PUBLIC WATER)
SETBACKS - 40' FRONT, 10' SIDE & REAR

11. SEWER SERVICE: INDIVIDUAL ON SITE SEPTIC SYSTEMS

12. WATER SERVICE: PUBLIC

13. ELECTRIC/TELEPHONE: UNDERGROUND FROM UTILITY POLES ALONG POOL STREET

14. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE EROSION PREVENTION PROVISIONS OUTLINED IN THE MAINE EROSION CONTROL AND SEDIMENTATION HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, LATEST EDITION.

15. SITE CONTOURS, ARE PER MAINE GIS CATALOG, BIDDEFORD, MAINE, NAVD 88. MEAN HIGH WATER AND HIGHEST ANNUAL TIDE PER ON SITE TOPOGRAPHIC SURVEY, NAVD 88.

16. MEAN HIGH WATER IS AS LOCATED IN MARCH OF 2022 WITH ICE CONDITIONS. MEAN HIGH WATER ELEVATION DATA IS PER NOAA, BIDDEFORD, SACO RIVER STATION, ACCEPTED APRIL 17, 2003, ELEVATION 3.98, NAVD 88.

17. 25' ACCESS EASEMENT SHOWN PER DEED REFERENCED IN BOOK 18863, PAGES 185 THRU 188. EASEMENT WAS NOT REFERENCED IN PREVIOUSLY APPROVED PLAN ENTITLED "TARTRE REALTY SUBDIVISION", DATED SEPTEMBER 26, 1986, APPROVED BY THE CITY OF BIDDEFORD MAY 6, 1987 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 156, PAGE 27.

18. PLAN REFERENCE: "TARTRE REALTY SUBDIVISION: DATED SEPT. 26, 1986 BY ALIBERTI, LAROCHELLE & HODSON SURVEYORS AND ENGINEERS MADE FOR PERSPECTIVE ASSOCIATES AND RECORDED IN THE Y.C.R.D. PL. BK. 156, PAGE 27.

19. PROPERTY IS SUBJECT TO A RIGHT OF ACCESS EASEMENT TO AND FROM THE SACO RIVER FOR PURPOSE OF ACCESSING BOAT MOORINGS FOR PERSONAL USE, SAID EASEMENT SHALL RUN WITH THE LAND, SEE DEED REFERENCES, NOTE 5.

THIS PLAN SUPERSEDES THE PREVIOUSLY RECORDED PLAN ENTITLED TARTRE REALTY SUBDIVISION, RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS, PLAN BOOK 156, PAGE 27, DATED MAY 22, 1987. THE PURPOSE OF THIS AMENDMENT IS THE DIVISION OF THE PREVIOUSLY APPROVED LOT 4.

I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT
2. INTERIOR LOT LINES ONLY

STATE OF MAINE ROBERT C. LIBBY JR. PLS #2190 LICENSED SURVEYOR

ROBERT C. LIBBY JR. PLS #2190

REVISION		
NO.	DATE	DESCRIPTION
1	10/4/22	Rev'd. Per Staff Review For 10/5 Planning Board Mtg.
2	10/12/22	Rev'd. Lots 4 and 5
3	10/12/22	Submitted For Final Approval

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Shawn Brown
5 Buckthorn Circle
Saco, Maine

AMENDED PLAN
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
355 POOL STREET
BIDDEFORD, MAINE

DESIGNED	DATE
W. Pelkey	July 2021
DRAWN	SCALE
Dept.	1" = 50'
CHECKED	JOB. NO.
R. Libby, Jr.	21109

SHEET
1

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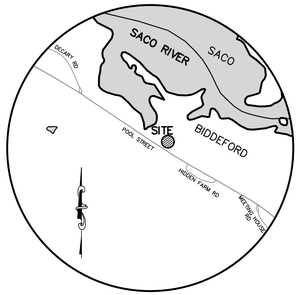
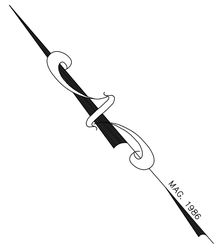
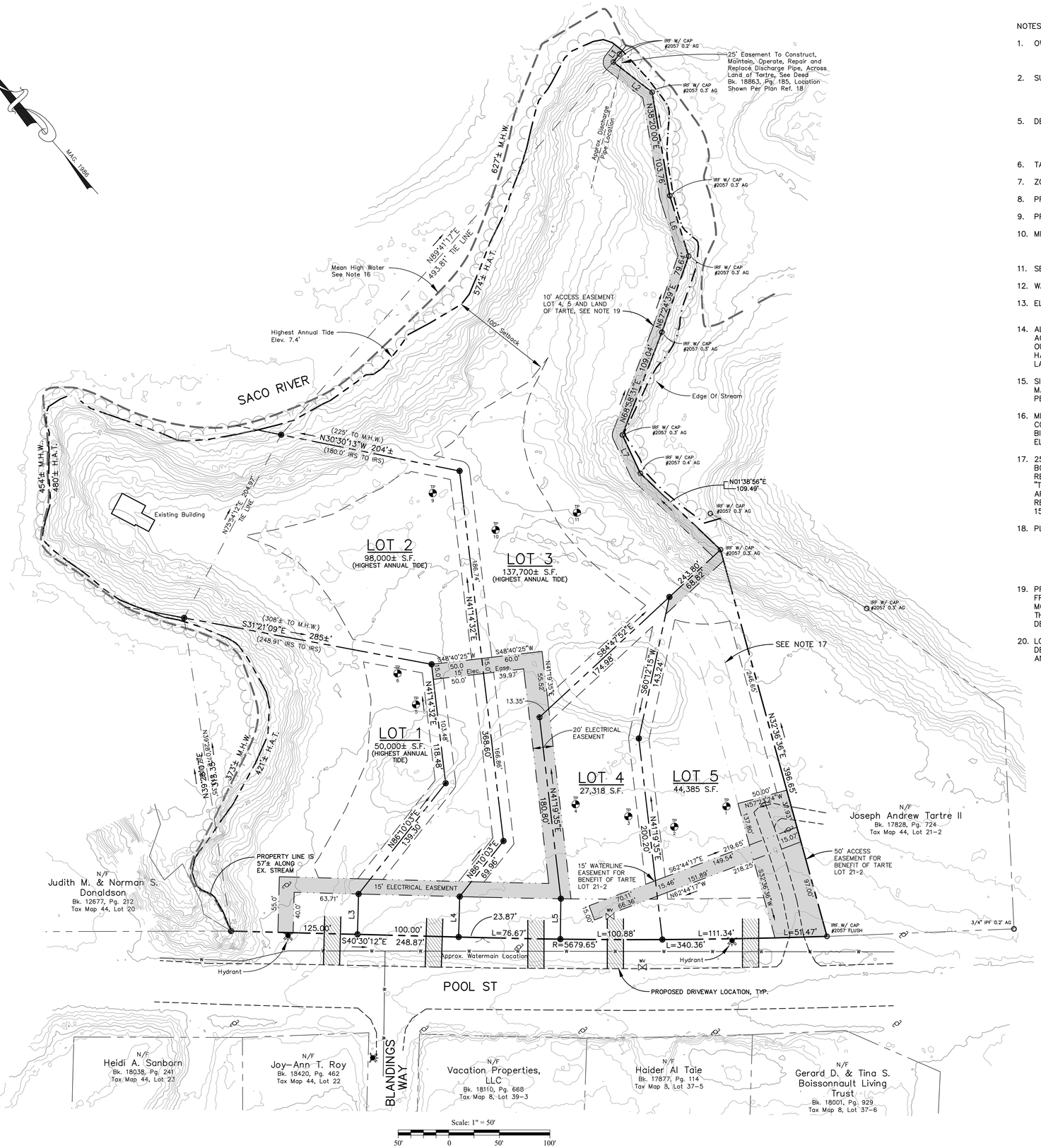


LOCATION MAP
SCALE: 1" = 1000'





LINE DATA

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L3	S49°29'48"W	40.00'
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L6	N30°37'03"E	62.69'
L7	N22°57'28"E	41.95'

LEGEND

SYMBOL	DESCRIPTION
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CHAIR

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5 BUCKTHORN CIRCLE
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5. DEED REFERENCE: BK. 18863, PGS. 185-188
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6. TAX MAP REFERENCE: MAP 44, LOT 21

7. ZONING: SUBURBAN RESIDENTIAL (SR1)

8. PROJECT AREA: 8.21± ACRES

9. PROPOSED USE: 5 SINGLE FAMILY LOTS

10. MINIMUM STANDARDS: LOT SIZE - 20,000 S.F. (PUBLIC WATER)
FRONTAGE - 100' (PUBLIC WATER)
SETBACKS - 40' FRONT, 10' SIDE & REAR

11. SEWER SERVICE: INDIVIDUAL ON SITE SEPTIC SYSTEMS

12. WATER SERVICE: PUBLIC

13. ELECTRIC/TELEPHONE: UNDERGROUND FROM UTILITY POLES ALONG POOL STREET

14. ALL CONSTRUCTION AND SITE ALTERATIONS SHALL BE DONE IN ACCORDANCE WITH THE EROSION PREVENTION PROVISIONS OUTLINED IN THE MAINE EROSION CONTROL AND SEDIMENTATION HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES, LATEST EDITION.

15. SITE CONTOURS, ARE PER MAINE GIS CATALOG, BIDDEFORD, MAINE, NAVD 88. MEAN HIGH WATER AND HIGHEST ANNUAL TIDE PER ON SITE TOPOGRAPHIC SURVEY, NAVD 88.

16. MEAN HIGH WATER IS AS LOCATED IN MARCH OF 2022 WITH ICE CONDITIONS. MEAN HIGH WATER ELEVATION DATA IS PER NOAA, BIDDEFORD, SACO RIVER STATION, ACCEPTED APRIL 17, 2003, ELEVATION 3.98, NAVD 88.

17. 25' ACCESS EASEMENT SHOWN PER DEED REFERENCED IN BOOK 18863, PAGES 185 THRU 188. EASEMENT WAS NOT REFERENCED IN PREVIOUSLY APPROVED PLAN ENTITLED "TARTRE REALTY SUBDIVISION", DATED SEPTEMBER 26, 1986, APPROVED BY THE CITY OF BIDDEFORD MAY 6, 1987 AND RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS PLAN BOOK 156, PAGE 27. SEE DEED FOR BEARINGS AND DISTANCES.

18. PLAN REFERENCE: "TARTRE REALTY SUBDIVISION: DATED SEPT. 26, 1986 BY ALIBERTI, LAROCHELLE & HODSON SURVEYORS AND ENGINEERS MADE FOR PERSPECTIVE ASSOCIATES AND RECORDED IN THE Y.C.R.D. PL. BK. 156, PAGE 27.

19. PROPERTY IS SUBJECT TO A RIGHT OF ACCESS EASEMENT TO AND FROM THE SACO RIVER FOR PURPOSE OF ACCESSING BOAT MOORINGS FOR PERSONAL USE, SAID EASEMENT SHALL RUN WITH THE LAND, SEE DEED REFERENCES, NOTE 5, LOCATION NOT DESCRIBED. SUBJECT PARCEL PROVIDING ACCESS AS SHOWN.

20. LOTS 4 AND 5 AS SHOWN HEREON, ARE UNBUILDABLE LOTS UNTIL DEEMED IN COMPLIANCE WITH SACO RIVER CORRIDOR COMMISSION AND/OR STATE GUIDELINES.

THIS PLAN SUPERSEDES THE PREVIOUSLY RECORDED PLAN ENTITLED TARTRE REALTY SUBDIVISION, RECORDED IN THE YORK COUNTY REGISTRY OF DEEDS, PLAN BOOK 156, PAGE 27, DATED MAY 22, 1987. THE PURPOSE OF THIS AMENDMENT IS THE DIVISION OF THE PREVIOUSLY APPROVED LOT 4.

YORK,ss REGISTRY OF DEEDS
Received_____
at_____h _____m_____M., and
Filed In Plan Book_____Page_____
ATTEST:
_____
Register

I CERTIFY THAT THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS TECHNICAL STANDARDS OF PRACTICE FOR A STANDARD BOUNDARY SURVEY WITH THE FOLLOWING EXCEPTIONS:

1. NO SURVEYORS REPORT
2. INTERIOR LOT LINES ONLY

STATE OF MAINE
ROBERT C. LIBBY JR.
PROFESSIONAL LAND SURVEYOR

ROBERT C. LIBBY JR. PLS #2190

REVISION		
NO.	DATE	DESCRIPTION
1	10/4/22	Rev'd. Per Staff Review For 10/5 Planning Board Mtg.
2	10/12/22	Rev'd. Lots 4 and 5
3	10/12/22	Submitted For Final Approval
4	10/20/22	Note 20
5	11/01/22	Plan Revisions

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
Shawn Brown
5 Buckthorn Circle
Saco, Maine

AMENDED PLAN
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
355 POOL STREET
BIDDEFORD, MAINE

DESIGNED	DATE
W. Pelkey	July 2021
DRAWN	SCALE
Dept.	1" = 50'
CHECKED	JOB. NO.
R. Libby, Jr.	21109

SHEET
1

REPRODUCTION OR REUSE OF THIS DOCUMENT WITHOUT THE EXPRESSED WRITTEN CONSENT OF BH2M INC. IS PROHIBITED

G:\2021\JOBS\Subdivision, 1/ 2/2022 11:29:01 AM, DWG 1=1PR pc5

SUGGESTED DEED DESCRIPTION
LOT 3
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
POOL STREET
BIDDEFORD, MAINE

October 11, 2022

A certain lot or parcel of land located on the northeasterly sideline of Pool Street, so-called, in the City of Biddeford, County of York and State of Maine and shown as Lot 3 on the plan titled "Amended Plan, Tartre Realty Subdivision, Edgewater Estates at 355 Pool Road, 355 Pool Street, Biddeford, Maine", for Shawn Brown, dated July 2021 as revised through 10/12/22, by BH2M, Inc. to be recorded; said Lot 3 being more particularly described as follows:

Beginning at a capped iron rod to be set (PLS #2190) on the northeasterly sideline of said Pool Street at the southwesterly corner of Lot 4 as shown on aforesaid plan;

thence in a general northwesterly direction along the northeasterly sideline of said Pool Street and along a circular curve to the right, circumscribed by a radius of 5679.65 feet, an arc length of 76.67 feet to a point; said point being N 40˚-53'-24" W a tie distance of 76.67 feet from said previous capped iron rod to be set;

thence N 40˚-30'-12" W along the northeasterly sideline of said Pool Street a distance of 23.87 feet to a capped iron rod to be set (PLS #2190) and Lot 2 as shown on aforesaid plan;

thence N 49˚-29'-48" E along said Lot 2 a distance of 40.00 feet to a capped iron rod to be set (PLS #2190);

thence N 86˚-10'-03" E along said Lot 2 a distance of 69.96 feet to a capped iron rod to be set (PLS #2190);

thence N 41˚-14'-32" E along said Lot 2 a distance of 368.60 feet to a capped iron rod to be set (PLS #2190);

thence N 30˚-30'-13" W along said Lot 2 a distance of 180.00 feet to a capped iron rod to be set (PLS #2190);

thence continuing N 30˚-30'-13" W along said Lot 2 a distance of 45 feet more or less to the Saco River, so-called;

thence in a general easterly, northeasterly and easterly direction along said Saco River a distance of 627 feet more or less to a point and land now or formerly of Josephy Andrew Tartre II;

thence S 85˚-58’-57” W along the land of said Tartre a distance of 21 feet more or less to a capped iron rod found (PLS #2057); said capped iron rod found being N 89˚-41’-17” E a tie distance of 493.81 feet from said previous capped iron rod to be set;

thence S 04˚-01’-03” E along the land of said Tartre a distance of 48.64 feet to a capped iron rod found (PLS #2057);

thence S 38˚-20’-00” W along the land of said Tartre a distance of 103.76 feet to a capped iron rod found (PLS #2057);

thence S 30˚-37’-03” W along the land of said Tartre a distance of 62.69 feet to a capped iron rod found (PLS #2057);

thence S 67˚-24’-39” W along the land of said Tartre a distance of 79.64 feet to a capped iron rod found (PLS #2057);

thence S 68˚-58’-31” W along said Tartre a distance of 109.04 feet to a capped iron rod found (PLS #2057);

thence S 22˚-57’-28” W along said land of said Tartre a distance of 41.95 feet to a capped iron rod found (PLS #2057);

thence S 01˚-38’-56” W along land of said Tartre a distance of 109.49 feet to a capped iron rod found (PLS #2057) and Lot 5 as shown on aforesaid plan;

thence N 84˚-47’-52” W along said Lot 5 and along said Lot 4 a distance of 243.80 feet to a capped iron rod to be set (PLS #2190);

thence S 41˚-19’-35” W along said Lot 4 a distance of 180.80 feet to a capped iron rod to be set (PLS #2190);

thence S 48˚-43’-24” W along said Lot 4 a distance of 40.00 feet to the point of beginning.

The above described Lot 3 contains 137,700 s.f. more or less. All bearings refer to magnetic north as observed in 1986.

The above described Lot 3 is subject to and conveyed together with a certain electrical easement for the benefit of Lot 1, Lot 2, Lot 3 and Lot 4 as shown on the aforesaid plan for a more particular description.

The above described Lot 3 is also subject to a certain 10 foot wide access easement to and from the Saco River for the benefit of Lot 4, Lot 5 and land of said Tartre located along the land of said Tartre and shown on the aforesaid plan for a more particular description.

The above described Lot 3 is conveyed together with a certain 25 foot easement to construct, maintain, operate, repair and replace a discharge pipe across the land of said Tartre as described in Deed Book 18863, Page 185 and shown on aforesaid plan.

The above described Lot 3 is subject to a portion of a certain 25-foot wide access easement on foot or in vehicles for the benefit of Joseph Andrew Tartre shown on aforesaid plan and described in the Deed Book 18863, Page 185 for a more particular description.

ddEdgewaterEstatesLot3

SUGGESTED DEED DESCRIPTION
LOT 4
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
POOL STREET
BIDDEFORD, MAINE

October 12, 2022

A certain lot or parcel of land located on the northeasterly sideline of Pool Street, so-called, in the City of Biddeford, County of York and State of Maine and shown as Lot 4 on the plan titled "Amended Plan, Tartre Realty Subdivision, Edgewater Estates at 355 Pool Road, 355 Pool Street, Biddeford, Maine", for Shawn Brown, dated July 2021 as revised through 10/12/22, by BH2M, Inc. to be recorded; said Lot 4 being more particularly described as follows:

Beginning at a capped iron rod to be set (PLS #2190) on the northeasterly sideline of said Pool Street at the southwesterly corner of Lot 5 as shown on aforesaid plan;

thence in a general northwesterly direction along the northeasterly sideline of said Pool Street and along a circular curve to the right, circumscribed by a radius of 5679.65 feet, an arc length of 100.88 feet to a capped iron rod to be set (PLS #2190) and Lot 3 as shown on aforesaid plan; said capped iron rod to be set being N 41˚-47'-08" W a tie distance of 100.88 feet from said previous capped iron rod to be set;

thence N 48˚-43'-24" E along said Lot 3 a distance of 40.00 feet to a capped iron rod to be set (PLS #2190);

thence N 41˚-19'-35" E along said Lot 3 a distance of 180.80 feet to a capped iron rod to be set (PLS #2190);

thence S 84˚-47'-52" E along said Lot 3 a distance of 174.98 feet to a capped iron rod to be set and said Lot 5;

thence S 60˚-12'-15" W along said Lot 5 a distance of 143.24 feet to a capped iron rod to be set (PLS #2190);

thence S 41˚-19'-35" W along said Lot 5 a distance of 200.20 feet to the point of beginning.

The above described Lot 4 contains 27,318 s.f.. All bearings refer to magnetic north as observed in 1986.

The above described Lot 4 is subject to and conveyed together with a certain electrical easement for the benefit of Lot 1, Lot 2, Lot 3 and Lot 4 and shown on the aforesaid plan for a more particular description.

The above described Lot 4 also is subject to a certain 15 foot wide waterline easement as shown on aforesaid plan for a more particular description.

The above described Lot 4 is conveyed together with a certain 10 foot wide access easement in common with others across said Lot 5 and Lot 3 for a right of access to and from the Saco River for the benefit of Lot 4, Lot 5 and land of said Tartre and shown on the aforesaid plan for a more particular description.

The above described Lot 4 is subject to a portion of a certain 25-foot wide access easement on foot or in vehicles for the benefit of Joseph Andrew Tartre shown on aforesaid plan and described in the Deed Book 18863, Page 185 for a more particular description.

ddEdgewaterEstatesLot4

SUGGESTED DEED DESCRIPTION
LOT 5
TARTRE REALTY SUBDIVISION
EDGEWATER ESTATES AT 355 POOL ROAD
POOL STREET
BIDDEFORD, MAINE

October 11, 2022

A certain lot or parcel of land located on the northeasterly sideline of Pool Street, so-called, in the City of Biddeford, County of York and State of Maine, and shown as Lot 5 on the plan titled "Amended Plan, Tartre Realty Subdivision, Edgewater Estates at 355 Pool Road, 355 Pool Street, Biddeford, Maine" for Shawn Brown, dated July 2021 as revised through 10/12/22, by BH2M, Inc. to be recorded; said Lot 5 being more particularly described as follows:

Beginning at a capped iron rod found (PLS #2057) on the northeasterly sideline of said Pool Street at the southwesterly corner of land now or formerly of Joseph Andrew Tartre II as shown on aforesaid plan;

thence in a general northwesterly direction along the northeasterly sideline of said Pool Street and along a circular curve to the right, circumscribed by a radius of 5679.65 feet, an arc length of 162.81 feet to a capped iron rod to be set (PLS #2190) and Lot 4 as shown on aforesaid plan; said capped iron rod to be set being N 43˚-06'-56" W a tie distance of 162.81 feet from said previous capped iron rod found;

thence N 41˚-19'-35" E along said Lot 4 a distance of 200.20 feet to a capped iron rod to be set (PLS #2190);

thence N 60˚-12'-15" E along said Lot 4 a distance of 143.24 feet to a capped iron rod to be set (PLS #2190) and Lot 3 as shown on aforesaid plan;

thence S 84˚-47'-52" E along said Lot 3 a distance of 68.82 feet to a capped iron rod found (PLS #2057) and land of said Tartre;

thence S 32˚-36'-36" W along the land of said Tartre a distance of 396.65 feet to the point of beginning.

The above described Lot 5 contains 44,385 s.f.. All bearings refer to magnetic north as observed in 1986.

The above described Lot 5 is subject to a certain 50 foot wide access easement for the benefit of land of Joseph Andrew Tartre II located on the northeasterly sideline of said Pool Street and shown on the aforesaid plan for a more particular description.

The above Lot 5 is also subject to a certain 15 foot wide waterline easement as shown on the aforesaid plan for a more particular description.

Also, the above described Lot 5 is subject to and conveyed together with a certain 10 foot wide access easement across Lot 5 and Lot 3 for a right of access to and from the Saco River for the benefit of Lot 4, Lot 5 and land of said Tartre as shown on the aforesaid plan for a more particular description.

The above described Lot 5 is subject to a portion of a certain 25-foot wide access easement on foot or in vehicles for the benefit of Joseph Andrew Tartre shown on aforesaid plan and described in the Deed Book 18863, Page 185 for a more particular description.

ddEdgewaterEstatesLot5

Whitten, Nan

From: Tartre <atartre1@maine.rr.com>
Sent: Wednesday, November 2, 2022 9:09 AM
To: rlibby@bh2m.com
Cc: Whitten, Nan; James Monteleone; Andrew
Subject: Tartre - 365 Pool Street Easements
Attachments: TARTRE Pool St Walking Easement .pdf

Hi Bob,

Please review the attachments below. Looking forward to hearing your professional opinion regarding these issues.

Regards,

Andy Tartre

Good morning Bob,

My name is Andy Tartre. We spoke a few months back. I'm the abutter to the project your company is working on for Shawn Brown at 355 Pool Street in Biddeford. As I'm sure you are aware, there is a dispute regarding the right of ways I have over Mr. Browns property.

Since you are the surveyor who signed the plan and ultimately the one responsible for the information shown on the plan, I'd like to ask a couple questions if I may.

1) When performing a survey and preparing a survey map, are you required to show on the survey map all deeded and recorded easements and rights of ways that affect the surveyed property, and to whom they benefit ?
   I ask this because on Mr. Browns subdivision plan, you show the 15' waterline easement and the 50' access easement, but do not mention that they benefit my property.
   Additionally, these easements are shown bold on your map with grey filling, with the dimensions shown as well. Yet the 25' access easement that I have over Mr. Browns land is almost invisible on the map, with no dimensions shown. Any future buyers of these lots will certainly not see the 25' access easement as shown, or know that it benefits my property.
2) Is there a specific reason for the 25' access easement being shown as it is?
   It seems since this easement has been in recorded deeds since 1987 just like the other 2 easements shown on your map, it deserves the same recognition and prominence on your survey map. (bold and with dimensions)

   Lastly, as you know, I have a walking right of way over Mr. Browns property to access moorings at the river. I don't know if you have been to the site, but there is a very well used trail from the end of the 25' access easement to my docks at the river. This trail has been used by my family since 1987 to access the docks at the river. Although the location of the "walking right of way" is not specified in the deeds, the location is obvious on the ground. There are no other paths or even a reasonable location for a path to the docks other than the one we have used. It seems to me, that you should be minimally obligated to show this trail on your map and note it as a possible location for my right of way, especially now that I have told you that I used this for trail since 1987 as my access to the docks.

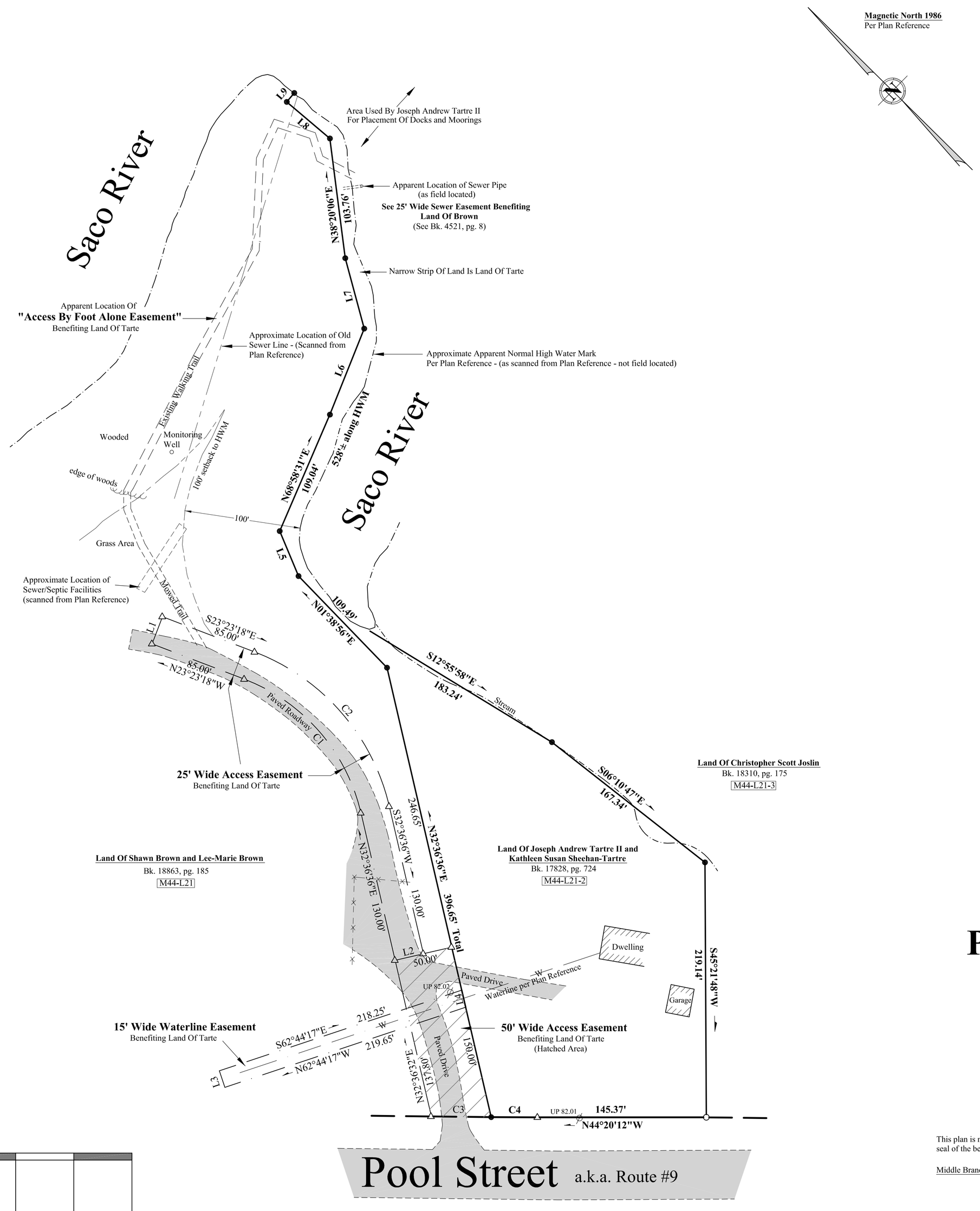
3) Is this correct, are you obligated to show this walking right of way on your plan ?

My intentions were to ask the Board of Licensure for Surveyors some of these questions, but thought I should give you the opportunity to explain prior to me doing that.

I'm sure you are very busy, however your prompt response to this very urgent matter would be greatly appreciated.

Thank you in advance for your time.

J. Andy Tartre



Plan References:

"Tartre Realty Subdivision - Plan Of Land To Be Conveyed By Perspective Associates, Pool Street, Biddeford, Maine" dated September 26, 1986, Last Revised April 14, 1987 by Aliberti, Larochelle & Hodson Surveyors And Engineers, and recorded at the York County Registry of Deeds in Plan Book 156, page 27.

General Notes:

1. The purpose of this plan is to depict easements which benefit and burden land of Joseph Andrew Tartre, II and Kathleen Susan Tartre.
2. This plan is not intended to depict limits or extent of fee title ownership. Opinion of title should be rendered by a title attorney.
3. This office reserves the right to be held harmless for unknown or unobtainable private records which could affect the results of this survey.
4. This survey does not purport to reflect any of the following:
   a. easements other than those that are visible or specifically stated in the referenced documents.
   b. building setback compliance or restrictive covenants.
   c. zoning or other land use regulations.
   d. the location of any underground utilities or structures.

Locus Deed Reference:

Sand Hill Group, LLC
to
Joseph Andrew Tartre, II and Kathleen Susan Sheehan Tartre
dated October 19, 2018 and recorded at the York County Registry of Deeds in Book 17828, page 724.

Legend:

- ● #5 steel rebar with survey cap #2057 to be set
- ○ Found iron pipe
- △ Calculated point, nothing found or set
- Approximate abutter line (not surveyed)
- Edge of Gravel
- Edge of Pavement
- Setback Line
- M12-L12 Assessor's map and lot number
- Ø UP 46 Utility Pole (number noted)

Progress Print

Graphic Scale:

0' 25' 50' 75' 100' 150' 200' 250'

This plan is not valid without the signature and embossed seal of the below listed Professional Land Surveyor.

Middle Branch, LLC Professional Land Surveyors

Brad R. Lodge, P.L.S. #2057 (agent) Date:

Plan Depicting Easements Appurtenant To Land Of

Joseph Andy Tartre, II And Kathleen Susan Sheehan Tartre

365 Pool Street, Biddeford, Maine

MIDDLE BRANCH, LLC
PROFESSIONAL LAND SURVEYORS
1A DEPOT STREET, P.O. BOX 618
ALFRED, MAINE 04002-0618
TEL (207)324-8712 FAX (207)324-6100

Record Owner: Joseph and Kathleen Tartre, 127 Simpson Road, Saco, Maine 04072	Drawn By: BRL	Survey Date:	5/7/2021
		Plan Date:	7/26/2022
	Chkd. By: MRL/DLW	Scale:	1" = 50'
Book No.: 461-49	Job No. Tartre - Pool St.	Sheet No.	1 of 1

CITY OF BIDDEFORD

Planning and Development Department

Matthew Grooms, AICP
Deputy Director/City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115
Matthew.Grooms@biddefordmaine.org

PLANNING BOARD REPORT

TO: Chair Southwick and the Biddeford Planning Board

FROM: Matthew Grooms, Deputy Director/City Planner

DATE: November 3, 2022

RE: 2022.43 Shoreland Zone permit for soil and water conservation practices and filling and earthmoving of greater than 10 cubic yards at 26 Morin Street (Tax Map 11/Lot 8) in the I-1 Industrial Zone and SP (Stream Protection) Shoreland Overlay zone.

MEETING DATE: Tuesday, November 8, 2022 at 4:00 pm

---

1. INTRODUCTION

York County Soil & Water Conservation District, in coordination with the City of Biddeford Department of Public Works, has submitted a shoreland zone application to add a grassed underdrained soil filter at the Sterling Rope site. This work requires Planning Board approval, as it involves earthmoving of greater than 10 cubic yards within the Stream Protection Overlay Zone. This project is part of a broader City initiative, which stems from the Thatcher Brook Watershed Management Plan, to improve the quality of water run-off into Thatcher Brook, a designated 'urban impaired stream'. This work is funded through a 319 Grant with Maine DEP, for which the City of Biddeford is the grantee, with York County Soil & Water Conservation District managing the project.

2. PROJECT INFORMATION

	SUBJECT	INFORMATION
1.	Applicant	Craig Chekan, PE; City Engineer Department of Public Works City of Biddeford 205 Main Street, 3rd Floor Biddeford, ME 04005
2.	Co-Applicant	Shri Verrill York County Soil & Water Conservation District 21 Bradeen Street, Suite 304 Springvale, ME 04083
3.	Property Owner	Peter Schwarzenbach Morin Maine, LLC

		26 Morin Street Biddeford, ME 04005
4.	Engineer/Surveyor	Chris MacDonald, PE BH2M 380B Main Street Gorham, ME 04038
5.	Project Location	26 Morin Street
6.	Map/Lot	Map 11, Lot 8
7.	City Approvals Required	Shoreland Zone – Earthmoving > 10 cubic yards
8.	Existing Zoning	I-1 Industrial Zone
9.	Overlay Zoning	SP Stream Protection
10.	Existing Use	Industrial Building
11.	Proposed Use	Industrial
12.	Uses in the Vicinity	Industrial
13.	Parcel Size	15.23 acres
14.	Water Supply	Public Water
15.	Sewerage Disposal	Public Sewer
16.	Solid Waste Disposal	Private Hauler
17.	Fire Protection	City of Biddeford
18.	Waivers Needed/Requested	Full Site Plan Review
19.	Waivers Granted	None
20.	Fees Paid (LDR Attachment A)	No fees charged
21.	Planning Board Review History	November 8, 2022

3. COMPLIANCE WITH CITY ORDINANCES

To receive Planning Board approval, the applicant must demonstrate compliance with Article XIV *Shoreland Zoning*, Section 16.D *Procedure for Administering Permits,* which includes findings of fact that must be determined by the Planning Board in order to approve the application.

Applicable findings are listed below:

1. *Will maintain safe and healthful conditions.*
2. *Will not result in water pollution, erosion, or sedimentation to surface waters.*
3. *Will adequately provide for the disposal of wastewater*
4. *Will not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat.*
5. *Will conserve shore cover and visual, and well as actual, points of access to inland and coastal waters.*
6. *Will protect archeological and historic resources as designated in the comprehensive plan.*
7. *Will not adversely affect existing commercial fishing or maritime activities in a commercial fisheries/maritime activities district.*
8. *Will avoid problems associated with floodplain development and use.*
9. *Is in conformance with the provisions of Section 15, Land Use Standards.*

The applicant prepared a written narrative outlining compliance of the project with each of these applicable standards. As noted above, the proposed work is aimed at improving the water quality for water entering Thatcher Brook, and does not involve the construction of any buildings or addition of new impervious area. Staff found the proposal to be generally consistent with the required findings listed above, and in conformance with the land use standards listed in Section 15 of the Shoreland Zone.

Staff would note the following item for the Board's Consideration.

a. The applicant should provide an existing conditions survey detailing the existing grades of the site as they compare with the grades of the proposed soil filter.

4. WAIVER REQUESTS

Full Site Plan Review.

5. SIGNATURE BLOCK FOR CITY PLANNER SIGNATURE

Staff are requesting that the Planning Board delegate authority to sign the final plan to the City Planner, noting the narrow window of time in which the proposed work must occur, prior to the first hard frost of the season.

If the Board agrees to this request, then the final plan should be amended to include the following revision:

a. Add signature block: Matthew Grooms, City Planner, duly authorized to sign on behalf of the Biddeford Planning Board.

6. STAFF RECOMMENDATION

In reviewing this proposal to develop a grassed underdrained soil filter, resulting in greater than 10 cubic yards of earth moving within the SP (Stream Protection) zone, staff found the application to comply with all applicable review criteria as listed in Article XIV, Sections 15 and 16, and recommend that the Planning Board approve this application with conditions as drafted by staff.

7. RECOMMENDED CONDITIONS OF APPROVAL

If the Board approves the project, Staff recommends doing so with the following Conditions of Approval attached:

1. **Add signature block for City Planner to sign the Planning Board approved plans.**
2. **Provide an existing conditions survey plan prior to the commencement of work.**
3. **Obtain required permits from Maine DEP and Biddeford Code Enforcement.**
4. **This plan approval shall expire one year from the date of approval if a substantial start is not made in construction. If a substantial start is made within one year of the issuance of the determination, the applicant shall have one additional year to complete the project, at which time any permits shall expire.**

CITY OF BIDDEFORD

Planning and Development Department

205 Main Street
P.O. Box 586
Biddeford, ME 04005
(207) 284-9115

FINDINGS OF FACT AND CONCLUSIONS OF LAW

Shoreland Zoning Permit

Pursuant to the provisions of the City of Biddeford Land Development Regulations, Article XIV, Shoreland Zoning, the Biddeford Planning Board has considered the application by York County Soil & Water Conservation and the City of Biddeford**,** including supportive data, public hearing testimony and related materials contained in the record. Based on Public Comment and Staff's review and recommendation, the Planning Board makes the following Findings of Fact and Conclusions of Law:

---

1. FINDINGS OF FACT

	SUBJECT	INFORMATION
1.	Applicant	Craig Chekan, PE; City Engineer Department of Public Works City of Biddeford 205 Main Street, 3rd Floor Biddeford, ME 04005
2.	Co-Applicant	Shri Verrill York County Soil & Water Conservation District 21 Bradeen Street, Suite 304 Springvale, ME 04083
3.	Property Owner	Peter Schwarzenbach Morin Maine, LLC 26 Morin Street Biddeford, ME 04005
4.	Engineer/Surveyor	Chris MacDonald, PE BH2M 380B Main Street Gorham, ME 04038
5.	Project Location	26 Morin Street
6.	Map/Lot	Map 11, Lot 8
7.	City Approvals Required	Shoreland Zone – Earthmoving > 10 cubic yards
8.	Existing Zoning	I-1 Industrial Zone
9.	Overlay Zoning	SP Stream Protection
10.	Existing Use	Industrial Building
11.	Proposed Use	Industrial
12.	Uses in the Vicinity	Industrial
13.	Parcel Size	15.23 acres

DRAFT

14.	Water Supply	Public Water
15.	Sewerage Disposal	Public Sewer
16.	Solid Waste Disposal	Private Hauler
17.	Fire Protection	City of Biddeford
18.	Waivers Needed/Requested	Full Site Plan Review
19.	Waivers Granted	None
20.	Fees Paid (LDR Attachment A)	No fees charged
21.	Planning Board Review History	November 8, 2022

2. CONCLUSIONS OF LAW
   1. The proposed use meets specific requirements set forth in this ordinance and would be in compliance with applicable state or federal laws;
   2. The proposed use would not create fire safety hazards by providing adequate access to the site, or to the buildings on the site, for emergency vehicles and would not create hazards through the storage of chemicals and wastes;
   3. The proposed exterior lighting, where allowed, would not create hazards to motorists traveling on adjacent public streets or is adequate for the safety of occupants or users of the site or would not damage the value and diminish the usability of adjacent properties;
   4. The provisions for buffers and on-site landscaping provide adequate protection to neighboring properties from detrimental or unsightly features of the development;
   5. The proposed use would not have a significant, detrimental effect on the use and peaceful enjoyment of abutting property as the result of noise, vibrations, fumes, odor, dust, glare, hours of operation, or other causes;
   6. The provisions for vehicular loading and unloading and parking and for vehicular and pedestrian circulation on the site and onto adjacent public streets would not create hazards to public safety or traffic congestion;
   7. The proposed use would generate a volume of traffic that can reasonably be accommodated by the existing road network, or would not create unreasonable traffic hazards or would not exacerbate an existing traffic hazard, or would not create unreasonable traffic congestion;
   8. The proposed use would not have a significant, detrimental effect on the value of adjacent properties which could be avoided by reasonable modification of the proposal;
   9. The proposed use would not have an adverse impact on the privacy of the residents of the immediate area (within 500 feet) which could be avoided by reasonable modification of the proposal;
   10. The proposed use would be in compliance with Biddeford's Comprehensive Plan;
   11. The proposed use would not have an adverse impact on the immediate neighborhood or the community relative to architectural design, scale, bulk and building height, identity and historical character, or visual integrity, which could be avoided by reasonable modification of the proposal;
   12. The design of the site would not result in significant flood hazards or flood damage or would be in conformance with applicable flood hazard protection requirements;

13. Adequate provision has been made for disposal of wastewater or solid waste or for the prevention of ground or surface water contamination;
14. Adequate provision has been made to control erosion or sedimentation;
15. Adequate provision has been made to handle stormwater runoff or other drainage problems on the site; and the proposed development will not unduly burden off-site surface water systems;
16. The proposed water supply would meet the demands of the proposed use for fire protection purposes;
17. Adequate provision has been made for the transportation, storage, and disposal of hazardous substances and materials as defined by state law;
18. The proposed use would not have an adverse impact on scenic vistas or on significant wildlife habitat or wetland areas and water bodies which could be avoided by reasonable modification of the proposal;
19. When located in the Shoreland Zone, the proposed use would meet the purposes of Shoreland Zoning as identified in Article XIV, Section 1 (Purposes) of this ordinance.

4. DETERMINATION

Based on the evidence available and the conclusions above, the Biddeford Planning Board grants the Shoreland Zone Permit for the proposed project summarized above, located at 26 Morin Street (Tax Map 11 – Lot 8) in accordance with the submitted application, supporting data, representations made, other related materials on file, and the following Conditions of Approval:

Conditions of Approval:

1. **Add signature block for City Planner to sign the Planning Board approved plans.**
2. **Provide an existing conditions survey plan prior to the commencement of work.**
3. **Obtain required permits from Maine DEP and the Biddeford Code Enforcement.**
4. **This plan approval shall expire one year from the date of approval if a substantial start is not made in construction. If a substantial start is made within one year of the issuance of the determination, the applicant shall have one additional year to complete the project, at which time any permits shall expire.**

_____

Planning Board Chairman

_____

Date

City of Biddeford, Maine

Public Works Department

371 Hill Street Biddeford, Maine 04005

<u>Planning Board Narrative</u>
Sterling Rope Soil Filter – Thacher Brook 319 Grant
Address: 26 Morin Street, Biddeford, ME 04005
Map: 11, **Lot:** 8
Zoning: I1 – Industrial 1; **Shoreland Zoning:** SP – Stream Protection

November 9th, 2022

On behalf of Biddeford's Public Works and York County Soil & Water Conservation District (YCSWCD), attached is a Planning Board application to install a grassed underdrained soil filter in the backyard of Sterling Rope's 26 Morin Street facility.

This soil filter, part of the City's 319 Grant with DEP, will provide water quality for the private property's surface runoff before entering Thacher Brook. Since approximately 40% of the proposed soil filter is located within Thacher Brook's 100-FT buffer and 470-CY of cut is proposed, a Shoreland Zoning Permit is required.

This Sterling Rope soil filter will help complete Phase 3 of the City's Thatcher Brook Restoration Workplan and will complement the other Thacher Brook BMPs recently installed:

- Phase 1 Morin Street soil filter
- Phase 2 Morin Street soil filters (2)
- Treebox Filter installed on Drapeau Street
- No-mow meadow buffer installed within Barrette Outdoor Living's backyard (8 Morin Street)
- 'Chop & Drops' near the SMHC Hospital and near South Street

Per Section 16 of the Shoreland Zoning Ordinance, this project will meet the following standards:

1. *Will maintain safe and healthful conditions;*
    a. The entire scope of work is to increase water quality; no structure or additional impervious cover is proposed.
2. *Will not result in water pollution, erosion, or sedimentation to surface waters;*
    a. Soil erosion & sediment control measures will be utilized and a grassed underdrained soil filter will be installed to treat stormwater runoff prior to entering Thacher Brook. A DEP permit-by-rule permit was submitted.
3. *Will adequately provide for the disposal of all wastewater;*
    a. No wastewater will be generated or impacted by this project.
4. *Will not have an adverse impact on spawning grounds, fish, aquatic life, bird or other wildlife habitat;*
    a. This primary goal of this project to benefit Thacher Brook and its wildlife habitat.
5. *Will conserve shore cover and visual, as well as actual, points of access to inland and coastal waters;*
    a. No impact to Thacher Brook's frontage is proposed.
6. *Will protect archaeological and historic resources as designated in the comprehensive plan;*
    a. This site is not listed on the National Register of Historic Properties. No impacts are expected.
7. *Will not adversely affect existing commercial fishing or maritime activities in a commercial fisheries/maritime activities district;*
    a. No impact to Thacher Brook's frontage is proposed, therefore no impacts to fishing and maritime activities is expected.
8. *Will avoid problems associated with floodplain development and use; and*
    a. The project is adjacent to the 100-year floodplain and will not increase impervious cover.

9. *Is in conformance with the provisions of Section 15, Land Use Standards.*
    a. This project shall be in conformance with the Land Use standards listed within the Shoreland Zoning Ordinance.

Materials included with this submittal:

1. Planning Board Narrative
2. Planning Board Application
3. Thacher Brook 319 Grant – Watershed Map
4. Construction Drawings
5. Tax Map 11
6. Zoning Map
7. FEMA Map (2017 Preliminary FIRM)
8. Stormwater Management (SWM) Sizing Calculations
9. 250' Property Abutter List

We appreciate the opportunity to present this Thacher Brook water quality project to the Planning Board. We hope this submittal is adequate and conveys its importance to the watershed.

Regards,

Craig Chekan, PE
Biddeford City Engineer

cc:
Jeff Demers, Public Works Director
Tom Milligan, City Engineer Emeritus
Shri Verrill, YCSWCD Project Manager
Peter Schwarzenbach, Sterling Rope (Morin Maine LLC)
Chris MacDonald, BH2M Engineering

City of Biddeford – Planning Department
Planning Board Application
P.O. Box 586, 205 Main Street Biddeford, Maine 04005
207-284-9115

Type of Application:

_x_ Shoreland Zoning Permit __ Site Plan Review __ Extraction
__ Conditional Use Permit __ Subdivision __ Private Way
__ Other: _____

Applicant Information:

Name: CRAIG CHEKAN, PE; CITY ENGINEER
Mailing Address: 205 MAIN STREET, 3RD FLOOR, BIDDEFORD, ME 04005
Telephone: 207-571-0636
Email: CRAIG.CHEKAN@BIDDEFORDMAINE.ORG
What is your legal interest in the property? THACHER BROOK 319 GRANT CO-APPLICANT
__ Owner __ Potential Buyer with Contract __ Lease/Rental Agreement

Owner's Information:

Name: PETER SCHWARZENBACH; MORIN MAINE LLC
Mailing Address: 26 MORIN STREET, BIDDEFORD, ME 04005
Telephone: 207-282-2550
Email: PETER.SCHWARZENBACH@OUTLOOK.COM

Agent's Information:

Name: SHRI VERRILL; YORK COUNTY SOIL & WATER CONSERVATION DISTRICT (YCSWCD) PROJECT MANAGER
Mailing Address: 21 BRADEEN STREET, SUITE 304, SPRINGVALE, ME 04083
Telephone: 207-432-3516
Email: SVERRILL@YORKSWCD.ORG

Engineer/Surveyor's Information:

Name: CHRIS MacDONALD, PE; BH2M
Mailing Address: 380B MAIN STREET, GORHAM, ME 04038
Telephone: 207-839-2771 x 203
Email: CMACDONALD@BH2M.COM

Project Location and Lot Information:

Street Address: 26 MORIN STREET Drainage Watershed: THACHER BROOK
Tax Map: 11 Lot: 8
Current Zoning: I1: INDUSTRIAL 1 Shoreland Zoning: SP: STREAM PROTECTION
Size of Lot: 15.23 (X)acres ( )s.f. Lot Frontage: ±850'
Existing Use of Property: INDUSTRIAL BUILDING

Property currently serviced by:

__ City Road _X_ Public Sewer _X_ Public Water __ Public Trash
__ Private Road __ Septic System __ Private Well _X_ Private Hauler

Slope Conditions in Area of Construction (if applicable):
__Flat (0-3% slope) _X_Rolling (3-8% slope) __Hilly (8-15% slope) __Steep (15%+ Slope)

Are there any wetlands or waterbodies on the site? _X_ (Yes)__(No) if yes attach information
Is the project within the 100-year floodplain? __ (Yes)_X_(No) if yes attach information
Do you plan to bring fill onto the lot? __(Yes) _X_(No) If yes attach information

Description of proposed use of property:

Project/Proposed Use:

PER PHASE 3 OF THE CITY'S 319 THACHER BROOK GRANT WITH DEP, A 'GRASSED UNDERDRAINED SOIL FILTER' IS PROPOSED IN THE BACKYARD OF STERLING ROPE (±40% OF THE SOIL FILTER IS LOCATED WITHIN THE 100' STREAM BUFFER). THE SOIL FILTER WILL PROVIDE WATER QUALITY FOR THE PRIVATE PROPERTY'S SURFACE RUNOFF BEFORE ENTERING THACHER BROOK.

Property to be Serviced by: NO CHANGES

__ City Road __ Public Sewer __ Public Water __ Public Trash

__ Private Road __ Septic System __ Private Well __ Private Hauler

Limits of Disturbance: 8,800-SF (0.20-AC) ( )acres ( )s.f.

Net change in impervious cover: ZERO ( )acres ( )s.f.

Is this project part of a larger project? __(Yes) X (No)

Is the project proposing a new Private or Public Road? __(Yes, Private) __(Yes, Public) X (No)

Is this project within the Urbanized Area/MS4 (*see City Drainage Map*) X (Yes) __(No)

Is the project proposing any Stormwater facilities/BMPs? X (Yes) __(No)

Will a Traffic Movement Permit (TMP) be required?: __(Yes) X (No)

X **If in a Shoreland Zone:**

Percent of residential lot coverage (Max 20%): N/A

Percent of structure expansion (Max 30%): N/A

__ **If Subdivision Review, number of lots proposed:** _____

__ **If a Private Way is proposed, number of lots served:** _____

If Site Plan Review, you must provide the following information:

Total new square feet footprint of structure: _____

Total new square feet paving/parking: _____

Waiver Requests (attach details):

1. _____
2. _____
3. _____
4. _____
5. _____

Required Submittal Attachments:

A. Letters of Approval

N/A Fire Department – Contact Chief or Deputy Chief – 282-9986

N/A Ability to Serve for Water Service – Maine Water – 282-1543

N/A Ability to Serve for Sewer Service – Engineering Department – Tom Milligan 284-9118

N/A Police Department – e-911 Road Name Designation – Contact Joanne Fisk 282-5127

B. Letter to Planning Board describing project, Waiver requests, proposed improvements, addressing permit requirements, etc.

C. Photographs of Site.

D. Architectural renderings/drawings of proposed buildings, as required.

E. Engineering Plans, as required.

F. Stormwater Management Report, as required.

Fees (Due at time of Submission):

- $75 Nonrefundable Administration Fee is required for every application.
- Refer to "Attachment A Fees and Charges" of the Land Development Regulations for more information. Consult with Planning Staff if you have questions.

Required Signatures:

By signing this application, as the foresaid applicant or authorized agent:

- I certify that I have read and completely understand the application;
- I certify that the information contained in this application and its attachments are true and correct;
- I understand that all information provided on this form and all other documents submitted as part of my proposal is a matter of public record;
- I understand that copies of this information may be supplied upon request to an interested party.
- I understand that additional funds may be required through the course of the review for special studies, legal review costs, and/or engineering review.
- I understand that by submitting an application I am not guaranteed a place on any particular agenda. I further understand that the City Planner will place me on an agenda for review when the application is deemed substantially complete.

Will the proposed project cause 1 acre or more of site disturbance?: __(Yes) X (No)

- **If Yes, applicant is responsible for any required Maine Construction General Permits and shall comply with the requirements of DEP Chapter 500 Stormwater Regulations, as they apply.**

Signature of Applicant: _____ **Date** 10/25/2022

Signature of Property Owner: _____ **Date** 10/28/2022

DIGITAL SUBMITTAL REQUIREMENTS FOR ALL SUBMITTALS:

A) PDF OF SIGNED APPLICATION

B) PDFs OF ALL DRAWING SETS AND OTHER REQUIRED SUBMITTAL ATTACHMENTS NOTED ABOVE

HARD-COPY SUBMITTAL REQUIREMENTS FOR PLANNING BOARD APPLICATIONS:

A) SEVEN (7) FULL-SIZE PAPER COPIES OF DRAWING SETS

DIGITAL SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

A) INDIVIDUALLY NAMED PDFs OF EACH DRAWING (NOT A COMBINED PDF SET)

- Individual Drawing PDF Naming Format: 'PROJECT/SHEETSET NAME_INDIVDUAL DRAWING NAME.pdf'

B) PDF COPIES OF ALL PERMIT APPROVALS, APPLICATIONS, REPORTS, NARRATIVES, LETTERS, ETC.

C) FINAL CAD REFERENCE FILES IN DWG FORMAT (SURVEY & PROPOSED DESIGN LINEWORK)

- All drawings & CAD reference files must be to-scale and within the following coordinate systems:

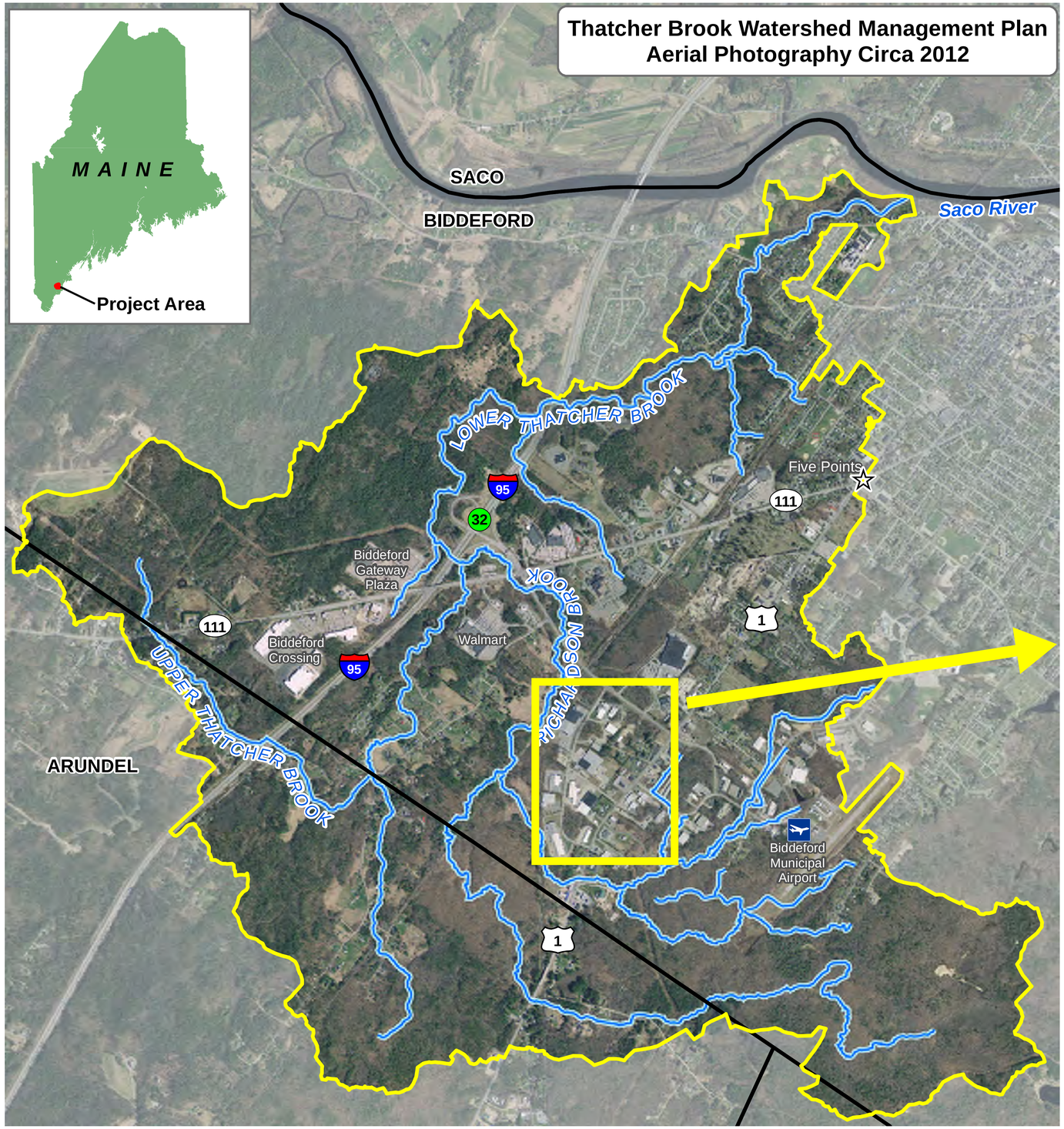
- MAINE STATE PLANE WEST NAD83 (Horizontal Datum) & NAVD88 (Vertical Datum)

HARD-COPY SUBMITTAL REQUIREMENTS FOR FINAL APPROVAL:

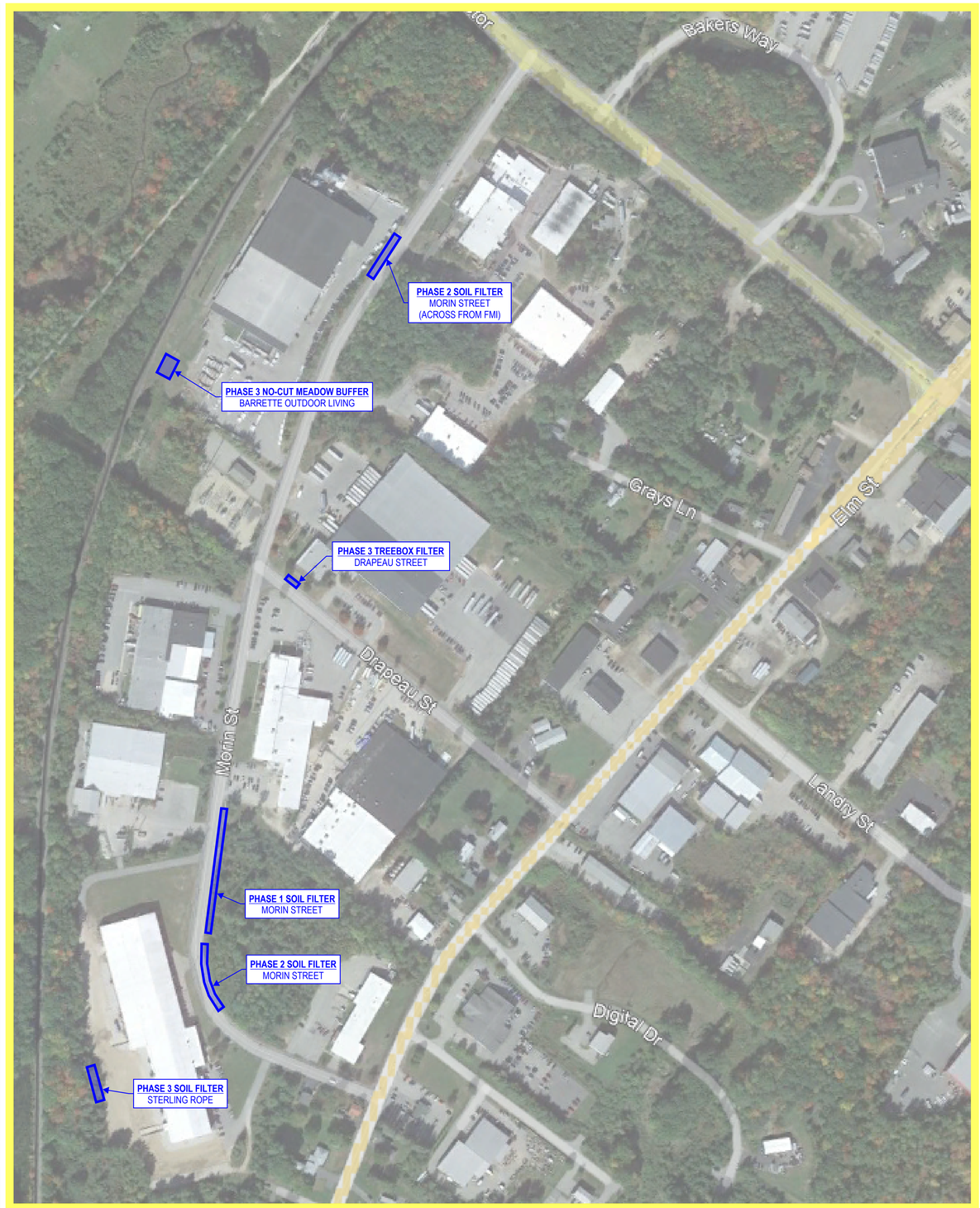
A) THREE (3) FULL-SIZE PAPER COPIES OF INDIVIUDAL DRAWINGS REQUIRING BOARD SIGNATURE

B) ONE (1) FULL-SIZE PAPER COPY OF ENTIRE DRAWING SET FOR ENGINEERING RECORDS

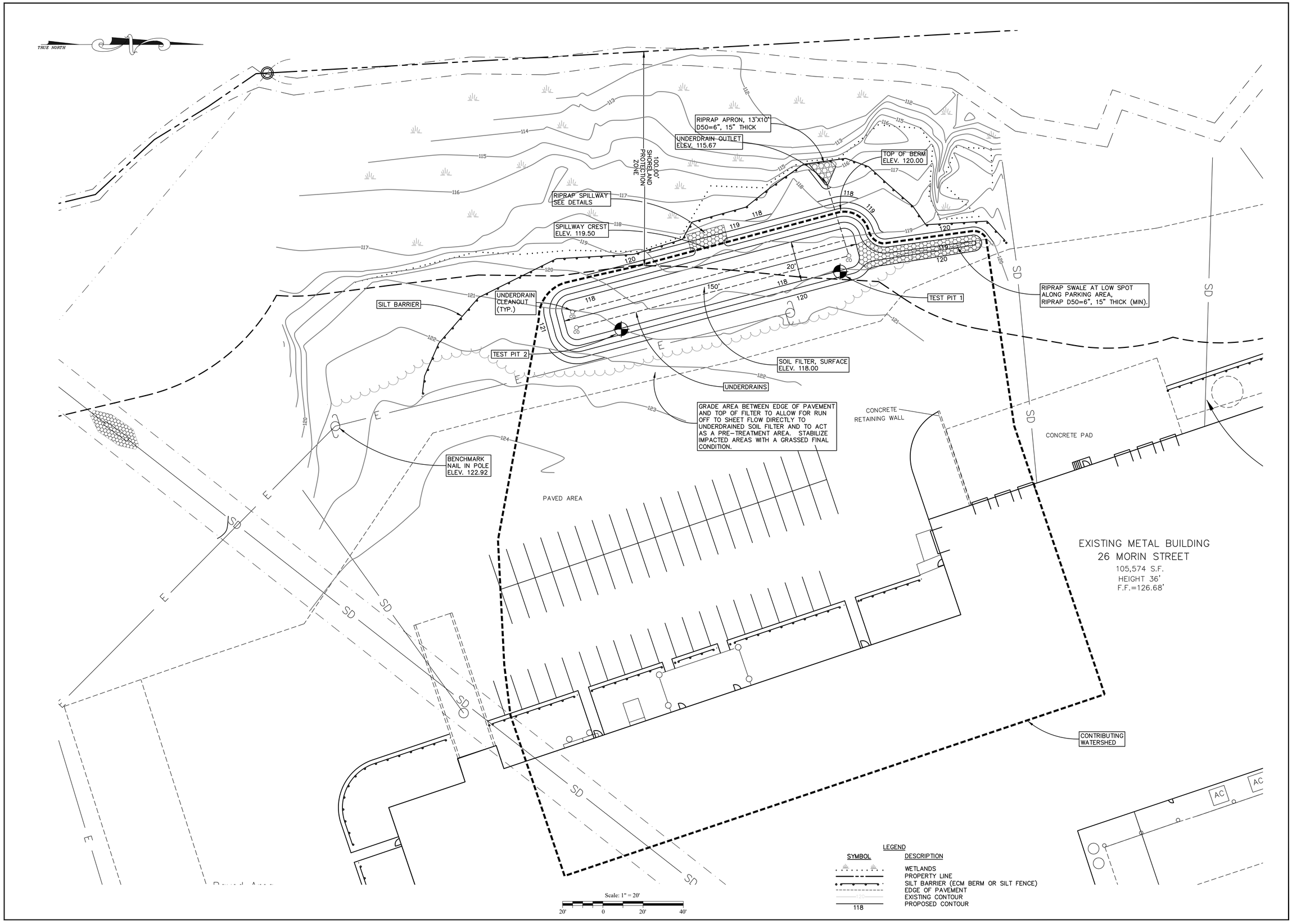
PLEASE CONFIRM WITH PLANNING STAFF FOR CLARIFICATION



OVERALL THACHER BROOK WATERSHED MAP



319 GRANT PROJECTS - MORIN STREET VICINITY



REVISION		
NO.	DATE	DESCRIPTION
1	10-17-22	Issued for Construction and Permitting

STATE OF MAINE
CHRISTOPHER RYAN MACDONALD
No. 11985
LICENSED PROFESSIONAL ENGINEER

BH2M

Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
York County Soil & Water Conservation District
21 Bradeen Street, Suite 104
Springvale, Maine

SITE PLAN

MORIN STREET SOIL FILTER

26 MORIN STREET
BIDDEFORD, MAINE

DESIGNED	DATE
C. MacDonald	September 2022
DRAWN	SCALE
Dept.	1" = 20'
CHECKED	JOB. NO.
C. MacDonald	22164

SHEET
1

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GRASSED UNDERDRAIN SOIL FILTER NOTES

REFERENCES

1. MAINE STORMWATER BEST MANAGEMENT PRACTICES (BMP), VOLUME III BMP TECHNICAL DESIGN MANUAL, CHAPTER 7 FILTRATION BMP'S (LATEST REVISION).

CONSTRUCTION METHODS

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MATERIALS, INSTALLATION, MEANS, METHODS, AND SCHEDULING.
2. ALL WORK SHALL BE IN CONFORMANCE WITH THE PROJECT PLANS AND BMP'S REFERENCED ABOVE.
3. THE SOIL FILTER MEDIA AND VEGETATION SHALL NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURES, 90% VEGETATION COVER OR PERMANENT STABILIZATION.

DE-WATERING PLAN

1. DURING CONSTRUCTION OF THE SITE AND VEGETATED SOIL FILTER, THE CONTRACTOR SHALL BE PREPARED TO IMPLEMENT A DEWATERING PLAN IN ANTICIPATION OF HEAVY RAIN EVENTS.
2. THE AREA OF THE BASIN MAY BE EXCAVATED IN PREPARATION OF THE INSTALLATION OF THE UNDERDRAIN AND MAY BE USED FOR A SEDIMENT TRAP FOR THE SITE DURING CONSTRUCTION. AFTER EXCAVATION OF THE BASIN, THE OUTLET STRUCTURE AND PIPING SYSTEM SHALL BE INSTALLED AT THE APPROPRIATE ELEVATION AND PROTECTED WITH A SEDIMENT BARRIER. THE BASIN IS TO BE USED AS A SEDIMENT TRAP, THE SIDES OF THE EMBANKMENTS MUST BE MULCHED AND MAINTAINED TO PREVENT EROSION.

SOIL MEDIA

1. THE SOIL MEDIA SHALL CONSIST OF SILTY SANDY SOIL OR SOIL MIXTURE COMBINED WITH 20% TO 25% BY VOLUME (NO LESS THAN 10% BY DRY WEIGHT) OF MODERATELY SHREDDED BARK OR WOOD FIBER MULCH.
2. THE SOIL FILTER MEDIA SAND SHALL MEET THE GRADATION IN TABLE 7-2 (MDOT 703.01) WITH ADDITIONAL FINES ADDED IF NECESSARY.
3. THE RESULTING SOIL FILTER MEDIA SHALL HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE AND SHALL HAVE A CLAY CONTENT OF LESS THAN 2%.
4. THE COARSE GRAVEL MATERIAL SHALL MEET THE GRADATION OF TABLE 7.1 (MDOT 703.22 UNDERDRAIN, TYPE B).
5. THE FILTER MEDIA SHALL BE LIGHTLY COMPACTED BY SATURATING THE MEDIA IN 6" TO 9" LIFTS AND SHALL HAVE A PERMEABILITY OF 2.4 IN/HR TO 4 IN/HR.
6. THE CLAY CONTENT SHALL BE < 2%

CONSTRUCTION

1. SOIL FILTER MEDIA, COARSE GRAVEL, AND UNDERDRAIN BEDDING MATERIAL SHALL BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR.
2. PERFORATED UNDERDRAIN PIPE SHALL BE 4" AND 6" SCHEDULE 40 OR SDR 35 PVC PIPE. SPACED 8 FEET AND 4 FEET ON CENTER AS SHOWN ON PLANS.
3. TRIBUTARY AREAS SHALL BE STABILIZED PRIOR TO INSTALLATION OF THE SOIL FILTER MEDIA MIXTURE AND UNDERDRAIN. STABILIZED IS DEFINED AS PAVED IF IN A PARKING AREA OR ROADWAY AND 90% GRASS CATCH IF IN A VEGETATED AREA.
4. OUTFLOW OF THE VEGETATED SOIL FILTER SHALL BE CONTROLLED BY A 2" PLASTIC TYPE 34-6 BALL VALVE WITH TYPE 615 BALL VALVE HANDLE EXTENSION (AVAILABLE FROM E.J. PRESCOTT OR EQUIVALENT). A THREE-PIECE VALVE BOX (AVILABLE FROM E.J. PRESCOTT OR EQUIVALENT) SHALL BE INSTALLED OVER THE VALVE.
5. ALL EQUIPMENT USED WITHIN THE LIMITS OF THE VEGETATED SOIL FILTER SHALL BE LOW GROUND PRESSURE VEHICLES (LESS THAN 2.0 PSI) WHEN FULLY LOADED.
6. IF VEGETATION IS NOT ESTABLISHED WITHIN THE FIRST YEAR, THE CONTRACTOR SHALL INSTALL A 2-3 INCH LAYER OF LOAM (WITH LESS THAN 2% CLAY AS TESTED VIA HYDROMETER TEST) ON THE SURFACE OF THE GRASS FILTER AND RE-SEED/MULCH.
7. THE SURFACE OF THE VEGETATED SOIL FILTER SHALL BE PLANTED WITH A GRASS SPECIES THAT IS TOLERANT OF FREQUENT INUNDATION AND WELL-DRAINED SOILS. UPON SEEDING, THE SURFACES SHALL BE MULCHED WITH HAY OR AN EROSION CONTROL BLANKET BUT SHALL NOT BE FERTILIZED. AN APPROPRIATE SEED MIXTURE SHOULD CONTAIN THE FOLLOWING OR BE AN EQUIVALENT CONSERVATON TYPE MIX:

CREEPING RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
BIRDSFOOT TREFOIL	8 LBS/ACRE
TOTAL	48 LBS/ACRE

TESTING AND SUBMITTALS

1. THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL TESTING RESULTS SHALL BE SUBMITTED TO THE PROJECT ENGINEER.
2. SUBMIT SAMPLES OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILLER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE WILL BE DETERMINED BY TESTING LABORATORY.
3. THE CONTRACTOR SHALL PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM C136 (STANDARD TEST METHODS FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES, 1996A) ON EACH TYPE OF SAMPLE MATERIAL INCLUDING A HYDROMETER TEST FOR CLAY CONTENT.
4. THE CONTRACTOR SHALL PERFORM A PERMEABILITY TEST ON THE SOIL MEDIA MIXTURE CONFORMING TO ASTM D2434.
5. THE CONTRACTOR SHALL PERFORM ONE COMPACTION DENSITY TEST ON THE IN-PLACE SOIL FILTER MEDIA FOR EVERY 1,500 S.F. OF BED OR FRACTION THEREOF. THE TEST SHALL CONFORM TO ASTM 2922.
6. UPON COMPLETION OF THE VEGETATED SOIL FILTER MEDIA AND THE ESTABLISHMENT OF 90% CATCH OF GRASS OVER THE FILTER MEDIA, THE CONTRACTOR SHALL FLOOD THE VEGETATED BASIN TO THE SPILLWAY WITH CLEAR WATER AND ADJUST THE OUTFLOW TO OBTAIN A 24-HOUR TO 32-HOUR RELEASE TIME.

CONSTRUCTION OVERSIGHT

1. THE CONTRACTOR SHALL MEET THE "CONSTRUCTION OVERSIGHT" SECTION OF CHAPTER 7, FILTRATION BMP'S (REVISED MAY 2016) OF THE STORMWATER MANAGEMENT FOR MAINE, VOLUME III, BMP'S TECHNICAL DESIGN MANUAL.
2. THE DESIGN ENGINEER SHALL BE CONDUCTING PERIODIC SITE OVERSIGHT OF THE CONSTRUCTION AS DESCRIBED BELOW AND IN COMPLIANCE WITH THE PERMITS.
3. THE ENGINEER SHALL REVIEW AND APPROVE ALL CONTRACTOR SUBMITTALS.
4. THE CONTRACTOR SHALL GIVE THE ENGINEER A PROPOSED CONSTRUCTION SCHEDULE AND A 48-HOUR NOTICE FOR ALL SITE VISITS.
5. INSPECTIONS SHALL INCLUDE:
   - PRE-CONSTRUCTION MEETING WITH CONTRACTOR
   - INSPECTION OF EXCAVATION IF USED FOR SEDIMENT TRAP
   - INSPECTION OF EXCAVATED HOLE.
   - AFTER PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACK-FILLED.
   - AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO INSTALLATION OF THE FILTER MEDIA.
   - AFTER FILTER MEDIA HAS BEEN INSTALLED AND SEEDED.
   - AFTER ONE YEAR TO INSPECT VEGETATION UPTAKE AND OBSERVE
   - FLOODING TEST.

LEVEL SPREADER STONE SIZE

SIEVE DISIGNATION METRIC	SIEVE DISIGNATION US CUSTOMARY	% BY WEIGHT PASSING SQUARE MESH SIEVES
300 MM	12"	100
150 MM	6"	84–100
75 MM	3"	68–83
25.4 MM	1"	42–55
4.75 MM	NO. 4	8–12

TABLE 7-1
UNDERDRAIN SPECS.
MDOT #703.22

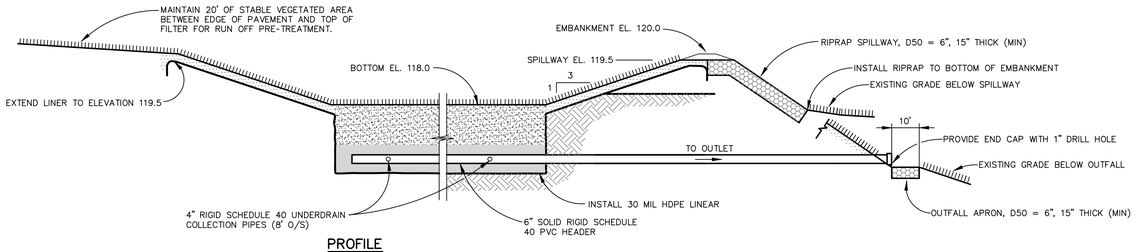
SIEVE SIZE	% BY WEIGHT
UNDERDRAIN TYPE B	
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5
SIEVE SIZE	% BY WEIGHT
UNDERDRAIN TYPE C	
1"	100
3/4"	90-100
3/8"	0-75
#4	0-25
#10	0-5

TABLE 7-2
AGGREGATE SPECS.
MDOT #703.01

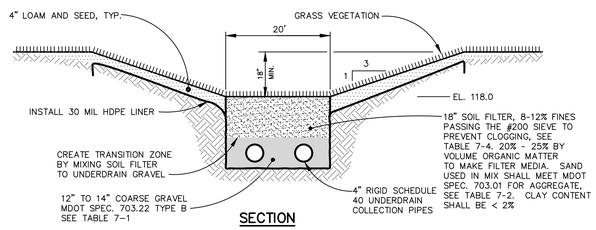
SIEVE SIZE	% BY WEIGHT
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#60	10-30
#100	2-10
#200	0-5

TABLE 7-4
COARSE LOAMY SAND SIEVE ANALYSIS SPECIFICATION

SIEVE #	% PASSING BY WEIGHT
#10	85-100
#20	70-100
#60	15-40
#200	8-15



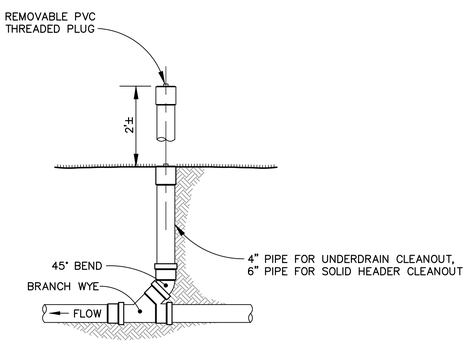
PROFILE



SECTION

GRASSED UNDERDRAIN SOIL FILTER

NTS



CLEANOUT DETAIL

N.T.S.

NO.	DATE	REVISION DESCRIPTION
1	10-17-22	Issued for Construction and Permitting

STATE OF MAINE
CHRISTOPHER RYAN MACDONALD
No. 11985
LICENSED
PROFESSIONAL ENGINEER

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
York County Soil & Water Conservation District
21 Bradeen Street, Suite 104
Springvale, Maine

GRASSED UNDERDRAINED SOIL FILTER DETAILS

MORIN STREET SOIL FILTER

26 MORIN STREET
BIDDEFORD, MAINE

DESIGNED	DATE
C. MacDonald	September 2022
DRAWN	SCALE
Dept.	As Noted
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EROSION AND SEDIMENT CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF TO THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS.

THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.

1. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND PERMIT CONDITIONS. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK, AND PRIOR TO AND 24 HOURS AFTER A WET WEATHER EVENT (0.5 INCHES OR MORE IN A 24 HOUR PERIOD). CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 5 YEARS.
2. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE THE EROSION AND SEDIMENTATION CONTROL MEASURES AS WELL AS DISTURBED AREAS, MATERIAL STORAGE AREAS, AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S", DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION.
4. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
5. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRES OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
6. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY.
7. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION.
8. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.
9. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. SEE E.C. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #7. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER.
10. ALL ERSOION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL (0.5 INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSURE. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION IS 90% GRASS CATCH IN VEGETATED AREAS.
11. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5 TO 1).
12. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
13. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS.
14. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.
15. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
   a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
   b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P205-K20) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SQ. FT.).
   c. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS: SEEDING RATE IS 1.03 LBS PER 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED. SEED MIX SHALL CONTAIN 10% ANNUAL RYE GRASS.
   d. HAY MULCH AT THE RATE OF 70-90 LBS PER 1000 SQUARE FEET FOR OVER 75% COVERAGE. FOR UNPROTECTED OR WINDY AREAS, ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./BLOCK). HYDRAULIC MULCHES MAY ALSO BE USED, APPLIED AT A RATE OF 5 LBS PER 1000 SQUARE FEET FOR PAPER MULCH OR 40 LBS PER 1000 SQUARE FEET OR AS DIRECTED BY THE MANUFACTURER. ON SLOPES GREATER THAN 3:1 EROSION CONTROL MIX MAY BE USED, SEE EROSION CONTROL MIX NOTES BELOW.
   e. FOR DISTURBED AREAS TO BE MAINTAINED IN POST-CONSTRUCTION AS A MEADOW BUFFER, APPLY NEW ENGLAND CONSERVATION WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OF AMHERST, MASSACHUSETTS OR APPROVED EQUAL.
16. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 90% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES AND SWALES AS SHOWN IN DETAILS.
17. WETLANDS WILL BE PROTECTED WITH EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE FOR THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION.
18. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED DOWNGRADIENT OF ALL STOCKPILES.
19. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WET PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS DURING CONSTRUCTION WITHOUT SPECIAL PROTECTION AND/OR RESTORATION.

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS):

SEASON	SEED	RATE
SUMMER (5/15 – 8/15)	SUDANGRASS	40 LBS/ACRE
	OATS	80 LBS/ACRE
LATE SUMMER/EARLY FALL (8/15 – 9/15)	PERENNIAL RYEGRASS	40 LBS/ACRE
FALL (9/15 – 11/1)	WINTER RYE	112 LBS/ACRE
WINTER (11/1 – 4/1)	MULCH W/ DORMANT SEED	80 LBS/ACRE**
SPRING (4/1 – 7/1)	OATS	80 LBS/ACRE
	ANNUAL RYEGRASS	40 LBS/ACRE

**SEED RATE ONLY

EROSION CONTROL MIX

EROSION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND SEDIMENTATION CONTROL BMP MANUAL. ECM IS ACCEPTABLE FOR USE ON SLOPES OF GREATER THAN 3:1 BUT LESS THAN 1:1. ECM SHALL CONSIST OF WELL-GRADED ORGANIC COMPONENT 50 – 100% OF DRY WEIGHT, AND COMPRISED OF FIBROUS AND ELONGATED FRAGMENTS. ECM SHALL BE FREE FROM REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR CONSTRUCTION DEBRIS. ECM SHALL BE EVENLY DISTRIBUTED AND APPLIED AT A THICKNESS OF 2" ON 3:1 SLOPES, WITH AN ADDITIONAL 1/2" PER 20' OF SLOPE FOR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 3:1, ECM SHALL BE APPLIED AT THICKNESS OF 4" OR 5" FOR SLOPES GREATER THAN 60' IN LENGTH.

SLOPES GREATER THAN 3:1 MAY ALSO REQUIRE ADDITIONAL SLOPE STABILIZATION DEPENDING ON UPGRADIENT RUNOFF AND OTHER SITE SPECIFIC CONDITIONS. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION.

EROSION CONTROL DURING CONSTRUCTION

WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15
2. OVERWINTER STABILIZATION OF DITCHES AND CHANNELS:
   ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.
   A. INSTALL A SOD LINING IN THE DITCH:
      A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.
   B. INSTALL A STONE LINING IN THE DITCH:
      A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
3. OVERWINTER STABILIZATION OF DISTURBED SLOPES:
   ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS. BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.
   A. STABILIZE THE SOIL WITH SOD:
      THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
   B. STABILIZE THE SOIL WITH EROSION CONTROL MIX:
      EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE EROSION CONTROL MIX NOTES FOR ADDITIONAL CRITERIA.
   C. STABILIZE THE SOIL WITH STONE RIPRAP:
      PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.
4. OVERWINTER STABILIZATION OF DISTURBED SOILS:
   BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
   A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION:
      BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 90% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.
   B. STABILIZE THE SOIL WITH SOD:
      STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLINIG THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
   C. STABILIZE THE SOIL WITH MULCH:
      BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL. PROVIDE NETTING ON ALL SLOPES GREATER THAN 8%.
5. MAINTENANCE:
   IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A WEEK AND BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

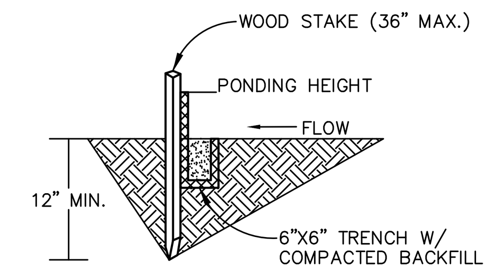
   STABILIZATION SCHEDULE BEFORE WINTER:

SEPTEMBER 15	ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. ALL GRASS LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION CONTROL BLANKET
OCTOBER 1	IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDED. ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDED AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED.
NOVEMBER 15	ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.

6. DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
7. AREAS WITHIN 75 FEET OF STREAMS, WETLANDS, AND OTHER PROTECTED NATURAL RESOURCES THAT ARE NOT STABILIZED WITH VEGETATION BY DEC. 1 SHALL BE MULCHED AND ANCHORED WITH NETTING. IF WORK CONTINUES IN THIS AREA DURING THE WINTER, A DOUBLE LINE OF SEDIMENT BARRIERS MUST BE USED.

HOUSEKEEPING

1. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS 1. ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
2. GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY, AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
3. FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MY NOT BE USED FOR DUST CONTROL. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUMED IMMEDIATELY AND PRIOR TO THE NEXT SIGNIFICANT STORM EVENT.
4. DEBRIS AND OTHER MATERIALS: LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
5. TRENCH OR FOUNDATION DE-WATERING: TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
6. NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:
   - DISCHARGES FROM FIREFIGHTING ACTIVITY;
   - FIRE HYDRANT FLUSHINGS;
   - VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
   - DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3) OF MAINE DEP 06-096 CHAPTER 500;
   - ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
   - PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
   - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
   - UNCONTAMINATED GROUNDWATER OR SPRING WATER;
   - FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
   - UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5) MAINE DEP 06-096 CHAPTER 500);
   - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
   - LANDSCAPE IRRIGATION.
7. UNAUTHORIZED NON-STORMWATER DISCHARGES: THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C(6) MAINE DEP 06-096 CHAPTER 500. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
   - WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
   - FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
   - SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
   - TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.
8. ADDITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.



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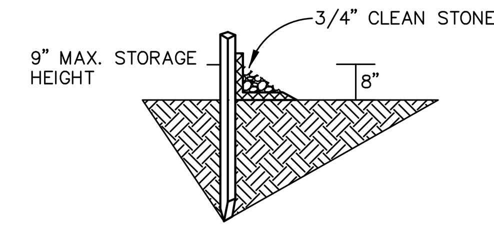

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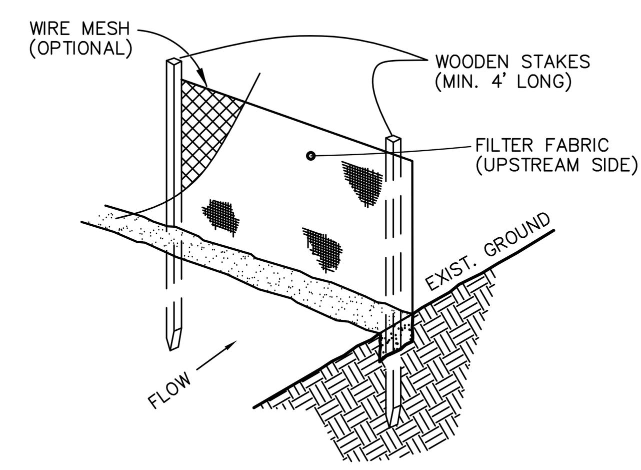
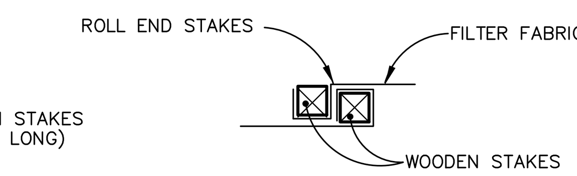




END POST DETAIL

NTS

1. KEY FABRIC IN A 6"X6" TRENCH W/ BACKFILL.
2. SILT FENCE SHALL BE A 3' FENCE OF 120LB/M (W/ REINF. BACK OF 6" WIRE MESH, POSTS 6' O.C. MAX) OR 200LB/M (W/ NO REINF. POSTS 6' O.C. MAX)

SILT FENCE DETAIL

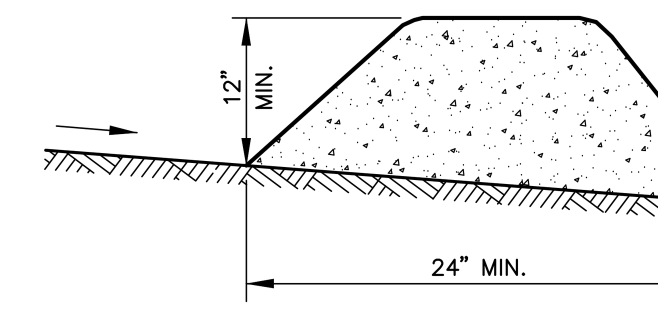
N.T.S.

NOTE:

SILT FENCE OR EROSION CONTROL MIX BERM CAN BE USED INTERCHANGEABLY BASED ON APPROPRIATE SITE CONDITIONS AND MATERIAL AVAILABILITY.

PLACE BARRIER ALONG RELATIVELY LEVEL CONTOUR.
ECM BERM PROHIBITED AT THE BASE OF SLOPES > 8% OR WHERE THERE IS FLOWING WATER.
SEE MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS FOR INSTALLATION INSTRUCTIONS.

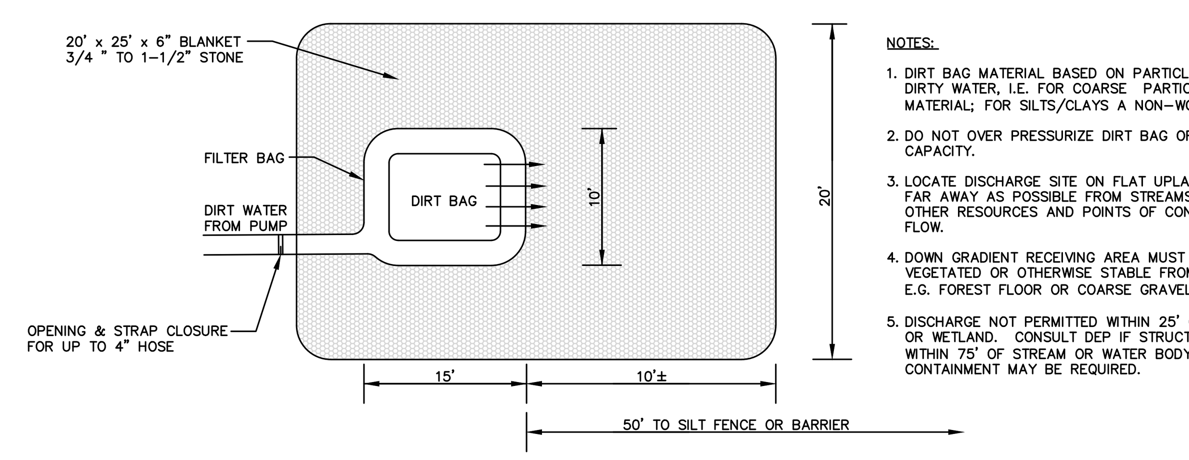
EROSION CONTROL MIX SHOULD CONTAIN A WELL GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. ECM SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINATES, AND MATERIAL TOXIC TO PLANT GROWTH.



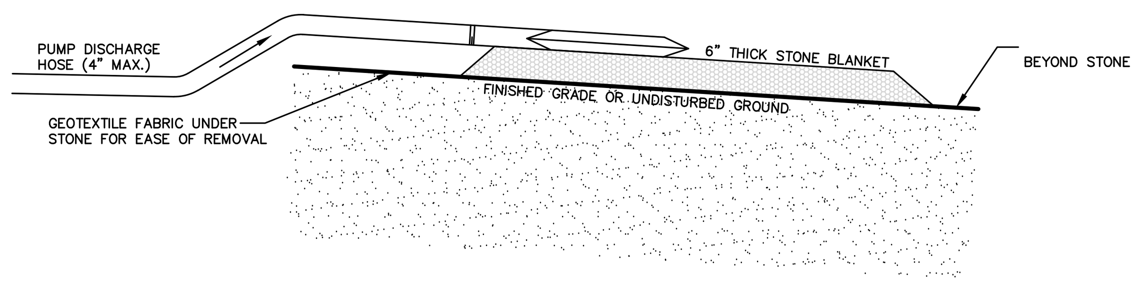
- -ORGANIC MATTER > 80% DRY WEIGHT
- -PARTICLE SIZE BY WEIGHT: 100% PASSING 6" SCREEN
  75-85% PASSING 0.75" SCREEN
- -ORGANIC PORTION TO BE FIBROUS & ELONGATED
- -SOLUBLE SALT CONTENT < 4.0 MMOHS/CM.
- -pH TO BE BETWEEN 5.0 & 8.0

EROSION CONTROL MIX BERM

NTS



TOP VIEW

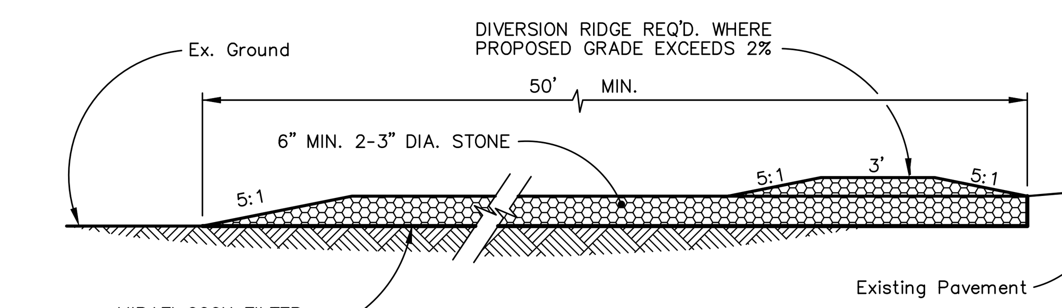


SIDE VIEW

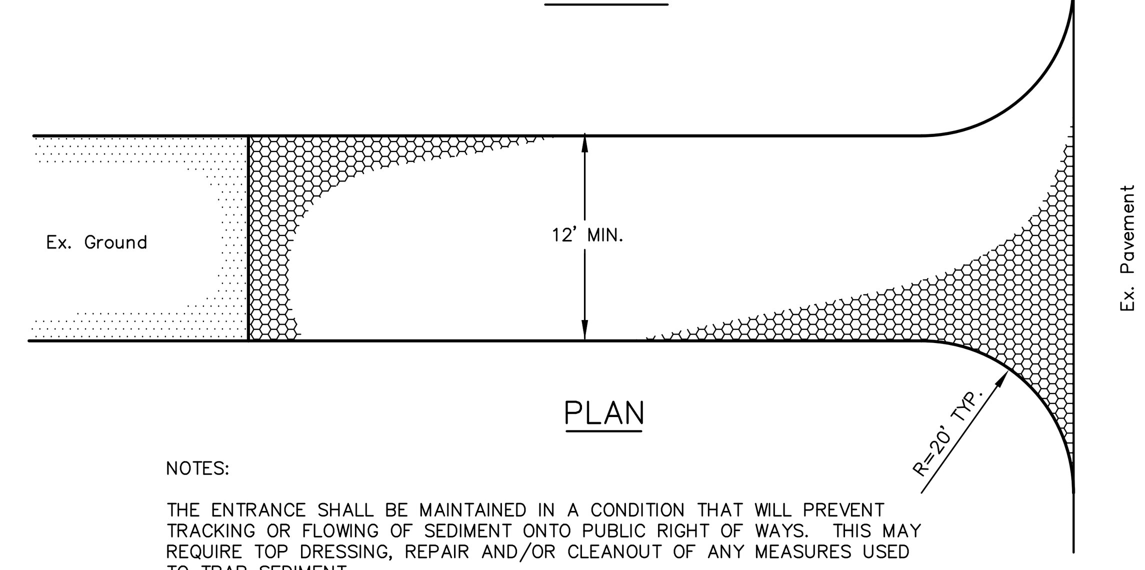
NOTES:

1. DIRT BAG MATERIAL BASED ON PARTICLE SIZE IN DIRTY WATER, I.E. FOR COARSE PARTICLES A WOVEN MATERIAL; FOR SILTS/CLAYS A NON-WOVEN MATERIAL.
2. DO NOT OVER PRESSURIZE DIRT BAG OR USE BEYOND CAPACITY.
3. LOCATE DISCHARGE SITE ON FLAT UPLAND AREAS AS FAR AWAY AS POSSIBLE FROM STREAMS, WETLANDS, OTHER RESOURCES AND POINTS OF CONCENTRATED FLOW.
4. DOWN GRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION, E.G. FOREST FLOOR OR COARSE GRAVEL/STONE.
5. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND. CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF STREAM OR WATER BODY. SECONDARY CONTAINMENT MAY BE REQUIRED.

PUMPED DISCHARGE SEDIMENT CONTROL DEVICE ("DIRT BAG")



PROFILE



PLAN

NOTES:

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY.

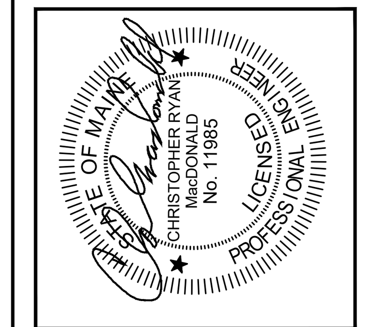
WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

NTS

REVISION

NO.	DATE	DESCRIPTION
1	10-17-22	Issued for Construction and Permitting



BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
York County Soil & Water Conservation District
21 Bradeen Street, Suite 104
Springvale, Maine

EROSION & SEDIMENTATION CONTROL DETAILS

MORIN STREET SOIL FILTER

26 MORIN STREET
BIDDEFORD, MAINE

DESIGNED	DATE
C. MacDonald	September 2022
DRAWN	SCALE
Dept.	As Noted
CHECKED	JOB. NO.
C. MacDonald	22164

SHEET

3

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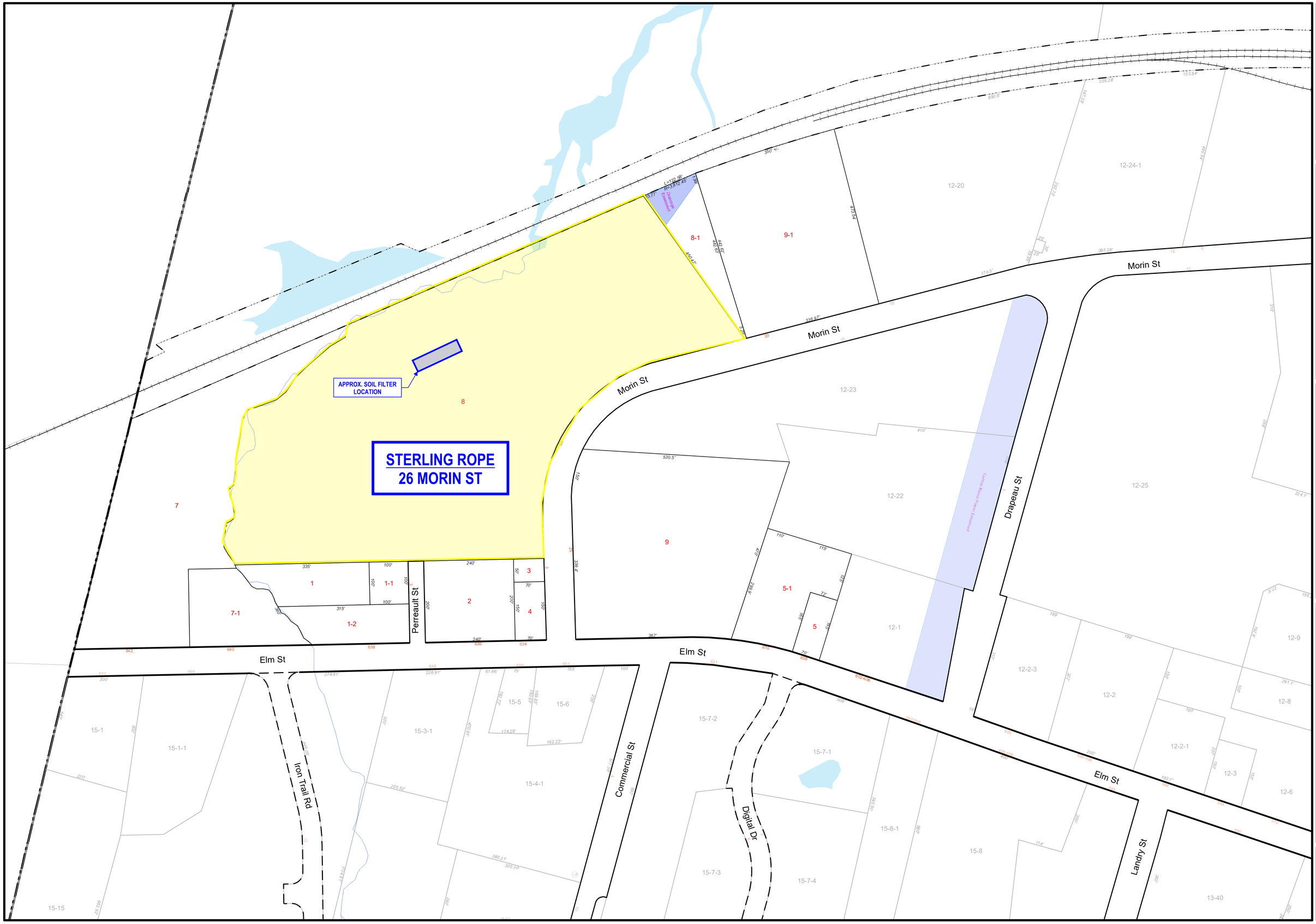


North is based on the Maine State Coordinate System NAD 1983

North Rotation is 290°

1 inch = 100 feet

100 0 100 200 300 Feet

UPDATED THROUGH APRIL 1, 2020

FOR ASSESSMENT PURPOSES ONLY
NOT TO BE USED FOR CONVEYANCES

The City of Biddeford, Maine

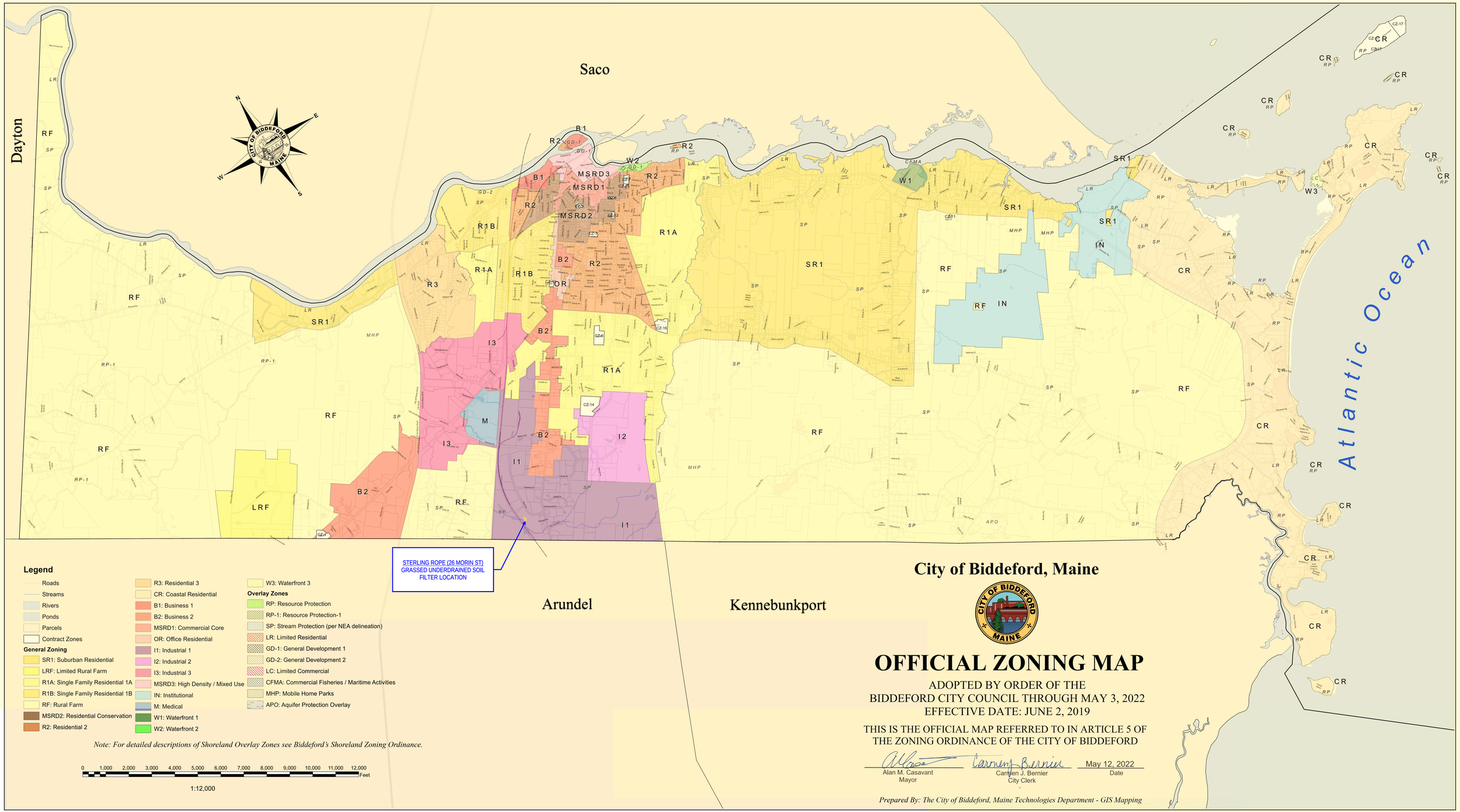
OFFICIAL TAX MAP

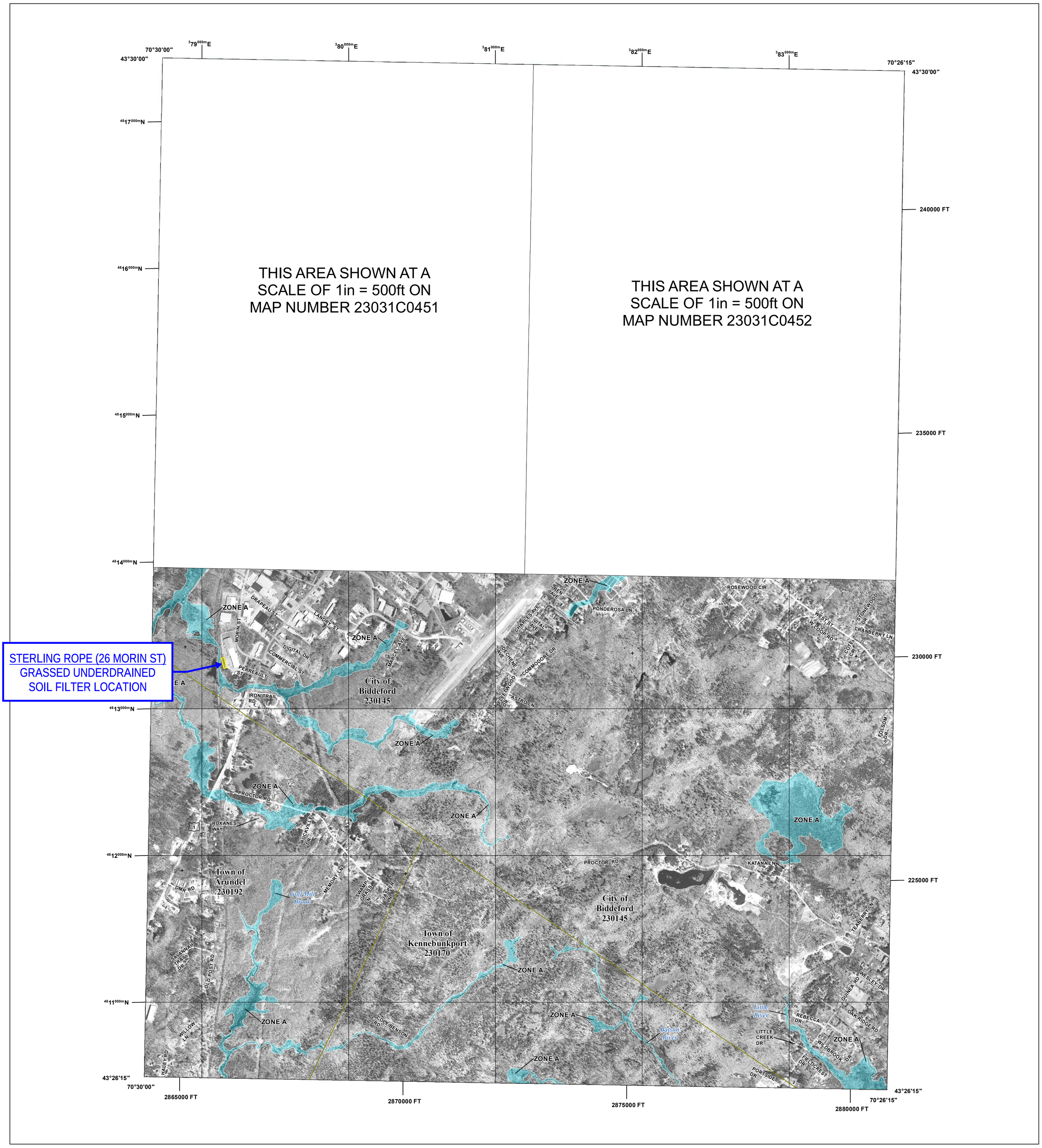
Office of The Tax Assessor
Nicholas D. Desjardins, CMA
Assessor

This Map is Prepared By
The City of Biddeford, Maine
Technology Department
GIS Division
205 Main Street · P.O. Box 586 · Biddeford, Maine 04005
207- 571-0660 · gis@biddefordmaine.org

11

Tax Map


Saco
Dayton
Arundel
Kennebunkport
Atlantic Ocean
STERLING ROPE (26 MORIN ST)
GRASSED UNDERDRAINED SOIL
FILTER LOCATION
Legend
Roads
Streams
Rivers
Ponds
Parcels
Contract Zones
General Zoning
SR1: Suburban Residential
LRF: Limited Rural Farm
R1A: Single Family Residential 1A
R1B: Single Family Residential 1B
RF: Rural Farm
MSRD2: Residential Conservation
R2: Residential 2
R3: Residential 3
CR: Coastal Residential
B1: Business 1
B2: Business 2
MSRD1: Commercial Core
OR: Office Residential
I1: Industrial 1
I2: Industrial 2
I3: Industrial 3
MSRD3: High Density / Mixed Use
IN: Institutional
M: Medical
W1: Waterfront 1
W2: Waterfront 2
W3: Waterfront 3
Overlay Zones
RP: Resource Protection
RP-1: Resource Protection-1
SP: Stream Protection (per NEA delineation)
LR: Limited Residential
GD-1: General Development 1
GD-2: General Development 2
LC: Limited Commercial
CFMA: Commercial Fisheries / Maritime Activities
MHP: Mobile Home Parks
APO: Aquifer Protection Overlay
Note: For detailed descriptions of Shoreland Overlay Zones see Biddeford's Shoreland Zoning Ordinance.
0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000 12,000 Feet
1:12,000
City of Biddeford, Maine
OFFICIAL ZONING MAP
ADOPTED BY ORDER OF THE
BIDDEFORD CITY COUNCIL THROUGH MAY 3, 2022
EFFECTIVE DATE: JUNE 2, 2019
THIS IS THE OFFICIAL MAP REFERRED TO IN ARTICLE 5 OF
THE ZONING ORDINANCE OF THE CITY OF BIDDEFORD
Alan M. Casavant
Mayor
Carmen J. Bernier
City Clerk
May 12, 2022
Date
Prepared By: The City of Biddeford, Maine Technologies Department - GIS Mapping



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTP://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A,V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
	Area with Flood Risk due to Levee *Zone D*
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard *Zone X*
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	E 18.2 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM provided in digital format by State of Maine, Maine office of GIS (MeGIS). This information was derived from MeGIS, dated 2012.

The AE Zone category has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LiMWA (or between the shoreline and the LiMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Limit of Moderate Wave Action (LiMWA)

SCALE

N

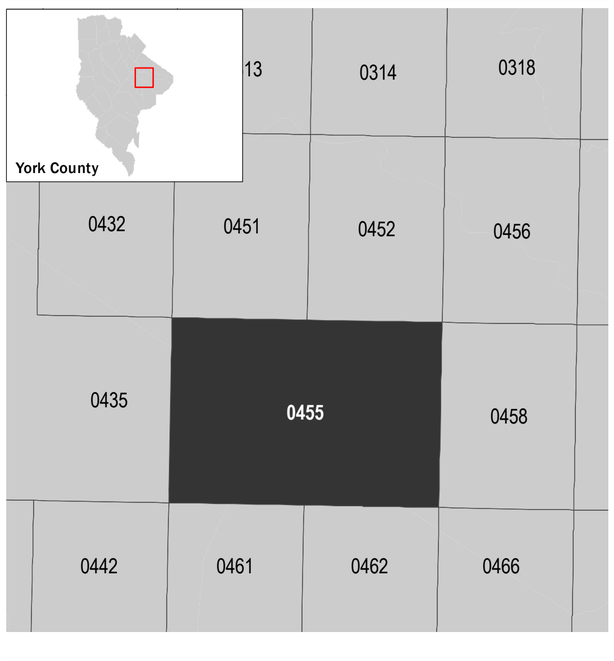
Map Projection:
NAD 1983 UTM Zone 19N;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 Feet

0 250 500 1,000 Meters

PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

YORK COUNTY, MAINE
(ALL JURISDICTIONS)

PANEL **455** OF **800**

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
ARUNDEL, TOWN OF	230192	0455	G
BIDDEFORD, CITY OF	230145	0455	G
KENNEBUNKPORT, TOWN OF	230170	0455	G

REVISED PRELIMINARY 4/14/2017

VERSION NUMBER
2.3.2.1

MAP NUMBER
23031C0455G

EFFECTIVE DATE

Grassed Underdrain Soil Filter Calculations

Subcatchment ID	Proposed Impervious Area (ft^2)	WQ Impervious Area Runoff Depth (inches)	WQ Impervious Volume Required (ft^3)	Proposed Landscaped Area (ft^2)	WQ Landscape Area Runoff Depth (inches)	WQ Landscape Volume Required (ft^3)	Total WQ Volume Required (ft^3)
Grassed	0	1.00	0	11,231	0.40	374	374
Roof Impervious	19,833	1.00	1,653	0	0.40	0	1,653
Non-Roof Impervious	40,049	1.00	3,337	0	0.40	0	3,337
Total	**59,882**		**4,990**	**11,231**		**374**	**5,364**

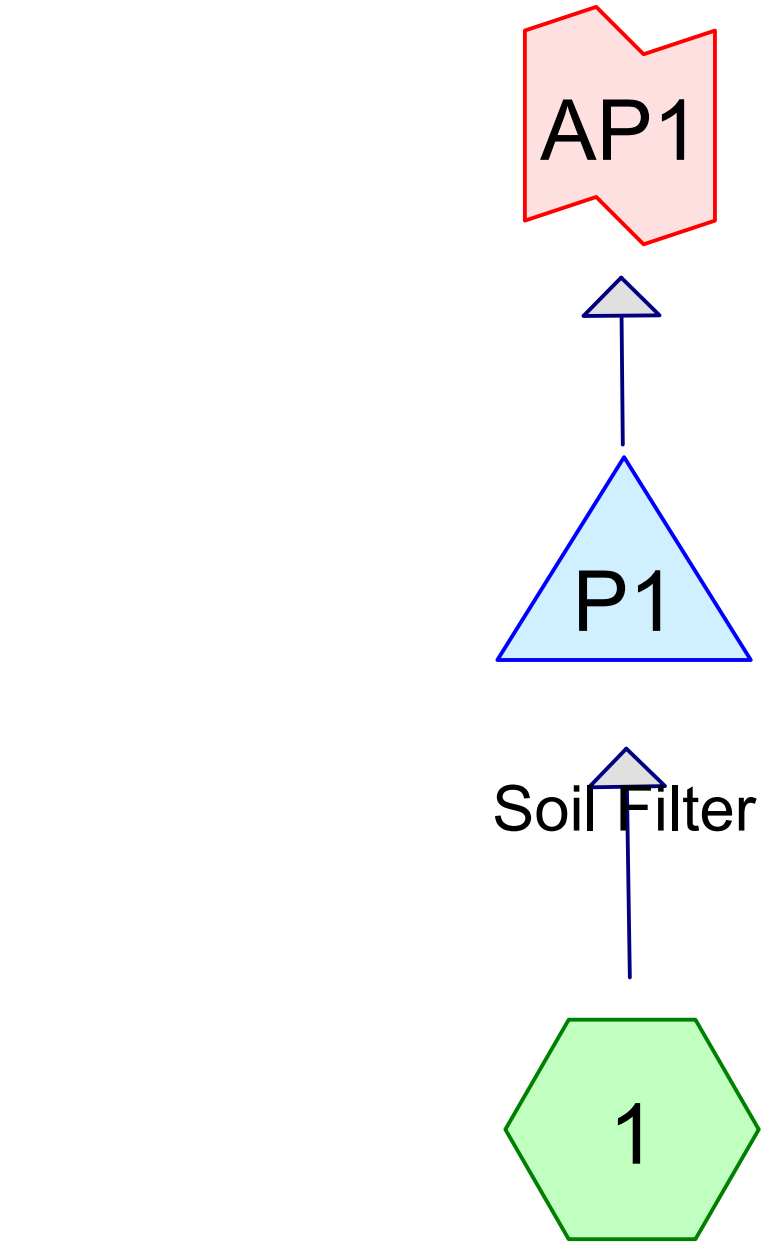
Summary of Underdrain Filter Sizing		
Total WQ Volume Required (ft^3)	**5,364**	
WQ Volume Provided (ft^3)	5,624	**OK**
Filter Surface Elevation	118.00	
WQ Surface Elevation	119.50	
Invert of Underdrain	115.67	
~~5% of Tributary Impervious Area (ft^2)~~	~~2,994~~	
~~2% of Tributary Landscaped (ft^2)~~	~~225~~	
~~Filter Surface Area Required (ft^2)~~	~~**3,219**~~	
~~Filter Surface Area Provided (ft^2)~~	~~2,979~~	

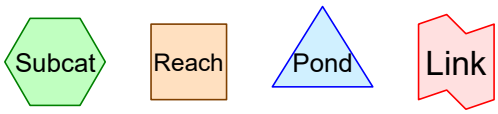
Underdrain Filter Volume				
Elevation	Surface Area (ft^2)	Average Stage Area (ft^2)	Stage Volume (ft^3)	Cumulative Volume (ft^3)
118	2,979			0
		3,490	3,490	
119	4,001			3,490
		4,268	2,134	
119.5	4,534			5,624
		4,807	2,404	
120	5,080			8,027
Water Quality Volume Provided (at Elevation 119.5) =				**5,624**

Orifice Sizing	
Discharge Coefficient	0.62
Orifice Size (inches)	1
Orifice Size (feet)	0.08
Orifice Area (ft^2)	0.005
Orifice Centerline Elevation	115.92

Orifice Eqn: $C*A*(2gH)^{\wedge 1/2}$

Q (cfs)	Stage Elevation	Total Drawdown at Stage	Pond Area	Drawdown Time (hrs)
0.0391	118	0.00	2,979	0.00
0.0476	119	1.00	4,001	23.35
0.0513	119.5	0.50	5,080	13.75
			Total Drawdown Time =	**37.11**





Routing Diagram for Morin Street Filter
Prepared by BH2M, Printed 10/14/2022
HydroCAD® 10.00-22 s/n 02712 © 2018 HydroCAD Software Solutions LLC

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: Runoff Area=71,113 sf 84.21% Impervious Runoff Depth>5.27"
Tc=6.0 min CN=95 Runoff=9.51 cfs 0.717 af

Pond P1: Soil Filter Peak Elev=119.88' Storage=10,193 cf Inflow=9.51 cfs 0.717 af
Outflow=8.79 cfs 0.521 af

Link AP1: Inflow=8.79 cfs 0.521 af
Primary=8.79 cfs 0.521 af

Total Runoff Area = 1.633 ac Runoff Volume = 0.717 af Average Runoff Depth = 5.27"
15.79% Pervious = 0.258 ac 84.21% Impervious = 1.375 ac

Summary for Subcatchment 1:

Runoff = 9.51 cfs @ 12.09 hrs, Volume= 0.717 af, Depth> 5.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.20"

Area (sf)	CN	Description
59,882	98	Paved parking, HSG A
11,231	80	>75% Grass cover, Good, HSG D
71,113	95	Weighted Average
11,231		15.79% Pervious Area
59,882		84.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Assumed**

Summary for Pond P1: Soil Filter

Inflow Area = 1.633 ac, 84.21% Impervious, Inflow Depth > 5.27" for 25-YR event
Inflow = 9.51 cfs @ 12.09 hrs, Volume= 0.717 af
Outflow = 8.79 cfs @ 12.12 hrs, Volume= 0.521 af, Atten= 8%, Lag= 2.1 min
Primary = 8.79 cfs @ 12.12 hrs, Volume= 0.521 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 119.88' @ 12.12 hrs Surf.Area= 7,926 sf Storage= 10,193 cf

Plug-Flow detention time= 123.9 min calculated for 0.519 af (72% of inflow)
Center-of-Mass det. time= 60.5 min (802.3 - 741.8)

Volume	Invert	Avail.Storage	Storage Description
#1	118.00'	8,027 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	115.67'	2,776 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
			6,941 cf Overall x 40.0% Voids
		10,804 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
118.00	2,979	0	0
119.00	4,001	3,490	3,490
119.50	4,534	2,134	5,624
120.00	5,080	2,404	8,027

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.67	2,979	0	0
118.00	2,979	6,941	6,941

Device	Routing	Invert	Outlet Devices
#1	Primary	119.50'	**15.0' long x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=8.55 cfs @ 12.12 hrs HW=119.87' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Weir Controls 8.55 cfs @ 1.53 fps)

Summary for Link AP1:

Inflow Area = 1.633 ac, 84.21% Impervious, Inflow Depth > 3.83" for 25-YR event
Inflow = 8.79 cfs @ 12.12 hrs, Volume= 0.521 af
Primary = 8.79 cfs @ 12.12 hrs, Volume= 0.521 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT BY RULE NOTIFICATION FORM
(For use with DEP Regulation, Natural Resouces Protection Act - Permit by Rule Standards, Chapter 305)

APPLICANT INFORMATION (Owner)		AGENT INFORMATION (If Applying on Behalf of Owner)	
Name:	Morin Maine LLC	Name:	Shri Verrill: York County SWCD
Mailing Address:	89 Beacon St	Mailing Address:	21 Bradeen St.
Mailing Address:		Mailing Address:	Suite 304
Town/State/Zip:	Marblehead, MA 01945	Town/State/Zip:	Springvale, ME 04083
Daytime Phone #:	(781) 248-1737 Ext:	Daytime Phone #:	(207) 432-3516 Ext:
Email Address:	Peter.schwarzenbach@outlook.com	Email Address:	sverrill@yorkswcd.org

PROJECT INFORMATION

Part of a larger project? (check 1):	☐ Yes ☑ No	After the Fact? (check 1):	☐ Yes ☑ No	Project involves work below mean low water? (check 1):	☐ Yes ☑ No	Name of waterbody:	Thatcher Brook
Project Town:	Biddeford	Town Email Address:	craig.chekan@biddefordmaine.org			Map and Lot Number:	Parcel 11/8
Brief Project Description:	Installation of a underdrained soil filter to treat stormwater runoff from parking lot.						
Project Location & Brief Directions to Site:	26 Morin St Biddeford. From I-95S take exit 32. Continue straight onto Biddeford Connector, turn right in 0.5mi onto Morin St. Property will be on the right in 0.6mi.						

PERMIT BY RULE (PBR) SECTIONS (Check at least one): I am filing notice of my intent to carry out work that meets the requirements for Permit-by-Rule (PBR) under DEP Rules, Chapter 305. I and my agent(s), if any, have read and will comply with all of the standards in the Sections checked below.

- ☑ **Sec. (2) Act. Adj. to Prot. Natural Res.**
- ☐ **Sec. (3) Intake Pipes**
- ☐ **Sec. (4) Replacement of Structures**
- ☐ **Sec. (6) Movement of Rocks or Veg.**
- ☐ **Sec. (7) Outfall Pipes**
- ☐ **Sec. (8) Shoreline Stabilization**
- ☐ **Sec. (9) Utility Crossing**
- ☐ **Sec. (10) Stream Crossing**
- ☐ **Sec. (11) State Transportation Facilities**
- ☐ **Sec. (12) Restoration of Natural Areas**
- ☐ **Sec. (13) F&W Creat./Water Qual. Improv.**
- ☐ **Sec. (15) Public Boat Ramps**
- ☐ **Sec. (16) Coastal Sand Dune Projects**
- ☐ **Sec. (17) Transfer/Permit Extension**
- ☐ **Sec. (18) Maintenance Dredging**
- ☐ **Sec. (19) Act. Near SVP Habitat**
- ☐ **Sec. (20) Act. Near Waterfowl/Bird Habitat**

NOTE: Municipal permits also *may* be required. Contact your local code enforcement office for information. Federal permits may be required for stream crossings and for projects involving wetland fill. Contact the Army Corps of Engineers at the Maine Project Office for information.

NOTIFICATION FORMS CANNOT BE ACCEPTED WITHOUT THE NECESSARY ATTACHMENTS AND FEE

- ☑ ***Attach*** all required submissions for the PBR Section(s) checked above. The required submissions for each PBR Section are outlined in Chapter 305 and may differ depending on the Section you are submitting under.
- ☑ ***Attach*** a location map that clearly identifies the site (U.S.G.S. topo map, Maine Atlas & Gazetteer, or similar).
- ☑ ***Attach*** *Proof of Legal Name* if applicant is a corporation, LLC, or other legal entity. Provide a copy of Secretary of State's *registration information* (available at http://icrs.informe.org/nei-sos-icrs/ICRS?MainPage=x). Individuals and municipalities are not required to provide any proof of identity.

FEE: I will pay the Permit-by-Rule fee (https://www.maine.gov/dep/feeschedule.pdf) by:

- ☐ **Credit Card –** Pay online through the **Payment Portal**. **(Attach payment confirmation when filing this notification form.)**
- ☐ **Check** – Fill in all the information below and mail a copy of this form (without attachments) and a check made payable to "Treasurer, State of Maine," to: Maine DEP, 17 State House Station, Augusta, ME 04333-0017.

Name: **Phone:** **Ext.** **Check #:** 319 Grant **Email Filing Date:**

Signature & Certification:

- I authorize staff of the Departments of Environmental Protection, Inland Fisheries & Wildlife, and Marine Resources to access the project site for the purpose of determining compliance with the rules**.**
- I understand that this PBR becomes effective 14 calendar days after receipt by the Department of this completed form, the required submissions, and fee, *unless the Department approves or denies the PBR prior to that date.*

By signing this Notification Form, I represent that the project meets all applicability requirements and standards in Chapter 305 rule and that the applicant has sufficient title, right, or interest in the property where the activity takes place.

Signature of Agent or Applicant (may be typed):	Shri A. Verrill	**Date:**	10/18/2022

***Keep a copy as a record of permit*.** Email this completed form with attachments to DEP at: DEP.PBRNotification@maine.gov. DEP will send a copy to the Town Office as evidence of DEP's receipt of notification. No further authorization will be issued by DEP after receipt of notice. A PBR is valid for two years, except Section 4, "Replacement of Structures," are valid for three years. **Work carried out in violation of the Natural Resources Protection Act or any provision in Chapter 305 is subject to enforcement.**

Soil Filter, Thatcher Brook Biddeford

Permit By Rule Section 13

26 Morin Street, Biddeford, ME

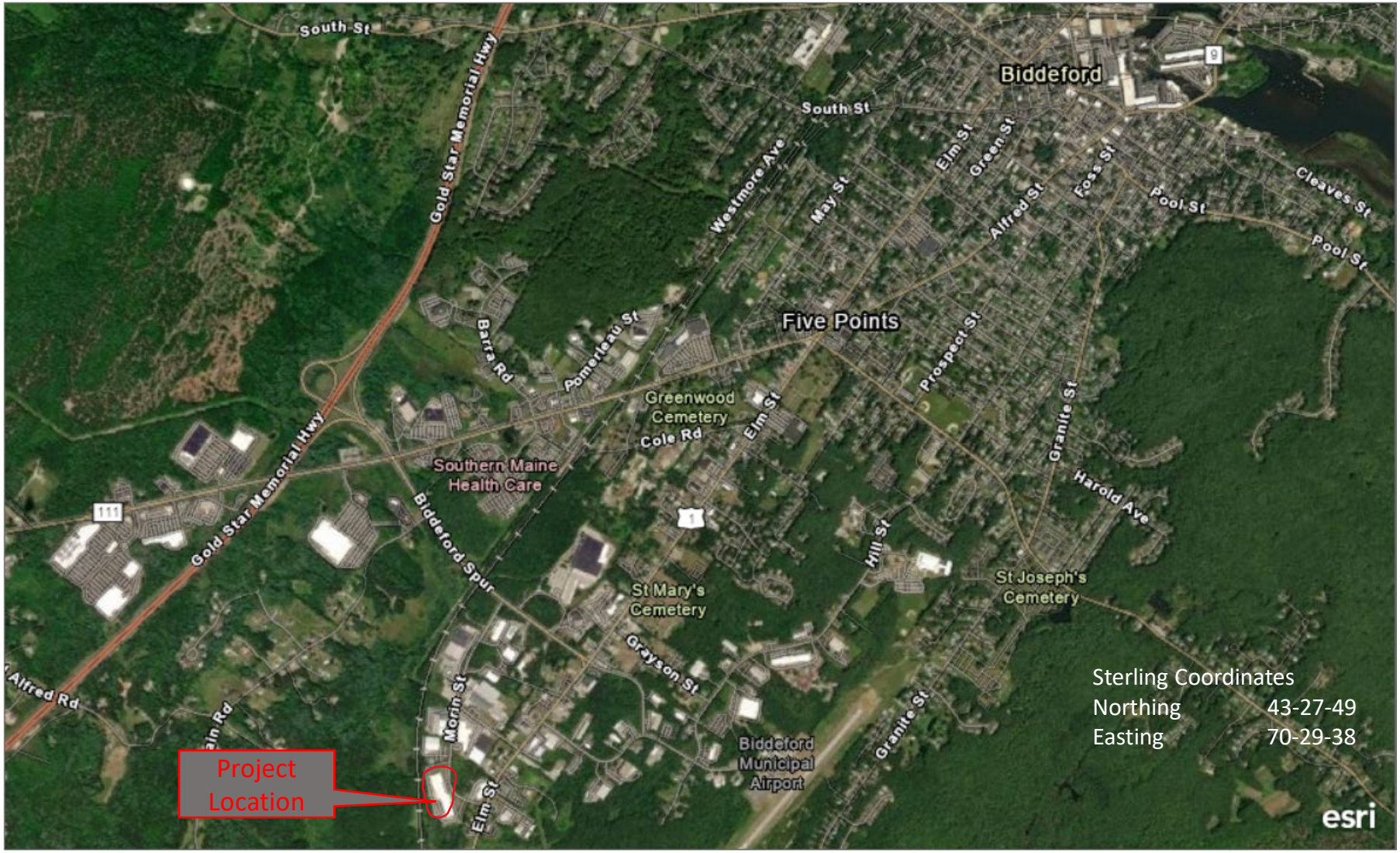
THATCHER BROOK WATERSHED RESTORATION PROJECT, PHASE III, #20200011

YORK COUNTY
SOIL & WATER CONSERVATION DISTRICT

Prepared by Shri Verrill,
Project Manager
York County Soil and Water Conservation District
21 Bradeen Street, Suite 304
Springvale, Maine 04083
(207) 432-3516

Vicinity Map—Thatcher Brook at 26 Morin Street, Biddeford, Maine 04005

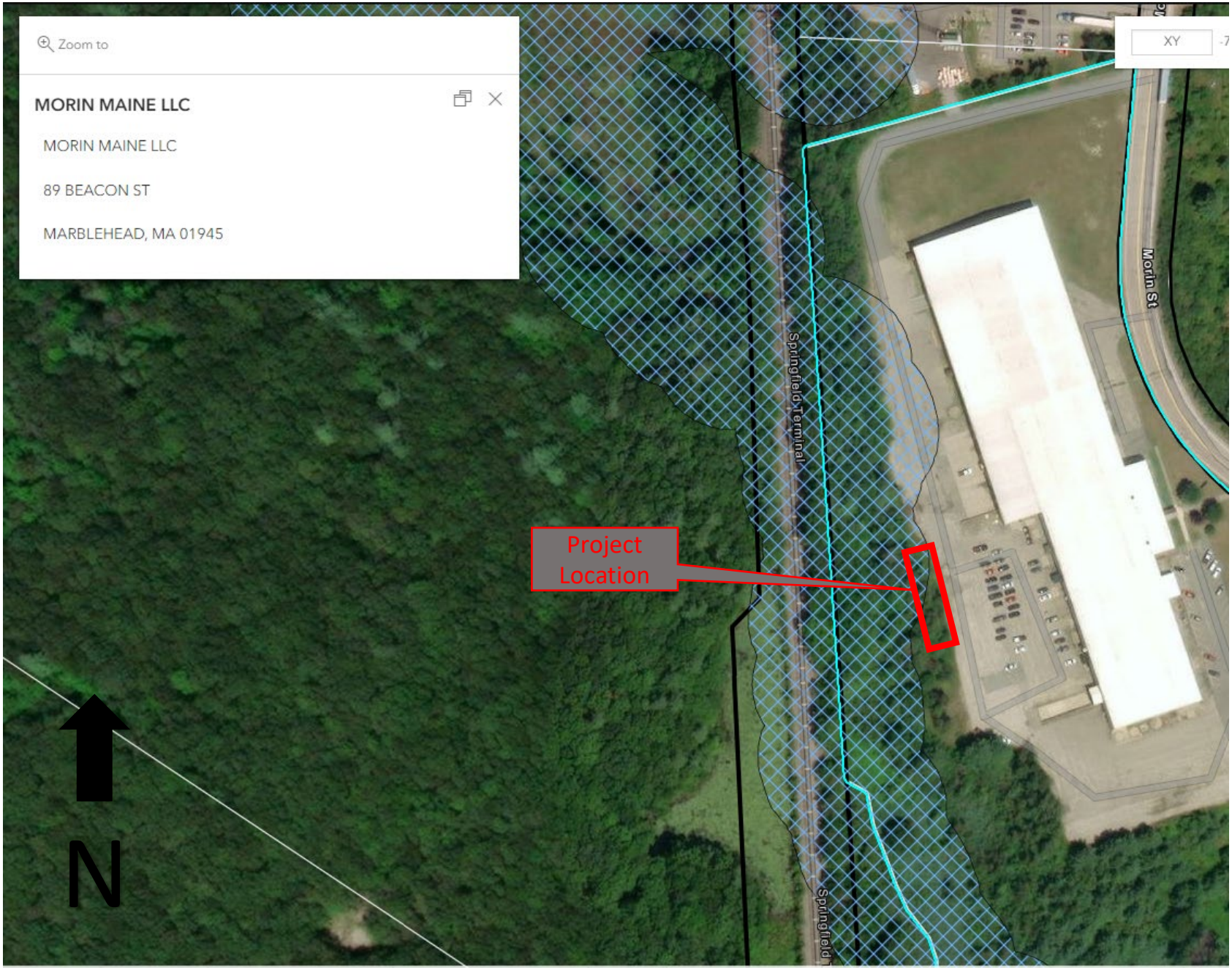
NEA Streams



NEA Stream Study

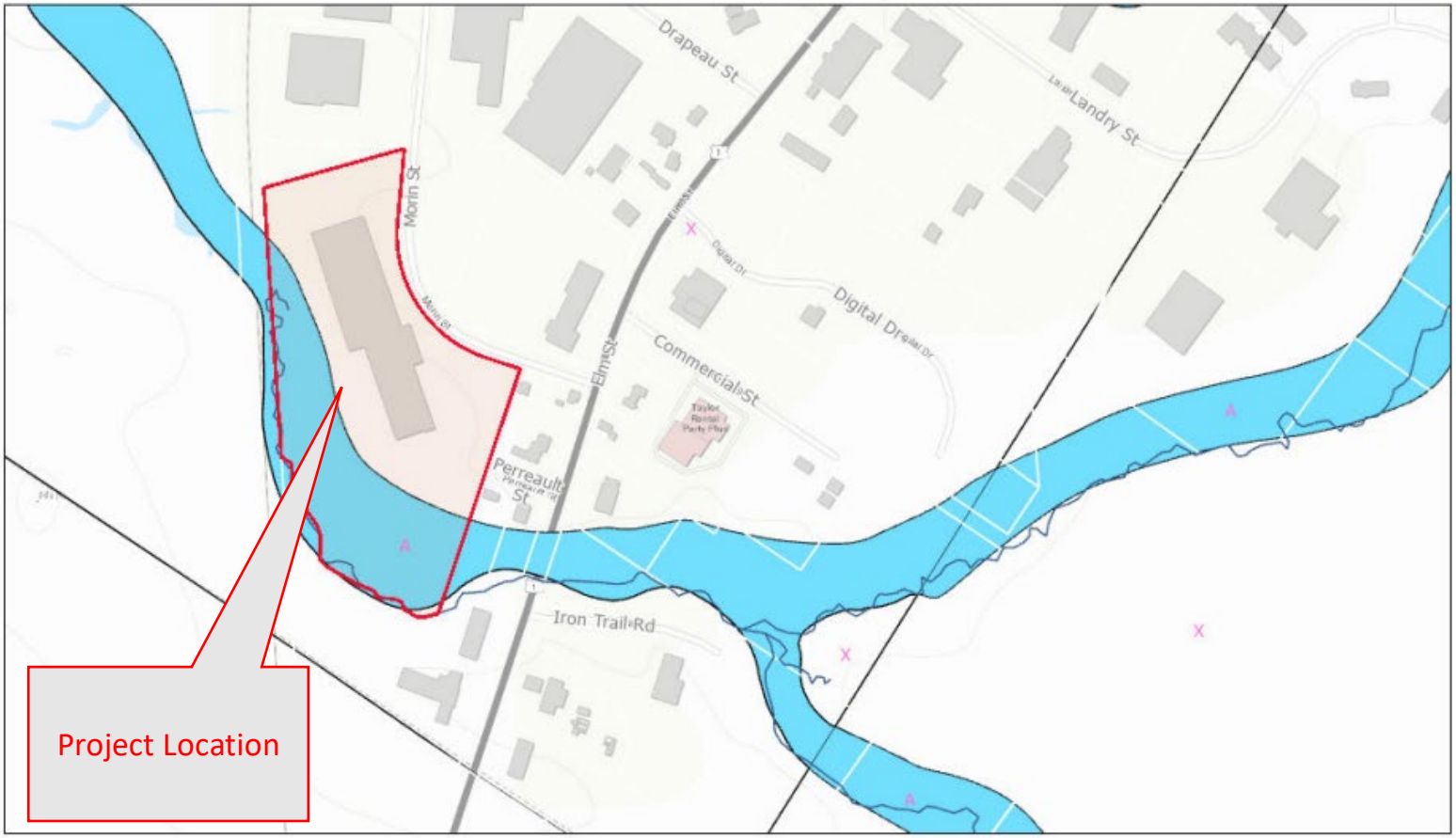
Maxar | Esri Community Maps Contributors, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, US

Vicinity Map-Thatcher Brook at 26 Morin Street, Biddeford, ME 04005



Tax Map-Thatcher Brook at 26 Morin Street, Biddeford, ME 04005 Map 11 Block #8

26 Morin Street Tax Map



October 18, 2022

Rivers
Flood Zones
X
A
Streams
Parcels
Road Names

1:6,713

0 230 460 920 ft

0 65 130 260 m

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Data and scale shown on this map are provided for planning and informational

Powered by Esri Technology

Property Owner Information: Morin Main, LLC

Interactive Corporate Services

MAINE

Department of the Secretary of State

Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Thu Oct 13 2022 16:22:05. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
MORIN MAINE, LLC	20063180DC	LIMITED LIABILITY COMPANY (DOMESTIC)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
04/11/2006	N/A	MAINE

Other Names	(A=Assumed ; F=Former)
NONE	

Clerk/Registered Agent

REGISTERED AGENTS INC
415 CONGRESS ST
STE 202A
PORTLAND, ME 04101

Photo looking southerly up across the parking area from the lower end of the filter area

Photo credit: Tom Milligan 10.13.2022

Photo looking northerly from the parking lot into the proposed filter area

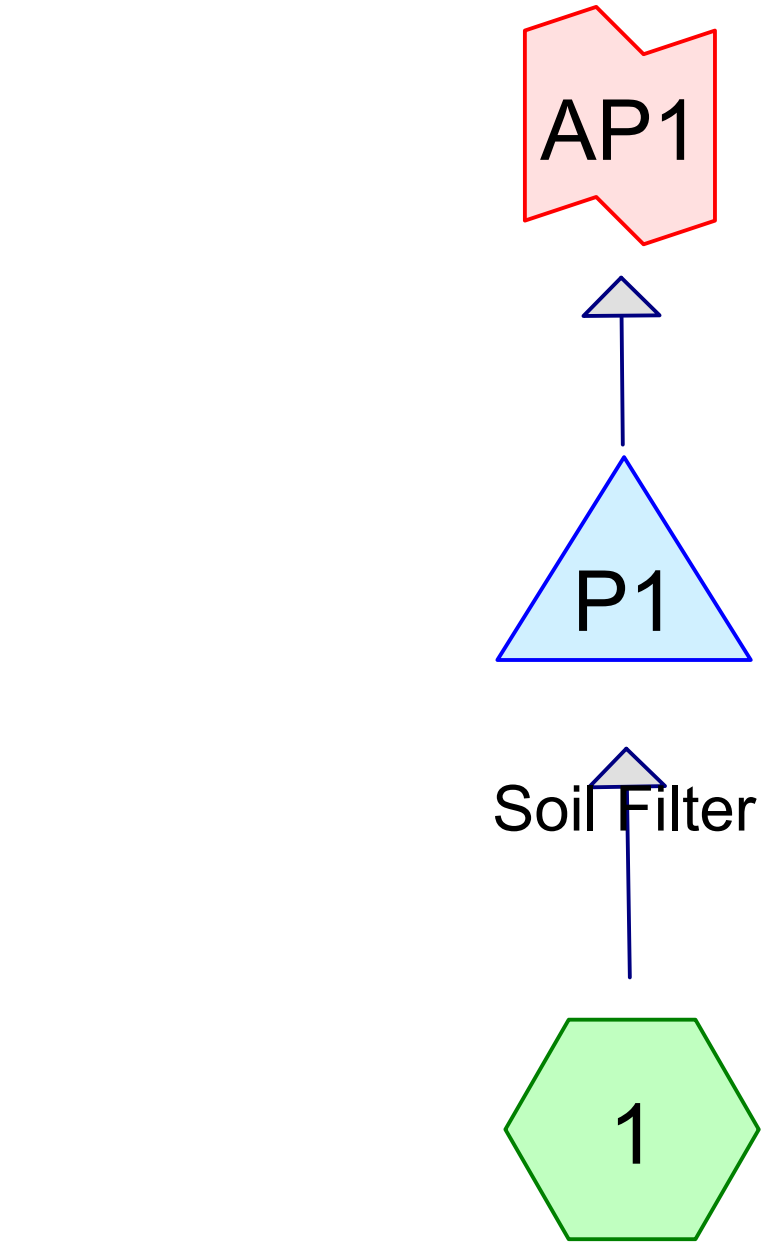
Site Description & Problems Present

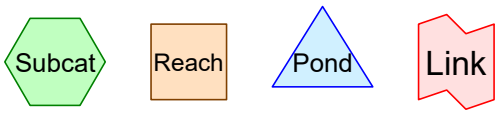
Thatcher Brook is listed as an Urban Impaired Stream and does not attain State Class B standards for aquatic life habitat. About 13% of the Brook watershed is made up of impervious cover due to rooftops, parking areas and roadways

Recommended Solutions

The proposed project seeks to construct an underdrained soil filter along the rear parking areas of the existing Sterling Rope manufacturing facility. The project seeks to construct the soil filter during the fall of 2022 with the intention of improving stormwater quality according to the included final engineering site plans and details. This project is being funded through funding from the Thatcher Brook Watershed Restoration Project, Phase III #20200011, in part, provided by the U.S. Environmental Protection Agency under Section 319 of the Clean Water Act. The funding is administered by the Maine Department of Environmental Protection in partnership with EPA.

Soil filter systems are vertical flow media filters that are typically vegetated with grass and/or landscape plantings. Often these systems are underdrained in poorly draining subsoils. Vegetated soil filters improve stormwater quality by capturing and retaining runoff and passing it through a filter bed comprised of a specific soil media. Once through the soil media, the runoff is collected in a perforated underdrain pipe and discharged to the receiving water or infiltrated.





Routing Diagram for Morin Street Filter
Prepared by BH2M, Printed 10/10/2022
HydroCAD® 10.00-22 s/n 02712 © 2018 HydroCAD Software Solutions LLC

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: Runoff Area=51,315 sf 80.58% Impervious Runoff Depth>2.59"
Tc=6.0 min CN=95 Runoff=3.49 cfs 0.254 af

Pond P1: Soil Filter Peak Elev=119.53' Storage=8,545 cf Inflow=3.49 cfs 0.254 af
Outflow=0.22 cfs 0.061 af

Link AP1: Inflow=0.22 cfs 0.061 af
Primary=0.22 cfs 0.061 af

Total Runoff Area = 1.178 ac Runoff Volume = 0.254 af Average Runoff Depth = 2.59"
19.42% Pervious = 0.229 ac 80.58% Impervious = 0.949 ac

Summary for Subcatchment 1:

Runoff = 3.49 cfs @ 12.09 hrs, Volume= 0.254 af, Depth> 2.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-YR Rainfall=3.30"

Area (sf)	CN	Description
41,352	98	Paved parking, HSG A
9,963	80	>75% Grass cover, Good, HSG D
51,315	95	Weighted Average
9,963		19.42% Pervious Area
41,352		80.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Assumed**

Summary for Pond P1: Soil Filter

Inflow Area = 1.178 ac, 80.58% Impervious, Inflow Depth > 2.59" for 2-YR event
Inflow = 3.49 cfs @ 12.09 hrs, Volume= 0.254 af
Outflow = 0.22 cfs @ 13.70 hrs, Volume= 0.061 af, Atten= 94%, Lag= 96.7 min
Primary = 0.22 cfs @ 13.70 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 119.53' @ 13.70 hrs Surf.Area= 7,548 sf Storage= 8,545 cf

Plug-Flow detention time= 345.9 min calculated for 0.061 af (24% of inflow)
Center-of-Mass det. time= 196.1 min (948.8 - 752.7)

Volume	Invert	Avail.Storage	Storage Description
#1	118.00'	8,027 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	115.67'	2,776 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
			6,941 cf Overall x 40.0% Voids
		10,804 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
118.00	2,979	0	0
119.00	4,001	3,490	3,490
119.50	4,534	2,134	5,624
120.00	5,080	2,404	8,027

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.67	2,979	0	0
118.00	2,979	6,941	6,941

Device	Routing	Invert	Outlet Devices
#1	Primary	119.50'	**15.0' long x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=0.20 cfs @ 13.70 hrs HW=119.53' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Weir Controls 0.20 cfs @ 0.42 fps)

Summary for Link AP1:

Inflow Area = 1.178 ac, 80.58% Impervious, Inflow Depth > 0.62" for 2-YR event
Inflow = 0.22 cfs @ 13.70 hrs, Volume= 0.061 af
Primary = 0.22 cfs @ 13.70 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: Runoff Area=51,315 sf 80.58% Impervious Runoff Depth>4.07"
Tc=6.0 min CN=95 Runoff=5.36 cfs 0.399 af

Pond P1: Soil Filter Peak Elev=119.68' Storage=9,236 cf Inflow=5.36 cfs 0.399 af
Outflow=2.75 cfs 0.205 af

Link AP1: Inflow=2.75 cfs 0.205 af
Primary=2.75 cfs 0.205 af

Total Runoff Area = 1.178 ac Runoff Volume = 0.399 af Average Runoff Depth = 4.07"
19.42% Pervious = 0.229 ac 80.58% Impervious = 0.949 ac

Summary for Subcatchment 1:

Runoff = 5.36 cfs @ 12.09 hrs, Volume= 0.399 af, Depth> 4.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-YR Rainfall=4.90"

Area (sf)	CN	Description
41,352	98	Paved parking, HSG A
9,963	80	>75% Grass cover, Good, HSG D
51,315	95	Weighted Average
9,963		19.42% Pervious Area
41,352		80.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Assumed**

Summary for Pond P1: Soil Filter

Inflow Area = 1.178 ac, 80.58% Impervious, Inflow Depth > 4.07" for 10-YR event
Inflow = 5.36 cfs @ 12.09 hrs, Volume= 0.399 af
Outflow = 2.75 cfs @ 12.24 hrs, Volume= 0.205 af, Atten= 49%, Lag= 9.1 min
Primary = 2.75 cfs @ 12.24 hrs, Volume= 0.205 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 119.68' @ 12.24 hrs Surf.Area= 7,710 sf Storage= 9,236 cf

Plug-Flow detention time= 182.4 min calculated for 0.204 af (51% of inflow)
Center-of-Mass det. time= 93.9 min (839.1 - 745.2)

Volume	Invert	Avail.Storage	Storage Description
#1	118.00'	8,027 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	115.67'	2,776 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
			6,941 cf Overall x 40.0% Voids
		10,804 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
118.00	2,979	0	0
119.00	4,001	3,490	3,490
119.50	4,534	2,134	5,624
120.00	5,080	2,404	8,027

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.67	2,979	0	0
118.00	2,979	6,941	6,941

Device	Routing	Invert	Outlet Devices
#1	Primary	119.50'	**15.0' long x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=2.71 cfs @ 12.24 hrs HW=119.68' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Weir Controls 2.71 cfs @ 1.01 fps)

Summary for Link AP1:

Inflow Area = 1.178 ac, 80.58% Impervious, Inflow Depth > 2.09" for 10-YR event
Inflow = 2.75 cfs @ 12.24 hrs, Volume= 0.205 af
Primary = 2.75 cfs @ 12.24 hrs, Volume= 0.205 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1: Runoff Area=51,315 sf 80.58% Impervious Runoff Depth>5.27"
Tc=6.0 min CN=95 Runoff=6.86 cfs 0.517 af

Pond P1: Soil Filter Peak Elev=119.80' Storage=9,787 cf Inflow=6.86 cfs 0.517 af
Outflow=5.92 cfs 0.322 af

Link AP1: Inflow=5.92 cfs 0.322 af
Primary=5.92 cfs 0.322 af

Total Runoff Area = 1.178 ac Runoff Volume = 0.517 af Average Runoff Depth = 5.27"
19.42% Pervious = 0.229 ac 80.58% Impervious = 0.949 ac

Summary for Subcatchment 1:

Runoff = 6.86 cfs @ 12.09 hrs, Volume= 0.517 af, Depth> 5.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-YR Rainfall=6.20"

Area (sf)	CN	Description
41,352	98	Paved parking, HSG A
9,963	80	>75% Grass cover, Good, HSG D
51,315	95	Weighted Average
9,963		19.42% Pervious Area
41,352		80.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Assumed**

Summary for Pond P1: Soil Filter

Inflow Area = 1.178 ac, 80.58% Impervious, Inflow Depth > 5.27" for 25-YR event
Inflow = 6.86 cfs @ 12.09 hrs, Volume= 0.517 af
Outflow = 5.92 cfs @ 12.14 hrs, Volume= 0.322 af, Atten= 14%, Lag= 3.3 min
Primary = 5.92 cfs @ 12.14 hrs, Volume= 0.322 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 119.80' @ 12.14 hrs Surf.Area= 7,835 sf Storage= 9,787 cf

Plug-Flow detention time= 150.8 min calculated for 0.321 af (62% of inflow)
Center-of-Mass det. time= 75.4 min (817.2 - 741.8)

Volume	Invert	Avail.Storage	Storage Description
#1	118.00'	8,027 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	115.67'	2,776 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
			6,941 cf Overall x 40.0% Voids
		10,804 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
118.00	2,979	0	0
119.00	4,001	3,490	3,490
119.50	4,534	2,134	5,624
120.00	5,080	2,404	8,027

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
115.67	2,979	0	0
118.00	2,979	6,941	6,941

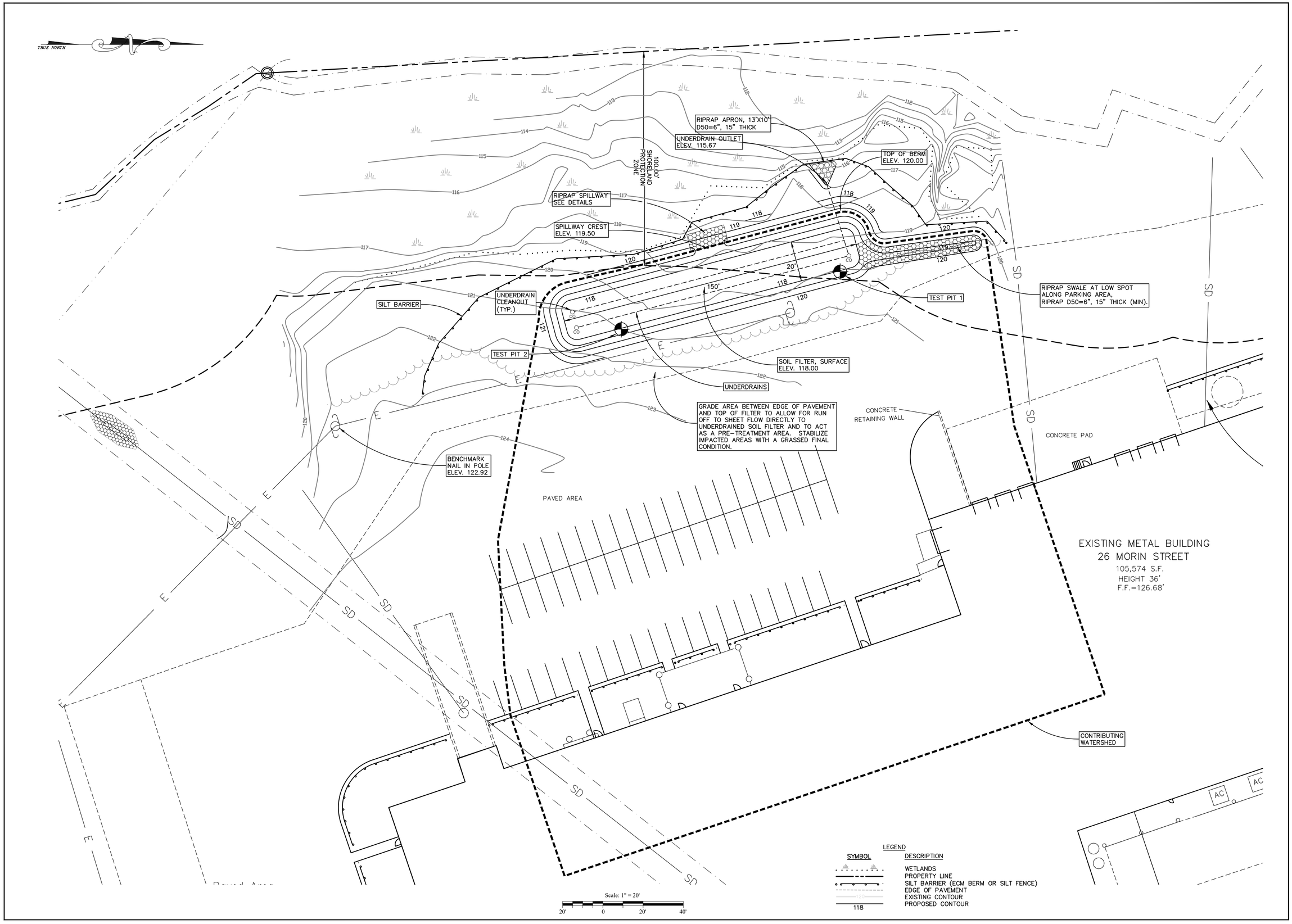
Device	Routing	Invert	Outlet Devices
#1	Primary	119.50'	**15.0' long x 4.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.38 2.54 2.69 2.68 2.67 2.67 2.65 2.66 2.66 2.68 2.72 2.73 2.76 2.79 2.88 3.07 3.32

Primary OutFlow Max=5.82 cfs @ 12.14 hrs HW=119.79' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Weir Controls 5.82 cfs @ 1.33 fps)

Summary for Link AP1:

Inflow Area = 1.178 ac, 80.58% Impervious, Inflow Depth > 3.28" for 25-YR event
Inflow = 5.92 cfs @ 12.14 hrs, Volume= 0.322 af
Primary = 5.92 cfs @ 12.14 hrs, Volume= 0.322 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



REVISION		
NO.	DATE	DESCRIPTION
1	10-17-22	Issued for Construction and Permitting

STATE OF MAINE
CHRISTOPHER RYAN MACDONALD
No. 11985
LICENSED PROFESSIONAL ENGINEER

BH2M

Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
York County Soil & Water Conservation District
21 Bradeen Street, Suite 104
Springvale, Maine

SITE PLAN

MORIN STREET SOIL FILTER

26 MORIN STREET
BIDDEFORD, MAINE

DESIGNED	DATE
C. MacDonald	September 2022
DRAWN	SCALE
Dept.	1" = 20'
CHECKED	JOB. NO.
C. MacDonald	22164

SHEET
1

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GRASSED UNDERDRAIN SOIL FILTER NOTES

REFERENCES

1. MAINE STORMWATER BEST MANAGEMENT PRACTICES (BMP), VOLUME III BMP TECHNICAL DESIGN MANUAL, CHAPTER 7 FILTRATION BMP'S (LATEST REVISION).

CONSTRUCTION METHODS

1. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MATERIALS, INSTALLATION, MEANS, METHODS, AND SCHEDULING.
2. ALL WORK SHALL BE IN CONFORMANCE WITH THE PROJECT PLANS AND BMP'S REFERENCED ABOVE.
3. THE SOIL FILTER MEDIA AND VEGETATION SHALL NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURES, 90% VEGETATION COVER OR PERMANENT STABILIZATION.

DE-WATERING PLAN

1. DURING CONSTRUCTION OF THE SITE AND VEGETATED SOIL FILTER, THE CONTRACTOR SHALL BE PREPARED TO IMPLEMENT A DEWATERING PLAN IN ANTICIPATION OF HEAVY RAIN EVENTS.
2. THE AREA OF THE BASIN MAY BE EXCAVATED IN PREPARATION OF THE INSTALLATION OF THE UNDERDRAIN AND MAY BE USED FOR A SEDIMENT TRAP FOR THE SITE DURING CONSTRUCTION. AFTER EXCAVATION OF THE BASIN, THE OUTLET STRUCTURE AND PIPING SYSTEM SHALL BE INSTALLED AT THE APPROPRIATE ELEVATION AND PROTECTED WITH A SEDIMENT BARRIER. THE BASIN IS TO BE USED AS A SEDIMENT TRAP, THE SIDES OF THE EMBANKMENTS MUST BE MULCHED AND MAINTAINED TO PREVENT EROSION.

SOIL MEDIA

1. THE SOIL MEDIA SHALL CONSIST OF SILTY SANDY SOIL OR SOIL MIXTURE COMBINED WITH 20% TO 25% BY VOLUME (NO LESS THAN 10% BY DRY WEIGHT) OF MODERATELY SHREDDED BARK OR WOOD FIBER MULCH.
2. THE SOIL FILTER MEDIA SAND SHALL MEET THE GRADATION IN TABLE 7-2 (MDOT 703.01) WITH ADDITIONAL FINES ADDED IF NECESSARY.
3. THE RESULTING SOIL FILTER MEDIA SHALL HAVE 8% TO 12% BY WEIGHT PASSING THE #200 SIEVE AND SHALL HAVE A CLAY CONTENT OF LESS THAN 2%.
4. THE COARSE GRAVEL MATERIAL SHALL MEET THE GRADATION OF TABLE 7.1 (MDOT 703.22 UNDERDRAIN, TYPE B).
5. THE FILTER MEDIA SHALL BE LIGHTLY COMPACTED BY SATURATING THE MEDIA IN 6" TO 9" LIFTS AND SHALL HAVE A PERMEABILITY OF 2.4 IN/HR TO 4 IN/HR.
6. THE CLAY CONTENT SHALL BE < 2%

CONSTRUCTION

1. SOIL FILTER MEDIA, COARSE GRAVEL, AND UNDERDRAIN BEDDING MATERIAL SHALL BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR.
2. PERFORATED UNDERDRAIN PIPE SHALL BE 4" AND 6" SCHEDULE 40 OR SDR 35 PVC PIPE. SPACED 8 FEET AND 4 FEET ON CENTER AS SHOWN ON PLANS.
3. TRIBUTARY AREAS SHALL BE STABILIZED PRIOR TO INSTALLATION OF THE SOIL FILTER MEDIA MIXTURE AND UNDERDRAIN. STABILIZED IS DEFINED AS PAVED IF IN A PARKING AREA OR ROADWAY AND 90% GRASS CATCH IF IN A VEGETATED AREA.
4. OUTFLOW OF THE VEGETATED SOIL FILTER SHALL BE CONTROLLED BY A 2" PLASTIC TYPE 34-6 BALL VALVE WITH TYPE 615 BALL VALVE HANDLE EXTENSION (AVAILABLE FROM E.J. PRESCOTT OR EQUIVALENT). A THREE-PIECE VALVE BOX (AVILABLE FROM E.J. PRESCOTT OR EQUIVALENT) SHALL BE INSTALLED OVER THE VALVE.
5. ALL EQUIPMENT USED WITHIN THE LIMITS OF THE VEGETATED SOIL FILTER SHALL BE LOW GROUND PRESSURE VEHICLES (LESS THAN 2.0 PSI) WHEN FULLY LOADED.
6. IF VEGETATION IS NOT ESTABLISHED WITHIN THE FIRST YEAR, THE CONTRACTOR SHALL INSTALL A 2-3 INCH LAYER OF LOAM (WITH LESS THAN 2% CLAY AS TESTED VIA HYDROMETER TEST) ON THE SURFACE OF THE GRASS FILTER AND RE-SEED/MULCH.
7. THE SURFACE OF THE VEGETATED SOIL FILTER SHALL BE PLANTED WITH A GRASS SPECIES THAT IS TOLERANT OF FREQUENT INUNDATION AND WELL-DRAINED SOILS. UPON SEEDING, THE SURFACES SHALL BE MULCHED WITH HAY OR AN EROSION CONTROL BLANKET BUT SHALL NOT BE FERTILIZED. AN APPROPRIATE SEED MIXTURE SHOULD CONTAIN THE FOLLOWING OR BE AN EQUIVALENT CONSERVATON TYPE MIX:

CREEPING RED FESCUE	20 LBS/ACRE
TALL FESCUE	20 LBS/ACRE
BIRDSFOOT TREFOIL	8 LBS/ACRE
TOTAL	48 LBS/ACRE

TESTING AND SUBMITTALS

1. THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL TESTING RESULTS SHALL BE SUBMITTED TO THE PROJECT ENGINEER.
2. SUBMIT SAMPLES OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILLER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE WILL BE DETERMINED BY TESTING LABORATORY.
3. THE CONTRACTOR SHALL PERFORM A SIEVE ANALYSIS CONFORMING TO ASTM C136 (STANDARD TEST METHODS FOR SIEVE ANALYSIS OF FINE AND COARSE AGGREGATES, 1996A) ON EACH TYPE OF SAMPLE MATERIAL INCLUDING A HYDROMETER TEST FOR CLAY CONTENT.
4. THE CONTRACTOR SHALL PERFORM A PERMEABILITY TEST ON THE SOIL MEDIA MIXTURE CONFORMING TO ASTM D2434.
5. THE CONTRACTOR SHALL PERFORM ONE COMPACTION DENSITY TEST ON THE IN-PLACE SOIL FILTER MEDIA FOR EVERY 1,500 S.F. OF BED OR FRACTION THEREOF. THE TEST SHALL CONFORM TO ASTM 2922.
6. UPON COMPLETION OF THE VEGETATED SOIL FILTER MEDIA AND THE ESTABLISHMENT OF 90% CATCH OF GRASS OVER THE FILTER MEDIA, THE CONTRACTOR SHALL FLOOD THE VEGETATED BASIN TO THE SPILLWAY WITH CLEAR WATER AND ADJUST THE OUTFLOW TO OBTAIN A 24-HOUR TO 32-HOUR RELEASE TIME.

CONSTRUCTION OVERSIGHT

1. THE CONTRACTOR SHALL MEET THE "CONSTRUCTION OVERSIGHT" SECTION OF CHAPTER 7, FILTRATION BMP'S (REVISED MAY 2016) OF THE STORMWATER MANAGEMENT FOR MAINE, VOLUME III, BMP'S TECHNICAL DESIGN MANUAL.
2. THE DESIGN ENGINEER SHALL BE CONDUCTING PERIODIC SITE OVERSIGHT OF THE CONSTRUCTION AS DESCRIBED BELOW AND IN COMPLIANCE WITH THE PERMITS.
3. THE ENGINEER SHALL REVIEW AND APPROVE ALL CONTRACTOR SUBMITTALS.
4. THE CONTRACTOR SHALL GIVE THE ENGINEER A PROPOSED CONSTRUCTION SCHEDULE AND A 48-HOUR NOTICE FOR ALL SITE VISITS.
5. INSPECTIONS SHALL INCLUDE:
   - PRE-CONSTRUCTION MEETING WITH CONTRACTOR
   - INSPECTION OF EXCAVATION IF USED FOR SEDIMENT TRAP
   - INSPECTION OF EXCAVATED HOLE.
   - AFTER PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND
   - ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT
   - BACK-FILLED.
   - AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO
   - INSTALLATION OF THE FILTER MEDIA.
   - AFTER FILTER MEDIA HAS BEEN INSTALLED AND SEEDED.
   - AFTER ONE YEAR TO INSPECT VEGETATION UPTAKE AND OBSERVE
   - FLOODING TEST.

LEVEL SPREADER STONE SIZE

SIEVE DISIGNATION METRIC	SIEVE DISIGNATION US CUSTOMARY	% BY WEIGHT PASSING SQUARE MESH SIEVES
300 MM	12"	100
150 MM	6"	84–100
75 MM	3"	68–83
25.4 MM	1"	42–55
4.75 MM	NO. 4	8–12

TABLE 7-1
UNDERDRAIN SPECS.
MDOT #703.22

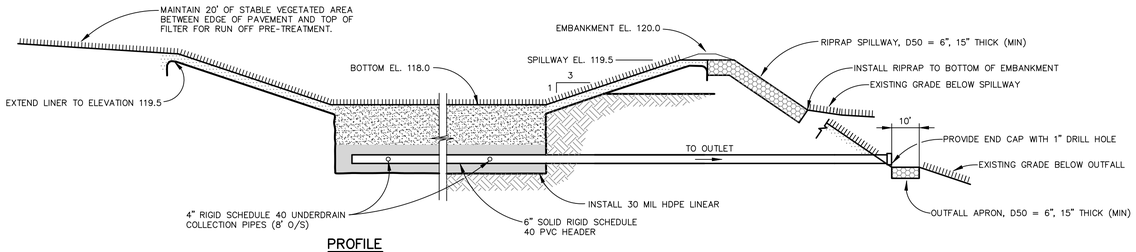
SIEVE SIZE	% BY WEIGHT
UNDERDRAIN TYPE B	
1"	90-100
1/2"	75-100
#4	50-100
#20	15-80
#50	0-15
#200	0-5
SIEVE SIZE	% BY WEIGHT
UNDERDRAIN TYPE C	
1"	100
3/4"	90-100
3/8"	0-75
#4	0-25
#10	0-5

TABLE 7-2
AGGREGATE SPECS.
MDOT #703.01

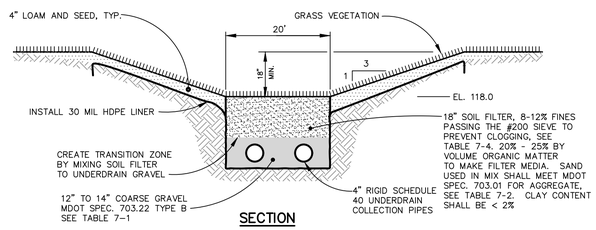
SIEVE SIZE	% BY WEIGHT
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#60	10-30
#100	2-10
#200	0-5

TABLE 7-4
COARSE LOAMY SAND SIEVE ANALYSIS SPECIFICATION

SIEVE #	% PASSING BY WEIGHT
#10	85-100
#20	70-100
#60	15-40
#200	8-15



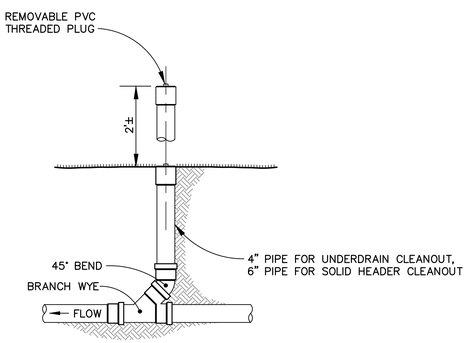
PROFILE



SECTION

GRASSED UNDERDRAIN SOIL FILTER

NTS



CLEANOUT DETAIL

N.T.S.

NO.	DATE	REVISION DESCRIPTION
1	10-17-22	Issued for Construction and Permitting

STATE OF MAINE
CHRISTOPHER RYAN MACDONALD
No. 11985
LICENSED
PROFESSIONAL ENGINEER

BH2M
Berry, Huff, McDonald, Milligan Inc.
Engineers, Surveyors
380B Main Street
Gorham, Maine 04038
Tel. (207) 839-2771
www.bh2m.com

FOR
York County Soil & Water Conservation District
21 Bradeen Street, Suite 104
Springvale, Maine

GRASSED UNDERDRAINED SOIL FILTER DETAILS

MORIN STREET SOIL FILTER

26 MORIN STREET
BIDDEFORD, MAINE

DESIGNED	DATE
C. MacDonald	September 2022
DRAWN	SCALE
Dept.	As Noted
CHECKED	JOB. NO.
C. MacDonald	22164

SHEET
2

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EROSION AND SEDIMENT CONTROL PLAN

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE LATEST REVISION OF TO THE 2016 MAINE EROSION AND SEDIMENT CONTROL BMP'S MANUAL FOR DESIGNERS AND ENGINEERS, AND THE LATEST REVISION TO THE 2014 MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS. SEE MANUALS FOR ADDITIONAL INFORMATION AND DETAILS.

THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL STRUCTURES ARE SHOWN ON THE SITE PLAN.

1. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND PERMIT CONDITIONS. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK, AND PRIOR TO AND 24 HOURS AFTER A WET WEATHER EVENT (0.5 INCHES OR MORE IN A 24 HOUR PERIOD). CONSTRUCTION INSPECTION AND CORRECTIVE ACTION DOCUMENTATION RECORDS SHALL BE MAINTAINED FOR A MINIMUM OF 5 YEARS.
2. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDE THE EROSION AND SEDIMENTATION CONTROL MEASURES AS WELL AS DISTURBED AREAS, MATERIAL STORAGE AREAS, AND LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "MAINE EROSION AND SEDIMENT CONTROL BMP'S", DEPARTMENT OF ENVIRONMENTAL PROTECTION, LATEST REVISION.
4. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 7 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 75 FEET OF A WETLAND OR WATERBODY, THE AREA SHALL BE STABILIZED WITHIN 2 DAYS OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
5. EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRES OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
6. EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY.
7. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO MORE THAN ONE ACRE OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION.
8. SEDIMENT BARRIERS (EROSION CONTROL MIX, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCE, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. THE CONTRACTOR SHALL MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE UNTIL ALL DISTURBED AREAS ARE STABILIZED.
9. INSTALL EROSION CONTROL MIX AT TOE OF SLOPES TO FILTER SILT FROM RUNOFF. SEE E.C. MIX DETAIL FOR PROPER INSTALLATION. EROSION CONTROL MIX WILL REMAIN IN PLACE PER NOTE #7. THE USE OF AN EROSION CONTROL MIX BERM IS PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER.
10. ALL ERSOION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED, AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY BEFORE AND FOLLOWING ANY SIGNIFICANT RAINFALL (0.5 INCH OR MORE IN A 24-HOUR PERIOD) OR SNOW MELT OR WHEN NO LONGER SERVICEABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSURE. IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF. EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. PERMANENT STABILIZATION IS 90% GRASS CATCH IN VEGETATED AREAS.
11. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN ONE AND ONE HALF TO ONE (1.5 TO 1).
12. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
13. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED BY AUG. 15 OR 45 DAYS PRIOR TO THE FIRST KILLING FROST (OCT. 1) TO PROTECT FROM SPRING RUNOFF PROBLEMS.
14. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.
15. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:
    a. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
    b. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P205-K20) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SQ. FT.).
    c. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS: SEEDING RATE IS 1.03 LBS PER 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED. SEED MIX SHALL CONTAIN 10% ANNUAL RYE GRASS.
    d. HAY MULCH AT THE RATE OF 70-90 LBS PER 1000 SQUARE FEET FOR OVER 75% COVERAGE. FOR UNPROTECTED OR WINDY AREAS, ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD./BLOCK). HYDRAULIC MULCHES MAY ALSO BE USED, APPLIED AT A RATE OF 5 LBS PER 1000 SQUARE FEET FOR PAPER MULCH OR 40 LBS PER 1000 SQUARE FEET OR AS DIRECTED BY THE MANUFACTURER. ON SLOPES GREATER THAN 3:1 EROSION CONTROL MIX MAY BE USED, SEE EROSION CONTROL MIX NOTES BELOW.
    e. FOR DISTURBED AREAS TO BE MAINTAINED IN POST-CONSTRUCTION AS A MEADOW BUFFER, APPLY NEW ENGLAND CONSERVATION WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC., OF AMHERST, MASSACHUSETTS OR APPROVED EQUAL.
16. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS ONCE THE SITE IS STABILIZED WITH 90% GRASS CATCH IN VEGETATED AREAS. TEMPORARY EROSION AND SEDIMENT CONTROL BLANKET SHALL BE USED IN ALL DITCHES AND SWALES AS SHOWN IN DETAILS.
17. WETLANDS WILL BE PROTECTED WITH EROSION CONTROL MIX OR SILT FENCE INSTALLED AT THE EDGE FOR THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION.
18. ALL STORMWATER WILL BE PREVENTED FROM RUNNING ONTO STOCKPILES. SEDIMENT BARRIERS WILL BE INSTALLED DOWNGRADIENT OF ALL STOCKPILES.
19. PERMANENT POST-CONSTRUCTION BMP'S (VEGETATED SWALES, WET PONDS, ETC.) WILL NOT BE USED TO MANAGE FLOWS DURING CONSTRUCTION WITHOUT SPECIAL PROTECTION AND/OR RESTORATION.

ADDITIONAL TEMPORARY SEED MIXTURE (FOR PERIODS LESS THAN 12 MONTHS):

SEASON	SEED	RATE
SUMMER (5/15 – 8/15)	SUDANGRASS	40 LBS/ACRE
	OATS	80 LBS/ACRE
LATE SUMMER/EARLY FALL (8/15 – 9/15)	PERENNIAL RYEGRASS	40 LBS/ACRE
FALL (9/15 – 11/1)	WINTER RYE	112 LBS/ACRE
WINTER (11/1 – 4/1)	MULCH W/ DORMANT SEED	80 LBS/ACRE**
SPRING (4/1 – 7/1)	OATS	80 LBS/ACRE
	ANNUAL RYEGRASS	40 LBS/ACRE

**SEED RATE ONLY

EROSION CONTROL MIX

EROSION CONTROL MIX (ECM) SHALL MEET THE REQUIREMENTS PROVIDED IN THE LATEST REVISION OF MAINE DEP'S EROSION AND SEDIMENTATION CONTROL BMP MANUAL. ECM IS ACCEPTABLE FOR USE ON SLOPES OF GREATER THAN 3:1 BUT LESS THAN 1:1. ECM SHALL CONSIST OF WELL-GRADED ORGANIC COMPONENT 50 – 100% OF DRY WEIGHT, AND COMPRISED OF FIBROUS AND ELONGATED FRAGMENTS. ECM SHALL BE FREE FROM REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR CONSTRUCTION DEBRIS. ECM SHALL BE EVENLY DISTRIBUTED AND APPLIED AT A THICKNESS OF 2" ON 3:1 SLOPES, WITH AN ADDITIONAL 1/2" PER 20' OF SLOPE FOR A MAXIMUM OF 100' IN LENGTH. SLOPES GREATER THAN 3:1, ECM SHALL BE APPLIED AT THICKNESS OF 4" OR 5" FOR SLOPES GREATER THAN 60' IN LENGTH.

SLOPES GREATER THAN 3:1 MAY ALSO REQUIRE ADDITIONAL SLOPE STABILIZATION DEPENDING ON UPGRADIENT RUNOFF AND OTHER SITE SPECIFIC CONDITIONS. SEE SLOPE STABILIZATION DETAIL FOR ADDITIONAL INFORMATION.

EROSION CONTROL DURING CONSTRUCTION

WINTER CONSTRUCTION

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15
2. OVERWINTER STABILIZATION OF DITCHES AND CHANNELS:
   ALL STONE-LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL GRASS LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT GRASS-LINED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.
   A. INSTALL A SOD LINING IN THE DITCH:
      A DITCH MUST BE LINED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES: PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING SOD AT THE BASE OF THE DITCH WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD FROM SLOUGHING DURING FLOW CONDITIONS. SEE THE PERMANENT VEGETATION BMP SECTION.
   B. INSTALL A STONE LINING IN THE DITCH:
      A DITCH MUST BE LINED WITH STONE RIPRAP BY NOVEMBER 15. A REGISTERED PROFESSIONAL ENGINEER MUST BE HIRED TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR WILL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS-SECTIONAL AREA.
3. OVERWINTER STABILIZATION OF DISTURBED SLOPES:
   ALL STONE-COVERED SLOPES MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED MUST BE SEEDED AND MULCHED BY SEPTEMBER 1. THE DEPARTMENT WILL CONSIDER ANY AREA HAVING A GRADE GREATER THAN 15% TO BE A SLOPE. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS. BY OCTOBER 1 THE DISTURBED SLOPE MUST BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 1, THEN THE CONTRACTOR WILL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE RIPRAP AS DESCRIBED IN THE FOLLOWING STANDARDS.
   A. STABILIZE THE SOIL WITH SOD:
      THE DISTURBED SLOPE MUST BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR WILL NOT USE LATE SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
   B. STABILIZE THE SOIL WITH EROSION CONTROL MIX:
      EROSION CONTROL MIX MUST BE PROPERLY INSTALLED BY NOVEMBER 15. THE CONTRACTOR WILL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE. SEE THE EROSION CONTROL MIX NOTES FOR ADDITIONAL CRITERIA.
   C. STABILIZE THE SOIL WITH STONE RIPRAP:
      PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. THE DEVELOPMENT'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.
4. OVERWINTER STABILIZATION OF DISTURBED SOILS:
   BY SEPTEMBER 15, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% MUST BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS MUST BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.
   A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION:
      BY OCTOBER 1, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 90% OF THE DISTURBED SOIL BEFORE NOVEMBER 1, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED BELOW.
   B. STABILIZE THE SOIL WITH SOD:
      STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLINIG THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.
   C. STABILIZE THE SOIL WITH MULCH:
      BY NOVEMBER 15, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL. PROVIDE NETTING ON ALL SLOPES GREATER THAN 8%.
5. MAINTENANCE:
   IF AN INSPECTION DETERMINES THAT A CORRECTIVE ACTION IS REQUIRED, THE ACTION OR REPAIR SHALL BE STARTED BY THE END OF THE NEXT WORKDAY AND COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT. MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION SEASON. ONCE A WEEK AND BEFORE AND AFTER EACH RAINFALL, SNOW STORM OR PERIOD OF THAWING AND RUNOFF, THE SITE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO INSURE THEIR CONTINUOUS FUNCTION. FOLLOWING THE TEMPORARY AND/OR FINAL SEEDING AND MULCHING, THE CONTRACTOR SHALL, IN THE SPRING, INSPECT AND REPAIR ANY DAMAGES AND/OR BARE SPOTS. AN ESTABLISHED VEGETATIVE COVER MEANS A MINIMUM OF 85 TO 90% OF AREAS VEGETATED WITH VIGOROUS GROWTH.

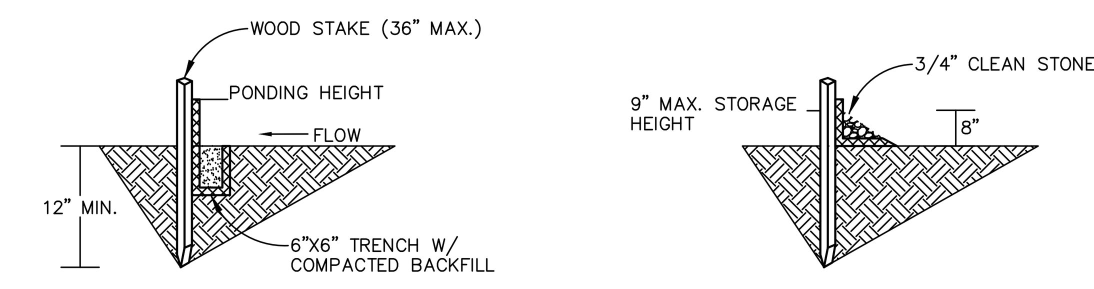
   STABILIZATION SCHEDULE BEFORE WINTER:

SEPTEMBER 15	ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED. ALL SLOPES MUST BE STABILIZED, SEEDED AND MULCHED. ALL GRASS LINED DITCHES AND CHANNELS MUST BE STABILIZED WITH MULCH OR AN EROSION CONTROL BLANKET
OCTOBER 1	IF THE SLOPE IS STABILIZED WITH AN EROSION CONTROL BLANKET AND SEEDED. ALL DISTURBED AREAS TO BE PROTECTED WITH AN ANNUAL GRASS MUST BE SEEDED AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND MULCHED.
NOVEMBER 15	ALL STONE LINED DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED. SLOPES THAT ARE COVERED WITH RIPRAP MUST BE CONSTRUCTED BY THAT DATE.

6. DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
7. AREAS WITHIN 75 FEET OF STREAMS, WETLANDS, AND OTHER PROTECTED NATURAL RESOURCES THAT ARE NOT STABILIZED WITH VEGETATION BY DEC. 1 SHALL BE MULCHED AND ANCHORED WITH NETTING. IF WORK CONTINUES IN THIS AREA DURING THE WINTER, A DOUBLE LINE OF SEDIMENT BARRIERS MUST BE USED.

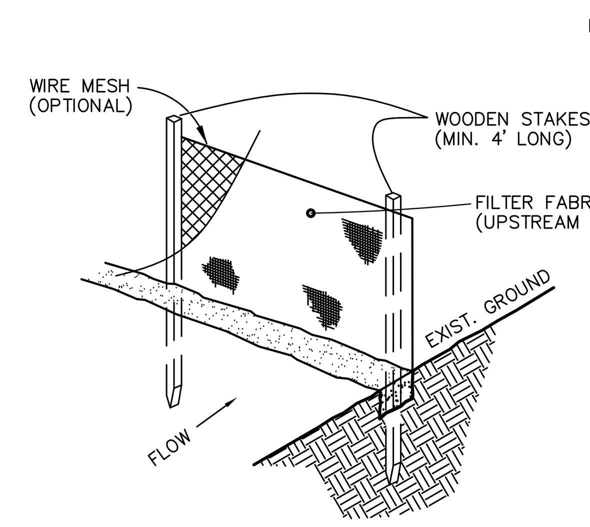
HOUSEKEEPING

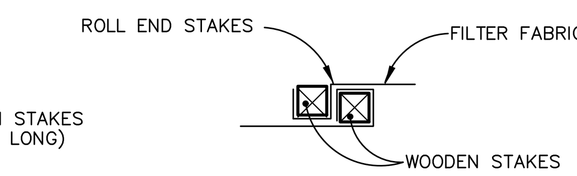
1. SPILL PREVENTION: CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS 1. ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
2. GROUNDWATER PROTECTION: DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY, AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
3. FUGITIVE SEDIMENT AND DUST: ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MY NOT BE USED FOR DUST CONTROL. ANY OFFSITE TRACKING OF MUD OR SEDIMENT SHALL BE VACUUMED IMMEDIATELY AND PRIOR TO THE NEXT SIGNIFICANT STORM EVENT.
4. DEBRIS AND OTHER MATERIALS: LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
5. TRENCH OR FOUNDATION DE-WATERING: TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
6. NON-STORMWATER DISCHARGES: IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:
   - DISCHARGES FROM FIREFIGHTING ACTIVITY;
   - FIRE HYDRANT FLUSHINGS;
   - VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
   - DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3) OF MAINE DEP 06-096 CHAPTER 500;
   - ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
   - PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
   - UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
   - UNCONTAMINATED GROUNDWATER OR SPRING WATER;
   - FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
   - UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5) MAINE DEP 06-096 CHAPTER 500);
   - POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
   - LANDSCAPE IRRIGATION.
7. UNAUTHORIZED NON-STORMWATER DISCHARGES: THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C(6) MAINE DEP 06-096 CHAPTER 500. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:
   - WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
   - FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
   - SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
   - TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.
8. ADDITIONAL REQUIREMENTS: ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.



WITH TRENCHING

WITHOUT TRENCHING





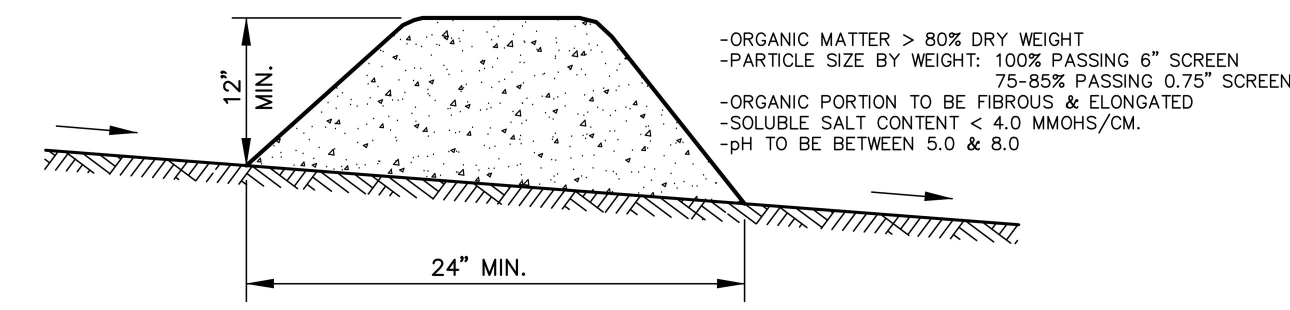
END POST DETAIL
NTS

1. KEY FABRIC IN A 6"X6" TRENCH W/ BACKFILL.
2. SILT FENCE SHALL BE A 3' FENCE OF 120LB/M (W/ REINF. BACK OF 6" WIRE MESH, POSTS 6' O.C. MAX) OR 200LB/M (W/ NO REINF. POSTS 6' O.C. MAX)

SILT FENCE DETAIL
N.T.S.

PLACE BARRIER ALONG RELATIVELY LEVEL CONTOUR.
ECM BERM PROHIBITED AT THE BASE OF SLOPES > 8% OR WHERE THERE IS FLOWING WATER.
SEE MAINE EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONTRACTORS FOR INSTALLATION INSTRUCTIONS.

EROSION CONTROL MIX SHOULD CONTAIN A WELL GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. ECM SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINATES, AND MATERIAL TOXIC TO PLANT GROWTH.

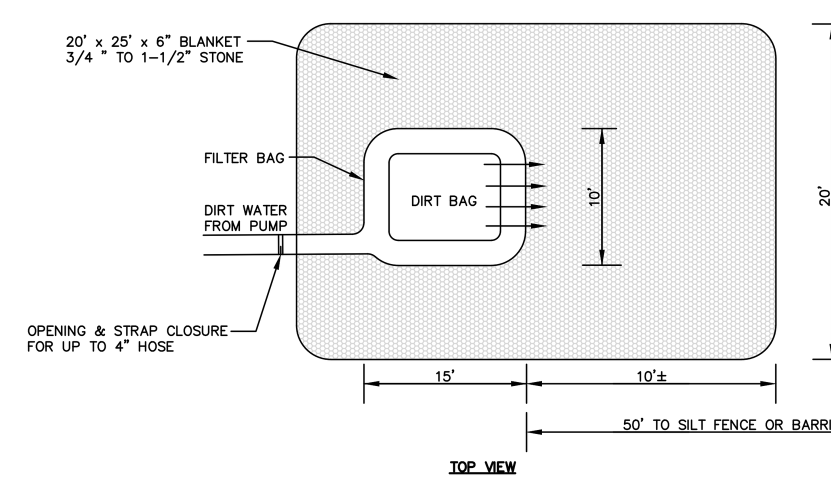


-ORGANIC MATTER > 80% DRY WEIGHT
-PARTICLE SIZE BY WEIGHT: 100% PASSING 6" SCREEN
75-85% PASSING 0.75" SCREEN
-ORGANIC PORTION TO BE FIBROUS & ELONGATED
-SOLUBLE SALT CONTENT < 4.0 MMOHS/CM.
-pH TO BE BETWEEN 5.0 & 8.0

NOTE:

SILT FENCE OR EROSION CONTROL MIX BERM CAN BE USED INTERCHANGEABLY BASED ON APPROPRIATE SITE CONDITIONS AND MATERIAL AVAILABILITY.

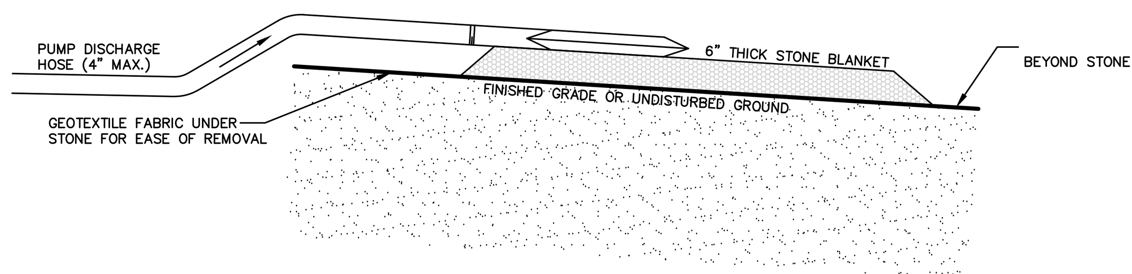
EROSION CONTROL MIX BERM
NTS



TOP VIEW

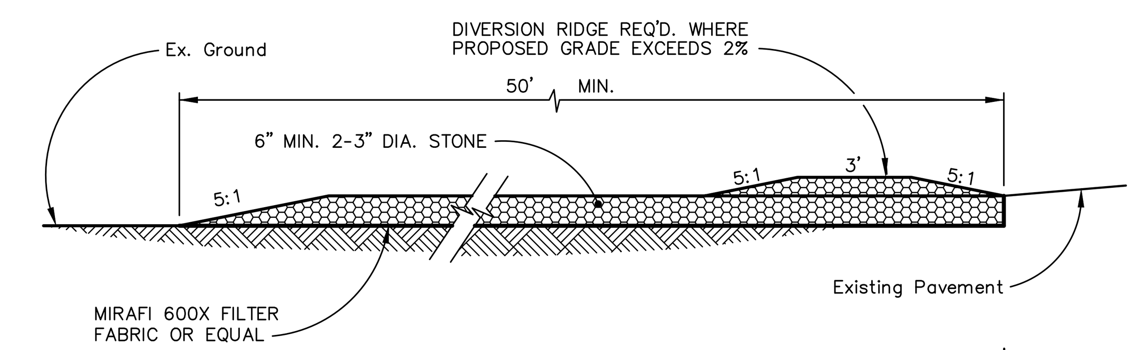
NOTES:

1. DIRT BAG MATERIAL BASED ON PARTICLE SIZE IN DIRTY WATER, I.E. FOR COARSE PARTICLES A WOVEN MATERIAL; FOR SILTS/CLAYS A NON-WOVEN MATERIAL.
2. DO NOT OVER PRESSURIZE DIRT BAG OR USE BEYOND CAPACITY.
3. LOCATE DISCHARGE SITE ON FLAT UPLAND AREAS AS FAR AWAY AS POSSIBLE FROM STREAMS, WETLANDS, OTHER RESOURCES AND POINTS OF CONCENTRATED FLOW.
4. DOWN GRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION, E.G. FOREST FLOOR OR COARSE GRAVEL/STONE.
5. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND. CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF STREAM OR WATER BODY. SECONDARY CONTAINMENT MAY BE REQUIRED.

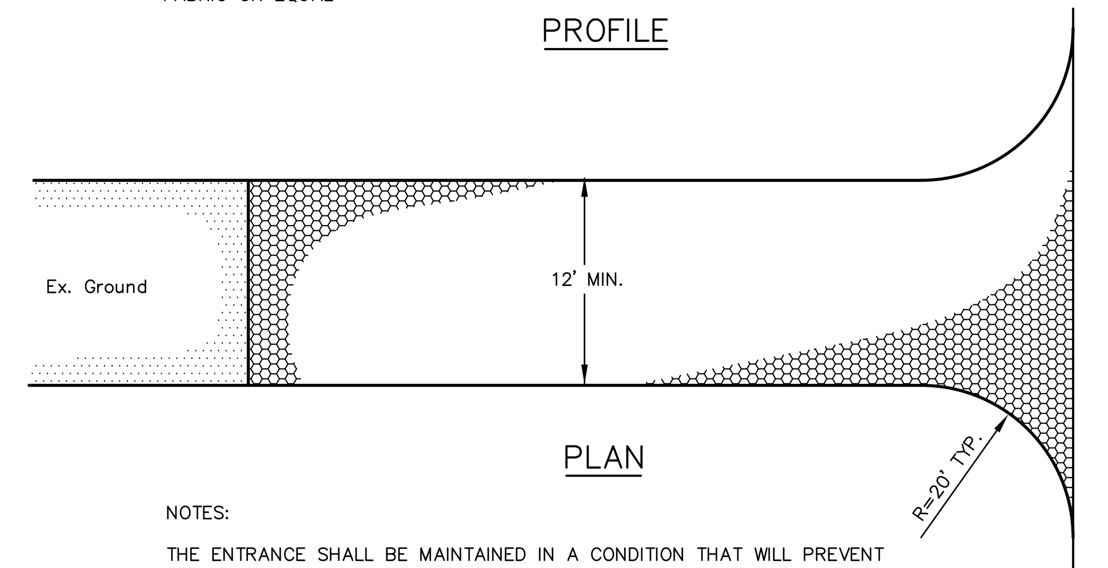


SIDE VIEW

PUMPED DISCHARGE SEDIMENT CONTROL DEVICE ("DIRT BAG")



PROFILE



PLAN

NOTES:

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

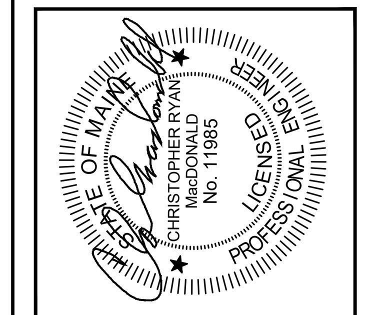
WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY.

WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE
NTS

REVISION

NO.	DATE	DESCRIPTION
1	10-17-22	Issued for Construction and Permitting



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Gorham, Maine 04038
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FOR
York County Soil & Water Conservation District
21 Bradeen Street, Suite 104
Springvale, Maine

EROSION & SEDIMENTATION CONTROL DETAILS

MORIN STREET SOIL FILTER

26 MORIN STREET
BIDDEFORD, MAINE

DESIGNED	DATE
C. MacDonald	September 2022
DRAWN	SCALE
Dept.	As Noted
CHECKED	JOB. NO.
C. MacDonald	22164

SHEET
3

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Project Title	**#20200011 Thatcher Brook Restoration Project Phase III**
Organization	City of Biddeford
Start Date	January 1, 2021
Completion Date	December 31, 2022

I. Waterbody and Watershed Information

a. Background

Waterbody Name	Thatcher Brook
Waterbody Size (e.g., lake acres, stream miles)	7.7 miles
Watershed Area (acres or square miles)	4,525 acres
Watershed Location (town(s), county(s))	Biddeford, Arundel
Title and Date of Existing or Past Watershed-based Management Plan	Thatcher Brook Watershed Management Plan, January 7, 2015
Public Access to Waterbody	Eastern Trail, streamside trail at Glaude Ave.

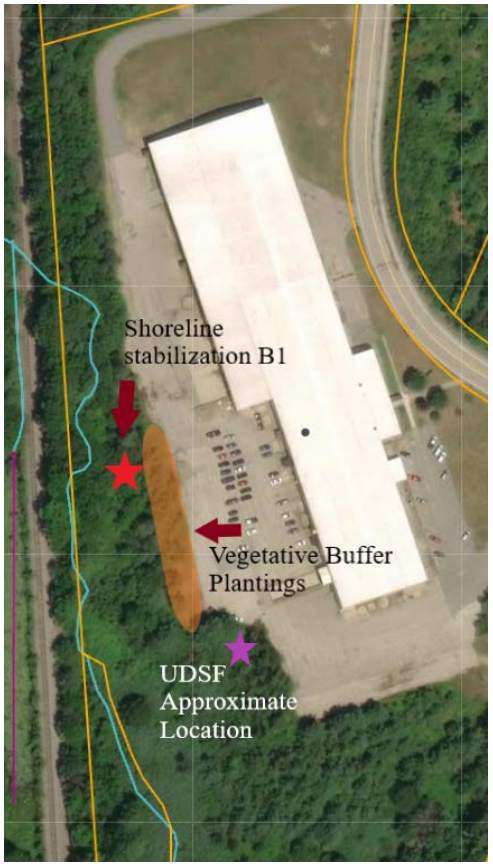
b. Waterbody and Watershed Physical Characteristics

The Thatcher Brook Watershed includes the City of Biddeford and the Town of Arundel. Thatcher Brook is a Class B stream. The Brook flows 7.7 miles through these municipalities before draining into the Saco River. Thatcher Brook's watershed area consists of 14% impervious cover (IC) and contains densely developed commercial sections along Route 1 and Route 111. The designated growth area within the watershed includes retail and commercial development, most of the City's industrial/business parks, and low to moderate income housing. However, the watershed also contains much undeveloped forest, wetlands, and pasture lands.

c. Description of Waterbody Uses and Value

Thatcher Brook is a valuable resource that includes a network of trail systems, including the Eastern Trail, which bisects the watershed. The watershed also contains endangered species and significant habitat areas that are Beginning with Habitat Focus Areas. These include New England Cottontail sites, a highly threatened brook trout fishery, threatened plant communities (including swamp saxifrage) and vernal pool areas.

The Saco Valley Land Trust, which preserves scenic, historic, recreational, and environmental resources in the Biddeford, Saco, and Old Orchard Beach area, maintains a 40-acre parcel which includes a section of the Brook. In addition, Thatcher Brook has been the focus of the Biddeford Conservation Commission for the last decade. The City of Biddeford's Master Plan lists the watershed as an important City water resource, and it is considered a high priority waterbody under their MS4 General Stormwater Discharge permit.

XI: Candidate NPS Site List

NPS Site Name & Location	Describe the NPS Site & Conditions at the Site Causing Polluted Runoff to Reach Surface Waters	BMPs Recommended	Construction Cost Estimates: Grant, Match, Total	Photographs
NPS Site Name: Morin Maine, LLC Project **Level of Impact:** High **Location:** 26 Morin Street	This site was identified in the Plan as having a high priority bank stabilization site (B1). Also, this site was identified as needing an enhanced vegetative buffer. A retrofit behind the building was also proposed in the Plan as Stormwater Retrofit 9. This retrofit is meant to treat water from the parking lot.	B1 will be stabilized and planted with native, vegetation. The buffer behind the parking lot will be planted with a combination of low, woody, native vegetation. A hands-on buffer workshop will be held at this site as well. No portion of the proposed buffer plantings will be placed in the current parking lot. SWR 9 will be an underdrained soil filter, no less than 1,600 square feet in size, and it will treat an estimated one acre of impervious area.	Grant: $46,000 Match: $31,081 Total: $77,081 Site B1 Erosion and proposed bank stabilization Erosion behind parking lot and area of proposed vegetative plantings