

CMA ENGINEERS, INC. CIVIL | ENVIRONMENTAL | STRUCTURAL

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May 6, 2021

Bart McDonough, Town Planner Town of Kittery 200 Rogers Road Kittery, Maine 03904

RE: Town of Kittery, Planning Board Services Meadowlark Farm Cluster Subdivision 21 Litchfield Road, Tax Map 46, Lot 6 CMA #591.134

Dear Bart:

CMA Engineers has received the following information for Assignment #134, review #2 of the Meadowlark Farm Cluster Subdivision at 21 Litchfield Road (Tax Map 46, Lot 6).

- 1) Cluster Development Preliminary Review, Meadowlark Farm Residential Cluster Subdivision, Tax Map 46, Lot 6, Kittery, ME, Prepared for Chinburg Development of Newmarket, NH, Prepared by Altus Engineering, Inc of Portsmouth, NH dated April 22, 2021.
- 2) Stormwater Management Facility Operation and Maintenance (O&M) Manual, Meadowlark Farm Residential Cluster Subdivision, Tax Map 46, Lot 6, Kittery, ME, Revised April 22, 2021, Prepared for Chinburg Development of Newmarket, NH, Prepared by Altus Engineering, Inc of Portsmouth, NH.
- 3) Drawings titled Meadowlark Farm Subdivision, 21 Litchfield Road, Kittery, Maine, Assessor's Parcel 46, Map 6, Re-Submission April 22, 2021, by Altus Engineering, Inc of Portsmouth, NH.

We have reviewed the information submitted for conformance with the Kittery Land Use and Development Code (LUDC) and general engineering practices, and offer the remaining unaddressed comments below that correspond directly to the Town's Ordinances.

The proposed project includes an 8-lot clustered residential subdivision on a 16.73-acre parcel and includes an existing farmhouse duplex (for a total of nine units) on Litchfield Road. Access to the property is proposed by a new 415-foot roadway and 8.6-acres of protected common open space will be provided. The project is located in the rural residential zone (R-RL) and partially in the Shoreland-Stream Protection overlay zone. There are no wetland or wetland buffer impacts. As a cluster subdivision, the residential units are clustered on smaller lots with smaller street frontage, smaller side setbacks and the roadway will have no paved shoulders or sidewalk. The lots are served by municipal water and individual septic tanks and subsurface sanitary waste disposal systems.

#### 16.8 Design and Performance Standards-Built Environment

#### Article IV. Streets and Pedestrian Ways

16.8.4.13 The applicant has requested a waiver for installation of a sidewalk. The project is proposed as a dead end, with only 7 new homes. The request may be considered reasonable.

Table 1-Design and Construction Standards for Streets and Pedestrian ways

Street Width Design:

The project includes a roadway that is a Minor Street classification.

16.8.4.4 – Minor Street Standard – No paved shoulder vs. 2' at sidewalk side and 8' on the opposite side). The applicant has applied for a waiver for a 20-foot wide road with 2-foot wide shoulders.

Intersection Design:

c. Tangent section to paved edge-The proposed grade (2.5% for 30-feet transitioning to 7% by 40-feet) exceeds the 3% maximum for the first 40-feet. The applicant has applied for a waiver.

16.8.5.5.1.C. (1&2) applicant has requested a waiver from the scale of the roadway drawings.

#### Article VI Water Supply

The applicant has requested input from the Kittery water district regarding review of the design.

Are there any remaining obligations regarding the public water system that should/must be addressed by a homeowner's association?

#### Article VII Sewage Disposal

Final septic designs should be submitted for approval. The applicant has indicated that these will be forthcoming prior to filing building permits.

#### Article VIII. Surface Drainage

16.8.8.1.D.1 Stormwater flows increase slightly for both the 2 and 25-year storms at POA 1. This appears to be reasonable give the setting and circumstances, but the applicant should apply for a waiver.

16.8.8.2 The Applicant should meet the requirements of post-construction stormwater management including submitting a certification of inspection to the Town Code Enforcement Officer by July  $31^{st}$ . Please clarify.

#### Article XI. Cluster Residential and Cluster Mixed-Use Development

16.8.11.6.G. Lot 1 has direct access onto Litchfield Road and not the new road which is not allowed under the cluster provisions. The applicant has applied for a waiver.

16.8.11.6.1.4. The applicant is proposing to retain a 10-foot wide vegetated buffer to the property line. Is this sufficient for buffering?

Should you have any questions, please do not hesitate to call #(603) 817-4716.

Very truly yours,

CMA ENGINEERS, INC.

Jodie Bray Strickland, P.E. Senior Project Engineer

Jodie Braystrickland

cc: Eric Weinrieb, P.E. Altus Engineering





Civil Site Planning Environmental Engineering

133 Court Street Portsmouth, NH 03801-4413

April 22, 2021

Bart McDonough, Town Planner Town of Kittery 200 Rogers Road Kittery, Maine 03904

Re: Meadowlark Farm Subdivision Map 46 Lot 6 21 Litchfield Road Kittery, Maine

Dear Mr. McDonough:

At the April 8, 2021 Altus Engineering, Inc. (Altus) presented a Preliminary Application for the cluster development to the Planning Board. At that meeting, the Board voted to accept the application as complete and to schedule a Public Hearing on May 13<sup>th</sup>. On behalf of Chinburg Development, LLC, Altus is pleased to submit the following for the Planning Board's consideration:

- Final Subdivision Plan Sets 2 (24"x36") and 10 (11"x17")
- Draft Homeowner's Association (HOA) documents (12 copies)
- Draft Land Stewardship Plan (12 copies)
- Waiver requests (12 copies)
- Conceptual House Layout Plan (11"x17") (12 copies)
- Net Residential Acreage plan (11"x17") (12 copies)
- Plant Schedule (12 copies)
- Stormwater Management Facility O&M Manual (3 copies)
- PDF Copy of Submission Materials

Following receipt of the Department Head and outside consultant comments, Altus has modified the application package to address the issues noted to finalize the plan set.

- The sight line information has been added to the Sheet C-1.3, Water Main Extension Plan. It demonstrates that there is adequate sight distance in both directions for vehicles exiting Skyview Drive.
- Probable building footprints have been added to the Sheet 1 of 1, Conceptual House Layout Plan to demonstrate that each lot can has adequate space to site the septic system and the home.

Tel: (603) 433-2335 E-mail: Altus@altus-eng.com

- Easterly Surveying's Standard Boundary and Existing Conditions Survey plans have been finalized.
- To assist the Planning Board in understanding the Net Residential Development Calculations, Altus has prepared Sheet 1 of 1, Net Residential Acreage Plan. The plan is a colored worksheet showing the designations of each area computed to develop the allowable lot development density. Additionally, Joe Noel will be available to attend the May 13<sup>th</sup> Planning Board meeting to answer board member questions.
- Doug Greiner, Landscape Architect with g2 & 1, has now prepared the landscaping plan for the project.
- Altus has relocated the path to the recreation fields closer to Litchfield Road. It is now located at the top of the slope and behind the relocated farmers stone wall.
- The stormwater management maintenance operation manual has been revised to address CMA's comments.
- Working with Joe Noel, Chinburg is developing a Land Stewardship plan to retain the area forever in its undeveloped, scenic and open space condition and to prevent any use of the Open Space that will significantly impair, or interfere with, its conservation value.

The CMA report suggests that final septic system designs should be submitted for each lot for approval. The work completed by Joe Noel supports that septic systems can be designed for each lot. Until the final home footprints and locations are sited, we believe it is premature to provide the final designs. The Designs need to be approved by the State. Prior to filing a building permit, septic system designs will be provided to the Town for review.

To support compliance with Section 16.8.11.6.I.4 Buffering, Altus offers the following:

The parcel is uniquely located at the end of the dead-end road. The existing farmhouse is up close to the road. Installing landscape screening along the front of the property in this location would change the existing rural character of the streetscape. Buffering to the rear of the property is a large natural buffer that does not require any buffering. Litchfield Road where the new access will be constructed has deteriorated stonewall and lacks a roadway shoulder and drainage swale. The project proposes to construct a swale, rebuild farmers stonewall, install walking path and landscape improvements. This will create a substantial and appropriate buffer from Litchfield Road. To the north of the site, is the recreation complex. We are proposing to retain a 10-foot-wide vegetated buffer to the property line.

Chinburg crafted the draft HOA documents which were included in the Preliminary submission. They have been revised and will include documentation on maintaining the Open Space to improve /maintain the wildlife habitat.

Following the May 13<sup>th</sup> Planning Board meeting, Altus will file the Maine DEP Stormwater PBN.

As noted by CMA, the project requires additional waivers than the ones that we initially identified. Attached are the waiver requests for the Board's consideration.

We note that the final plan set will include stamps for all the licensed professionals associated with developing the plans.

We are currently working with the School Department to determine if there will be bus access to the site or even to Litchfield Road.

We look forward to presenting to the Board on May 13<sup>th</sup>. Please feel free to contact me should you have any questions or need any additional information.

Thank you for your time and consideration.

Respectfully,

ALTUS ENGINEERING, INC.

Eric D. Weinrieb, P.E.

President

5131.00 Cover.ltr2.docx

**Enclosure** 

ecopy: Paul Kerrigan and Maria Pyburn, Chinburg Development, LLC

Colton Gove & Scott Gove

Joe Noel, CWS

Peter Agrodnia, LLS

Jodie Bray Strickland, PE, CMA

Doug Greiner, g2 & 1

#### DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR SUBDIVISION

This Declaration of Covenants, Conditions and Restrictions (the "Declaration") is made this \_\_\_\_ day of February 2021 , by Chinburg Development, LLC, a New Hampshire limited liability company, (the "Declarant") of 3 Penstock Way, Newmarket, NH 03857, being the current owner of real property identified as Lots 1, 2, 3, 4, 5, 6, 7and 8 and the Common Open Space and the roadway Cluster Lane, (each a "Lot," collectively, the "Lots" or "Property") as shown on the plan entitled, "Cluster Subdivision, Map 46, Lot 6, 21 Litchfield Road, Kittery, Maine," prepared by Altus Engineering, Inc., dated December 23, 2020 and recorded in the York County Registry of in Plan Book \_\_\_\_, Page\_\_\_ (the "Plan"). The Declarant hereby adopts the following covenants, conditions and restrictions applicable to the Property.

This Declaration is made for the purposes of ensuring the most appropriate development of the Lots; to protect Owners of the Lots against the improper use of Lots so as to preserve the values of their property; to reserve, so far as practical, the natural beauty and open space of the subdivision; to guard against the erection of poorly designed or proportioned dwellings and structures built of unsuitable or improper materials and in general, to provide adequately for a predictable quality of improvement within the development and thereby increase the value of investments made in homes within the subdivision. The Declaration is also made for the purpose of maintaining the common open space, maintaining and operating the stormwater system, maintaining and plowing the private roadway, maintaining the mailboxes and maintaining and inspecting such other items deemed needed for the proper operation of the subdivision and allocating the costs.

#### 1. Homeowners' Association Formation and Responsibilities.

shall establish a homeowners' association designated as the \_\_\_\_ Homeowners' Association (the "Association" or "HOA"). The Association shall be governed in accordance with this Declaration and By-Laws attached hereto as **Exhibit A**. Membership in the Association shall be mandatory for all owners of Lots within the subdivision. Until all Lots are sold, or sooner if the Declarant gives voluntary written notice in an acceptable form to the then Owners of record that the Declarant has relinquished its powers hereunder, control of the Association shall be vested with the Declarant subject to this Declaration. Until such time as the Association is formed, the Declarant shall maintain the common open space, maintain and operate the stormwater system, maintain and plow the roadway, and maintain the mailboxes and maintain and inspect such other items deemed necessary for the proper operation of the subdivision, and shall have the right to establish an annual budget for the management of these items, as well as a capital reserve fund

and to assess each Lot Owner a portion of the cost. At the closing of each Lot, the Owner will pay its pro-rata share of its annual fee and contribute toward the capital reserve fund to be held in reserve by the Declarant and turned over to the Association once formed. The Declarant shall not be obligated to make any contribution to either the annual fee or the capital reserve fund.

After the Association has been formed and the Declarant has relinquished all control to the Owners, there shall be a meeting of the Association members, at which time one Lot Owner shall be elected President, who shall be a member of the Board of Directors. A letter shall be sent to Maine Department of Environmental Protection (MDEP) Stormwater Program, notifying of the creation of an HOA. The Association members will also elect at least two other members to serve on the Board of Directors. Each Lot shall have one vote regardless of the number of Owners of the Lot. The Board of Directors shall prepare an annual budget and assess to each Lot Owner one hundred percent (100%) of the cost of maintaining the common open space, the stormwater system, the roadway, maintaining the mailboxes and maintaining and inspecting such other items deemed necessary to the proper operation of the Association. The Board of Directors shall determine the method of payment and may record a lien against any Lot Owner whose assessment is not paid within thirty (30) days of due date for the amount unpaid as well as all costs associated with collection of such expense including reasonable attorney's fees. Failure of the Owner to pay the expense within thirty (30) days shall result in the Owner being responsible for payment of an interest rate of 1 and 1/2 percent per month on the unpaid balance until the balance is paid in full. No annual meetings shall be held until such time as Declarant has relinquished control of the Association.

#### 2. Drainage Easements; Stormwater Requirements.

- 2.1 Upon conveyance of the first Lot, stormwater practice(s) as depicted on the Plan shall automatically be reserved for the benefit of the Declarant or the Association once formed. The Declarant or the Association once formed shall maintain the stormwater practice(s) in accordance with Stormwater Facility Maintenance Requirements in the Stormwater Management Facility Operation and Maintenance Manual (the "Stormwater O & M Manual") attached hereto as **Schedule A**. The management of these easements shall be further subject to the Bylaws of the Association.
- 2.2 As required by the Stormwater Facility Maintenance Requirements, the Declarant, or the Association once formed shall have the stormwater facilities inspected by a qualified individual at a minimum of once per year in accordance with the Stormwater O & M Manual for the specific type of facility. The persons conducting the inspection activities shall complete the appropriate inspection report and file it with the Town, if required. Within three (3) months of each five-year interval from the date of issuance of the permit, a report shall be submitted to Maine Department of Environmental Protection ("MDEP") Stormwater Program certifying that the stormwater practices are operating and maintained in accordance to the Stormwater O & M Manual.
- 2.3 The Association shall maintain any restricted buffer easement in accordance with MDEP Permit No. \_\_\_and in accordance with Stormwater Management Law, 38 M.R.S.A. Section 420-D and Chapter 500 of the rules promulgated by the Maine Department of

Environmental Protection. *See* restrictions from Appendix G of Chapter 500 attached hereto as **Schedule B** for further information. The Declarant, the Association, the Town of Kittery and MDEP shall have the right to ensure compliance with MDEP Permits. Any costs and expenses incurred by the Declarant, the Town or MDEP to insure compliance can be recovered against the Association.

2.4 Each Lot will be served by its own individual septic tank and septic field serving each Unit owned and maintained by each Unit Owner,

#### 3. Land Use and Structure Type; Zoning and Land Use Laws.

- 3.1 No building or other structure of any kind shall be erected, placed or allowed to stand on any individual building lot, except one detached dwelling house for the use of one family and one garage/barn structure adapted for the storage of not more than four (4) automobiles. There will not be any back lots permitted within the subdivision. No fences will be allowed within the subdivision unless approved by the Declarant or the Association once formed. An "in-law" apartment is permissible if allowed by zoning. No bed and breakfast, food service, kennel, or pet breeder shall be conducted from any dwelling erected on any lot. Business and commercial enterprises shall not be conducted from any dwelling erected on any lot except as permitted by the then existing zoning ordinance and regulations for the Town of Kittery without application for any variance therefrom; and further <u>provided</u> that not more than one (1) additional person be employed and that such use does not require any client/patient/customer contact at the dwelling. No such home business may display external evidence of the business, e.g., signage, nor shall any client/patient/customer/employee be allowed to park on the street.
- 3.2 No structure, other than the principal dwelling referred to above (other than a moveable trailer or shelter, incidental to construction), shall be used even temporarily as a place of habitation. All house locations and other structures, construction, excavation, sewage disposal and water supply, and stormwater drainage must otherwise be in compliance with Kittery Land Use and Development Code and applicable local, federal and state laws, codes, ordinances and regulations. In addition to the foregoing, each lot shall be and hereby is made subject to all applicable "notes" and other matters as shown on the complete set of approved subdivision plans filed with the Town of Kittery.

#### 4. Dwelling Size; Approval by Developer.

- 4.1 Each dwelling shall have a minimum of 1,000 square feet of finished living area, exclusive of any garage, deck, porch, patio, basement, and attic. No carports shall be erected, placed or allowed to stand on said lots without prior approval of the Declarant. All improvements, including driveways, must be determined to: (i) meet all the terms and conditions of these covenants; (ii) ensure the optimal use of a lot with the least intrusion upon the privacy and views of neighboring lot owners; and (iii) ensure harmony of scale of dwellings with the subdivision.
- 4.2 Prior to seeking construction approval from Declarant, each Owner shall submit plans, including building plans, specifications and plot plan showing the precise location and

setback of all improvements, including driveways. Plans shall also specify the nature, kind, shape, height, orientation, color, composition, and material for all such improvements as well as showing finish grade elevations in relation to existing elevations. All plans must be agreed upon and approved by the Declarant and Owner prior to commencement of construction. Said approval shall not be unreasonably withheld or delayed.

- 4.3 No dwelling, building, structure, alteration, addition or improvement of any sort, other than interior alterations not affecting the external appearance of the dwelling, building or structure, shall be placed, erected or constructed upon any Lot until such plans shall have been approved in writing by the Declarant, which plans, the Declarant shall have the right to approve or disapprove. Notwithstanding the foregoing, Declarant shall have no liability or responsibility for the enforcement of the within covenants and restrictions nor for the exercise of its discretion in approving or in disapproving any plans submitted as a consequence hereof.
- 4.4 Once the Declarant no longer owns a lot in the subdivision, no prior approval under this Section is required unless the Board of Directors establishes an Architectural Committee as permitted under the Bylaws of the Association to review the plans.

#### 5. <u>Building and Landscaping Requirements.</u>

All structures shall have exterior wall surfaces covered with redwood or cedar clapboards or shingles, composition clapboards (HardiPlank or equivalent), brick or stone, vinyl, or a combination of any of the aforesaid, painted or natural sealed and must be maintained in a first-class condition. The use of simulated or artificial brick or stone or aluminum siding or any similar materials shall not be allowed, unless specifically agreed to by Declarant. All dwellings shall be constructed on poured concrete foundations with a maximum of 24 inches of exposure unless otherwise approved by Declarant. All foundations shall be treated with waterproofing. Daylight or sump well foundation drain systems shall be used.

#### 6. <u>Use and Occupancy Restrictions.</u>

- 6.1 Further subdivision of the lots is expressly prohibited. Notwithstanding the expressed prohibition for further subdivision of lots, lot line revisions between lots may be allowed.
- 6.2 Any Owner may lease his lot for a period of not less than twelve (12) months and shall be responsible to ensure compliance with these covenants by his/her tenant, especially the provisions in Section 2.5.
- 6.3 Certain lots in the subdivision may be subject to easements or restrictions, as shown on the Plan. Acceptance of a deed to any such lot by an Owner shall be subject to such easements or restrictions whether or not referenced in such deed and each Lot Owner agrees not to utilize the Lot in a manner, which will interfere with the reasonable intent of the easement or restriction as referenced on the Plan.

#### 6.4 The following are prohibited:

- a. Clotheslines, unless they are in back of the house and not visible from the road or other lot(s);
- b. Antennas or satellite dishes with diameters larger than 24 inches unless approved by the Declarant or Association;
- c. Additions or outbuildings or appurtenances unless prior approval from Declarant or the Association, if required, has been obtained;
  - d. Use of pesticides unless by professional application in limited quantity;
- e. Fuel tanks or similar storage receptacles that are visible from the road unless prior approval from Declarant or the Association, if required, has been obtained.
- f. Tree and vegetation cutting shall be limited to (unless otherwise designated) the building envelope and house yard on each individual lot. All other tree and vegetation cutting shall be subject to the restrictions as shown on the complete set of approved subdivision plans and as set forth in Section 2.3 herein.
  - g. No open fires shall be permitted, except as allowed by Kittery Town Code.
- h. No sign shall be displayed for the public view on any lot except one sign of not more than 6" in height and 24" in length denoting the lot owner's name and address. Temporary real estate agency signs indicating a dwelling for sale shall be permitted. The restriction shall not apply to any sign erected by Declarant at the entrance or within the subdivision.
- i. No animals, livestock or poultry of any kind shall be raised, bred or kept on any lot, except domestic household pets, which shall be maintained and cared for in accordance with Town Ordinances. All dogs shall be leashed when outside the boundary of an Owner's Lot.
  - j. Household trash disposal will be the responsibility of the individual homeowners.
- k. No unregistered vehicles, junk cars or trucks or part thereof, shall be permitted on any lot unless garaged. No campers, trailers or boats are to be stored outside of dwelling or garage permanently for more than seven (7) days, unless approved by Declarant or Association in writing.
- l. No loam, sand or gravel, or other such material, except that resulting from landscaping or from construction permitted under this paragraph, shall be removed from a building lot.
- m. No hunting or trapping is allowed on any lot or other portion of the subdivision. No noxious, unlawful, or offensive activity shall be carried on in any dwelling nor shall anything be done therein, whether willfully or negligently. No Owner shall make or permit any disturbing noises by himself, his family, servants, employees, agents, visitors and permitted occupants and guests, nor do or permit anything by such persons that will interfere with the peaceful possession

and rights or other property owned by the Declarant or other Lot Owners.

- n. Lot grades shall not be changed in such a way as to divert the natural flow of water onto adjoining lots or the subdivision streets or rights-of-way, if any.
- o. All driveways, dwellings, or other structures built on a lot shall be constructed to provide for proper water runoff and to prevent the formation of any unnatural accumulation or discharge of water and/or ice onto any other lot, except for such approved drainage as may be shown on the complete set of approved subdivision plans.
- p. No dwelling or structure shall be left with an unfinished exterior. The exterior of every structure on the lot shall be kept in a proper state of repair, appearance and maintenance. Oil tanks or propane tanks for domestic uses must be stored underground, shielded from view in the rear, or in the cellar of the residential dwelling.
- q. Construction of a dwelling or any other approved structure on a lot, including finished landscaping, shall be completed within twelve (12) months from the commencement of said construction. Commencement shall be on the date on which a building permit is issued for the construction of a dwelling on a lot.

#### 7. Common Open Space, Common Property and Other Lot Restrictions.

- 7.1 Declarant hereby places certain restrictions, under the terms and conditions herein, over portions of the Property depicted on the Plan as Common Open Space. These restrictions shall run with the Common Open Space and Lots and shall be binding on all parties having any right, title, or interest in and to the Common Open Space and Lots, or any portion thereof, and their heirs, personal representatives, successors, and assigns and shall survive any dissolution of the Association created herein. The Common Open Space will be deeded to the Association within twelve (12) months of substantial completion of all construction, including house lots, roadway and infrastructure in the subdivision or earlier at the option of the Declarant.
- 7.2 Except as otherwise provided below, Common Open Space shall remain undeveloped in perpetuity. Common Open Space is subject to additional restrictions as set forth below.
- 7.3. Common Open Space shall be used and designated as shown on the complete set of approved subdivision plans. All structures including the signage and landscaping, shall belong to the Declarant or the Association. All costs associated with the maintenance of the signage and landscaping on Common Open Space, including water and electrical charges, shall be common expense and each lot owner shall pay 1/8th of the cost as provided for in Section 1 of this Declaration.
- 7.4. Common Open Space is subject to a MDEP Buffer Easement, 100' MDEP "Wooded" Buffer Easement as shown on the Plan and as further stated in MDEP Permit No.

and in **Schedule B** attached. The Common Open Space may be used for well radius protection and such other items as shown on the Plan and which may be later amended and approved by the MDEP and Town of Kittery. The Town of Kittery and MDEP shall have the right, upon advance notice, to cure any default against the Declarant or Association, once formed, to ensure compliance with MDEP Permits. Any costs and expenses incurred by the Town of Kittery or MDEP to insure compliance can be recovered against the Declarant, or Association, once formed. Any activity on or use of the Common Open Space inconsistent with the purpose of the restrictions in this section is prohibited. The Declarant or Association may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control of the Common Open Space or if adequate and appropriate alternative means of stormwater control and treatment are provided; provided the necessary permits are obtained from the Town of Kittery and MDEP.

- 7.5 Common Open Space shall include any grassed swales, grassed underground soil filters, \_\_\_\_\_\_, all as shown and described on the Plan. Maintenance of Common Open Space in accordance with best management practices shall be the responsibility of the Declarant or Association
- 7.6 The mailboxes located at the entrance to the subdivision shall be common property and shall be maintained by the Association.
- 7.7 The restrictions set forth herein shall be binding on any present or future owner of the Common Open Space and Lots.
- 7.8 Each provision of this Declaration, and any agreement, promise, covenant, and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Common Open Space and Lots.

#### 8. **Roadway Maintenance and Plowing**.

Lane, the roadway identified on the Plan, shall remain private and shall be owned by the Declarant until such time as the roadway is deeded to the Association. The Declarant shall build, maintain and plow the roadway until such time as the roadway is deeded to the Association. The roadway will be deeded to the Association within twelve (12) months of substantial completion of all construction, including house lots, roadway and infrastructure in the Subdivision or earlier at the option of the Declarant. Once deeded, the Association shall own the roadway and be obligated to maintain and plow the roadway. Each owner of a lot shall share pro rata with other lot owners and/or the Declarant the cost of maintaining and plowing the roadway. The Declarant or Association, if the Declarant is no longer on the Board of Directors as the case may be, shall assess and bill each lot owner their pro rata contribution. Such assessment shall become a recordable lien against the lot of such member if not paid within thirty (30) days as provided for in Section 1.

#### 9. **Erosion Control.**

- 9.1 To implement effective and adequate erosion control and protect the beauty of the subdivision, the Declarant or the Association shall have the right to enter upon any Lot before or after a building or structure has been constructed for the purpose of performing corrective grading or landscaping work necessary to protect adjoining properties or alleviate any unsightly condition or construction or maintaining erosion prevention devices.
- 9.2 Prior to exercising its right to enter upon the Lot, Declarant or the Association shall give the Owner the opportunity to take corrective action by giving the Owner written notice indicating what type of corrective action is required and specifying that immediate corrective action must be taken by such owner and advising that if the Owner fails to take the corrective action specified within fifteen (15) days after having been notified, the Declarant or the Association may exercise its right to enter upon the property in order to take the necessary corrective action.
- 9.3 The cost of such corrective action or erosion prevention measures shall be paid by the Owner within thirty (30) days after receipt by Owner of an invoice for the cost of such work. Any expense incurred in taking the above action shall be considered a common expense assessed to the Lot Owner for which Declarant or the Association shall be entitled to record a lien upon the Lot for such common expense as well as all costs associated with collection of such expense including reasonable attorney's fees. Failure of the Owner to pay the expense within thirty (30) days shall result in the Owner being responsible for payment of an interest rate of 1-1/2 percent per month on the unpaid balance until the balance is paid in full.

#### 10. Reservations and Easements.

There is hereby excepted and reserved for the benefit of the Declarant, for so long as it owns any portion of the lots, and thereafter to the Association the following:

- a. A right of way for all purposes over, across and through the roads, together with the right to install and maintain utilities within or under the traveled portion of said roads until the road is deeded to the Association.
- b. The right to grant easements for utility purposes to enter onto any lot within fifteen (15) feet of the road lot line for the purpose of constructing, reconstructing, installing, replacing, and maintaining an underground or an aboveground utility therein and to extend, connect to, and use in common any previously installed utility by the lot owner providing that promptly after such entry, the surface of the ground shall be restored to substantially the same condition as it was in prior to such entry.
- c. A non-exclusive easement is reserved for the Declarant, its successors and assigns, in, upon, over, under, across, and through the subdivision for the purpose of installation, maintenance, repair and replacement of all utility lines and any other equipment and machinery necessary or incidental for the proper function of any utility systems serving the subdivision, which easements may be specifically conveyed to a public utility or municipality supplying the service. The easements created by this section shall include, without limitation, rights of the Declarant or the appropriate utility or service company or governmental agency or authority to

install, lay, maintain, repair, relocate and replace gas lines, pipes and conduits, water mains and pipes, sewer and drain lines, drainage ditches and pump stations, telephone wires and equipment, television equipment and facilities (cable or otherwise), electrical wires, conduits, equipment, ducts and vents over, under, through, along and on the lots and common open spaces and roadways. Notwithstanding the foregoing, any such easement shall not be exercised so as to materially interfere with the use or occupancy of any residence on a Lot.

- d. A non-exclusive easement is reserved for the Declarant, its successors and assigns, in, upon, over, under, across, and through the subdivision for the purpose of installation, maintenance, repair and replacement of all drainage and any other equipment and machinery necessary or incidental for the proper function of any drainage systems serving the Subdivision.
- e. A non-exclusive easement is reserved for the Declarant, its successors and assigns, in, upon, over, under, through and across the Development as long as the Declarant, its successors and assigns, shall be engaged in the construction, development and sale of lots and units within the Subdivision and on any contiguous land now or hereafter owned by the Declarant, for the purpose of construction, installation, maintenance and repair of existing and future building and related activities, including extension of and connection with subdivision roads and utility system for such development.
- f. A non-exclusive access easement is reserved for the Declarant, its successors and assign, to access each Lot and home constructed thereon to conduct the responsibilities of inspecting the septic tank.
- g. Any easement reserved for the benefit of the Town or Declarant or Association or as otherwise designated on the Plan shall be deemed automatically granted without the need of any additional documents.
- h. <u>Cemetery</u>. The <u>Cemetery</u> as shown on the Site Plan shall be conveyed to the Town of Kittery together with an access easement over the Common Area to access <u>Cemetery</u> as shown on the Site Plan.
- i. Until such time as the Declarant conveys to the Town of Kittery the proposed five foot wide pedestrian easement depicted on the Subdivision Plan, pedestrian access is granted to all Lot owners, their invitees and guests and the Town of Kittery. Once said pedestrian easement is conveyed to the Town of Kittery, it shall be considered a public right of way with general pedestrian access rights.

#### 11. **Enforcement**.

Proceedings may be maintained irrespective of the waiver of any prior violation or attempt by the same or other Owners, and the failure to enforce on any one occasion shall in no event be deemed to be a waiver of the right to do so thereafter as to the original breach or as to any breach subsequent thereto. The violation or attempted violations of any covenant or restriction in this Declaration is hereby declared a nuisance, which may be remedied by any appropriated legal proceeding. If any Owner shall attempt to violate, shall violate or shall permit

on his lot any violation of any of the covenants, restrictions or reservations described herein, the Declarant or Association once formed or any Lot Owner may commence proceedings at law or in equity to recover damages or other awards for such attempts, violations or permitting of the same, or to enjoin the furtherance or continuation of such attempts or violations, or both.

#### 12. **Severability.**

Invalidation of any covenant by court order or judgment shall not affect any of the other covenants or provisions herein, all of which shall remain in full force and effect.

#### 13. <u>Notice of Covenant, Conditions and Restrictions.</u>

A copy of these covenants, conditions and restrictions shall be recorded in the York County Registry of Deeds.

#### 14. **Term.**

These covenants, conditions and restrictions shall run with the land and shall be for the benefit of the premises and shown on the Plan and shall be binding on the lots and purchasers of said Lots for a period of twenty (20) years from the date of this Declaration and shall automatically extend for successive periods of ten (10) years. Failure to specifically refer to and/or incorporate these covenants, conditions and restrictions in deeds to the Lots shall not in any manner affect the validity and effectiveness of these covenants, conditions and restrictions upon any such Lot.

#### 15. Amendment, Modification or Waiver by Declarant.

The Declarant may amend the provisions of this Declaration at any time so long as Declarant owns a Lot and such amendments shall be binding on any and all Owners purchasing a Lot from the Declarant after such amendments has been duly made and recorded, provided such amendments are not less restrictive than the requirements in Sections 4. After Declarant no longer owns a Lot, these covenants, conditions and restrictions may be amended, at any time, by the then two thirds vote of the Lot Owners. Any amendment must be recorded at the York Country Registry of Deeds. Provided however, no amendment may remove, revoke or modify any right or privilege of the Declarant without the written consent of the Declarant or the assignee of such right or privilege; nor shall any amendment alter Sections 2, 7, 8 and 10(g) without the written consent of the Town of Kittery or MDEP. Any waiver by the Declarant on any one occasion or for any individual lot shall not be deemed to constitute a waiver on any future occasion with respect to any lot.

#### 16. <u>Title Reference</u>.

For Declarant's title reference see deeds from.

[Signature follows on the next page.]

IN WITNESS WHEREOF, we have first above written.	e hereunto set our hands and seals the day and year
	DECLARANT Chinburg Development, LLC
	By: Eric J. Chinburg, Manager
STATE OF NEW HAMPSHIRE ROCKINGHAM, SS	
The instrument was acknowledged Manager of Chinburg Development, LLC for	before me on February, 2021, by Eric J. Chinburg, for the purposes herein contained.
	Notary Public
	My Commission Expire

#### Exhibit A

See attached Bylaws of \_\_\_\_ Homeowners Association

#### **EXHIBIT A**

#### THE \_\_\_ HOMEOWNERS' ASSOCIATION

#### **BY-LAWS**

THESE BY-LAWS dated this day of, 2021 executed by Chinburg
Development, LLC, a New Hampshire limited liability company, with a place of business at 3
Penstock Way, Newmarket, County of Rockingham, State of New Hampshire (hereinafter
called, together with their successors and assigns referred to as "the Developer") who is the
Declarant under a Declaration of even date herewith and to be recorded simultaneously herewith
in the York County Registry of Deeds (hereinafter called the "Declaration"). These By-Laws
shall apply to the Subdivision as described and created by the Declaration and to all present
and future owners, tenants, and occupants of any lots in the development and to all other persons
who shall at any time use the development or any portion thereof. The acquisition or rental of
any lot or the act of occupancy of any lot will signify that these By-Laws are accepted, ratified
and will be complied with. These By-Laws shall run with the land and each lot comprising the
development and shall be binding thereon.

#### **ARTICLE I**

#### INTRODUCTORY PROVISIONS

- (a) **Definitions.** The terms used herein shall have the same meaning as given to them in the Declaration, except as expressly otherwise provided in the Declaration, or the application of such meaning would be contrary to the clear intent of the statement. The term "rules and regulations" refers to the rules and regulations for the conduct of the occupants of the development, adopted by the Association as hereafter provided.
- (b) **Purpose**. \_\_\_\_ Homeowners' Association is a non-profit private mutual benefit corporation pursuant to the State of Maine Title 13-B for the purpose of administering the Common Land of the subdivision in order to preserve property values and amenities in the subdivision and for the preservation, maintenance and improvement of the Common Land, including the Common Open Space, interior roadway, lighting, if any, and easements held by the Association in the subdivision now or in the future.
- (c) **Conflicts.** These By-Laws are intended to comply with the requirements of the Declaration. If there is an inadvertent conflict between the provisions of these By-Laws and the Declaration, the provisions of the Declaration shall control.

#### **ARTICLE II**

#### **MEMBERS**

(a) <u>Class of Members</u>: The Association shall have one class of members. The qualifications and rights shall be as follows:

- (1) Every beneficial owner as distinguished from a security owner, of a lot in the subdivision shall become a member of the \_\_\_\_ Homeowners' Association (hereinafter the "Association").
- (2) Membership shall include an undertaking to comply with and be bound by the Declaration of Covenants. Conditions and Restrictions, these By-Laws and amendments thereto, and the policies, rules, and regulations at any time adopted by the Association in accordance with these By-Laws. Members shall pay the first year's dues in advance on a pro rata basis based on a calendar year beginning in January of each year.
- (3) Membership in this Association shall terminate when a member ceases to be a beneficial owner of a lot in the subdivision.
- (b) <u>Voting Rights</u>: Each member in good standing shall be entitled to vote on each matter submitted to a vote of the members; provided, however, that each member shall be the sole beneficial owner of a lot in the subdivision. A member shall have one vote for each lot of which member is a beneficial owner. Where two or more owners own a lot, only one vote for such lot owned shall be allowed, and such joint owners shall designate and register with the Secretary of the Association the name of that owner entitled to cast such single vote.
  - (1) At membership meetings all votes shall be cast in person, or by proxy registered with the Secretary.
  - (2) The Board of Directors is authorized to establish regulations providing for voting by mail.
- (c) <u>Assignment of Rights</u>: A beneficial owner who is the member of the Association may assign his membership rights to the tenant residing in or on the beneficial owner's lot. Such assignment shall be completed by filing with the Secretary of the Association a written notice of assignment signed by the beneficial owner.

#### **ARTICLE III**

#### **MEETINGS OF MEMBERS**

- (a) <u>Annual Meeting</u>: An annual meeting of the members for the purpose of hearing reports from all officers and standing committees and for electing directors shall be held in Kittery, County of York, State of Maine in September of each year. The time and place shall be fixed by the Directors.
- (b) <u>Regular Meetings</u>: In addition to the annual meetings, regular meetings of the members shall be held at such time and place as shall be determined by the Board of Directors.

- (c) <u>Special Meetings</u>: A special meeting of the members may be called by the Board of Directors. A special meeting of the members must be called within ten (10) days by the President, or the Board of Directors, if requested by not less than four (4) of the members having voting rights.
- (d) <u>Notice of Meetings</u>: Written notice stating the place, day, and hour of any meeting of members shall be delivered either personally or by mail to each member entitled to vote at such meeting, not less than five (5) days before the date of such meeting.
- (e) Quorum: The members holding (%) percent of the votes that may be cast at any meeting shall constitute a quorum at any meeting of the members. In the absence of a quorum, a majority of the members present may adjourn the meeting from time to time without further notice.
- (f) <u>Proxies</u>: At any meeting of the members, a member entitled to vote may vote by proxy executed in writing by the member. No proxy shall be valid after six months from the date of its execution, unless otherwise provided in the proxy.
- (g) <u>Voting by Mail</u>: When Directors or Officers are to be elected by members, or when there is an act requiring the vote of the members, such election or vote on such proposed action may be conducted by mail in such manner as the Board of Directors shall determine.

#### ARTICLE IV

#### **BOARD OF DIRECTORS**

- (a) <u>General Powers</u>: The affairs of the Association shall be managed by the Board of Directors, subject to instructions of the members of the Association at a regular meeting, or subject to the approval of the membership as expressed by a vote of the membership.
- (b) Number, Tenure, and Qualifications: The number of Directors shall be not less than three (3) but not more than five (5). Each Director shall be a member of the Association, and shall hold office until two (2) annual meetings of the members following Director's original qualification shall have been held, and until his successor shall have been elected and qualified. Exceptions to the provision for the two (2) year tenure shall be in the case of the Director's first taking office following the organizational meeting of the Association. Of the first three (3) Directors, one (1) shall hold office only for a term of one year, one (1) shall hold office until the second subsequent annual meeting, one (1) shall hold office until the third subsequent meeting. The determination of the respective terms shall be by lot. When possible, any increase in the number of Directors shall be in units of two (2) members, and their initial terms shall be one for one (1) year and the other one for two (2) years, with the determination to be by lot.
- (c) <u>Regular Meetings</u>: The Board of Directors shall meet regularly at least every six (6) months, at a time and place it shall select.

- (d) <u>Special Meetings</u>: A special meeting of the Board of Directors may be called by or at the request of the President or of any three (3) Directors.
- (e) <u>Notices</u>: Notice of any special meeting of the Board of Directors shall be given at least five (5) days prior thereto, by written notice delivered personally or sent by mail to each Director. Any director may waive notice of any meeting.
- (f) <u>Quorum</u>: A majority of the duly authorized Board of Directors shall constitute a quorum for the transaction of business at any meeting of the Board, but if less than a majority of the Directors are present at said meeting, a majority of the Directors present may adjourn the meeting from time to time, and without further notice.
- (g) <u>Manner of Acting</u>: The act of a majority of the Directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, unless the act of a greater number is required by law or by these By-Laws.
- (h) <u>Vacancies</u>: Any vacancy occurring in the Board of Directors, and any directorship to be filled by reason of the increase in the number of directors, shall be filled by election of the Board of Directors. A Director elected to fill a vacancy shall be elected for the unexpired term of Director's predecessor in office.

#### **ARTICLE V**

#### **OFFICERS**

- (a) <u>Officers</u>: The officers of the Association shall be a President, a Secretary and a Treasurer.
- (b) <u>Qualifications and Method of Election</u>: The officers shall be members of the Association, shall be elected by the Board of Directors, and shall serve for a term of one (1) year. The President and Vice-President shall be members of the Board of Directors.
- (c) <u>President</u>: The President shall preside at the meetings of the Association and of the Board of Directors at which President is present, shall exercise general supervision of the affairs and activities of the Association, and shall serve as a member <u>ex officio</u> of all standing committees.
- (d) <u>Vice President:</u> The Vice President shall preside at meetings of the Association and the Board of Directors when the President is absent and shall exercise the powers of the President when the President is absent or disabled.
- (e) <u>Secretary</u>: The Secretary shall keep the minutes of all of the meetings of the Association and of the Board of Directors, which shall be an accurate and official record of all business transacted. The Secretary shall be custodian of all corporate records.

- (f) <u>Treasurer</u>: The Treasurer shall receive all Association funds, keep them in a bank approved by the Board of Directors, and pay out funds only on notice signed by Treasurer and by one (1) other officer. The Treasurer shall be a member ex officio of the Finance Committee.
- (g) <u>Vacancy</u>: A vacancy in any office because of death, resignation, removal, disqualification, or otherwise, may be filled by the Board of Directors for the unexpired portion of the term.

#### ARTICLE VI

#### **POWERS**

**Powers and Duties.** The Association will have all of the powers and duties necessary for the administration of the affairs of the Development. Said powers and duties shall include, but not be limited to, the following:

- (a) Operation, care, upkeep and maintenance of the Common Land;
- (b) Operation, care and enforcement of any use and restrictions imposed upon the subdivision;
- (c) Operation, care, upkeep, maintenance and inspection of the Common Open Space, the stormwater system, the roadway, and maintenance of the mailboxes as set forth in the Declaration.
- (d) The employment, dismissal and replacement of agents and employees to facilitate the operation, care, upkeep and maintenance of the Common Land, including the Common Open Space and the interior roadway, lighting, if any, and the easements held by the Association;
- (d) To make or cause to be made additional improvements on and as part of the Common Land;
- (e) To acquire, hold, manage, convey and encumber title to real property (including but not limited to development lots conveyed to or acquired by the Association) in the name of and on behalf of the Association:
- (f) The assessment and collection of the common expenses from the lot owners, and the enforcement of liens to secure unpaid assessments;
- (g) The adoption and amendment of rules and regulations covering the details of the operation and use of the development, the Common Land or any portion thereof;
- (h) Opening of bank accounts on behalf of the Association and designating the signatories required therefor;

- (i) Obtaining and administering insurance for the subdivision as set forth in the Declaration;
- (j) Repairing, restoring or replacing Common Land after damage or destruction by fire or other casualty, or as a result of eminent domain proceedings, as provided in the By-Laws;
- (k) Procuring legal and accounting services necessary or proper in the operation of the subdivision or the enforcement of these By-Laws;
- (l) The assessment of costs or damages against any lot owner whose actions have proximately caused damages to the Common Land;
- (m) Payment of any amount necessary to discharge any lien or encumbrance levied against the entire development or any part thereof which may in the opinion of the Association constitute a lien against the development or against the Common Land, rather than merely against the interests of particular lot owners (where one or more owners are responsible for the existence of such lien, they shall be jointly and severally liable for the cost of discharging it and the costs incurred by the Association by reason of said lien or liens);
  - (n) Enforcement of the terms of the Declaration.
- (o) All other powers granted by the Declaration or these By-Laws, permitted by law or enjoyed by associations of this kind.
- (q) The formation, purpose, modification and dissolution of any Committee, such as but not limited to, the Architectural Review Committee, that the Board of Directors deems necessary for the proper administration of the Association. In any matter where the Declaration and/or By-Laws calls for review or action by a committee and said committee has not yet been or is not formed by the Board of Directors, the duties and requirements of the Committee shall be vested in the Board of Directors.

#### **ARTICLE VII**

#### INTERIM MANAGEMENT BY DECLARANT

From and after the date of the recording of these By-Laws, the Declarant shall exercise all powers and responsibilities assigned by these By-Laws and the Declaration to the Association and the Officers until such time as it turns over said powers and responsibilities to the lot owners. Said transfer of said powers and responsibilities shall occur upon the first to occur of: (1) the time of four (4) months after all of the lots in the Development have been conveyed to lot owners; or (2) the date the Declarant gives voluntary written notice in a recordable form to the then lot owners of record that lot owner has relinquished its powers hereunder. No contract binding the Association, or the lot owners as a group, which shall have been entered into during the period of Declarant's control as described in this Article shall be binding after the termination of the Declarant's control unless ratified or renewed with the consent or affirmative vote of lot owners of a majority of the residential lots in the Development.

#### **ARTICLE VIII**

#### **COMMON EXPENSES**

- **Common Expenses.** The owner of each lot shall be liable for and shall pay as and when assessed an equal share of common expenses in accordance with the terms of the Declaration. Common expenses shall include all charges, costs and expenses of every kind incurred by or on behalf of the Association for and in connection with the administration of the development, including without limitation, the maintenance of the Common Open Space, the stormwater system, the roadway, the common wastewater disposal fields and force sewer main, and the inspection of the on-lot wastewater systems and pumping tanks, and maintenance of the mailboxes all charges for taxes (except real property taxes or other such taxes which are or may hereafter be assessed separately on each lot and the common interest appurtenant thereto or the personal property or any other interest of a lot owner), assessments, insurance, liability for loss or damage arising out of or in connection with the Common Land, including Common Open Space, and the interior roadway, lighting, if any, and enforcement of restrictions or any fire, accident or nuisance thereon, the cost of repair, reinstatement, rebuilding and replacement of facilities and improvements in the Common Land and enforcement of use and environmental restrictions, maintenance, trash disposal and similar services, wages, accounting and legal fees, management fees and all other necessary expenses of upkeep, maintenance, improvements, management and operation incurred on or for the Common Land and enforcement of any restrictions. The common expenses may also include such amounts as the Association may deem proper to make up any deficit in the Capital Fund (defined below in paragraph (c)). Common expenses will also include all common expense assessments against all lots, title to which is held by the Association. Common expenses also specifically include all expenses relating to the enforcement of any restriction or easement granted to the Association.
- (b) **Capital Improvements.** Whenever in the judgment of the Association the Common Land should be improved by new construction or alteration of existing facilities, any such additions, alterations or new construction may be made by the Association only after obtaining approval of two-thirds of the lot owners, and the Town of Kittery and the Maine Department of Environmental Protection (MDEP), if required. If such approval is so obtained, the cost thereof shall constitute a part of the common expenses.
- (c) **Capital Funds.** The Association shall assess as a common expense an amount or amounts on a semi-annual or annual basis for the purpose of establishing and maintaining a general operating reserve and general replacement reserve together known as the Capital Fund, against anticipated future outlays for operations or for maintenance or replacement of facilities within the Common Land or equipment or other property held by the Association in connection with the subdivision. The proportionate interest of each owner in said Capital Fund shall not be withdrawn or assigned separately but shall be deemed to be transferred with each lot even though not mentioned or described expressly in the instrument of transfer.
- (d) **Books.** The Association will maintain books of account for common expenses for the Common Land, general operating reserves and replacement reserves, in accordance with

generally recognized accounting practices. The Association will, not less frequently than annually, render or cause to be rendered, a statement to each owner of all receipts and disbursements during the preceding year and the balances of the various accounts. The current copies of the Declaration, Articles of Incorporation, By-Laws and other rules concerning the project, as well as books, records and financial statements shall be available for inspection by lot owners or by holders, insurers and guarantors of first mortgages that are secured by lots in the project. These documents shall be available during normal daytime business hours.

(e) **Enforcement.** The Association shall have a lien on every lot for unpaid assessments of common expenses levied against the lot, which may be applicable to said lot. Each periodic assessment and each special assessment shall be a separate, distinct and personal debt and obligation of the Lot Owner against whom the same are assessed. If a lot owner shall fail to pay this assessment when due, then the Lot Owner shall pay an additional assessment of \$50.00 for each such failure, and all delinquent assessments shall bear interest at the rate of eighteen percent (18%) per year from the assessment due date.

#### ARTICLE IX

#### **GENERAL PROVISIONS**

- (a) **Abatement of Violations.** The violation of any rule or regulation adopted by the Association, the breach of any By-Law contained herein, or the breach of any provision in the Declaration shall give the Association the right, in addition to any other rights set forth in these By-Laws or in the Declaration, to enjoin, abate or remedy by appropriate legal proceedings, either at law or in equity, the continuance of any such breach, and all costs thereof, including attorney's fees, shall be borne by the defaulting lot owner.
- (b) **Waiver.** The failure of the Association to insist in any one or more instances upon strict performance of or compliance with any of the covenants of the owner hereunder, or to exercise any right or option herein contained or to serve any notice, or to institute any action or summary proceeding, shall not be construed as a waiver or a relinquishment for the future, of such covenant or option or right, but such covenant or option or right shall continue and remain in full force and effect.
- (c) **Notices.** All notices to lot owners shall be deemed given if hand delivered or sent by Registered or Certified Mail, Return Receipt Requested, to the owner, addressed to the owner's address appearing on the records of the Association. Any notice given or mailed to one co-owner shall be presumed to have been properly given to any other co-owner, regardless of whether a separate notice was given or sent to said other co-owner.
- (d) **Amendment.** These By-Laws may be amended in the same fashion as the Declaration, the provisions for which are contained within the Declaration at Paragraph 15.

Executed as of the date and year first above written.

	Chinburg Development, LLC.	
Witness	By: Eric J. Chinburg, Manager	
	before me on, 2021, by Eric J. Chinburg,	
Manager of Chinburg Development, LLC.	Notary Public / Justice of the Peace My commission expires:	

#### Schedule A

## See attached Stormwater Facility Operation and Maintenance Manual (Stormwater O & M Manual)

# Stormwater Management Facility Operation and Maintenance (O&M) Manual

# Meadowlark Farm Residential Cluster Subdivision

Tax Map 46, Lot 6

Kittery, Maine

Revised April 22, 2021

*Prepared For:* 

#### Chinburg Development, LLC

3 Penstock Way Newmarket, NH 03857 (603)-868-5995

Prepared By:

#### Altus Engineering, Inc.

133 Court Street Portsmouth, NH 03801 Phone: (603) 433-2335

Fax: (603) 433-4194

#### **Compliance with Stormwater Facility Maintenance Requirements**

The Meadowlark Farm Homeowners' Association is the responsible party for ensuring that stormwater facilities installed on the subdivision is properly maintained and that they function as designed. In some cases, this maintenance responsibility may be assigned to others through special agreements. The maintenance responsibility for a stormwater facility may be designated within a maintenance agreement for the property. Property owners shall be aware of their responsibilities regarding stormwater facility maintenance.

Long term inspection, maintenance, and repair are key elements in maintaining a successful stormwater management program on the developed property. Routine inspections will ensure permit compliance; will reduce the potential for deterioration of infrastructure and the high cost to repair/replace, and will reduced the degradation of water quality.

#### **Inspection & Maintenance – Annual Reporting**

Requirements for the long term inspection and maintenance of stormwater facilities, as well as reporting requirements are included in this Stormwater Management Facility Operation and Maintenance (O&M) Manual. The attached Long Term Inspection & Maintenance Schedule outlines specific requirements.

#### **Preventative Measures to Reduce Maintenance Costs**

The most effective way to maintain the water quality facility is to prevent the pollutants from entering the facility in the first place. Common pollutants include sediment, trash & debris, chemicals, dog wastes, runoff from stored materials, illicit discharges into the storm drainage system and many others. The maintenance program includes measures to address these potential contaminants, and will save money and time in the long run. Key of the maintenance program includes:

- Educate property owners, staff and patrons to be aware of how their actions affect water quality, and how they can help reduce maintenance costs.
- Keep the property, driveway, gutters and parking lots free of trash and debris
- Ensure the proper disposal of hazardous wastes and chemicals.
- Lawn care shall be planned to minimize the use of chemicals and pesticides.
- Be aware of automobiles leaking fluids. Use absorbents such as cat litter to soak up drippings dispose of properly.
- Sweep paved surfaces of sediment and lawn clippings; dispose of offsite or in upland areas at least 25 feet from wetlands. Mulching mowers are encouraged.
- Re-vegetate disturbed and bare areas to maintain vegetative stabilization.
- Clean out the all components of the storm drainage system, including inlets, storm sewer and outfalls. Dispose of catch basin cleanings offsite.
- Do not store materials outdoors (including landscaping materials) unless properly protected from runoff and erosion.

#### **Safety**

Keep safety considerations at the forefront of inspection procedures at all times. Likely hazards should be anticipated and avoided. Never enter a confined space (outlet structure, manhole, etc) without proper training or equipment. A confined space should never be entered without at least one additional person present.

#### **Inspecting Stormwater Management Facilities**

The quality of stormwater entering the waters of the state relies heavily on the proper operation and maintenance of permanent best management practices. Stormwater management facilities must be periodically inspected to ensure that they function as designed. The inspection will determine the appropriate maintenance that is required for the facility.

#### A. Inspection Procedures

All stormwater management facilities are required to be inspected by a qualified individual at a minimum of once per year. Inspections should follow the inspection guidance found in O&M manual for the specific type of facility.

#### B. <u>Inspection Report</u>

The person(s) conducting the inspection activities shall complete the appropriate inspection report for the specific facility. An inspection and maintenance report, *Stormwater Management Inspection/Maintenance Form*, is provided.

#### General Information

This section identifies the facility location, person conducting the inspection, the date and time the facility was inspected, and approximate days since the last rainfall. The reason for the inspection is also identified on the form depending on the nature of the inspection. All facilities should be inspected on an annual basis at a minimum. In addition, all facilities should be inspected after a significant precipitation event to ensure the facility is draining appropriately and to identify any damage that occurred as a result of the increased runoff. For the purpose of this Stormwater Management Program, a significant rainfall event is considered an event of three (3) inches in a 24-hour period or 0.5 inches in a one-hour period. It is anticipated that a short, intense event is likely to have a higher potential of erosion for this site than a longer, high volume event.

#### **Inspection Scoring**

For each inspection item, a score must be given to identify the urgency of required maintenance. The scoring is as follows:

- 0 =No deficiencies identified.
- 1 = Monitor Although maintenance may not be required at this time, a potential problem exists that will most likely need to be addressed in the future. This can include items like minor erosion, concrete cracks/spalling, or minor sediment accumulation. This item should be revisited at the next inspection.
- 2 = Routine Maintenance Required Some inspection items can be addressed through the routine maintenance program (See SOP in appendix A). This can include items like vegetation management or debris/trash removal.
- 3 = Immediate Repair Necessary This item needs immediate attention because failure is imminent or has already occurred. This could include items such as structural failure of a feature (outlet works, forebay, etc), significant erosion, or significant sediment accumulation. This score should be given to an item that can significantly affect the function of the facility.

#### Inspection Summary/Additional Comments

Additional explanations to inspection items, and observations about the facility not covered by the form, are recorded in this section.

#### C. <u>Verification of Inspection and Form Submittal</u>

The *Stormwater Management Facility Inspection Form* provides a record of inspection of the facility. The verification and the inspection form(s) shall be reviewed and maintained by the property owner or property manager. Any transfer in ownership shall be documented in writing to MDEP.

#### **Maintaining Stormwater Management Facilities**

Stormwater management facilities must be properly maintained to ensure that they operate correctly and provide the water quality treatment for which they were designed. Routine maintenance performed on a frequently scheduled basis, can help avoid more costly rehabilitative maintenance that results when facilities are not adequately maintained. Maintenance personnel must be qualified to properly maintain stormwater management facilities. Inadequately trained personnel can cause additional problems resulting in additional maintenance costs.

The following provides a list of recommendations and guidelines for managing the stormwater facilities.

**SEDIMENTATION BARRIER** (Contractor's responsibility until site is deemed stable)

Tubular sediment barrier, organic filter berm and filter barriers shall be inspected immediately after each rainfall and daily during prolonged rainfall events. These structures shall be inspected for signs of erosion or sedimentation regularly. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water, sediment barriers shall be replaced with a temporary stone check dam.

Sediment deposits must be removed when deposits reach approximately one third (1/3) the height of the barrier. The sedimentation barrier shall be removed after the site is stabilized. Any sediment deposits remaining in place after the filter barrier is no longer required shall be dressed to conform to the existing grade, then prepared, loamed and seeded.

#### **VEGETATED SWALE**

Timely maintenance is important to keep the vegetation in the swale in good condition. Mowing shall be done frequently enough to keep the vegetation in vigorous condition and to control encroachment of weeds and woody vegetation, however it shall not be mowed too closely to reduce the filtering effect. Fertilize on an "as needed" basis to keep the grass healthy, however, over-fertilization can result in the swale becoming a source of pollution and must be avoided.

The swale should be inspected periodically and after every major storm to determine the condition of the swale. Rills and damaged areas shall be promptly repaired and re-vegetated as necessary to prevent further deterioration.

### PLUNGE POOL OUTLET PROTECTION, STONE LINED SWALE AND STONE LIP LEVEL SPREADERS

Function – Rip rap provides protection of soil from erosive velocities at pipe outlets

#### Maintenance

- Check for signs of erosion or channelization at and adjacent to the rip rap
- Replace any displaced stones and add new stones as necessary
- Inspect for any signs of channelization downgradient and immediately repaired

#### PIPE INLET AND OUTLET PROTECTION

Periodically check all aprons, plunge pools, pipe inlet and outlet protection (riprap) for damage and repair as needed. If any evidence of erosion or scouring is apparent, modify the design as needed to provide long-term protection.

#### DROP INLET STRUCTURE

Function – The drop inlet structure is used as an overflow structure for ponds/basins.

#### Maintenance

- Remove sediment from sump
- Inspect inlet and outlet of the drop inlet structure semi-annually and after major storm events to ensure that flow structures are not blocked by debris.
- The drop inlet structure and adjacent area shall be inspected annually for erosion, destabilization of side slopes, embankment settling and other signs of structural failure.

#### FOREST BUFFER

Buffers are natural, undisturbed strips of natural vegetation or planted strips of close-growing vegetation adjacent to and downslope of develop areas. As stormwater runoff travels over the buffer area, vegetation and the organic duff layer slow runoff, trapping particulate pollutants and allowing time for infiltration. Activities that may result in disturbance of the duff layer are prohibited in a buffer.

#### CONTRACTOR'S GENERAL CLEAN UP

Upon completion of the site and permanent stabilization is attained, the contractor shall remove all temporary stormwater structures (i.e., sedimentation barriers, temporary diversion swales, etc.). Any sediment deposits remaining in place after the sedimentation barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded. Remove any sediment in drainage structure and clean drain pipes that may have accumulated during construction.

#### Meadowlark Farm Residential Cluster Subdivision

Long Term Inspection & Maintenance Schedule				
	Spring	Fall or Yearly	After Major Storm	Every 2- 5 Years
Vegetated Areas				
Inspect all slopes and embankments and replant areas of bare soil or with sparse growth	X		X	
Armor rill erosion areas with riprap or divert the runoff to a stable area	X		X	
Inspect and repair down-slope of all spreaders and turn-outs for erosion	X		X	
Mow vegetation as specified for the area	X		X	
Stormwater Channels, Plunge Pool				
Remove obstructions, sediments or debris from ditches, swales and other open channels	X	X	X	
Repair any erosion of the ditch lining	X	X		
Mow vegetated ditches		X		
Remove woody vegetation growing through riprap		X		
Repair any slumping side slopes		X		
Replace riprap where underlying filter fabric or underdrain gravel is exposed or where stones have been dislodged		Х		
Culverts				
Remove accumulated sediments and debris at the inlet, outlet, or within the conduit	X	X	X	
Remove any obstruction to flow	X	X	X	
Repair any erosion damage at the culvert's inlet and outlet	X	X	Х	
Area Drain	•			
Inspection	X	X		
Cleaning is only required when sump (4' feet) is more than half full or when the sediment depth is within one foot of invert	Х			
Remove floating debris and oils (using oil absorptive pads) from any trap	X			
	1			

#### Meadowlark Farm Residential Cluster Subdivision

# STORMWATER MANAGEMENT INSPECTION / MAINTENANCE FORM

(SEE ATTACHED SHEETS C-1.1 FOR LOCATIONS)

Inspector	Qualifications		ions		
Current and recent h	ydrological	conditions:			
Action:	(I) Insp	pected	(C) Cleaned	(R) Repaired	
Structure	Date	Action		Comments	
Berm and Stone Line Swale on Lot #2					
Berm across Lots #6-8					
Gravel Access Path on Lot #8					
Entry's Area Drain and (2) 8" Outlet Pipes					
Entry's Plunge Pool					

5131.SWM.Insp.Form.doc April 21, 2021

#### Schedule B

## **Appendix G to Chapter 500 of the Rules of the Maine Department of Environmental Protection**

#### **Restrictions on Restricted Buffer Area**

- 1. Restrictions on Restricted Buffer Area. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Stormwater Management Law and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.
- a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material may be placed, stored or dumped on the Restricted Buffer Area, nor may the topography of the area be altered or manipulated in any way;
- b. Any removal of trees or other vegetation within the Restricted Buffer Area must be limited to the following:
- (i) No purposefully cleared openings may be created and an evenly distributed stand of trees and other vegetation must be maintained. An "evenly distributed stand of trees" is defined as maintaining a minimum rating score of 24 points in any 25 foot by 50-foot square (2500 square feet) area, as determined by the following rating scheme:

Diameter of tree at 4½ feet above ground level	Points
2 - 4 inches	1
4 - 8 inches	2
8 - 12 inches	4
>12 inches	8

Where existing trees and other vegetation result in a rating score less than 24 points, no trees may be cut or sprayed with biocides except for the normal maintenance of dead, windblown or damaged trees and for pruning of tree branches below a height of 12 feet provided two thirds of the tree's canopy is maintained;

(ii) No undergrowth, ground cover vegetation, leaf litter, organic duff layer or mineral soil may be disturbed except that one winding path, that is no wider than six feet and that does not provide a downhill channel for runoff, is allowed through the area;

- c. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole or fence;
- d. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area;
- e. Any level lip spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

- 2. Enforcement. The MDEP may enforce any of the Restrictions set forth herein.
- 3. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one Owner, each Owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such Owner's property.
- 4. Amendment. Any provision contained herein may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

# LAND STEWARDSHIP PLAN Meadowlark Farm Subdivision Open Space

Skyview Drive, Kittery, Me. 4/22/2021

# **Location and Description of Property**

Address:	Open Space area identified on the approved subdivision plan as "Common Open Space"
Acres:	8.85 acres
Subdivision Plan:	"Meadowlark Farm Subdivision, 21 Litchfield Road, Kittery, Maine", Assessor's Parcel 46, Lot 6," prepared by Altus Engineering Associates, dated 04/22/2021.
Protection:	The Property shall be preserved as protected open space in perpetuity through deed restrictions that will be tied to the title of the Property regardless of subsequent ownership. Said deed restriction shall be enforceable by the Town of Kittery or the Meadowlark Farm Homeowners Association.
Deed Restriction:	Book Page

# **Natural Features**

# **EXAMPLE...will** be revised for Meadowlark Farm by Joe Noel.

### Appalachian Oak-White Pine Forest

NHF&G WAP maps indicate this area as Appalachian oak-white pine forest. Field analysis revealed that a semi-mature red oak and white pine community type is the primary upland forested cover type on the property. Red Oak-White Pine-Eastern hemlock forest covers approximately 80% of the project area. The remaining area is comprised of wetlands. The forest canopy of this site is primarily comprised of red oak ranging in size from 6-30" dbh (diameter at breast height). White pine ranging in size from 4-20" dbh is a secondary component of the tree stratum. Occasionally present species include white oak, American beech, white ash, and gray birch. The sapling stratum is primarily comprised of young red and white oak, American beech, and white pine. Although the scrub/shrub layer is sparse in places, representative species include regenerating oak and white pine, witch hazel, low bush blueberry with partridge berry, tea berry and Canadian mayflower in the herbaceous layer.

### Mast Production Areas

Throughout portions of the property, hardwood tree species such as red and white oak and American beech produce abundant nut crops or "mast." Mast is utilized by many species of birds and mammals ranging from blue jays to wild turkeys, and from chipmunks to bears. The relative abundance of mast producing species can directly influence the level of wildlife activity a forested stand can support. Fruit bearing plants in the uplands and the wetlands provide seasonal food sources for all species of wildlife from birds, to small mammals to bears. This is present throughout the site.

## Downed and standing dead trees.

Downed and standing dead trees are found throughout the site. They offer safety through hiding from predators and nesting cavities for many small passerine species and mammals.

# Rock outcrops and stonewalls.

Rock outcrops throughout the site and old stone walls provide denning site for small to medium mammals, as well as areas to hide from predators.

# Red maple-Shrub Swamp

Two wetland areas were delineated on site. The larger is associated with the prime wetland along the southern portion of the lot and runs along the entire southwestern boundary. This wetland is a combination of poorly and very poorly drained soils. Dominant vegetation is composed of red and white oak, red maple, American elm and Eastern hemlock in the tree layer, highbush blueberry, winterberry, speckled alder and dogwood in the shrub layer and cinnamon, sensitive and royal fern, swamp dewberry and Sphagnum moss in the herbaceous layer. A seasonal drainage extends to the east on the site, while draining to the west to the large wetland. A smaller wetland, with similar vegetation exists on the far eastern corner of the site and has a combination of poorly and very poorly drained soils. This wetland has a small vernal pool. NHNHB records show, Blanding's turtle, Jefferson-Blue Spotted Salamander Complex, and Spotted turtle . to be on or in the vicinity. Of these the salamander complex is in fact on site and present within the vernal pool.

## Wildlife Travel Corridor

The parcel is surrounded by varying levels of residential development and roads, but also with large tracts of open space to the south and west. Primary wildlife corridors exist through the natural topographical areas of the ravine through the central portion of the site, as well as along the edge of the prime wetland. With the large area of open space proposed for the parcel and the maintaining of the buffer along the prime wetland, overall wildlife travel is not expected to be impacted.

# Overall Management Goals

The purpose of the Land Stewardship Plan is to retain the area forever in its undeveloped, scenic and open space condition and to prevent any use of the Open Space that will significantly impair, or interfere with, its conservation value. This includes the protection and conservation of the natural biological diversity of the region. Removal of vegetation within the Open Space will be limited to the mitigation of hazardous conditions and for maintenance of the early successional habitat within the meadow. Meadow management is to be accomplished through semi-annual mowing. Public access to the Open Space will not be provided.

# **Summary of Restrictions**

- 1. There shall be no motorized vehicles permitted upon the Open Space.
- 2. No structure or improvement of any kind, size or shape shall be constructed, placed or introduced onto the Open Space. The area designated Community Garden is exempt. This area can be utilized for agricultural purposes. Planting of crops or flower beds.
- 3. Upon completion of the proposed improvements depicted on the Plan, no filling or excavation of soil or other alteration of topography or cutting or removal of standing trees shall be allowed, except those that present an imminent threat to person or property. No disturbance of other natural features shall be allowed unless such activities are commonly necessary to maintain the existing natural environment of the open space.
- 4. There shall be no dumping or depositing of trash, debris, stumps, yard waste, hazardous fluid or materials, vehicle bodies or parts within the Open Space.
- 5. No discharge of firearms or shooting with a bow and arrow or trapping of animals shall be permitted upon the Open Space.
- 6. The Open Space shall be used only by Lot Owners and their guests and invitees.
- 7. The "Open Space" comprises the Common Area of the Subdivision. As such, maintenance, if any, in the Open Space will be performed pursuant to the other provisions of the Declaration and the Bylaws. Costs for the maintenance, monitoring and annual reporting of the Open Space will be treated as a Common Expense and paid by the Lot Owners in accordance with the provisions of the *Declaration of Covenants*, *Conditions and Restrictions For Meadowlark Farm Subdivision*.
- 8. The term maintenance shall include monitoring and reporting of the conditions of the open space requirements by the Association or by the Town of Kittery. The Association will be responsible for annually monitoring the Open Space and reporting any violations to the Town of Kittery.



Civil
Site Planning
Environmental
Engineering

133 Court Street
Portsmouth, NH
03801-4413

# MEADOWLARK FARM CLUSTER DEVELOPMENT MAP 46 LOT 6 21 LITCHFIELD ROAD WAIVER REQUESTS

### **ARTICLE 16**

# Section 16.8.4.4 Street Design Standards Section 16.8.4.13 Sidewalks

Reference Table 1 - Design and Construction Standards for Streets and Pedestrian ways for Minor Streets ADT 35 to 200

# Street Width Design: c. Sidewalk/pedestrian way - 2/8 feet, walk side/opp. Side

The proposed road services seven new homes. The development is off Litchfield Road which is a rural road and is a dead end. The pavement width is approximately 18-feet. It has a limited right-of-way so that future widening is unlikely. The proposed private service road will be 20-feet wide with 2-foot gravel shoulders on each side. Creating a wider travel way/pedestrian way is unnecessary due to the limited use of approximately 70 vehicle trips per day. This is very low volume roadway. It would look out of character to leave Litchfield Road and enter a small subdivision with a sidewalk paved shoulder significantly wider than the collector road. As such, constructing a 20-foot wide road with 2-foot wide shoulders is an appropriate design for this site.

### Intersection Design: c. Tangent section to paved edge - 3% @ 40-feet

In lieu of providing a 40-foot centerline tangent section of roadway at a maximum slope of 3-percent, Altus has provided a 30-feet section of roadway at 2.5-percent transitioning into a 7-percent centerline grade. This creates a slightly less steep roadway grade at the beginning of the roadway. At the 40-transition point, our designed roadway will be 3-inches higher than if the roadway was designed to the design recommendations. We feel that making the first 30-feet flatter will create a safer intersection.

### **Section 16.5.5.1.C (1&2) Drawing Scale**

Drawing scale: 1"=50' for Existing Conditions, Topographic Plan, Soils and Subdivision Plans; 1"=20' for Grading & Stormwater Plan; 1"=20' horizontal and 1"=2' vertical for Roadway Plan and Profile. The smaller and larger scales will ensure that the plans are easily readable.

### Section 16.8.11.6.G

The duplex on Lot 1 is an existing structure. Due to the natural features of the property, the building and development area is isolated from the rest of the site. The house and barn face Litchfield Road. Reorientating the access to provide the driveway off the new subdivision road would significantly increase the site development impacts by reducing the large unfragmented natural environment that we are preserving By keeping the driveway in the same location and providing a path to the new neighborhood meets the spirit and intent of the regulation. Although, the duplex is part of the cluster development in regards to the open space and HOA but it architecturally it is distinct from the rest of the development. Creating the driveway link is not in the spirit of the regulation.

Tel: (603) 433-2335 E-mail: Altus@altus-eng.com

Plant Schedule

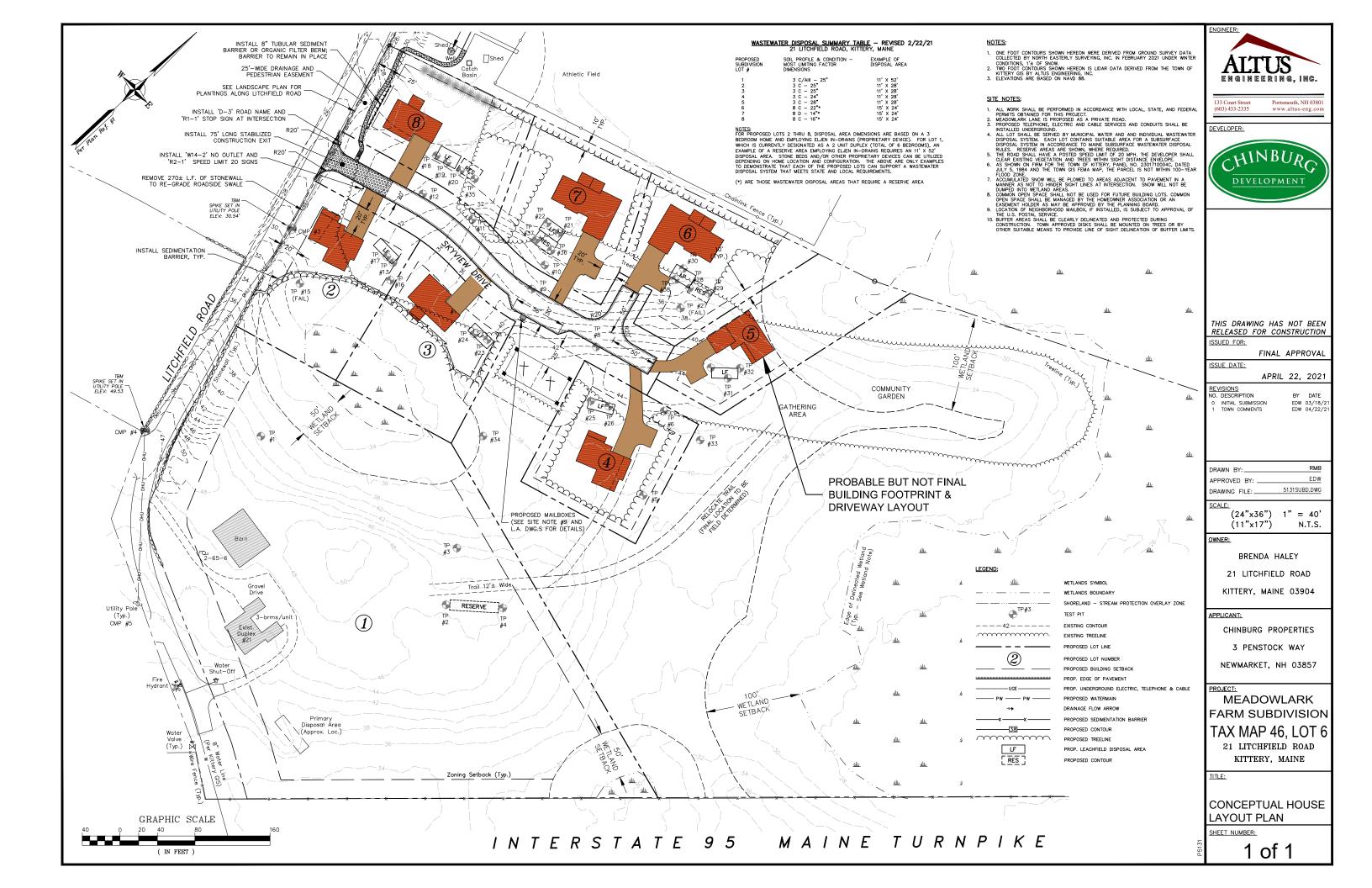
Meadowlark Farm Kittery, Maine

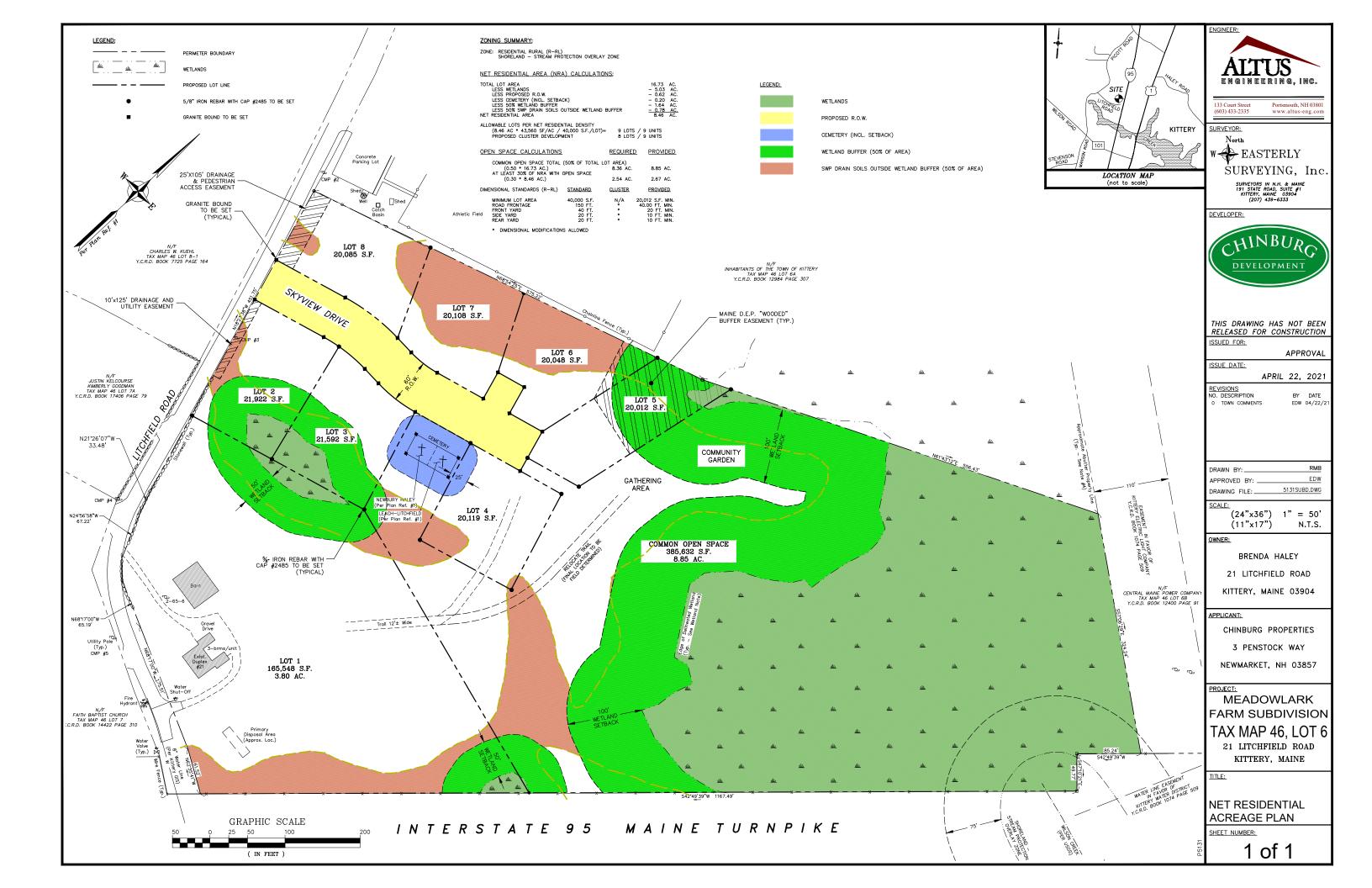
					Habit of	f Growth			
Sym	Qty	Common Name	Botanical Name	Zone	Height	Spread	Installed Size	Туре	Notes
Large	, De	eciduous Trees							
OGM		October Glory Red Maple	Acer rubrum 'october glory'	3	50'	35-40'	2-1/2" cal	B&B	hardy, strong overall form, crimson red fall foliage
Small	, Ac	cent Flowering Trees							
TCH	2	Thornless Cockspur Hawthorn	Crataegus crusgalli inermis	3	15-20'	15-20'	1-1/2"-2" cal	B&B	low, horizontal branching, Deep red fruit in fall
AMM	2	Amur Maakia	Maackia amurensis	4	20-30'	15-20'	2"-2-1/2"cal.	B&B	Interesting bark, late summer flowers
Everg	ree	n Trees & Accent Evergr	eens						
SPR	2	Spartan Juniper	Juniperus chinensis 'spartan'	4	20'	5'	6' ht.	B&B	narrow columnar
Low,	Eve	rgreen Ground Cover							
HSCP		Hillside Creeper Scotch Pine	Pinus sylvestris 'hillside creeper'	3	1-2'	6-8'	3' spd.	в&в	Vigorous ground cover, thick shiny blue-green needles
RSCP		Russian Cypress	Microbiata decussata	2	1-2'	4-5'	18"-24" spd.	CTN	Sun and shade, arborvitae like foliage
Accer	t/F	lowering Evergreen Shr	u <b>bs</b>						
PJM		PJM Rhododendron	Rhododendron 'PJM'	4	6-8'	6'	3'-3 1/2' ht.	B&B	full sun, hardy
Decid	์ นอเ	ıs Flowering Shrubs							
AJV		Autumn Jazz Viburnum	Viburnum dentatum 'autumn jazz'	3	8-10'	6-8'	4'-5' ht.	в&в	Stunnning blue fruit, Improved native
JUDD		Judd Viburnum	Viburnum dilatatum x juddii	4	6-8'	6-8'	4-5' ht.	B&B	Fragrant pale pink flowers, red-burgundy fall color
ROD		Red Osier Dogwood	Cornus sericea	3	8-10'	8-10'	3 gal.	CTN	Sun/shade tolerant, classic red twigged dogwood
LNGF		Lynwood Gold Forsythia	Forsythia 'lynwood gold'	4	6-8'	6-8'	4'-5' ht.	B&B	sun, hardy
LDN	9	Little Devil Ninebark	Physocarpus opulifolius 'little devil'	3	3-4'	3-4'	5 gal.	CTN	sun, compact, rounded growth, Shade tolerant
SPA	4	Swamp Azalea	Azalea viscosum	3	8-10'	6-8'	10 gal.	CTN	Native, open loose form, white flowers
POT	2	Jackman Potentilla	Potentilla fruiticosa 'jackmani'	2	3-4'	3'	18"-24" spd.	CTN	sun, adaptive
HNSKL	2	Goldflame Honeysuckle	Lonicera x heckrottii	4	10-20'	10-20'	2 gal.	CTN	Carmine/yellow, Twining, fragrant, June -Frost
Peren	nia	ls/Seasonal Color							
S - Sun; S,	/Sh - S	un/Shade; S/PSh - Sun and Part Shade; PS 	h - Part Shade; PSh/Sh - Part Shade/Shade		Habit of	f Growth	-		Features
Sym	Qty	Common Name	Botanical Name	Zone		Spread	Туре	Size	Ht., Exposure, Bloom Period, Color
GC.A-11		Daylily	Hemerocallis 'purple de Oro'				CTN	1 gal.	20", S/PSh, May - Sept, Red purple, yellow eye
GC.C-3		White Coneflower	Echinacea purpurea 'White Swan'				CTN	2 qt	18"-24",S/PSh, June/Sept, White
GC.L-3	5	Astilbe	Astilbe 'ostrich plume'				CTN	2 qt	24-30", PSh/Sh, June, Dark Foliage w/ Salmon Pink
GC.C-2	10	Pink Coneflower	Echinacea purpurea 'Kim's Knee High'				CTN	2 qt	12"-24",S/PSh, July/Sept, Rose Pink
DCGR-9		Northern Sea Oats	Chasmanthium latifolium	4	36"	36"	CTN	1 gal.	24"-36", S/Psh, Sept/Oct, Tawny and purple
DG-1		Hameln Dwarf Fountain Grass	Pennisetum alopecuroides 'hameln'	5	30"	24"	CTN		24"-36", S, Aug/Oct, purple seed heads
DG-2		Purple Lovegrass	Eragrostis spectabilis	4	18-24"	30"	CTN	2 gal.	18"-24", S, Aug/Oct, bronze-red seed heads
BFIR	10	Blue Flag Iris	Iris versicolor	4	24"	24"	CTN	2 qt	Sun/PSh, May/June, Med Blue/Gold Splashes

BESN	9	Gold Star Black Eyed Susan	Rudbeckia fulgida var. sullivantii 'Gold Star'	3	14-16"	24"	CTN	2 qt	Sun, July-Sept, Golden yellow-black center, large blooms
NEAST	10	N. E. Aster	Aster novae-angliae 'alma potschke'	4	3'	30"	CTN	2 qt	Sun, Sept/Oct, magenta pink
LBSC	10	Little Bluestem Carousel	Schizachyrium scoparium 'carousel'	3	30"	30"	CTN	1 gal.	Sun, Sept/Oct, Copper to Dark Orange red
0	SF	Seasonal Annual Beds	Mixed selection by Landscape Maintenance Co	or, Direc	)wner				
Lawns/Seeding  0   SF   Native Grass Seeding		,	Fine Grade, fertilize, seed and Hydromulch						

# Notes:

- 1.) All planting beds shall be mulched with a minimum of 3" of shredded pine bark mulch.
- 2.) All sod and/or seeded lawn areas to have minimum 6" topsoil blanket.
- 3.) All native grass seeded areas to have minimum 4" topsoil blanket.
- 4.) All plant material to conform to current AAN, American Standard for Nursery Stock, ANSI Z60.1-2006.
- 5.) All mass planted shrub beds and planters around building shall receive a minimum 18" deep topsoil blanket to compensate for the very sandy/granular sub-grade material expected on this site. Topsoil shall meet requirements as called out in specifications.





# Stormwater Management Facility Operation and Maintenance (O&M) Manual

# Meadowlark Farm Residential Cluster Subdivision

Tax Map 46, Lot 6

Kittery, Maine

Revised April 22, 2021

*Prepared For:* 

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3 Penstock Way Newmarket, NH 03857 (603)-868-5995

Prepared By:

# Altus Engineering, Inc.

133 Court Street Portsmouth, NH 03801 Phone: (603) 433-2335

Fax: (603) 433-4194

### **Compliance with Stormwater Facility Maintenance Requirements**

The Meadowlark Farm Homeowners' Association is the responsible party for ensuring that stormwater facilities installed on the subdivision is properly maintained and that they function as designed. In some cases, this maintenance responsibility may be assigned to others through special agreements. The maintenance responsibility for a stormwater facility may be designated within a maintenance agreement for the property. Property owners shall be aware of their responsibilities regarding stormwater facility maintenance.

Long term inspection, maintenance, and repair are key elements in maintaining a successful stormwater management program on the developed property. Routine inspections will ensure permit compliance; will reduce the potential for deterioration of infrastructure and the high cost to repair/replace, and will reduced the degradation of water quality.

# **Inspection & Maintenance – Annual Reporting**

Requirements for the long term inspection and maintenance of stormwater facilities, as well as reporting requirements are included in this Stormwater Management Facility Operation and Maintenance (O&M) Manual. The attached Long Term Inspection & Maintenance Schedule outlines specific requirements.

### **Preventative Measures to Reduce Maintenance Costs**

The most effective way to maintain the water quality facility is to prevent the pollutants from entering the facility in the first place. Common pollutants include sediment, trash & debris, chemicals, dog wastes, runoff from stored materials, illicit discharges into the storm drainage system and many others. The maintenance program includes measures to address these potential contaminants, and will save money and time in the long run. Key of the maintenance program includes:

- Educate property owners, staff and patrons to be aware of how their actions affect water quality, and how they can help reduce maintenance costs.
- Keep the property, driveway, gutters and parking lots free of trash and debris
- Ensure the proper disposal of hazardous wastes and chemicals.
- Lawn care shall be planned to minimize the use of chemicals and pesticides.
- Be aware of automobiles leaking fluids. Use absorbents such as cat litter to soak up drippings dispose of properly.
- Sweep paved surfaces of sediment and lawn clippings; dispose of offsite or in upland areas at least 25 feet from wetlands. Mulching mowers are encouraged.
- Re-vegetate disturbed and bare areas to maintain vegetative stabilization.
- Clean out the all components of the storm drainage system, including inlets, storm sewer and outfalls. Dispose of catch basin cleanings offsite.
- Do not store materials outdoors (including landscaping materials) unless properly protected from runoff and erosion.

### **Safety**

Keep safety considerations at the forefront of inspection procedures at all times. Likely hazards should be anticipated and avoided. Never enter a confined space (outlet structure, manhole, etc) without proper training or equipment. A confined space should never be entered without at least one additional person present.

## **Inspecting Stormwater Management Facilities**

The quality of stormwater entering the waters of the state relies heavily on the proper operation and maintenance of permanent best management practices. Stormwater management facilities must be periodically inspected to ensure that they function as designed. The inspection will determine the appropriate maintenance that is required for the facility.

## A. Inspection Procedures

All stormwater management facilities are required to be inspected by a qualified individual at a minimum of once per year. Inspections should follow the inspection guidance found in O&M manual for the specific type of facility.

# B. <u>Inspection Report</u>

The person(s) conducting the inspection activities shall complete the appropriate inspection report for the specific facility. An inspection and maintenance report, *Stormwater Management Inspection/Maintenance Form*, is provided.

### General Information

This section identifies the facility location, person conducting the inspection, the date and time the facility was inspected, and approximate days since the last rainfall. The reason for the inspection is also identified on the form depending on the nature of the inspection. All facilities should be inspected on an annual basis at a minimum. In addition, all facilities should be inspected after a significant precipitation event to ensure the facility is draining appropriately and to identify any damage that occurred as a result of the increased runoff. For the purpose of this Stormwater Management Program, a significant rainfall event is considered an event of three (3) inches in a 24-hour period or 0.5 inches in a one-hour period. It is anticipated that a short, intense event is likely to have a higher potential of erosion for this site than a longer, high volume event.

## **Inspection Scoring**

For each inspection item, a score must be given to identify the urgency of required maintenance. The scoring is as follows:

- 0 =No deficiencies identified.
- 1 = Monitor Although maintenance may not be required at this time, a potential problem exists that will most likely need to be addressed in the future. This can include items like minor erosion, concrete cracks/spalling, or minor sediment accumulation. This item should be revisited at the next inspection.
- 2 = Routine Maintenance Required Some inspection items can be addressed through the routine maintenance program (See SOP in appendix A). This can include items like vegetation management or debris/trash removal.
- 3 = Immediate Repair Necessary This item needs immediate attention because failure is imminent or has already occurred. This could include items such as structural failure of a feature (outlet works, forebay, etc), significant erosion, or significant sediment accumulation. This score should be given to an item that can significantly affect the function of the facility.

# **Inspection Summary/Additional Comments**

Additional explanations to inspection items, and observations about the facility not covered by the form, are recorded in this section.

# C. <u>Verification of Inspection and Form Submittal</u>

The *Stormwater Management Facility Inspection Form* provides a record of inspection of the facility. The verification and the inspection form(s) shall be reviewed and maintained by the property owner or property manager. Any transfer in ownership shall be documented in writing to MDEP.

### **Maintaining Stormwater Management Facilities**

Stormwater management facilities must be properly maintained to ensure that they operate correctly and provide the water quality treatment for which they were designed. Routine maintenance performed on a frequently scheduled basis, can help avoid more costly rehabilitative maintenance that results when facilities are not adequately maintained. Maintenance personnel must be qualified to properly maintain stormwater management facilities. Inadequately trained personnel can cause additional problems resulting in additional maintenance costs.

The following provides a list of recommendations and guidelines for managing the stormwater facilities.

**SEDIMENTATION BARRIER** (Contractor's responsibility until site is deemed stable)

Tubular sediment barrier, organic filter berm and filter barriers shall be inspected immediately after each rainfall and daily during prolonged rainfall events. These structures shall be inspected for signs of erosion or sedimentation regularly. Any required repairs shall be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water, sediment barriers shall be replaced with a temporary stone check dam.

Sediment deposits must be removed when deposits reach approximately one third (1/3) the height of the barrier. The sedimentation barrier shall be removed after the site is stabilized. Any sediment deposits remaining in place after the filter barrier is no longer required shall be dressed to conform to the existing grade, then prepared, loamed and seeded.

### **VEGETATED SWALE**

Timely maintenance is important to keep the vegetation in the swale in good condition. Mowing shall be done frequently enough to keep the vegetation in vigorous condition and to control encroachment of weeds and woody vegetation, however it shall not be mowed too closely to reduce the filtering effect. Fertilize on an "as needed" basis to keep the grass healthy, however, over-fertilization can result in the swale becoming a source of pollution and must be avoided.

The swale should be inspected periodically and after every major storm to determine the condition of the swale. Rills and damaged areas shall be promptly repaired and re-vegetated as necessary to prevent further deterioration.

# PLUNGE POOL OUTLET PROTECTION, STONE LINED SWALE AND STONE LIP LEVEL SPREADERS

Function – Rip rap provides protection of soil from erosive velocities at pipe outlets

### Maintenance

- Check for signs of erosion or channelization at and adjacent to the rip rap
- Replace any displaced stones and add new stones as necessary
- Inspect for any signs of channelization downgradient and immediately repaired

### PIPE INLET AND OUTLET PROTECTION

Periodically check all aprons, plunge pools, pipe inlet and outlet protection (riprap) for damage and repair as needed. If any evidence of erosion or scouring is apparent, modify the design as needed to provide long-term protection.

### DROP INLET STRUCTURE

Function – The drop inlet structure is used as an overflow structure for ponds/basins.

### Maintenance

- Remove sediment from sump
- Inspect inlet and outlet of the drop inlet structure semi-annually and after major storm events to ensure that flow structures are not blocked by debris.
- The drop inlet structure and adjacent area shall be inspected annually for erosion, destabilization of side slopes, embankment settling and other signs of structural failure.

## FOREST BUFFER

Buffers are natural, undisturbed strips of natural vegetation or planted strips of close-growing vegetation adjacent to and downslope of develop areas. As stormwater runoff travels over the buffer area, vegetation and the organic duff layer slow runoff, trapping particulate pollutants and allowing time for infiltration. Activities that may result in disturbance of the duff layer are prohibited in a buffer.

### CONTRACTOR'S GENERAL CLEAN UP

Upon completion of the site and permanent stabilization is attained, the contractor shall remove all temporary stormwater structures (i.e., sedimentation barriers, temporary diversion swales, etc.). Any sediment deposits remaining in place after the sedimentation barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded. Remove any sediment in drainage structure and clean drain pipes that may have accumulated during construction.

# Meadowlark Farm Residential Cluster Subdivision

Long Term Inspection & Main	ntena	nce S	Schedu	le
	Spring	Fall or Yearly	After Major Storm	Every 2- 5 Years
Vegetated Areas				
Inspect all slopes and embankments and replant areas of bare soil or with sparse growth	X		X	
Armor rill erosion areas with riprap or divert the runoff to a stable area	X		X	
Inspect and repair down-slope of all spreaders and turn-outs for erosion	X		X	
Mow vegetation as specified for the area	X		X	
<b>Stormwater Channels, Plunge Pool</b>				
Remove obstructions, sediments or debris from ditches, swales and other open channels	X	X	X	
Repair any erosion of the ditch lining	X	X		
Mow vegetated ditches		X		
Remove woody vegetation growing through riprap		X		
Repair any slumping side slopes		X		
Replace riprap where underlying filter fabric or underdrain gravel is exposed or where stones have been dislodged		X		
Culverts				
Remove accumulated sediments and debris at the inlet, outlet, or within the conduit	X	X	X	
Remove any obstruction to flow	X	X	X	
Repair any erosion damage at the culvert's inlet and outlet	X	X	Х	
Area Drain				
Inspection	X	X		
Cleaning is only required when sump (4' feet) is more than half full or when the sediment depth is within one foot of invert	Х			
Remove floating debris and oils (using oil absorptive pads) from any trap	X			
		1		

# Meadowlark Farm Residential Cluster Subdivision

# STORMWATER MANAGEMENT INSPECTION / MAINTENANCE FORM

(SEE ATTACHED SHEETS C-1.1 FOR LOCATIONS)

Inspector			Qualifications				
Current and reco	ent hydrologica	l conditions:					
Action:	(I) Ins	pected	(C) Cleaned	(R) Repaired			
Structure	Date	Action		Comments			

Action:	(I) Inspected		(C) Cleaned (R) Repaired
Structure	Date	Action	Comments
Berm and Stone Line Swale on Lot #2			
Berm across Lots #6-8			
Gravel Access Path on Lot #8			
Entry's Area Drain and (2) 8" Outlet Pipes			
Entry's Plunge Pool			

5131.SWM.Insp.Form.doc April 21, 2021

# MEADOWLARK FARM SUBDIVISION

21 Litchfield Road Kittery, Maine

Assessor's Parcel 46, Lot 6

# Plan Issue Date:

March 18, 2021 Preliminary Submission April 22, 2021 Re-Submission

# Owner:

BRENDA HALEY

21 LITCHFIELD ROAD KITTERY, ME 03904 (207) 475-5375

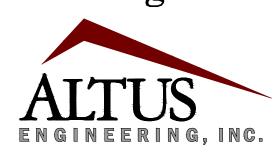
# Applicant:

CHINBURG DEVELOMENT, LLC

3 PENSTOCK WAY NEWMARKET, NH 03857 (603) 868-5995



# Civil Engineer:



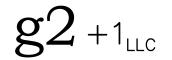
133 Court Street Portsmouth, NH 038 www.altus-eng.co

# Surveyor:



191 STATE ROAD, SUITE #1
KITTERY, MAINE 03904

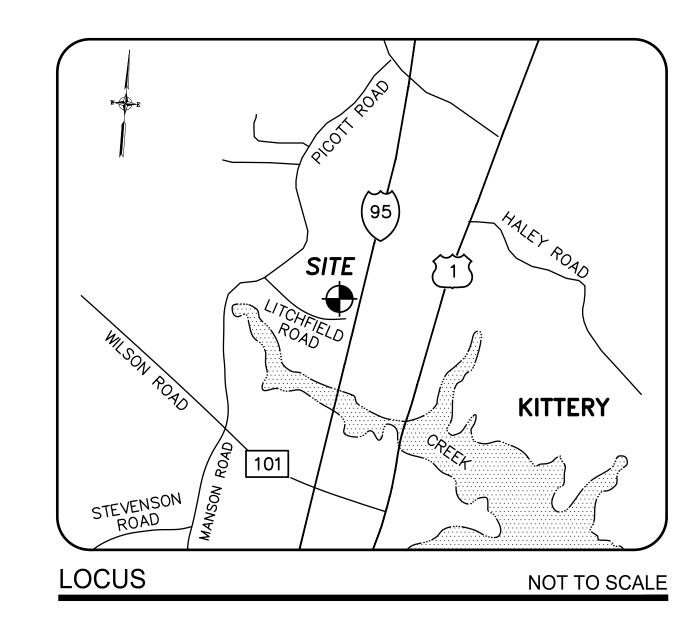
# Landscape Architect:



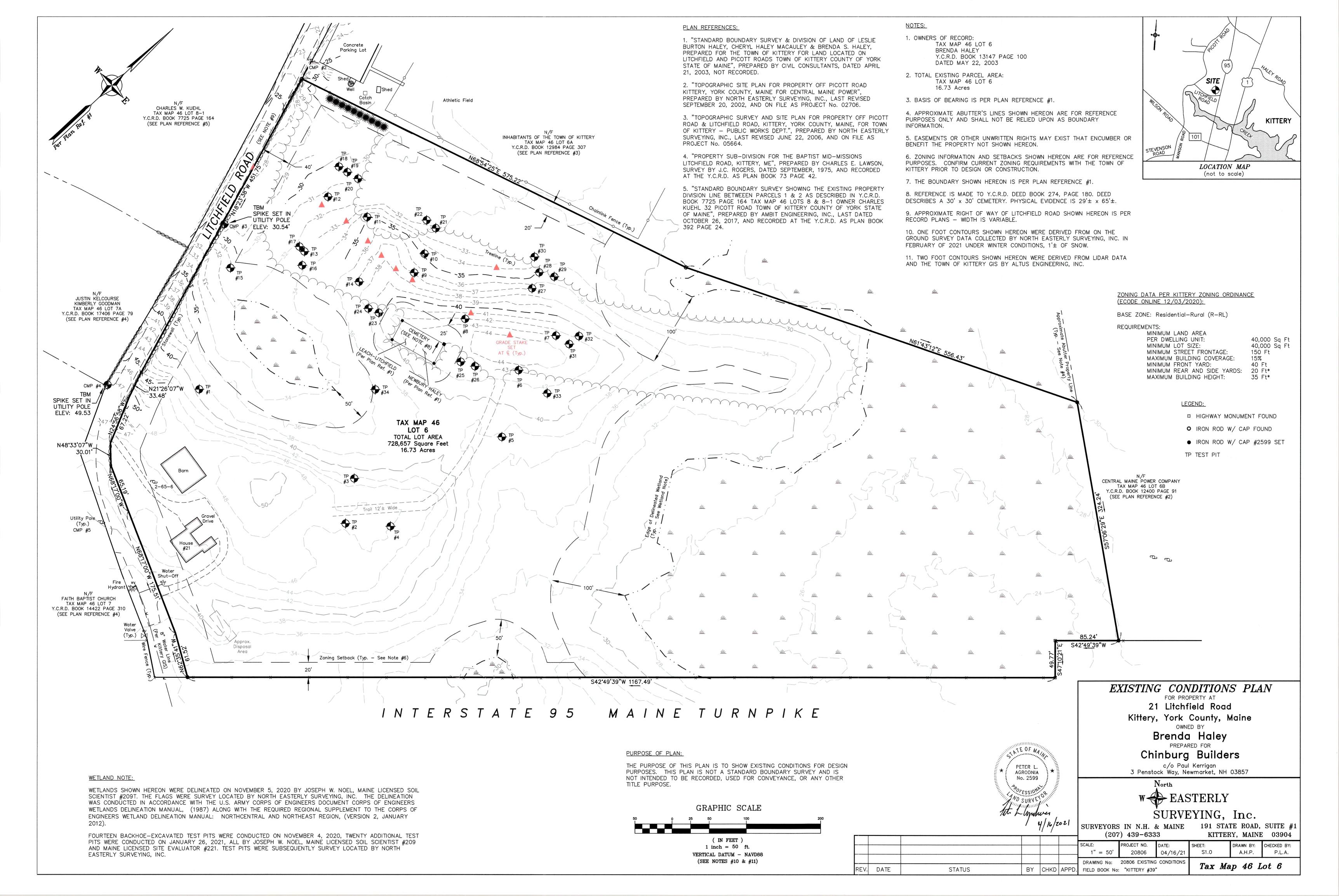
Landscape Architecture Site Planning Graphics
70 New Road Salisbury New Hampshire 03268
p/f 603 648 6434 dgreiner@g2plus1.com

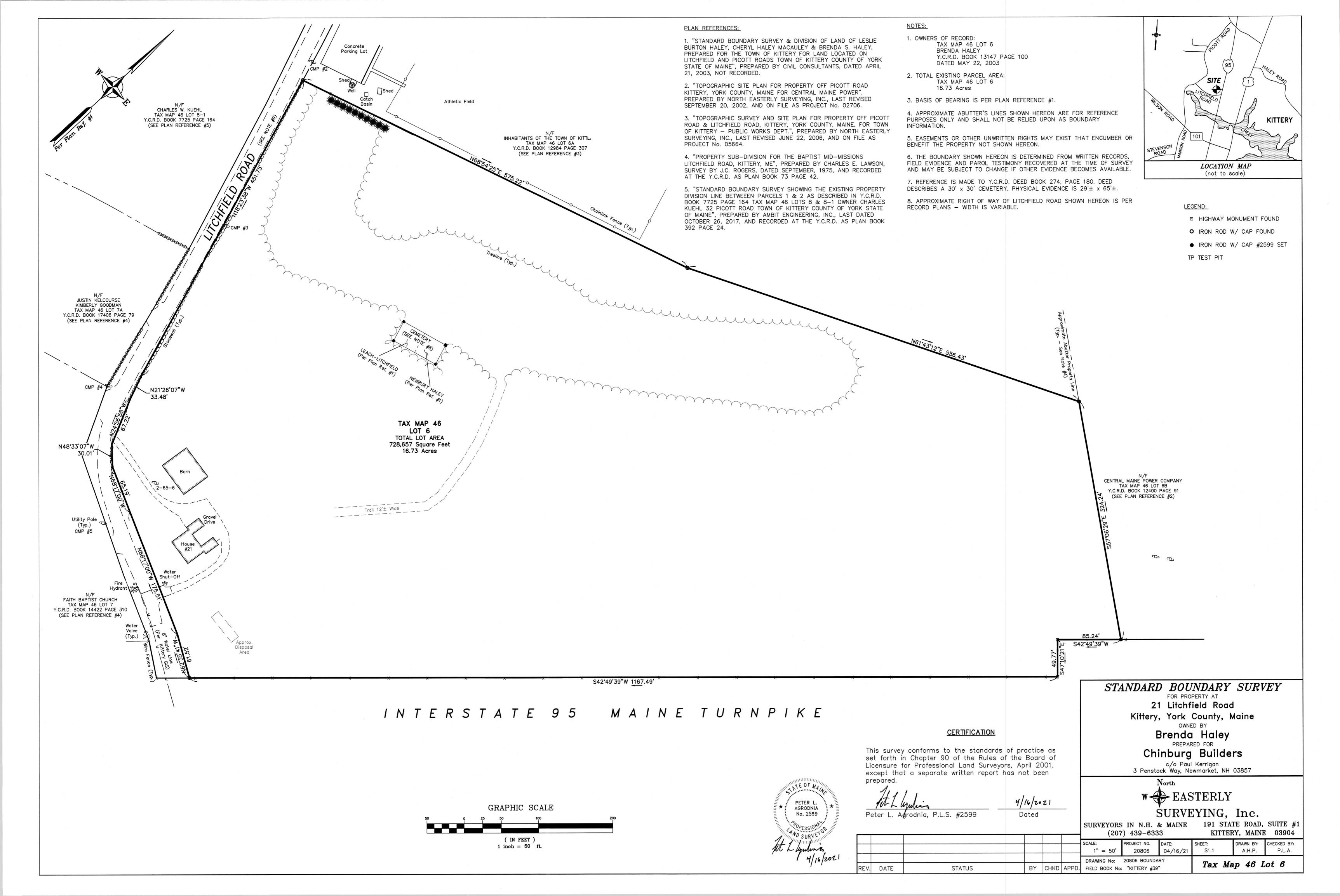
# Soils/Wetlands Scientist: JOSEPH W. NOEL, CPSS

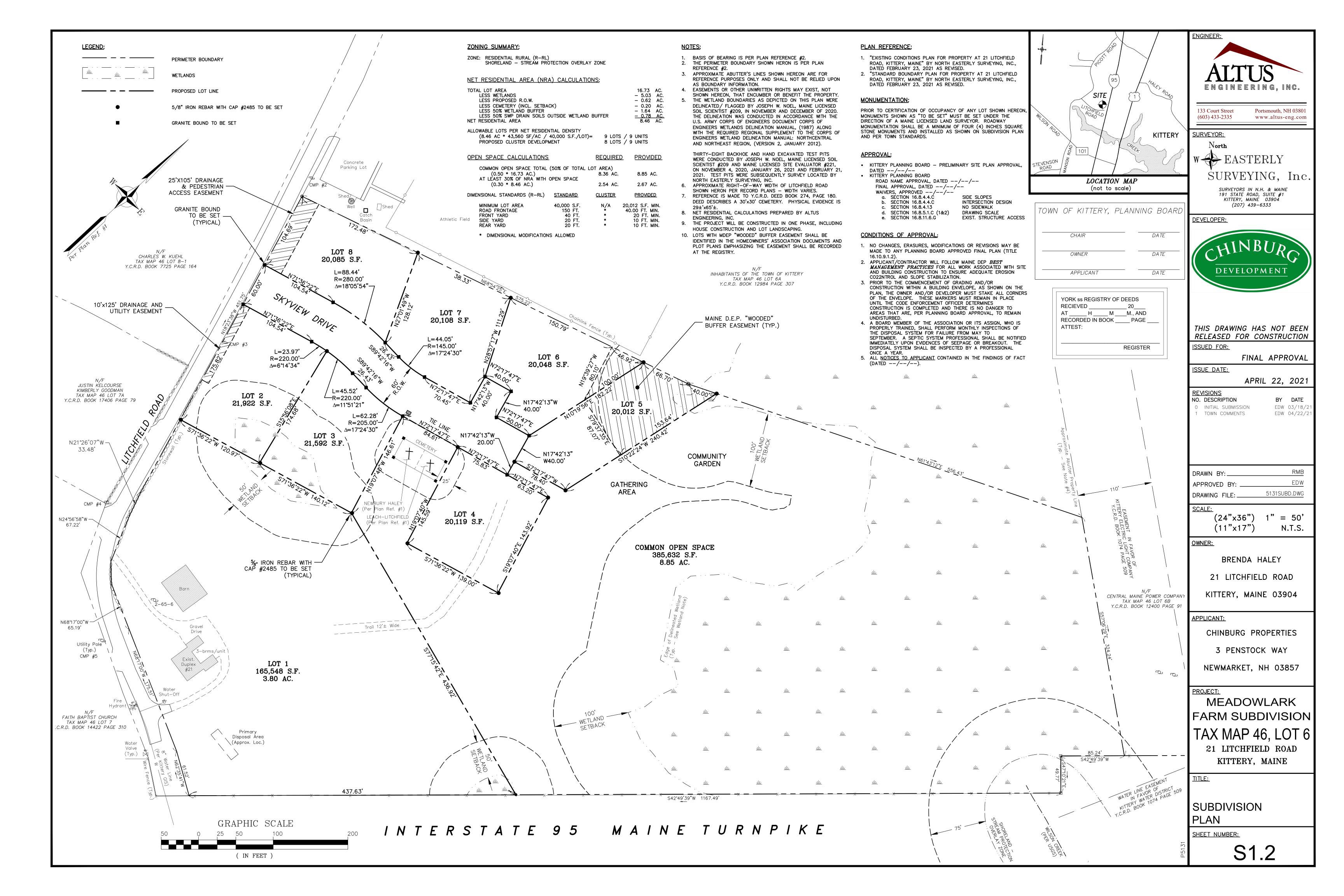
P.O. Box 174
South Berwick, ME 03908
(207) 384-5587

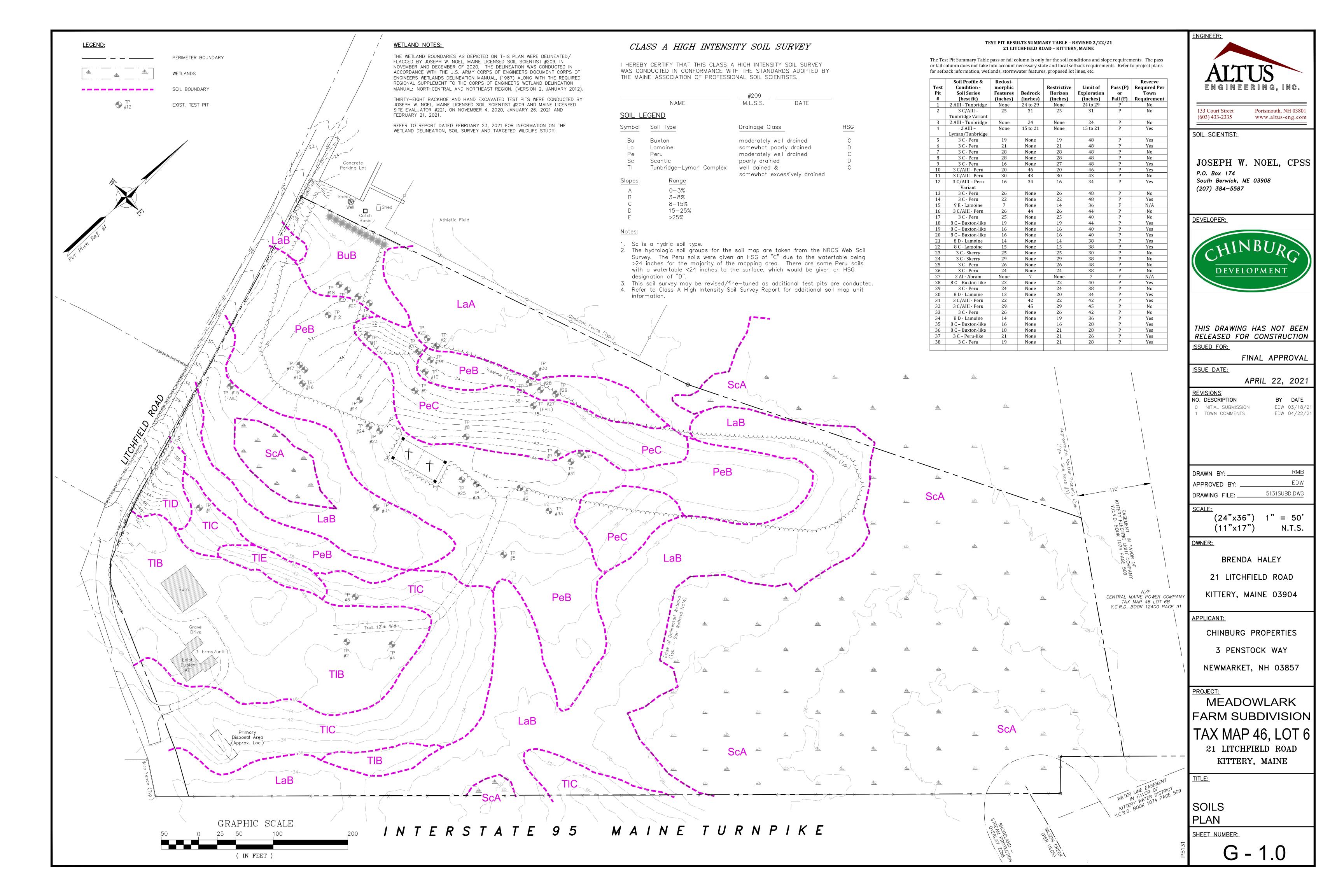


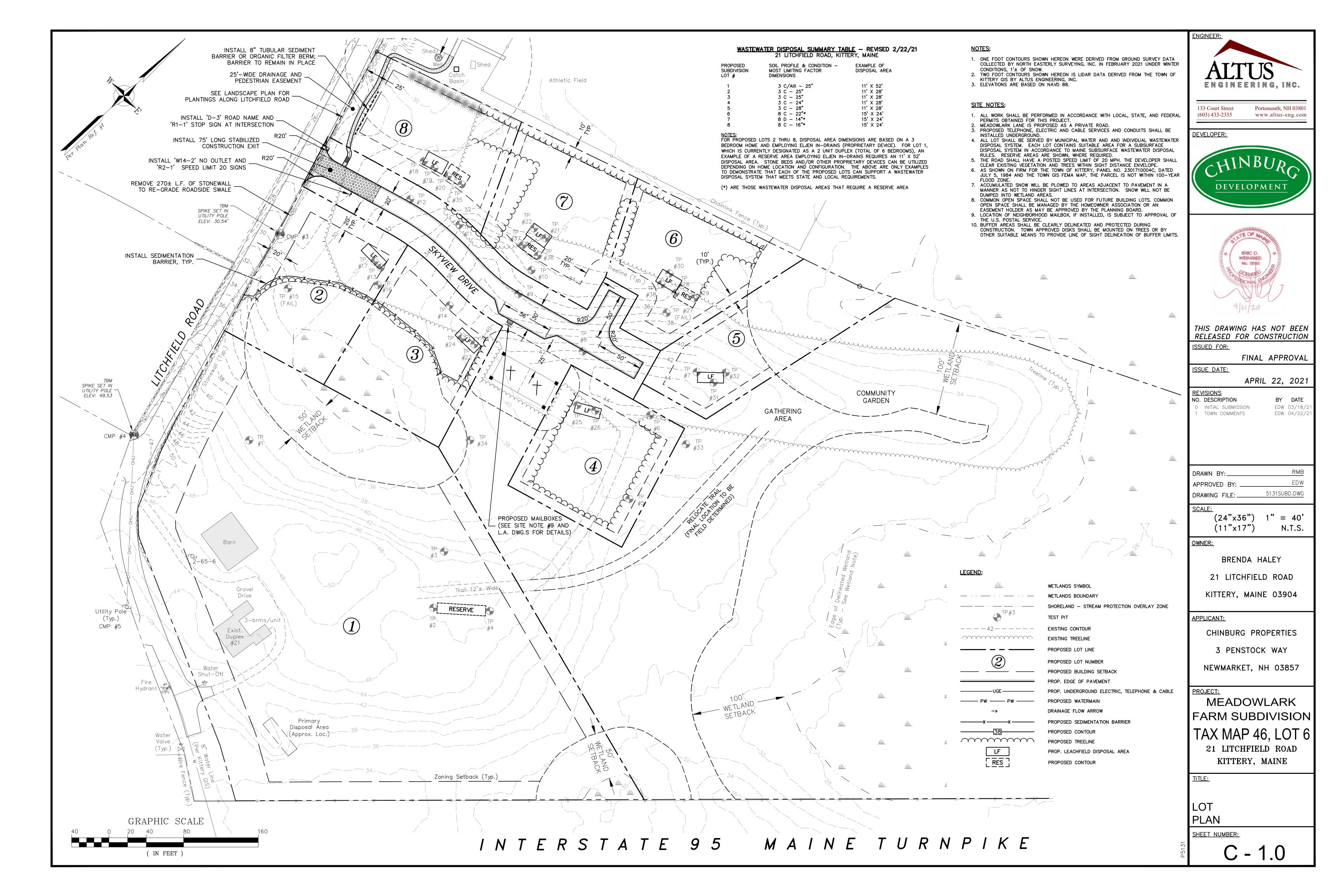
Sheet Index Title	$Sheet \ No.:$	Rev.	$\it Date$
Existing Conditions Plan Standard Boundary Survey	S1.0 S1.1	O O	04/16/21 04/16/21
Standard Boundary Survey Subdivision Plan	S1.1 S1.2	1	04/22/21
Soils Plan Lot Plan	G-1.0 C-1.0	1	04/22/21 04/22/21
Roadway Plan & Profile	C-1.1	1	04/22/21
Grading & Stormwater Plan Watermain Extension Plan	C-1.2 C-1.3	1	04/22/21 04/22/21
Project Entry, Pathway & Mailbox Station Landscape Erosion Control Notes	LA-1.0 C-2.0	0 1	04/22/21 04/22/21
Erosion Control Details Erosion Control Details	C-2.1 C-2.2	1 1	04/22/21
Details Sheet  Details Sheet	C-3.0 C-3.1	1	04/22/21 04/22/21
DETAILS SHEET	U-J.1	•	04/22/21

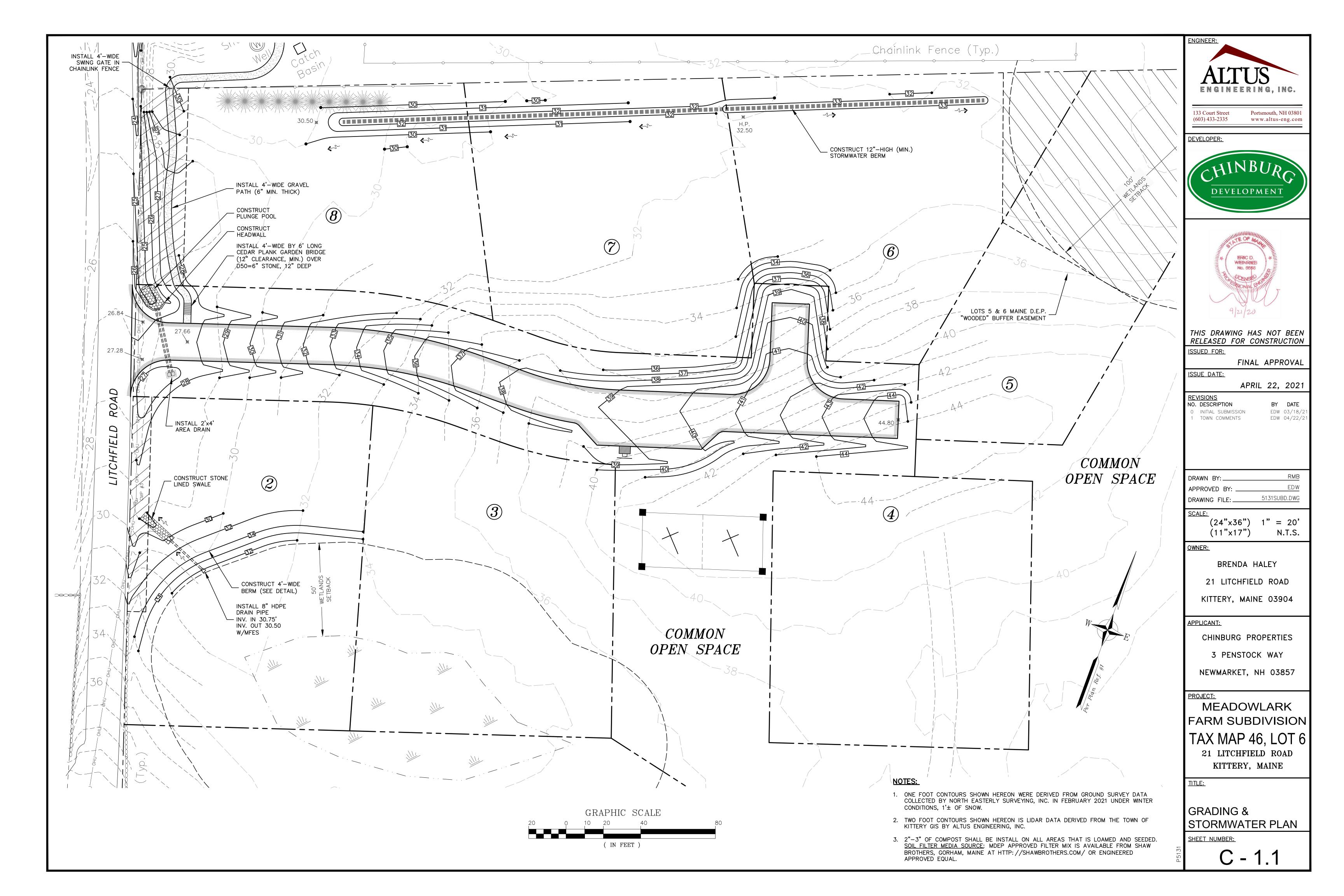


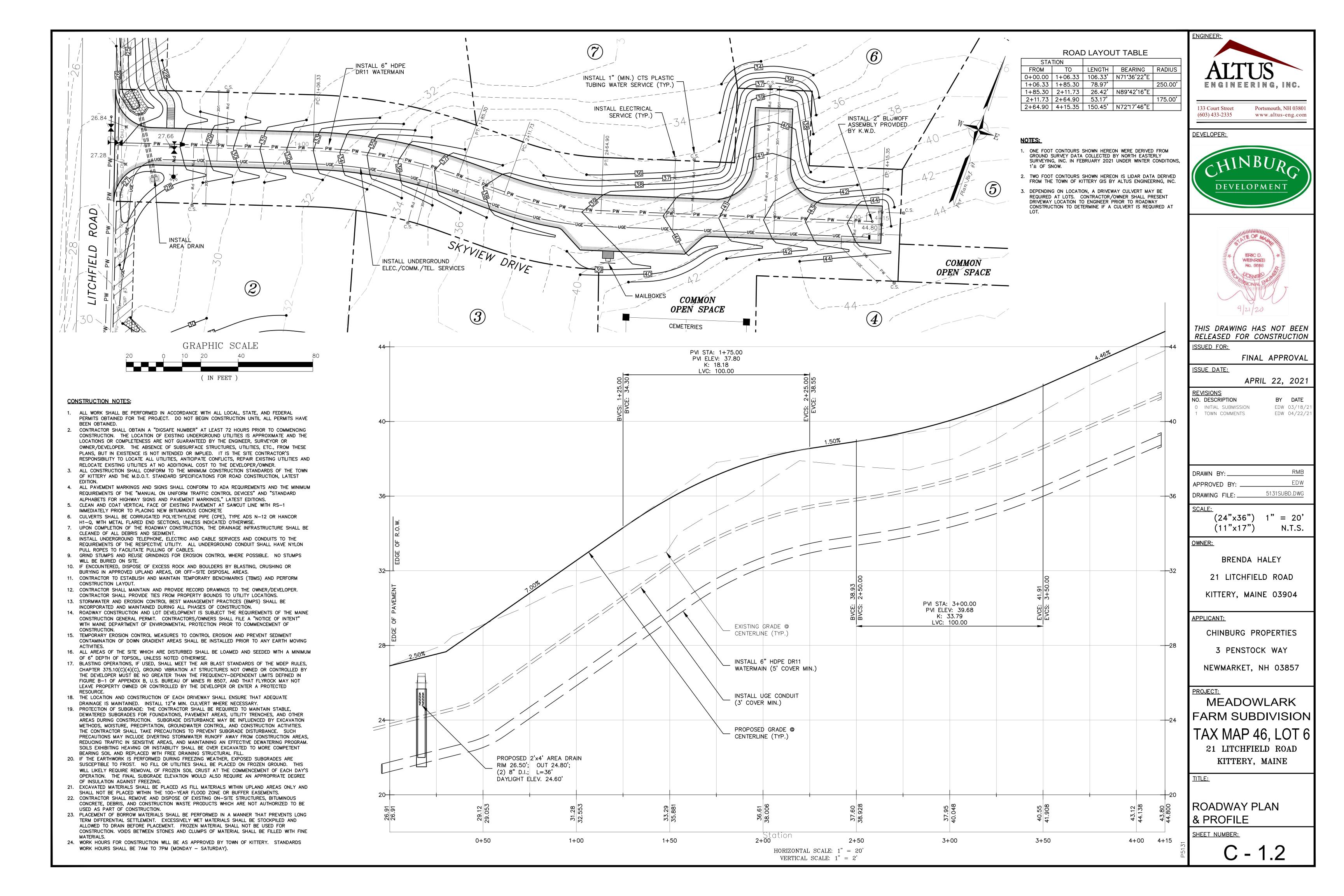


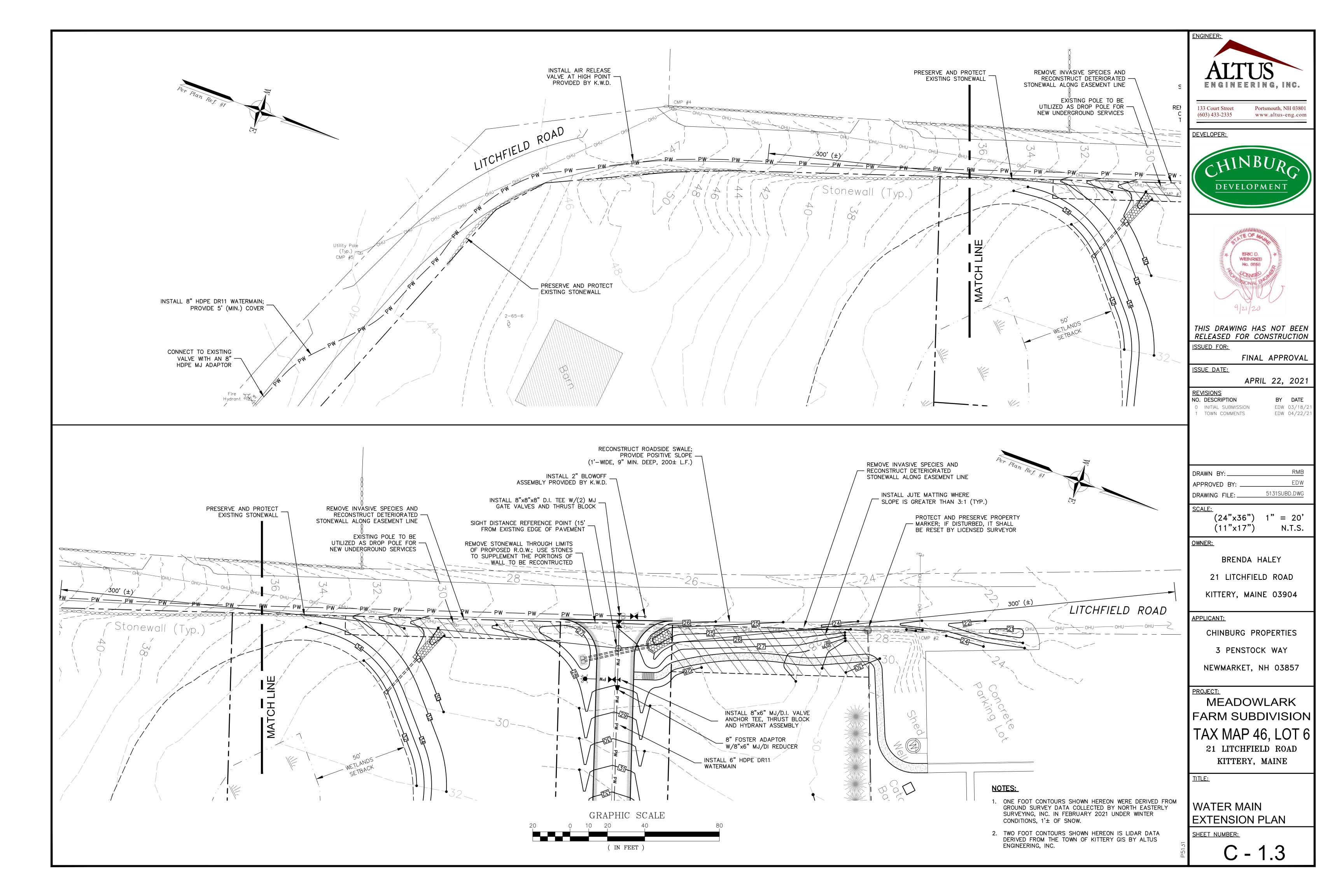


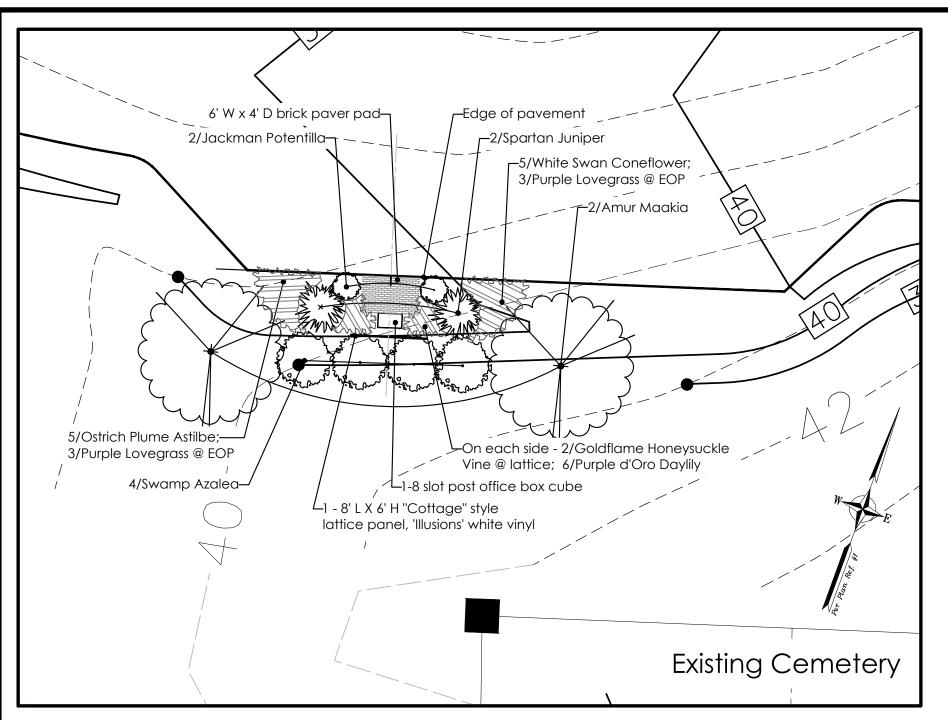








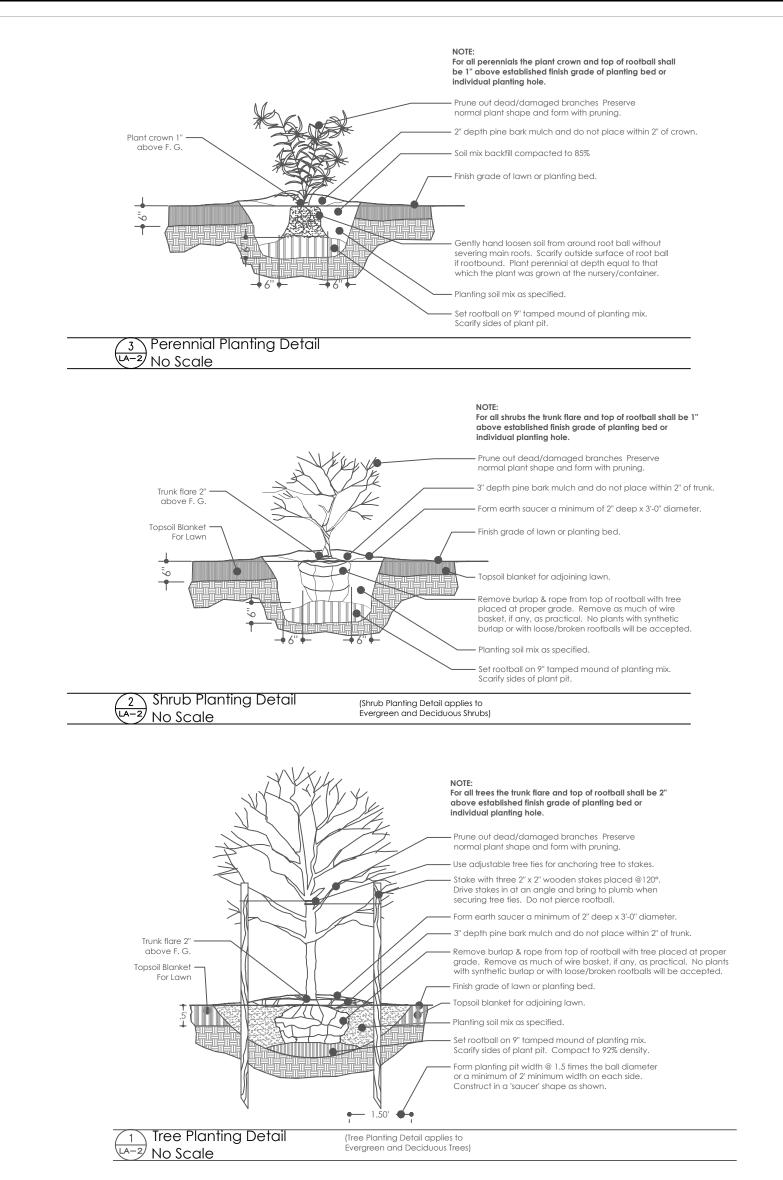




Mailbox Station & Related Landscape

Entry Landscape & Roadside Pathway

Scale: 1" = 10'-0"



# **Planting Notes**

"as-built drawings.

- 1. Design is based on drawings by Altus Engineering Inc., dated April 22, 2021 and may require adjustment due to
- 2. This project shall comply with the town of Kittery, Maine's Construction Standards and Details.
- 3. The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion
- 4. Erosion Control shall be in place prior to construction.
- 5. If discrepancies exist between the number of plants drawn on the planting plan and the number of plants in the plant list, the planting plan shall govern.
- All new plant material shall conform to the minimum guidelines established for nursery stock published by the American Association of Nurserymen, Inc. In addition all new plant material for the project shall be of specimen
- 7. All new plants to be balled and burlapped or container grown, unless otherwise noted on the plant list. All plants shall be legibly tagged with the proper botanical name.
- 8. The contractor shall supply all new plant material in quantities sufficient to complete the planting shown on the drawings.
- 9. Any proposed substitutions of plant species shall be made with plants of equivalent overall form, height, branching habit, flower leaf, color, fruit and culture, and only after written approval of the Landscape Architect.
- 10. Contractor shall locate and verify all existing utility lines prior to planting and shall report any conflicts to the Landscape Architect.
- 11. Stake the location of all proposed plantings for approval by Landscape Architect prior to the commencement of
- 12. New shrubs and ground cover shall bear the same relationship to grade as it bore to previous grade at nursery. Trees shall be set 2" higher than previous grade. No trees shall be planted before acceptance of rough grading.
- 13. Planting Soil Mix shall consist of: 3 parts sandy loam topsoil, 1.0 part 1/4" minus composted pine bark mulch and .5 parts of composted cow manure.
- 14. All plant beds to receive two inches (2") of shredded pine bark mulch. It shall be medium brown in color. Black or red colored bark mulch is not acceptable. Samples of mulch shall be provided for approval by landscape architect prior to installation.
- 15. Landscape (weed) fabric is not allowed and shall not be installed under the bark mulch.
- 16. All existing trees to remain shall be properly protected during construction. Protection techniques shall be reviewed and approved by the Landscape Architect.
- 17. Prune trees and large shrubs in accordance to guidelines established for nursery stock published by the American Association of Nurserymen, Inc.
- 18. All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% of 1/4" minus composted bark mulch compost.
- 19. All alterations to these drawings made in the field during construction shall be recorded by the contractor on
- 20. There shall be a full one (1) year replacement guarantee for all trees and shrubs after final acceptance of initial planting.

<u>ENGINEER:</u> ENGINEERING, INC.

Portsmouth, NH 03801 133 Court Street (603) 433-2335 www.altus-eng.com

**DEVELOPER:** 



Prepared by:

 $\mathcal{J}^{2+1}$  LLC Landscape Architecture Site Planning Graphics

70 New Road Salisbury New Hampshire 03268

p 603 648 6434 www.@g2plus1.com

THIS DRAWING HAS NOT BEEN

RELEASED FOR CONSTRUCTION

ISSUED FOR:

FINAL APPROVAL

SSUE DATE:

APRIL 22, 2021

<u>REVISIONS</u> NO. DESCRIPTION INITIAL SUBMISSION

BY DATE DHG 04/22/2

DRAWN BY:	DHG
APPROVED BY:	DHG
DRAWING FILE:	5131SUBD.DWG

(24"x36") (11"x17") N.T.S.

BRENDA HALEY

21 LITCHFIELD ROAD

KITTERY, MAINE 03904

**APPLICANT:** 

CHINBURG PROPERTIES

3 PENSTOCK WAY

NEWMARKET, NH 03857

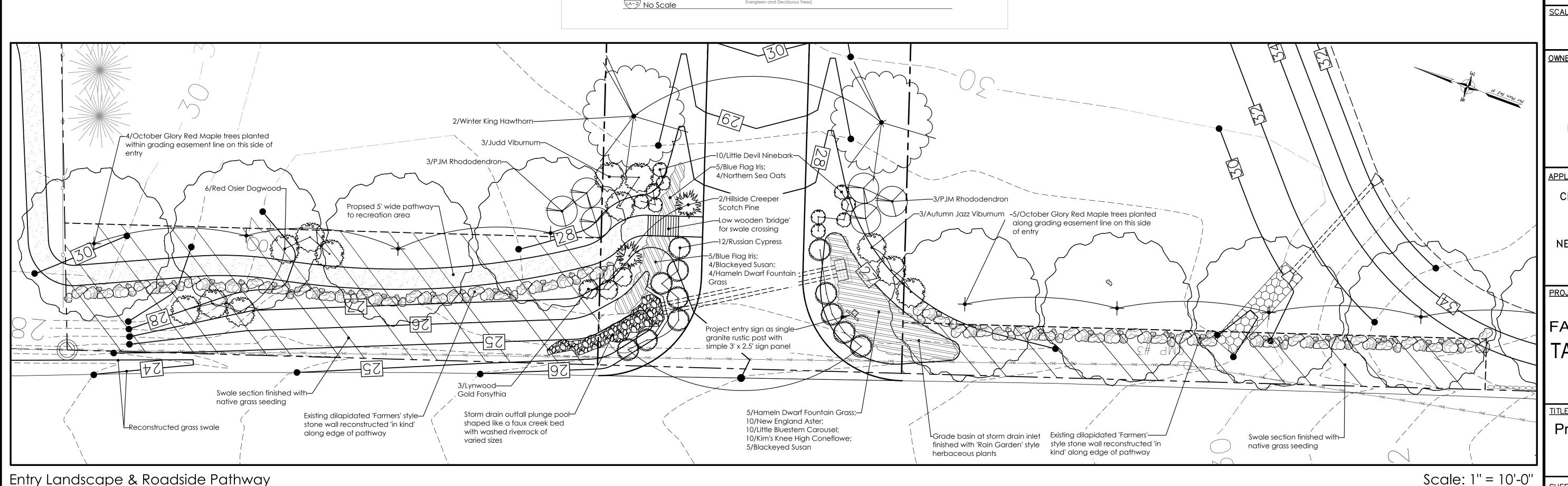
**MEADOWLARK** FARM SUBDIVISION TAX MAP 46, LOT 6 21 LITCHFIELD ROAD KITTERY, MAINE

Project Entry, Pathway & Mailbox Station

Landscape

SHEET NUMBER:

LA-1.0



# PROJECT NAME AND LOCATION

Meadowlark Farm Subdivision Map 46 Lot 6 Kittery, Maine

Latitude: 043° 07' 05" N Longitude: 070° 43′ 58″ W

# DESCRIPTION

The project consists of a new 8—lot / 9—single family subdivision and one (1) reserved open space lot. The project will be completed in a single phase.

# DISTURBED AREA

The total area to be disturbed is approximately 2.5 acres for new construction of roadways (including lot development). Prior to lot clearing and soil disturbance, sedimentation barrier shall be installed to prevent sediment leaving the lot.

# SEQUENCE OF MAJOR ACTIVITIES

Contractor shall file a Notice of Intent (N.O.I.) to the Maine Department of Environmental Protection

- Install temporary erosion control measures, including silt fences and stabilized construction entrances. Upon completion of Items 1 through 2, clear and grub wooded areas, strip and stockpile loam. Stockpiles
- shall be temporarily stabilized with hay bales mulch and surrounded by a hay bale or silt fence barrier until material is removed and final grading is complete.
- Construct ditches and stabilize prior to directing flow to them. Construct drainage structures, swales & road base materials.
- Ditches and swales with grades over 5% shall have sides and bottom reinforced with excelsior matting. Grade and shape lots to finish elevations.
- Stabilize disturbed areas. When all construction activity is complete and site is stabilized, remove all hay bales, storm check dams,
- silt fences and sediment that has been trapped by these devices. File a Notice of Termination (N.O.T.) with MDEP.

# NAME OF RECEIVING WATER

Unnamed wetlands complex and open drainage systems to tidal waters of Spruce Creek.

# TEMPORARY EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described n the "Maine Erosion and Sediment Control BMPs, 2003" published by the Maine Department of Environmental

As indicated in the sequence of Major Activities, the hay bales and silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity. Once construction activity ceases permanently in an area, silt fences and hay bale barriers and any earth/dikes will be removed once permanent measures are established.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site will be filtered through hay bale barriers, stone check dams, and silt fences. All storm drain inlets shall be provided with hay bale filters or stone check dams. Stone rip rap shall be provided at the outlets of drain pipes and culverts where shown.

emporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until desires vegetative cover is established. These control measures are essential to erosion prevention and also reduce costly rework of graded and shaped

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion sedimentation measures shall be maintained until permanent vegetation is established.

# INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

- Perimeter controls shall be installed prior to earth moving operations. The smallest practical portion of the site will be denuded at one time and no more than be mulched in
- one day. All disturbed areas must be stabilized by temporary measures within 5 days of initial disturbance and stabilized by permanent measures immediately after final grading.
- Sediment barriers shall be installed downgradient of stockpiles and diversion swales installed upgradient of stockpiles to prevent movement of soil. Built-up sediment shall be removed from sedimentation barrier or other barriers when it has reached
- one—third the height of the tubular barrier or bale, or when "bulges" occur in sedimentation barrie All diversion dikes shall be inspected and any breaches promptly repaired.
- The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the

Temporary seeding and planting shall be inspected for bare spots, washouts, and unhealthy growth.

- All ditches and swales shall be stabilized prior to directing runoff to them. All diversion dikes will be
- inspected and any breaches promptly repaired. Temporary water diversion (swales, basins, etc) shall be used as necessary until areas are stabilized.
- Ponds and swales shall be installed early on in the construction sequence (before rough grading site). All cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade.
  - An area shall be considered stable if one of the following has occurred: a. Base coarse gravels have been installed in areas to be paved;
  - A minimum of 90% vegetated growth as been established;
  - A minimum of 3 inches of non-erosive material such as stone of riprap has been installed; or Erosion control blankets have been properly installed.

# MULCHING

- In sensitive areas (within 100 ft of streams, wetlands and in lake watersheds) temporary mulch shall be applied within 7 days of exposing soil or prior to any storm event. \* Areas, which have been temporarily or permanently seeded, shall be mulched immediately following
- \* Areas which cannot be seeded within the growing season shall be mulched for over-winter protection and the area should be seeded at the beginning of the growing season.
- \* Mulch anchoring should be used on slopes greater than 5% in late fall (past September 15), and over-winter (September 15 - April 15).

# Type of Mulch

Hay or Straw Mulches

Organic mulches, including hay and straw, shall be air-dried, free of undesirable seeds and coarse materials. Application rate shall be 2 bales (70—90 pounds) per 1000 sq. ft. or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90 % of the ground surface. Hay mulch subject to wind blowing shall be anchored via: netting; peg and twine or tracking.

# Erosion Control Mix

Erosion control mix shall consist primarily of organic material and shall include any of the following: shredded bark, stump grindings, composted bark or other acceptable products based on a similar raw source. Wood or bark chips, ground construction debris or reprocessed wood products shall not be

- acceptable as the organic component of the mix. It can be used as a stand-alone reinforcement: \* On slopes 2 horizontal to 1 vertical or less.
- On frozen ground or forested areas. \* At the edge of gravel parking areas and areas under construction.

# Other reinforcement BMPs (i.e. riprap) should be used:

- On slopes with groundwater seepage; At low points with concentrated flows and in gullies;
- At the bottom of steep perimeter slopes exceeding 100 feet in length; Below culvert outlet aprons; and
- Around catch basins and closed storm systems.

# Composition

Erosion control mix shall contain a well—graded mixture of particle sizes and may contain rocks less than 4" in diameter. Erosion control mix must be free of refuse, physical contaminants, and material toxic to plant growth. The mix composition shall meet the following standards:

- \* The organic matter content shall be between 80 and 100%, dry weight basis. \* Particle size by weight shall be 100% passing a 6" screen and a minimum of 70%, maximum of
- 85%, passing a 0.75" screen. \* The organic portion needs to be fibrous and elongated.
- \* Large portions of silts, clays or fine sands are not acceptable in the mix.

# \* Erosion control mix shall not be used on slopes steeper than 2:1.

- \* On slopes of 3:1 or less; 2 inches plus an additional 1/2 inch per 20 feet of slope up to 100
- \* On slopes between 3:1 and 2:1, 4 inch plus an additional 1/2 inch per 20 feet of slope up to 100 feet.

<3:1 slope slopes between 3:1 and 2:1 <20' of slope 2.0" 4.0' <60' of slope 3.0" 5.0'

The thickness of the mulch at the bottom of the slope needs to be

<100' of slope 4.0" 6.0' \* It shall be placed evenly and must provide 100% soil coverage, with the soil totally invisible

Any required repairs shall be made immediately, with additional erosion control mix placed on top of the mulch to reach the recommended thickness. When the mix is decomposed, clogged with sediment, eroded or ineffective, it shall be replaced or repaired. Erosion control mix mulch shall be left in place. If the mulch needs to be removed spread it out into the landscape.

All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets shall be inspected after rain events for dislocation or failure. If washouts or breakage occur, re—install the nets as necessary after repairing damage to the slope. Inspections shall take place until grasses are firmly established (95% soil surface covered with grass). Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

# C. TEMPORARY VEGETATION

- Proper seedbed preparation and the use of quality seed are important in this practice just as in permanent seeding. Failure to carefully follow sound agronomic recommendations will often result in an inadequate stand of vegetation that provides little or no erosion control.
- \* Nutrients and pesticides used to establish and maintain a vegetation cover shall be managed to protect the surface and ground water quality. \* Temporary seeding shall be used extensively in sensitive areas (ponds and lake watersheds, steep
- slopes, streambanks, etc.). Late fall seeding may fail and cause water quality deterioration in spring runoff events, thus other measures such as mulching shall be implemented.

Seedbed Preparation Apply limestone and fertilizer according to soil test recommendations. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 600 pounds per acre or 13.8 pounds per 1,000 square feet of 10-10-10 (N-P20S-K20) or equivalent. Apply limestone (equivalent to 50 percent calcium plus magnesium oxide) at a rate of 3 tons per acre (138 lb. per 1,000 square feet).

- \* Select seed from recommendations in enclosed table. \* Where the soil has been compacted by construction operations, loosen soil to a depth of 2 inches
- before applying fertilizer, lime and seed. \* Apply seed uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder (slurry including seed and fertilizer). Hydroseeding that includes mulch may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

Apply mulch over seeded area according to the TEMPORARY MULCHING BMP.

Temporary seeding shall be periodically inspected. At a minimum, 95% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

Temporary Seeding Rates and Dates							
Seed	Lb./Ac	Seeding Depth	Recommended Seeding Dates	Remarks			
Winter Rye	112 (2.0 bu)	1-1.5 in	8/15-10/1	Good for fall seeding. Select a hardy species, such as Aroostook Rye.			
Oats	80 (2.5 bu)	1-1.5 in	4/1-7/1 8/15-9/15	Best for spring seeding. Early fall seeding will die when winter weather moved in, but mulch will provide protection.			
Annual Ryegrass	40	.25 in	4/1-7/1	Grows quickly but is of short duration. Use where appearance is important. With mulch, seeding may be done throughout growing season.			
Sudangrass	40 (1.0 bu)	.5–1 in	5/15-8/15	Good growth during hot summer periods.			
Perennial	40 (2.0 bu)	.25 in	8/15-9/15	Good cover, longer lasting than Annual Ryegrass. Mulching will allow seeding throughout growing season.			
Temporary mulch wi and/or without dorm			10/1-4/1	Refer to TEMPORARY MULCHING BMP PERMANENT VEGETATION BMP.			

# D. FILTERS

# Tubular Sediment Barrier

- a. To be provided by an approved manufacturer or supplier:
- Installed per manufacturer's specifications; c. Barrier shall be removed when they have served their useful purpose but not before the upslope areas has been permanently stabilized.

# Straw/Hay Bales

- Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales
- tightly abutting one another. All bales shall be either wire—bound or string—tied. Bales shall be installed so that bindings are oriented around the sides, parallel to the ground surface to prevent deterioration of the bindings.
- \* The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches.
- After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier.
- Backfill soil shall conform to the ground level on the downhill side and shall be build up to 4 inches against the uphill side of the barrier. \* At least two stakes or rebars driven through the bale shall securely anchor each bale. The first
- stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or re—bars shall be driven deep enough into the ground to securely anchor the bales. \* The gaps between bales shall be chinked (filled by wedging) with hay to prevent water from escaping between the bales.

# <u>Organic Filter Berm</u> See detail

Sediment barriers shall be installed along the down gradient side of proposed ground disturbance areas prior to any construction activities

# \* The barrier must be placed along a relatively level contour.

- Hay bale barriers, sedimentation barriers and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired immediately if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them,
- sediment barriers shall be replaced with a temporary check dam. \* Should the fabric on a sedimentation barrier or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.
- \* Sediment deposits should be removed when deposits reach approximately one third (1/3) the height of the barrier.
- \* Filter berms should be reshaped as needed.
- \* Any sediment deposits remaining in place after the sedimentation barrier or filter barrier is no longer required shall be dressed or removed to conform to the existing grade, prepared and
- \* Additional stone may have to be added to the construction stabilized entrance, rock barriers, stone lined swales, etc., periodically to maintain proper function of the erosion control structure.

# E. PERMANENT SEEDING

- 1. Bedding stones larger than  $1\frac{1}{2}$ ", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 6" to prepare a seedbed and mix fertilizer (refer to Landscape Drawings and Specifications) into the
- 2. Fertilizer (refer to Landscape Drawings and Specifications) lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil. Kinds and amounts of lime and fertilizer should be based on an evaluation of soil tests.

germination of each variety.

- 3. Seed Mixture (See Landscape Drawings for additional information): 3.1. Lawn seed mix shall be a fresh, clean new seed crop. The Contractor shall furnish a dealer's guaranteed statement of the composition of the mixture and the percentage of purity and
- 3.2. Seed mixture shall conform to landscape specifications 4. Sodding - sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site. Bed preparation, fertilizing, and placement of sod shall be performed according to the S.C.S. Handbook. Sodding is recommended for steep sloped areas, areas immediately adjacent to sensitive water courses, easily

erodible soils (fine sand/silt), etc.

A dewatering plan shall be implemented to address excavation de-watering following heavy rainfall events or where the excavation may intercept the groundwater table during construction. The collected water needs treatment and a discharge point that will not cause downgradient erosion and offsite sedimentation

All dewatering discharge locations shall be located on relatively flat ground at least 75' from streams and 25' from wetlands. The contractor shall utilize "Dirtbags", erosion control mix berms, or similar methods for filtration of dewatering and shall conform to the Maine Erosion and Sediment Control BMPs.

Placement of "Dirtbags" shall be located such that they can be removed intact upon completion of construction with no discharge of silt at the site and properly disposed.

- The contractor shall be responsible for installing, monitoring, maintaining, repairing, replacing and removing all of the erosion and sedimentation controls or appointing a qualified subcontractor to do so. Maintenance measures will be applied as needed during the entire construction cycle. immediately following any significant rainfall, and at least once a week, a visual inspection will be made of all erosion and sedimentation controls as follows:
- sedimentation barrier shall be inspected and repaired. Sediment trapped behind these barriers shall be excavated when it reaches a depth of 6" and redistributed to areas undergoing final grading. 2. Construction entrance shall be visually inspected and repaired as needed. Any areas subject to rutting shall be stabilized immediately. If the voids of the construction entrance become filled with mud, more
- crushed stone shall be added as needed. The public roadway shall be swept should mud be deposited/tracked onto them.

The following standards and methodologies shall be used for stabilizing the site during the winter

# STANDARDS FOR STABILIZING SITES FOR THE WINTER

- construction period: Standard for the timely stabilization of disturbed slopes (any area having a grade greater than 25%) — the contractor will seed and mulch all slopes to be vegetated by September 15th. If the contractor fails to stabilize any slope to be vegetated by September 15th, then the contractor will take one of the following actions to stabilize the slope for late fall and winter.
- Stabilize the soil with temporary vegetation and erosion control mats: by October 1st the contractor will seed the disturbed slope with winter rye at a rate of 3 pounds per 1000 square feet and then install erosion control mats or anchored hay mulch over the seeding. The contractor will monitor growth of the rye over the next 30 days.
- B. Stabilize the slope with wood-waste compost: the contractor will place a six-inch layer of wood-waste compost on the slope by November 15th. The contractor will not use wood-waste compost to stabilize
- slopes having grades greater than 50% (2h:iv) or having groundwater seeps on the slope face. Stabilize the slope with stone riprap: the contractor will place a layer of stone riprap on the slope by November 15th. 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.
- 2. Standard for the timely stabilization of disturbed soils by September 15th the contractor will seed and mulch all disturbed soils on the site. If the contractor fails to stabilize these soils by this date, then the contractor will take on of the following actions to stabilize the soil for late fall and winter.
- A. Stabilize the soil with temporary vegetation: by October 1st the contractor will 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. The contractor will monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1, then the contractor will mulch the area for over-winter protection as described in item iii of this standard.
- October 1st. proper installation includes the contractor pinning the sod onto the soil 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 Stabilize the soil with mulch: by November 15th the contractor will 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, the contractor will anchor the mulch with

B. <u>Stabilize the soil with sod</u>: the contractor will stabilize the disturbed soil with properly installed sod by

netting or other method to prevent wind from moving the mulch off the disturbed soil. Winter inspections shall be preformed after, each rainfall, snowstorm or thawing and at least once a week. All areas within 75 feet of a protected natural resource must be protected with a double row of sediment

# **EROSION CONTROL REMOVAL**

- An area is considered stable if it is paved or if 90% growth of planted seeds is established. once an area is considered stable, the erosion control measures can be removed as follows: sedimentation barrier: sedimentation barrier shall be disposed of legally and properly off—site. all sediment trapped behind these controls shall be distributed to an area undergoing final grading or removed and
- 2. <u>Stabilized Construction Entrance</u>: The stabilized construction entrance shall be removed once the compacted roadway base in in place. Stone and sediment from the construction entrance shall be redistributed to an area undergoing grading or removed and relocated offsite.
- 3. <u>Miscellaneous:</u> Once all the trapped sediments have been removed from the temporary sedimentation devices the disturbed areas must be regraded in an aesthetic manner to conform to the surrounding topography. Once graded these disturbed areas must be loamed (if necessary), fertilized, seeded and mulched in accordance with the rates previously stated.

The above erosion controls must be removed within 30 days of final stabilization of the site. Conformance with this plan and following these practices will result in a project that complies with the state regulations and the standards of the natural resources protection act, and will protect water quality in areas downstream from the project.

# INSPECTION AND MAINTENANCE

- . All sediment control measures shall be inspected at least once each week and following any storm event of 0.5 inches or greater. An inspection report shall be made after each inspection by a qualified inspector engaged by the Owner. The qualified inspector shall be a Professional Engineer licensed in Maine or be a Certified Professional in Erosion and Sediment Control approved by the Owner and MDEP. 2. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within
- 24 hours and completed within 72 hours. 3. Inspection and maintenance requirements: Inspect disturbed and impervious areas, erosion and stormwater control measures, areas used for storage that are exposed to precipitation, and locations where vehicles enter or exit the site. Inspect these areas at least once a week as well as before and after a 0.5 inches or greater storm event and prior to completion of permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards in the Maine Construction General Permit and any departmental companion document to the MCGP, must conduct the inspection. This person must be identified in the inspection log. If best management practices (BMPs) need to be modified or if additional BMPs are necessary, implementation must be completed within 7 calendar days

and prior to any storm event (rainfall). All measures must be maintained in effective operating condition

until areas area permanently stabilized. 4. Inspection Log (report): A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and locations(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the inspection log the correct action taken and when it was taken. The log must be made accessible to the department staff and a copy must be provided upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of the permanent stabilization.

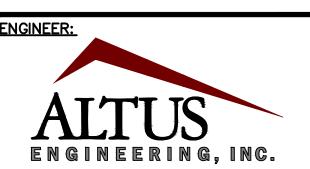
I. Spill prevention: Controls must be used to prevent pollutants from construction and waste materials stored onsite, including storage practices to minimize exposure of the materials to stormwater and appropriate spill prevention, containment, and response planning implementation. The contractor and owners need to take care with construction and waste materials such that contaminates do not enter the stormwater. The storage of materials such as paint, petroleum products, cleaning agents and the like are to be stored in watertight containers. The use of the products should be in accordance with manufacturer recommendations. When fueling equipment, including snowblowers and lawnmowers, have oil absorbent pads available below the fueling. Refueling of small engines by the owner should occur in the garage or on a paved surface. Any spill or release of toxic or hazardous substances must be reported to the department. For oil spills, call 1—800—482—0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the department's website at: HTTP:/WWW.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESP/

- 2. Groundwater protection: Protection of the groundwater is required by the contractor and owner. 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. Petroleum products should be stored in manufactured cans designed for the purpose. 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. Spill preventions procedures should be followed.
- Note: Lack of appropriate pollutant removal BMPs may result in violations of the groundwater quality standard established by 39 M.R.S.A. §465-C(1). Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide treatment within the infiltration area, in order to prevent accumulation of fines, reductions in infiltration rate, and consequent flooding and destabilization.
- i. 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 may not be used for dust
- Note: Dewatering a stream without a permit from the department violates state water quality standards and the Natural Resources Protection Act.
- 4. Debris and other materials: Litter, construction debris, and construction chemicals exposed to stormwater must be prevented from becoming a pollutant source. Construction materials and construction debris should be covered to prevent rainwater from washing contaminants off the site. Any fertilizers, cleaning products, herbicides should be protected from the weather and used in accordance with manufacturers
- Any contaminants that are washed off the site by rainwater is a violation of the Clean Waters Act. To prevent these materials from becoming a source of pollutants, construction activities related to a project may be required to comply with applicable provisions of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine Solid Waste and Hazardous Waste Management Rules; Maine Hazardous Waste Management Rules; Maine Oil Conveyance and Storage Rules: and Maine Pesticide requirements.
- 5. Trench or foundation dewatering: Trench dewatering 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 and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to greas 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.
- Note: For guidance on dewatering controls, consult the Maine Erosion and Sediment Control BMPs, published by the Maine Department of Environmental Protection.
- 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 activities 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 • 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 aroundwater or spring water
- Foundation or footer drain—water where flows are not contaminated Uncontaminated excavation dewatering
- Potable water sources including waterline flushings Unauthorized non—stormwater discharges: Identify and prevent contamination from discharges that is
- mixed with a source of non-stormwater, other than those discharges in compliance with 6. Unauthorized non-stormwater discharges are: • 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 operations and maintenance;
- Toxic or hazardous substances from a spill or other release. Allowable non-stormwater discharges cannot be authorized under this permit unless they are directly related to

Soaps, solvents or detergents used in vehicle and equipment wash;

and originate from a construction site or dedicated support activity. This project has a written erosion control plan and stormwater maintenance plan. Modifications to the plan

Maintenance of stormwater treatment and control systems must occur regularly. The stormwater maintenance report provides inspection details and time lines for doing the inspections and reporting to the Town and DEP.



Portsmouth, NH 03801 133 Court Street (603) 433-2335 www.altus-eng.com

DEVELOPER:





THIS DRAWING HAS NOT BEEN RELEASED FOR CONSTRUCTION SSUED FOR:

FINAL APPROVAL **ISSUE DATE:** 

<u>REVISIONS</u>

NO. DESCRIPTION

BY DATE 0 INITIAL SUBMISSION EDW 03/18/2 TOWN COMMENTS EDW 04/22/2

5131SUBD.DWG

N.T.S.

APRIL 22, 2021

RMB DRAWN BY:\_ APPROVED BY

(24"x36")

OWNER:

SCALE:

DRAWING FILE: \_

BRENDA HALEY 21 LITCHFIELD ROAD

KITTERY, MAINE 03904

APPLICANT: CHINBURG PROPERTIES

3 PENSTOCK WAY

NEWMARKET, NH 03857

MEADOWLARK

TAX MAP 46, LOT 6 21 LITCHFIELD ROAD

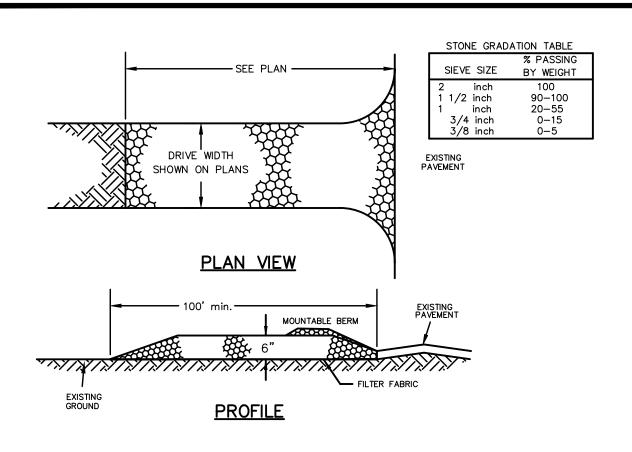
KITTERY, MAINE

FARM SUBDIVISION

SHEET NUMBER:

**I**EROSION CONTROL NOTES

C - 2.0



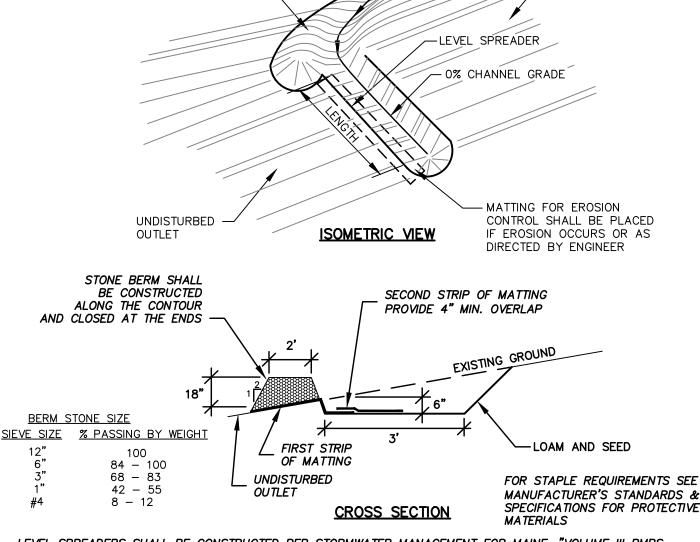
# CONSTRUCTION SPECIFICATIONS

- 1. <u>STONE SIZE</u> SEE GRADATION TABLE
- 2. <u>LENGTH</u> DETAILED ON PLANS (75 FOOT MINIMUM).
- 3. <u>THICKNESS</u> SIX (6) INCHES (MINIMUM).
- 4. <u>WIDTH</u> FULL DRIVE WIDTH
- 5. FILTER FABRIC MIRAFI 600X OR APPROVED EQUAL.
- 6. <u>SURFACE WATER CONTROL</u> ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIST SHALL BE PIPED BENEATH THE EXIST. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE
- 7. <u>MAINTENANCE</u> THE EXIST SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS—OF—WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED
- 8. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

# STABILIZED CONSTRUCTION EXIT

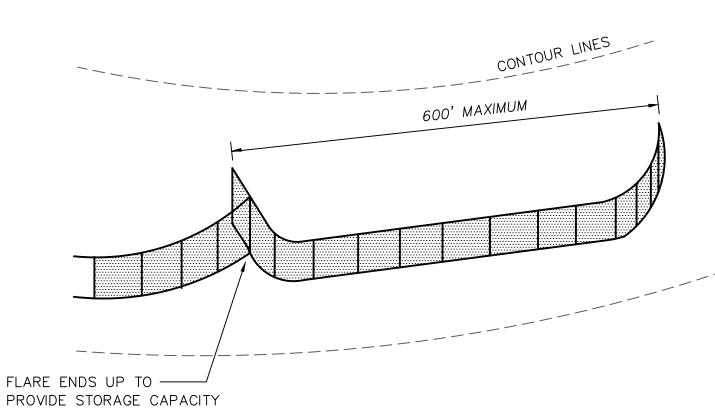
LAST 20' OF DIVERSION NOT TO EXCEED 1% GRADE

DIVERSION



LEVEL SPREADERS SHALL BE CONSTRUCTED PER STORMWATER MANAGEMENT FOR MAINE, "VOLUME III BMPS TECHNICAL DESIGN MANUAL, CHAPTER 5.2.2, BUFFER WITH STONE BERMED LEVEL LIP SPREADER", JANUARY 2006 SPECIFICATIONS.

# LEVEL SPREADER



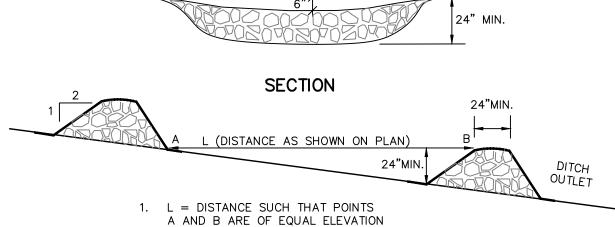
SILT FENCE LAYOUT NOT TO SCALE

# -EROSION CONTROL MIXTURE EXISTING GRADE

- STABILIZED SLOPE

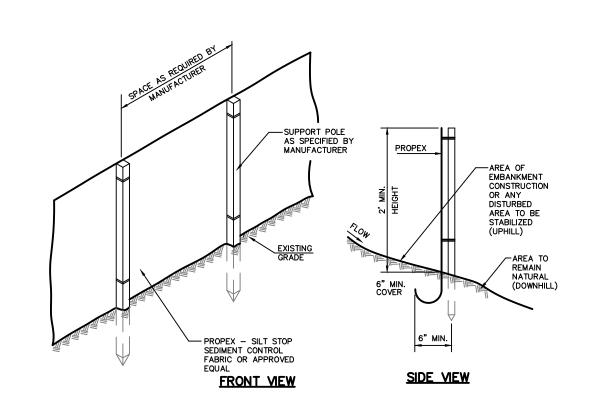
- 1. ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE OR OTHER SEDIMENT
- 2. THE EROSION CONTROL MIXTURE USED IN FILTER BERMS SHALL BE A WELL-GRADED MIX OF PARTICLE SIZES THAT MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, AND/OR ACCEPTABLE MANUFACTURED PRODUCTS AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH. EROSION CONTROL MIXTURE SHALL MEET THE FOLLOWING STANDARDS:
- a) THE ORGANIC CONTENT SHALL BE 80-100% OF DRY WEIGHT. b) PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70-85%
- PASSING A 0.75" SCREEN. c) THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
- d) LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE
- e) SOLUBLE SALTS CONTENT SHALL BE >4.0mmhos/cm. f) THE pH SHALL BE BETWEEN 5.0 AND 8.0.
- 3. ORGANIC FILTER BERMS SHALL BE INSTALLED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BERM.
- 4. ON SLOPES LESS THAN 5%, OR AT THE BOTTOM OF SLOPES NO STEEPER THAN 3:1 AND UP TO 20' LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE) AND A MINIMUM OF 36" WIDE. ON LONGER AND/OR STEEPER SLOPES, THE BERM SHALL BE TALLER AND WIDER TO ACCOMMODATE THE POTENTIAL FOR ADDITIONAL RUNOFF (MAXIMUM HEIGHT SHALL NOT EXCEED 2').
- 5. FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT
- 6. SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER BERMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE BERM.
- 7. ORGANIC FILTER BERMS MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED PROVIDED ANY SEDIMENT DEPOSITS TRAPPED BY THEM ARE REMOVED AND DISPOSED OF PROPERLY.

# ORGANIC FILTER BERM NOT TO SCALE



2. CHECK DAM SHALL BE CONSTRUCTED OF 2" TO 3" STONE WITH COMPLETE COVERAGE OF DITCH OR SWALE TO INSURE THAT THE CENTER OF THE STRUCTURE IS LOWER THAN THE EDGES.

# STONE CHECK DAM DETAIL NOT TO SCALE

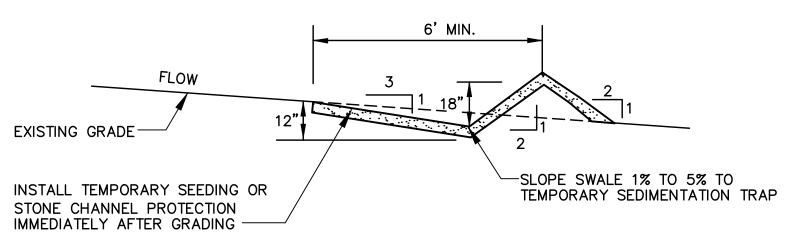


SILT FENCE DETAIL NOT TO SCALE

# TEMPORARY EROSION CONTROL BMP's

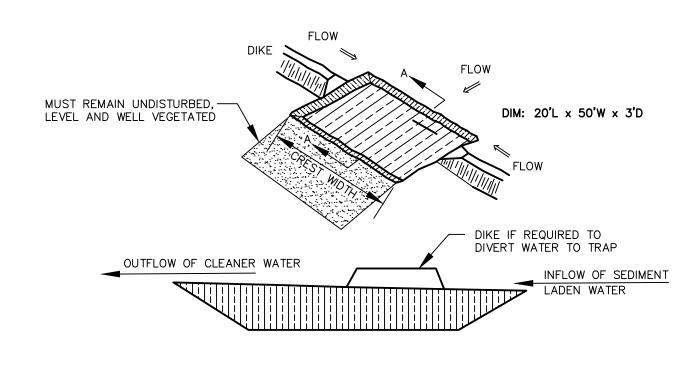
(USE TO CONTROL SEDIMENT AND EROSION AT TEMPORARY CONSTRUCTION LAYDOWN AND STOCKPILE AREAS, OR AS NEEDED TO COMPLY WITH MAINE CONSTRUCTION GENERAL PERMIT)

# SWALE SHALL BE FREE OF IRREGULARITIES WHICH MAY CAUSE PONDING. COMPACT FILLS AS NECESSARY TO STABILIZE MATERIAL

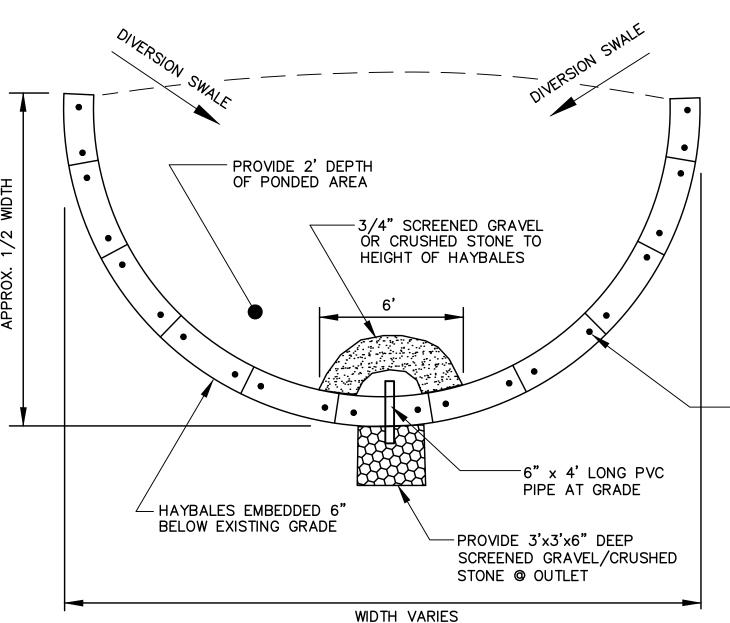


# TEMPORARY DIVERSION SWALE

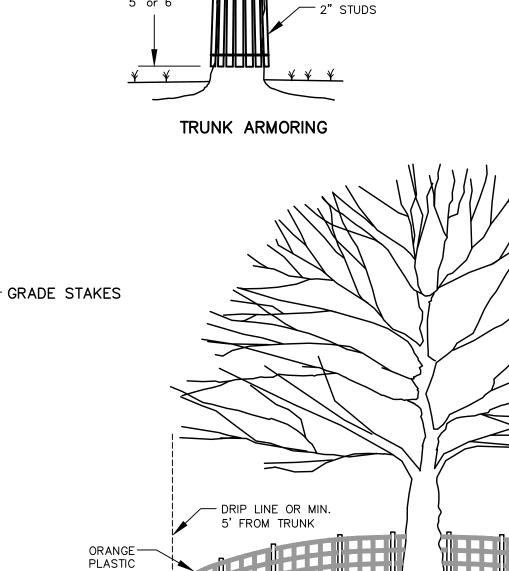
NOT TO SCALE



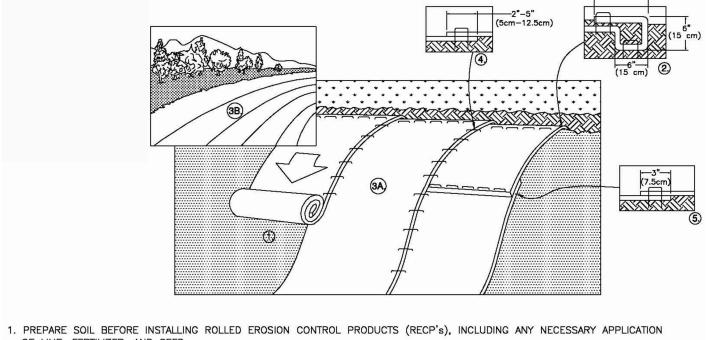
# EXCAVATED GRASS OUTLET SEDIMENT TRAP NOT TO SCALE



TYPICAL TEMPORARY SEDIMENT BASIN (TSB)



# NOT TO SCALE



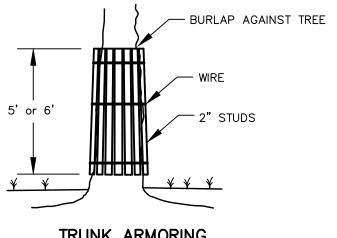
OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN. 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP—SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES (STAKES SPACED APPROXIMATELY 12" (30 CM) APART A CROSS THE WIDTH OF THE PECP'S 3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

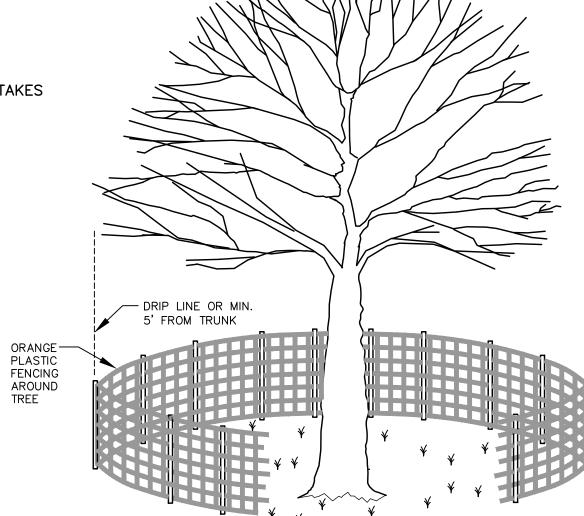
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING 5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.

# EROSION CONTROL BLANKET

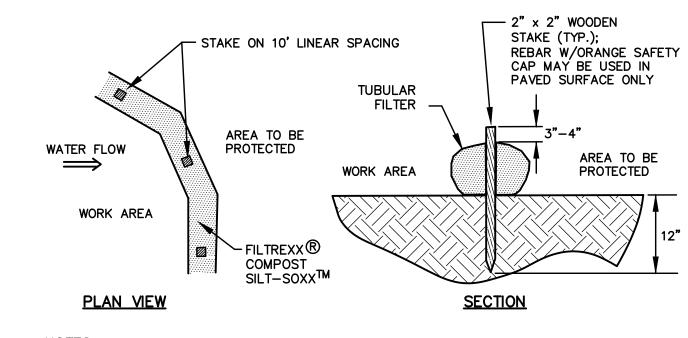
\*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

NOT TO SCALE





# TREE PROTECTION NOT TO SCALE

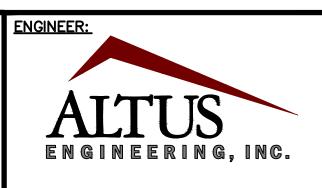


# NOTES: 1. SILTSOXX OR APPROVED EQUAL SHALL BE USED FOR TUBULAR SEDIMENT BARRIERS. ALL MATERIAL TO MEET MANUFACTURER'S SPECIFICATIONS. 3. COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.

4. ALL SEDIMENT TRAPPED BY BARRIER SHALL BE DISPOSED OF PROPERLY.

# TUBULAR SEDIMENT BARRIER DETAIL

NOT TO SCALE



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DEVELOPER:





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ISSUED FOR: FINAL APPROVAL

**ISSUE DATE:** 

APRIL 22, 2021 <u>REVISIONS</u>

NO. DESCRIPTION INITIAL SUBMISSION

BY DATE EDW 03/18/2 EDW 04/22/2 TOWN COMMENTS

RMB DRAWN BY: APPROVED I 5131SUBD.DWG DRAWING FILE:.

SCALE:

(24"x36") N.T.S.

<u>OWNER:</u>

BRENDA HALEY

21 LITCHFIELD ROAD KITTERY, MAINE 03904

APPLICANT:

CHINBURG PROPERTIES

**3 PENSTOCK WAY** 

NEWMARKET, NH 03857

**MEADOWLARK** FARM SUBDIVISION

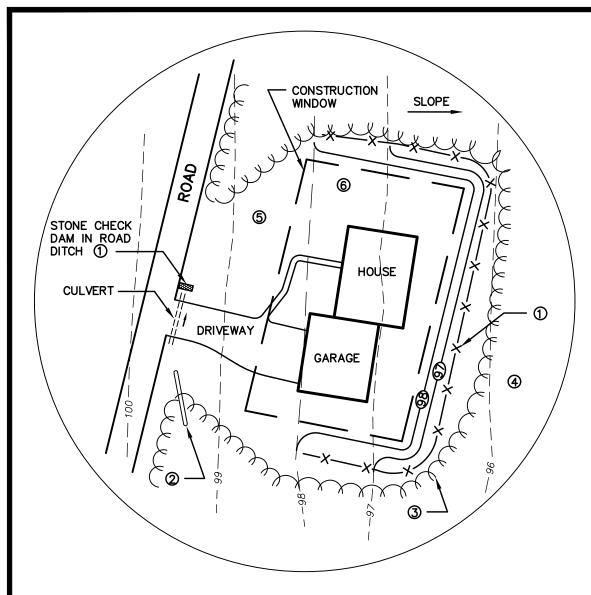
TAX MAP 46, LOT 6 21 LITCHFIELD ROAD

KITTERY, MAINE

EROSION CONTROL DETAILS

SHEET NUMBER:

C - 2.1



# INSTALLATION 1. INSTALL SEDIMENT BARRIERS ON THE SITE BEFORE DISTURBING SOILS. SEE THE

- "SEDIMENT BARRIER" MEASURE FOR DETAILS ON INSTALLATION AND MAINTENANCE.
- 2. CONSTRUCT A DIVERSION DITCH TO KEEP UPSLOPE RUNOFF OUT OF WORK AREA. 3. MARK CLEARING LIMITS ON THE SITE TO KEEP EQUIPMENT OUT OF AREAS WITH STEEP SLOPES, CHANNELIZED FLOW, OR ADJACENT

SURFACE WATERS AND WETLANDS.

- 4. PRESERVE BUFFERS BETWEEN THE WORK AREA AND ANY DOWNSTREAM SURFACE WATERS AND WETLANDS. SEE THE "BUFFERS" MEASURE FOR BUFFER PRESERVATION 5. USE TEMPORARY MULCH AND RYE-SEED TO PROTECT DISTURBED SOILS OUTSIDE THE
- ACTIVE CONSTRUCTION AREA. SEE THE "MULCHING" MEASURE AND "VEGETATION" MEASURE FOR DETAILS AND SPECIFICATIONS FOR THESE CONTROLS. 6. PERMANENTLY SEED AREAS NOT TO BE PAVED WITHIN SEVEN DAYS OF COMPLETING FINAL
- GRADING. SEE "VEGETATION" MEASURE FOR INFORMATION ON PROPER SEEDING. MAINTENANCE EVERY MONTH THE FIRST YEAR AFTER CONSTRUCTION AND YEARLY THEREAFTER, INSPECT FOR AREAS SHOWING EROSION OR POOR

VEGETATION GROWTH. FIX THESE PROBLEMS AS

SOON AS POSSIBLE. EACH SPRING REMOVE ANY ACCUMULATION OF DEBRIS OR WINTER SAND THAT

WOULD IMPEDE RUNOFF FROM ENTERING A BUFFER

# HOUSE LOT BMP

# CONSTRUCTION OVERSIGHT

The applicant will retain the services of a professional engineer to inspect the construction and stabilization of all stormwater management structures. If necessary, the inspecting engineer will interpret the pond's construction plan for the contractor. Once all stormwater management structures are constructed and stabilized, the inspecting engineer will notify the department in writing within 30 days to state that the pond has been completed. Accompanying the engineer's notification must be a log of the engineer's inspections giving the date of each inspection, the time of each inspection, and the items inspected on each visit, and include any testing data or sieve analysis data of every mineral soil and soil media specified in the plans and used on site.

# UNDERDRAINED FILTER BASIN

Construction Sequence: The soil filter media and vegetation must not be installed until the area that drains to the filter has been permanently stabilized with pavement or other structure, 90% vegetation cover, or other permanent stabilization unless the runoff from the contributing drainage area is diverted around the filter until stabilization is completed.

Compaction of Soil Filter: Filter soil media and underdrain bedding material must be compacted to between 90% and 92% standard proctor. The bed should be installed in at least 2 lifts of 9 inches to prevent pockets of loose media. Construction Oversight: Inspection by a professional engineer will occur at a

- After the preliminary construction of the filter grades and once the underdrain pipes are installed but not backfilled,
- After the drainage layer is constructed and prior to the installation of the
- After the filter media has been installed and seeded. Bio-retention cells must be stabilized per the provided planting scheme and density for the
- canopy coverage of 30 and 50%. After one year to inspect health of the vegetation and make corrections,
- All the material used for the construction of the filter basin must be confirmed as suitable by the design engineer. Testing must be done by a certified laboratory to show that they are passing DEP specifications.

Testing and Submittals: The contractor shall identify the location of the source of each component of the filter media. All results of field and laboratory testing shall be submitted to the project engineer for confirmation. The contractor shall: Select samples for sampling of each type of material to be blended for the mixed filter 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 required will be determined by the testing

- Perform a sieve analysis conforming to STM C136 (Standard Test Method for Sieve Analysis of fine and Course Aggregates 1996A) on each type of the sample material. The resulting soil filter media mixture must have 8% to 12% by weight passing the #200 sieve, a clay content of less than 2% (determined hydrometer grain size analysis) and have 10% dry weight of
- Perform a permeability test on the soil filter media mixture conforming to ASTM D2434 with the mixture compacted to 90-92% of maximum dry density based on ASTM D698.

# LOT GRADING AND DRIVEWAY LOCATION

Inspections a professional engineer will consist of a visit to the site prior to construction to consult with the earthwork contractor and a post construction meeting to confirm grading on lots and for all driveways to ensure runoff is directed according to plans and to oversee the re-stabilization of the lot into a vegetated cover.

# BUFFERS - GENERAL

laboratory.

General forest use means that the land must be maintained with a forest cover and undisturbed soil, duff layer ground cover vegetation, and understory vegetation. Timber may be harvested on a selective basis provided that no more than 40% of the volume is harvested within any 10 year period.

# ROAD DITCH TURNOUT

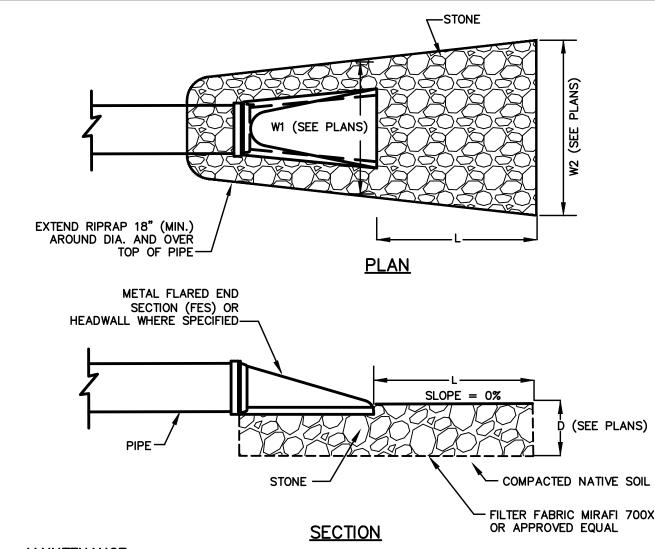
Inspections by a professional engineer shall consist of weekly visits to the site to inspect each turnout construction, turnout's stone berm material and placement, from initial ground disturbance to final stabilization of the level spreader.

A dewatering plan is needed to address excavation de—watering following heavy rainfall events or where the excavation may intercept the groundwater table during construction. The collected water needs treatment and a discharge point that will not cause downgradient erosion and offsite sedimentation or within a resource. Please follow the details of such a plan.

# BASIC STANDARDS - EROSION CONTROL MEASURES

and sedimentation control inspections and maintenance

Minimum erosion control measures will need to be implemented and the applicant will be responsible to maintain all components of the erosion control plan until the site is fully stabilized. However, based on site and weather conditions during construction, additional erosion control measures may need to be implemented. All areas of instability and erosion must be repaired immediately during construction and need to be maintained until the site is fully stabilized or vegetation is established. A construction log must be maintained for the erosion

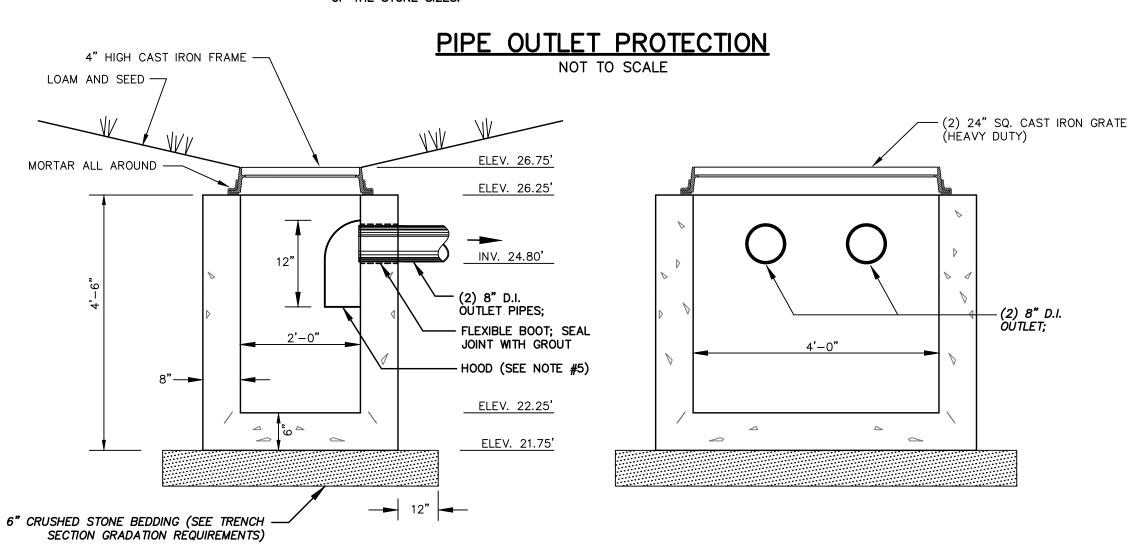


# **MAINTENANCE**

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

# CONSTRUCTION SPECIFICATIONS

- 1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- 2. THE ROCK OR GRAVEL USED FOR FILTER OR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION. 3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT
- OF THE ROCK RIPRAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- 4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION



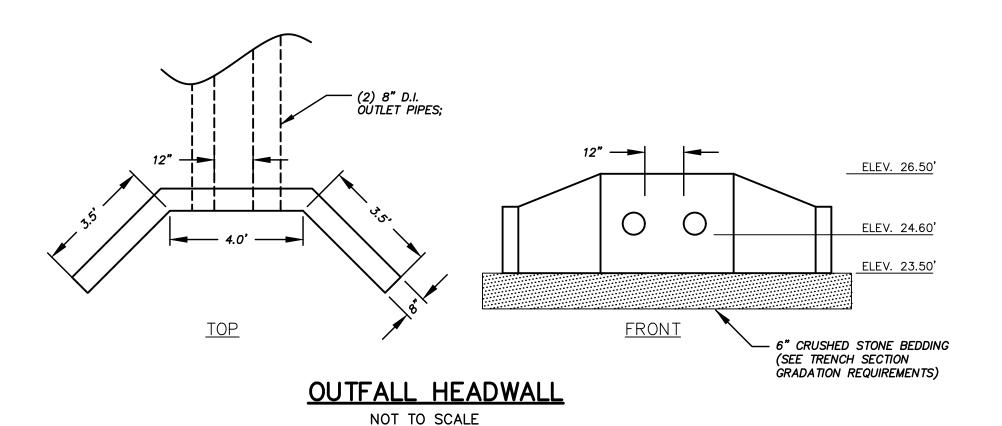
**FRONT** 

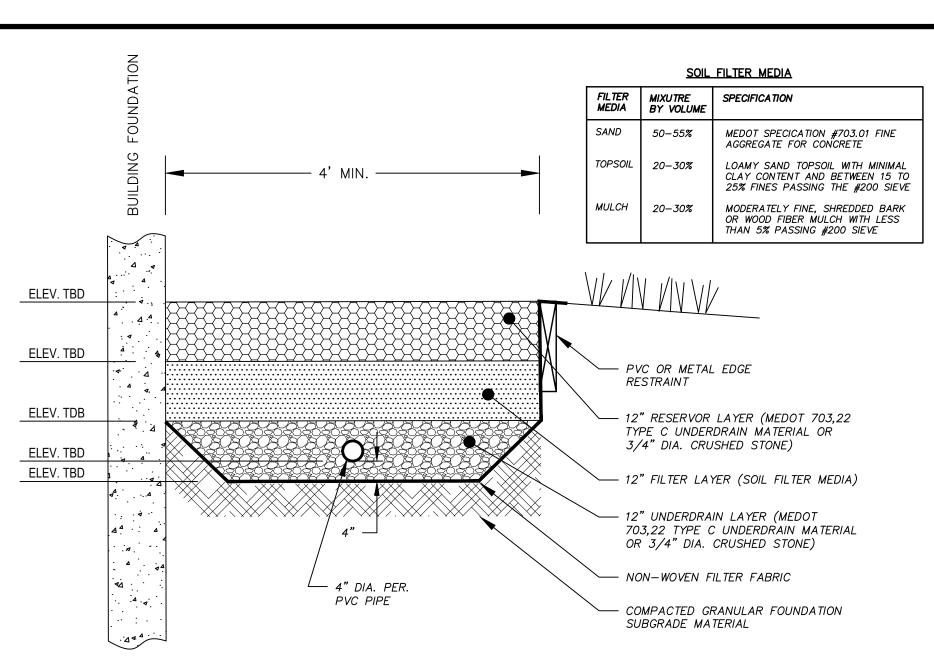
RIGHT SIDE

- 1. TO ACCOMMODATE A 24" SQ. OR ROUND C.I. FRAME AND GRATE. PHOENIX PRECAST PRODUCTS (800-639-2199) OR APPROVED EQUAL.
- 3. CONCRETE: 4,000 PSI AFTER 28 DAYS. 4. MATERIALS SHALL WITHSTAND H-20 LOADING AT TRAFFIC AREAS
- 5. OIL/WATER/DEBRIS SEPERATOR HOOD, "THE SNOUT" AT WW.BESTMP.COM, "THE ELIMINATOR" AT WWW.KLEANSTREAM.COM OR APPROVAL EQUAL. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

# DROP INLET #1 (PDI #1)

NOT TO SCALE





Testing and Submittals: The contractor shall identify the location of the source of each component of the soil filter media. All results of field and laboratory testing shall be submitted to the project engineer for confirmation. The contractor shall:

- Select samples for sampling of each type of material to be blended for the mixed filter 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 required will be determined by the testing laboratory. Perform a sieve analysis conforming to STM C136 (Standard Test Method for Sieve Analysis of fine and Course Aggregates 1996A) on each type of the sample material. The resulting soil filter media mixture must have 8% to 12% by weight passing the #200 sieve, a clay content of less than 2% (determined
- hydrometer grain size analysis) and have 10% dry weight of organic matter. Perform a permeability test on the soil filter media mixture conforming to ASTM D2434 with the mixture compacted to 90-92% of maximum dry density based on ASTM D698. Alternative soil filter media source: MDEP approved filter mix is available from Shaw Brothers, Gorham, Maine at http://shawbrothers.com/ or engineered approved equal.

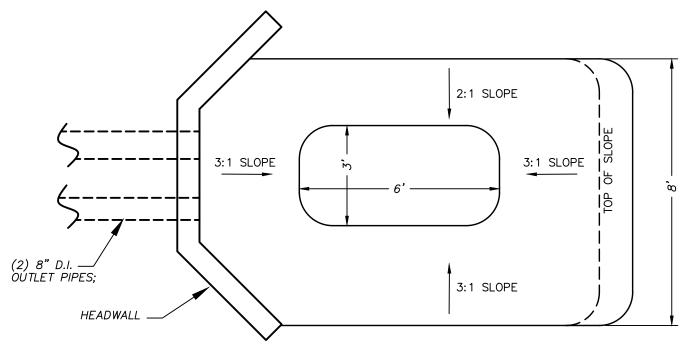
**Inspections:** Inspections by a professional engineer shall consist of weekly visits to the site during construction to inspect each the roof drip edge filter's underdrain construction, filter material placement, and overflow from initial ground disturbance to final stabilization of the filter

# ROOF DRIP EDGE FILTER

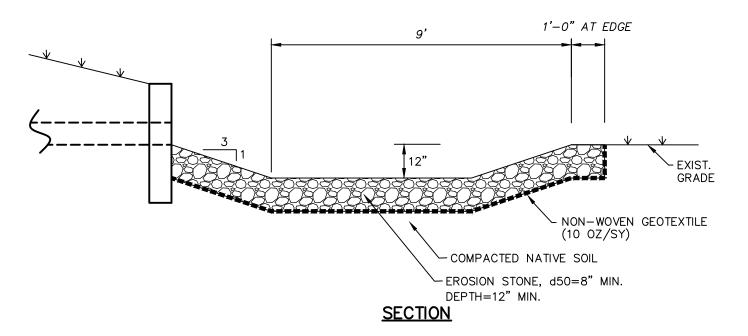
CONSTRUCT PLUNGE POOL TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO LINES AND GRADES SHOWN ON THE PLANS. 3. EROSION STONE USED FOR THE PLUNGE POOL SHALL MEET THE FOLLOWING GRADATION. 4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE

REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18 INCHES.

5. THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

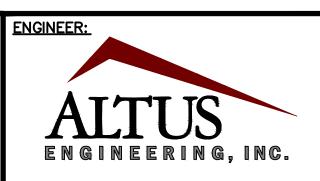


# PLAN VIEW



PLUNGE POOL DETAIL

NOT TO SCALE



133 Court Street Portsmouth, NH 03801 (603) 433-2335 www.altus-eng.com

DEVELOPER:





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FINAL APPROVAL

**ISSUE DATE:** APRIL 22, 2021

<u>REVISIONS</u>

NO. DESCRIPTION O INITIAL SUBMISSION 1 TOWN COMMENTS

EDW 03/18/2 EDW 04/22/2

BY DATE

RMB DRAWN BY: \_ APPROVED BY 5131SUBD.DWG DRAWING FILE: \_

SCALE:

(24"x36") N.T.S.

OWNER:

BRENDA HALEY

21 LITCHFIELD ROAD

KITTERY, MAINE 03904

APPLICANT:

CHINBURG PROPERTIES

**3 PENSTOCK WAY** 

NEWMARKET, NH 03857

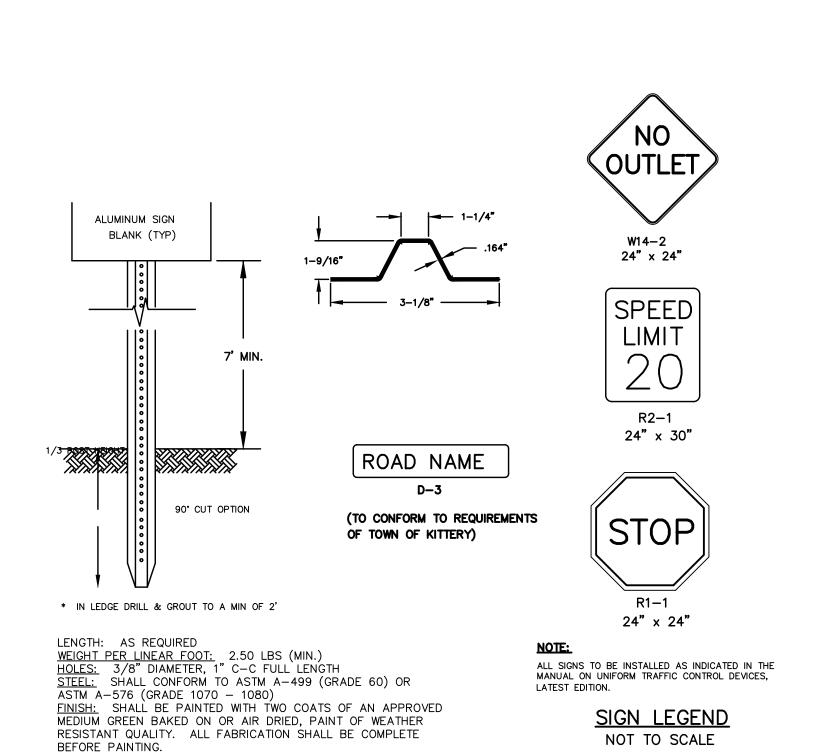
MEADOWLARK FARM SUBDIVISION TAX MAP 46, LOT 6 21 LITCHFIELD ROAD

KITTERY, MAINE

**I** EROSION CONTROL DETAILS

SHEET NUMBER:

C - 2.2



SIGN POST DETAIL

EXCAVATED UTILITY TRENCH

(SEE TRENCH SECTION) -

LIMIT OF TRENCH -

SAWCUT EDGE -

EXISTING GROUND -

CONSTRUCT BITUMINOUS CONCRETE

(SEE TRENCH SECTION)

PAVEMENT PATCH.

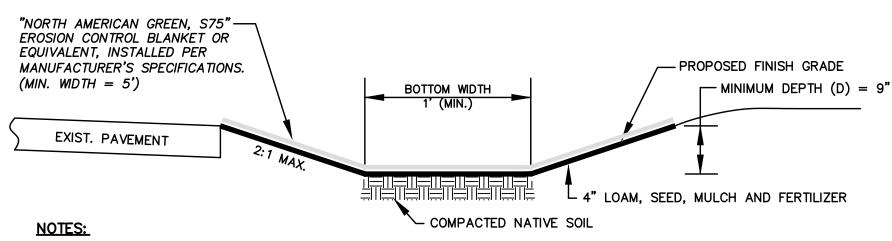
(SEE PAVEMENT SECTION)

EXCAVATED UTILITY TRENCH -

**EXCAVATION** 

EXISTING GRAVEL TO

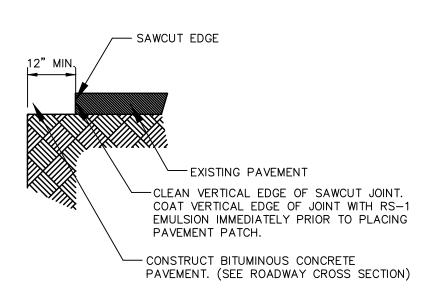
BE LEFT UNDISTURBED -



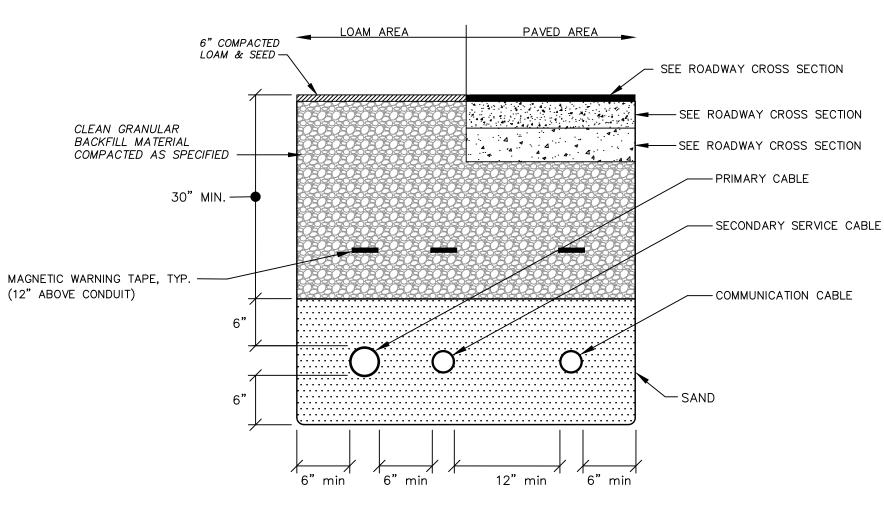
- 1. THE FOUNDATION AREA OF THE WATERWAY SHALL BE CLEARED AND GRUBBED OF ALL TREES, BRUSH, STUMPS, AND OTHER OBJECTIONABLE MATERAL.

  MATERIALS REMOVED SHALL BE DISPOSED OF SO THEY WILL NOT INTERFERE WITH THE CONSTRUCTION OR PROPER FUNCTIONING OF THE WATERWAY.
- 2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE DESIGN CRITERIA. THE WATERWAY SHALL BE FREE OF IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- 3. EARTH FILLS REQUIRED TO MEET SUBGRADE REQUIREMENTS BECAUSE OF OVER EXCAVATION OR TOPOGRAPHY SHALL BE COMPACTED TO THE SAME DENSITY AS THE SURROUNDING SOIL TO PREVENT UNEQUAL SETTLEMENT THAT COULD CAUSE DAMAGE TO THE COMPLETED WATERWAY. EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
- 4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER AS TO MINIMIZE EROSION AND AIR AND WATER POLLUTION. ALL APPROPRIATE STATE AND LOCAL LAWS AND REGULATIONS SHALL BE COMPLIED WITH FOR INSTALLATION.
- 5. VEGETATION SHALL BE ESTABLISHED IN THE SWALE OR AN EROSION CONTROL MATTING INSTALLED PRIOR TO ALLOWING STORMWATER RUNOFF TO FLOW THROUGH THE SWALE.
- 6. MAINTENANCE OF THE VEGETATION IN THE GRASSED WATERWAY IS EXTREMELY IMPORTANT IN ORDER TO PREVENT RILLING, EROSION, AND FAILURE OF THE WATERWAY. MOWING SHALL BE DONE FREQUENTLY ENOUGH TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION AND TO KEEP THE GRASSES IN A VIGOROUS CONDITION. THE VEGETATION SHALL NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE EROSION RESISTANCE IN THE WATERWAY.
- 7. THE WATERWAY SHOULD BE INSPECTED PERIODICALLY AND AFTER ANY STORM GREATER THAN 0.5" OF RAINFALL IN 24 HOURS TO DETERMINE THE CONDITION OF THE WATERWAY. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND REVEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.
- 8. APPLY LIME AND FERTILIZER AS NEEDED TO MAINTAIN VIGOROUS GROWTH.

# ROADSIDE SWALE

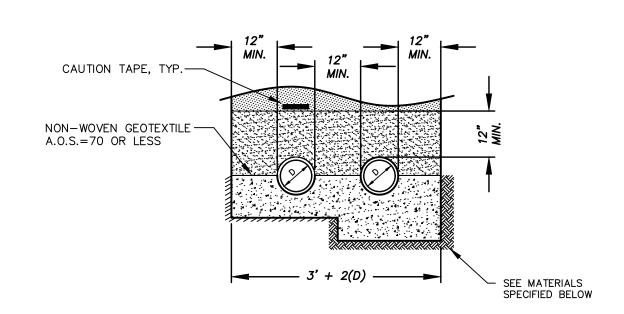


TYPICAL PAVEMENT SAWCUT DETAIL

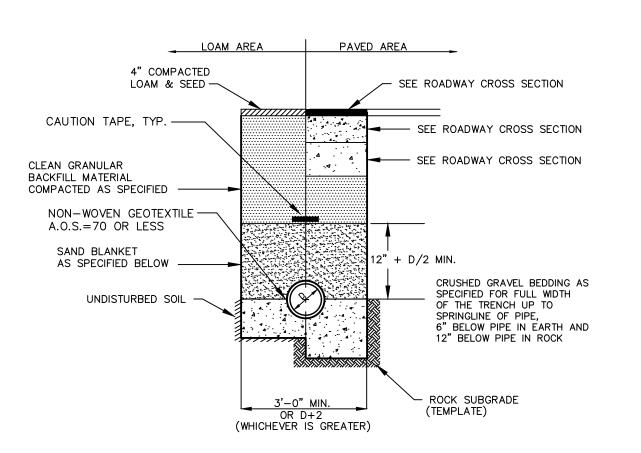


- ELECTRICAL AND COMMUNICATION CONDUIT SIZE, MATERIALS AND SPACING SHALL
- BE IN ACCORDANCE WITH THE APPLICABLE UTILITY COMPANY STANDARDS. ELECTRIC CONDUIT WITH PULL STRING SHALL MEET THE REQUIREMENTS OF BUILDING CODE AND NATIONAL ELECTRICAL CODE. COORDINATE W/CENTRAL MAINE POWER AND OTHER UTILITY COMPANIES FOR QUANTITIES AND SIZES.
  CONDUIT SHALL CROSS PAVED AREAS AT 90°.
- BACKFILL NOTES:
- A. SELECTED SAND BACKFILL SHALL CONSIST OF A FINE GRANULAR MATERIAL OF WHICH 100% SHALL PASS THROUGH A 1/4" SIEVE.
- B. EXCEPTION: NATURALLY OCCURRING SMOOTH ROUND PEBBLES NO GREATER THAN 3/8" IN DIAMETER ARE PERMITTED AS LONG AS THEIR TOTAL VOLUME
- PER CUBIC FOOT OF SAND DOES NOT EXCEED 1%.
  C. THE SAND SHALL BE COMPLETELY FREE OF FROZEN LUMPS, ROCKS, STONES, DEBRIS AND RUBBISH.

# UNDERGROUND CONDUIT BANK DETAIL



STA 0+20 CULVERT CROSSING



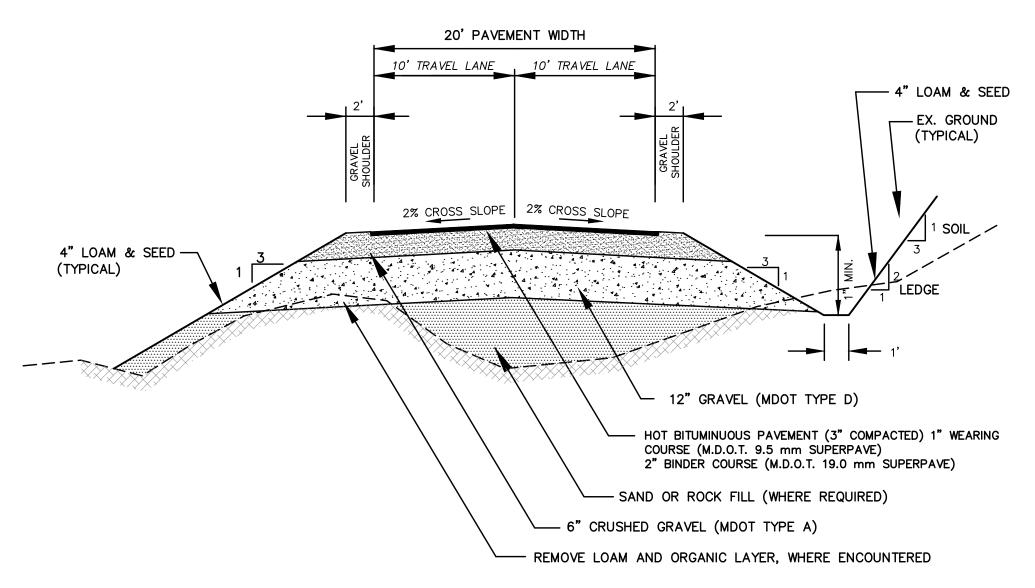
SAND	<u>BLANKET</u>	CRUSHED	GRAVEL BEDDING
SIEVE SIZE	% FINER BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1/2" 200	90 - 100 0 - 15	3" 2" 1" # 4 # 200	100 95 - 100 55 - 85 27 - 52 0 - 12

MDOT TYPE A, CRUSHED GRAVEL

\*(IN SAND PORTION) FRACTION PASSING THE #4 SIEVE.

BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

# TRENCH SECTION NOT TO SCALE



# NOTES:

- 1. ALL EXISTING FILL, BURIED ORGANIC MATTER, LOAM, AND/OR OTHER QUESTIONABLE MATERIAL SHALL BE REMOVED FROM BELOW ALL PAVEMENT, SHOULDERS AND UNDERGROUND PIPING/UTILITIES TO DEPTHS RECOMMENDED IN GEOTECHNICAL REPORT.
- 2. SUBGRADE SHALL BE PROOFROLLED A MINIMUM OF 6 PASSES WITH A VIBRATORY COMPACTOR OPERATING AT PEAK RATED FREQUENCY OR BY MEANS APPROVED BY THE ENGINEER. 3. FILL BELOW PAVEMENT GRADES SHALL BE GRANULAR BORROW COMPACTED PER MDOT REQUIREMENTS.
- 4. SITEWORK CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING INSPECTIONS WITH THE CONSTRUCTION
- MANAGER PRIOR TO PLACING GRAVELS.

PERCENT OF THEIR MAXIMUM DRY DENSITIES AS DETERMINED BY ASTM D-1557.

- TACK COAT SHALL BE APPLIED BETWEEN SUCCESSIVE LIFTS OF ASPHALT.
  THE BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 92 TO 97 PERCENT OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D-2041. THE BASE AND SUBBASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95
- SUBGRADE SHALL BE PROOF ROLLED WITH A FULLY LOADED DUMP TRUCK PRIOR TO PLACEMENT OR GRAVELS. PROOF ROLLING SHALL BE VIEWED AND APPROVED BY REGISTERED GEOTECHNICAL ENGINEER.

TYPICAL ROADWAY CROSS SECTION

NOT TO SCALE

<u>ENGINEER:</u> ENGINEERING, INC.

Portsmouth, NH 03801 133 Court Street (603) 433-2335 www.altus-eng.com

DEVELOPER:





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**ISSUED FOR:** 

**ISSUE DATE:** 

APRIL 22, 2021

FINAL APPROVAL

<u>REVISIONS</u>

NO. DESCRIPTION BY DATE EDW 03/18/2 O INITIAL SUBMISSION 1 TOWN COMMENTS EDW 04/22/2

RMB DRAWN BY:\_ APPROVED B 5131SUBD.DWG DRAWING FILE: \_

SCALE:

(24"x36") N.T.S.

OWNER:

BRENDA HALEY 21 LITCHFIELD ROAD

KITTERY, MAINE 03904

APPLICANT:

CHINBURG PROPERTIES

**3 PENSTOCK WAY** 

NEWMARKET, NH 03857

PROJECT:

**MEADOWLARK** FARM SUBDIVISION TAX MAP 46, LOT 6 21 LITCHFIELD ROAD

KITTERY, MAINE

DETAIL SHEET

SHEET NUMBER:

C - 3.0



SECTION

PLAN

EXISTING PAVEMENT -

-CLEAN VERTICAL EDGE OF SAWCUT

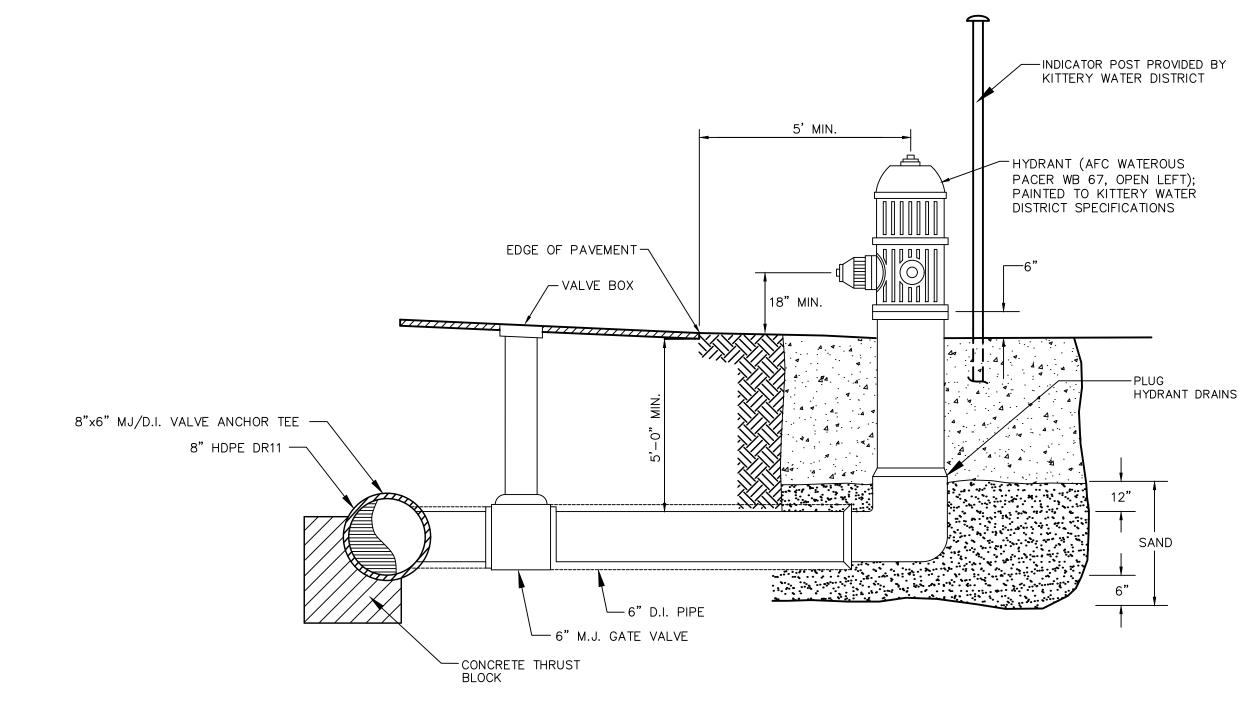
JOINT. COAT VERTICAL EDGE OF

IMMEDIATELY PRIOR TO PLACING

JOINT WITH RS-1 EMULSION

PAVEMENT PATCH.

NOT TO SCALE

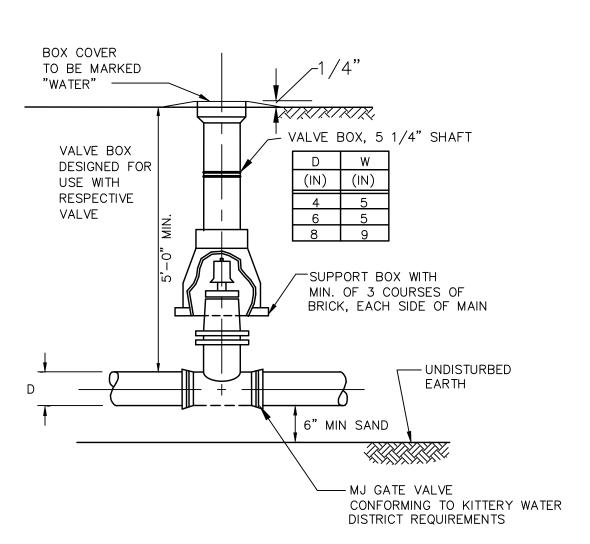


# WATER MAIN NOTES:

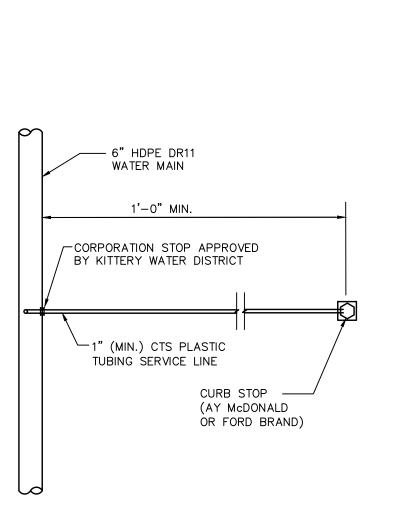
- 1. OPERATION OF HYDRANTS AND VALVES SHALL BE AS DETERMINED BY KITTERY WATER DISTRICT AND KITTERY FIRE DEPARTMENT.
- 2. ALL WORK SHALL CONFORM TO KITTERY WATER DISTRICT "WATER MAIN MATERIAL AND INSTALLATION SPECIFICATIONS, MARCH 2009". CONTRACTOR SHALL OBTAIN A COPY OF SAID SPECIFICATIONS AND MEET WITH THE KITTERY WATER DISTRICT PRIOR TO PURCHASING MATERIALS OR COMMENCING CONSTRUCTION.
- 3. MECHANICAL JOINT FITTINGS ARE TO BE CLASS 350 AND HAVE ROMAC "GRIP RING" RETAINER GLANDS WITH CORTEN LOW ALLOY STEEL NUTS AND BOLTS OR MEGALUG RETAINER GLANDS.

# FIRE HYDRANT

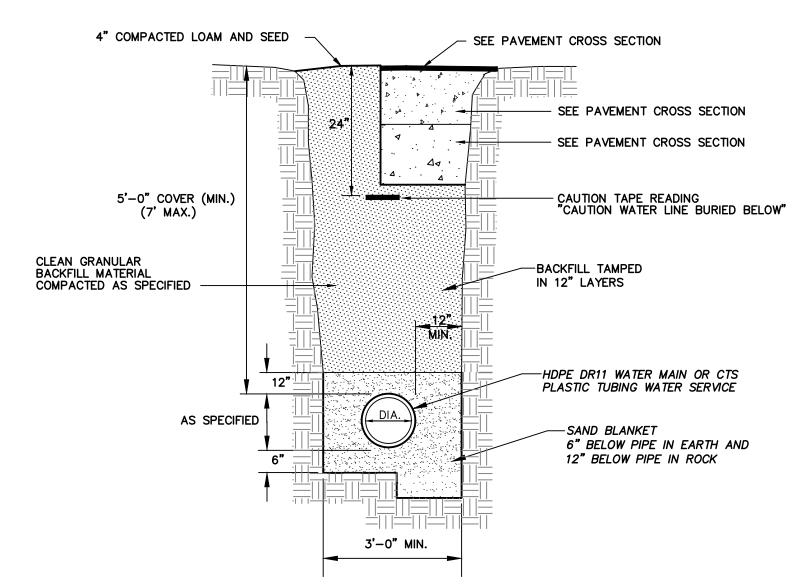
NOT TO SCALE



WATER VALVE DETAIL NOT TO SCALE



TYPICAL SERVICE CONNECTION NOT TO SCALE



WATER MAIN AND SERVICE TRENCH DETAIL

NOT TO SCALE

**ENGINEER:** ENGINEERING, INC.

133 Court Street Portsmouth, NH 03801 (603) 433-2335 www.altus-eng.com

**DEVELOPER:** 





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**ISSUED FOR:** FINAL APPROVAL

ISSUE DATE:

APRIL 22, 2021

BY DATE

EDW 03/18/21

EDW 04/22/21

<u>REVISIONS</u> NO. DESCRIPTION

0 INITIAL SUBMISSION 1 TOWN COMMENTS

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SCALE:

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BRENDA HALEY 21 LITCHFIELD ROAD

KITTERY, MAINE 03904

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CHINBURG PROPERTIES

3 PENSTOCK WAY

NEWMARKET, NH 03857

PROJECT:

**MEADOWLARK** FARM SUBDIVISION TAX MAP 46, LOT 6 21 LITCHFIELD ROAD KITTERY, MAINE

TITLE:

DETAIL SHEET

SHEET NUMBER:

C - 3.1