TOWN OF BRUNSWICK
PLANNING BOARD
85 UNION STREET
BRUNSWICK, ME 04011

PLANNING BOARD
-AGENDA-
BRUNSWICK TOWN HALL
85 UNION STREET
COUNCIL CHAMBERS
TUESDAY, DECEMBER 8, 2015, 7:00 P.M.

1. **Case # 15-027, Spruce Meadow Subdivision:** The Board will hold a **Public Hearing** then review and take action on a **Final Plan Major Development Review** Subdivision Application submitted by William Moore, for a proposed 33-lot open space residential subdivision. **(Original Assessor's Map 13, Lot 34, 66-78)** in the **Mixed Use 5 (MU5) Zoning District and the Telecommunications Zone 2 Overlay (Lot 5)**.

3. **Report on Staff Review Committee Minor Development Plan Approvals**

4. **Zoning Ordinance Rewrite Committee (ZORC) Update**

5. **Approval of Minutes**

6. **Other Business**

7. **Adjourn**

This agenda is mailed to owners of property within 200 feet of the above referenced development proposals as well as others upon request. It is the practice of the Planning Board to allow public comment on development review applications and all are invited to attend and participate.

Please call the Brunswick Department of Planning and Development (725-6660) with questions or comments. Individuals needing auxiliary aids for effective communications please call 725-6659 or TTY 725-5521. This meeting will be televised.

Draft Findings of Fact
Spruce Meadows Subdivision
Major Subdivision Plan Final Review
Review Date: December 8, 2015

Project Name:	Spruce Meadows Subdivision
Case Number:	15-027
Tax Map:	Map 13, Lot(s) 34, 66-78
Zoning District:	Mixed Use 5 (MU5) Zoning District and the Telecommunications Zone 2 (TCZ2) Overlay
Applicant:	Moore Properties, Inc. c/o William (Bill) Moore 228 Old Portland Road Brunswick, Maine 04011 207-725-1388
Authorized Representative:	Curtis Y. Neufeld, P.E. Sitelines, PA 8 Cumberland Street Brunswick, ME 04011 207-725-1200 xt. 18

Staff reviewed the application and has made a determination of completeness.

PROJECT SUMMARY

Staff review is based on the Major Development Plan Application for the Spruce Meadows Subdivision prepared by Sitelines, P.A. and dated November 17, 2015 with a most recent submittal date of December 4, 2015. The application includes a set of plans prepared by Sitelines, P.A. as listed below:

- Sheet 1 entitled "Cover Sheet" dated September 15, 2015 with a most recent revision date of November 16, 2015
- Sheet 2 entitled "Overall Subdivision" dated September 15, 2015 with a most recent revision date of November 16, 2015
- Sheet 2A entitled "Overall Lot Layout Plan" dated September 15, 2015 with a most recent revision date of November 16, 2015
- Sheet 3 entitled "Lot Layout and Development Plan" dated June 2, 2015 with a most recent revision date of November 16, 2015
- Sheet 4 entitled "Plan & Profile STA 0+00 to 11+00 Grading, Drainage & EC Plan" dated September 15, 2015 with a most recent revision date of November 16, 2015
- Sheet 5 entitled "Plan & Profile STA 11+00 to 22+50 Grading, Drainage & EC Plan" dated September 15, 2015 with a most recent revision date of November 16, 2015
- Sheet 6 entitled "Erosion Control Notes and Details" dated March 16, 2009 with a most recent revision date of November 16, 2015
- Sheet 7 entitled "Construction Details" dated March 16, 2009 with a most recent revision date of December 4, 2015
- Sheet 8 entitled "Stormwater Details" dated March 16, 2009 with a most recent revision date of November 16, 2015

The parcel received Planning Board approval in June of 2009 for a subdivision known as "Brunswick Commerce Center" consisting of four (4) residential lots and fourteen (14) commercial/industrial lots on a 2,230 linear foot loop road then named Commerce Drive and now known as, Kennedy Drive, the

previously approved road is completely roughed-in with base and subbase gravels and is paved for the first 700 linear feet.

The proposed residential Spruce Meadows Subdivision consists of thirty three (32) lots to be developed with single family residences and two (2) parcels reserved for open space. Proposed Lot 22, so-called, contains 2.44 acres of open space. An abutting parcel to the north of the proposed residential subdivision contains 36.18 acres of proposed open space with a new walking trail system. The proposed subdivision will be developed in three phases. From Old Portland Road (west), the first phase would provide access to lots 1-7 and lots 30-33. The second phase would see the road completed to access lots 8-13 and lots 25-29. The third phase would complete the proposed loop road for access to lots 15-24 and a second access way to Old Portland Road (east). The original parcel is in the Mixed Use 5 (MU5) Zoning District and the Telecommunications Zone 2 Overlay (Lot 5).

The proposed development will be serviced by private drinking water and private wastewater disposal systems. The application packet, including a project narrative is attached.

The Sketch Plan for the Spruce Meadows Subdivision was approved by the Planning Board on July 15, 2015 without conditions.

The following waivers have been requested by the applicant:

1. Section 412.2.B.8 – Profiles and cross-sections and curve radii of existing streets. *No changes to existing streets are proposed. The previously approved private road will be maintained by the developer and subsequently by the Homeowner's Association. Pursuant to Section 410.1.B, staff recommends approval of this waiver.*
2. Section 412.2.B.17 – Location of all existing trees over 10 inches in diameter, and locations of tree stands. *All trees at the location of the proposed residential access road were removed during the construction of the existing subdivision access road, Kennedy Drive. Those trees to be removed for future residential lot development will be determined by lot owners with the exception of forested "no-cut" buffers that are to be deed restricted upon the sale of each lot. Pursuant to Section 410.1.B, staff recommends approval of this waiver.*
3. Section 412.2.C.6 Stormwater Management Program (*aka Stormwater Management Plan*). *The proposed stormwater management plan and computations will be reviewed by the Maine Department of Environmental Protection (MDEP) as part of the required Site Location of Development Permit application review. Pursuant to Section 410.1.C staff recommends approval of this waiver.*

Review Standards from Section 411 of the Town of Brunswick Zoning Ordinance

411.1 Ordinance Provisions

The property is located in the Mixed Use 5 (MU5) Zoning District and the Telecommunications Zone 2 (TCZ2) Overlay District. The proposed open space residential subdivision meets dimensional, density and lot configuration requirements. The proposed development complies with all applicable standards for the Mixed Use 5 (MU5) Zoning District and the Telecommunications Zone 2 (TCZ2) Overlay District (original Lot 5). Pursuant to the open space development standards, Section 308, the applicant must conserve at least 50% of the 76.1 acre parcel (38.05 acres). The applicant has included a draft Declaration of Restrictive Covenants and Easements for the Spruce Meadows Subdivision that includes provisions for conservation. *The Board finds that the provisions of Section 411.1 are satisfied provided at least 50% of the 76.1 acre parcel is conserved in perpetuity.*

411.2 Preservation of Natural Features
The parcel of land proposed to be subdivided is not located in the mapped Natural Resources Protection Zone (NRPZ) as defined at Section 211. However, the parcel contains natural features as defined in Section 501.1 of the Zoning Ordinance, specifically, freshwater wetlands and streams. Accordingly, the applicant proposes to dedicate 38.62 acres of total open space land to the Homeowner's Association. The proposed open space is comprised primarily of selectively cut forested uplands with areas of freshwater wetlands and streams. The site does not contain steep slopes and embankments as defined in Section 503. *The Board finds that the provisions of Section 411.2 are satisfied.*

411.3 Surface Waters, Wetlands and Marine Resources
Activity associated with the completion of the roughed-in Kennedy Drive will not result in any new disturbances to existing natural features or protected natural resources, including rare, threatened and endangered wildlife habitat and rare natural communities. Further, the proposed subdivision is not within a mapped flood hazard area or an area containing steep slopes. Freshwater wetlands and streams are depicted on the plans as mapped by Albert Frick Associates, Inc. The streams shown on the plan and associated freshwater wetlands are protected within 75 feet under the standards of the Natural Resources Protection Zone (NRPZ) at Section 211. All proposed activities, including the construction of the walking trails, will take place outside of the protected 75-foot setback. *The Board finds that the provisions of Section 411.3 are satisfied.*

411.4 Flood Hazard Areas
Based on the Flood Insurance Rate Map, community panel # 230042 0010 B, effective date, January 3, 1986, the project site including an unnamed stream is located within Zone C, described as areas of minimal flooding and outside the regulatory 100-year flood zone. The development activity does not occur within a FEMA flood hazard area and therefore minimizes any risk of flooding. *The Board finds that the provisions of Section 411.4 are satisfied.*

411.5 Stormwater Management
The applicant submitted stormwater management plan prepared by Sitelines, P.A. The existing stormwater management design for Kennedy Drive includes a combination of infiltration trenches and basins, an underdrained grass filter, and ditch turnout buffers. A portion of the roadway and a majority of the residential lots will be directed to meadow buffers adjacent to a road or buffers downgradient of a single-family residential lot. The proposed activity and associated stormwater management plan requires Maine Department of Environmental Protection (DEP) approval with a Site Location of Development Law (Site Law) permit pursuant to 38 M.R.S. Section 483-A. *The Board finds that the provisions of Section 411.5 are satisfied conditioned upon the applicant revising the Final Subdivision Plan with any changes required by the DEP to the stormwater management plan for the Site Law permit prior to the sale of a lot.*

411.6 Groundwater
The proposed subdivision is not located within an Aquifer Protection Overlay Zone as delineated on the Town's Zoning Map. Individual lots will be served by private drinking water wells and private septic systems. A minimum of two passing test pits were observed on each proposed lot by a licensed site evaluator. Further, the proposed stormwater treatment system is designed to avoid adverse impacts to groundwater from the development. The Board finds that the proposed subdivision will not alone or in conjunction with existing activities adversely affect the quality or quantity of groundwater. *The Board finds that the provisions of Section 411.6 upon the applicant revising the Final Subdivision Plan with any changes required by the DEP to the stormwater management plan for the Site Law permit prior to the sale of a lot.*

411.7 Erosion and Sedimentation Control
An Erosion and Sedimentation Control Plan ("E&S Control Plan") for the construction and long term operation of Kennedy Drive is provided. The E&S Control Plan includes steps to be followed during construction of the site as well as recommendations for maintenance as a part of the ongoing upkeep of the site. The proposed development will not cause unreasonable soil erosion or reduction in the land's capacity to hold water so that a dangerous or unhealthy situation results. *The Board finds that the provisions of Section 411.7 are satisfied.*

411.8 Sewage Disposal
The project will be served by individual subsurface wastewater disposal systems. The applicant enclosed a copy of the Soil Narrative Report, soil profiles, and a High-Intensity Soils Map and Subsurface Wastewater Disposal Plan from Albert Frick Associates, Inc. As required, the applicant depicted the required two passing test pits for each lot. Further investigations may be required to design a specific wastewater disposal system on the lots in accordance with the Maine Subsurface Wastewater Disposal Rules and the Maine State Plumbing Code. The test pit locations are shown on the site plans. *The Board finds that the provisions of Section 411.8 are satisfied.*

411.9 Water Supply
The project will be served by individual drinking water wells. The applicant showed the location of the septic systems and drinking water wells to ensure the required distances were met. *The Board finds that the provisions of Section 411.9 are satisfied.*

411.10 Aesthetic, Cultural and Natural Values
A letter from the Maine Historic Preservation Commission dated January 15, 2009 recognized that the subject parcel may contain one or more prehistoric archeological sites. Subsequently, a Phase 1 archeology survey was completed by Dr. Leslie Shaw, a professor in the Department of Sociology and Anthropology at Bowdoin College, who is a DEP approved archaeologist. The survey findings indicated no further archeological investigation was warranted. The proposed residential subdivision is a permitted use and will not have any undue adverse effect on the scenic or natural beauty of the area, historic sites, or significant wildlife habitat identified by the Maine Department of Environmental Protection and Inland Fisheries & Wildlife or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline. *The Board finds that the provisions of Section 411.10 are satisfied.*

411.11 Community Impact
The proposed project will be located on Old Portland Road in the Mixed Use 5 (MU5) Zoning District. The applicant performed a community facilities impact analysis in accordance with Section 509. Based on the applicant's analysis, the proposed project is not likely to result in an unreasonable impact to community facilities. *The Board finds that the provisions of Section 411.11 are satisfied.*

411.12 Traffic
The previously approved Kennedy Drive is an approximately 2,230 linear foot loop road which is proposed for the Town of Brunswick to accept upon completion. Approximately 700 linear feet of the road is complete. The proposed subdivision plan has been reviewed by the Town Engineer/Public Works Director who indicated that the proposed development will not create or further contribute to unsafe traffic conditions. Further, the Town Engineer/Public Works Director has indicated willingness to accept responsibility for the completed road should the Town Council accept the road as intended provided granite monuments or an approved equal at all points of curvature or horizontal changes in the road right-of-way alignment and the final plan will need to detail to our satisfaction the location of all such monuments. Additionally, an escrow account equal to 2% of the total roadway construction value, including all utilities is required for inspection of the stormwater system. Funds from the escrow account

will be used for fund an engineering consultant to be hired by the Town Engineer. The consultant will oversee the project construction and report all findings, tests, and recommendations to the Town Engineer. If additional inspection funds are needed the Town Engineer will advise the developer in writing with an explanation. If any escrowed funds are not used for the construction administration the unused balance must be returned to the developer. A pre-construction meeting with Public Works staff, the consultant and the roadway contractor is required prior to the start of any road construction. The applicant must contact Public Works when a contractor has been selected and arrange for a pre-construction meeting at least one week prior to the start of construction. A digitized electronic drawing file of the complete final approved plans, in an approved format, must be furnished to Public Works Department prior to the start of any construction. As per the current Zoning Ordinance requirements, the final plan shall be submitted referenced to and in the Maine State Plane Coordinate system. An "as-built" or set of record drawings shall be submitted in a form acceptable to the Public Works Department upon completion of the project. Based on the depths of the lot, and size of the anticipated buildings, off-street parking averages four (4) spaces per lot. The applicant received revised entrance permits #9168, and #9438 (aka curb cut) for the two entrances of Kennedy Drive onto the Old Portland Road from the Maine Department of Transportation (MDOT) on September 18, 2015.

The proposed subdivision road has been reviewed by the Deputy Fire Chief who indicated that lot owners must be made aware, in writing by the development, that their lots are located in a rural fire protection district with limited water supply and will likely result in lengthy emergency response times and increased insurance rates. A note advising homeowners must be included on the deed in addition to the written notification. *The Board finds that the provisions of Section 411.12 are satisfied upon the installation of granite monuments or an approved equal at all points of curvature or horizontal changes in the road right-of-way alignment and the final plan details the location of all such monuments to the satisfaction of the Town Engineer; upon the an escrow account equal to 2% of the total roadway construction value, including all utilities is established for inspection of the stormwater system to the satisfaction of the Town Engineer; provided a pre-construction meeting with the Public Works Department occurs one week prior to construction; provided a digitized electronic drawing file of the complete final approved plans, in an approved format, must be furnished to Public Works Department prior to the start of any construction; provided an "as-built" or set of record drawings shall be submitted in a form acceptable to the Public Works Department upon completion of the project. and provided future lot owners are made aware, in writing by the developer, that their lots are located in a rural fire protection district with limited water supply and will likely result in lengthy emergency response times and increased insurance rates. A note advising lot owners shall be included on the deed in addition to the written notification.*

411.13 Pedestrian and Bicycle Access and Safety
The proposed development will accommodate bicyclists and addresses pedestrian access, safety and circulation both within the site and to points outside the site. *The Board finds that the provisions of Section 411.13 are satisfied.*

411.14 Development Patterns
The proposed residential subdivision will be an open space development. Therefore, the lot requirements have been reduced to accommodate the proposed conserved open space in accordance with Section 308. Phase 1 and 2 lot owners will have internal access to Kennedy Drive as a dead-end road until the completion of Phase 3 which results in a loop road with two (2) entrances to the Old Portland Road. A public walking trail is proposed as part of the subdivision development that will be comprised of two sections: Loop A, and Loop B, so-called. Loop A is proposed to be completed prior to the development of the Phase 2 portion of the subdivision. Loop B is proposed to be completed prior to the development of the Phase 3 portion of the subdivision. The neighborhood is residential in a rural setting with large

areas of undeveloped land surrounding it. *The Board finds that the provisions of Section 411.14 are satisfied.*

411.15 Architectural Compatibility
The developer intends to sell the lots as undeveloped land for single-family home construction. While the architecture of the homes will be determined by individual lot owners it is anticipated that the residential structures will be compatible with the surroundings in terms of size, scale, mass and design. *The Board finds that the provisions of Section 411.15 are satisfied.*

411.16 Municipal Solid Waste Disposal
The Solid Waste Impact Fee for each of the new housing units was calculated by the applicant to be $258.56 per ton for each of the new housing units for a total of $8,273.92. The applicant requests that the Solid Waste Impact Fee be prorated by phase as follows: Phase 1 with 11 new units at $2,844.16; Phase 2 with 11 units at $2,844.16; and Phase 3 with 10 new units at $2,585.60. *The Board finds that the provisions of Section 411.16 are satisfied conditional upon the payment of the Solid Waste Impact Fees prior to the issuance of the first building permit for each phase.*

411.17 Recreation Needs
The anticipated demographic for the future homeowners is families of average size including adults and children. On November 18, 2015, the Recreation Commission reviewed and took favorable action on the proposed subdivision in determining compliance with Section 519 standards with specific attention to the proposed open space and public trail system. As requested by the Recreation Commission, the Town of Brunswick staff shall inspect the proposed trail Loop A at the conclusion of Phase 1 of the residential subdivision development and in the event that trail Loop A has not been constructed, the developer will have the option to complete the loop or pay the prorated recreation impact fee before the issuance of building permits for Phase 2 of the development. The same methodology would then apply to trail Loop B and Phase 3 of the development. *The Board finds that the provisions of Section 411.17 are satisfied conditional upon the inspection of trail Loop A at the conclusion of Phase 1 of the residential subdivision development by representative staff from the Town of Brunswick. In the event that trail Loop A has not been constructed to staff satisfaction, the developer will have the option to complete the loop or pay the prorated recreation impact fee before the issuance of building permits for Phase 2. The same methodology would then apply to trail Loop B and Phase 3 of the residential subdivision development.*

411.18 Access for Persons with Disabilities
The application states that units can be modified for accessibility at the discretion of the homeowner. Further, all grades and slopes will be accessible to those with disabilities. *The Board finds that the provisions of Section 411.18 are satisfied*

411.19 Financial Capacity and Maintenance
The estimated site costs are approximately $795,000 to develop the infrastructure for construction of the entire subdivision roadway and stormwater management system. A performance guarantee in an amount determined by the Director of Public Works for the construction of Kennedy Drive is required to be provided prior to the start of construction of the roadway and/or the issuance of the first building permit for lots accessing Kennedy Drive. Approximately one third of the proposed construction is complete. The Town of Brunswick holds approximately $100,000 in escrow for the completion of the roadway. The remaining work will be finance through the sale of the lots. The estimated costs remaining for Phase 2 and Phase 3 of the road are $87,000 and $85,000, respectively.

The applicant proposes to establish walking trails in the open space parcel to be maintained by the Homeowner's Association in accordance with the Declaration of Restrictive Covenants and Restrictions. Evidence of the developer's financial capacity to establish walking trails has been satisfactorily provided

as part of this application. *The Board finds that the provisions of Section 411.19 are satisfied conditioned upon a performance guarantee provided for the completion of Kennedy Drive in an amount determined by the Director of Public Works. Further, that a final copy of the Declaration of Restrictive Covenants and Easements is provided and accepted by the Directors of Planning and Development and Parks and Recreation prior to the issuance of the first building permit.*

411.20 Noise and Dust
Best Management Practices (BMPs) as outlined in the Maine Erosion and Sediment Control BMPs, published by the DEP will be utilized to control dust during construction. Noise will be limited through the compliance of the site contractor with the standard hours of construction per Section 524.1 of the Zoning Ordinance. Upon construction completion, there are no anticipated impacts with regard to noise or dust. *The Board finds that the provisions of Section 411.20 are satisfied.*

411.21 Right, Title and Interest
Moore Properties, LLC, a Maine Limited Liability Corporation in Good Standing in the State of Maine, owns the subject properties with sufficient right, title and interest to subdivide the land. *The Board finds that the provisions of Section 411.21 are satisfied.*

411.22 Payment of Application Fees
The applicant has paid all applicable development review application fees. *The Board finds that the provisions of Section 411.22 are satisfied.*

FINAL MOTIONS
SPRUCE MEADOWS SUBDIVISION
MAJOR SUBDIVISION PLAN FINAL REVIEW
CASE#: 15-027

Motion 1: That the major final subdivision plan development review application is deemed complete.

Motion 2: That the Board waives the following requirements:

1. Section 412.2.B.8 – Profiles and cross-sections and curve radii of existing streets.
2. Section 412.2.B.17 – Location of all existing trees over 10 inches in diameter, and locations of tree stands.
3. Section 412.2.C.6 Stormwater Management Plan.

Motion 3: That the Final Subdivision Plan is approved with the following conditions:

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, his representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.

2. That prior to the sale of a lot, evidence is provided in the form of a final and recorded Declaration of Restrictive Covenants and Easements dedicating the open space in perpetuity and establishing an on-going open space and trail system maintenance program as accepted by the Directors of Planning and Development, and Parks and Recreation.

3. That prior to the sale of a lot, any changes required by the DEP to the stormwater management plan for the Site Law permit are incorporated on the final subdivision plan as needed.

4. That prior to the sale of a lot, the Site Law Permit is approved by Maine DEP.

5. That prior to the sale of a lot, lot owners are made aware, in writing by the developer, that their lots are located in a rural fire protection district with limited water supply and will likely result in lengthy emergency response times and increased insurance rates. A note advising homeowners shall be included on the deed in addition to the written notification.

6. That prior to the issuance if the first building permit for each phase, Solid Waste Impact Fees shall be paid as follows: are satisfied conditional upon the payment of the Solid Waste Impact Fees prior to the issuance of a building permit for each phase as follows:

   Phase 1 - 11 new units at $2,844.16

   Phase 2 - 11 units at $2,844.16

   Phase 3 - 10 new units at $2,585.60.

7. That at the conclusion of Phase 1, an inspection shall be completed by Town staff. In the event that trail Loop A has not been constructed to staff satisfaction, the developer will have the option to complete the loop or pay the prorated recreation impact fee before the issuance of building permits for Phase 2. The same methodology shall apply to trail Loop B and Phase 3.

8. That prior to the sale of the first lot in each Phase, a performance guarantee is provided for the completion of Kennedy Drive, in accordance with the approved phasing plan in an amount per phase as determined by the Director of Public Works.

9. That granite monuments or an approved equal at all points of curvature or horizontal changes in the road right-of-way alignment and the final plan details the location of all such monuments shall be installed to the satisfaction of the Town Engineer as well as an escrow account equal to 2% of the total roadway construction value, including all utilities established for inspection of the stormwater system to the satisfaction of the Town Engineer; provided a pre-construction meeting with the Public Works Department occurs one week prior to construction;

11. That upon completion of Kennedy Drive, a digitized electronic drawing file of the complete final approved plans, in an approved format, shall be furnished to the Public Works Department prior to the start of any construction;

12. That upon completion of Kennedy Drive, an "as-built" or set of record drawings shall be submitted in a form acceptable to the Public Works Department upon completion of the project.

* *All Subdivisions for which Final Plan approval has been granted, and any conditions that have been imposed by the Planning Board for the subdivision or final plan shall be filed in the Cumberland County Registry of Deeds by the applicant. If the applicant fails to record the subdivision plan after Development Plan approval by the Planning Board, the approval may expire. No building permits associated with a subdivision shall be issued unless evidence of all recording requirements is provided by the applicant to the Codes Enforcement Officer.*

If applicable, subdivision approvals by the Planning Board shall expire at the end of five years after the date of Final Plan approval unless all infrastructure work associated with the development is completed (Section 407.4.C of the Brunswick Zoning Ordinance).

FINAL SUBDIVISION APPLICATION
SPRUCE MEADOWS
TAX MAP 13, LOTS 34, 66-78
OLD PORTLAND ROAD
BRUNSWICK, MAINE

Prepared For

MOORE PROPERTIES, INC.
Mr. William (Bill) Moore
228 Old Portland Road
Brunswick, Maine 04011

Prepared By

SITELINES P.A.
8 Cumberland Street
Brunswick, Maine 04011

November 17, 2015

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September 15, 2015
Revised December 3, 2015

731.03-7

Mr. Jared Woolston
Town Planner
Town of Brunswick
85 Union Street
Brunswick, Maine 04011

Re: Major Development Review Final Plan Application
Spruce Meadows Subdivision
Old Portland Road, U.S. Route 1
Tax Map 13, Lots 34, 66-78

Dear Jared:

On behalf of Moore Properties, Inc., Sitelines, PA is pleased to submit the enclosed Major Development Review Final Application and supporting materials for the development of a residential subdivision and associated road to be located along Old Portland Road. The project was presented to the Planning Board as a Sketch Plan on July 14, 2015 and to the Recreation Commission on July 15, 2015. The comments received from those meetings have been incorporated into these plans.

PROPERTY

Moore Properties, Inc owns the parcels of land located along Old Portland Road identified as Tax Map 13, Lots 34, 66-78 on the Town of Brunswick Tax Assessors Map. The property received a Major Subdivision permit from the Town of Brunswick in June of 2009 for a subdivision consisting of four (4) residential lots and fourteen (14) commercial/industrial lots. The subdivision road has been roughed-in and a portion of the road has been paved. The four (4) residential lots have been sold and one (1) of the commercial lots has been sold. The remainders of the lots have been maintained in their undeveloped state. The 76.1 acre property is located in the Portland Road Area (MU5) Zoning district, in which residential use is a permitted use.

SITE DESIGN

The proposed subdivision consists of 32 residential lots, one of which will be reserved as open space, and an approximately 2,230 foot long loop access road that has been partially constructed. The proposed lots will all have access from the loop access road. The individual lots will be served by private well and septic systems. As was previously approved, the loop access road will result in approximately 72,144 s.f. (1.65 acres) of new impervious area.

To allow for the number of lots proposed, the Applicant is seeking approval as an Open Space Development (OSD) per Section 308. In support of the OSD subdivision, a large part of the parcel previously retained by the Applicant will be dedicated as open space. A trail system is proposed to be

established in the open space lot adjacent to the highway corridor. The open space standards were addressed as part of the Sketch Plan application that was previously submitted to the Town.

A public, looped trail system is proposed to be established in the Open Space parcel. Where possible, the alignment of the trail will follow the alignment of corridors that are likely the result of tree harvesting in the past. These corridors are cleared of trees but have become vegetated with brush and shrubs. The intent for establishing the trail is to bush hog a 6-foot wide swath through the vegetation to a height of approximately 6-inches above ground to provide an easy walking area. No surface treatment (stone dust, mulch, etc.) is proposed. Elevated boardwalks will be installed where the trail crosses wetland fingers. The trails are intended solely for pedestrians and signs will be posted prohibiting ATVs and other motorized vehicles. The homeowners association will be responsible for maintenance of the trails and maintenance criteria have been determined in concert with the Recreation Department and Commission. Several meetings have been held with the Recreation Department and Recreation Commission to determine the standards and maintenance requirements, which will are part of the home-owners documents. There are two loops proposed with Loop A to be constructed with Phase 1 and Loop B constructed with Phase 2. The construction and maintenance of the trails will be reviewed with the inspection of the road for subsequent phases to provide assurance they are built and maintained in accordance with the criteria.

The Applicant proposes to construct the project in three (3) phases as shown on the attached plan. The phasing has been selected to ensure that the dead-end road length requirement is not exceeded. The first phase will utilize the existing roadway constructed in 2009. Future phases will proceed with construction based on market forces. Each phase has been designed with a turn-around location as necessary.

The Applicant has coordinated with the Maine Department of Transportation (MaineDOT) for amending the permits previously approved for the road as necessary. The Applicant has provided correspondence with MaineDOT about the previously issued entrance permit that indicates the proposed use would be less intensive and could be constructed without improvements to Route 1.

The change to the subdivision plans will be submitted for review by the Maine Department of Environmental Protection (MDEP) to amend the previously issued Site Location of Development Act (SLODA) permit.

REVIEW STANDARDS

To facilitate your review of our proposal, the following issues are summarized in accordance with *CHAPTER 5: DEVELOPMENT REVIEW PLAN STANDARDS* of the Ordinance.

501 PRESERVATION OF NATURAL FEATURES AND NET SITE AREA:

Primarily for stormwater treatment, forested buffers will be maintained around the perimeter of the subdivision. The forested buffers are “no-cut” buffers that will be deed restricted upon the sale of each lot. A note has been added to the subdivision plans requiring the deed restriction. Meadow buffers are proposed along the frontage of the majority of the subdivision road for stormwater treatment. The meadow buffers are to be maintained as tall meadow grass that will be mowed a maximum of 1-2 times per year. In addition, as part of the subdivision, 36.18 acres will be conserved and used for recreational trails and open space.

502 FLOOD HAZARD AREA:
Based on the Flood Insurance Rate Map, community panel number 230042 0010 B, Revised January 3, 1986, the project site including the unnamed stream are located within Zone C, described as areas of minimal flooding and outside the 100-year flood zone. An excerpt of the Flood Map has been enclosed with this submission.

503 STEEP SLOPES AND EMBANKMENTS:
There are no steep (greater than 20%) slopes within the areas to be developed. Building envelopes have been configured to precluded construction in the vicinity of any steep slopes. The only slopes in excess of 20% in the vicinity of the project are within the I-295 right-of-way.

504 STORM WATER MANAGEMENT:
The impervious area from the access road and the future development of the residential lots will be directed to a combination of treatment systems. As designed as part of the previous permitting, the road will be directed to infiltration trenches and basins, an underdrained grass filter, and ditch turnout buffers. As part of the proposed subdivision, a portion of the roadway and a majority of the residential lots will be directed to buffers adjacent to a road or buffers downgradient of a single-family residential lot. For additional information on stormwater management, refer to the enclosed Stormwater Management Plan. The supporting data for the stormwater management plan has been submitted under separate cover with the copy of the Site Location Permit Amendment application. The Maine Department of Environmental Protection is currently reviewing the amendment application.

505 GROUNDWATER:
The project will be serviced by private wells and septic systems. Through infiltration of the stormwater, the natural groundwater recharge cycle will be preserved. There are no adverse impacts to groundwater anticipated from this development. No activities are proposed or anticipated that will extract groundwater for commercial purposes.

506 EROSION AND SEDIMENTATION:
The project has been designed to incorporate Best Management Practices as outlined in the Maine Erosion and Sediment Control BMPs as published by the Maine Department of Environmental Protection, current edition. The potential for sediment transport from the project area will be mitigated through the use of permanent and temporary erosion control measures. Disturbed areas will be isolated through the use of sediment barrier and other measures to minimize the transport of sediment from the site. Specific provisions for permanent and temporary erosion control features have been provided in the construction drawings. The contractor will be bound to meet the performance standards of the BMPs including erosion control, stabilization, maintenance, and inspection requirements.

507 SEWAGE DISPOSAL:
The project will be served by private septic systems. Test pits have been located throughout the development, providing for at least two (2) test pits per lot. Test pit data has been developed by Albert Frick Associates, Inc. and test pit logs and reports have been enclosed with this submission. Detailed septic systems will be designed as individual lots are developed. Potential well and septic locations have been shown on the subdivision plan for each lot demonstrating that they can be served by private systems

that comply with all applicable requirements. Some of the septic locations were adjusted to remove them from the stormwater buffers, which will require an additional test pit be evaluated at the new location. It is requested this be allowed as a condition of approval.

508 WATER SYSTEM:
All lots for this project will be served by private wells. The project parcel is located over an aquifer and therefore an abundant supply of fresh water is anticipated. Residential lots having a 4-bedroom home have a typical usage of 360 GPD. Potential well locations are shown for each lot.

The Maine Geological Survey maps for the project area show wells close to the project and along the aquifer line to yield 25 to 50 GPM with well depths of 250 to 400 feet. Based on the documented flows and the development's proximity to a large aquifer it is anticipated there is an adequate supply of water for the development.

509 COMMUNITY FACILITIES IMPACT ANALYSIS: The anticipated impacts on public services such as police, fire and public works would be what are regularly associated with a residential development.

Solid waste from individual units will be collected by the Town's curbside collection service. The locations of mailboxes will be coordinated with the local Post Master.

The anticipated demographic for the future homeowners is families of average size. Per the census for Cumberland County, the average household size is 2.33. For the 32 residential lots, an anticipated eleven (11) children will be added to the school system. No adverse impact to the school system is anticipated from the proposed subdivision.

510 DEVELOPMENT IMPACT FEES:
Impact Fees have been previously calculated at the following rates: The Solid Waste Impact Fee is calculated at a rate of $258.56 per ton for each of the new housing units. For the 32 proposed housing units, the Recreational Impact Fee is calculated at $8,273.92. It is requested the impact fee be prorated by phase as follows:

Phase	New Units	Solid Waste Impact Fee $258.56 per Unit
1	11	$2,844.16
2	11	$2,844.16
3	10	$2,585.60
Total	32	$8,273.92

No sewer impact fees are applicable to this project.

511 DEVELOPMENT OF NEW STREETS:
An approximately 2,230 linear foot loop road is proposed for this project, of which approximately 700 lineal feet has been constructed. This road will be built to the same design standards as Industrial Park

Road and will be proposed to the Town of Brunswick for acceptance upon completion. The Public Works Director has indicated his willingness to accept responsibility for the completed road should the Town Council accept it.

512 OFF STREET PARKING:
Based on the depths of the lot, and size of the anticipated buildings, off street parking averages four (4) spaces per lot with garages and driveways considered.

513 CURB CUTS:
A Maine Department of Transportation (MaineDOT) Entrance permit was issued for the two curb cuts onto Old Portland Road. As part of the permit, there were requirements to widen Old Portland Road and add turn lanes for the proposed development due to the anticipated number of trips to be generated. As the project is being converted from a commercial to a residential subdivision, which generates much fewer trips, it is anticipated that no road widening or turn lanes will be required. Correspondence from MaineDOT confirming that no off-site improvements are required had been submitted to the town.

514 OFF STREET LOADING:
No off street loading is proposed for this project.

515 APPEARANCE ASSESSMENT:
The plan reflects the project's integration with the site and the surrounding area. The anticipated houses will be similar in appearance and spacing to those in existing neighborhoods in the vicinity. Although it is subject to the individual lot owners, it is anticipated that the houses will have clapboard siding and asphalt shingle roofs.

516 BUILDING CONFIGURATION:
All of the lots will have access off the internal road. Due to orientation of the private road, the front doors will most likely face towards the road. This is subject to the design of the homeowner, and alternate orientations could be considered.

517 PRESERVATION OF HISTORIC RESOURCES:
In a letter from the Maine Historic Preservation Commission dated January 15, 2009, it was recognized that the subject parcel possibly contains one or more prehistoric archeological sites. A Phase I archeological survey was completed by Dr. Leslie Shaw, a professor in the Department of Sociology and Anthropology at Bowdoin College, who is a MDEP approved archaeologist. This survey indicated that no further investigation was warranted.

518 ACCESS FOR PERSONS WITH DISABILITIES:
Units can be modified for accessibility, if required. However, for single-family homes this is up to the discretion of the homeowner. All grades and slopes will be accessible to those with disabilities.

519 RECREATIONAL REQUIREMENTS FOR RESIDENTIAL DEVELOPMENTS:
Several meetings have been held with the Recreation Commission to discuss meeting the requirements of section 519 by providing primitive trail system within the open space. The trail will be available to the

public. Separate correspondence has been provided summarizing the results of these meetings. This correspondence is included for reference.

520 FISCAL CAPACITY:
The estimated site costs were approximately $795,000 to develop the infrastructure for construction of the entire subdivision roadway, utilities, and stormwater management. To date approximately one third of the road, all of the basin subbase gravels, and all of the stormwater features have been completed. The Town of Brunswick holds approximately $100,000 in escrow for completion of the roadway. The remaining work will be financed through the sale of lots.

The estimated cost for the remaining phases of roadway are as follows:

Phase 2: $87,000
Phase 3: $85,000

Costs for the development of the individual lots will be borne by future owner/developer and supported by sale of the lots. The Applicant can fully fund the entire estimated construction cost, however, the project is proposed to be constructed in phases. Construction of subsequent phases will be financed from the escrow account and capital raised from sales of lots in the initial/previous phase. Infrastructure for Phase I was completed and the roadway paved. The remaining roadway for future phases has been constructed including base and subbase gravels.

521 PERFORMANCE GUARANTEE:
A performance guarantee will be posted for each phase of the road. The amount of the guarantee will be 110% of the estimated construction costs for the proposed phase.

522 HOME OWNERS/PROPERTY OWNERS ASSOCIATION:
A home owners/property owners association is proposed for the subdivision. A copy of the Declaration of Restrictive Covenants and Easements has been enclosed with this submission. The requirements for the maintenance of the stormwater management features and we trail system have been added to the homeowners documents.

523 PROTECTED CONSERVATION LAND:
The applicant proposed to preserve approximately 36.18 acres to be open space. Within this area, the applicant proposes to establish walking trails. There are several unimproved trails resulting from logging operations that will serve as the basis of the trail system. The open space is bordered by privately held land and the interstate corridor making connectivity to a larger trail system impractical. Although the trails will be available to the general public, no parking areas or signage is proposed.

The terrain has minimal change in elevation and, with modest improvement, will be accessible to just about anyone. It is not intended or proposed to construct the trail surface to ADA guidelines, however. The Home Owners Association (HOA) will be responsible for maintaining the trails once it is established. Until that milestone is reached, the developer will be responsible for maintenance. Maintenance activities will include removal of vegetation, grading of the trail surface, removal of any trees that fall and block the trail and refreshing the paint markings along the alignment.

524 NOISE AND DUST:
Best Management Practices as outlined in the Maine Erosion and Sediment Control BMP's as published by the Maine Department of Environmental Control, will be utilized to control noise and dust during construction. Noise will be limited through the compliance of the site contractor with the standard hours of construction per Section 524.1. Upon construction completion, there are no anticipated impacts with regard to noise or dust.

Waivers
The following waivers are requested:

- Profile of Existing Roads – Existing roads are shown on the plans. No changes are proposed to existing roads; therefore providing profile data would add undue cost and hardship for the applicant, without benefit to the project.
- Location of all trees over 10 inches diameter – The trees necessary for construction of the road have already been removed. Those trees to be removed for the future homes will be determined by the lot owners.
- Stormwater Management Plan Request that detailed review of stormwater management plan and computations be conducted by MDEP as part of the Site Location of Development Permit.

SUMMARY
We trust that this information satisfactorily addresses the requirements for Subdivision Review and we look forward to your comments. We look forward to meeting with the Planning Board on November 24, 2015 to discuss and approve the project. If you have any questions or require additional information, please do not hesitate to call. Thank you for your assistance with this project.

Very Truly Yours,

Curtis Y. Neufeld, P.E.
Vice-President

Enclosures

cc: Bill Moore, Moore Properties, Inc.

Attachment A
Application Form & Checklists

A completed copy of the Major Development Review Final Application Form and Site Plan Checklist is enclosed.

MAJOR DEVELOPMENT REVIEW
FINAL PLAN APPLICATION

1. Project Name: Spruce Meadows Subdivision

2. Project Applicant
   Name: Moore Properties, Inc.
   Address: 228 Old Portland Road
   Brunswick, ME 04011
   Phone Number: 207-725-1388

3. Authorized Representative
   Name: Sitelines, PA. Attn: Curtis Y. Neufeld, P.E.
   Address: 8 Cumberland Street
   Brunswick, ME 04011
   Phone Number: 207-725-1200 xt. 18

4. List of Design Consultants. Indicate the registration number, address and phone number Of any engineer, surveyor, architect, landscape architect or planner used:

   1. Engineer: Curtis Y. Neufeld, P.E. #9779, Sitelines, P.A., 207-725-1200 xt. 18
   2. Surveyor: Kevin P. Clark, PLS #2245, Sitelines, P.A., 207-725-1200 xt. 14
   3. _____

5. Physical location of property being affected: Old Portland Road

6. Lot Size: 76.1 acres

7. Zoning District: MU5 Portland Road

8. Indicate the interest of the applicant in the property and abutting property. For example, is the applicant the owner of the property and abutting property? If not, who owns the property subject to this application? Refer to Cover Letter

9. Assessor's Tax Map 13 Lot Number 34, 66-78 of subject property.

10. Brief Description of proposed: Refer to Cover Letter

11. Describe Specific Physical Improvements to be Done: Refer to Cover Letter

Owner Signature: _____

Applicant Signature (*if different*): (AGENT)

Required Attachments (by Applicant):

- Final Plan Check List
- Final Plan Requirements for Open Space Developments (if applicable)
- Request for Waivers (if applicable)
- Required Copies of Final Plan

Required Attachment (by Planning and Development Department):

- Listing of all owners of property within 200-foot radius of property under review.

FINAL PLAN REQUIREMENTS

Key: "O" = omit; "S"=submit; "NA"=not applicable; "W" = waiver P=pending

Item	O	S	NA	W	P	**Comments**
Name of Development		X				
Scale, date, north point, area, number of lots (if subdivision)		X				
Boundaries of all lots and tracts with accurate distances and bearings, locations of all permanent monuments property identified as existing or proposed.		X				
Certification by a professional land surveyor that the land has been surveyed and the boundaries established in accordance with the State of Maine Board of Licensure for Professional Surveyors standards for Category 1 (Standard Boundary Survey), conditions 1, 2, or 3.		X				
Existing zoning district and overlay designation.		X				No overlay districts
Names of engineer and surveyor; and professional registration numbers of those who prepared the plan.		X				
Names of current owner(s) of subject parcel and abutting parcels.		X				
Name, location, width of paving and rights-of-way, profile, cross-section dimensions, curve radii of existing and proposed streets; profiles of center-lines of proposed streets, at a horizontal scale of 1" equals 50' and vertical scale of 1 inch equals 5 feet, with all elevations referred to in U.S.G.S. datum.		X				Waiver Requested No changes proposed to existing roads
A general road plan noting circulation, direction, traffic control devices, street lighting and type of lighting proposed.		X				No lighting is proposed
Existing and proposed easements associated with the development.		X				
Kind, location, profile and cross-section of all proposed drainage facilities, both within the development and outside of it, and a storm-water management plan which includes the submission requirements listed in the storm-water management checklist available in the Planning Department.		X				No checklist exists.
Location of features, natural and artificial, such as water bodies, wetlands, streams, vegetation, railroads, ditches and buildings.		X				No water bodies, streams, or railroads exist in development area

Location of existing and proposed utilities; water, sewer, electrical lines, and profiles of underground facilities. Tentative locations of any private wells.		X				
Existing and proposed location, size, profile and cross section of sanitary sewers; description, plan and location of other means of sewage disposal with evidence of soil suitability.		X				
Topography with counter intervals of not more than 2 feet.		X				
A Class A (high intensity) Soil Survey prepared in accordance with the standards of the Maine Association of Professional Soil Scientists.		X				
Location of all existing trees over 10 inches in diameter, locations of tree stands, and a plan showing all trees to removed as a result of the development proposal.				X		Waiver Requested (see narrative)
Lighting plan showing details of all proposed lighting and the location of that lighting in relation to the site.			X			No lighting proposed
Existing locations and proposed locations, widths and profiles of sidewalks.		X				Waiver requested for profiles
Location map.		X				
Approximate locations and dimensions of proposed parking areas.			X			No public parking proposed
Proposed ownership and approximate location and dimensions of open spaces for conservation and recreation.		X				
Grading, erosion control, and landscaping plan; proposed finished grades, slopes, swells, and ground cover or other means of stabilization.		X				
Reference to special conditions stipulated by the Planning Board, with conditions either set forth in full or on the plan or identified as specific documents filed with the Board.			X			No special conditions known
A wetlands map drawn by a specialist delineating wetland boundaries in accordance with the methods prescribed by the US Army Corps of Engineers.		X				
Dedicated public open specs, areas protected by conservation easements, and existing and proposed open spaces or recreation areas.		X				

For Open Space Development, a note indicating the total permitted lot count of the entire land tract based upon the destiny standards in this Ordinance, the number of lots created by the Plan, and the numebr of lots permitted to be subdivided in the future, as well as a table showing setback requirements and impervious surface coverage limits for each lot.		X				
Building envelops showing acceptable locations for principal and accessory structures.		X				

FINAL PLAN/SUPPORTING DOCCUMENTS

Key: "O" = omit; "S"=submit; "NA"=not applicable; "W" = waiver P=pending

Item	O	S	NA	W	P	**Comments**
Documentation of Ownership or contract.		X				
Drafts of legal documents appropriate to the application, including: deeds, easements, conservation easements, deed restrictions or covenants, home/property owners association declarations and by-laws, and such other agreements or documents as are necessary to show the manner in which conservation land will be owned, maintained, and protected.		X				
Draft performance guarantee or conditional agreement.			X			None Anticipated
Disclosure of any required permits from the Department of Environmental Protection, Marine Resources, US Army Corps of Engineers, Department of Inland Fisheries and Wildlife, or other agencies, as applicable; or, if a permit has already been granted, a copy of that permit.		X				DEP Site Law Amendment
Any additional studies required by the Planning Baord, which are deemed necessary in accordance with this Ordiancne.			X			None Anticipated
Storm water management program for the propsed project prepared by a professional engineer.		X				
A storm water management checklist prepared by the Cumebrland County Soil and Water Conservation District made availabel at the Brunswick Department of Planning and Development.	X					

An erosion and sedimentation control checklist prepared by the Cumberland County Soil and Water Conservation District.	X					
A statement from the Brunswick-Topsham Water District of conditions under which water will be provided.				X		
A statement from the Brunswick-Topsham Water District of its review and comments on the proposed use if the project involves development within the Aquifer Protection Zone.			X			All lots to use private wells.
A Statement from the Fire Chief recommending the number, size, and location of hydrants, available pressure levels, road layout and street and project name, and any other fire protection measures to be taken.		X				Pending Staff Review Committee
A statement from the Superintendent of the Brunswick Sewer District of the conditions under wich the Sewer Disticit wil provide sewerage disposal service and approval of the santiary sewers proposed within the development.				X		All lots to use private systems.
Where a septic system is to be used, evidence of soil suitablity.		X				
All applicable materials necessary for the reviewing entity to review the propsoal in accordance with the Criteria of Section 411.		X				
A plan of all buildings with new construction or expansion of an existing facility, including type, size, and footprint, floor layout, setback, elevation of first floor slab, storage, and loading areas.		X				New homes to be located by future lot owners.
An elevation view of all sides of each building proposed indicating height, color, bulk, surface treatment, and signage.			X			No Buildings Proposed
A circulation plan describing all pedestrian and vehicle traffic flow on surrounding road systems.		X				
The size and proposed location of water supply and sewage disposal systems.		X				Private Well & Septic
A site landscaping plan indicating grade change, vegetation to be preserved, new plantings used to stabilize areas of cut and fill, screening, the size, location and purpose and type of vegetation.			X			Landscaping to be by homeowners

Attachment B
Right, Title, and Interest

A copy of the current deed is included with this attachment. Also included is a copy of Moore Properties, LLC Certificate of Good Standing.

0021767

BK15438PG140

WARRANTY DEED

{Statutory Long Form}

MAINE REAL ESTATE TAX PAID

KNOW ALL MEN BY THESE PRESENTS, that RUSSELL S. DOUGLAS and JANET R. DOUGLAS, TRUSTEES OF THE RUSSELL S. DOUGLAS AND JANET R. DOUGAL REVOCABLE TRUST DATED APRIL 25, 1991, with an address in Green Valley, Arizona, in consideration of One Dollar ($1.00) and other good and valuable consideration paid by MOORE PROPERTIES, INC., a Maine corporation with offices in Brunswick, County of Cumberland and State of Maine, the receipt whereof is hereby acknowledged, do hereby GIVE, GRANT, BARGAIN, SELL AND CONVEY unto the said MOORE PROPERTIES, INC., its successors and assigns forever, as follows:

> ***A certain lot or parcel of land in Brunswick, County of Cumberland and State of Maine, together with all improvements and buildings thereon, which is more particularly described as being approximately 120 acres between I-95, the Durham Road and Route 1 (Tax Map 13, Lots 13, 32-C, 21, 34, 33, and 32-B) and being all that property conveyed to the Grantors herein by deeds of Russell S. Douglas dated May 15, 1991 and July 30, 1999, recorded in the Cumberland County Registry of Deeds at Book 9559, Page 71 and Book 14965 Page 145,with the exception of prior out conveyances, to which deeds reference may be had for a more particular description.***

Meaning and intending to convey and hereby conveying all that property owned by said Trust bounded between Route 1, the Durham Road and Interstate 95 in Brunswick, Maine.

TO HAVE AND TO HOLD the aforegranted and bargained premises, with all the privileges and appurtenances thereof, to the said Moore properties, Inc., its successors and assigns, to their own use and behoof forever.

AND WE DO COVENANT with the said Grantee, its successors and assigns, that the Trust is lawfully seized in fee of the premises, that it is free of all encumbrances; that we have good right to sell and convey the same, in our said capacities, to the Grantee to hold as aforesaid; and that we and our successors shall and will **WARRANT AND DEFEND** the same to the said Grantee, its successors and assigns forever, against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, Russell S. Douglas and Janet R. Douglas, Trustees of the Russell S. Douglas and Janet R. Douglas Revocable Trust dated April 25, 1991 have hereunto set their hands and seals this 20th day of April, A.D., 2000.

SIGNED, SEALED AND DELIVERED in the presence of

THE RUSSELL S. DOUGLAS AND JANET R. DOUGLAS REVOCABLE TRUST.

Witness

By: Russell S Douglas Jr, Trustee
Russell S. Douglas, Trustee

Witness
B MALINDICH

By: Janet R Douglas, Trustee
Janet R. Douglas, Trustee

STATE OF ARIZONA
COUNTY OF Pima

April 20, 2000

Then personally appeared the above named Russell S. Douglas and Janet R. Douglas, Trustees of The Russell S. Douglas and Janet R. Douglas Revocable Trust dated April 25, 1991 and acknowledged the foregoing instrument to be their free act and deed in said capacity and the free act and deed of said Trust.

OFFICIAL SEAL
JEANNE CATES
Notary Public - State of Arizona
PIMA COUNTY
My Comm. Expires Jan. 2, 2001

Before me,

Notary Public/Attorney at Law

RECEIVED
RECORDED REGISTRY OF DEEDS
2000 APR 27 PM 1:50
CUMBERLAND COUNTY
John B O'Brien

Declaration of Restrictive Covenants and Easements
Spruce Meadows, Brunswick

WITNESS THIS DECLARATION OF PROTECTIVE COVENANTS AND EASEMENTS made this _____ day of _____, 2015, by Moore Properties, Inc. of 228 Old Portland Road, Brunswick, County of Cumberland, State of Maine, hereinafter referred to as the "Declarant"; and

WHEREAS, Declarant owns property (hereinafter referred to as "The Property") in Brunswick, Maine, by virtue of a deed dated April 20, 2000 and recorded at Book 15428, Page 140 in the Cumberland County Registry of Deeds, which property is portrayed on a Subdivision Plan by Sitelines P.A., entitled "Overall Subdivision, Spruce Meadows Subdivision, Old Portland Road, Brunswick, Maine", dated _____ and recorded in the Cumberland County Registry of Deeds at Plan Book _____, Page _____ (hereinafter referred to as "The Plan"); and

WHEREAS, Declarant is the subdivider of the Property, which Subdivision is known as "Spruce Meadows", consisting of house lots, road right-of-way and open spaces and is more particularly described on the Plan; and

WHEREAS, Declarant desires to provide for the improvement of the Subdivision in accordance with a harmonious plan for the design and relative location of residential structures, garages, rights-of-way, easements, roads, Common Areas/Open Space, and general land use, all to assure the purchasers of lots in the Subdivision, their heirs and assigns, owning such lots, that the use, benefit and enjoyment of the individual lots, common amenities, facilities, easements and roads will not conflict with the harmonious plan; and

WHEREAS, the Declarant desires to create a residential area of the Subdivision providing for the greatest possible degree of health, safety, environmental beauty, and amenity for the property owners and inhabitants thereof, and to effectuate the foregoing purposes, desires to subject the property to protective covenants and common easements and to the provisions for a homeowners' association for the administration and enforcement of same, the maintenance and improvement of certain common facilities, and the establishment, collection and disbursement of assessments, all as set forth hereinafter, each and all of which are for the benefit of the property and of each lot subject to the protective covenants and easements hereinafter set forth, maintaining and improving certain rights of way and other common facilities, and otherwise carrying out the functions of the Association as defined hereinafter, the provisions and objectives
of this Declaration, and the requirements and conditions of the Approval.

NOW, THEREFORE, Declarant hereby declares that all of the Lots and all of the Open Space shown on the Plan shall be held, occupied, improved, transferred, sold, leased and conveyed subject to the protective covenants arid restrictions, the reservations and exceptions, the common rights and easements, and the provisions of a homeowners association herein as set forth, all of

which are declared to be in furtherance of a uniform scheme for the development of the property and that said protective covenants, reservations, common easements, and provisions for a homeowners association are intended to enhance and protect the value and desirability of the property as a whole, to mutually benefit each of the parcels located thereon, to create mutual equitable servitudes upon each of the parcels in favor of each and all other parcels therein and to create reciprocal rights and those in privity of contract or estate between all persons acquiring or owning any interest in any portion of the property, including Declarant, and Declarant's grantees, successors, administrators, and assigns, and shall be deemed to run with the land and be a burden and benefit to mid enforceable by all such persons, including Declarant and Declarant's grantees, successors, administrators, and assigns, and the homeowners association.

ARTICLE 1

Definitions

The following words, shall, as used herein, have the following meanings, unless the context plainly requires otherwise:

1.1 *Approval*. The Final Approval of the Subdivision Plan by the Brunswick Planning Board.

1.2 *Association*. The Spruce Meadows (Brunswick) Homeowners Association which Declarant has organized as a nonprofit corporation for the purpose of administering and enforcing the protective covenants and easements hereinafter set forth, maintaining and improving rights of way and other common facilities, including the Open Space and otherwise carrying out the functions of a homeowners association and the provisions and objectives of this Declaration. Each owner of a Lot shall be a member of the Association, each Lot shall have one undivided vote, and each shall be liable for Assessments by the Association for the purposes set forth herein.

1.3. Open Space. Area which is the maintenance responsibility of the Declarant or the Association under the Approval (regardless of the status of title thereto), being the area shown on the Plan as "Open Space" and certain stormwater management features.

1.4. Declarant. Moore Properties, Inc., as aforesaid, and his successors to all of Declarant's rights, title and interest in and to the Property.

1.5. Lot. Any one of the numbered lots as shown upon the Plan, which may be conveyed by Declarant.

1.6. Owner. The record owners, whether one or more persons or entities, of the fee simple title to any Lot, but not including Declarant.

1.7. Plan or The Plan. The Plan entitled “Overall Subdivision, Spruce Meadows Subdivision, Old Portland Road, Brunswick, Maine”, dated _____ and recorded in the Cumberland County Registry of Deeds at Plan Book _____, Page _____ (hereinafter referred to as “The Plan”); prepared for Moore Properties, Inc. by Sitelines P.A., and approved by the Town of Brunswick Planning Board.

1.8. Road(s). All roads shown on the Plan.

1.9. Turnover. The date upon which the Declarant conveys all of the lots and has substantially completed all road, drainage, and landscaping improvements.

1.10. Buffer. A designated area of land to be maintained in a forested or meadow condition for the purposes of enhancing stormwater quality.

ARTICLE II

Supplemental Declarations

This Declaration may be amended from time to time by Supplemental Declarations duly executed by Declarant, or by the Homeowners Association, pursuant to a 85% vote of the owners in accordance with the Bylaws, if any, of the Association; provided however, in no event shall any provision of this Declaration vesting rights in the Town of Brunswick be amended without the prior approval of the Planning Board of the Town of Brunswick. No such amendment shall render invalid any use of subdivision land within the property existing in accordance with this Declaration at the time of recording such Supplemental Declaration, and any such amendment shall be reasonably consistent with the uniform scheme of development established by this Declaration.

ARTICLE III

Reservations and Easements

3.1 There is hereby excepted and reserved to the Declarant for so long as Declarant owns any of the Lots and thereafter to each of the lot owners and to the Association the following:

3.1.1 *Roads.* A right of way for all purposes over, across and through the roads, together with the right to install, maintain utility poles and lines and water and sewer lines adjacent to, within or under the traveled portion of said roads.

3.1.2 *Underground Facilities.* Declarant reserves the right to grant easements for utility purposes to enter onto any lot within fifteen (15) feet of the roads 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.

3.1.3 *Open Space*. The right of access to the Open Space shown on the Plan. All costs associated with said maintenance or repair of said Open Space, emergency or otherwise, shall be borne by the Association. The trail loops in the Open Space shall be open to public use for pedestrian access only.

3.1.4 *Other.* The right to exercise any rights or powers conferred upon the Association, including those granted by any amended Declaration.

3.1.5 *Stormwater Management Easements*. The right to enter easement areas identified on the plan for the purposes of maintaining the stormwater management features as required by the Maine DEP permit and Appendix _.

3.2 There is hereby excepted and reserved to the Declarant, the following rights that will not be transferred to the Association:

3.2.1 *Road*. Until such time as the roadways on the plan become public ways, the Declarant solely retains the right to grant use of the right of way to others, for any purpose (including the right to create and locate utilities in it), including the right to grant the use of the roadways to owners of land not included in the Subdivision.

ARTICLE IV

Common Rights and Easements

4.1 Each conveyance of a parcel shall be deemed to include as appurtenant to said parcel, subject to such reasonable regulations as may be established from time to time by the Association, the following.

4.1.1 *Access*. A right-of-way to Old Portland Road for all purposes over and along the roadways in the subdivision shown on the Plan of the Subdivision, in common with Declarant, in common with the owners of the other parcels and others to whom Declarant grants use of the roadways.

4.1.2 *Open Space Area*. A right of reasonable use of the Open Space for purposes of passive and active recreation in accordance with Article V hereof, provided that no improvements shall be made except as authorized by the Planning Board.

4.2 The Association shall have the power and duty to set reasonable rules and regulations concerning the use of the Open Space or the Roads, consistent with this Declaration and the Approval. Such rules shall be adopted by majority vote.

ARTICLE V

Open Space/Open Space

5.1 The conveyance of each lot shall be deemed to create enforceable rights with respect to the real estate designated on the Plan as the "Open Space."

5.1.1 *Purpose*. The establishment of the "Open Space" is to ensure that such area will be retained in perpetuity in its natural undeveloped condition, except where trails are established as approved by the Town of Brunswick, and to protect and conserve the natural values and scenic condition of such area and the proper drainage of stormwater from the subdivision.

5.1.2 *Restrictive Use.* The Open Space (shown on the Plan) shall remain in its natural, undeveloped condition, except where trails are established as approved by the Town of Brunswick, and shall be subject to the use limitations hereinafter stated. Such portion of the Open Space shall be used for walking, snowshoeing, hiking, skating and cross-country skiing only. No commercial, industrial, quarrying or mining activity shall be permitted in the Open Space. There may be walking paths designated in keeping with the natural scenic quality of the Open Space. No motor vehicles of any kind, including recreational vehicles, dirt bikes and snowmobiles shall be permitted in the Open Space (except on the roads), except in an emergency or for maintenance activities. No filling, paving, dumping, excavations or other alterations shall be made to the surface of the Open Space (other than the roads) other than that caused by the forces of nature. Any activity on or use of the Open Space inconsistent with the uses designated herein is prohibited.

5.1.3 *Timber and Vegetation*. Other than as necessary to create trails, any destruction or removal of standing trees, plants, shrubs or other vegetation shall not be permitted, except however the following:

5.1.3.1 The right to clear and restore forest cover and other vegetation that is damaged or destroyed by the forces of nature, such as fire or disease and when necessary, to prevent the spread of disease.

5.1.3.2 The right to clear and restore forest cover and other vegetation in the event of any emergency, when necessary, to prevent the spread of fire.

5.1.3.3 The right to gather, use or remove dead wood.

5.1.4 Maintenance of trails. The Association shall have the responsibility to maintain the trails in the Open Space. The Declarant shall establish a trail maintenance account at a local financial institution and provide initial maintenance funding of $3,000. Maintenance shall include, but not be limited to:

- Patrol trail to inspect for damage in the spring, after the leaves are down in the fall and after severe storms.
- Cutting and removal of woody vegetation, dead or fallen trees.
- Inspect elevated boardwalk structures for damage, deterioration, and make repairs as necessary.
- The trail route shall be free of obstructions to a minimum height of 14 feet above ground.
- The trail route shall be clearly marked with paint or signage as necessary.
- Replace missing and damaged directional sign and repaint blazes on trees.
- Maintain a trail maintenance log and record dates, locations, conditions, work done and work pending.
- Trim trees and shrubs to maintain alignment within two (2) feet, measured horizontally form the edges of the trail.
- Fill holes and ruts along the trail bed to maintain the original trail grade and immediately stabilize any disturbed area to control erosion and sedimentation.
- Bush hog trail to a maximum width of 6 feet twice annually: first week of June and last week of August.

5.2 The Declarant and any lot owners shall have the right, individually or through the Association, to enforce the above covenants against any other lot owner or the owner of the Open Space.

ARTICLE VI

Protective Covenants and Restrictions

6.1 *Residential Use*. No lot shall be improved or used except for single family residential purposes. Notwithstanding the foregoing, a home based business, office or daycare is acceptable as an accessory use as long as all equipment or other personal property used in connection with the business, office or daycare is screened from view from the road and complies with standards of the Brunswick Zoning Ordinance for home occupations. Additional requirements are set forth in Articles VII and VIII below.

6.2 *Limitation on Structures.* No structure shall be erected on or moved to any Lot except one detached, single family residential dwelling hereinafter referred to as a dwelling, of not more than two stories in height and such other buildings necessary and subsidiary to the same such as a garage, solarium or storage building. Each dwelling, prior to occupancy, shall have a running water system and a sewage disposal system both of which shall conform to the State of Maine Plumbing Code.

6.3 *Compliance with Ordinance*. All construction activities, including the siting of buildings, shall be in accordance with all local and state laws, codes, ordinances and regulations, and with the requirements of Articles VII and VIII below.

6.4 *Compliance with Design and Construction Standards*. All buildings and improvements shall be constructed in accordance with the Design Review and Construction Standards of Articles VII and VIII below, which shall be amended only by the Declarant until Turnover or by a 85% vote of the members of the Association after Turnover. The Lot owner shall obtain the written approval of the design, including all exterior elements of any structure, or modification of or addition to any structure from the Declarant until Turnover, and thereafter from the Association. Such approval shall not be unreasonably withheld or delayed. Declarant shall respond to Lot owners requests for review and approval within 10 days of actual receipt of design plans. The Design Review and Construction Standards shall be administered by the Association in accordance with its Bylaws. The Design Review and Construction Standards may be enforced by either the Declarant or the Association.

ARTICLE VII

Design Review

7.1 Prior to the commencement of excavation, clearing, construction, reconstruction, renovation or remodeling of any improvements on any Lot, the Lot Owner shall submit to the Declarant the following documents:

7.1.1 A site plan showing the location on the Lot of the dwelling, the garage, the driveway, any walkways, all patios and decks, all landscaping, and any proposed tree cutting;

7.1.2 Floor plans for the dwelling; and

7.1.3 Elevation plans for the dwelling showing all facades of the dwelling.

7.2 The foregoing plans shall provide sufficient information and detail to allow the Declarant to determine that the improvements shall be in accordance with the Construction Standards set forth in Article VIII below.

7.3 If in Declarant's sole discretion, Declarant determines that the plans submitted to Declarant conform to the requirements of the Construction Standards set forth in Article VIII below, and construction of a dwelling in accordance therewith shall not be detrimental to the Property as a whole, then Declarant shall approve such plans (the "Approved Plans") by written approval delivered to the Lot Owner submitting such plans. If the plans are disapproved, the Declarant shall specify why they are unacceptable. All improvements to a Lot shall be constructed in accordance with the Approved Plans for that Lot. All modifications to or variances from the Approved Plans during construction must be approved in writing by the Declarant in advance. Declarant shall not be liable in damages to any persons submitting any plans for approval, or to any owner by reason of any action, failure to act, approval, disapproval, or failure to approve or disapprove, with regard to such plans. Any owner or any person submitting plans to Declarant for approval, by so doing, shall be deemed to have agreed and covenanted that he will not bring any action or suit to recover damages against Declarant, or its advisors, employees, or agents.

7.4 In the event of any inconsistency herein, references to the Declarant shall be deemed to be to the Association with respect to duties after Turnover.

ARTICLE VIII

Construction Standards

8.1 It is the intention of the Declarant that the following standards and requirements for construction of dwellings on the Property shall insure that all such dwellings will be of design, quality, workmanship and materials which are compatible and harmonious with the natural setting of the area and the other dwelling on the Property. All construction of any improvements upon any Lot shall be completed in accordance with the following standards and requirements.

8.2 Once construction of a residential structure has begun work thereon must be prosecuted diligently and must be completed within one year, except that such period may be extended by reason of natural disaster or other matters beyond the Lot Owner's control.

8.3 Houses and other dwelling structures may not be temporarily or permanently occupied until the structure is substantially complete.

8.4 All construction activities, including the siting of building, shall be in accordance with all applicable local and state laws, codes, ordinances and regulations. In addition, work hours for construction are limited to 7:00 AM to 6:00 PM.

8.5 No structure shall be erected on any lot except one detached single family, residential dwelling, hereinafter referred to as the dwelling, of not more than two and one half stories in height and containing not less than fifteen hundred (1500) square feet of heated living space, exclusive of basements, open or screened-in porches, garages and attics. All garages shall be a maximum of a two-car garage.

8.6 All dwellings or other buildings shall be covered with natural wood shingles, wood siding or vinyl siding. Alternatives maybe allowed only upon approval by the Declarant in its sole discretion. All exterior portions of chimneys and fireplaces shall also be encased in natural wood, stone or brick. Unfaced concrete block or metal chimneys are not allowed on the exterior of the dwellings. The use of aluminum siding and stucco is prohibited. Log homes are not permitted.

8.7 Fuel tanks for heating purposes only shall be located only in the basement of the building in compliance with all laws and regulations. Fuel tanks containing fuel such as propane used for cooking or hot water heating shall be buried below the ground or shall be screened from view from the road by fencing, trees or vegetation.

8.8 No owner of a lot, his agents or employees shall alter the natural course of surface water on any lot in a way which would materially alter the natural flow of such water across any other lot unless such alteration is approved by the owners of all lots affected, by the Declarant (or the

Association after Turnover).

8.9 No other buildings or structures of any nature or description shall be erected or maintained on said a Lot, provided however, that nothing in this paragraph shall be construed to prevent the construction of a garage, storage shed, cabana, pergola, fence or in ground swimming pools. Any accessory building built hereunder shall be constructed of material similar to the principal dwelling and shall be of the same color as the principal dwelling. Building shape, roof lines, window treatment and site orientation of any accessory building shall be harmonious with the natural beauty of the immediate natural surroundings and the principal dwellings.

8.10 All outside lighting shall be installed in such a way as to minimize the impact of adjacent Lots.

8.11 No Lot Owner shall mark the boundaries of his or her Lot with surveying tape. Wooded stakes, ropes, rocks, stacked cut wood or flags. Such boundary lines may only be marked with professionally-installed fencing, or by shrubs, pine trees, hedges or natural growth.

8.12 The installation of any fencing must he approved in advance by the Declarant. Split rail, picket, brick, stone fencing shall generally be allowed. Chain link fencing and stockade fencing shall not be allowed on the front and side yards of a Lot, and will be allowed on the back yard only with the approval of the Declarant prior to Turnover, or the Association thereafter.

8.13 Each dwelling shall be marked with a dwelling identification numbers located by or on the front door or at or near the driveway entrance or main entrance walkway.

8.14 Dwelling identification numbers are required on all mailboxes. Declarant reserves the right to approve the design and construction of all mailboxes.

ARTICLE IX

Use Restrictions

9.1 The following restrictions and covenants shall apply to all Lots:

9.1.1 Each lot shall be used for single family residential dwelling purposes only. Notwithstanding the foregoing, a home based business, office or daycare is acceptable as an accessory use as long as it meets the requirements of the Brunswick zoning ordinance, and all equipment or other personal property used in connection with the business, office or daycare is screened from view from the roadways and from other Lots and provided that such use does increase in the flow of traffic on Kennedy Drive by more than one car per hour. No signs may be posted in connection with any home based business use. No lot shall be further subdivided in any way. No temporary structure or tent shall be used as a residence at any time.

9.1.2 Except as permitted in Section 9.1.1, no portion of the Lot shall be used for any commercial activity. The rental of a lot for single family residential purposes shall be deemed not to be violative of this covenant.

9.1.3 All use of any Lot shall be in accordance with all applicable land use and zoning ordinances and regulations and the Approval.

9.1.4 All Lot Owners shall ensure at all times that no unreasonably loud or offensive sound shall be emitted from the Lot owned by such Lot Owner, including, without limitation. barking dogs, loudspeakers, horns, whistles, bells or other sound devices, except security and fire alarm devices used exclusively to protect any of the properties or buildings.

9.1.5 No livestock, animals or poultry of any kind, other than household pets, shall be kept, maintained or allowed on any of the Lots. No boarding or breeding kennels may be kept or maintained on any of the lots. All pets shall be restrained so as not to become a nuisance or offensive to the occupants of the Property.

9.1.6 Trash, garbage and other waste shall be kept in sanitary containers. Such containers shall not be visible from the street or from any other lot, except for limited periods coincident with trash collection.

9.1.7 Radio towers are not allowed on any lot. Satellite dishes not larger than 24" in diameter only shall be allowed if entirely screened from view from other roadways and other Lots.

9.1.8 Firewood shall be stacked neatly, and at locations only behind or on the side of the residence. Except during construction, all building materials or other personal property must either be stored in a structure or screened from view from the roadways.

9.1.9 No owner of a lot shall do or permit to be done, any act upon the lot which may be, is, or may become a nuisance as defined by state or local law, ordinance or regulation.

9.1.10 All dwellings, improvements and landscaping on the Lots shall be kept and maintained by the respective Lot Owner, in clean, safe, attractive and sightly condition and in good repair.

9.1.11 No Lot Owner shall store any business-related equipment or materials (staging, lobster traps, construction or property maintenance equipment and the like) on any Lot unless such equipment or materials are appropriately screened from sight from all roadways and from other Lots.

9.1.12 No unregistered vehicles maybe kept upon any lot unless such vehicle is stored in a garage or other enclosed structure. No house trailer, business or commercial vehicle or vehicles of similar nature shall be brought upon, or be permitted to remain on any lot, except a business vehicle normally used by a lot owner in his or her occupation, provided said vehicle is parked in an enclosed garage. No tractor trailers, boats, motor homes, house trailers, recreational vehicles, camping trailers, or similar vehicles shall be permitted or maintained on any lot, unless the same are stored completely within a garage or screened from view. However, visitors are allowed to park motor homes, boats, camping trailers, or recreational vehicles on a Lot temporarily (defined as a period of time of less than three weeks) while visiting a Lot Owner. All such vehicles must be parked in a neat manner.

9.1.13 No recreational vehicles, snowmobiles, all terrain vehicles (ATV's) and the like shall not be used on any Lot or Open Space. They may be stored on a lot only if well screened from view from the road and abutters.

9.1.14 Other than within the front setback, Lot Owners may not cut trees or vegetation within building setbacks as established by the Town of Brunswick Zoning Ordinance (as it may be amended). The restriction shall not prohibit the cutting of trees or other vegetation that is damaged or destroyed by the forces of nature, such as fire or disease, if a tree threatens to damage a structure on the Lot or when necessary, to prevent the spread of disease.

9.1.15 No cutting or mowing shall be allowed in Buffer areas except as allowed in the deed restrictions to be conveyed with each lot, as appropriate. Typical restrictions are included in Appendix A and B.

ARTICLE X

Homeowners Association

10.1 Prior to the date of this Declaration and the recording thereof, the Spruce Meadows (Brunswick) Homeowners Association, a nonprofit corporation (the "Association"), shall be duly organized under the laws of the State of Maine. Each Lot Owner shall by virtue of, and during, such ownership, be a member of the Association. The Association shall be the governing body for all the Lot Owners with respect to the administration, maintenance, repair, and replacement of improvements to the Open Spaces and the Lots as provided by this Declaration. Association membership shall be appurtenant to each Lot and may not be separated from lot ownership.

10.2 Each Lot Owner shall be entitled to one vote for each lot owned. A simple majority of the members of the Association shall constitute a quorum for any meeting of the Association, and a simple majority of the members present at a meeting may take any action; provided, however, that 85% of all members of the Association shall be required to amend this Declaration, adopt reasonable rules and regulations or waive any covenant. Only Lot Owners, not their mortgagees need to approve any amendment. Any amendment shall not become effective until the recording of such amendment in the Cumberland County Registry of Deeds. Other provisions for the operations of the Association shall be set forth in the By-Laws to be adopted by the Association.

10.3 The Association shall accept the Declarant's rights upon Turnover. After the assignment of the Declarant's rights to the Association, the Association shall operate, maintain, repair, and replace the same in accordance with the Declaration and all applicable laws. codes, and regulation.

10.4 The Association shall elect officers and a board of directors who shall be responsible for the performance of the duties of the Association.

10.5 The Declarant, and the Association thereafter, shall make appropriate arrangements for the timely management, operation, maintenance and eventual replacement of all Open Space, roads and improvements thereon.

10.6 The Association shall pay in a timely fashion all expenses necessary or incidental to the performance of its functions and responsibilities.

10.7 The Declarant, and the Association thereafter, will preserve and maintain for the common benefit of the Lot Owners all of the Open Space, Trails, Stormwater Management Areas and Roads, pay taxes thereon, keep the same in good and sightly appearance and comply with and enforce the provisions of this Declaration and the Approval.

ARTICLE XI

Rights and Duties of the Declarant

11.1 For so long as Declarant owns one or more Lots, Declarant reserves, for himself, his successors and assigns, the following rights, hereinafter referred to as the "Declarant's Rights":

11.1.1 Declarant may locate on the premises, even though not depicted on the Plan, and grant and reserve, easements and rights of way for the installation, maintenance, repair, replacement and inspection of utility lines, wires, pipes, conduits and facilities, including, but not limited to water, electric, telephone, cable television, fuel oil, natural gas, and sewer.

11.1.2 The Declarant or its agents may connect with and make use of utility lines, wires, pipes and conduits provided that the Declarant shall be responsible for the cost of services used.

11.1.3 Declarant may place "For Sale" signs or other signs to aid in the marketing of the lots and dwellings thereon.

11.1.4 Declarant may exercise all rights with respect to design review provided to Declarant in Article VII above.

11.1.5 Declarant shall appoint and remove the officers of the Association and members of the executive board and veto any action of the Association.

11.1.6 Declarant shall exercise all other rights, duties and responsibilities of the Association, including the assessment and collection of charges.

11.1.7 At Turnover the Declarant shall assign to the Association all of the Declarant's remaining rights, other than those specifically reserved herein.

11.1.8 Declarant, his successors, and assigns, may assign any or all of the rights, privileges, easements, powers, and duties herein retained or reserved by the Declarant, and all rights, title and interest in and to the Open Space and public roads, to any lender, successor corporation, or other entity, by written instrument or instruments in the nature of an assignment which shall be effective when recorded in the Registry of Deeds of Cumberland County, Maine; provided it such assignment does not violate the Approval.

ARTICLE XII

Assessments

12.1 Declarant for each lot owned within the Subdivision, and each Owner of a Lot by acceptance of a deed thereto, whether or not it shall be so expressed in such deed, shall pay to the Association:

12.1.1 *Annual assessments or charges*. An annual budget shall be prepared by the Board of Directors and ratified by the lot owners in accordance with the By-Laws of the Association. The proportionate share of expenses in the budget shall be evenly prorated for each Lot so that each lot owner (other than the Declarant) shall pay annually to the Association, or its authorized representative, the proportionate share of the expenses required by the Approval., and for the maintenance, repair, and replacement of common infrastructure including, but not limited to, the trail, trail crossing, trail signage, culverts, stormwater management areas (including a sinking fund for replacement of improvements for all infrastructure for access and service to the Lots based upon an amortization schedule.) The Board of Directors shall fix the amount of the annual assessment against each lot at least thirty (30) days in advance of each annual assessment period. Written notice shall be sent to every Owner subject thereto.

12.1.2 *Special assessments for capital improvements or replacement of landscaping*. The Association may levy, in any assessment years, a special assessment applicable to that year only for the purpose of defraying, in whole or part, the cost of any construction, reconstruction, repair, or major replacement of the improvements or landscaping as required by the Approval, provided that any such assessment shall have the assent of two-thirds of the votes of members who are voting in person or by proxy at a meeting duly called for this purpose.

12.2 The due dates of all assessments shall be established by the Board of Directors. Assessments and other proper charges authorized and billed by the Association shall be a charge on the Lot and shall be continuing lien upon the Lot upon which such assessment is made. If the assessment to a Lot Owner shall not be paid within thirty (30) days after the date when due, then said assessment shall be delinquent and shall, together with interest at the rate of one percent (1%) per month, or any portion thereof, costs of collection and reasonable attorneys' fees, become a continuing lien on the Lot owned by the delinquent Lot Owner which lien shall bind the Lot, with the buildings and improvements thereon as well as the delinquent Lot Owner, heirs, devises, successors, personal representatives and assigns.

12.3 Assessment liens may be enforced in the same manner as assessments against condominium units provided in the Maine statutes, as the same may be amended. Said lien or unpaid assessments or similar shall be prior to all of the liens for real estate taxes and other governmental/municipal assessments or similar charges against the Lot to the extent permitted by law. All such charges, in addition to being a lien, shall also constitute the personal liability of the owner of the Lot so assessed at the time of the assessment. Liens which the Association determines to be collection Shall be assessed against all Lots in the next annual assessment thereafter.

ARTICLE XIII

Enforcement

13.1 The provisions herein set forth shall run with the land and bind Declarant, its successors, grantees and assigns and all parties claiming by, through, or under them. Declarant, its successor or assign, the Association, and each Lot Owner shall have the right, but not the obligation, jointly and separately to sue for and obtain a prohibitive or mandatory injunction to prevent the breach or, or to enforce the observance of, the provisions above set forth, or any of then, in addition to the right to bring an ordinary legal action for damages.

13.2 Whenever there shall have been built on any Lot any structure which is and remains in violation of the provisions above set forth herein for a period of thirty (30) days after receipt of written notice of such violation from Declarant, or the Association, the Declarant, or the Association shall have, in addition to any other rights, the right to enter upon the Lot where such violation exists and summarily abate, remove, or correct the same at the expense of the Lot Owner and such entry and abatement or removal shall not be deemed a trespass.

13.3 The failure of the Declarant or the Association to enforce any of the provisions herein set forth as to a particular violation shall not be deemed to be a waiver of the right to do so as to any subsequent violation.

13.4 The Declarant, Association, and all Lot Owners acknowledge that all use of the Open Spaces, and each Lot must be utilized and maintained as provided in the Plan and Approval, and that failure to comply with the Plan, the Approval, or any condition thereof may result in an enforcement action by the Town. The Declarant, Association, and each Lot Owner shall indemnify and hold each other harmless for any violations caused by the Declarant, the Association, or any Lot Owner(s), and shall promptly reimburse any non-causing party which is required to respond to any enforcement or other civil action arising therefrom for the relative cost of defense of such enforcement action or any claim therein.

ARTICLE XIV

GENERAL PROVISIONS

14.1 If a court of competent jurisdiction shall hold invalid or unenforceable any part of any provision contained in this Declaration, such holding shall not impair, invalidate or otherwise affect the remainder of this Declaration which shall remain in full force and effect.

14.2 Each Lot Owner shall at all times keep Declarant and the Association advised as to his/her mailing address and telephone number, and shall promptly advise in writing of any change or address. A written or printed notice, deposited in the United States Post Office, postage prepaid, and addressed to any owner at the last address provided by such Lot Owner in writing shall be sufficient and proper notice to such owner wherever notices are required in this Declaration.

14.3 This Declaration shall be construed, interpreted and enforced in accordance with the laws of the State of Maine, and any and all litigation arising out if or to enforce this Declaration shall be in the federal or state courts located in Portland. Maine.

IN WITNESS WHEREOF, Declarant, Moore Properties, Inc. has caused this Declaration to be executed this ____ day of _____ 2015.

Moore Properties, Inc., Declarant

_____
By: William Moore
Its: President

STATE OF MAINE
Cumberland, ss. _____,_____ 2015

Personally appeared William Moore, in his said capacity as President of Moore Properties, Inc. acknowledged the foregoing instrument to be his free act and deed in his said capacity.

_____
Notary Public/Attorney at Law
Printed Name:
My Commission Expires:

Appendix A: Typical Meadow Buffer Deed Restriction
Appendix B: Typical Wooded Buffer Deed Restriction
Appendix C: Stormwater Maintenance Requirements
Appendix D: Elevated Boardwalk Construction Details
Appendix E: Trail Maintenance Log

Appendix A: Typical Meadow Buffer Deed Restriction

3 . MEADOW BUFFER

DECLARATION OF RESTRICTIONS (Non-Wooded Meadow Buffer)

THIS DECLARATION OF RESTRICTIONS is made this _____day of _____, 20___, by

_____, _____
(name) (street address)
_____, _____County, Maine,_____, (herein referred to as the
(city or town) (county) (zipcode)
"Declarant"), pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near _____, _____ .
(road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____,
(town)
Maine described in a deed from_____to _____,
(name) (name of Declarant)
dated _____, 20____, and recorded in Book ____ Page ____ at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S.A. Section 420-D and Chapter 500 of rules promulgated by the Maine Board of Environmental Protection ("Stormwater Management Rules"), Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

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 will be placed, stored or dumped on the Restricted Buffer Area, nor may the topography or the natural mineral soil of the area be altered or manipulated in any way;

   b. A dense cover of grassy vegetation must be maintained over the Restricted Buffer Area, except that shrubs, trees and other woody vegetation may also be planted or allowed to grow in the area. The Restricted Buffer Area may not be maintained as a lawn or used as a pasture. If vegetation in the Restricted Buffer Area is mowed, it may be mown no more than two times per year.

   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, except for vehicles used in mowing;

   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 in Section 1 above.

3. Binding Effect. 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 in this Declaration 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.

5. Effective Provisions of Declaration. 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 Restricted Buffer Area.

6. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

_____
(NAME)

STATE OF MAINE, _____, County, dated _____, 20__ .
(County)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____

Appendix B: Typical Wooded Buffer Deed Restriction

Appendix D
Templates for Deed Restrictions & Conservation Easements

1. FORESTED BUFFER, LIMITED DISTURBANCE

DECLARATION OF RESTRICTIONS (Forested Buffer, Limited Disturbance)

THIS DECLARATION OF RESTRICTIONS is made this _____day of _____, 20___, by _____,
(name)
_____, _____,
(street address) (city or town)
_____County, Maine, _____, (herein referred to as the "Declarant"),
(county) (zipcode)
pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near _____,_____
(road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____,
(town)
Maine described in a deed from_____to _____
(name) (name of Declarant)
dated _____, 20____, and recorded in Book ____ Page ____ at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer area location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S.A. Section 420-D and Chapter 500 of rules promulgated by the Maine Board of Environmental Protection ("Stormwater Management Rules"), Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the accept-

ance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

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 4 1/2 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 in Section 1 above.

3. Binding Effect. 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 in this Declaration 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.

5. Effective Provisions of Declaration. 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 Restricted Buffer Area.

6. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

(NAME)

_____

STATE OF MAINE
_____ County, _____, 20__.
(County) (date)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____

Appendix C: Stormwater Maintenance Requirements

Spruce Meadows Residential Subdivision
Old Portland Road, Brunswick, Maine

STORMWATER FACILITIES INSPECTION AND MAINTENANCE PLAN

1.0 GENERAL

This stormwater management maintenance plan has been prepared in support of the Site Location of Development Act Permit Application for the Spruce Meadows Subdivision development in Brunswick, Maine. The requirements of this plan shall be incorporated into the efforts associated with the development including construction and ongoing operations.

2.0 BEST MANAGEMENT PRACTICES

2.1 Best Management Practices

During Construction, a stabilized construction entrance, sediment barrier, erosion control blanket and/or erosion control mix, seeding, and mulching practices will be used in accordance with the Maine Department of Environmental Protection Best Management Practices (BMP) manual during construction and until a stabilized condition exists.

After Construction, stormwater BMPs will include housekeeping and physical measures described herein, including a wet pond, buffers, sweeping of paved surfaces, maintenance of riprap erosion control and maintenance of storm drain pipes and outfalls.

The stormwater maintenance management for this project will be performed consistent with the two references listed below and as amended in this manual. Where standards are not consistent, the more stringent requirement shall apply.

2.2 References

The primary references for the stormwater management design were as follows:

1 "Stormwater Management for Maine", Maine Department of Environmental Protection No. DEPLW0738, January 2006.
2 "Maine Erosion and Sedimentation Best Management Practices", Maine Department of Environmental Protection, current edition on-line.

3.0 MAINTENANCE OF STORMWATER FEATURES

3.1 General Responsibilities

The Contractor will be responsible for maintaining the storm water BMPs and facilities until the construction phase of the project is complete and the site is permanently stabilized and accepted by the Applicant. These efforts shall include maintenance of temporary and permanent stormwater features and addressing interim site conditions as necessary. After acceptance of the development, the Applicant will be responsible for maintaining the permanent stormwater features as shown on the plan.

The Point of Contact for the Applicant is as follows:

Bill Moore, Moore Properties, Inc
228 Old Portland Road
Brunswick, ME 04011
207-725-1388

3.1 General Requirements

The general requirements for this stormwater maintenance management manual will meet the standards of Reference No.1, specific to the water quality feature concerned. Additional maintenance requirements are identified in the following narratives.

3.2 Specific Maintenance Requirements

The following specific maintenance requirements apply to stormwater features as follows:

3.2.1. Infiltration Basin / Underdrained Vegetated Filter Basin

- The maintenance of vegetated filter fields shall be in accordance with Section 5.1.4 of Reference No. 1.
- Soil Filter Bed Inspection: The basin bed shall be inspected after every major storm in the first few months to ensure proper function. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining after 24 hours.
- Sediment Removal: The grass buffer area vegetation should be inspected at least once per year, preferably in the spring. Debris and sediment build-up should be removed from the buffer when noticeable accumulation has occurred.
- Restoring Infiltrative Capacity: The surface of the soil filter may clog with fine sediments over time. Maintenance of good grass cover should minimize this; however, if runoff ponded in the basin does not drain within 48 hours, rototilling of the top of the soil bed may be required to re-establish the soil's filtration / infiltration capacity.
- The top several inches of the filter shall be replaced with fresh material when water ponds on the surface of the bed for more than 72 hours. The removed sediments should be disposed in an acceptable manner.
- Mowing of the bed vegetated areas should be performed no more than two times per growing season to maintain grass heights less than 12 inches.
- Fertilization of the underdrained filter area should be avoided.
- Harvesting and pruning of excessive growth should be done occasionally to control unwanted or invasive plants.

3.2.2. Level Lip Spreaders

- The maintenance of vegetated filter fields shall be in accordance with Section 5.1.4 of Reference No. 1.
- Level lip spreaders should be inspected annually for evidence of erosion or concentrated flows through or around the spreader. All eroded areas should be repaired.

3.2.3 Outlet pipes

- Piped drainage systems shall be inspected in spring and late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet. Sediment should be removed when its level exceeds 20% of the pipe diameter.

Hydraulic flushing or any mechanical means may accomplish sediment removal. Care shall be taken to contain the sediment at the pipe outlet.

3.2.4 Paved Surfaces

- Accumulations of winter sand along impervious areas shall be cleared at least once a year, preferably in the spring. Accu mulations on pavement may be removed by pavement sweeping. Accumulations of sand along the edge of paved areas may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader.

3.2.5 Vegetative Surfaces

- For most vegetative surfaces, grass should be mowed on a regular basis so that grass height does not exceed 6 inches. Any erosion rills, gullies, or bare spots should be seeded or sodded to re-establish the turf cover.
- Buffer, screening, and de corative landscaping s hould be inspected for health on a regular basis. Pruning, weeding, feeding, and mulching

3.2.6 Detention Pond

- Pond Stability: Inspect annuall y for erosion, destabilization of side slopes, em bankment settling and other signs of structural failure.
- The maintenance of catch basins shall be perfo rmed monthly to ensure proper function. The hood and absorbent pads (S mart Sponge or a pproved equivalent) shall be present and in working condition.
- Debris and trash shall be removed from the catch basin sump when present.
- Sediment build-up in the s ump should be removed when accu mulation within 1 foot of the outlet pipe and/or snout hood is observed.

3.2.7 Buffers

- Protect limits of buffer during construction. Mark buffer limits with stakes, if necessary.
- Mark buffer boundaries with permanent signs describing allowable uses.
- Conduct periodic “buffer walks” to inspect the condition of the buffer.

4.0 INSPECTION AND MAINTENANCE CHECKLIST

4.1 Maintenance Frequency

Notwithstanding any other schedule noted, general inspections should be condu cted monthly during wet weather conditions from March to November.

4.2 Inspection and Maintenance Checklist

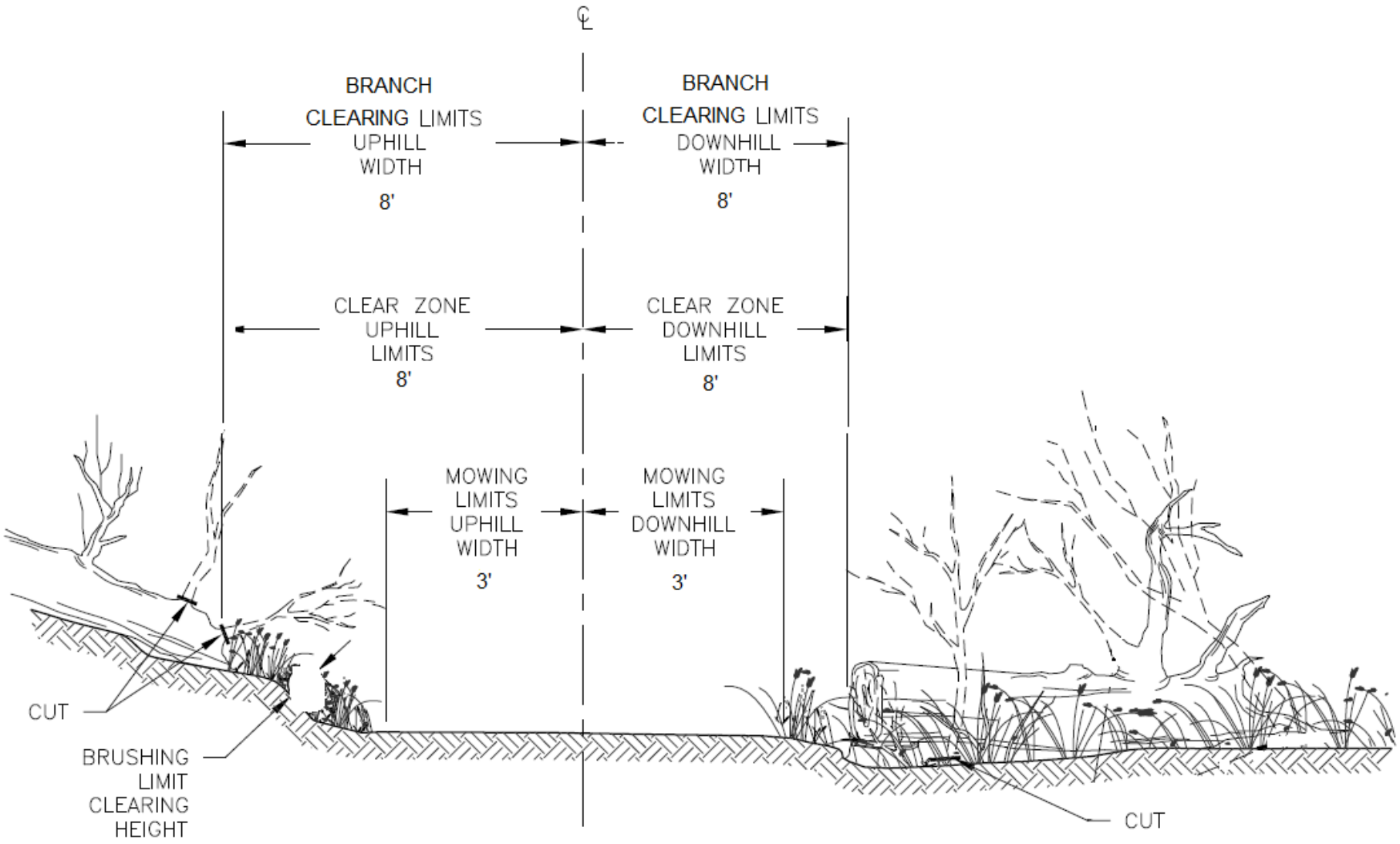
Inspection of the storm water facilities shall be co mpleted by individual qualif ied by experience or training to assess their con dition and performance. Maintenance actions required will be documented, completed and inspected by individuals trained or experienced in such maintenance. An inspection and maintenance checklist specific to the facilities for this development is included.

Spruce Meadows Subdivision
Brunswick, Maine
Stormwater Inspection and Maintenance Log
All actions to be completed at least semi-annually

Performed by:_____ Date:_____

Feature	Description of maintenance	Recorded Observation
Filtration/Infiltration Basin/Detention Pond	Inspect bottom of basin for evidence of sediment.	
	Inspect side slopes of basin for evidence of sediment or erosion, vegetative cover >85%	
	Inspect for ponding more than 72 hours from previous rain event.	
	Inspect for height of grass higher than 12" mowing is required.	
	Inspect for unwanted plants	
Riprap Outlet Protection	Inspect for evidence of sediment, trash or debris	
	Inspect for riprap missing or out of place	
Outlet Pipes	Inspect for evidence of sediment	
	Inspect for loss of riprap material	
Paved Surfaces	Inspect for excessive sediment deposits, trash and debris. Sweep Annually.	
	Inspect for evidence of cracking	
Vegetative Surfaces / Swales	Inspect for erosion and/or vegetative cover of at least 85%	
Buffers	Inspect area for evidence of sediment build up	
	Inspect area for evidence of erosion	
	Inspect level spreader for signs of failure	
	Inspect area for vegetative cover >85%	

Appendix D: Elevated Boardwalk Construction Details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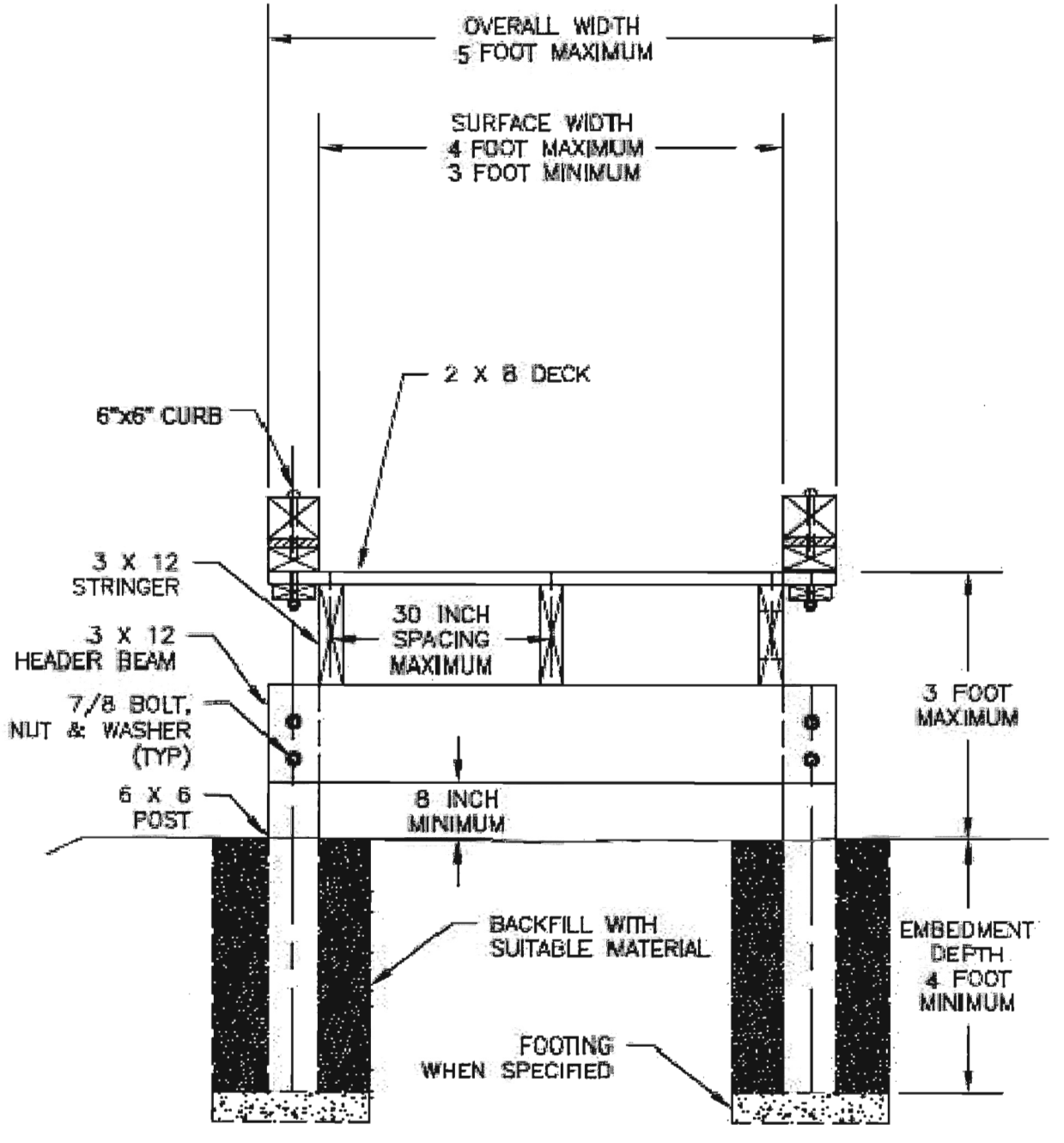
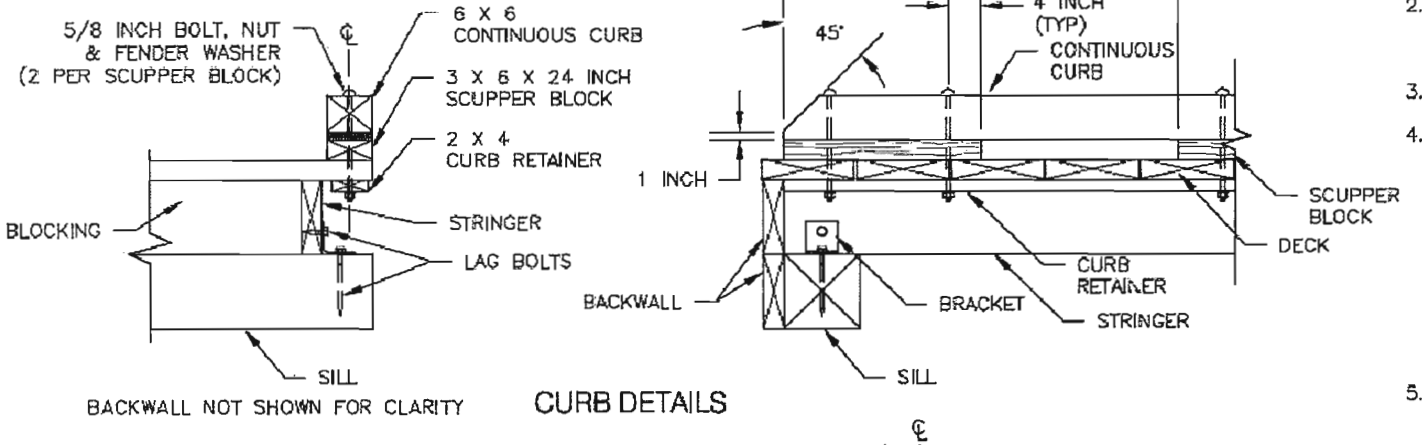
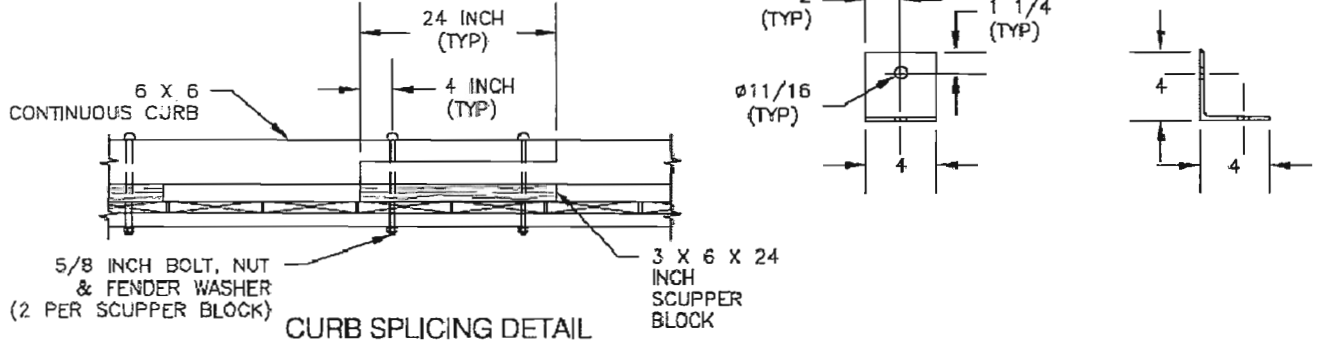


TYPICAL ELEVATED BOARDWALK CROSS SECTION

NOT TO SCALE



CURB DETAILS



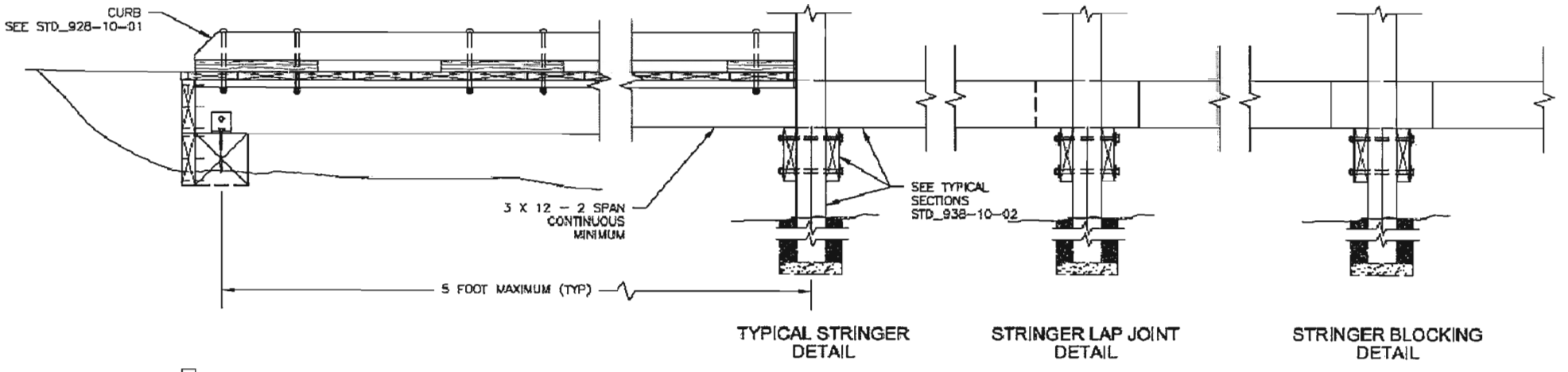
CURB SPLICING DETAIL

NOTES:

1. DESIGN LOAD: 100 PSF PEDESTRIAN LOAD.
2. ALL MATERIAL TYPE SHALL BE DOUGLAS FIR OR SOUTHERN PINE NO. 2 OR BETTER AS SPECIFIED IN THE ABOVE TABLE.
3. ALL FASTENERS SHALL BE GALVANIZED.
4. FASTENERS:
   - DECKING: 60d 6 INCH RING SHANK NAILS OR DECK SCREWS 2 PER DECK STRINGER CONNECTION.
   - RAILING: NO. 10 X 4 INCH LONG WOOD SCREWS 2 PER RAIL POST CONNECTION.
   - STRINGERS & BACKWALLS: 40d 5 INCH LONG RING SHANK NAILS.
5. ALERNATIVE FOR 7/8 BOLTS FOR HEADER BEAM IS BRACKET WITH AN ALLOWABLE LOAD OF 1100 LBS EACH SIDE.

TYPICAL ELEVATED BOARDWALK CURB DETAILS

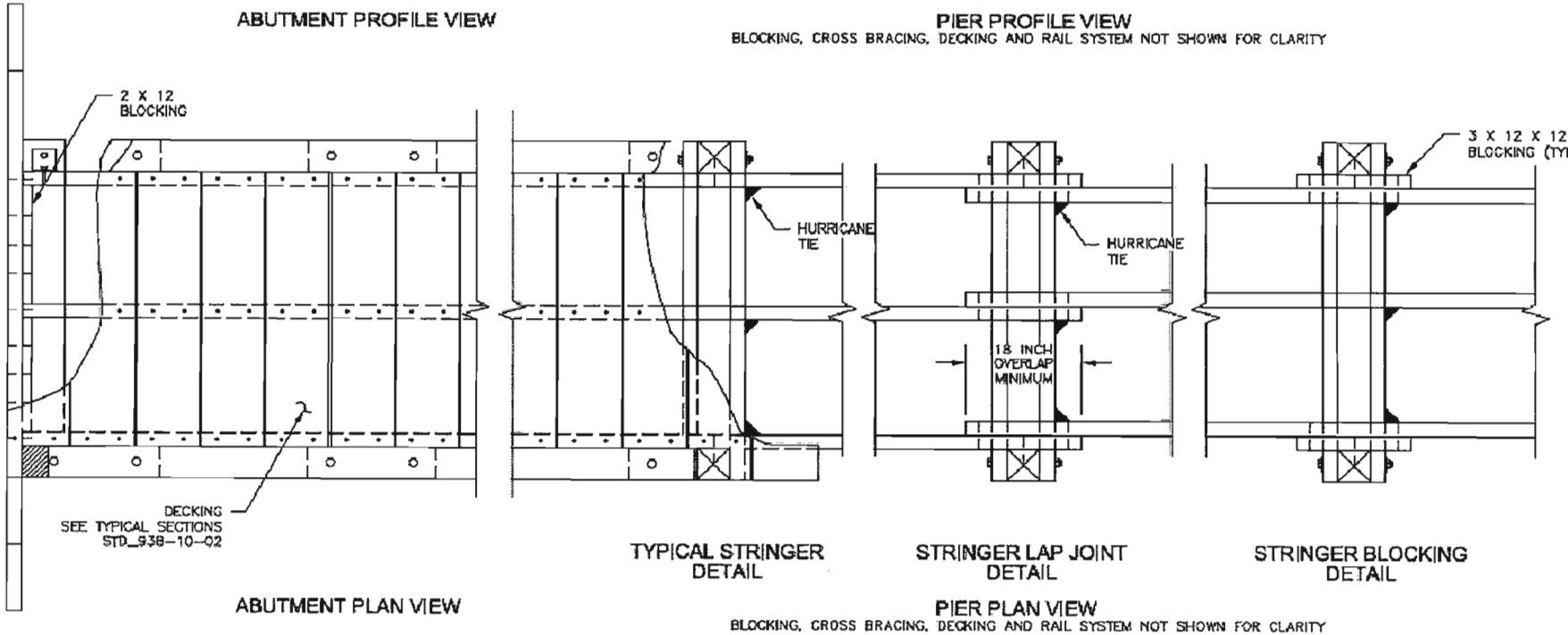
NOT TO SCALE



ABUTMENT PROFILE VIEW

PIER PROFILE VIEW

BLOCKING, CROSS BRACING, DECKING AND RAIL SYSTEM NOT SHOWN FOR CLARITY



ABUTMENT PLAN VIEW

PIER PLAN VIEW

BLOCKING, CROSS BRACING, DECKING AND RAIL SYSTEM NOT SHOWN FOR CLARITY

TYPICAL ELEVATED BOARDWALK PLAN/PROFILE DETAILS

NOT TO SCALE

Appendix E: Trail Maintenance Form

Spruce Meadows Subdivision
Brunswick, Maine
Trail Maintenance Log
All actions to be completed at least semi-annually

Performed by:_____ **Date:**_____

Feature	Description of maintenance	Recorded Observation
Trail	Inspect for areas of erosion	
	Inspect for encroachments or Obstacles to trail	
	Inspect for areas of muddy soils that Need to be stabilized	
	Inspect for woody growth adjacent to trail	
	Inspect for sign if ATV use/damage	
Wetland Crossing #1	Inspect for loose or damaged boards	
	Inspect for settlement or uneven surface	
Wetland Crossing #2	Inspect for loose or damaged boards	
	Inspect for settlement or uneven surface	
Wetland Crossing #3	Inspect for loose or damaged boards	
	Inspect for settlement or uneven surface	
Wetland Crossing #4	Inspect for loose or damaged boards	
	Inspect for settlement or uneven surface	
Wetland Crossing #5	Inspect for loose or damaged boards	
	Inspect for settlement or uneven surface	

State of Maine

Department of the Secretary of State

I, the Secretary of State of Maine, certify that according to the provisions of the Constitution and Laws of the State of Maine, the Department of the Secretary of State is the legal custodian of the Great Seal of the State of Maine which is hereunto affixed and that the paper to which this is attached is a true copy from the records of this Department.

In testimony whereof, I have caused the Great Seal of the State of Maine to be hereunto affixed. Given under my hand at Augusta, Maine, this fourteenth day of September 2015.

Matthew Dunlap
Secretary of State

Additional Addresses

Legal Name	Title	Name	Charter #	Status
MOORE PROPERTIES, INC.	Clerk		19941678 D	GOOD STANDING
Home Office Address (of foreign entity)	**Other Mailing Address**		**Address in Maine**	

Attachment C
Abutting Property Owners

A list of abutting property owners is included in this attachment for reference.

Spruce Meadows Subdivision
Old Portland Road, Brunswick, Maine
Abutters List

MAP 13 LOT 10
GEORGE R BERNIER, II
16 HILLCREST DR
BRUNSWICK, ME 04011
BK 25626 PG 209

MAP 13 LOT 12
PHILP DWINAL
P.O. BOX 221
FREEPORT, MAINE 04032
BK 6745 PG 259

MAP 13 LOT 49
LANA R FRENCH
26 HILLCREST DR
BRUNSWICK, ME 04011
BK 31499 PG 196

MAP 13 LOT 18
SUSAN E. BAILEY
220 N CASWELL AVE
SOUTHPORT, NC 28461
BK 17493 PG 52

MAP 13 LOT 45
DARRIN M POPOVICH &
SHANNON I SAWYER JT
30 HILLCREST DR
BRUNSWICK, ME 04011
BK 29380 PG 122

MAP 13 LOT 50
SHARON G KALVODA
725 BERRYESSA ST
LIVERMORE, CA 94551-8890

MAP 13 LOT 3
TRUSTEE OF THE DORINA C MORIN
REVOCABLE TRUST
190 HILLSIDE RD
BRUNSWICK, ME 04011
BK 12318 PG 321

MAP 13 LOT 11
ORRIN AND WILLIAM PHIPPS
298 MAINE ST, SUITE 3
YARMOUTH, ME 04096
BK 8691 PG 160

MAP 13 LOT 65
FIRST WAVE MEDIA INC.
PO BOX 1058
AUGUSTA, ME 04332
BK 15438 PG 140

MAP 13 LOT 32
BARTLETT J FLANAGAN
300A OLD PORTLAND RD
BRUNSWICK, ME 04011
BK 30933 PG 230

MAP 13 LOT 64
LISA A & MICHAEL J ST CYR SR JT
109 DURHAM RD
BRUNSWICK, ME 04011
BK 31237 PG 243

MAP 13 LOT 33
SHARON G KALVODA
725 BERRYESSA ST
LIVERMORE, CA 94551-8890

MAP 13 LOT 17
MAINE CENTRAL RAIL ROAD
C/0 GUILFORD TRANSPORTATION
INDUSTRIES
IRON HORSE PARK
BILLERICA, MA 01862

MAP 13 LOT 16
DURHAM MONTHLY MEETING OF FRIENDS
532 QUAKER MEETINGHOUSE ROAD
DURHAM, MAINE 04222
BK 13504 PG 3

Attachment D
Photographs

Photographs of the existing conditions of the project site are enclosed.

Photograph 1: Overall Parcel

Photograph 2: Looking into site from the southerly entrance (Phase 1)

Photograph 3: Looking north from southerly entrance.

Photograph 4: Looking south from southerly entrance.

Photograph 5: Looking into site from northerly entrance (Phase 3)

Photograph 6: Looking north from northerly entrance.

Photograph 7: Looking south from southerly entrance.

Photograph 8: Existing stormwater basin from Old Portland Road.

Photograph 9: Existing Stormwater Basin

Photograph 10: Looking into site from Phase 3

Photograph 11: Looking west along existing trail, Loop A

Photograph 12: Looking west along existing trail, Loop A

Photograph 13: Looking east along existing trail where Loop A and B merge

Photograph 14: Looking along existing trail

Attachment E
Supporting Documents

Copies of relevant correspondence and documents pertaining to the project are enclosed.

May 29, 2015

William Moore, President
Moore Properties, Inc.
104 Harpswell Road
Brunswick, Maine 04011

Re: Designation of Agent Authorization
Proposed Residential Subdivision
U.S. Route 1, Brunswick, Maine

Dear Bill:

As required by various approval agencies, please indicate by signing below that Sitelines, PA is authorized to act as agent for Moore Properties, Inc., for the specific purpose of preparation and submission of local and state permitting applications on your behalf for proposed Residential Subdivision between U.S. Route 1 and Durham Road in Brunswick, Maine.

Sincerely,

Curtis Y. Neufeld, P.E.
Vice President

The undersigned hereby gives Sitelines, PA the authority to act as agent Moore Properties, Inc., for the specific purpose of preparation and submission of local and state permitting applications for the project specifically identified above.

pres. 5-1-15

William Moore, President Date

SITELINES, PA
ENGINEERS ▪ PLANNERS ▪ SURVEYORS ▪ LANDSCAPE ARCHITECTS
8 Cumberland Street ▪ Brunswick, ME 04011 ▪ TEL 207-725-1200 ▪ FAX 207-725-1114 ▪ www.sitelinespa.com

September 10, 2015

731.03-7

Mr. Thomas Farrell, Director
Brunswick Parks & Recreation Department
220 Neptune Drive
Brunswick, Maine 04011

Re: Spruce Meadows Subdivision
Recreation Requirements

Dear Tom:

Submitted for review and consideration by you and the Recreation Com mission are our application, Master Plan and supporting inform ation for the proposed Spruce Meadows residential condominium project. The devel oper proposes to develop 33 new residential lots on a 76-acre property located on Old Por tland Road (U.S. Route 1). The vision for the Spruce Meadows Master Plan is a reside ntial environment designed for those looking for a neighborhood setting in a relatively rural environment.

The 76.1-acre site is sandwiched between Old Portland Road (U.S. Route 1) and Durham Road in the MU5 zone. Spruce Meadows will provide an opportunity for diverse housing types within the context of the ne ighborhood with a variety of lot sizes. The development is consistent with the Town of Brunswick's comprehensive plan and current zoning as to where housing shall be built within the community.

Spruce Meadows is in good proxim ity to sc hools, the college, churches and m edical buildings for service and em ployment, and downtown to enjoy the Maine Street businesses. The pedestrian provision in Spruce Meadows includes the potential for public trails to be established in the 36+ acre open space area

We have completed the application and en closed our proposed the proposed Subdivision Plan for your review, and we appreciate the opportunity to meet with the Com mission at the September meeting.

With regard to dem ographics, we expect the area to be desirable to m iddle income families and retirees, with hom e values ranging from $200,000 to $250,000. The developer intends to sell the lots as undeveloped land for $40,000 to $50,000. The development is anticipated to attract new f amilies and "empty nesters" wishing to reside in a neighborhood setting with many possibilities for outdoor living activities.

SITELINES P.A. ENGINEERS - PLANNERS - SURVEYORS
8 CUMBERLAND STREET, BRUNSWICK, MAINE 04011
PHONE: 207-725-1200 FAX: 207-725-1114

The proposed project will provide a density of less than 5 units per acre, which is consistent with surrounding neighborhoods. Full build out of the project is anticipated within 10 to 15 years.

The applicant proposes to establish walking trails in the open space parcel. There are several unimproved trails resulting from logging operations that will serve as the basis of the trail system. The trails will consists of two loops as shown on the attachments. Loop A is approximately 0.75 miles and follows a previously cleared route of logging activity. The trail is currently cleared of trees and woody vegetation, but has been revegetated with goldenrod, blackberry bushes and similar vegetation. To formalize the trail for use by the future land owners, the native plants will be removed and the underlying ground graded to provide a stable walking path. Staff from Sitelines PA walked the route shown in dark blue in August 2015 and found it to be readily identifiable and passable. The route will be blazed with painted rectangles at eye height to guide users.

The alignment of Loop B will require clearing of the existing trees as well as understory vegetation. Loop B is approximately 0.50 miles on its own, and will establish a 1.25 mile trail with Loop A. It is proposed to defer the construction of Loop B until construction of Phase 2 of the subdivision.

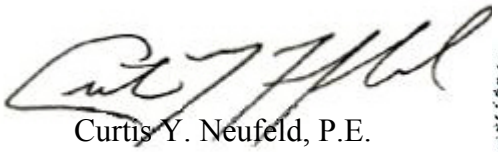
The conservation area is bordered by privately held land and the interstate corridor making connectivity to a larger trail system impractical. Although the trails will be available to the general public, no parking areas or signage is proposed.

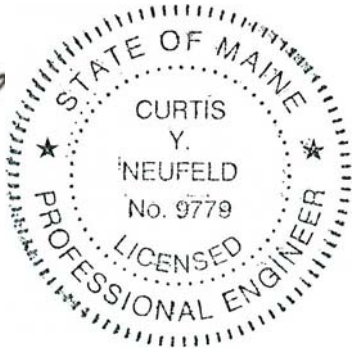
As discussed at the June meeting of the Recreation Commission, the recreational trails will provide an amenity available to residents of Spruce Meadows of all ages. The terrain has minimal change in elevation and, with modest improvement, will be accessible to just about anyone. It is not intended or proposed to construct the trail surface to ADA guidelines, however. The Home Owners Association (HOA) will be responsible for maintaining the trails once it is established. Until that milestone is reached, the developer will be responsible for maintenance. Maintenance activities will include removal of vegetation, grading of the trail surface, removal of any trees that fall and block the trail and refreshing the paint markings along the alignment.

With the inclusion of the amenities within the common open areas, the developer has adequately provided for the recreational requirements of the residents of the project. Therefore, the developer offers that no additional open space or fees are necessary for the project.

We look forward to meeting with the Commission to discuss our proposal or to modify it as may be mutually agreeable. If you have any questions or require additional information, please do not hesitate to call.

Very truly yours,





Curtis Y. Neufeld, P.E.
Vice President

Enclosures

cc: Bill Moore, Moore Properties, Inc.
Anna Breinich, Town of Brunswick

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

DEPARTMENT ORDER

IN THE MATTER OF

MOORE PROPERTIES, INC.	) SITE LOCATION OF DEVELOPMENT ACT
Brunswick, Cumberland County	)
BRUNSWICK COMMERCE CENTER	)
L-24560-MX-A-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 481 et seq., the Department of Environmental Protection has considered the application of MOORE PROPERTIES, INC. with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. Summary: The applicant proposes to develop a 92.53-acre parcel of land into 18 lots, the majority of which will be developed with commercial uses. Four of the lots (Lots 1 through 4) have frontage on Durham Road and will be sold as single-family residential lots and Lots 5 through 18 will be sold as commercial lots. The applicant intends to retain a 30.79-acre parcel as Lot 19. The commercial lots will range in size from approximately two to 12.47 acres and the residential lots will range in size from two to 2.65 acres. The project includes the construction of approximately 2,230 feet of roadway and associated utilities. The proposed project is shown on a set of plans, the first of which is entitled "Cover Sheet - Brunswick Commerce Center," prepared by Sitelines, P.A., and dated January 13, 2009, with a last revision date of June 7, 2009. The project site is located between Interstate 295, Durham Road, and Old Route 1 in the Town of Brunswick.

The proposed project will result in approximately 2,970 square feet of freshwater wetland fill. This amount of wetland alteration does not require a permit under the Natural Resources Protection Act.

B. Current Use of Site: The site of the proposed project is currently undeveloped fields and woodland. There is an existing structure on the parcel that will be removed prior to the sale of the lot.

2. FINANCIAL CAPACITY:

The total cost of the project is estimated to be $795,000. The applicant submitted a letter from Norway Savings Bank, dated February 5, 2009 indicating that the applicant has sufficient available funds to complete the project.

The Department finds that the applicant has demonstrated adequate financial capacity to comply with Department standards.

3. TECHNICAL ABILITY:

The applicant has developed and managed a number of residential and commercial properties in the Brunswick area. The applicant also retained the services of Sitelines, P.A., a professional engineering firm, to assist in the design and engineering of the project.

The Department finds that the applicant has demonstrated adequate technical ability to comply with Department standards.

4. NOISE:

Construction activity is expected to occur from 7:00 a.m. to 7:00 p.m. or during daylight hours, whichever is longer, and is therefore exempt from regulation under 38 M.R.S.A 484(3).

The project site is located within the town's Commercial Portland Road Area Zone with the exception of the four residential lots that have frontage on Durham Road. There are no known protected locations near the project site, and structures on individual lots are limited to 10,000 square feet of floor area. Vegetated buffers will be preserved along the parcel's westerly, northerly, and easterly boundaries. Additionally, Route 1 and I-295 are on the site boundaries, both of which generate significant background traffic noise.

The Department finds that the applicant has made adequate provision for the control of excessive environmental noise from the proposed project.

5. SCENIC CHARACTER:

The project site is located between I-295, Old Route 1, and Durham Road. Durham Road is currently developed with single-family residences, so the four residential lots with frontage on Durham Road will be consistent with the neighborhood character. The proposed commercial lots will be separated from Route 1 by both a vegetated buffer and elevation changes, so that the lot development is anticipated to be partially screened from view.

Based on the project's location and design, the Department finds that the proposed project will not have an unreasonable adverse effect on the scenic character of the surrounding area.

6. WILDLIFE AND FISHERIES:

The Maine Department of Inland Fisheries & Wildlife (MDIFW) database was reviewed to determine if there were records of any Essential or Significant Wildlife Habitats, or other wildlife habitats of special concern associated with this site. No special habitats were identified.

A stream flows along the western boundary of the project site. Development windows on Lots 11, 12, and 13 have been configured to provide a 100-foot wide undisturbed wooded buffer adjacent to this stream.

The Department finds that the applicant has made adequate provision for the protection of wildlife and fisheries.

7. HISTORIC SITES:

The Maine Historic Preservation Commission reviewed the proposed project and stated that, based on a predictive model, the project site could potentially contain one or more prehistoric archaeological sites and requested that the applicant perform a Phase I archaeological survey of the site. The applicant submitted a report of the survey, prepared by Leslie C. Shaw, Ph.D., and dated July 1, 2009.

MHPC reviewed the results of the survey and stated, in a letter dated July 10, 2009, that the proposed project will have no effect upon any structure or site of historic, architectural, or archaeological significance as defined by the National Historic Preservation Act of 1966.

The Department finds that the proposed development will not have an adverse effect on the preservation of any historic sites or unusual natural areas either on or near the development site.

8. UNUSUAL NATURAL AREAS:

The Maine Natural Areas Program database does not contain any records documenting the existence of rare or unique botanical features on the project site and, as discussed in Finding 6, MDIFW did not identify any unusual wildlife habitats located on the project site.

The Department finds that the proposed development will not have an adverse effect on the preservation of any historic sites or unusual natural areas either on or near the development site.

9. BUFFER STRIPS:

The proposed project includes a 100-foot wide undisturbed buffer between lot development on Lots 11, 12, and 13 and wetlands associated with a stream that flows behind the lots as described in Finding 6. The applicant also proposes to establish forested buffers on the residential lots (Lots 1 – 4), and a roadside meadow buffer and two forested buffers with ditch turnout for the access road, to meet stormwater quality standards as discussed in Finding 10. The applicant submitted draft deed restrictions for these buffers that uses language from Chapter 500, Appendix D for the stormwater buffers.

Prior to the start of construction, the location of the stormwater buffers for the access road must be permanently marked on the ground. Prior to the start of development on Lots 1 – 4 and Lots 11, 12, and 13, the location of the stream buffer on those lots must be permanently marked on the ground. The deed for each lot that contains any portion of the designated stream or stormwater buffer must contain deed restrictions relative to the buffer and have attached to it a plot plan for the lot, drawn to scale, that specifies the location of the buffer on the lot. Prior to the start of construction on Lots 1 – 4 and Lot 11, 12, or 13, or any other affected lots, the applicant must submit a copy of the recorded deed restriction, including the plot plan, to the Bureau of Land and Water Quality (BLWQ).

The Department finds that the applicant has made adequate provision for buffer strips.

10. SOILS:

The applicant submitted a Class B high intensity soil survey map and report prepared by Albert Frick Associates and results of a subsurface soil infiltration investigation prepared by Summit Engineering based on the soils found at the project site. These reports were reviewed by staff from the Division of Environmental Assessment (DEA) of the BLWQ.

The Department finds that, based on these reports and DEA's review, the soils on the project site present no limitations to the proposed project that cannot be overcome through standard engineering practices.

11. STORMWATER MANAGEMENT:

Based on a 25% maximum impervious coverage for each commercial lot, the proposed project includes approximately 12.35 acres of impervious area and 12.88 acres of developed area. It lies within the watersheds of Bunganuc Brook and Mill Stream. The applicant submitted a stormwater management plan based on the basic, general, and flooding standards contained in Department Rules, Chapter 500. The proposed stormwater management system consists of vegetated buffers (limited disturbance forested buffers and meadow buffers) and infiltration basins.

Local ordinance limits onsite development of the 14 commercial lots to 25 percent of each lot's area, and the buildings are restricted to a 10,000-square foot footprint. Based on these parameters, the applicant submitted a stormwater management plan that includes specific designs for the impervious areas associated with the roadway, and less specific, conceptual designs for individual lot development. The conceptual designs are intended to demonstrate that the basic, general, and flooding standards can be met on each commercial lot based on the local development limitations.

A. Basic Standards:

(1) Erosion and Sedimentation Control: The applicant submitted an Erosion and Sedimentation Control Plan (Section 14 of the application) that is based on the performance standards contained in Appendix A of Chapter 500 and the Best Management Practices outlined in the Maine Erosion and Sediment Control BMPs, which were developed by the Department. This plan and plan sheets containing erosion control details were reviewed by, and revised in response to the comments of the Division of Watershed Management (DWM) of the BLWQ.

Erosion control details will be included on the final construction plans and the erosion control narrative will be included in the project specifications to be provided to the construction contractor.

(2) Inspection and Maintenance: The applicant submitted a maintenance plan that addresses both short and long-term maintenance requirements. This plan was reviewed by, and revised in response to the comments of DWM. The maintenance plan is based on the standards contained in Appendix B of Chapter 500. The applicant will be responsible for the maintenance of all common facilities including the stormwater management system until the portions of the system that are located within the road right-of-way are conveyed to the town. The applicant submitted a letter from the Town, dated July 23, 2009, indicating the Town's agreement to maintain the portions of the system within the road right-of-way in accordance with the maintenance plan.

Portions of the common stormwater system will be located on three of the subdivision lots, Lots 6, 15, and 16. The applicant submitted draft deed covenants for these three lots that outline the future lot owners' responsibilities for maintenance of the components of the system that are located on respective lots. These lots must be conveyed with the submitted deed covenants.

All of the 14 commercial lots will have individual stormwater management systems to serve each lot. Specific designs for each of the systems must be submitted to the BLWQ for review and approval as described below. Each of the commercial lots must be conveyed with a deed covenant that requires the lot owner to perform maintenance on the individual stormwater system.

(3) Housekeeping: The proposed project will comply with the performance standards outlined in Appendix C of Chapter 500.

Based on DWM's review of the erosion and sedimentation control plan and the maintenance plan, the Department finds that the proposed project meets the Basic Standards contained in Chapter 500(4)(A).

B. General Standards: The applicant's stormwater management plan includes general treatment measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms, provide for effective treatment of pollutants in stormwater, and mitigate potential temperature impacts. This mitigation is being achieved by using Best Management Practices (BMP) that will control runoff from no less than 95% of the impervious area and no less than 80% of the developed area. The proposed access road meets the definition of "a linear portion of a project" in Chapter 500 and the applicant is proposing to control runoff volume from no less than 75% of the impervious area and no less than 50% of the developed area.

The stream buffers and wooded and non-wooded stormwater buffers will be protected from alteration through the execution of a deed restriction as outlined in Finding 9.

The proposed infiltration system was reviewed by staff from DEA. The applicant must insure that the discharge of soluble pollutants to the infiltration area is minimized and that the infiltration area is maintained to assure that its capacity is unimpaired. Based on DEA's review, the Department does not anticipate that the infiltration area will adversely impact groundwater quality.

The stormwater management system proposed by the applicant was reviewed by, and revised in response to, comments from DWM. After a final review, DWM commented that the proposed stormwater management system is designed in accordance with the Chapter 500 General Standards. DWM stated that, for the 14 commercial lots, the applicant has demonstrated that, for the maximum allowed buildout of each lot prescribed by town ordinance, there is adequate area on each lot to install stormwater treatment measures that would address Chapter 500 quality and quantity standards. Prior to the start of construction on each of the 14 commercial lots, the applicant must submit a stormwater peak flow/flooding analysis addressing flows at both the individual lot boundary and at the development boundary. The stormwater analysis should use for reference the stormwater model submitted in the application. The analysis must include, at a minimum, details related to the control of stormwater runoff from each lot, treatment controls showing that at least 95 % of the lot's impervious area and 80 % of the lot's developed area will be treated, applicable soil borings or test pits, provisions for inspections of the stormwater management system by a professional engineer and follow-up certification of system installation to the BLWQ, and a maintenance plan and provisions for the stormwater system.

Based on the stormwater system's design and DWM's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500, General Standards. DWM recommended that the applicant be required to retain its design engineer or other qualified professional to inspect the construction and

stabilization of the proposed stormwater management system to be built on the site. Inspections must be sufficient to confirm proper installation of all components of the system from initial ground disturbance to final stabilization. Within 30 days of completion of the system, the applicant must submit its engineer's written certification to the BLWQ that it was installed in accordance with the approved design.

C. Flooding Standard:

The applicant is proposing to utilize a stormwater management system based on estimates of pre- and post-development stormwater runoff flows obtained by using Hydrocad, a stormwater modeling software that utilizes the methodologies outlined in Technical Releases #55 and #20, U.S.D.A., Soil Conservation Service, and detains stormwater from 24-hour storms of 2-, 10-, and 25-year frequency. The post-development peak flow from the site will not exceed the pre-development peak flow from the site, with the exception of two analysis points which are below 5% or less than 0.5 cubic feet per second.

DWM commented that the proposed system is designed in accordance with the Chapter 500 Flooding Standard, and concurred that the two post-development increases are either statistically negligible or insignificant.

Based on the system's design and DWM's review, the Department finds that the applicant has made adequate provision to ensure that the proposed project will meet the Chapter 500, Flooding Standard for peak flow from the project site, and channel limits and runoff areas.

The Department further finds that the proposed project will meet the Chapter 500 standards for easements and covenants and discharge to freshwater or coastal wetlands.

12. GROUNDWATER:

A majority of the project site is located over a significant sand and gravel aquifer, as confirmed by a DEA geologist. The proposed project includes individual water supply wells as discussed in Finding 13 and onsite wastewater disposal systems as discussed in Finding 14.

DEA stated that the soil data generally indicates that deeper soils suitable for stormwater infiltration are present along the eastern and western sides of the project site, and infiltration systems may be used as an acceptable measure for stormwater treatment on those lots where suitable soils occur. The development of any given lot or lots may include restrictions on the location of water supply, wastewater, and/or stormwater utilities on adjacent lots or elsewhere within the development. Prior to construction on any commercial lot that proposes to utilize infiltration for stormwater treatment, a plan including details and specifications for the system must be submitted to the BLWQ for review and approval.

If any lot occupant will use, handle, or store petroleum products, pesticides, herbicides, fertilizers, road salt, solvents, or other materials with potential to impact groundwater, then a spill control, containment, and countermeasures plan (SPCC plan) must be submitted to the BLWQ for review and approval prior to occupancy of that lot

The Department finds that the proposed project will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur provided

13. WATER SUPPLY:

Water for the development will be supplied by individual wells. The applicant submitted an assessment of groundwater supplies that are available on the project site from the Maine Geological Survey (MGS), which was reviewed by, and revised in response to, comments from the BLWQ's Division of Environmental Assessment (DEA). The application stated that the MGS well data indicates that, based on the documented flows and the proposed project's proximity to a large aquifer, it is anticipated that there is an adequate supply of water for the development.

The Department finds that the applicant has made adequate provision for securing and maintaining a sufficient and healthful water supply.

14. WASTEWATER DISPOSAL:

Wastewater will be disposed of by individual subsurface wastewater disposal systems on each lot within the development. The applicant submitted the soil survey map and report discussed in Finding 9. Each individual system must be designed to meet the requirements of the Maine State Plumbing Code. This information was reviewed by, and revised in response to comments from DEA, who commented that the specific wastewater disposal system design and water supply system for each commercial lot should be submitted to the BLWQ for review and approval prior to construction on the lot.

Based on DEA's comments, the Department finds that the proposed wastewater disposal systems will be built on suitable soil types, and that Maine's Drinking Water Standard for nitrates will be met at the project's property lines, provided specific wastewater disposal system and water supply designs are submitted as described above.

15. SOLID WASTE:

When completed, the proposed project is anticipated to generate 55 tons of household and general solid waste per year. All general solid wastes from the proposed project will be disposed of at the West Bath Transfer Facility and ultimately the Bath Landfill, or the town of Brunswick's Graham Road Landfill, both of which are currently in substantial compliance with the Solid Waste Management Regulations of the State of Maine.

The proposed project will generate approximately 9,530 cubic yards of stumps and grubbings. All stumps and grubbings generated will be disposed of on site, either chipped or burned, with the remainder to be worked into the soil, in compliance with Solid Waste Management Regulations of the State of Maine.

All construction and demolition debris generated will be disposed of at the town of Brunswick's Graham Road Landfill or the West Bath processing facility, both of which are currently in substantial compliance with the Solid Waste Management Regulations of the State of Maine.

Based on the above information, the Department finds that the applicant has made adequate provision for solid waste disposal.

16. FLOODING:

The proposed project is not located within the 100-year floodway of any river or stream.

The Department finds that the proposed project is unlikely to cause or increase flooding or cause an unreasonable flood hazard to any structure.

17. AIR QUALITY:

No significant source of air emissions has been identified. Future development on individual lots may require air emissions licenses based on the type of use. If a facility that requires an air emission license is to be built on a lot, a copy of the air emission license must be submitted to the BLWQ for review prior to occupancy of that facility.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 481 et seq.:

A. The applicant has provided adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards.

B. The applicant has made adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities provided air emission licenses, if required, are submitted as described in Finding 17.

C. The proposed development will be built on soil types which are suitable to the nature of the undertaking and will not cause unreasonable erosion of soil or sediment nor inhibit the natural transfer of soil.

D. The proposed development meets the standards for storm water management in Section 420-D and the standard for erosion and sedimentation control in Section 420-C provided

buffers are marked and maintained, and restrictions are submitted, as described in Finding 9, and provided additional plans and details are submitted for individual lots and the stormwater system is inspected and certified as described in Finding 11B.

E. The proposed development will not pose an unreasonable risk that a discharge to a significant groundwater aquifer will occur provided SPCC plans and plans for infiltration of stormwater are submitted as described in Finding 12, and provided specific wastewater and water supply system designs for each commercial lot are submitted as discussed in Finding 14.

F. The applicant has made adequate provision of utilities, including water supplies, sewerage facilities, solid waste disposal and roadways required for the development and the development will not have an unreasonable adverse effect on the existing or proposed utilities and roadways in the municipality or area served by those services.

G. The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure.

THEREFORE, the Department APPROVES the application of MOORE PROPERTIES, INC. to develop an 18-lot subdivision in Brunswick as described in Finding 1, SUBJECT TO THE FOLLOWING CONDITIONS and all applicable standards and regulations:

1. The Standard Conditions of Approval, a copy attached.

2. In addition to any specific erosion control measures described in this or previous orders, the applicant shall take all necessary actions to ensure that its activities or those of its agents do not result in noticeable erosion of soils or fugitive dust emissions on the site during the construction and operation of the project covered by this approval.

3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

4. The applicant or other responsible party shall, within three months of the expiration of each five-year interval from the date of this Order, submit a report certifying that the items listed in Department Rules, Chapter 500, Appendix B(4) have been completed in accordance with the approved plans.

5. The applicant shall include in all conveyances of subdivision lots deed restrictions making the conveyance subject to all terms and conditions of this Department permit and any applicable municipal approval. These terms and conditions may be incorporated by specific and prominent reference to the permit in the deed. All conveyances required by this approval to contain restrictions shall include in the restrictions the requirement that any subsequent conveyance shall specifically include the same restrictions.

6. The applicant shall give a copy of this permit, including the standard conditions, and a copy of the approved subdivision plan to each lot buyer at least 14 days prior to the date of closing on the sale or lease of the lot. The applicant also shall maintain a file containing signed and dated statements by lot buyers or lessees acknowledging that they have received and read their copy of this permit and the subdivision plan prior to the closing on their lot. The file shall also contain a copy of the signed and dated deed or lease containing the restrictive covenants required under this approval. The applicant shall make this file available for inspection upon request by the Department.

7. The applicant shall execute and record all required deed restrictions, including the appropriate buffer deed restrictions, within 60 days of the date of this Order unless the deed restriction is to be placed on a subdivision lot. In that situation, the applicant shall execute and record the required deed restriction prior to the start of construction on the lot. The applicant shall submit a copy of the recorded deed restriction, including the plot plan, to the BLWQ within 60 days of its recording.

8. Prior to the start of construction, the location of forested and meadow buffers on individual lots shall be permanently marked on the ground.

9. Prior to the start of construction on each of the 14 commercial lots, the applicant shall submit a stormwater peak flow/flooding analysis addressing flows at both the individual lot boundary and at the development boundary. The stormwater analysis shall use for reference the stormwater model submitted in the application. The analysis shall include, at a minimum, details related to the control of stormwater runoff from each lot, treatment controls showing that at least 95 % of the lot's impervious area and 80 % of the lot's developed area will be treated, applicable soil borings or test pits, provisions for inspections of the stormwater management system by a professional engineer and follow-up certification of system installation to the BLWQ, and a maintenance plan and provisions for the stormwater system.

10. The applicant shall retain its design engineer or other qualified professional to inspect the construction and stabilization of the proposed stormwater management system to be built on the site. Inspections shall be sufficient to confirm proper installation of all components of the system from initial ground disturbance to final stabilization. Within 30 days of completion of the system, the applicant shall submit its engineer's written certification to the BLWQ that it was installed in accordance with the approved design.

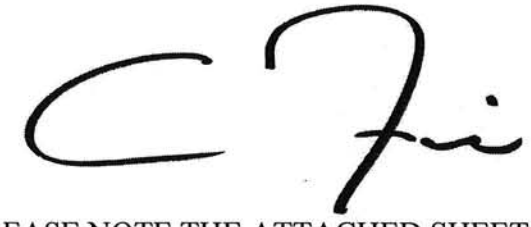
11. If any lot occupant will use, handle, or store petroleum products, pesticides, herbicides, fertilizers, road salt, solvents, or other materials with potential to impact groundwater, then a spill control, containment, and countermeasures plan (SPCC plan) shall be submitted to the BLWQ for review and approval prior to occupancy of that lot.

12. The specific wastewater disposal system design and water supply system for each commercial lot shall be submitted to the BLWQ for review and approval prior to construction on the lot.

13. If a facility that requires an air emission license is to be built on a lot, a copy of the air emission license shall be submitted to the BLWQ for review prior to occupancy of that facility.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DEPARTMENT OF ENVIRONMENTAL PROTECTION



This permit has been digitally signed by Andrew C. Fisk on behalf of Commissioner David P. Littell. It is digitally signed pursuant to authority under 10 M. R.S.A. § 9418. It has been filed with the Board of Environmental Protection as of the signature date 2009.07.29 09:26:44 -04'00'

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES…

mr/l24560an/ats#69736

Department of Environmental Protection

SITE LOCATION OF DEVELOPMENT (SITE)
STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL.

1. **This approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from the plans, proposals and supporting documents is subject to the review and approval of the Board prior to implementation. Further subdivision of proposed lots by the applicant or future owners is specifically prohibited, without prior approval by the Board of Environmental Protection, and the applicant shall include deed restrictions to this effect.**

2. **The applicant shall secure and comply with all applicable Federal, State and local licenses, permits, authorizations, conditions, agreements, and orders, prior to or during construction and operation as appropriate.**

3. **The applicant shall submit all reports and information requested by the Board or Department demonstrating that the applicant has complied or will comply with all conditions of this approval. All preconstruction terms and conditions must be met before construction begins.**

4. **Advertising relating to matters included in this application shall refer to this approval only if it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.**

5. **Unless otherwise provided in this approval, the applicant shall not sell, lease, assign or otherwise transfer the development or any portion thereof without prior written approval of the Board where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval shall be granted only if the applicant or transferee demonstrates to the Board that the transferee has the technical capacity and financial ability to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant.**

6. **If the construction or operation of the activity is not begun within two years, this approval shall lapse and the applicant shall reapply to the Board for a new approval. The applicant may not begin construction or operation of the development until a new approval is granted. Reapplications for approval shall state the reasons why the development was not begun within two years from the granting of the initial approval and the reasons why the applicant will be able to begin the activity within two years from the granting of a new approval, if granted. Reapplications for approval may include information submitted in the initial application by reference.**

7. **If the approved development is not completed within five years from the date of the granting of approval, the Board may reexamine its approval and impose additional terms or conditions or prescribe other necessary corrective action to respond to significant changes in circumstances which may have occurred during the five-year period.**

8. **A copy of this approval must be included in or attached to all contract bid specifications for the development.**

9. **Work done by a contractor pursuant to this approval shall not begin before the contractor has been shown by the developer a copy of this approval.**

(2/81)/Revised November 1, 1979

STORMWATER MANAGEMENT LAW STANDARD CONDITIONS

STRICT CONFORMANCE WITH THE STANDARD AND SPECIAL CONDITIONS OF THIS APPROVAL IS NECESSARY FOR THE PROJECT TO MEET THE STATUTORY CRITERIA FOR APPROVAL

Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions pursuant to Chapter 500 Stormwater Management Law.

(1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. § 420-D(8) and is subject to penalties under 38 M.R.S.A. § 349.

(2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.

(3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted WITH CONDITIONS, and indicates where copies of those conditions may be obtained.

(4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.

(5) Initiation of project within two years. If the construction or operation of the activity is not begun within two years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference.

(6) Reexamination after five years. If the project is not completed within five years from the date of the granting of approval, the department may reexamine its approval and impose additional terms or conditions or prescribe other necessary corrective action to respond to significant changes in circumstances or requirements which may have occurred during the five-year period.

(7) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

(8) Maintenance. The components of the stormwater management system must be adequately maintained to ensure that the system operates as designed, and as approved by the department.

(9) Recertification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.

(a) All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
(b) All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the facilities.
(c) The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained

November 16, 2005

Approved Findings of Fact
Major Subdivision Final Plan Review
Planning Board Approval: June 9, 2009

Project Name: Brunswick Commerce Center *(Originally submitted for Sketch Plan review entitled as Subdivision for Moore Properties, Inc.)*

Case Number: 08-059

Tax Map: Map 13, Lot 34

Applicant: William Moore, President
Moore Properties, Inc.
228 Old Portland Road
Brunswick, Maine 04011
(207) 725-1388

Authorized Representative: Curtis Y. Neufeld, PE
Sitelines, PA
8 Cumberland Street
Brunswick, ME 04011
(207) 725-1200 x 18

PROJECT SUMMARY

The applicant, Moore Properties, Inc., is requesting final plan approval for a major subdivision to create 19 lots; 4 designated for residential use, 14 for commercial/industrial use, and Lot 19 to be retained in its natural state by the owner. The proposed subdivision is located between Durham Road and Old Portland Road **[Assessor's Map 13, Lot 34]** with frontage along both roads. Access for the residential lots will be provided directly from Durham Road. The non-residential lots will be primarily accessed by either Old Portland Road or from a new 2,230 ft. loop road. Lot #10 may also have secondary access provided from Durham Road. This site, totaling 94.4 acres, is located in the **Portland Road Area Mixed Use MU5 Zoning District**.

As this subdivision site is located outside the Town's designated growth area, the lots will be served by private on-site water and subsurface wastewater disposal systems. The new loop road and water quality treatment areas will be constructed with each phase. The detention basin will be designed for full-build-out and constructed during the first phase of development.

The project meets zoning ordinance use, space and bulk standards.

The Sketch Plan was approved by the Brunswick Planning Board on November 25, 2008.

The following waiver has been requested by the applicant:

1. Submission of profiles for existing and proposed sidewalks (Section 412.2.B.19). *Staff notes: As this is located outside the designated growth area, no sidewalks exist or are anticipated at this time.*

Staff recommends approval of the requested waiver.

Review Standards from Section 411 of the Town of Brunswick Zoning Ordinance

411.1 Ordinance Provisions
The property is located in the Old Portland Road Area Mixed Use 5 (MU5) Zoning District. The proposed subdivision meets dimensional, density and lot configuration requirements. The proposed development complies with all applicable standards for the MU5 zoning district. *The Board finds that the provisions of Section 411.1 are satisfied.*

411.2 Preservation of Natural Features
The proposed 4 residential lots fronting Durham Road are fully forested and utilize forested buffers for water quality treatment. The forested buffers, located on side lot lines, are intended to be "no-cut" buffers and will be deed-restricted upon the sale of each lot. Staff requests that the restriction be noted on the subdivision plan as well.

The wetland and vernal pool findings have been determined to be complete by the Town's Natural Resource Planner. A copy of the detailed wetland and vernal study is attached and made a part of these findings of fact.

For the most part, the proposed development avoids the wetlands and vernal pools (all of which are not significant). Added documentation indicates a determination by MeDEP stating vernal pools on the property are not significant, 8/14/08 letter attached to these findings. DEP-defined streams are identified, and the stream on the eastern boundary is shown with a 75' setback (when Lot 1 is proposed for development, exact setbacks will need to be verified).

The proposed building and parking lot areas will comply with the minimum side, front and rear property line setbacks and the 75-foot stream setback/buffer for the Natural Resource Protection Zone (NRPZ). The proposed 100 foot setback to the adjacent stream is shown on the plan. *The Board finds that the provisions of Section 411.2 are satisfied, provided that a note is placed on the plan requiring the "no-cut" forested buffer for Lots 1-4 (**Note: removed as a condition of approval as the plan shown by the applicant during Planning Board review included note.)*.

411.3 Surface Waters, Wetlands and Marine Resources
The wetland and vernal pool findings have been determined to be complete by the Town's Natural Resource Planner. A copy of the detailed wetland and vernal study is attached and made a part of these findings of fact. For the most part, the proposed development avoids the wetlands and vernal pools (all of which are not significant). DEP-defined streams are identified, and the stream on the eastern boundary is shown with a 75' setback (when Lot 1 is proposed for development, exact setbacks will need to

be verified). The development will not adversely affect the water quality of Casco Bay or its estuaries. *The Board finds that the provisions of Section 411.3 are satisfied.*

411.4 Flood Hazard Areas

Based on the Flood Insurance Rate Map, community panel # 230042 0010 B, rev. 1/3/86, the project site, including the unnamed stream, is located within Zone C, described as areas of minimal flooding and outside the regulatory 100-year flood zone. The development activity does not occur within a FEMA flood hazard area and therefore minimizes any risk of flooding. *The Board finds that the provisions of Section 411.4 are satisfied.*

411.5 Stormwater Management

The proposed project involves the construction of more than 1-acre of new impervious area and meets the definition of a subdivision per Maine DEP and therefore will require a Site Location of Development Act permit. A stormwater management plan has been prepared to provide for peak flow control (flooding standard) and water quality treatment of runoff from the project area. Stormwater flooding control will be provided through the use of a detention basin and the four separate infiltration trenches. Stormwater quality will be achieved through the use of roadside meadow buffers, ditch turnouts to stone bermed level spreaders into forested buffers and several infiltration trenches/basins. A complete stormwater management plan with narrative and calculations is under review by the DEP. Final stormwater calculations will be submitted as lots are developed. *The Board finds that the provisions of Section 411.5 are satisfied conditioned upon approval by Maine DEP.*

411.6 Groundwater

The project will be served by on-site private wells and septic systems. Through infiltration of the stormwater, the natural groundwater recharge cycle will be preserved. There are no adverse impacts to groundwater anticipated from this development. No activities are proposed or anticipated that will extract groundwater for commercial purposes. The Board finds that the development will not, alone or in conjunction with existing activities adversely affect the quality or quantity of groundwater. *The Board finds that the provisions of Section 411.6 are satisfied.*

411.7 Erosion and Sedimentation Control

The project has been designed to incorporate Best Management Practices as outlined in the Maine Erosion and Sediment Control BMPs as published by the Maine DEP, current edition. The potential for sediment transport from the project area will be mitigated through the use of permanent and temporary erosion control measures. Disturbed areas will be isolated through the use of sediment barrier and other measures to minimize the transport of sediment from the site. Specific provisions for permanent and temporary erosion control features have been provided in the construction drawings. As lots are developed, the contractor will be bound to meet the performance standards of the BMPs including erosion control, stabilization, maintenance, and inspection requirements. The proposed development will not cause unreasonable soil erosion or reduction in the lands'

capacity to hold water so that a dangerous or unhealthy situation results. *The Board finds that the provisions of Section 411.7 are satisfied.*

411.8 Sewage Disposal

The project will be served by private on-site septic systems. It is anticipated that each will result in 350 GPD or less, which can be served by modest subsurface detention systems. Test pits have been located throughout the development, providing for 2 test pits per developed lot. Test pit data has been developed by both Albert Frick Associates, Inc. and George Patton, site evaluator, at different times throughout the years as the client has investigated development of the property. Recently Albert Frick Associates, Inc. has augmented the original investigations to ensure 2 test pits per lot as shown on design plans. This design has been preliminarily reviewed by the Codes staff and has been found to be acceptable for the project. As is standard practice, the septic system design will be approved as part of the building permit application process. *The Board finds that the provisions of Section 411.8 are satisfied.*

411.9 Water Supply

All lots for this project will be served by private wells. The project parcel is located over an aquifer and therefore we anticipate a bountiful supply of fresh water. Residential lots having a 4-bedroom home have a typical usage of 360 GPD.

The Maine State Sewer Regulations project design flows for employees at a place of employment (without showers) at 15 gpd per employee. A typical 10,000 sf business is expected to employ fewer than 20 full-time employees for a commercial/light manufacturing facility. Therefore, based on a maximum footprint of 10,000 sf for each structure on the commercial lots, it is anticipated that the future commercial uses will generate no more than 300 GPD. The subsurface detention systems for any anticipated use will be comparable to a typical residential system.

The Maine Geological Survey maps for the project area show wells close to the project and along the aquifer line to be yielding 25 to 50 GPM with well depths of 250 to 400 feet. Based on the documented flows and the development's proximity to a large aquifer it is anticipated there is an adequate supply of water for the development. *The Board finds that the provisions of Section 411.9 are satisfied.*

411.10 Aesthetic, Cultural and Natural Values

In a letter from the Maine Historic Preservation Commission dated January 15, 2009, it was recognized that the subject parcel possibly contains one or more prehistoric archeological sites. Therefore, a Phase I archeological survey is necessary for Lots 11, 12 and 13 prior to any ground disturbance. The Applicant has contacted Dr. Leslie Shaw, a professor in the Department of Sociology and Anthropology at Bowdoin College, who is a DEP approved archaeologist, to complete the required survey. Based on the results of the survey, future development will then be located so as to have no undue adverse impact on the resource.

As provided in supplemental data submitted as part of this application, a letter from the Maine Department of Conservation dated December 23, 2008, notes that no rare

botanical features are documented within the specified project area. In addition, per Maine Department of Inland Fisheries and Wildlife letter dated January 9, 2009, no known threatened or endangered fish species or habitat are documented in the vicinity of the specified project area.

It is noted that the proposed development is within an area identified in the 2008 Comprehensive Plan as one that should remain an "attractive gateway to Brunswick from the south." The vision for this area is further stated as follows: "The limited development that does occur maintains the "rural character" of the corridor and protects the area's natural resources and scenic values including unfragmented wildlife habitats."

Presently, a forested buffer exists along the entire length of the Route One Corridor. In accordance with Sections 501 and 515 of the Brunswick Zoning Ordinance, it is recommended that a minimum forested buffer of 50 feet be maintained, with minimal interruption for road and/or driveway cuts to be further determined as part of Site Plan development.

The proposed project will not have any undue adverse effect on the scenic or natural beauty of the area, historic sites, or significant wildlife habitat identified by the Maine Department of Environmental Protection or by the Town of Brunswick, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline. *The Board finds that the provisions of Section 411.10 are satisfied, conditioned upon the protection of any archeological or historic resources found as part of the Phase I Survey. Furthermore, no less than 50 feet of the existing vegetated area along the length of Route One shall remain as is with any removal of vegetation on individual lots approved by the Planning Board at the time of site plan reviews.*

411.11 Community Impact

The proposed project will be located on Route One and Durham Road in the MU5 (Old Portland Road) zoning district, which is described as a mixed use rural district. Only the four proposed residential lots will have single family residences constructed; therefore the project is anticipated to have a minimal impact on community facilities such as schools.

Due to the project being located outside of a hydrant district and having a lengthy response time from the downtown fire station, the Fire Department staff suggests the installation of residential sprinkler systems in the four residential occupancies to provide an improved level of safety. *The Board finds that the provisions of Section 411.11 are satisfied, conditioned upon residential lot owners being notified of said suggestion by the applicant, developer or agent thereof, as part of lot/title transfer.*

411.12 Traffic

The proposed subdivision has been reviewed by the Town Engineer with the following issues needing to be further addressed:

a. The cost estimate for the new loop road appears reasonable and does have estimates per phase.

b. The Town is looking to understand how MaineDOT is handling this subdivision but as of now we do not have anything in writing from MaineDOT. What needs to be said is the subdivision as submitted would require a Traffic Movement Permit (TMP) from MaineDOT per letter contained in the application from the developer's engineer, Tom Errico, Wilbur Smith Associates, to Glen Willette, MDOT dated May 8, 2009. It should also be noted the TMP will require traffic to be considered for all of Mr. Moore's development since he first purchased this entire parcel in 2002. That is, it will have to include traffic from his current painting business building and the other two adjacent lots that are currently undeveloped. However, the applicant is seeking to defer applying for the TMP by limiting the amount of development that will occur and the Town is awaiting a written opinion from MDOT. The town will also need to develop language that will condition the subdivision development to a certain level of development before a traffic impact study must be done. There is concern that a High Crash Location is present adjacent to the site at Durham Road and Old Portland Road. The state has identified that location for safety improvements but their plan to address the safety has been negated in part by the development now taking place near the intersection (Midcoast Baptist Church project). MaineDOT has indicated a willingness to abandon the project so the Town is not comfortable allowing this subdivision to proceed without this issue being properly addressed. It is requested that the project traffic engineer needs to evaluate the HCL issues and determine if any mitigation steps by the subdivision applicant are warranted.
c. It is questionable whether or not a street light on Old Portland Road might be needed for safety for traffic entering and exiting the site from Route 1. MaineDOT usually requires a street light under a TMP but it appears the project may not need a TMP at this point in time. Given that, it is recommended that a street light be provided; normally the town handles that under the CMP street light rental program. A street light impact fee is assessed for the developer. Our street lighting impact fee, which has not been updated, is $296.03/street light. Therefore, it is recommended that street lights are appropriate for each of the access connections to Route 1for the total impact fee is $296.03 x 2 = $592.06.
d. A performance security in an acceptable form is required for this project for the roadway infrastructure. It is further recommended that the security cover the full roadway when the developer begins construction of the first phase.
e. The phasing plan was not properly identified needs further clarification for final review. Once the development sequence is clear we may have comments on appropriateness of infrastructure.
f. Prior to the start of construction, the street developer shall deposit in a Town-held escrow account an amount equal to 2% of the street construction value. These funds are to be used to fund an engineering consultant to be hired by the Town Engineer to inspect project construction and report all findings, tests and recommendations to the Town Engineer. Any of the escrowed funds not used for construction administration will be returned to the developer.
g. A guard rail is called for at the road edge of the most easterly entrance. Since this pertains in part to the existing guard rail on Route 1, further review will be

required by the Town Engineer with regard to guard rail design and placement with MaineDOT staff before Town approval is provided.

h. The four residential lots on Durham Road will require Entrance Permit applications submitted to Public Works for driveways when they are developed. As agreed at the staff review committee meeting, the driveways are to be located in the locations shown on the plan where adequate sight distance was determined. A driveway can only be relocated to a different point on the lot if adequate sight distance is available for the revised location.
i. Permanent survey monumentation (4 inch by 4 inch by 4 foot granite monument or approved equal) is to be provided and set by a State of Maine Professional Land Surveyor along the road at all changes in direction (including Point of Curvature & Point of Tangency for curves) on both sides of the road parcel. Monument location and type at all other points is to conform to standard State of Maine survey practices.
j. A digital and referenced version of the final subdivision is required to be submitted to the Town Public Works Department after approval in accordance with the Zoning Ordinance, Section 407.9 - Submission of digital data.

The Board finds that the provisions of Section 411.12 are satisfied, conditioned upon requested modifications by the Town Engineer/Staff are satisfied.

411.13 Pedestrian and Bicycle Access and Safety

The Board finds that the development will accommodate bicyclists and addresses pedestrian access, safety and circulation within the site. *The Board finds that the provisions of Section 411.13 are satisfied.*

411.14 Development Patterns

The proposed subdivision is both residential and small-scale commercial/industrial in nature, with residential lots fronting a residential area along Durham Road. As such, a 50-foot buffer is provided between residential and non-residential lots of the proposed subdivision. Off-street parking, loading and unloading areas will be determined during the site plan review process.

As proposed, the development is respectful of Brunswick's historic development pattern and will have no adverse impact on adjacent residential areas. *The Board finds that the provisions of Section 411.14 are satisfied, conditioned upon adequate buffering being determined as part of the site plan review process.*

411.15 Architectural Compatibility

It is anticipated that all four residential lots will have single family residences similar to and consistent with the existing homes in the area. The structures on the proposed non-residential lots will be separated from Route 1 and Durham Road both by a difference in elevation and existing wooded buffers. All buildings will be constructed and configured within the building envelopes shown on the Subdivision Plan. With the exception of Lot 5, all commercial buildings will be orientated to face the proposed loop road and all facades will be consistent with the MU5 zoning requirements. It is further recommended that signs along Route One be limited to no more than two directory listing-type signs,

consistent with Town zoning requirements, potentially located at each loop road entrance, in keeping with the rural character of the corridor. The Board finds the development to be compatible with its surroundings in terms of size, scale and mass. *The Board finds that the provisions of Section 411.15 are satisfied, conditioned upon limiting signs along Route One to no more than two directory-type signs, consistent with Town zoning requirements.*

411.16 Municipal Solid Waste Disposal

It is estimated that each new non-residential building will house 20 or fewer employees and per Table 3 of the Basic Data for Solid Waste Amounts, Composition and Management Systems, each employee is anticipated to generate approximately 1 pound of waste per day. Therefore, each building will generate approximately 3.65 tons of solid waste per year, more or less. Based on a rate of $258.56 per ton, the estimated solid waste fee for a 10,000 sf building is $943.74. Solid waste will typically be collected in an enclosed dumpster area, including fencing and landscape planting to screen the dumpster from the abutters. Since the actual number of employees and specific uses are not available, it is requested the impact fee for non-residential uses be deferred until individual lots are developed. *The Board finds that the provisions of Section 411.16 are satisfied, with the condition that solid waste impact fees are paid prior to obtaining building permits.*

411.17Recreation Needs

At their May 20, 2009 meeting, the Brunswick Recreation Commission voted to recommend acceptance of a fee in lieu of land in fulfillment of the recreation/open space requirement as set forth in the Town's Zoning Ordinance. The fee required is $951.75 per dwelling, to be paid to the Town prior to obtaining building permits. Therefore the proposed residential portion of this development will not cause an unreasonable burden on the municipality's ability to provide recreational services. *The Board finds that the provisions of Section 411.17 are satisfied, with the condition that the recreation fees are paid prior to obtaining building permits.*

411.18Access for Persons with Disabilities

The development shall comply with the *Americans with Disabilities Act*, which will be reviewed as part of the building permit application. *The Board finds that the provisions of Section 411.18 are satisfied.*

411.19Financial Capacity and Maintenance

The estimated site costs are approximately $795,000 to construct the entire subdivision roadway, utilities, and stormwater management.

Costs for the development of the individual lots will be borne by future owner/developer and supported by sale of the lots. The Applicant will self-finance the project infrastructure construction. Although the Applicant can fully fund the entire estimated construction cost, the project is proposed to be constructed in phases. Construction of subsequent phases will be financed from capital raised from sales of lots in the initial/previous phase. A letter from Norway Savings Bank attesting to the financial

strength of the Applic ant has be en provided a s part of the application submittal. *The Board finds that the provisions of Section 411.19 are satisfied.*

411.20 Noise and Dust

Best Management Practices as ou tlined in the Maine Erosion and Sedim ent Control BMP's as published by the Main e Department of Environmental Control, will be utilized to control noise and dust during construction. Noise will be lim ited through the compliance of the site contra ctor with the standard hours of construction per Section 524.1. Upon construction com pletion, there are no anticipated im pacts with regard to noise or dust. *The Board finds that the provisions of Section 411.20 are satisfied.*

411.21 Right, Title and Interest

Moore Properties, Inc. has sufficient right, title and interest in the subject property. *The Board finds that the provisions of Section 411.21 are satisfied.*

411.22 Payment of Application Fees

The applicant has paid all applicable development review and application fees. *The Board finds that the provisions of Section 411.22 are satisfied.*

APPROVED MOTIONS
BRUNSWICK COMMERCE CENTER
CASE NUMBER
08-059

Motion 1: That the Board waives the following submission requirement:

Section 412.2.B.19: Submission of profiles for existing and proposed sidewalks.

Motion 2: That the Final Plan is deemed complete.

Motion 3: That the Final Plan is approved with the following conditions:

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, his representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.

2. That prior to issuance of a building permit for the project, the Site Location of Development Permit is issued by DEP.

3. That any on-site resources found as part of the Phase I Archeological Survey for Lots 11, 12 and 13 be offered protective easements as part of the future site plan design and review process.

4. That a note is placed on the plan and included in the deeds for residential lots as notification to future owners that the lots are located outside a fire hydrant district, with the potential for a lengthy response time by the Fire Department in the event of an emergency.

5. That comments/requirements of the Town Engineer, noted as part of these findings, relative to traffic and other issues be satisfied. This includes payment of street lighting impact fees and performance security for the construction of the new loop road.

6. That the following items be addressed during site plan development:
   a. Adequate buffering between residential and non-residential uses;
   b. Driveway locations for individual lots; and
   c. Signage for individual lots/structures.

7. That prior to issuance of building permits for each building, the applicant shall pay applicable solid waste impact fees to be determined as part of the site plan review process.

8. That prior to issuance of building permits for the residential uses, the applicant shall pay to the Town a recreation fee in the amount of $951.75 per dwelling unit.

9. That no less than 50 feet of the existing vegetated area along the length of Route One Corridor shall remain as is with any removal of vegetation on individual lots approved by the Planning Board at the time of site plan reviews.

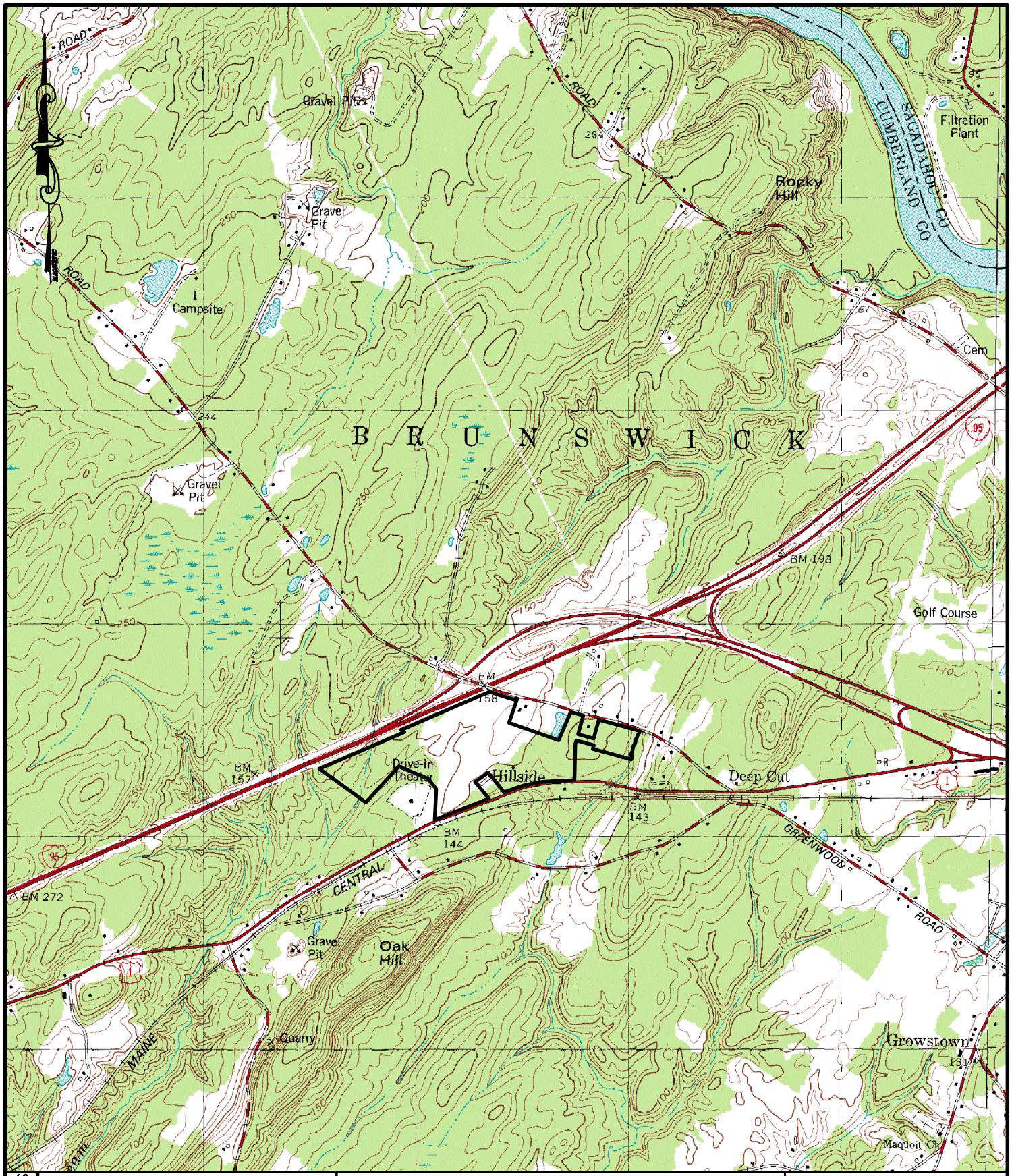
10. That no more than two business directory-type signs for the development are located along the Route One Corridor property line.

11. That a note be placed on the plan restricting Lots 1-4 for residential uses.

12. That site development plans for those lots abutting the Route One Corridor shall be reviewed and acted on the Planning Board.

Attachment F
Supporting Graphics

This attachment includes supporting materials and graphics for the application. This includes an excerpt of the FEMA flood rate insurance map (FIRM) and reduced size copies of the zoning map and tax maps. An excerpt of the applicable USGS 7.5 minute quadrangle map is provided for reference.



SHEET: 1 OF 1

SITELINES
ENGINEERS PLANNERS
8 CUMBERLAND ST. BRUNSWICK, ME 04011
(207) 725-1200 FAX 725-1114

USGS MAP

RESIDENTIAL SUBDIVISION

MOORE PROPERTIES, INC.

OLD ROUTE 1, BRUNSWICK, MAINE

DATE: 06-02-15

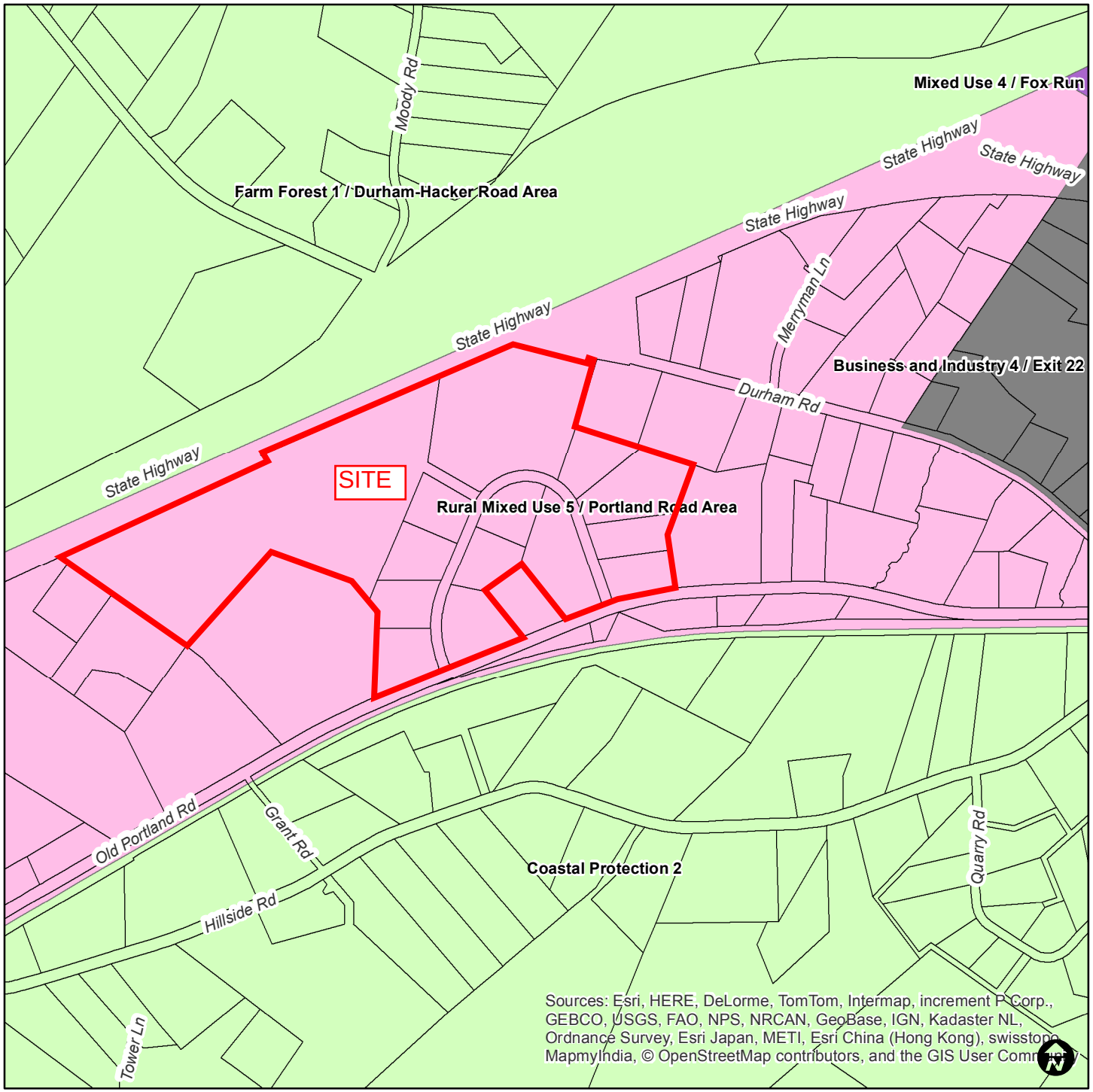
SCALE: 1" = 2000'

JOB: 731.03

FILE: 731.03_MAPS

Zoning Map

Brunswick Maine



Legend

- Selected Parcels
- Parcels
- Town Boundary
- Town Center 1 / Maine Street
- BNAS Conservation District
- Town Center 2 / Fort Andross
- Town Center 3 / Lower Park Row
- Town Residential 1 / Inner Pleasant St
- Town Residential 2 / Federal St
- Town Residential 3 / Water St
- Town Residential 4 / Jordan Acres
- Town Residential 5 / Columbia Ave - Spring St
- Residential 1 / Longfellow St
- Residential 2 / Meadowbrook - Parkview
- Residential 3 / Maquoit Rd
- Residential 4 / Meredith Dr - West McKeen St
- Residential 5 / River Rd
- Residential 6 / Cook's Corner
- Residential 7 / McLellan-Garrison St
- Residential 8 / College Park
- College Use/Town Conservation District
- College Use 1 / Campus Center
- College Use 2 / Pickard Field
- College Use 3 / College St
- College Use 4 / Bowdoin Pines
- College Use 5 / Brunswick Apartments
- College Use 6 / Cleaveland St - Bath Rd
- College Use 7 / Longfellow Ave - South St
- Commercial / Cook's Corner
- Highway Commercial 1 / Outer Pleasant
- Highway Commercial 2 / Inner Bath Rd
- Mixed Use 2 / Intown Railroad Corridor
- Mixed Use 3 / Upper Harpswell Rd
- Mixed Use 4 / Fox Run
- Mixed Use 6 / Lower Harpswell Rd
- BNAS Reuse District
- Business and Industry 1 / Industry Rd
- Business and Industry 2 / Church Rd
- Business and Industry 3 / Bath Rd
- Business and Industry 4 / Exit 22
- Farm Forest 1 / Durham-Hacker Road Area
- Farm Forest 3 / New Meadows River Area
- Country Residential 1 / Northwest Brunswick
- Country Residential 2 / Old Bath Rd
- Rural Mixed Use 1 / Lower Old Bath Rd
- Rural Mixed Use 5 / Portland Road Area
- Coastal Protection 1
- Coastal Protection 2

0 395 790 1,580

Feet

This map was generated by the Town of Brunswick's online GIS. This information has been compiled from various public and private sources. While every attempt has been made to provide accurate information, neither the municipality nor the service host guarantee the accuracy of information provided herein.

Map generated on: 9/14/2015

Town of
BRUNSWICK
Maine

SITE

Legend

- Public Road
- Private Road
- ROW
- Water
- Hydrography Line
- ROW Property Access
- Other Road
- Town Boundary
- Other Lot Boundary
- Parcels_Lines

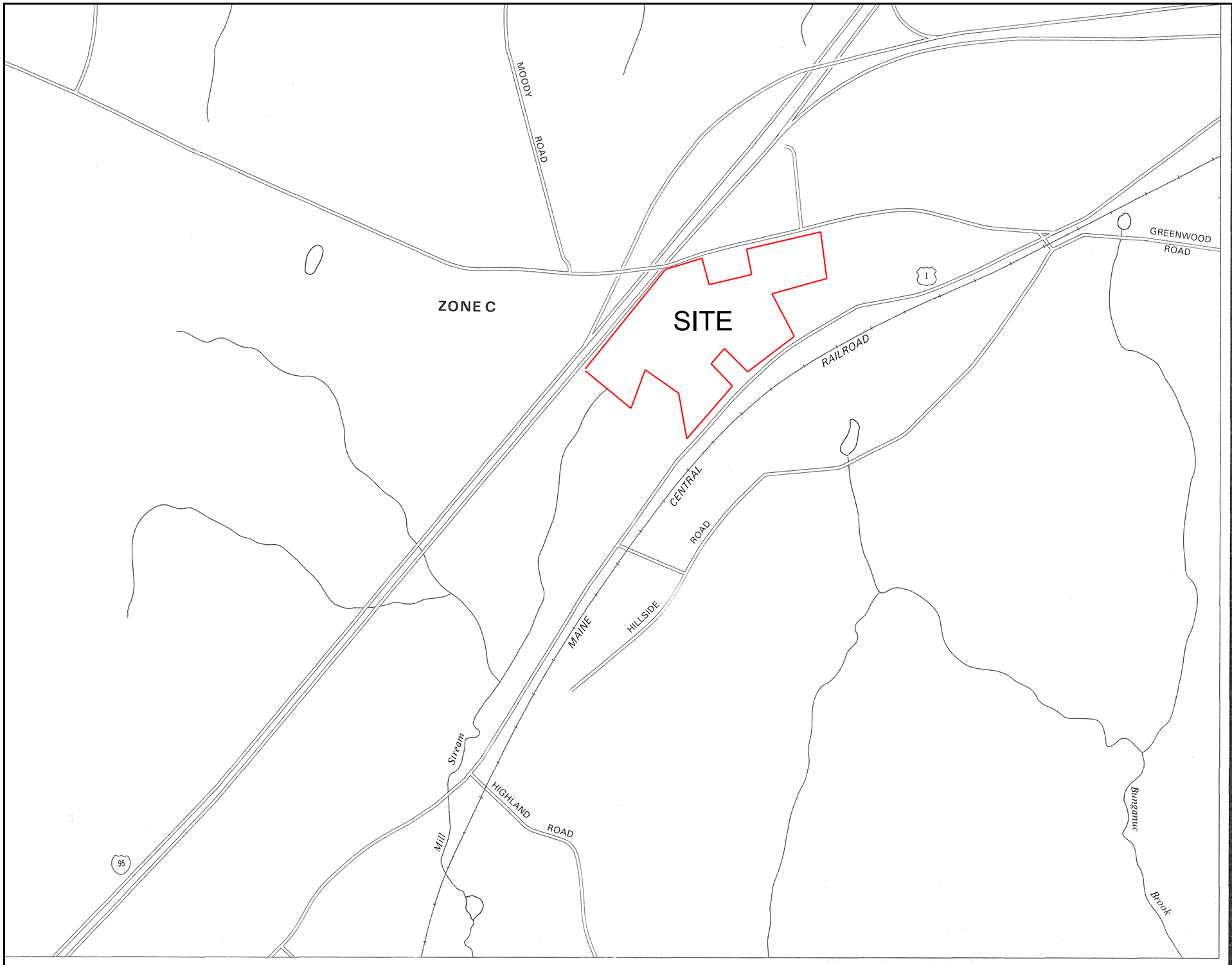
N

1 inch = 300 feet

Revised To: April 1, 2014

Maps Prepared by:
Town of Brunswick

MAP 13



APPROXIMATE SCALE

1000 0 1000 FT

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TOWN OF
BRUNSWICK, MAINE
CUMBERLAND COUNTY

PANEL 10 OF 35
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
230042 0010 B

EFFECTIVE DATE:
JANUARY 3, 1986

Federal Emergency Management Agency

Attachment G
Soils Data

A copy of the Soil Narrative Report, along with the soil profiles, and a High-Intensity Soils Map & Subsurface Wastewater Disposal Plan from Albert Frick Associates, Inc. are enclosed for reference.

Albert Frick Associates, Inc
Environmental Consultants
95A County Road Gorham, Maine 04038
(207) 839-5563 FAX (207) 839-5564
www.albertfrick.com info@albertfrick.com

Albert Frick, SS, SE
James Logan, SS, SE
Matthew Logan, SE
Brady Frick, SE
Bryan Jordan, SE
William O'Connor, SE
Noel Dunn, Office Manager

MOORE PROPERTIES
U.S. Route 1 (Old Portland Road)
Brunswick

SOIL NARRATIVE REPORT

September 2015

DATE: Soil profiles observed on October 13 & 14, 1999, December 17 & 22, 2008, January 6 and February 5, 2009, and July 31, 2015, and August 27, 2015.

BASE MAP: Contour map -foot intervals, scaled 1"=', provided by .

GROUND CONTROL: Test pits located by .

THE SOIL MAPPING CONFORMS WITH A HIGH-INTENSITY CLASS A SURVEY.

Class A - Soil Survey

1. Mapping units of 1/8 acre or greater.
2. Scale of 1" = 100' or larger.
3. Up to 25% inclusions in mapping units of which no more than 15% may be dissimilar soils.
4. Ground control - base line and test pits located by land surveyor.
5. Base map with 2' contour lines.

This was prepared for a commercial subdivision of land utilizing public sewer and water.

The accompanying soil profile descriptions, soil map and this soil narrative report were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, and the Maine Board of Certification of Geologists and Soil Scientists.

Albert Frick C.S.S. #66, S.E. #163 9/10/2015
Albert Frick Date

STATE OF MAINE
ALBERT FRICK
66
CERTIFIED SOIL SCIENTIST

ADAMS
(Typic Haplorthods)

SETTING

Parent Material:	Derived from outwash, stratified drift material.
Landform:	Occupy outwash terraces and sand plains, deltas, lake plains, moraines, terraces and eskers.
Position in Landscape:	Usually occupies the upper positions of landform.
Slope Gradient Ranges:	(A) 0-3% (B) 3-8% (C) 8-20% (D) 20%+

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	Somewhat excessively to excessively well drained, with no evidence of high groundwater table within 3.5 feet of the soil surface.	
Typical Profile Description:	**Surface layer:**	Pinkish gray sand, 0-4"
	Subsurface layer:	Dark brown loamy sand, 4-10"
	Subsoil layer:	Brown & yellowish brown sand,10-26"
	Substratum:	Grayish brown sand, 26-70"
Hydrologic Group:	Group A	
Surface Run Off:	Very slow to medium	
Permeability:	Rapid or very rapid	
Depth to Bedrock:	Very deep, greater than sixty inches	
Hazard to Flooding:	None	

INCLUSIONS
(Within Mapping Unit)

Similar:	Soils that are fine sandy loam to very fine sandy loam to a depth of 20 inches, Colton.
Dissimilar:	Croghan, Eldridge, Nicholville

USE AND MANAGEMENT

Development with subsurface wastewater disposal: Adams soil is suitable for subsurface wastewater disposal in accordance with State of Maine Rules for Subsurface Wastewater Disposal. This soil requires a 24-inch separation distance from the bottom of the disposal area and the seasonal high groundwater table. This soil requires a minimum hydraulic loading rate of 2.6 square feet/gpd for disposal system design. Adams soil is suited for building site development.

CROGHAN
(Aquic Haplorthods)

SETTING

Parent Material: Derived from outwash or deltaic sand.

Landform: Occupy outwash terraces and sand plains.

Position in Landscape: Usually are found in intermediate or upper positions in the landscape.

Slope Gradient Ranges: **(B)** 3-8% **(C)** 8-20%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well-drained, with an apparent water table 1.5 to 2.0 feet below the soil surface from November through May. The water table fluctuates from approximately 1.5 feet during prolonged wet periods to depths greater than 4 feet in dry seasons.

Typical Profile Description:

Surface layer:	Dark brown sand, 0-7"
Subsurface layer:	Strong brown/yellowish brown, brown & pale brown sand with mottles below 13", 7-52"
Substratum:	Grayish brown loose sand, 52-60"

Hydrologic Group: Group B

Surface Run Off: Slow to medium

Permeability: Rapid to very rapid in the lower horizons.

Depth to Bedrock: Deep, greater than 40".

Hazard to Flooding: None

INCLUSIONS
(Within Mapping Unit)

Similar: Adams, Duane

Dissimilar: Eldridge, Nicholville, Naumburg

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a groundwater table. Proper foundation drainage or site modification is recommended. Croghan soils are suitable for subsurface wastewater disposal in accordance with State of Maine Rules for Subsurface Wastewater Disposal. This soil requires a 24-inch separation distance from the bottom of the disposal area and the seasonal high groundwater table. This soil requires a minimum hydraulic loading rate of 2.6 and 1.3 sq.ft/gpd for disposal beds and chamber area, respectively.

ELDRIDGE (Elmwood)
(Mesic Aquic Udorthents)

SETTING

Parent Material: Sandy glaciofluvial deposits underlain by loamy or clayey marine or lacustrine sediments.

Landform: Glacial lake plains, terraces, and glacial outwash areas.

Position in Landscape: Intermediate to upper positions in landform.

Slope Gradient Ranges: **(A)** 0-3% **(B)** 3-8% **(C)** 8-20%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well drained with an apparent water table 1.5 to 4.0 feet beneath the soil surface from November through May, or during periods of heavy precipitation.

Typical Profile Description:

Surface layer: Dark brown sandy loam or loamy sand, 0-9"
Subsurface layer: Yellowish brown loamy sand, 9-17"
Subsoil layer: Light brown loamy sand, 17-27"
Substratum: Olive very fine sand, silt, or silty clay, 27-65"

Hydrologic Group: Group C

Surface Run Off: Moderately rapid to rapid

Permeability: Rapid in the solum and moderately slow or slow in substratum.

Depth to Bedrock: Deep, greater than 40".

Hazard to Flooding: None

INCLUSIONS
(Within Mapping Unit)

Similar: Adams
Dissimilar: Naumburg (P.D.), Lamoine, Nicholville (SWP)

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a water table within 1.5 feet of the soil surface. Proper foundation drainage or other site modification is recommended for houses with foundations. This map unit is unsuitable for subsurface wastewater disposal in accordance with the State of Maine Subsurface Wastewater Disposal Rules.

ENOSBURG (Swanton)
(Mesic Aeric Haplaquepts)

SETTING

Parent Material: Formed from a thin mantle of sandy outwash materials over clayey marine or lacustrine sediments.

Landform: Nearly level or gently sloping areas on marine or lake plains, outwash plains or deltas.

Position in Landscape: Lower to intermediate positions in landform.

Slope Gradient Ranges: **(A)** 0-3% **(B)** 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat poorly to poorly drained, with an apparent table 0.5 to 1.5 feet beneath the soil surface.

Typical Profile Description:

Surface layer:	Very dark gray sandy loam or loamy sand, 0-7"
Subsurface layer:	Grayish brown sandy loam, loamy sand, or sand, 7-22"
Subsoil layer:	Olive silty clay loam, 22-30"
Substratum:	Olive silty clay, 30-60"

Hydrologic Group: Group C/D

Surface Run Off: Slow or medium

Permeability: Moderately rapid to rapid in the sandy mantle, slow or very slow in the clayey sediments.

Depth to Bedrock: Deep, greater than 40".

Hazard to Flooding: May be ponded periodically during spring and periods of excessive rainfall.

INCLUSIONS
(Within Mapping Unit)

Similar: Scantic, Naumburg

Dissimilar: Whately, Searsport

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a shallow groundwater table. Proper foundation drainage or building site modification is recommended. This soil is not suitable for subsurface wastewater disposal, in accordance with the State of Maine Subsurface Wastewater Disposal Rules. Enosburg (poorly drained) may be classified as wetlands, based on the combined consideration of hydric conditions, hydrology, and vegetation.

FILLED LAND

SETTING

Parent Material:	Variable
Landform:	N/A
Position in Landscape:	N/A
Slope Gradient Ranges:	**(A)** 0-3% **(B)** 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class:	N/A
Typical Profile Description:	**Surface layer:**) **Subsurface layer:**) Typically loamy sand **Subsoil layer:**) and gravelly sand fill **Substratum:**)
Hydrologic Group:	Not assigned a hydrologic group due to variability.
Surface Run Off:	Variable
Permeability:	Variable
Depth to Bedrock:	N/A
Hazard to Flooding:	None

INCLUSIONS
(Within Mapping Unit)

Similar:	Made Land
Dissimilar:	None

LAMOINE
(Aeric Haplaquepts)

SETTING

Parent Material: Lacustrine or marine sediments.

Landform: Lake or marine, coastal plains or terraces.

Position in Landscape: Intermediate positions in landform.

Slope Gradient Ranges: **(B)** 3-8% **(C)** 8-20% **(D)** 20%+

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat poorly drained, with a perched water table 1.0 to 1.5 feet below the soil surface from November through May, and during periods of excessive precipitation.

Typical Profile Description:

Surface layer:	Dark brown silt loam, 0-7"
Subsurface layer:	Light olive brown or yellowish brown silt loam, 7-12"
Subsoil layer:	Light olive brown and olive silty clay loam, 12-21"
Substratum:	Olive silty clay, 21-65"

Hydrologic Group: Group D

Surface Run Off: Medium

Permeability: Moderate or moderately slow in surface layer, moderately slow or slow in subsoil, and slow or very slow in the dense substratum.

Depth to Bedrock: Deep, greater than 40".

Hazard to Flooding: None

INCLUSIONS
(Within Mapping Unit)

Similar: Buxton, Elmwood (S.W.P.)

Dissimilar: Scantic, Swanton

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a water table within 1.5 feet of the soil surface for a significant portion of the year. Proper foundation drainage or other site modification is recommended for construction. Lamoine soil (with groundwater table 12"-15" below mineral soil surface, outside Shoreland Zoned areas), may meet the minimum requirements for subsurface wastewater disposal as defined by the State of Maine Rules for Subsurface Wastewater Disposal. The required separation distance between the bottom of proposed disposal systems and the seasonal high groundwater table is 18".

NICHOLVILLE
(Aquic Haplorthods)

SETTING

Parent Material: Lacustrine material having a high content of silt and fine sand.

Landform: Commonly found on lake plains and upland till plains that have a mantle of water-deposited silt or very fine sand.

Position in Landscape: Intermediate and upper portions of landscape feature.

Slope Gradient Ranges: **(B)** 3-8% **(C)** 8-20% **(D)** 20+%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well drained, with a perched water table 1.5 to 2.0 feet below the soil surface from November through May.

Typical Profile Description:

Surface layer:	Very dark grayish brown silt loam, 0-10"
Subsurface layer:	Dark yellowish brown silt loam, 10-13"
Subsoil layer:	Yellowish brown and grayish brown very fine sandy loam, 13-18"
Substratum:	Grayish brown loamy very fine sand, 18-70"

Hydrologic Group: Group C

Surface Run Off: Medium

Permeability: Moderate throughout the profile.

Depth to Bedrock: Very deep, greater than 60".

Hazard to Flooding: None

INCLUSIONS
(Within Mapping Unit)

Similar: Croghan, Elmwood

Dissimilar: Buxton, Roundabout

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a water table. Proper foundation drainage or site modification is recommended for construction. Nicholville soil meets the minimum criteria for subsurface wastewater disposal in accordance with State of Maine Rules for Subsurface Wastewater Disposal. This soil requires a 12-inch separation from the bottom of the disposal area and the seasonal high groundwater table. This soil requires 4.0 and 2.0 sq.ft/gpd for disposal beds and chambers, respectively.

NICHOLVILLE (S.W.P.)

SETTING

Parent Material: Lacustrine material having a high content of silt and fine sand.

Landform: Commonly found on lake plains and upland till plains that have a mantle of water-deposited silt or very fine sand.

Position in Landscape: Intermediate portion of landscape feature.

Slope Gradient Ranges: **(B)** 3-8% **(C)** 8-20% **(D)** 20%+

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Nicholville (S.W.P.) is somewhat poorly drained, with a perched water table 0.5 to 1.5 feet below the soil surface from November through May and during periods of heavy precipitation.

Typical Profile Description:

Surface layer:	Very dark grayish brown silt loam, 0-10"
Subsurface layer:	Dark yellowish brown silt loam, 10-13"
Subsoil layer:	Yellowish brown and grayish brown very fine sandy loam, 13-18"
Substratum:	Grayish brown loamy very fine sand, 18-70"

Hydrologic Group: Group C

Surface Run Off: Medium

Permeability: Moderate throughout profiles.

Depth to Bedrock: Very deep, greater than 60".

Hazard to Flooding: None

INCLUSIONS
(Within Mapping Unit)

Similar: Nicholville, Naumburg (S.W.P.), Lamoine

Dissimilar: Roundabout, Scantic

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to the presence of a high groundwater table. Proper foundation drainage or site modification is recommended. Nicholville (S.W.P.) may be suitable for subsurface wastewater disposal when the seasonal groundwater table is 12" or greater below the existing soil surface, outside shoreland zone areas.

ROUNDABOUT
(Aeric Haplaquepts)

SETTING

Parent Material: Derived from lacustrine and marine sediments.

Landform: Low-lying lake or marine plains.

Position in Landscape: Nearly level areas in lower portions of landscape.

Slope Gradient Ranges: (A) 0-3% (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Roundabout soils are somewhat poorly to poorly drained, and exhibit a perched water table 0.5 to 1.5 feet below the soil surface from November through May and during periods of excessive wetness.

Typical Profile Description:

Surface layer:	Dark brown silt loam, few mottles, 0-7"
Subsurface layer:	Olive brown and grayish brown silt loam, many mottles, 7-26"
Subsoil layer:	Olive gray very fine sandy loam, many mottles, 26-30"
Substratum:	Olive silt loam, common mottles, 30-65"

Hydrologic Group: Group C

Surface Run Off: Slow to medium

Permeability: Moderate to moderately slow in upper horizons, moderately slow to slow in the medium textured substratum, and moderately rapid to rapid in the coarser textured substratum.

Depth to Bedrock: Deep, greater than 40".

Hazard to Flooding: None

INCLUSIONS
(Within Mapping Unit)

Similar: Nicholville (SWP), Naumburg
Dissimilar: Whately

USE AND MANAGEMENT

Development with subsurface wastewater disposal: The limiting factor for building site development is wetness due to a high water table for some portion of the year. Proper foundation drainage or site modification is recommended for construction. Roundabout soil is unsuitable for subsurface wastewater disposal in accordance with State of Maine Rules for Subsurface Wastewater Disposal. Roundabout soil may be classified as wetlands based upon the combined consideration of hydric conditions, hydrology, and vegetation.

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1 (OLD PORTLAND ROAD)	WILLIAM MOORE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 1 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE	DARK YELLOW BROWN	
20	SAND		PALE BROWN	
30				
40				
50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 Profile / B Condition	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ADAMS

Observation Hole TP 2 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	SANDY LOAM	FRIABLE	DARK BROWN	
10	LOAMY SAND		DARK YELLOW BROWN	
20	SAND		PALE BROWN	
30				
40				
50				

Soil Classification	Slope	Limiting Factor	
5 Profile / B Condition	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ADAMS

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 3 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0			DARK BROWN	
10	FINE SANDY LOAM	FRIABLE	LIGHT OLIVE BROWN / OLIVE BROWN	COMMON, DISTINCT
20	SILTS	FIRM	OLIVE	
30				
40				
50				

Soil Classification	Slope	Limiting Factor	
8 Profile / D Condition	____ %	12 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ELMWOOD SWP

Observation Hole TP 4 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE	DARK YELLOW BROWN / LIGHT YELLOW BROWN	
20	FINE SAND		OLIVE BROWN	FEW, FAINT / COMMON, DISTINCT
30				△ △ △
40	SILTS	FIRM	OLIVE	FREE WATER
50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
8 Profile / C Condition	____ %	18 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

NICHOLVILE

Albert Frick

Site Evaluator Signature

163 / 66
SE/CSS*

10/13/99
Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1 (OLD PORTLAND ROAD)	WILLIAM MOORE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 5 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	LIGHT YELLOW BROWN	
20–30	FINE SAND TO LOAMY SAND	FIRM	OLIVE	COMMON, DISTINCT
30–50				

Soil Classification	Slope	Limiting Factor	
Profile: 8 / Condition: C	____ %	17 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

NICHOLVILLE

Observation Hole TP 6 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILTY LOAM	FRIABLE	DARK BROWN / LIGHT YELLOW BROWN	
10–20	SILTS TO VERY FINE SAND	FIRM	LIGHT OLIVE BROWN / OLIVE	FEW, FAINT / COMMON, DISTINCT
20–30				
30–50				

Soil Classification	Slope	Limiting Factor	
Profile: 8 / Condition: D	____ %	11 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

NICHOLVILLE SWP

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 7 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM / LOAMY SAND	FRIABLE	DARK BROWN / DARK YELLOW BROWN	
10–20	SAND		LIGHT BROWN	
20–30				FEW, FAINT
30–40	SILTY CLAY	FIRM	OLIVE	
40–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
Profile: 7 / Condition: C	____ %	30 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ELDRIDGE

Observation Hole TP 8 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOW BROWN	
20–30	SAND		PALE BROWN	
30–40				
40–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
Profile: 5 / Condition: B	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ADAMS

Albert Frick
Site Evaluator Signature

163 / 66
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10/13/99
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SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1 (OLD PORTLAND ROAD)	WILLIAM MOORE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 9 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM / LOAMY SAND	FRIABLE	DARK BROWN / DARK YELLOW BROWN	
10–20	SAND		PALE BROWN	
20–40				FEW, FAINT
50	LIMIT OF EXCAVATION			

Soil Classification		Slope	Limiting Factor	
5 (Profile)	C/B (Condition)	____ %	42"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ADAMS

Observation Hole TP 10 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILTY LOAM	FRIABLE	DARK BROWN	
10–20	SILTS	FIRM	OLIVE	COMMON, DISTINCT
20–50				

Soil Classification		Slope	Limiting Factor	
8 (Profile)	D (Condition)	____ %	7"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

NICHOLVILLE SWP

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 11 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM / LOAMY SAND	FRIABLE	DARK BROWN / DARK YELLOW BROWN	
20	SAND		LIGHT OLIVE BROWN	
30–40				FEW, FAINT
50	LIMIT OF EXCAVATION			

Soil Classification		Slope	Limiting Factor	
5 (Profile)	C/B (Condition)	____ %	42"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ADAMS

Observation Hole TP 12 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILTY CLAY		OLIVE	
10–20	SANDY LOAM	FRIABLE		COMMON, DISTINCT
30		FIRM		
30	LIMIT OF EXCAVATION			

Soil Classification		Slope	Limiting Factor	
FILL OVER (Profile)	Condition	____ %	15"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

NICHOLVILE SWP

Albert Frick
Site Evaluator Signature

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10/13/99
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SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1 (OLD PORTLAND ROAD)	WILLIAM MOORE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 13 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE		COMMON, DISTINCT
10–30	SANDS			
30–50				△△△ FREE WATER

Soil Classification Profile	Soil Classification Condition	Slope	Limiting Factor	Limiting
NAUMBURG		____ %	8"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

SWP

Observation Hole TP 14 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILTY LOAM	FRIABLE	OLIVE GRAY	COMMON, DISTINCT
10–20	VERY FINE SANDY LOAM	FIRM		△△△ FREE WATER
20–50				

Soil Classification Profile	Soil Classification Condition	Slope	Limiting Factor	Limiting
8	D	____ %	4"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ROUNDABOUT

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 15 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	FINE SANDY LOAM	FRIABLE	DARK BROWN / LIGHT OLIVE BROWN	FEW, FAINT
10–30		FIRM	OLIVE	COMMON, DISTINCT
30–40				LIMIT OF EXCAVATION
40–50				

Soil Classification Profile	Soil Classification Condition	Slope	Limiting Factor	Limiting
8	D	____ %	10"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

NICHOLVILLE SWP

Observation Hole TP 16 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE	DARK BROWN / YELLOW BROWN	
10–20			OLIVE BROWN	FEW, FAINT
20–30		FIRM	OLIVE	COMMON, DISTINCT
30–40				LIMIT OF EXCAVATION
40–50				

Soil Classification Profile	Soil Classification Condition	Slope	Limiting Factor	Limiting
8	C	____ %	15"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

NICHOLVILLE

Albert Frick

Site Evaluator Signature

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SE/CSS#

10/13/99
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SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1 (OLD PORTLAND ROAD)	WILLIAM MOORE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TB 17 ☐ Test Pit ■ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOW BROWN	
20–40	SANDS			
40	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 Profile / B Condition	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ADAMS

Observation Hole TB 18 ☐ Test Pit ■ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND TO SAND	FRIABLE	DARK YELLOW BROWN	
20–40				

Soil Classification	Slope	Limiting Factor	
5 Profile / B Condition	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

ADAMS

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 19 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM			
10–20	LOAMY SAND	FRIABLE		
20–30	SAND			FEW, FAINT
30–40				

Soil Classification	Slope	Limiting Factor	
5 Profile / C Condition	____ %	28 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

CROGHAN

Observation Hole TP 20 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOW BROWN	
20–30	FINE SAND		PALE BROWN	
30–40				FEW, FAINT

Soil Classification	Slope	Limiting Factor	
5 Profile / C Condition	____ %	40 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

CROGHAN/ADAMS

Albert Frick
Site Evaluator Signature

163 / 66
SE/CSS*

10/13/99
Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	US ROUTE 1 & DURHAM ROAD	MOORE PROPERTIES

TEST PITS EXCAVATED BY BACKHOE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 21 ■ Test Pit ☐ Boring

______ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches): 0–50

Texture	Consistency	Color	Mottling
SANDY LOAM		DARK BROWN	
LOAMY SAND		STRONG BROWN	
COARSE SAND	FRIABLE		
		YELLOWISH BROWN	
MEDIUM SAND			
		LIGHT OLIVE BROWN	FEW FAINT
SILTY CLAY	FIRM	OLIVE	COMMON DISTINCT

LIMIT OF EXCAVATION

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
7 (Profile) C (Condition)	___ %	30 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL DRAINED	C

Observation Hole TP 22 ■ Test Pit ☐ Boring

______ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches): 0–50

Texture	Consistency	Color	Mottling
SANDY LOAM	FROZEN	DARK BROWN	
LOAMY SAND		YELLOWISH BROWN	
FINE SAND	FRIABLE		
		LIGHT YELLOWISH BROWN	
MEDIUM SAND			

LIMIT OF EXCAVATION

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
5 (Profile) B (Condition)	___ %	___ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	SOMEWHAT EXCESSIVELY	A

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 23 ■ Test Pit ☐ Boring

______ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches): 0–50

Texture	Consistency	Color	Mottling
SANDY LOAM		DARK BROWN	
LOAMY SAND	FRIABLE	YELLOWISH BROWN	
FINE SAND			
MEDIUM COARSE SAND		LIGHT YELLOWISH BROWN	

(LIMIT OF EXCAVATION @ 72")

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
5 (Profile) B (Condition)	___ %	___ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	SOMEWHAT EXCESSIVELY	A

Observation Hole TP 24 ■ Test Pit ☐ Boring

______ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches): 0–50

Texture	Consistency	Color	Mottling
SANDY LOAM		DARK BROWN	
LOAMY SAND	FRIABLE	STRONG BROWN	
		YELLOWISH BROWN	
MEDIUM SAND			
		LIGHT OLIVE BROWN	(FEW FAINT @ 56")

(LIMIT OF EXCAVATION @ 72")

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
5 (Profile) B (Condition)	___ %	___ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	SOMEWHAT EXCESSIVELY	A

Albert Frick — Site Evaluator / Soil Scientist Signature

163/66 — SE/CSS #

12/17/08 — Date

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BRUNSWICK	US ROUTE 1 & DURHAM ROAD	MOORE PROPERTIES

TEST PITS EXCAVATED BY BACKHOE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 25 ■ Test Pit ☐ Boring
____ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–6	SANDY LOAM		DARK BROWN	
6–18	LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN (6–15); LIGHT YELLOWISH BROWN (15–20)	
18–48	MEDIUM SAND		PALE OLIVE (20+)	
48	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification: 5 Profile, B Condition; Slope ___ %; Limiting Factor ___ "; ☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING: Soil Series Name: ADAMS; Drainage Class: SOMEWHAT EXCESSIVELY; Hydrologic Group: A

Observation Hole TP 26 ■ Test Pit ☐ Boring
____ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–6	SANDY LOAM		DARK BROWN	
6–12	LOAMY SAND	FRIABLE	YELLOWISH BROWN	
12–20	COARSE SAND			FEW FAINT (~15); COMMON DISTINCT (~17)
20–44	SILTS	FIRM		ΔΔΔ FREE WATER (~20)
44	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification: 7 Profile, C Condition; Slope ___ %; Limiting Factor 15 "; ■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING: Soil Series Name: ELDRIDGE; Drainage Class: MODERATELY WELL DRAINED; Hydrologic Group: C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 27 ■ Test Pit ☐ Boring
____ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–28	LOAMY SAND	FRIABLE	GRAY (0–7); STRONG BROWN (7–10); OLIVE BROWN (10–15); OLIVE (15+)	FEW FAINT (~12); ΔΔΔ FREE WATER (~18)
28–32	SILTS	FIRM		
32	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification: 7 Profile, D Condition; Slope ___ %; Limiting Factor 10 "; ■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING: Soil Series Name: ENOSBURG; Drainage Class: POORLY; Hydrologic Group: C

Observation Hole TP 28 ■ Test Pit ☐ Boring
____ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–12	COARSE SAND (FILL)			
12–30	SANDY LOAM TO SILT	FRIABLE		FEW FAINT (~20); COMMON DISTINCT (~25)
30–43		FIRM		ΔΔΔ FREE WATER (~32)
43	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification: 12 Profile, C Condition; Slope ___ %; Limiting Factor 18 "; ■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING: Soil Series Name: FILLED LAND OVER ROUNDABOUT; Drainage Class: MODERATELY WELL DRAINED; Hydrologic Group: C

Albert Frick (signature) — Site Evaluator / Soil Scientist Signature
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TEST PITS EXCAVATED BY BACKHOE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 29 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE	YELLOWISH BROWN	
20	MEDIUM SAND		LIGHT YELLOWISH BROWN	
30	SILTS			FEW FAINT
40	SILTY CLAY	FIRM	OLIVE	COMMON DISTINCT
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL →

Soil Classification		Slope	Limiting Factor	
7	C	%	22 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Profile	Condition			

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL DRAINED	C

Observation Hole TP 30 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	FINE SANDY LOAM		DARK BROWN	
10	SILTS	FRIABLE	OLIVE BROWN	FEW FAINT COMMON DISTINCT
20	SILTY CLAY	VERY FIRM	OLIVE GRAY	△△△ FREE WATER
30				
40				
50				

Soil Classification		Slope	Limiting Factor	
		%	10 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Profile	Condition			

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE/NICHOLVILLE	SWP	D

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 31 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN	
20	MEDIUM SAND		LIGHT YELLOWISH BROWN	
			PALE OLIVE	
30				
40				
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL →

Soil Classification		Slope	Limiting Factor	
5	B	%	"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Profile	Condition			

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	SOMEWHAT EXCESSIVELY	A

Observation Hole TP 32 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE	STRONG BROWN	
20	SAND		YELLOWISH BROWN	
			LIGHT OLIVE BROWN	FEW FAINT
30			OLIVE	COMMON DISTINCT △△△ FREE WATER
40	SILTS			
50				

Soil Classification		Slope	Limiting Factor	
7	C	%	22 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Profile	Condition			

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL DRAINED	C

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163/66 — SE/CSS #

12/17/08 — Date

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BRUNSWICK	US ROUTE 1 & DURHAM ROAD	MOORE PROPERTIES

TEST PITS EXCAVATED BY BACKHOE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 33 ■ Test Pit ☐ Boring
____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0–10	STUMPS AND LOAMY SAND TO SANDY LOAM	FRIABLE	VARIABLE BROWN	
40				△△△ FREE WATER
50		LIMIT OF EXCAVATION		

FOR WASTEWATER DISPOSAL	Soil Classification	Slope	Limiting Factor	Ground Water / Restrictive Layer / Bedrock / Pit Depth
	12 Profile / C Condition	____ %	36"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING	Soil Series Name:	Drainage Class:	Hydrologic Group:
	STUMP DUMP	---	---

Observation Hole TP 34 ■ Test Pit ☐ Boring
____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE	DARK BROWN / DARK YELLOWISH BROWN	
20	LOAMY SAND	FIRM	LIGHT OLIVE BROWN / OLIVE BROWN	FEW FAINT COMMON DISTINCT
40		LIMIT OF EXCAVATION		

FOR WASTEWATER DISPOSAL	Soil Classification	Slope	Limiting Factor	Ground Water / Restrictive Layer / Bedrock / Pit Depth
	5 Profile / C Condition	____ %	18"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING	Soil Series Name:	Drainage Class:	Hydrologic Group:
	CROGHAN	MODERATELY WELL DRAINED	B

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 35 ■ Test Pit ☐ Boring
____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM / LOAMY SAND	FROZEN / FRIABLE	DARK BROWN / YELLOWISH BROWN	
20	SAND			
30			LIGHT YELLOWISH BROWN / LIGHT OLIVE BROWN	FEW FAINT COMMON DISTINCT
40–50				

FOR WASTEWATER DISPOSAL	Soil Classification	Slope	Limiting Factor	Ground Water / Restrictive Layer / Bedrock / Pit Depth
	5 Profile / C Condition	____ %	24"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING	Soil Series Name:	Drainage Class:	Hydrologic Group:
	CROGHAN	MODERATELY WELL DRAINED	B

Observation Hole TP 36 ■ Test Pit ☐ Boring
____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FROZEN / FRIABLE		
20	LOAMY SAND			
30	FINE SAND			FEW FAINT
40				COMMON DISTINCT
50		LIMIT OF EXCAVATION		

FOR WASTEWATER DISPOSAL	Soil Classification	Slope	Limiting Factor	Ground Water / Restrictive Layer / Bedrock / Pit Depth
	5 Profile / C Condition	____ %	26"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING	Soil Series Name:	Drainage Class:	Hydrologic Group:
	CROGHAN	MODERATELY WELL DRAINED	B

Albert Frick

Site Evaluator / Soil Scientist Signature

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12/17 & 12/22/08
Date

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BRUNSWICK	US ROUTE 1 & DURHAM ROAD	MOORE PROPERTIES

TEST PITS EXCAVATED BY BACKHOE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 37 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOWISH BROWN	
20–30	FINE SAND		LIGHT BROWN	FEW FAINT COMMON DISTINCT
30–40				
40–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 (Profile) C (Condition)	____ %	26"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

Observation Hole TP 38 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN	
20–30	MEDIUM SAND		LIGHT BROWN	
30–40				
40–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 (Profile) B (Condition)	____ %	____"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	SOMEWHAT EXCESSIVELY	A

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 39 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN	
20–30			LIGHT YELLOWISH BROWN	
30–40	FINE & MEDIUM SAND		LIGHT OLIVE BROWN	FEW FAINT
40–50			OLIVE	COMMON DISTINCT & ΔΔΔ FREE WATER

Soil Classification	Slope	Limiting Factor	
5 (Profile) C (Condition)	____ %	36"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

Observation Hole TP 40 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	STUMPS AND WOODY DEBRIS		VARIABLE DARK BROWN	
10–20	SANDY LOAM	FRIABLE	DARK BROWN	
20–30	LOAMY SAND		DARK YELLOWISH BROWN	(FREE WATER @ 52")
30–40			LIGHT YELLOWISH BROWN	
40–50	FINE & MEDIUM SAND		LIGHT OLIVE BROWN	FEW FAINT

Soil Classification	Slope	Limiting Factor	
5 FILL OVER C (Profile) (Condition)	____ %	26"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

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TEST PITS 41 & 42 EXCAVATED BY BACKHOE

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 41 — ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches): 0–50

Texture	Consistency	Color	Mottling
LOAMY SAND		DARK BROWN	
FINE & MEDIUM SAND	FRIABLE	DARK YELLOWISH BROWN	
		LIGHT YELLOWISH BROWN	
		LIGHT OLIVE BROWN	FEW FAINT
		OLIVE	COMMON DISTINCT & ΔΔΔ FREE WATER

LIMIT OF EXCAVATION (50")

FOR WASTEWATER DISPOSAL → Soil Classification: 5 Profile, C Condition; Slope: ___ %; Limiting Factor: 28"; ■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING → Soil Series Name: CROGHAN; Drainage Class: MODERATELY WELL DRAINED; Hydrologic Group: B

Observation Hole TP 42 — ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches): 0–50

Texture	Consistency	Color	Mottling
SANDY LOAM		DARK BROWN	
FINE SAND	FRIABLE	DARK YELLOWISH BROWN	
MEDIUM SAND		LIGHT YELLOWISH BROWN	FEW FAINT
SILTS	FIRM	OLIVE	ΔΔΔ FREE WATER

FOR WASTEWATER DISPOSAL → Soil Classification: 7 Profile, C Condition; Slope: ___ %; Limiting Factor: 24"; ■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING → Soil Series Name: ELDRIDGE; Drainage Class: MODERATELY WELL DRAINED; Hydrologic Group: C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 43 — ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches): 0–50

Texture	Consistency	Color	Mottling
SANDY LOAM		DARK BROWN	
LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN	
		LIGHT YELLOWISH BROWN	FEW FAINT
LOAMY FINE SAND & SILT	FIRM	LIGHT OLIVE BROWN	COMMON DISTINCT

FOR WASTEWATER DISPOSAL → Soil Classification: 7 Profile, C Condition; Slope: ___ %; Limiting Factor: 24"; ■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING → Soil Series Name: ELDRIDGE; Drainage Class: MODERATELY WELL DRAINED; Hydrologic Group: C

Observation Hole TB 44 — ☐ Test Pit ■ Boring

_____" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches): 0–50

Texture	Consistency	Color	Mottling
SANDY LOAM		DARK BROWN	
LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN	
SAND		LIGHT BROWN	
SILTS TO FINE SAND	FIRM	LIGHT OLIVE BROWN	FEW FAINT

LIMIT OF EXCAVATION

FOR WASTEWATER DISPOSAL → Soil Classification: 7 Profile, C Condition; Slope: ___ %; Limiting Factor: 24"; ■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING → Soil Series Name: ELDRIDGE; Drainage Class: MODERATELY WELL DRAINED; Hydrologic Group: C

Albert Frick [signature]	163/66	12/22/08
Site Evaluator / Soil Scientist Signature	SE/CSS #	Date

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BRUNSWICK	US ROUTE 1 & DURHAM ROAD	MOORE PROPERTIES

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 45 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FROZEN	DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN	
20–50	FINE AND MEDIUM SANDS		YELLOWISH BROWN	

Soil Classification	Slope	Limiting Factor	
5 (Profile) B (Condition)	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	SOMEWHAT EXCESSIVELY	A

FOR SOILS MAPPING →

Observation Hole TP 46 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FROZEN	DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN	
20–50	FINE SAND		LIGHT YELLOWISH BROWN	

Soil Classification	Slope	Limiting Factor	
5 (Profile) B (Condition)	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	SOMEWHAT EXCESSIVELY	A

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 47 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FROZEN	DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOW BROWN	
20–30	FINE SAND		LIGHT YELLOWISH BROWN	FEW, FAINT
30–50	LOAMY FINE SAND	SOEMWHAT FIRM TO FIRM	OLIVE BROWN	

Soil Classification	Slope	Limiting Factor	
7 (Profile) C (Condition)	____ %	24"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL	C

FOR SOILS MAPPING →

Observation Hole TP 48 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FROZEN	DARK BROWN	
10–20	LOAMY SAND FINE SAND	FRIABLE	DARK YELLOWISH BROWN	FEW, FAINT
20–30	LOAMY FINE SAND WITH FINE SAND	SOEMWHAT FIRM TO FIRM	LIGHT YELLOWISH BROWN	

Soil Classification	Slope	Limiting Factor	
7 (Profile) C (Condition)	____ %	20"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL	C

Albert Frick — Site Evaluator / Soil Scientist Signature

163/66 — SE/CSS #

2/5/09 — Date

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BRUNSWICK	US ROUTE 1 & DURHAM ROAD	MOORE PROPERTIES

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 49 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FROZEN	DARK BROWN	
10–20	LOAMY SAND	FRIABLE	DARK YELLOWISH BROWN	
20–30	FINE SAND		YELLOWISH BROWN	
30–40	FINE SAND WITH LOAMY FIND SAND LENSES	FIRM	LIGHT OLIVE BROWN	FEW, FAINT
40–50				

Soil Classification	Slope	Limiting Factor	
Profile: 7 / Condition: C	___ %	30"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL	C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole _____ ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Texture	Consistency	Color	Mottling

Soil Classification	Slope	Limiting Factor	
Profile: ___ / Condition: ___	___ %	___"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole _____ ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Texture	Consistency	Color	Mottling

Soil Classification	Slope	Limiting Factor	
Profile: ___ / Condition: ___	___ %	___"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole _____ ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Texture	Consistency	Color	Mottling

Soil Classification	Slope	Limiting Factor	
Profile: ___ / Condition: ___	___ %	___"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:

Albert Frick

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SE/CSS #

2/5/09

Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 50 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILT LOAM	FRIABLE	DARK BROWN	
10–20			LIGHT YELLOW BROWN	FEW, FAINT
20–50	SILTY CLAY	FIRM	OLIVE BROWN	COMMON, DISTINCT
	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
9 Profile / D Condition	____ %	10 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE	SOMEWHAT POORLY	D

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 51 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	LIGHT YELLOW BROWN	
20–30	FINE SAND		LIGHT BROWN	NONE EVIDENT
30–50				
	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 Profile / B Condition	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL/ SOMEWHAT EXCESSIVELY	A

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 52 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	
20–30	FINE TO MEDIUM SANDS		LIGHT BROWN	NONE EVIDENT
30–50				
	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
5 Profile / B Condition	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL/ SOMEWHAT EXCESSIVELY	A

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 53 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	LIGHT YELLOW BROWN	
20–30	FINE SAND		LIGHT OLIVE BROWN	NONE EVIDENT
30–50				
	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 Profile / B Condition	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL/ SOMEWHAT EXCESSIVELY	A

Albert Frick — Site Evaluator / Soil Scientist Signature

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8/27/15 — Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 54 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	
20–30	FINE SAND			
30–40			LIGHT OLIVE BROWN	
40–50				FEW, FAINT
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL

Soil Classification		Slope	Limiting Factor	
5 (Profile)	C (Condition)	%	44 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL / SOMEWHAT EXCESSIVELY	A

Observation Hole TP 55 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	
20–30	FINE SAND		LIGHT OLIVE BROWN	NONE EVIDENT
30–50	LIMIT OF EXCAVATION			

Soil Classification		Slope	Limiting Factor	
5 (Profile)	B (Condition)	%	"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL / SOMEWHAT EXCESSIVELY	A

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 56 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	NONE EVDIENT
20–30	FINE SAND		LIGHT YELLOW BROWN	
30–40			LIGHT OLIVE BROWN	
40–50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL

Soil Classification		Slope	Limiting Factor	
5 (Profile)	B (Condition)	%	"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL / SOMEWHAT EXCESSIVELY	A

Observation Hole TP 57 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	
20–30	SILTY CLAY	FIRM	LIGHT YELLOW BROWN / OLIVE	FEW, FAINT / COMMON, DISTINCT
30–50	LIMIT OF EXCAVATION			

Soil Classification		Slope	Limiting Factor	
7 (Profile)	C (Condition)	%	20 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
(VARIANT) ELDRIDGE	MODERATELY WELL	C

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BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 58 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE	DARK BROWN; LIGHT BROWN	
10–20			LIGHT OLIVE BROWN	FEW, FAINT
20–30	SILT LOAM	FIRM	OLIVE BROWN	COMMON, DISTINCT
	LIMIT OF EXCAVATION			
30–50				

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
8 (Profile) D (Condition)	___ %	12 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
NICHOLVILLE (SWP)	SOMEWHAT POORLY	C

Observation Hole TP 59 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE	DARK BROWN	
10–20	FINE SANDY LOAM		LIGHT YELLOW BROWN	FEW, FAINT
20–30	SILTS AND VERY FINE SAND	FIRM	OLIVE	COMMON, DISTINCT
		LIMIT OF EXCAVATION		
30–50				

Soil Classification	Slope	Limiting Factor	
8 (Profile) D (Condition)	___ %	13 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
NICHOLVILLE (SWP)	SOMEWHAT POORLY	C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 60 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE		
10–20	LOAMY FINE SAND			FEW, FAINT
	SILTS	FIRM		COMMON, DISTINCT
	LIMIT OF EXCAVATION			
30–50				

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
8 (Profile) D (Condition)	___ %	10 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
NICHOLVILLE (SWP)	SOMEWHAT POORLY	C

Observation Hole TP 61 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0–10	FINE SANDY LOAM		DARK BROWN	
	LOAMY FINE SAND	FRIABLE	LIGHT BROWN	
20–30	SANDY LOAM	FIRM	LIGHT OLIVE BROWN	COMMON, DISTINCT
	LIMIT OF EXCAVATION			
30–50				

Soil Classification	Slope	Limiting Factor	
8 (Profile) C (Condition)	___ %	16 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
NICHOLVILLE	MODERATELY WELL	C

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SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 62 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	
20–30	FINE SAND			
30–40			LIGHT OLIVE BROWN	FEW, FAINT
40–50		LIMIT OF EXCAVATION		

FOR WASTEWATER DISPOSAL →

Soil Classification		Slope	Limiting Factor	
5 (Profile)	C (Condition)	____ %	38 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

Observation Hole TP 63 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	STRONG BROWN	
20–30	MEDIUM SAND		YELLOW BROWN	NONE EVIDENT
30–40			LIGHT OLIVE BROWN	
40–50		LIMIT OF EXCAVATION		

Soil Classification		Slope	Limiting Factor	
5 (Profile)	B (Condition)	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL/ SOMEWHAT EXCESSIVELY	A

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 64 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE	DARK BROWN	
10–20	GRAVELLY LOAMY SAND		LIGHT YELLOW BROWN	FEW, FAINT
20–30	SILTS	FIRM	OLIVE BROWN	COMMON, DISTINCT
30–40		LIMIT OF EXCAVATION		

FOR WASTEWATER DISPOSAL →

Soil Classification		Slope	Limiting Factor	
7 (Profile)	C (Condition)	____ %	16 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL	C

Observation Hole TP 65 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	
20–30	MEDIUM SAND		LIGHT BROWN	NONE EVIDENT
30–40				
40–50		LIMIT OF EXCAVATION		

Soil Classification		Slope	Limiting Factor	
5 (Profile)	B (Condition)	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL/ SOMEWHAT EXCESSIVELY	A

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Site Evaluator / Soil Scientist Signature

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Date

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BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 66 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–30	LOAMY SAND	FRIABLE	LIGHT YELLOW BROWN	
30–40	MEDIUM SAND		LIGHT BROWN	
40–50				FEW, FAINT
50	LIMIT OF EXCAVATION @52"			

Soil Classification	Slope	Limiting Factor	
5 (Profile) C (Condition)	____ %	44"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL/ SOMEWHAT EXCESSIVELY	A

Observation Hole TP 67 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	STRONG BROWN	
20–30	MEDIUM SAND		LIGHT YELLOW BROWN	
30–40			LIGHT OLIVE BROWN	FEW, FAINT
50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 (Profile) C (Condition)	____ %	35"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 68 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY FINE SAND	FRIABLE	LIGHT YELLOW BROWN	
20–30	SAND		PALE BROWN	FEW, FAINT
30–40	SANDY LOAM	FIRM	OLIVE BROWN	
40–50				
50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
7 (Profile) C (Condition)	____ %	18"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE (VARIANT)	MODERATELY WELL	C

Observation Hole TP 69 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	LIGHT YELLOW BROWN	
20–30	MEDIUM SAND		LIGHT BROWN	NONE EVIDENT
30–40				
50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 (Profile) B (Condition)	____ %	____"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL/ SOMEWHAT EXCESSIVELY	A

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BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 70 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
		FRIABLE		
10	LOAMY SAND		YELLOW BROWN	
				COMMON, DISTINCT
20	SILTS	FIRM	LIGHT OLIVE	
30		LIMIT OF EXCAVATION		
40				
50				

FOR WASTEWATER DISPOSAL	Soil Classification	Slope	Limiting Factor	
	7 Profile / C Condition	____ %	16"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
FOR SOILS MAPPING	Soil Series Name: ELDRIDGE	Drainage Class: MODERATELY WELL	Hydrologic Group: C	

Observation Hole TP 71 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM			
		FRIABLE		
10				FEW, FAINT
	FINE SANDY LOAM TO SILTS	FIRM		COMMON, DISTINCT
20		LIMIT OF EXCAVATION		
30				
40				
50				

Soil Classification	Slope	Limiting Factor	
8 Profile / D Condition	____ %	12"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Soil Series Name: NICHOLVILLE (SWP)	Drainage Class: MODERATELY WELL	Hydrologic Group: C	

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 72 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
			YELLOW BROWN	
10	COARSE SAND	FRIABLE		FEW, FAINT
			OLIVE	
20	SILTS	FIRM	OLIVE GRAY	COMMON, DISTINCT
30		LIMIT OF EXCAVATION		
40				
50				

FOR WASTEWATER DISPOSAL	Soil Classification	Slope	Limiting Factor	
	7 Profile / C Condition	____ %	11"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
FOR SOILS MAPPING	Soil Series Name: ELDRIDGE	Drainage Class: MODERATELY WELL	Hydrologic Group: C	

Observation Hole TP 73 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE	YELLOW BROWN	
20	MEDIUM SAND			NONE EVIDENT
30			LIGHT YELLOW BROWN	
40				
50		LIMIT OF EXCAVATION @52"		

Soil Classification	Slope	Limiting Factor	
5 Profile / B Condition	____ %	____"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Soil Series Name: ADAMS	Drainage Class: WELL / SOMEWHAT EXCESSIVELY	Hydrologic Group: A	

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BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 74 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE	DARK BROWN	
10–20	LOAMY COARSE SAND		YELLOW BROWN	
20–30	SILTS	FIRM	OLIVE GRAY	COMMON, DISTINCT
30	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL

Soil Classification	Slope	Limiting Factor	
7 Profile / C Condition	____ %	20"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL	C

Observation Hole TP 75 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	STRONG BROWN / LIGHT YELLOW BROWN	
20–30	MEDIUM SAND		OLIVE BROWN	COMMON, DISTINCT
30	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 Profile / C Condition	____ %	24"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 76 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND / COARSE SAND	FRIABLE	DARK YELLOW BROWN / LIGHT YELLOW BROWN	
30				FEW, FAINT
30–40		FIRM	LIGHT OLIVE BROWN	COMMON, DISTINCT
40	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL

Soil Classification	Slope	Limiting Factor	
7 Profile / C Condition	____ %	28"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN (VARIANT)	MODERATELY WELL DRAINED	B

Observation Hole TP 77 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	
20–30	MEDIUM SAND		LIGHT YELLOW BROWN	FEW, FAINT
30–40	FINE SAND		OLIVE	COMMON, DISTINCT
40	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
5 Profile / C Condition	____ %	30"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

Albert Frick

Site Evaluator / Soil Scientist Signature

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ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 78 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE	YELLOW BROWN	
20	MEDIUM SAND		LIGHT OLIVE BROWN	COMMON, DISTINCT
30				
40				
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL →

Soil Classification		Slope	Limiting Factor	
5 (Profile)	C (Condition)	____ %	30"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

Observation Hole TP 79 ■ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	SANDY LOAM		BLACK / DARK BROWN	
10	LOAMY SAND	FRIABLE	DARK YELLOW BROWN	FEW, FAINT
20	FINE SANDY LOAM	FIRM	OLIVE GRAY	COMMON, DISTINCT
30		LIMIT OF EXCAVATION		
40				
50				

Soil Classification		Slope	Limiting Factor	
7 (Profile)	C (Condition)	____ %	15"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE (VARIANT)	MODERATELY WELL	C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole _____ ☐ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

FOR WASTEWATER DISPOSAL →

Soil Classification		Slope	Limiting Factor	
Profile	Condition	____ %	____"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:

Observation Hole _____ ☐ Test Pit ☐ Boring

_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification		Slope	Limiting Factor	
Profile	Condition	____ %	____"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:

Albert Frick — 163/66 — 8/27/15

Site Evaluator / Soil Scientist Signature — SE/CSS # — Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 101 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILT LOAM	FRIABLE	DARK BROWN	
10–20	SILTS	FIRM	LIGHT BROWN; LIGHT OLIVE BROWN	FEW, FAINT; COMMON, DISTINCT
20–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
8 Profile / D Condition	____ %	10 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name: (SWP)	Drainage Class:	Hydrologic Group:
NICHOLVILLE	SOMEWHAT POORLY	C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 102 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILT LOAM	FRIABLE	DARK BROWN	
10–20	SILTS	FIRM	LIGHT BROWN; LIGHT OLIVE BROWN; OLIVE	FEW, FAINT; COMMON, DISTINCT
20–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
8 Profile / D Condition	____ %	12 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: (SWP)	Drainage Class:	Hydrologic Group:
NICHOLVILLE	SOMEWHAT POORLY	C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 103 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	LOAM; SILT LOAM	FRIABLE	DARK BROWN; LIGHT BROWN	FEW, FAINT
10–20	SILTY CLAY	FIRM	LIGHT OLIVE BROWN; OLIVE	COMMON, DISTINCT
20–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
9 Profile / D Condition	____ %	10 "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE	SOMEWHAT POORLY	D

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 104 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILT LOAM	FRIABLE	DARK BROWN; LIGHT BROWN	FEW, FAINT
10–20	SILTY CLAY	FIRM	LIGHT OLIVE BROWN; OLIVE	COMMON, DISTINCT
20–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
9 Profile / D Condition	____ %	12 "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE	SOMEWHAT POORLY	D

Albert Frick — Site Evaluator / Soil Scientist Signature

163/66 — SE/CSS #

7/31/15 — Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 105 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILT LOAM	FRIABLE	DARK BROWN	
10–20			STRONG BROWN	
			LIGHT BROWN	FEW, FAINT
20–30	SILTS	FIRM	LIGHT OLIVE BROWN	COMMON, DISTINCT
		LIMIT OF EXCAVATION		
30–50				

Soil Classification	Slope	Limiting Factor	
9 Profile / D Condition	%	14 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name: (SWP)	Drainage Class:	Hydrologic Group:
NICHOLVILLE	SOMEWHAT POORLY	C

Observation Hole TP 106 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	FINE SANDY LOAM	FRIABLE	DARK BROWN	
			GRAY (ALBIC)	
10–20	SILT LOAM		LIGHT BROWN	FEW, FAINT
	SILTS	FIRM	OLIVE	COMMON, DISTINCT
		LIMIT OF EXCAVATION		
30–50				

Soil Classification	Slope	Limiting Factor	
8 Profile / C Condition	%	15 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
NICHOLVILLE	MODERATELY WELL	C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 107 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SILT LOAM	FRIABLE	DARK BROWN	
			LIGHT YELLOW BROWN	FEW, FAINT
10–20	SILTY CLAY	FIRM	OLIVE BROWN	COMMON, DISTINCT
		LIMIT OF EXCAVATION		
30–50				

Soil Classification	Slope	Limiting Factor	
9 Profile / C Condition	%	12 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE	SOMEWHAT POORLY	D

Observation Hole TP 108 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	LOAM	FRIABLE	DARK BROWN	
			LIGHT BROWN	
10–20	SILT LOAM		LIGHT OLIVE BROWN	FEW, FAINT
	SILTY CLAY	FIRM	OLIVE	COMMON, DISTINCT
		LIMIT OF EXCAVATION		
30–50				

Soil Classification	Slope	Limiting Factor	
8 Profile / C Condition	%	14 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: (SWP)	Drainage Class:	Hydrologic Group:
NICHOLVILLE	SOMEWHAT POORLY	C

Albert Frick — Site Evaluator / Soil Scientist Signature

163/66 — SE/CSS #

7/31/15 — Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 109 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	LOAM	FRIABLE		
10	SILT LOAM			FEW, FAINT
20	SILTY CLAY	FIRM		COMMON, DISTINCT
	LIMIT OF EXCAVATION			
30				
40				
50				

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
9 (Profile) D (Condition)	%	12 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE	SOMEWHAT POORLY	D

Observation Hole TP 110 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	SILT LOAM	FRIABLE	DARK BROWN	
10			LIGHT OLIVE BROWN	FEW, FAINT
	SILTY CLAY	FIRM	OLIVE	COMMON, DISTINCT
20				
	LIMIT OF EXCAVATION			
30				
40				
50				

Soil Classification	Slope	Limiting Factor	
9 (Profile) D/E (Condition)	%	8 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE	SOMEWHAT POORLY	D

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 111 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	LOAM		DARK BROWN	
		FRIABLE		
10	SILT LOAM		YELLOW BROWN	
			LIGHT YELLOW BROWN	FEW, FAINT
20	SILTY CLAY LOAM	FIRM	OLIVE	COMMON, DISTINCT
30	LIMIT OF EXCAVATION			
40				
50				

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
9 (Profile) D (Condition)	%	12 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE	SOMEWHAT POORLY	D

Observation Hole TP 112 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

Depth	Texture	Consistency	Color	Mottling
0	SILT LOAM	FRIABLE		
10				FEW, FAINT
	SILTY CLAY	FIRM		COMMON, DISTINCT
20				
	LIMIT OF EXCAVATION			
30				
40				
50				

Soil Classification	Slope	Limiting Factor	
9 (Profile) D (Condition)	%	8 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
LAMOINE	SOMEWHAT POORLY	D

Albert Frick

Site Evaluator / Soil Scientist Signature

163/66 SE/CSS *

7/31/15 Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 1 13 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE	DARK BROWN	
10–20	SILTY CLAY	FIRM	LIGHT OLIVE BROWN / OLIVE	FEW, FAINT / COMMON, DISTINCT
20–50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL →

Soil Classification		Slope	Limiting Factor	
8 Profile	D Condition	%	8 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name: (VARIANT)	Drainage Class:	Hydrologic Group:
ROUNDABOUT	POORLY / SOMEWHAT POORLY	C

Observation Hole TP 1 14 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	FINE SANDY LOAM	FRIABLE	DARK BROWN / LIGHT YELLOW BROWN	FEW, FAINT
10–20	SILTY CLAY	FIRM	OLIVE	COMMON, DISTINCT
20–50	LIMIT OF EXCAVATION			

Soil Classification		Slope	Limiting Factor	
9 Profile	D Condition	%	8 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: (SWP)	Drainage Class:	Hydrologic Group:
NICHOLVILLE	SOMEWHAT POORLY	C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 1 15 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	YELLOW BROWN	NONE EVIDENT
20–30	MEDIUM TO COARSE SAND		LIGHT OLIVE BROWN	
30–50	LIMIT OF EXCAVATION @62"			

FOR WASTEWATER DISPOSAL →

Soil Classification		Slope	Limiting Factor	
5 Profile	B Condition	%	"	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ADAMS	WELL / SOMEWHAT EXCESSIVELY	A

Observation Hole TP 1 16 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM			
10–20	LOAMY SAND	FRIABLE		FEW, FAINT
20–30	SILTY CLAY	FIRM		COMMON, DISTINCT
30–50	LIMIT OF EXCAVATION			

Soil Classification		Slope	Limiting Factor	
7 Profile	C Condition	%	18 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ELDRIDGE	MODERATELY WELL DRAINED	C

Albert Frick
Site Evaluator / Soil Scientist Signature

163/ 66
SE/CSS #

7/31/15
Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 1 17 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM	FRIABLE		
10–20	LOAMY SAND			FEW, FAINT
20–30	SILTY CLAY	FIRM		COMMON, DISTINCT
30–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
8 Profile / C Condition	___ %	15 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
NICHOLVILLE	MODERATELY WELL	C

Observation Hole TP 1 18 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		BLACK	COMMON, DISTINCT
10–20	LOAMY SAND	FRIABLE	OLIVE GRAY	△△△ FREE WATER
20–30	SILTS	FIRM		
30–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
7 Profile / E Condition	___ %	6 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
ENOSBURG		

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 1 19 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM		DARK BROWN	
10–20	LOAMY SAND	FRIABLE	GRAY (ALBIC) / LIGHT YELLOW BROWN	
20–30	MEDIUM SANDS		LIGHT BROWN	FEW, FAINT
30–40			OLIVE BROWN	COMMON, DISTINCT
40–50	LIMIT OF EXCAVATION			△△△ FREE WATER

Soil Classification	Slope	Limiting Factor	
5 Profile / C Condition	___ %	20 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR WASTEWATER DISPOSAL →

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
CROGHAN	MODERATELY WELL DRAINED	B

Observation Hole TP 120 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SAND (FILL) / ORGANIC	FRIABLE	LIGHT YELLOW BROWN / BLACK	
10–20	LOAMY SAND		GRAY (ALBIC)	FEW, FAINT
20–30	SILTY CLAY	FIRM	OLIVE	COMMON, DISTINCT
30–50	LIMIT OF EXCAVATION			

Soil Classification	Slope	Limiting Factor	
FILL OVER 7 Profile / D Condition	___ %	8 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:

Albert Frick

Site Evaluator / Soil Scientist Signature

163/66
SE/CSS #

7/31/15
Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

Town, City, Plantation	Street, Road Subdivision	Owner's Name
BRUNSWICK	U.S. ROUTE 1	MOORE PROPERTIES, INC.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP 121 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0	SANDY LOAM		BLACK	
10	LOAMY SAND	FRIABLE	OLIVE GRAY (ALBIC)	FEW, FAINT
20			OLIVE BROWN	
30	SILTY CLAY	FIRM	OLIVE	COMMON, DISTINCT
		LIMIT OF EXCAVATION		
40				
50				

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
7 / D (Profile / Condition)	____ %	8 "	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:
ENOSBURG	POORLY DRAINED	C

Observation Hole TP 122 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0	SANDY LOAM		DARK BROWN	
10	LOAMY SAND	FRIABLE		
20	ORGANIC		BLACK	
			GRAY (ALBIC)	FEW, FAINT
30	LOAMY SAND		YELLOW BROWN	COMMON, DISTINCT
40	FINE SANDY LOAM	FIRM	OLIVE	
		LIMIT OF EXCAVATION		
50				

Soil Classification	Slope	Limiting Factor	
____ / ____ (Profile / Condition)	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:
FILL OVER ELDRIDGE	MODERATELY WELL DRAINED	D

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole _____ ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

FOR WASTEWATER DISPOSAL →

Soil Classification	Slope	Limiting Factor	
____ / ____ (Profile / Condition)	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING →

Soil Series Name:	Drainage Class:	Hydrologic Group:

Observation Hole _____ ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	
____ / ____ (Profile / Condition)	____ %	____ "	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name:	Drainage Class:	Hydrologic Group:

Albert Frick — Site Evaluator / Soil Scientist Signature

163/66 — SE/CSS #

7/31/15 — Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD GORHAM, MAINE 04038 – (207) 839-5563

SOILS MAP LEGEND:

- SOIL TEST PIT (LOCATED BY SUBMETER GPS)
- POTENTIAL SUBSURFACE WASTEWATER DISPOSAL AREA
- SOIL BOUNDARY LINE
- LIMITS OF INVESTIGATION
- WETLAND AREA BY OTHER; WOODLOT ALTERNATIVES (STANTEC)

SLOPE DESIGNATION

A	0 – 3%
B	3 – 8%
C	8 – 20%
D	20%+

NOTE: SEE ACCOMPANYING SOIL NARRATIVE REPORT, DATED SEPTEMBER, 2015

THE ACCOMPANYING SOILS SURVEY WAS DONE IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE MAINE ASSOCIATION OF PROFESSIONAL SOIL SCIENTISTS, FEBRUARY 1995, AS AMENDED.

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch = 100 ft.

STATE OF MAINE ALBERT FRICK 163 CERTIFIED SOIL EVALUATOR

STATE OF MAINE ALBERT FRICK 66 CERTIFIED SOIL SCIENTIST

DATE:	REVISIONS:
9/1/15	ADDITIONAL TEST PITS & SEPTIC LOCATIONS

HIGH INTENSITY SOILS MAP & SUBSURFACE WASTEWATER DISPOSAL PLAN

PREPARED FOR

WILLIAM MOORE

OLD PORTLAND ROAD

BRUNSWICK, MAINE

Albert Frick Associates, Inc.
Environmental Consultants
Gorham, Maine

Drawn By: B.O./B.J. | Checked By: A.F.

Date: 8/3/15 | Scale: 1" = 100'

Attachment H
Stormwater Management Plan

A copy of the Stormwater Management Plan an associated attachments have been enclosed for reference.

Spruce Meadows Subdivision
Brunswick, Maine

STORMWATER MANAGEMENT PLAN

Introduction

Moore Properties, Inc. proposes to develop the Spruce Meadows residential subdivision on 76.1± acres located between Old Portland Road (Route 1), Durham Road, and Interstate 295 in Brunswick. At this time, the applicant is proposing to develop a subdivision creating 32 residential lots and one lot for open space.

The property received a Site Location of Development Act (SLODA) permit from the Department in July 2009 (#L-24560-MX-A-N) for a subdivision consisting of four (4) residential lots and fourteen (14) commercial lots. The proposed subdivision road has been roughed-in and a portion of the road has been paved. The four (4) residential lots have been sold and one (1) of the commercial lots has been sold. The remainders of the lots have been maintained in their undeveloped state. The development was to receive stormwater treatment from a combination of vegetated buffers and infiltration buffers.

It is the intent of the project to create the proposed residential lots around the perimeter of the previously constructed access road.

Study Methodology

In this study, the National Resources Conservation Service Urban Hydrology for Small Watersheds, Technical Release 55 (SCS-TR55) was utilized to model the surface water drainage patterns for existing and proposed drainage conditions. The HydroCAD Stormwater Modeling System software (Version 7.10) was used for SCS-TR55 calculations. The results of the HydroCAD were used to size the infiltrations basins. The HydroCAD output presents the curve number and time-of-concentration computations for each subcatchment. Modeling was conducted using 24-hour rainfall amounts for the 2, 10, and 25-year storm events (3.0, 4.7 and 5.5 inches, respectively for Cumberland County).

The following assumptions were applied to the analysis; existing land cover was typically assumed to be Forest: Light undergrowth or Woodland for time-of-concentration calculations in wooded areas, and Woods/Grass in most areas not under a tree canopy, based on the significant amount of woody vegetation; existing and proposed shoulder area where assumed to be brush; grass cover was used where aerial photographs and site reconnaissance indicated the terrain was mowed regularly; grass cover was assumed in proposed open areas to be lawns; the curve number for the proposed residential lots were assumed as 12% impervious cover, 20% grass cover, and the remainder as wooded; and the minimum time of concentration used for runoff calculations is five (5) minutes.

Topographical data was obtained from aerial mapping techniques and supplemented with on-the-ground survey. Hydrologic boundaries were generated using the topographic mapping and the drainage patterns were verified by a site reconnaissance visit.

Surficial soils located in the vicinity of the site were obtained from a Class B high intensity soil survey completed by Albert Frick Associates and included under Section 11. The Applicant's parcel includes an array of soil classifications as listed below. Soils units found in the development area are primarily Adams and Croghan.

SOILS TYPES IN LOCAL STUDY AREA

Soils Series	Symbol(s)	Hydrologic Group (HSG) **
Adams	Ad	A
Croghan	Cr	B
Eldridge	El	C
Enosburg	En	C
Nicholville	Ni	C/D
Roundabout	Ro	C
Filled Land		B

**Hydrologic Soils Group taken from SCS TR-55 Manual

Flooding

The project area is located in Zone C (Areas of Minimal Flooding) of the Flood Insurance Rate Maps (FIRMs) for the Town of Brunswick. The project area is located on Community Panel 230042 0010 B, Revised January 3, 1986. An excerpt of the applicable FIRM is included in Section 19. The peak rate of runoff from the project area will be controlled to ensure the proposed construction does not create or exacerbate any flooding conditions downstream of the drainage area.

Off-Site Watersheds

The site is bordered to the north by the interstate and Durham Road, both of which establish a hydrologic boundary. There are no upgradient or off-site areas which drain through or otherwise impact the study area.

On-Site Subcatchments

Pre-Development Conditions

The site generally drains to the south, with defined natural drainageways in the west and east part of the parcel. The site is largely wooded; however, a significant area has been previously harvested for trees. Runoff in the central part of the study area is intercepted by Route 1, where roadside swales convey it to culverts. There are no man-made or natural lakes on-site; however an existing pond is located on an adjacent parcel fronting to Durham Road. There are no known areas that are prone to flooding on or adjacent to the site. The project location is not in the watershed most at risk from development or a sensitive or threatened region. No alterations to natural drainage ways will result from the project.

The site was divided into five (5) subcatchments that are shown on Drawing D1. For the most part, these existing subcatchments have not been revised from the previous permit. Subcatchment 4 was revised to reflect a more accurate land cover including additional

woodland and development of single-family lots since the initial application.

Subcatchment 1 is approximately 60.8 acres located southeast of Interstate 295 and south of the Durham Road. The subcatchment cover is roughly half wooded and half open range and drains to the southwest via natural drainageways into an existing stream ending at Analysis Point 1.

Subcatchment 2 is approximately 16.9 acres located north of Old Route 1. The subcatchment cover is predominantly open range and includes an abutter's lot with commercial business. The subcatchment drains to the southeast, collects in the roadside ditch along Route 1 and discharges via a culvert ending at Analysis Point 2.

Subcatchment 3 is approximately 13.5 acres located north of Old Route 1 in the central part of the site. The subcatchment cover is predominantly wooded and drains via land in to a natural wetland drainage way and ultimately to an existing culvert under Old Route 1 ending at Analysis Point 3.

Subcatchment 4 is approximately 14.6 acres located south of Durham Road and includes an existing residential lot and pond. The subcatchment cover is roughly half wooded and half open range and drains overland to the existing pond which discharges to a culvert under Durham Road ending at Analysis Point 4.

Subcatchment 5 is approximately 17.5 acres located at the east end of the site, south of Durham Road and north of Old Route 1. The subcatchment is mostly wooded and drains to an existing stream on the easterly boundary and ultimately to a culvert under Old Route 1 ending at Analysis Point 5.

Post-Development Conditions

Under post-development conditions there will be approximately 72,144 s.f. (1.65 acres) of new impervious area created due to the construction of the approximately 2,230 linear foot roadway. Runoff from the impervious and developed areas associated with the access road will be treated utilizing ditch turnouts to forested buffers, roadside meadow buffers, infiltration trenches and an under-drained grassed filter. Runoff from the proposed residential lots will be treated via forested buffers downgradient of the single-family residential lots.

Subcatchment 10 is approximately 44.6 acres and includes approximately 13,932 s.f. of new roadway and shoulder. This area of new roadway will be treated in a roadside meadow buffer and drains to the northwest via natural drainageways into an existing stream ending at Analysis Point 1.

Subcatchment 10A is approximately 14.27 acres and includes the proposed residential lots. The lots will be directed to forested buffers downgradient of a single family residential lot and drain to the northwest via natural drainageways into an existing stream ending at Analysis Point 1.

Subcatchment 11 is approximately 2.1 acres and includes approximately 11,094 s.f. of new roadway and shoulder and a portion of the proposed residential lots. The roadway and shoulder and proposed residential lots will be directed to a meadow buffer adjacent to the downhill side of a road and will infiltrate into the existing soils.

Subcatchment 19 is approximately 0.2 acres and represents approximately 3,809 s.f. of new roadway and shoulder. This area of new roadway will be conveyed to the underdrained vegetated soil filter basin and discharged through an underdrain towards the roadside ditch along Route 1 and ultimately to the culvert across Route 1 (Analysis Point 2).

Subcatchment 20 is approximately 12.7 acres and includes approximately 16,047 s.f. of new roadway and shoulder. The new roadway at the eastern entrance will be treated by two ditch turnouts going to forested buffers and the new roadway at the western entrance will be treated by an under-drained grassed filter. The Subcatchment also consists of a portion of the proposed residential lots which will be treated by forested buffers downgradient of a single family residential lot. This subcatchment drains to the southeast, collects in the roadside ditch along Route 1 and discharges via a culvert into the proposed detention pond, which discharges via a culvert across Route 1 ending at Analysis Point 2.

Subcatchment 21 is approximately 0.67 acres and includes approximately 4,166 s.f. of new roadway and shoulder and a portion of the proposed residential lots. This area of new roadway will be collected in a roadside ditch and treated in an infiltration trench, therefore not contributing to an Analysis Point. The proposed residential lots will be directed to forested buffers downgradient of a single family residential lot and to the infiltration trench.

Subcatchment 22 is approximately 1.8 acres and includes approximately 3,315 s.f. of new roadway and shoulder and a portion of the proposed residential lots. This area of new roadway will be collected in a roadside ditch and treated in an infiltration trench, therefore not contributing to an Analysis Point. The proposed residential lots will be directed to forested buffers downgradient of a single family residential lot and to the infiltration trench.

Subcatchment 23 is approximately 0.37 acres and includes approximately 6,518 s.f. of new roadway and shoulder. This area of new roadway will be collected in a roadside ditch and treated in an infiltration trench, therefore not contributing to an Analysis Point.

Subcatchment 24 is approximately 1.2 acres and includes approximately 7,900 s.f. of new roadway and shoulder and a portion of the proposed residential lots, which will be conveyed to a detention basin at the culvert under Route 1 (Analysis Point 2). The proposed residential lots will be directed to forested buffers downgradient of a single family residential lot.

Subcatchment 30 represents 13.4 acres and includes approximately 5,686 s.f. of new roadway and shoulder and a portion of the proposed residential lots. The new roadway will be directed a meadow buffer adjacent to the downhill side of a road and the residential lots will be directed to forested buffers downgraident of a single family residential lot. The stormwater runoff will eventually be conveyed to an existing culvert at

Route 1 (Analysis Point 3).

Subcatchment 40 represents about 14.6 acres and includes a portion of the proposed residential lots, which will be directed to forested buffers downgraident of single family residential lots. Runoff will drain to an existing pond and ultimately under Durham Road (Analysis Point 4).

Subcatchment 50 represents 17.5 acres at the east end of the study area that drains to an existing drainageway on the easterly boundary (Analysis Point 5).

Runoff collected at the primary culvert crossing under Route 1 (Analysis Point 2) will be controlled at an outlet control structure to be connected to the existing culvert. A detention basin has been constructed, enlarging the depression adjacent to the roadway. Details of the detention basin are provided on the drawings.

As part of the prior SLODA approval, the entirety of the access road was roughed in and a portion was paved. The detention pond was constructed and a portion of the infiltration basins/trenches were installed.

Flooding Standard (Water Quantity)

A comparison of pre- and post-development peak stormwater runoff rates at the Analysis Points are presented in the following tables. Peak runoff rates were estimated for the 2, 10, and 25-year, 24-hour storm events.

Analysis Point 1

Design Storm	Pre	Post	Change (cfs/%)
2-Year	23.2	22.5	-0.7 / -3%
10-Year	65.8	65.3	-0.5 / -1%
25-Year	88.7	89.6	0.9 / 1%

For Analysis Point 1, the peak runoff rate is decreased in the 2- and 10-year storm events and increased slightly in the 25-year storm event. The decrease shown in the 2- and 10-year storm events is most likely due to the assumptions and slight inconsistencies inherent to the HydroCAD software, and for the intent of this report, it can be assumed that the proposed development does not have any adverse impact to the existing watershed.

Analysis Point 2

Design Storm	Pre	Post	Change (cfs/%)
2-Year	1.8	2.8	+1.0 / 56%
10-Year	9.7	6.3	-3.4 / -35%
25-Year	14.8	12.1	-2.7 / -18%

For Analysis Point 2, due to the detention pond, the peak runoff rate is decreased for the 10- and 25-year storm events. The increase in the 2-year event is due to the 2.5-inch orifice located within the outlet control structure of the detention pond. In order to meet pre-development peak runoff rates, the diameter of the orifice would have to

be decreased in size. Decreasing th e diameter of this orifice would greatly increase the likelihood of plugging in the future and the sm all increase should not hav e a noticeable impact at the analysis point.

Analysis Point 3

Design Storm	Pre	Post	Change (cfs/%)
2-Year	2.0	2.5	0.5 / 25%
10-Year	8.4	9.4	1.0 / 12%
25-Year	12.3	13.4	1.1 / 9%

For Analysis Point 3, the peak runoff rate is increased for all storm events. This is the result of the change in land cover from woods to brush and residential lots. The change in land cover from woods to brush was due to the developm ent of t he commercial lot adjacen t to the pro ject site an d was approved under a Condition Compliance permit (#L-24560-MX-B-C) approved by the Departm ent in March of 2012. As part of that approval, the change in land cover, and associated increase in peak runoff rate, was considered an insignificant increase. As such, we would request that the Department consider the increase in peak runoff rate associated with Analysis Point 3 an insignificant increase. The culvert under the roadway is a 24" reinforced concrete pipe (RCP), which passes the peak rate of flow wit hout surcharging or attenuation.

Analysis Point 4

Design Storm	Pre	Post	Change (cfs/%)
2-Year	4.0	4.4	0.4 / 10%
10-Year	12.9	13.6	0.7 / 5%
25-Year	17.8	18.6	0.8 / 4%

For Analysis Point 4, the peak runoff rate is increased for all storm events. This is the result of a change in land cover from wooded to residential lots. As with Analysis Point 3, the anticipated increase can be considered an insignificant increase and will not result in any adverse impact to the watershed.

Analysis Point 5

Design Storm	Pre	Post	Change (cfs/%)
2-Year	3.6	4.1	0.5 / 10%
10-Year	13.6	14.5	0.9 / 7%
25-Year	19.4	20.4	1.0 / 5%

Analysis Point 5 was not revised as part of the proposed changes from a commercial subdivision to a residential subdivision.

Water Quality

A water quality plan for collec ting and providing treatm ent of runoff from the impervious area in a ccordance with Chapter 5 00 is p resented below. Several treatment options were

evaluated and selected for the site conditions (See Sheet D4). Where possible, the use of buffers for treatment was selected. A combination of a buffer adjacent to a road, buffer downgradient of a single-family residential lot, and the use of ditch turn-outs to a wooded buffer were incorporated into the design. Where the cut required for the roadway precluded a buffer or ditch turnout, infiltration or soil filtration basins have been used. An 18" layer of soil media will be incorporated into the infiltration basins as well as the filter basins at the suggestion of the Department's geologist. (See Sheets 7 & 8 for grading details and Sheet 10 for stormwater details)

The water quality features and tributary areas specific to the road construction are presented on Sheet D4. Details of the water quality treatment plan are described below.

As previously noted, the construction of the road will create approximately 72,144 s.f. (1.65 acres) of impervious area. Runoff from approximately 30,487 s.f. (0.70 acres), or 42.3%, of the impervious area will be conveyed via surface flow to vegetated buffers immediately adjacent to the road where it will infiltrate or filter through vegetation. The deep, well-drained sands will absorb the runoff from the design storm events. The westerly entrance will drain to an underdrained vegeta ted filter basin to be constructed near the Route 1 ROW. A portion of the easterly entrance will be conveyed via roadside ditches to a turnout and level spreader, where runoff will be distributed to wooded buffers. Approximately 10,463 s.f., or 15% of roadway impervious area will not be captured; however, this is less than 25% of the linear portion of the project, meeting the criteria.

Approximately 1,481,536 s.f. (34.01 acres) of land will be converted to residential lots. As mentioned previously, as part of the analysis, it was assumed that 12% of the lot would be converted to impervious cover, 20% of the lot would be converted to grass cover, and the remainder would remain as wooded. Runoff from 1,432,202 s.f. (32.88 acres), or 96.7%, of the proposed residential lots will be directed to a buffer downgradient of a single family residential lot, an infiltration trench/basin, or an underdrained grass filter.

Calculations

Stormwater calculations for stormwater volumes and basin sizing are enclosed for the following structural features. Criteria used for the calculations are:

The water volume calculations for the filter beds are based upon treating the following:

- 95% of impervious area
- 80% of other developed area

The linear portion rule was applied to the entrance roadway as follows:

- 75% of impervious area in linear portion
- 50% of other developed area in linear portion

Rainfall amount for water quality treatment:

- 1" of runoff/s.f. of impervious area
- 0.4" of runoff/s.f. of developed area

The minimum filter bed sizing was confirmed to be greater than:

- 5% of tributary impervious area, plus

- 2% of tributary developed area

Details, Designs, and Specifications

Details, designs, and specifications for the stormwater features are provided on the permitting drawings.

Test pits were performed within the limits of the proposed infiltration / filter field. These tests showed uniform, clean sand and no groundwater table to a depth of greater than eight (8) feet. Based on field results, the proposed infiltration / filter field location is anticipated to meet Stormwater BMP requirements for separation to groundwater.

The impervious and developed areas tributary to the filtration basins and the required volume and filter area required is summarized in the table below.

Impervious Area and Pond Volume Requirements

	(a)	(b)	(c)	(d)	(e)	(f)
Station Range of Treated Area	Impervious area (sq. ft.)	Required Storage (cu. ft.)	Landscaped Area (sq. ft.)	Required Storage (cu. ft.)	Total Storage required (cu. ft.)	Filter Area Required / Provided (sq. ft.)
	(from plan)	(a)x0.083'	(from plan)	(c)x0.033'	(b)+(d)	(a)x0.05+ (c)x0.02
15+45 - 19+50	6,518	543	9,455	315	858	515 / 730
17+10 - 19+50	4,166	347	3,686	123	470	282 / 336
19+50 - 21+00 19+50 - 20+75	3,809	317	5,967	199	516	310 / 350
19+75 - 22+40	10,629	886	16,531	551	1,437	862 / 870

CONCLUSION

Runoff from 85% of the proposed road will be conveyed to vegetated buffers, infiltration basins, or an underdrained soil filter basin to be captured and /or treated. Runoff from larger rain events will be routed to the existing storm drain system where it will be conveyed to a detention basin to be constructed adjacent to Route 1 to limit peak rates of runoff. Runoff from 97% of the proposed residential lots will be directed to forested or meadow buffers downgradient of a single family residential lot or infiltration trenches.

The proposed project has been conceived with erosion and sedimentation controls during and after construction, including housekeeping, inspection and maintenance of stormwater facilities to comply with the Basic Standard (see Section 14). By capturing and treating runoff, the project likewise meets the applicable portions of the General Standard. A detention basin constructed upgradient of the existing culvert at Route 1 (Analysis Point 2) will limit the peak rate of runoff to less than pre-development condition in compliance with the flooding standard.

By implementing the proposed design standards, th e project will not have an adverse im pact on the abutting parcels or downstream drainageways.

Attachment I
Subdivision Plans

The project subdivision plans are included in reduced format for review, and full size copies have been provided as a separate plan sets, as required.

SPRUCE MEADOWS SUBDIVISION

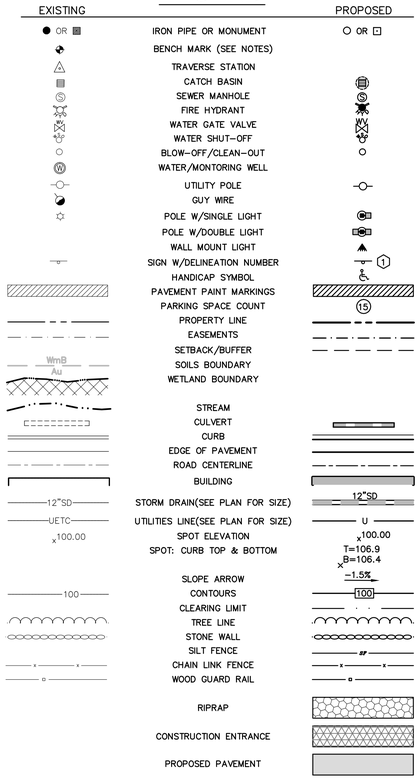
OLD PORTLAND ROAD - BRUNSWICK, MAINE

TAX MAP 13. LOTS 34, 66-78

PREPARED FOR:

MOORE PROPERTIES, INC

LEGEND



PROJECT CONTACTS:

BRUNSWICK PLANNING & DEVELOPMENT
85 UNION STREET
BRUNSWICK, MAINE 04011
PHONE: 207-725-6660

BRUNSWICK CODE ENFORCEMENT
85 UNION STREET
BRUNSWICK, MAINE 04011
PHONE: 207-725-6651

ELECTRIC SERVICE:
CENTRAL MAINE POWER
280 BATH ROAD
BRUNSWICK, MAINE 04011
PHONE: 207-721-8081

TELEPHONE SERVICE:
FAIRPOINT COMMUNICATIONS
360 BATH ROAD (P.O. BOX 360)
BRUNSWICK, MAINE 04011
PHONE: 207-442-8018

PUBLIC WORKS DEPARTMENT:
BRUNSWICK PUBLIC WORKS
9 INDUSTRY ROAD
BRUNSWICK, MAINE 04011
PHONE: 207-725-6654

BRUNSWICK FIRE / RESCUE:
21 TOWN HALL PLACE
BRUNSWICK, MAINE 04011
PHONE: 207-725-5541

BRUNSWICK POLICE DEPARTMENT:
100 MAIN STREET
BRUNSWICK, MAINE 04011
PHONE: 207-725-4337

DESIGN TEAM:

ENGINEERING, PLANNING, SURVEYING & LANDSCAPE ARCHITECTS:
SITELINES, P.A.
CURTIS NEUFELD, P.E.
8 CUMBERLAND STREET
BRUNSWICK, MAINE 04011
PHONE: 207-725-1200

SEPTIC DESIGN:
ALBERT FRICK ASSOCIATES, INC.
ATTN: ALBERT FRICK
95A COUNTY ROAD
GORHAM, MAINE 04038
207-839-5563

WETLANDS:
ECO-ANALYSTS, INC.
ATTN: TIM FORRESTER
P.O. BOX 224
BATH, ME 04530
207-882-1115

GEOTECHNICAL:
SUMMIT GEOENGINEERING SERVICES
ATTN: BILL PETERLEIN, P.E.
640 MAIN STREET
LEWISTON, ME 04240

SHEET INDEX

NO.	SHEET TITLE	SCALE
1	COVER SHEET	N/A
2	OVERALL SUBDIVISION	1:150
2A	OVERALL LOT LAYOUT PLAN	1:150
3	LOT LAYOUT AND DEVELOPMENT PLAN	1:100
4	PLAN & PROFILE STA 0+00 TO 11+00 GRADING, DRAINAGE & EC PLAN	1:50
5	PLAN & PROFILE STA 11+00 TO 22+50 GRADING, DRAINAGE & EC PLAN	1:50
6	EROSION CONTROL NOTES AND DETAILS	NTS
7	CONSTRUCTION DETAILS	NTS
8	STORMWATER DETAILS	NTS

GENERAL NOTES:

1. DRAWINGS ARE BASED ON BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION FROM MULTIPLE SOURCES BY SITELINES PA.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION HAS NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES AND IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (1-800-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IN AREAS OF POTENTIAL CONFLICTS TEST PITS SHALL BE REQUIRED TO VERIFY EXISTING UTILITY LOCATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

3. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, CABLE AND FIRE ALARM). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH CONSTRUCTION MANAGER AND ARCHITECT.

4. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, SIZE, INVERTS AND TYPES OF EXISTING PIPES AT ALL PROPOSED POINTS OF CONNECTION PRIOR TO ORDERING MATERIALS. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATIONS, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE CONSTRUCTION MANAGER REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT.

5. THE CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS AND GRADES BEFORE WORK BEGINS. CONTRACTOR SHALL CONFIRM LOCATION AND DEPTH ALL UTILITY LINE CROSSINGS WITH TEST PITS PRIOR TO BEGINNING WORK. CONFLICTS SHALL BE REPORTED IN WRITING TO CONSTRUCTION MANAGER FOR RESOLUTION OF THE CONFLICT.

6. ALL AREAS OUTSIDE THE LIMIT OF WORK THAT ARE DISTURBED SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. ALL AREAS DISTURBED DURING CONSTRUCTION NOT COVERED WITH BUILDINGS, STRUCTURES, OR PAVEMENT SHALL RECEIVE 4 INCHES OF LOAM AND SEED.

7. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND SHALL BE RESPONSIBLE FOR PAYING ANY FEES FOR ANY POLE RELOCATION AND FOR THE ALTERATION OR ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, CABLE, FIRE ALARM AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES. (NOT ANTICIPATED)

8. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS AND AS SPECIFIED.

9. ALL PROPERTY MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE RESET TO THEIR ORIGINAL LOCATION BY A MAINE REGISTERED LICENSED PROFESSIONAL LAND SURVEYOR (PLS) AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PREPARE AN AS-BUILT PLAN SURVEY SHOWING LOCATIONS OF ALL SURFACE FEATURES AND SUBSURFACE UTILITY SYSTEMS INCLUDING THE LOCATION TYPE, SIZE AND INVERTS.

10. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATION AND MAINTAIN ALL EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION. EROSION CONTROL SHALL BE REMOVED ONLY UPON THE ESTABLISHMENT OF ALL LANDSCAPED AREAS. ALL WORK SHALL BE IN COMPLIANCE WITH THE ENVIRONMENTAL QUALITY HANDBOOK FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION, AS ADOPTED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

11. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.

12. ALL MATERIALS AND CONSTRUCTION METHODS USED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL LOCAL MUNICIPAL STANDARDS AND MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

13. THE CONTRACTOR IS REQUIRED TO CONTROL DUST DURING CONSTRUCTION. EXPOSED SOIL AREAS SHALL BE SPRAYED WITH WATER AS NEEDED TO CONTROL DUST EMISSIONS. COVER EXPOSED SOIL AREAS AS QUICKLY AS PRACTICAL TO PREVENT WINDS FROM GENERATING DUST.

14. ALL SITE SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.

15. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. SEE SPECIFICATIONS FOR GEOTECHNICAL INFORMATION.

PERMITTING REQUIREMENTS:

AGENCY:	*PERMIT:*	*STATUS:*
TOWN OF BRUNSWICK	MAJOR DEVELOPMENT REVIEW	PENDING
	BUILDING	(BY CONTRACTOR)
MDEP	AMENDMENT TO SITE LAW	TO BE SUBMITTED

NO.	DATE	DESCRIPTION	BY
5.	11-16-15	REVISED PER STAFF COMMENTS	CYN
4.	10-30-15	REVISED PER MDEP COMMENTS	CYN
3.	09-28-15	SUBMITTED TO MDEP FOR SLODA AMENDMENT	CYN
2.	09-15-15	SUBMITTED FOR FINAL REVIEW	JJM
1.	06-02-15	SUBMITTED TO TOWN OF BRUNSWICK	RPL

PROGRESS PRINT
THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.

CALL DIG SAFE UTILITY LOCATION
1-888-344-7233
STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES

STATE OF MAINE
CURTIS J. NEUFELD
9779
LICENSED PROFESSIONAL ENGINEER
12-04-15

TITLE:
COVER SHEET

PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
8 CUMBERLAND STREET, BRUNSWICK, ME 04011
207.725.1200 www.sitelinespa.com

FIELD WK: N/A	SCALE: NTS	SHEET: 1
DRN BY: JJM	JOB #: 731.03	
CH'D BY: CYN	MAP/LOT: 13 / 34,66-78	
DATE: 9-15-15	FILE: 731.03-COVER	

ASSIGNED STREET ADDRESSES AND MAP/LOT NUMBERS

Subdivision No.	Street Address	Map/Lot
Lot 1	82-84 Kennedy Drive	13-81
Lot 2	78-80 Kennedy Drive	13-82
Lot 3	74-76 Kennedy Drive	13-83
Lot 4	70-72 Kennedy Drive	13-84
Lot 5	66-68 Kennedy Drive	13-85
Lot 6	62-64 Kennedy Drive	13-86
Lot 7	58-60 Kennedy Drive	13-87
Lot 8	54-56 Kennedy Drive	13-88
Lot 9	50-52 Kennedy Drive	13-89
Lot 10	44-46 Kennedy Drive	13-90
Lot 11	40-42 Kennedy Drive	13-91
Lot 12	36-38 Kennedy Drive	13-92
Lot 13	32-34 Kennedy Drive	13-93
Lot 14	30 Kennedy Drive	13-94
Lot 15	26-28 Kennedy Drive	13-95
Lot 16	22-24 Kennedy Drive	13-96
Lot 17	20 Kennedy Drive	13-97
Lot 18	16-18 Kennedy Drive	13-98
Lot 19	12-14 Kennedy Drive	13-99
Lot 20	8-10 Kennedy Drive	13-100
Lot 21	2-6 Kennedy Drive	13-101
Lot 22	1-13 Kennedy Drive	13-102
Lot 23	15-17 Kennedy Drive	13-103
Lot 24	19-21 Kennedy Drive	13-104
Lot 25	23-33 Kennedy Drive	13-105
Lot 26	35-47 Kennedy Drive	13-106
Lot 27	49-51 Kennedy Drive	13-107
Lot 28	53-55 Kennedy Drive	13-108
Lot 29	57-59 Kennedy Drive	13-109
Lot 30	61-65 Kennedy Drive	13-110
Lot 31	67-75 Kennedy Drive	13-111
Lot 32	77-79 Kennedy Drive	13-112
Lot 33	81-83 Kennedy Drive	13-113

NOTES:
1. SUBDIVISION IS SUBJECT TO REQUIREMENTS OF MDEP PERMIT L-24560-MX-A-N

2. ALL LOTS SHALL BE SOLD WITH DEED RESTRICTIONS FOR THE WOODED AND/OR MEADOW BUFFERS SHOWN. SAMPLE DEED RESTRICTIONS SHALL BE INCLUDED IN THE DECLARATIONS AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS..

3. SPRUCE MEADOWS HOME OWNER'S ASSOCIATION SHALL BE RESPONSIBLE FOR MAINTENANCE OF STORMWATER TREATMENT AREAS WITHIN KENNEDY DRIVE ROW AND EASEMENTS SHOWN. INSPECTIONS SHALL BE COMPLETED AND RECORDED FOR REVIEW BY THE MDEP.

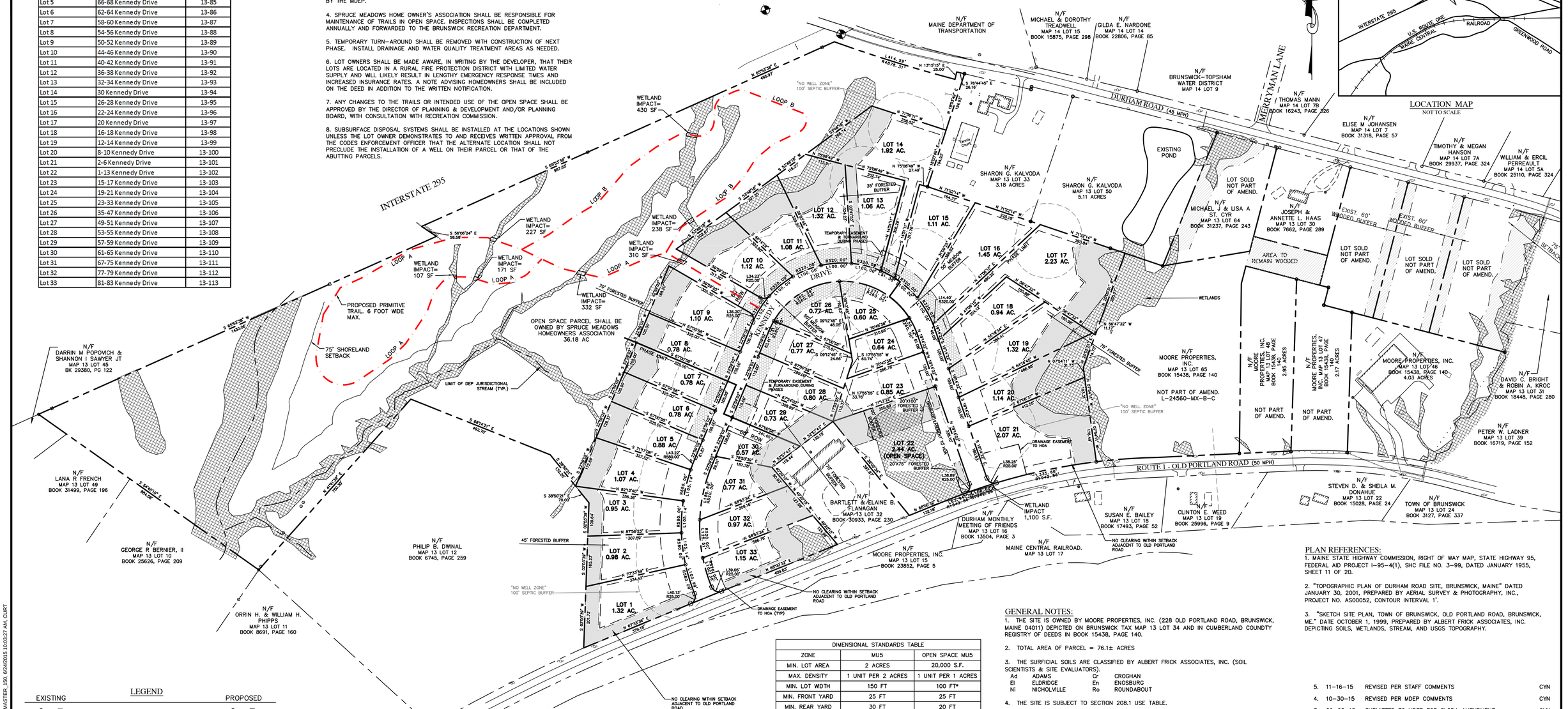
4. SPRUCE MEADOWS HOME OWNER'S ASSOCIATION SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAILS IN OPEN SPACE. INSPECTIONS SHALL BE COMPLETED ANNUALLY AND FORWARDED TO THE BRUNSWICK RECREATION DEPARTMENT.

5. TEMPORARY TURN-AROUND SHALL BE REMOVED WITH CONSTRUCTION OF NEXT PHASE. INSTALL DRAINAGE AND WATER QUALITY TREATMENT AREAS AS NEEDED.

6. LOT OWNERS SHALL BE MADE AWARE, IN WRITING BY THE DEVELOPER, THAT THEIR LOTS ARE LOCATED IN A RURAL FIRE PROTECTION DISTRICT WITH LIMITED WATER SUPPLY AND WILL LIKELY RESULT IN LENGTHY EMERGENCY RESPONSE TIMES AND INCREASED INSURANCE RATES. A NOTE ADVISING HOMEOWNERS SHALL BE INCLUDED ON THE DEED IN ADDITION TO THE WRITTEN NOTIFICATION.

7. ANY CHANGES TO THE TRAILS OR INTENDED USE OF THE OPEN SPACE SHALL BE APPROVED BY THE DIRECTOR OF PLANNING & DEVELOPMENT AND/OR PLANNING BOARD, WITH CONSULTATION WITH RECREATION COMMISSION.

8. SUBSURFACE DISPOSAL SYSTEMS SHALL BE INSTALLED AT THE LOCATIONS SHOWN UNLESS THE LOT OWNER DEMONSTRATES TO AND RECEIVES WRITTEN APPROVAL FROM THE CODES ENFORCEMENT OFFICER THAT THE ALTERNATE LOCATION SHALL NOT PRECLUDE THE INSTALLATION OF A WELL ON THEIR PARCEL OR THAT OF THE ABUTTING PARCELS.



LOCATION MAP
NOT TO SCALE

LEGEND

EXISTING		PROPOSED
● OR ■	IRON PIPE OR MONUMENT	○ OR □
	BENCH MARK (SEE NOTES)	
	TRAVERSE STATION	
	UTILITY POLE	
	SIGN	
	PROPERTY LINE	
	EASEMENTS	
	SETBACK/BUFFER	
	EDGE OF PAVEMENT	
	EDGE OF GRAVEL	
	WETLAND BOUNDARY	
	STREAM	
	BUILDING	
TP2	TEST PIT	
	STONE WALL	
	FORESTED BUFFER, LIMITED DISTURBANCE	
	MEADOW BUFFER, LIMITED DISTURBANCE	
	ROAD SIDE DITCH BUFFER	

DIMENSIONAL STANDARDS TABLE		
ZONE	MU5	OPEN SPACE MU5
MIN. LOT AREA	2 ACRES	20,000 S.F.
MAX. DENSITY	1 UNIT PER 2 ACRES	1 UNIT PER 1 ACRES
MIN. LOT WIDTH	150 FT	100 FT*
MIN. FRONT YARD	25 FT	25 FT
MIN. REAR YARD	30 FT	20 FT
MIN. SIDE YARD	30 FT	10 FT
MAX. IMPERVIOUS SURFACE	25%	25%
MAX. HEIGHT	40 FT	40 FT
MAX. BUILDING FOOTPRINT PER STRUCTURE	10,000 S.F.	10,000 S.F.
MIN. PROTECT CONSERVATION LAND	N/A	50%

*FRONTAGE ON SECONDARY ROAD

PHASING PLAN:

PHASE 1 LOTS 1-7,30-33 (11 TOTAL) TRAIL LOOP A	TIME PERIOD 2015-2020
PHASE 2 LOTS 8-13,25-29 (11 TOTAL) TRAIL LOOP B	TIME PERIOD 2020-2025
PHASE 3 LOTS 14-21,23-24 (10 TOTAL)	TIME PERIOD 2025-2030

SURVEYOR'S CERTIFICATION:

THE PREPARER HEREBY CERTIFIES THAT THIS SURVEY HAS BEEN UNDERTAKEN IN CONFORMANCE WITH THE RULES SET FORTH BY THE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS, DATED APRIL 1, 2001, FOR A BOUNDARY SURVEY.

STATE OF MAINE · KEVIN P. CLARK #2245 · PROFESSIONAL LAND SURVEYOR

NOT VALID UNLESS EMBOSSED HERE

DATE

KEVIN P. CLARK, PLS #2245

APPROVAL
TOWN OF BRUNSWICK PLANNING BOARD

DATE:

CHAIRMAN:

GENERAL NOTES:

1. THE SITE IS OWNED BY MOORE PROPERTIES, INC. (228 OLD PORTLAND ROAD, BRUNSWICK, MAINE 04011) DEPICTED ON BRUNSWICK TAX MAP 13 LOT 34 AND IN CUMBERLAND COUNDTY REGISTRY OF DEEDS IN BOOK 15438, PAGE 140.

2. TOTAL AREA OF PARCEL = 76.1± ACRES

3. THE SURFICIAL SOILS ARE CLASSIFIED BY ALBERT FRICK ASSOCIATES, INC. (SOIL SCIENTISTS & SITE EVALUATORS).

Ad	ADAMS	Cr	CROGHAN
El	ELDRIDGE	En	ENOSBURG
Ni	NICHOLVILLE	Ro	ROUNDABOUT

4. THE SITE IS SUBJECT TO SECTION 208.1 USE TABLE.

5. CONSTRUCTION WITHIN 100 FEET OR CLEARING ACTIVITIES WITHIN 75' OF THE STREAM MAY REQUIRE A NATURAL RESOURCES PROTECTION ACT PERMIT BY RULE FROM THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

6. NO DEVELOPMENT IS PROPOSED WITHIN A WILDLIFE HABITAT BLOCK DISTRICT OR WILDLIFE CORRIDOR DISTRICT.

7. TOTAL WETLAND IMPACTS: 2,914 S.F.

PLAN REFERENCES:

1. MAINE STATE HIGHWAY COMMISSION, RIGHT OF WAY MAP, STATE HIGHWAY 95, FEDERAL AID PROJECT I-95-4(1), SHC FILE NO. 3-99, DATED JANUARY 1955, SHEET 11 OF 20.

2. "TOPOGRAPHIC PLAN OF DURHAM ROAD SITE, BRUNSWICK, MAINE" DATED JANUARY 30, 2001, PREPARED BY AERIAL SURVEY & PHOTOGRAPHY, INC., PROJECT NO. AS00052, CONTOUR INTERVAL 1'.

3. "SKETCH SITE PLAN, TOWN OF BRUNSWICK, OLD PORTLAND ROAD, BRUNSWICK, ME." DATE OCTOBER 1, 1999, PREPARED BY ALBERT FRICK ASSOCIATES, INC. DEPICTING SOILS, WETLANDS, STREAM, AND USGS TOPOGRAPHY.

CUMBERLAND COUNTY REGISTRY OF DEEDS:

RECEIVED_____

AT _____ HRS _____ MIN ___ M, AND

FILED IN PLAN BOOK _____ PAGE _____.

ATTESTED: _____, REGISTER

GRAPHIC SCALE

150 0 75 150 300

(IN FEET)
1 inch = 150 ft.

PROGRESS PRINT
THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.

5.	11-16-15	REVISED PER STAFF COMMENTS CYN
4.	10-30-15	REVISED PER MDEP COMMENTS CYN
3.	09-28-15	SUBMITTED TO MDEP FOR SLODA AMENDMENT CYN
2.	09-15-15	SUBMITTED FOR FINAL REVIEW JJM
1.	06-02-15	SUBMITTED TO TOWN OF BRUNSWICK RPL

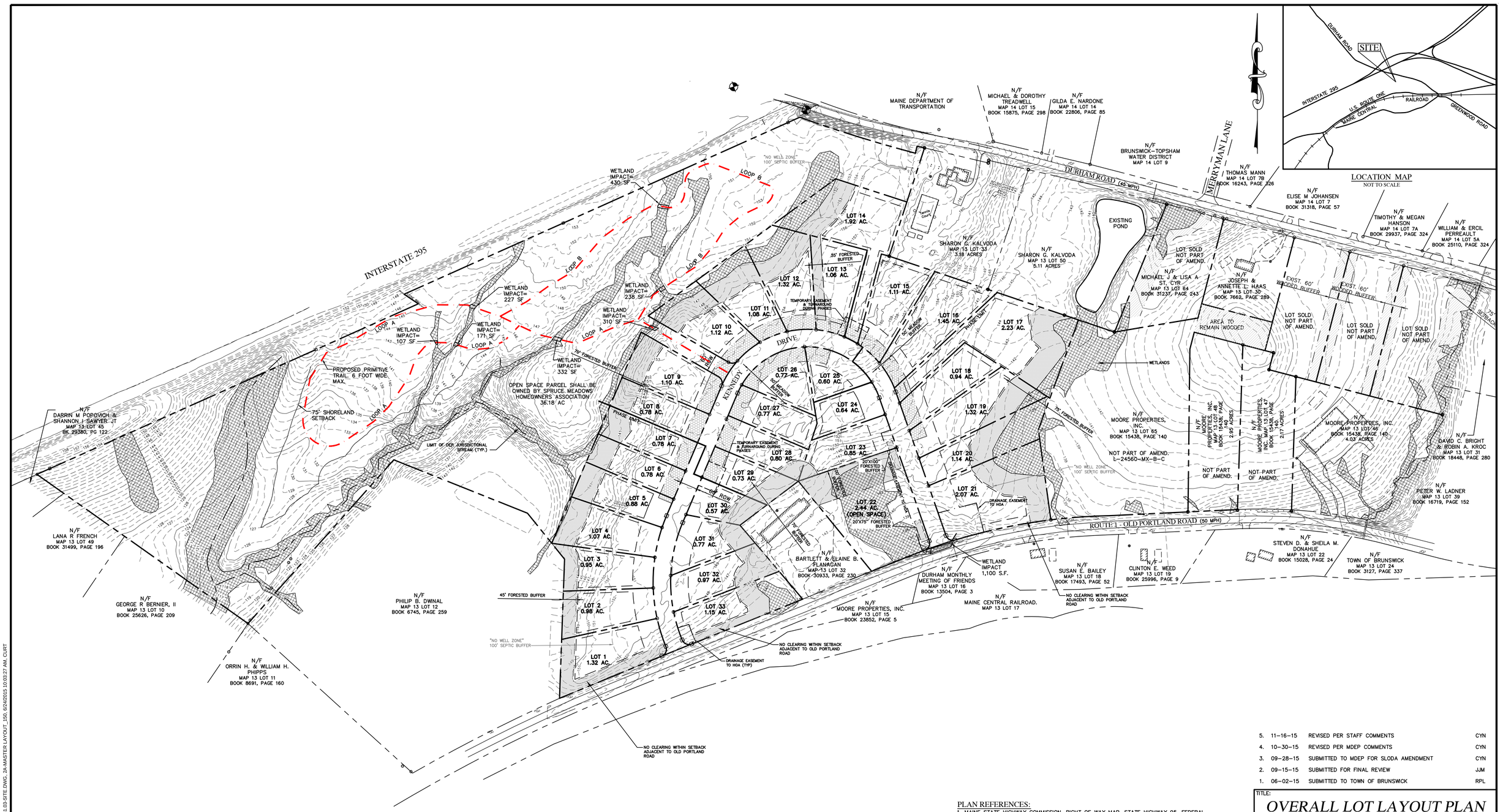
TITLE:
OVERALL SUBDIVISION

PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
8 CUMBERLAND STREET, BRUNSWICK, ME 04011
207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: 1"=150'	SHEET: 2
DRN BY: RPL	JOB #: 731.03	
CH'D BY: CYN	MAP/LOT: 13/34	
DATE: 09-15-15	FILE: 731.03-SITE	



LOCATION MAP
NOT TO SCALE

PLAN REFERENCES:

1. MAINE STATE HIGHWAY COMMISSION, RIGHT OF WAY MAP, STATE HIGHWAY 95, FEDERAL AID PROJECT I-95-4(1), SHC FILE NO. 3-99, DATED JANUARY 1955, SHEET 11 OF 20.

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3. "SKETCH SITE PLAN, TOWN OF BRUNSWICK, OLD PORTLAND ROAD, BRUNSWICK, ME." DATE OCTOBER 1, 1999, PREPARED BY ALBERT FRICK ASSOCIATES, INC. DEPICTING SOILS, WETLANDS, STREAM, AND USGS TOPOGRAPHY.

5.	11-16-15	REVISED PER STAFF COMMENTS	CYN
4.	10-30-15	REVISED PER MDEP COMMENTS	CYN
3.	09-28-15	SUBMITTED TO MDEP FOR SLODA AMENDMENT	CYN
2.	09-15-15	SUBMITTED FOR FINAL REVIEW	JJM
1.	06-02-15	SUBMITTED TO TOWN OF BRUNSWICK	RPL

PROGRESS PRINT
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GRAPHIC SCALE
150 0 75 150 300
(IN FEET)
1 inch = 150 ft.

STATE OF MAINE
CURTIS Y. NEUFELD
9779
LICENSED PROFESSIONAL ENGINEER
12-04-15

TITLE:
OVERALL LOT LAYOUT PLAN

PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
8 CUMBERLAND STREET, BRUNSWICK, ME 04011
207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: 1"=150'	SHEET: 2A
DRN BY: RPL	JOB #: 731.03	
CH'D BY: CYN	MAP/LOT: 13/34	
DATE: 09-15-15	FILE: 731.03-SITE	

X:\LAND PROJECTS\731.03 MOORE BCC RESIDENTIAL BRUNSWICK\DWG\731.03-SITE.DWG, 2A-MASTER LAYOUT_150, 6/24/2015 10:03:27 AM, CURT

RESIDENTIAL DENSITY CALCULATION

ID		CALCULATION	AREA (S.F.)	AREA (ACRES)
A	OVERALL AREA	PLAN	3,315,712	76.1
B	DEVELOPED AREA	A–H	1,613,427	37.0
C	WETLANDS	PLAN	138,855	3.2
D	PROPOSED ROW	PLAN	131,591	3.0
E	NET SITE AREA	B–(C+D)	1,342,981	30.8
F	ALLOWABLE DENSITY	(E/43560)X1.15	35.5 UNITS	
G	REQ. OPEN SPACE	A*0.50	1,657,856	38.1
H	OPEN SPACE PROVIDED	PLAN	1,702,284	39.1

*DENSITY INCLUDES BONUS DENSITY AS PROVIDED IN SECTION 308.20

NOTES:

1. SUBDIVISION IS SUBJECT TO REQUIREMENTS OF MDEP PERMIT L-24560-MX-A-N

2. ALL LOTS SHALL BE SOLD WITH DEED RESTRICTIONS FOR THE WOODED AND/OR MEADOW BUFFERS SHOWN. SAMPLE DEED RESTRICTIONS SHALL BE INCLUDED IN THE DECLARATIONS AND RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS..

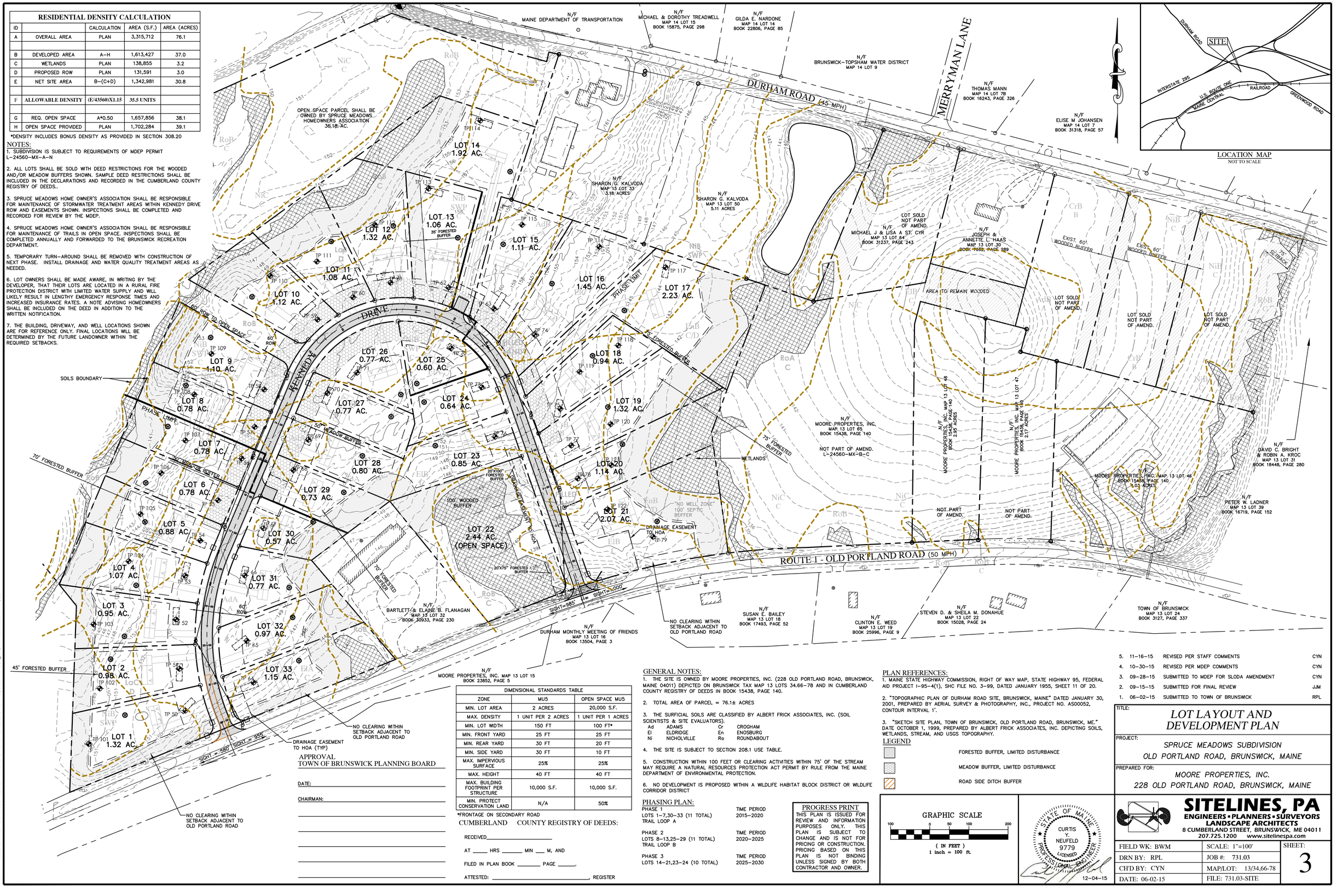
3. SPRUCE MEADOWS HOME OWNER'S ASSOCIATION SHALL BE RESPONSIBLE FOR MAINTENANCE OF STORMWATER TREATMENT AREAS WITHIN KENNEDY DRIVE ROW AND EASEMENTS SHOWN. INSPECTIONS SHALL BE COMPLETED AND RECORDED FOR REVIEW BY THE MDEP.

4. SPRUCE MEADOWS HOME OWNER'S ASSOCIATION SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAILS IN OPEN SPACE. INSPECTIONS SHALL BE COMPLETED ANNUALLY AND FORWARDED TO THE BRUNSWICK RECREATION DEPARTMENT.

5. TEMPORARY TURN-AROUND SHALL BE REMOVED WITH CONSTRUCTION OF NEXT PHASE. INSTALL DRAINAGE AND WATER QUALITY TREATMENT AREAS AS NEEDED.

6. LOT OWNERS SHALL BE MADE AWARE, IN WRITING BY THE DEVELOPER, THAT THEIR LOTS ARE LOCATED IN A RURAL FIRE PROTECTION DISTRICT WITH LIMITED WATER SUPPLY AND WILL LIKELY RESULT IN LENGTHY EMERGENCY RESPONSE TIMES AND INCREASED INSURANCE RATES. A NOTE ADVISING HOMEOWNERS SHALL BE INCLUDED ON THE DEED IN ADDITION TO THE WRITTEN NOTIFICATION.

7. THE BUILDING, DRIVEWAY, AND WELL LOCATIONS SHOWN ARE FOR REFERENCE ONLY. FINAL LOCATIONS WILL BE DETERMINED BY THE FUTURE LANDOWNER WITHIN THE REQUIRED SETBACKS.



LOCATION MAP
NOT TO SCALE

DIMENSIONAL STANDARDS TABLE		
ZONE	MU5	OPEN SPACE MU5
MIN. LOT AREA	2 ACRES	20,000 S.F.
MAX. DENSITY	1 UNIT PER 2 ACRES	1 UNIT PER 1 ACRES
MIN. LOT WIDTH	150 FT	100 FT*
MIN. FRONT YARD	25 FT	25 FT
MIN. REAR YARD	30 FT	20 FT
MIN. SIDE YARD	30 FT	10 FT
MAX. IMPERVIOUS SURFACE	25%	25%
MAX. HEIGHT	40 FT	40 FT
MAX. BUILDING FOOTPRINT PER STRUCTURE	10,000 S.F.	10,000 S.F.
MIN. PROTECT CONSERVATION LAND	N/A	50%

*FRONTAGE ON SECONDARY ROAD

APPROVAL
TOWN OF BRUNSWICK PLANNING BOARD

DATE: _____

CHAIRMAN: _____

CUMBERLAND COUNTY REGISTRY OF DEEDS:

RECEIVED_____

AT _____ HRS _____ MIN ___ M, AND

FILED IN PLAN BOOK _____ PAGE _____.

ATTESTED: _____, REGISTER

GENERAL NOTES:

1. THE SITE IS OWNED BY MOORE PROPERTIES, INC. (228 OLD PORTLAND ROAD, BRUNSWICK, MAINE 04011) DEPICTED ON BRUNSWICK TAX MAP 13 LOTS 34.66-78 AND IN CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 15438, PAGE 140.

2. TOTAL AREA OF PARCEL = 76.1± ACRES

3. THE SURFICIAL SOILS ARE CLASSIFIED BY ALBERT FRICK ASSOCIATES, INC. (SOIL SCIENTISTS & SITE EVALUATORS).

Ad	ADAMS	Cr	CROGHAM
El	ELDRIDGE	En	ENOSBURG
Ni	NICHOLVILLE	Ro	ROUNDABOUT

4. THE SITE IS SUBJECT TO SECTION 208.1 USE TABLE.

5. CONSTRUCTION WITHIN 100 FEET OR CLEARING ACTIVITIES WITHIN 75' OF THE STREAM MAY REQUIRE A NATURAL RESOURCES PROTECTION ACT PERMIT BY RULE FROM THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

6. NO DEVELOPMENT IS PROPOSED WITHIN A WILDLIFE HABITAT BLOCK DISTRICT OR WILDLIFE CORRIDOR DISTRICT

PHASING PLAN:

PHASE 1	TIME PERIOD
LOTS 1–7,30–33 (11 TOTAL) TRAIL LOOP A	2015–2020
PHASE 2	TIME PERIOD
LOTS 8–13,25–29 (11 TOTAL) TRAIL LOOP B	2020–2025
PHASE 3	TIME PERIOD
LOTS 14–21,23–24 (10 TOTAL)	2025–2030

PROGRESS PRINT
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PLAN REFERENCES:

1. MAINE STATE HIGHWAY COMMISSION, RIGHT OF WAY MAP, STATE HIGHWAY 95, FEDERAL AID PROJECT I-95-4(1), SHC FILE NO. 3-99, DATED JANUARY 1955, SHEET 11 OF 20.

2. "TOPOGRAPHIC PLAN OF DURHAM ROAD SITE, BRUNSWICK, MAINE" DATED JANUARY 30, 2001, PREPARED BY AERIAL SURVEY & PHOTOGRAPHY, INC., PROJECT NO. AS00052, CONTOUR INTERVAL 1'.

3. "SKETCH SITE PLAN, TOWN OF BRUNSWICK, OLD PORTLAND ROAD, BRUNSWICK, ME." DATE OCTOBER 1, 1999, PREPARED BY ALBERT FRICK ASSOCIATES, INC. DEPICTING SOILS, WETLANDS, STREAM, AND USGS TOPOGRAPHY.

LEGEND

FORESTED BUFFER, LIMITED DISTURBANCE

MEADOW BUFFER, LIMITED DISTURBANCE

ROAD SIDE DITCH BUFFER

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.

STATE OF MAINE
CURTIS Y. NEUFELD 9779 LICENSED PROFESSIONAL ENGINEER
12-04-15

5.	11-16-15	REVISED PER STAFF COMMENTS CYN
4.	10-30-15	REVISED PER MDEP COMMENTS CYN
3.	09-28-15	SUBMITTED TO MDEP FOR SLODA AMENDMENT CYN
2.	09-15-15	SUBMITTED FOR FINAL REVIEW JJM
1.	06-02-15	SUBMITTED TO TOWN OF BRUNSWICK RPL

TITLE:
LOT LAYOUT AND DEVELOPMENT PLAN

PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
8 CUMBERLAND STREET, BRUNSWICK, ME 04011
207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: 1"=100'	SHEET: 3
DRN BY: RPL	JOB #: 731.03	
CH'D BY: CYN	MAP/LOT: 13/34,66-78	
DATE: 06-02-15	FILE: 731.03-SITE	

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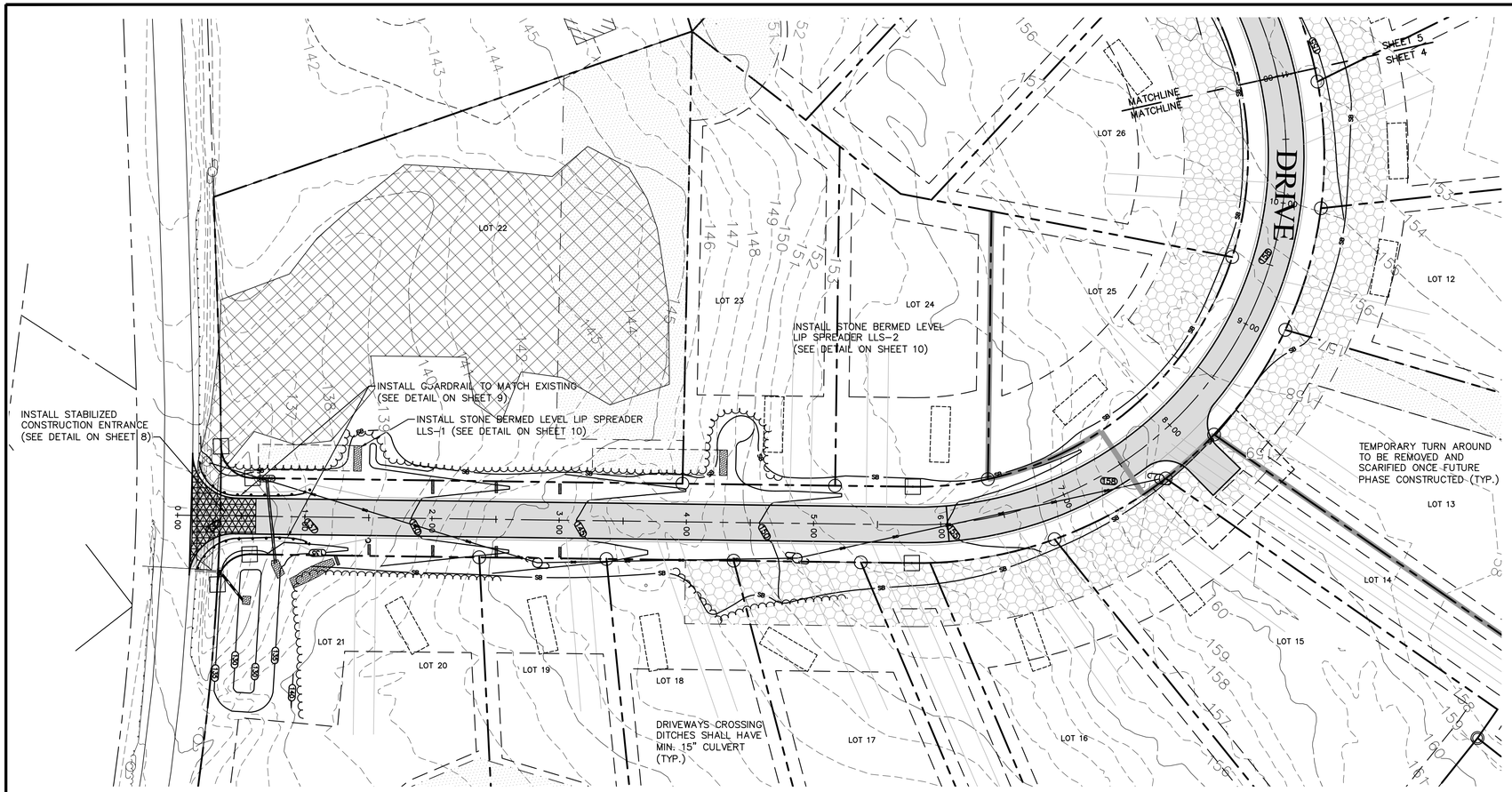

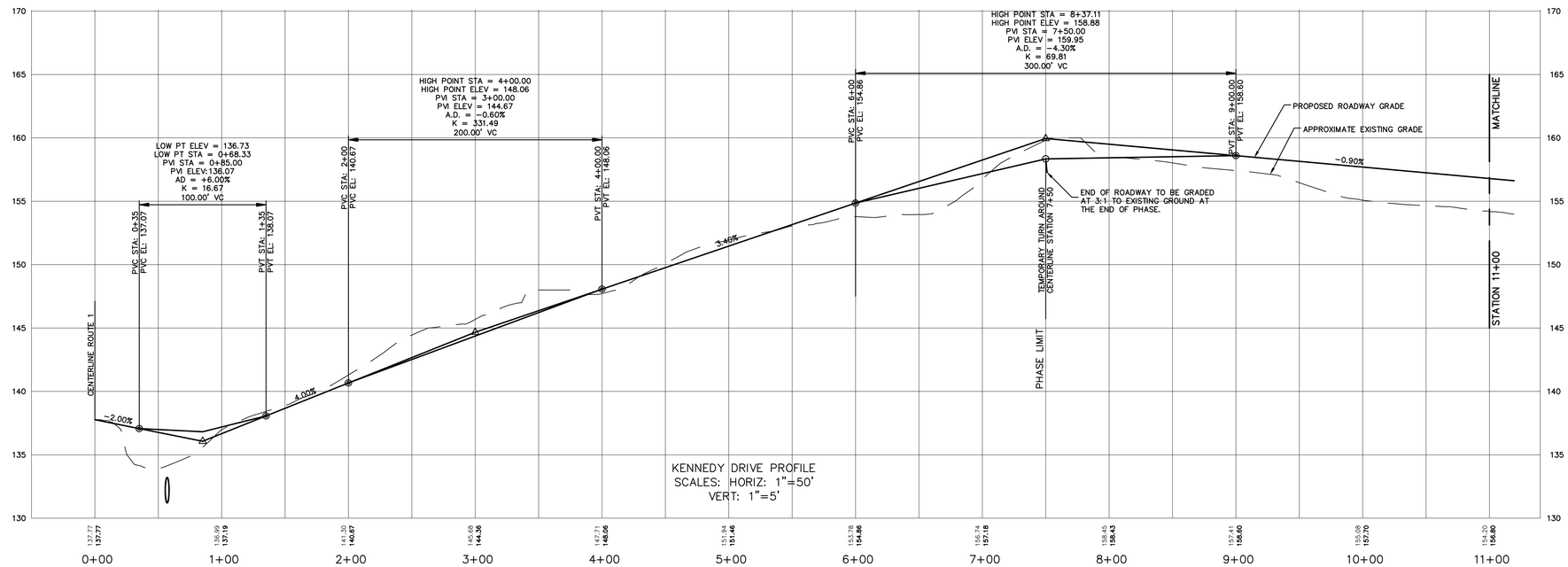

PROGRESS PRINT
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STATE OF MAINE
CURTIS Y. NEUFELD
9779
LICENSED
PROFESSIONAL ENGINEER
12-04-15

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
Horiz: 1 inch = 50 ft.
Vert: 1 inch = 5 ft.

5.	11-16-15	REVISED PER STAFF COMMENTS	CYN
4.	10-30-15	REVISED PER MDEP COMMENTS	CYN
3.	09-28-15	SUBMITTED TO MDEP FOR SLODA AMENDMENT	CYN
2.	09-15-15	SUBMITTED FOR FINAL REVIEW	JJM
1.	06-02-15	SUBMITTED TO TOWN OF BRUNSWICK	RPL

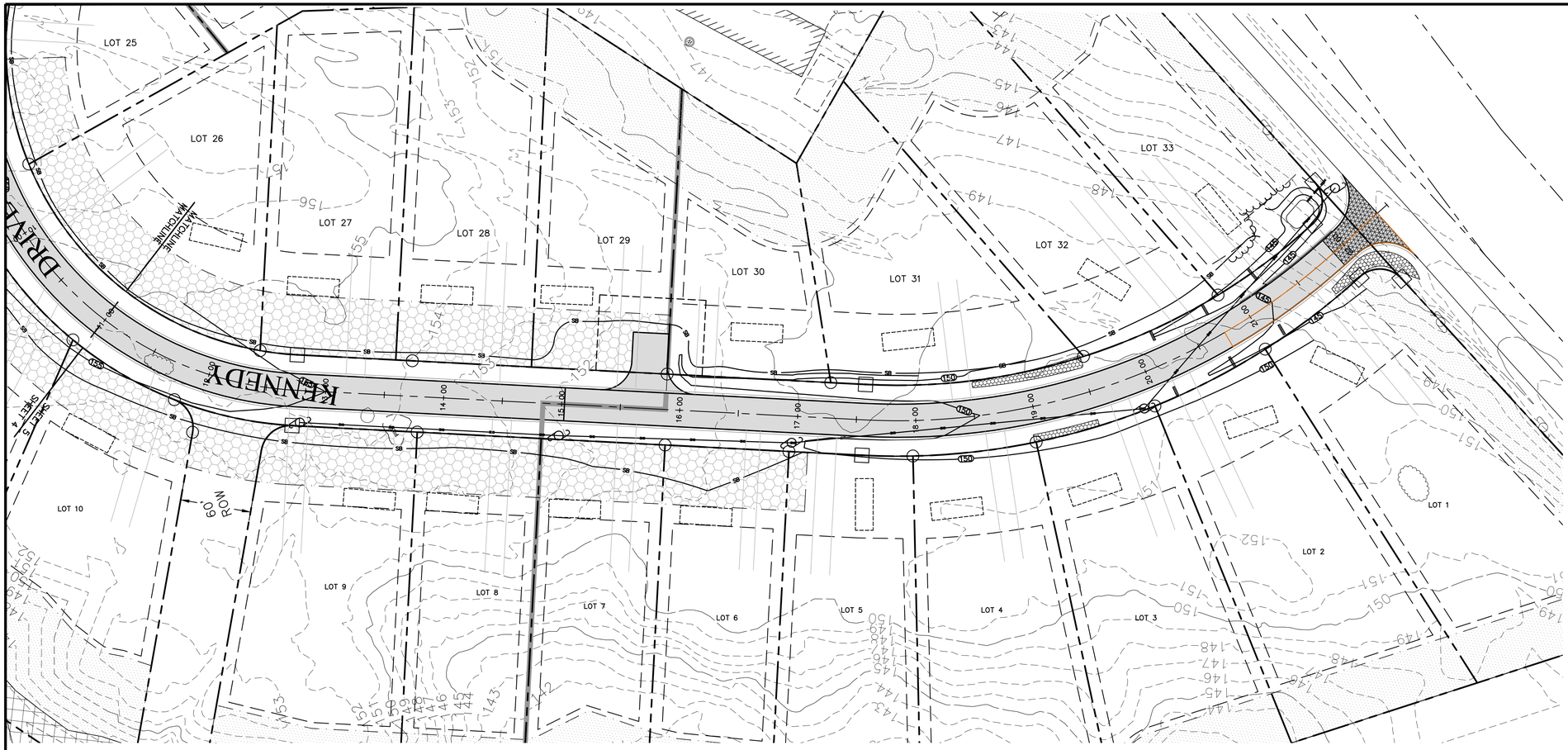
TITLE:
PLAN & PROFILE STA 0+00 TO 11+00
GRADING, DRAINAGE & EC PLAN

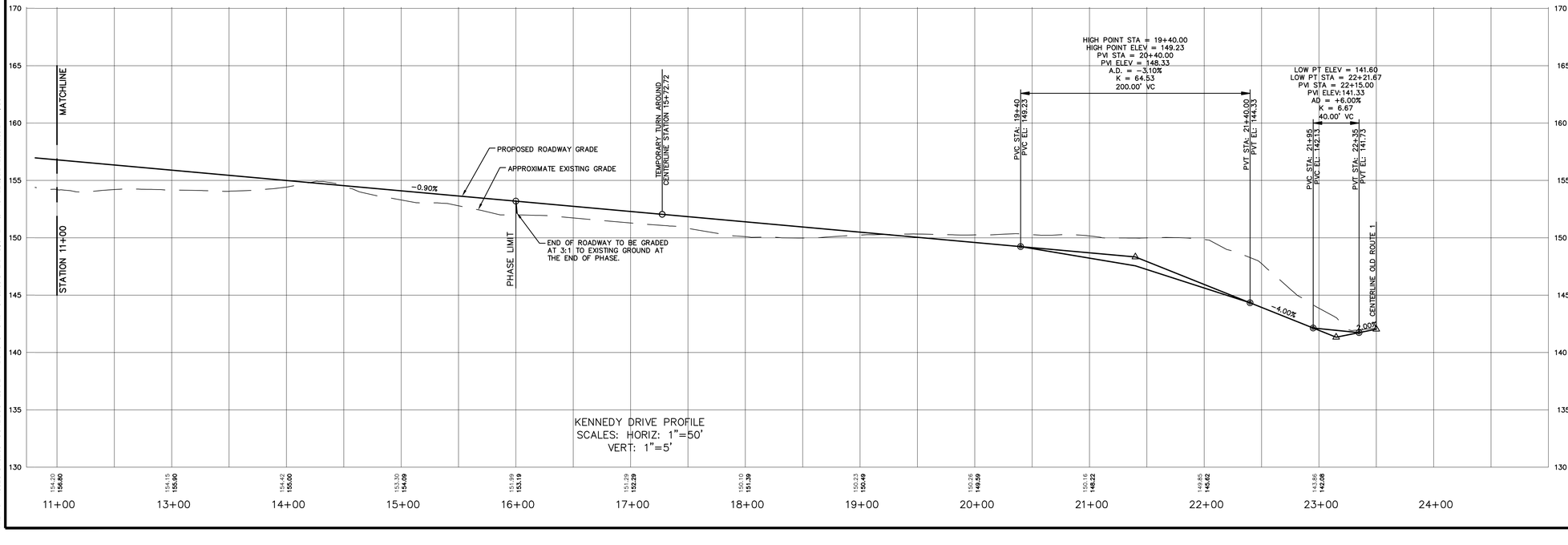
PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
8 CUMBERLAND STREET, BRUNSWICK, ME 04011
207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: AS SHOWN	SHEET: 4
DRN BY: JJM	JOB #: 731.03	
CH'D BY: CYN	MAP/LOT: 13/34, 66-78	
DATE: 09-15-15	FILE: 731.03-SITE	





STATE OF MAINE
CURTIS Y. NEUFELD
9779
LICENSED
PROFESSIONAL ENGINEER

12-04-15

PROGRESS PRINT

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GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
Horiz: 1 inch = 50 ft.
Vert: 1 inch = 5 ft.

5.	11-16-15	REVISED PER STAFF COMMENTS	CYN
4.	10-30-15	REVISED PER MDEP COMMENTS	CYN
3.	09-28-15	SUBMITTED TO MDEP FOR SLODA AMENDMENT	CYN
2.	09-15-15	SUBMITTED FOR FINAL REVIEW	JJM
1.	06-02-15	SUBMITTED TO TOWN OF BRUNSWICK	RPL

TITLE:
PLAN & PROFILE STA 11+00 TO 22+50 GRADING, DRAINAGE & EC PLAN

PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
8 CUMBERLAND STREET, BRUNSWICK, ME 04011
207.725.1200 www.sitelinespa.com

FIELD WK: BWM	SCALE: AS SHOWN	SHEET: 5
DRN BY: JJM	JOB #: 731.03	
CH'D BY: CYN	MAP/LOT: 13/34, 66-78	
DATE: 09-15-15	FILE: 731.03-SITE	

X:\LAND PROJECTS\731.03 MOORE BCC RESIDENTIAL BRUNSWICK\DWG\731.03-SITE.DWG, 5-PLAN & PROFILE 2, 6/24/2015 10:03:27 AM, CURT

GENERAL NOTES:

1. TOPOGRAPHIC DATA IS BASED ON AERIAL DATA FROM BRADSTREET ASSOCIATES AND ON THE GROUND SURVEY PERFORMED BY ROB SPIVEY ASSOCIATES.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION HAS NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES AND IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (1-800-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IN AREAS OF POTENTIAL CONFLICTS TEST PITS SHALL BE REQUIRED TO VERIFY EXISTING UTILITY LOCATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

3. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY THE RESPECTIVE UTILITY COMPANY (TELEPHONE AND ELECTRIC).

4. ALL AREAS OUTSIDE THE LIMIT OF WORK THAT ARE DISTURBED SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. ALL AREAS DISTURBED DURING CONSTRUCTION NOT COVERED WITH BUILDINGS, STRUCTURES, OR PAVEMENT SHALL RECEIVE 4 INCHES OF LOAM AND SEED.

5. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS.

6. ALL PROPERTY MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE RESET TO THEIR ORIGINAL LOCATION BY A MAINE REGISTERED PROFESSIONAL LAND SURVEYOR (PLS) AT THE CONTRACTOR'S EXPENSE.

7. CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATION AND MAINTAIN ALL EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION. EROSION CONTROL SHALL BE REMOVED ONLY UPON THE ESTABLISHMENT OF ALL LANDSCAPED AREAS. ALL WORK SHALL BE IN COMPLIANCE WITH THE ENVIRONMENTAL QUALITY HANDBOOK FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION, AS ADOPTED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

8. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.

9. THE CONTRACTOR IS REQUIRED TO CONTROL DUST DURING CONSTRUCTION. EXPOSED SOIL AREAS SHALL BE SPRAYED WITH WATER AS NEEDED TO CONTROL DUST EMISSIONS. COVER EXPOSED SOIL AREAS AS QUICKLY AS PRACTICAL TO PREVENT WINDS FROM GENERATING DUST.

GRADING AND DRAINAGE NOTES:

1. UNLESS OTHERWISE NOTED, ALL STORM DRAIN PIPE SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS SECTION 603. PIPE CULVERTS AND STORM DRAINS, LATEST REVISION WITH THE EXCEPTION THAT THE ONLY ACCEPTABLE TYPES OF PIPE ARE AS FOLLOWS:
   POLYVINYL CHLORIDE PIPE (PVC)
   SMOOTH BORE POLYETHYLENE PIPE - HDPE N-12 ADS OR SDR 35

2. TOPSOIL STRIPPED IN AREAS OF CONSTRUCTION THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED ON SITE AT A LOCATION TO BE DESIGNATED BY OWNER. UNSUITABLE SOIL SHALL BE SEPARATED, REMOVED AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION OFF SITE.

3. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

EROSION AND SEDIMENTATION NOTES:

1. CONTRACTOR SHALL FOLLOW BEST MANAGEMENT PRACTICES OF THE CUMBERLAND COUNTY SOIL CONSERVATION SERVICE AND THE MAINE DEP BEST MANAGEMENT PRACTICES HANDBOOK.

GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES:

EROSION/SEDIMENT CONTROL DEVICES:

THE FOLLOWING EROSION SEDIMENTATION CONTROL DEVICES ARE PROPOSED FOR CONSTRUCTION ON THIS PROJECT. INSTALL THESE DEVICES AS INDICATED ON THE PLANS. IN ADDITION TO THE MEASURES BELOW THE CONTRACTOR SHALL BE FAMILIAR WITH AND FOLLOW THE REQUIREMENTS OF APENDICES A, B & C OF CHAPTER 500 OF THE MDEP RULES.

1 SEDIMENT BARRIER: SILT SOXX OR APPROVED EQUAL WILL BE INSTALLED ALONG THE DOWN GRADING EDGES OF DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE SITE IS STABILIZED. IN AREAS WHERE STORMWATER DISCHARGES THE SEDIMENT BARRIER WILL BE REINFORCED WITH HAY BALES TO HELP MAINTAIN THE INTEGRITY OF THE SEDIMENT BARRIER AND TO PROVIDE ADDITIONAL TREATMENT.

2. HAY BALES: HAY BALES TO BE PLACED IN LOW FLOW DRAINAGE SWALES AND PATHS TO TRAP SEDIMENTS AND REDUCE RUNOFF VELOCITIES. DO NOT PLACE HAY BALES IN FLOWING WATER OR STREAMS.

3. LOAM, SEED, & MULCH: ALL DISTURBED AREAS, WHICH ARE NOT OTHERWISE TREATED, SHALL RECEIVE PERMANENT SEEDING AND MULCH TO STABILIZE THE DISTURBED AREAS. THE DISTURBED AREAS WILL BE REVEGETATED WITHIN 5 DAYS OF FINAL GRADING. SEEDING REQUIREMENTS ARE PROVIDED AT THE END OF THIS SPECIFICATION.

4. STRAW AND HAY MULCH: USED TO COVER DENUDED AREAS UNTIL PERMANENT SEED OR EROSION CONTROL MEASURES ARE IN PLACE. MULCH BY ITSELF CAN BE USED ON SLOPES LESS THAN 15% IN SUMMER AND 8% IN WINTER. JUTE MESH IS TO BE USED OVER MULCH ONLY.

5. IN LIEU OF MULCH, USE EROSION CONTROL BLANKET (EQUAL TO NORTH AMERICAN GREEN SC150) TO STABILIZE AREAS OF CONCENTRATED FLOW AND DRAINAGE WAYS.

TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES:

PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION OF THE DEVELOPMENT:

1. SEDIMENT BARRIER ALONG THE DOWNGRADIENT SIDE OF THE PARKING AREAS AND OF ALL FILL SECTIONS. THE SEDIMENT BARRIER WILL REMAIN IN PLACE UNTIL THE SITE IS PERMANENTLY STABILIZED.

2. HAY BALES PLACED AT KEY LOCATIONS TO SUPPLEMENT THE SEDIMENT BARRIER.

3. PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION AS FOLLOWS:
   A. SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1.
   B. AVOID PLACING TEMPORARY STOCKPILES IN AREAS WITH SLOPES OVER 10 PERCENT, OR NEAR DRAINAGE SWALES. SEE ITEM 3 IN CONSTRUCTION PHASE NOTES BELOW.
   C. STABILIZE STOCKPILES WITHIN 15 DAYS BY TEMPORARILY SEEDING WITH A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH.
   D. SURROUND STOCKPILE SOIL WITH SEDIMENT BARRIER AT BASE OF PILE.

4. ALL DENUDED AREAS WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN THE ROADWAY AREA SHALL RECEIVE MULCH WITHIN 7 DAYS IF NOT BEING ACTIVELY WORKED OR WITHIN 7 DAYS AFTER COMPLETING THE ROUGH GRADING OPERATIONS. IN THE EVENT THE CONTRACTOR COMPLETES FINAL GRADING AND INSTALLATION OF LOAM AND SOD WITHIN THE TIME PERIODS PRESENTED ABOVE, INSTALLATION OF MULCH AND NETTING, WHERE APPLICABLE, IS NOT REQUIRED.

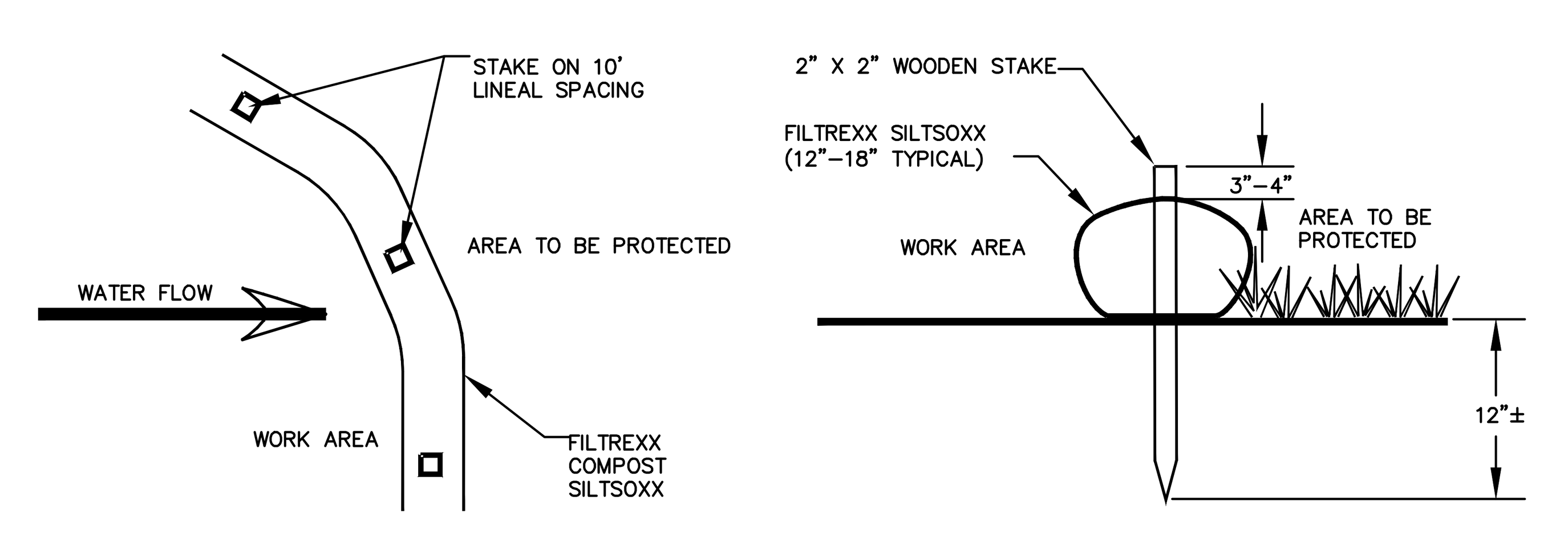
5. IF WORK IS CONDUCTED BETWEEN OCTOBER 15 AND APRIL 15, ALL DENUDED AREAS ARE TO BE COVERED WITH HAY MULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE, AND ANCHORED WITH FABRIC NETTING.

6. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED OR IN AREAS WHERE PERMANENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

PERMANENT EROSION CONTROL MEASURES:

THE FOLLOWING PERMANENT CONTROL MEASURES ARE REQUIRED BY THIS EROSION/SEDIMENTATION CONTROL PLAN:

1. ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.), WILL BE LOAMED, LIMED, FERTILIZED AND SEEDED. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY AND SUPPLEMENTED AS NEEDED.



FILTREXX SILTSOXX DETAIL
NOT TO SCALE

NOTES:
1. ALL MATERIALS TO MEET FILTREXX SPECIFICATIONS
2. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL TO MEET APPLICATION REQUIREMENTS
3. SILTSOXX DEPICTED IS FOR MINIMUM SLOPES. GREATER SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

CONSTRUCTION PHASE:

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION DURING CONSTRUCTION OF THIS PROJECT.

1. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVEGETATED CONDITION. IF FINAL GRADING, LOAMING AND SEEDING WILL NOT OCCUR WITHIN 7 DAYS, SEE ITEM NO. 4.

2. PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC AREA, SEDIMENT BARRIER AND/OR HAY BALES WILL BE INSTALLED AT THE TOE OF SLOPE AND IN AREAS AS LOCATED ON THE PLANS TO PROTECT AGAINST ANY CONSTRUCTION RELATED EROSION. IMMEDIATELY FOLLOWING CONSTRUCTION OF CULVERTS AND SWALES, RIP RAP APRONS SHALL BE INSTALLED, AS SHOWN ON THE PLANS.

3. TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM THE EXISTING DRAINAGE COURSE. NO STOCKPILE SHALL BE CLOSER THEN 100' OF A RESOURCE INCLUDING, BUT NOT LIMITED TO, WETLANDS, STREAMS, AND OPEN WATER BODIES. ALL STOCKPILES SHALL HAVE A SEDIMENT BARRIER BELOW THEM REGARDLESS OF TIME OF PRESENCE. ALL STOCKPILES EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE:
   A. TREATED WITH ANCHORED MULCH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF STOCKPILED SOIL).
   B. SEEDED WITH CONSERVATION MIX AND MULCHED IMMEDIATELY.
   C. INSTALL SEDIMENT BARRIER AROUND STOCKPILE AT BASE OF PILE. STOCKPILES TO HAVE SEDIMENT BARRIER INSTALLED AT TIME OF ESTABLISHMENT AT BASE OF PILE.

4. ALL DISTURBED AREAS EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE EITHER:
   A. TREATED WITH ANCHORED MULCH IMMEDIATELY, OR
   B. SEEDED WITH CONSERVATION MIX OF ANNUAL RYE GRASS (0.9 LBS/1000 SQ. FT) AND MULCHED IMMEDIATELY.

5. ALL GRADING WILL BE HELD TO A MAXIMUM 2:1 SLOPE WHERE PRACTICAL. ALL SLOPES WILL BE STABILIZED WITH PERMANENT SEEDING, OR WITH RIPRAP, WITHIN 5 DAYS AFTER FINAL GRADING IS COMPLETE. (SEE POST-CONSTRUCTION REVEGETATION FOR SEEDING SPECIFICATION.)

6. ALL CULVERTS WILL BE PROTECTED WITH STONE RIPRAP (D50 = 6" UNLESS OTHERWISE SPECIFIED) AT INLETS AND OUTLETS.

POST-CONSTRUCTION REVEGETATION:

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING.

1. A MINIMUM OF 4" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE, OR STONE WILL BE PLACED ON SLOPES TO STABILIZE SURFACES.

2. IF FINAL GRADING IS REACHED DURING THE NORMAL GROWING SEASON (4/15 TO 9/15), PERMANENT SEEDING WILL BE DONE AS SPECIFIED BELOW. PRIOR TO SEEDING, LIMESTONE SHALL BE APPLIED AT A RATE OF 138 LBS/1000 SQ. FT. AND 10:20:20 FERTILIZER AT A RATE OF 18.4 LBS/1000 SQ.FT WILL BE APPLIED. BROADCAST SEEDING AT THE FOLLOWING RATES:

LAWNS SHALL BE: ALLEN, STERLING & LATHROP 'TUFFTURF', 70% DIAMOND TALL FESCUE, 20% PLEASURE OLUS PERENNIAL RYEGRASS, 10% BARON KENTUCKY BLUEGRASS. SEEDING RATE SHALL BE 7-LBS./1,000 SQ. FT.

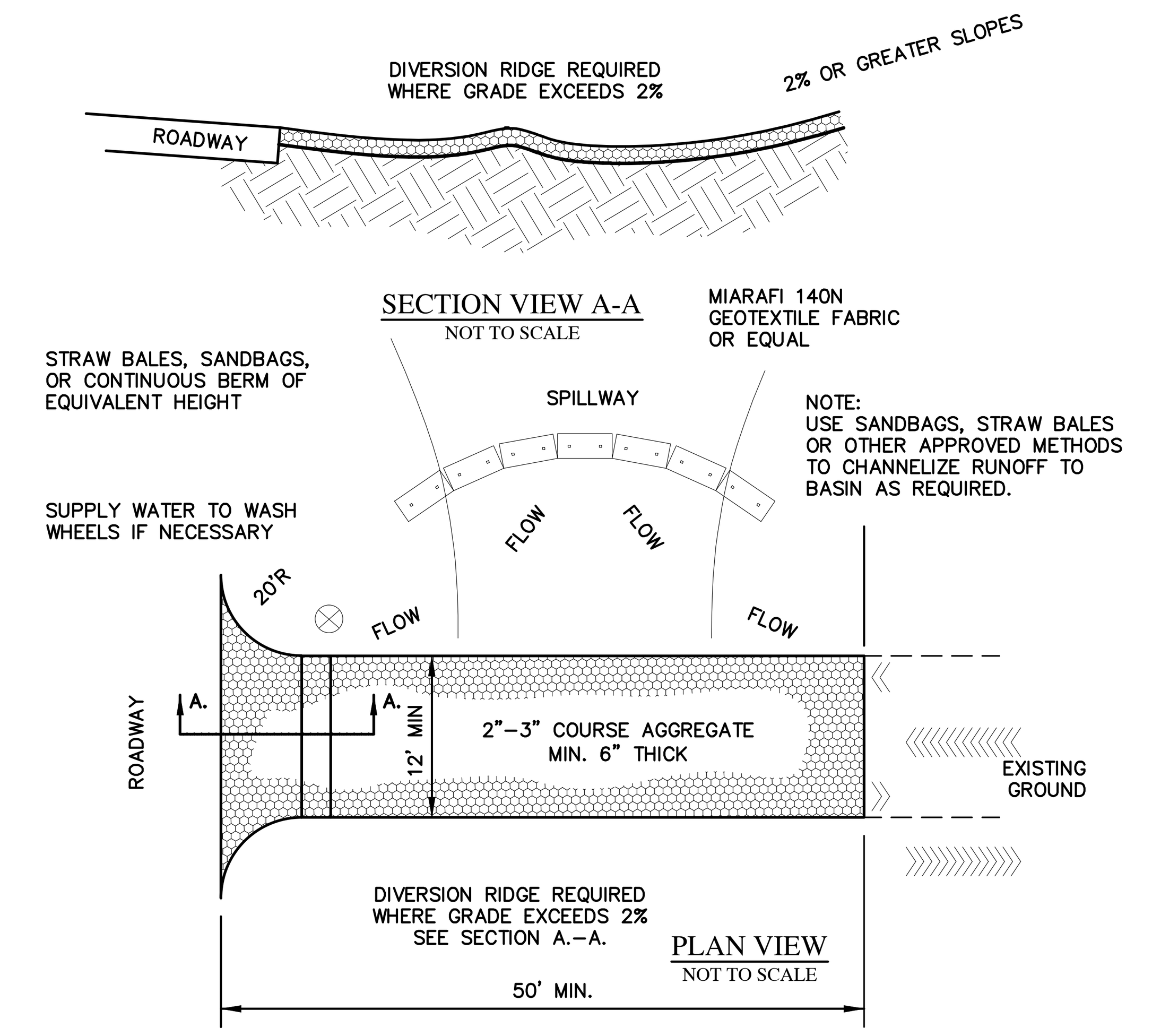
SWALES SHALL BE: WILDFLOWER MEADOW: (SEED) FESTUCA OVINA SHEEP FESCUE; SOW AT A RATE OF 12 OZ. PER 1,000 SQFT. TRIFOLIUM REPENS WHITE CLOVER; SOW AT A RATE OF ½OZ.PER 1,000 SQFT. (FLOWERS) ACHILLEA MILLEFOLIUM YARROW, AQUILEGEA CANADENSIS COLUMBINE, ASCLEPIAS TUBEROSE BUTTERFLY MILKWEED, ASTER NOVAE-ANGLIAE NEW-ENGLAND ASTER, BAPTISIA AUSTRALIS WILD INDIGO, BOLTONIA ASTEROIDS FALSE ASTER, CHRYSANTHEMUM LEUCANTHEMUM OXEYE DAISY, DIGITALIS PURPUREA FOXGLOVE, ECHINACEA PURPUREA PURPLE CONEFLOWER, LUPINUS PERENNIS LUPINE, MONARDA FISTULOSA BERGAMOT, PAPAVER ORIENTALE ORIENTAL POPY, RUDBECKIA HIRTA BLACK-EYED SUSAN, SALVIA OFFICINALIS SAGE; SOW AT A RATE OF 1/3 OZ. EACH PER 1,000 SQFT. OR 4 OZ. PER 1,000 SQFT. IN COMBINATION

3. AN AREA SHALL BE MULCHED IMMEDIATELY AFTER IS HAS BEEN SEEDED. MULCHING SHALL CONSIST OF HAY MULCH, HYDRO-MULCH, JUTE NET OVER MULCH, PRE-MANUFACTURED EROSION MATS OR ANY SUITABLE SUBSTITUTE DEEMED ACCEPTABLE BY THE DESIGNER.
   A. HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. HAY MULCH SHALL BE SECURED BY EITHER: (NOTE: SOIL SHALL NOT BE VISIBLE)
      I. BEING DRIVEN OVER BY TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.
      II. BLANKETED BY TACKED PHOTODEGRADABLE/BIODEGRADABLE NETTING, OR WITH SPRAY, ON GRADES GREATER THAN 5%.
      III. SEE NOTE 6, GENERAL NOTES, AND NOTE 8, WINTER CONSTRUCTION.
   B. HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF EITHER ASPHALT, WOOD FIBER OR PAPER FIBER AND WATER SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL NOT BE USED BETWEEN 9/15 AND 4/15.

4. CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN SEPTEMBER 15 AND APRIL 15. SHOULD SEEDING BE NECESSARY BETWEEN SEPTEMBER 15 AND APRIL 15 THE FOLLOWING PROCEDURE SHALL BE FOLLOWED. ALSO REFER TO NOTE 9 OF WINTER CONSTRUCTION.
   A. ONLY UNFROZEN LOAM SHALL BE USED.
   B. LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE REMOVED PRIOR TO PLACEMENT OF SEED.
   C. WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 SQ.FT) SHALL BE ADDED TO THE PREVIOUSLY NOTED AREAS.
   D. WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.6 LBS/1000 SQ. FT.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.
   E. FERTILIZING, SEEDING AND MULCHING SHALL BE APPLIED TO LOAM THE DAY THE LOAM IS SPREAD BY MACHINERY.
   F. ALTERNATIVE HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT SUFFICE.

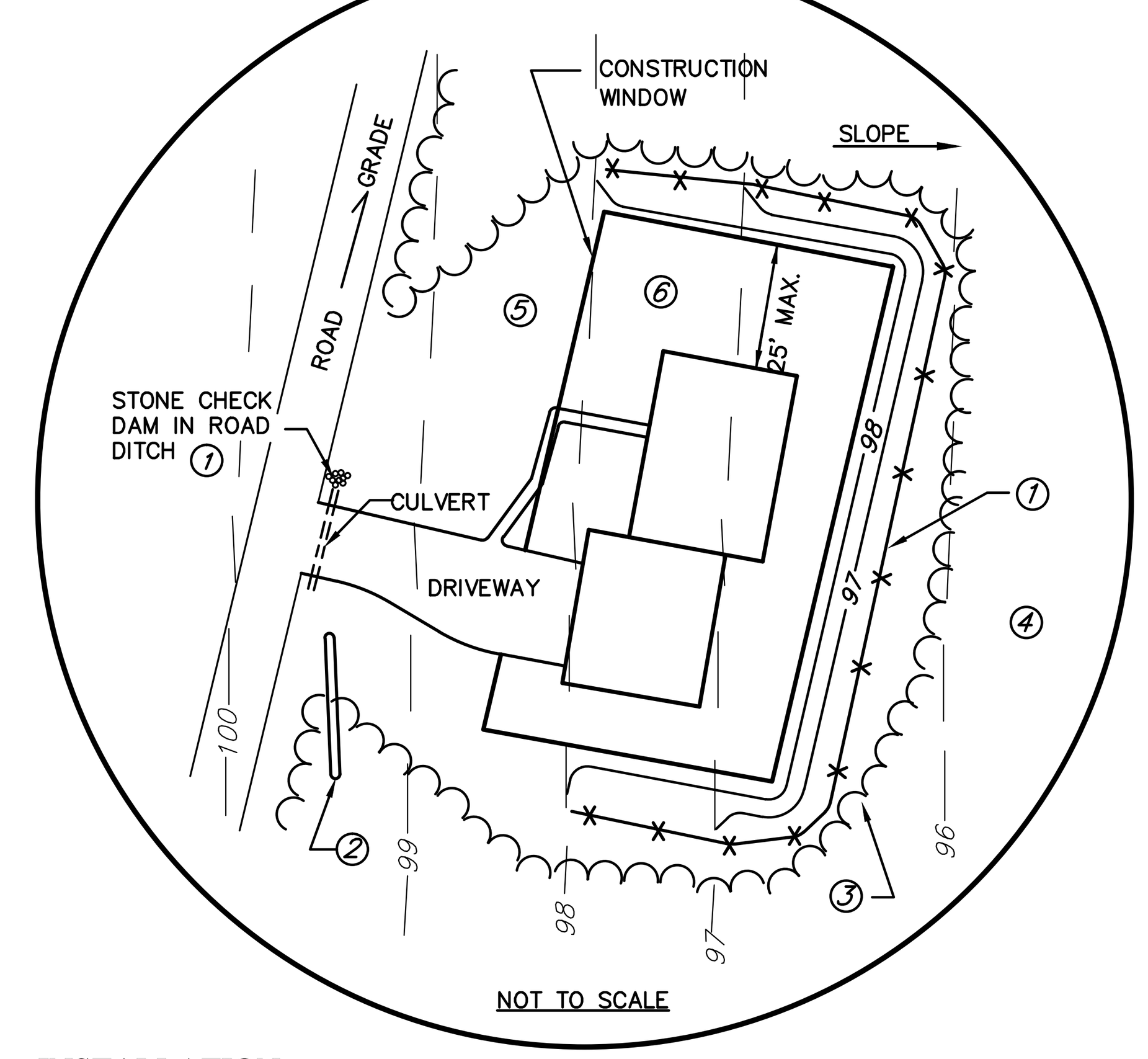
5. THE SITE WILL BE INSPECTED EVERY 30 DAYS UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. PERMANENT STABILIZATION IS DEFINED AS FOLLOWS:
   (A) SEEDED AREAS. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS A 90% COVER OF HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.
   (B) SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.
   (C) PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.
   (D) RIPRAP. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.
   (E) PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.
   (F) DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH A 90% COVER OF HEALTHY VEGETATION, WITH A WELL-GRADED RIPRAP LINING, OR WITH ANOTHER NON-EROSIVE LINING SUCH AS CONCRETE OR ASPHALT PAVEMENT. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE CHANNEL LINING, UNDERCUTTING OF THE CHANNEL BANKS, OR DOWN-CUTTING OF THE CHANNEL.

RESEEDING WILL BE CARRIED OUT BY THE CONTRACTOR WITHIN 10 DAYS OF NOTIFICATION BY THE ENGINEER/THIRD PARTY INSPECTOR THAT THE EXISTING CATCH IS INADEQUATE.



NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR, AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR BASIN.

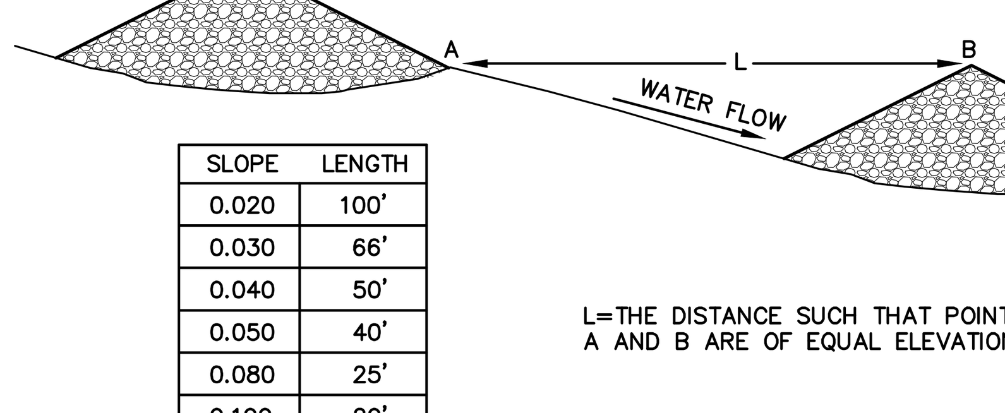
STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



INSTALLATION:
1. INSTALL SEDIMENT BARRIERS ON YOUR SITE BEFORE DISTURBING SOILS. SEE THE "SEDIMENT BARRIERS" 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 OR DITCH.

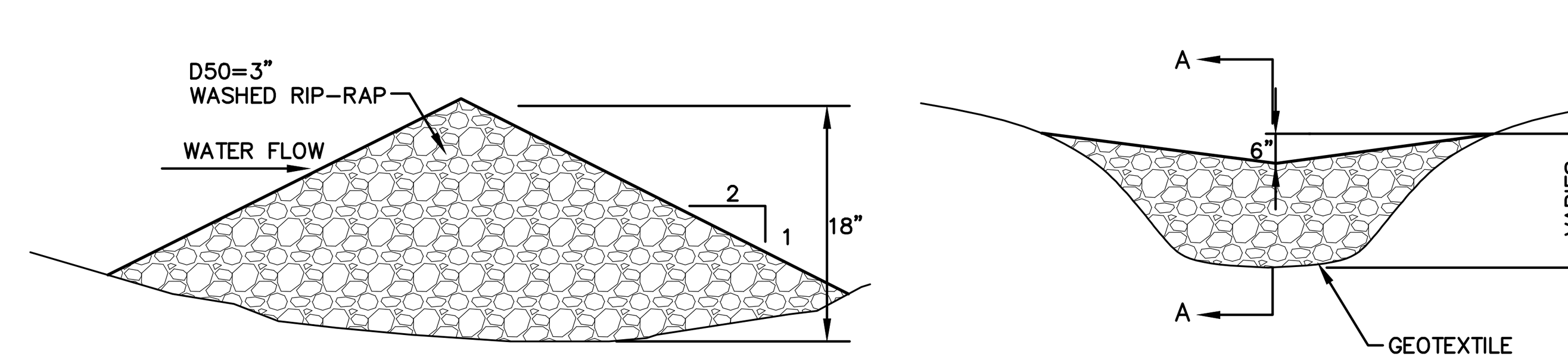
HOUSE SITE - BEST MANAGEMENT PRACTICES
NOT TO SCALE



SLOPE	LENGTH
0.020	100'
0.030	66'
0.040	50'
0.050	40'
0.080	25'
0.100	20'
0.120	17'
0.150	13'

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

CHECK DAM SPACING



CHECK DAM SECTION A-A

SECTION VIEW OF DRAINAGE WAY

STONE CHECK DAM IN DRAINAGE-WAY
NOT TO SCALE

MONITORING SCHEDULE:

THE CONTRACTOR IS 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. AFTER EACH RAINFALL, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS FOLLOWS:

1. HAY BALE BARRIERS, SEDIMENT BARRIER, AND/OR STONE CHECK DAMS SHALL BE INSPECTED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREAS UNDERGOING FINAL GRADING. SHOULD THE HAY BALE BARRIERS PROVE TO BE INEFFECTIVE, THE CONTRACTOR SHALL INSTALL SEDIMENT BARRIER BEHIND THE HAY BALES.

2. VISUALLY INSPECT INLET PROTECTION AT CATCH BASINS ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL. REMOVE SEDIMENT AS REQUIRED.

3. REVEGETATION OF DISTURBED AREAS WITHIN 25' OF DRAINAGE-COURSE/STREAM WILL BE SEEDED WITH THE "MEADOW AREA MIX" AND INSPECTED ON A WEEKLY BASIS OR AFTER EACH SIGNIFICANT RAINFALL AND RESEEDED AS NEEDED. EXPOSED AREAS WILL BE RESEEDED AS NEEDED UNTIL THE AREA HAS OBTAINED 100% GROWTH RATE. PROVIDE PERMANENT RIPRAP FOR SLOPES IN EXCESS OF 3:1 AND WITHIN 25' OF DRAINAGE COURSE.

EROSION CONTROL DURING WINTER CONSTRUCTION:

1. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.

2. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

3. EXPOSED AREA SHALL BE LIMITED TO THOSE AREAS TO BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. AT THE END OF EACH WORK WEEK NO AREAS MAY BE LEFT UNSTABILIZED OVER THE WEEKEND.

4. CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.

5. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1000 S.F. (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ANCHORED SUCH THAT SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH. NOTE: AN AREA IS ALSO CONSIDERED STABLE IF SODDED, COVERED WITH GRAVEL (PARKING LOTS) OR STRUCTURAL SAND.

6. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1 AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW, DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY, SEDIMENT BARRIER OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS SHOWN ON THE DESIGN DRAWINGS. NOTE: DORMANT SEEDING SHOULD NOT BE ATTEMPTED UNLESS SOIL TEMPERATURE REMAINS BELOW 50 DEGREES AND DAY TIME TEMPERATURES REMAIN IN THE 30'S.

7. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS, SLOPES GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. VEGETATED DRAINAGE SWALES SHALL BE LINED WITH EXCELSIOR OR CURLEX.

8. BETWEEN THE DATES OF OCTOBER 15 TO NOVEMBER 1, WINTER RYE IS RECOMMENDED FOR STABILIZATION. AFTER NOVEMBER 1, WINTER RYE IS NOT EFFECTIVE. AROUND NOVEMBER 15 OR LATER, ONCE TEMPERATURES OF THE AIR AND SOIL PERMIT, DORMANT SEEDING IS EFFECTIVE.

9. IN THE EVENT OF SNOWFALL (FRESH OR CUMULATIVE) GREATER THAN 1 INCH DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM THE AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

SITE INSPECTION AND MAINTENANCE:

1. WEEKLY INSPECTIONS, AS WELL AS ROUTINE INSPECTIONS FOLLOWING RAIN FALLS, SHALL BE CONDUCTED BY THE GENERAL CONTRACTOR OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES UNTIL FINAL ACCEPTANCE WHEN THE PROJECT IS PERMANENTLY STABILIZED. NECESSARY REPAIRS SHALL BE MADE TO CORRECT UNDERMINING OR DETERIORATION. FINAL ACCEPTANCE SHALL INCLUDE A SITE INSPECTION TO VERIFY THE STABILITY OF ALL DISTURBED AREAS AND SLOPES. UNTIL FINAL INSPECTION, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL IMMEDIATELY BE CLEANED, AND REPAIRED BY THE GENERAL CONTRACTOR AS REQUIRED. DISPOSAL OF ALL TEMPORARY EROSION AND CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

2. SHORT-TERM SEDIMENTATION MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN OUT ALL SWALES AND STRUCTURES PRIOR TO TURNING PROJECT OVER.

3. LONG-TERM PROVISIONS FOR PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES AFTER ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE OWNER.

5.	11-16-15	REVISED PER STAFF COMMENTS	CYN
4.	10-30-15	REVISED PER MDEP COMMENTS	CYN
3.	09-28-15	SUBMITTED TO MDEP FOR SLODA AMENDMENT	CYN
2.	09-15-15	SUBMITTED FOR FINAL REVIEW	JJM
1.	06-02-15	SUBMITTED TO TOWN OF BRUNSWICK	RPL

STATE OF MAINE
CURTIS Y. NEUFELD
9779
LICENSED
PROFESSIONAL ENGINEER
12-04-15

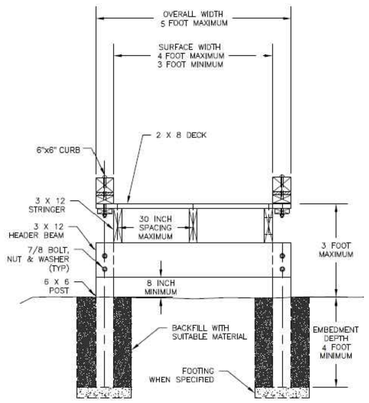
TITLE:
EROSION CONTROL
NOTES AND DETAILS

PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

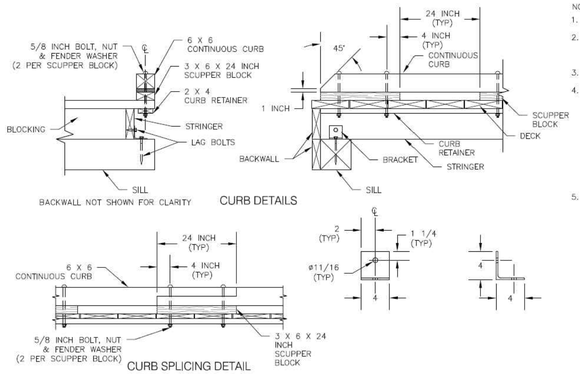
PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
ENGINEERS • PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
8 CUMBERLAND STREET, BRUNSWICK, ME 04011
207.725.1200 www.sitelinespa.com

FIELD WK: NA	SCALE: AS SHOWN	SHEET:
DRN BY: JJM	JOB #: 731.03	6
CH'D BY: CYN	MAP/LOT: 13 / 34,66-78	
DATE: 3-16-09	FILE: 731.03-COVER	



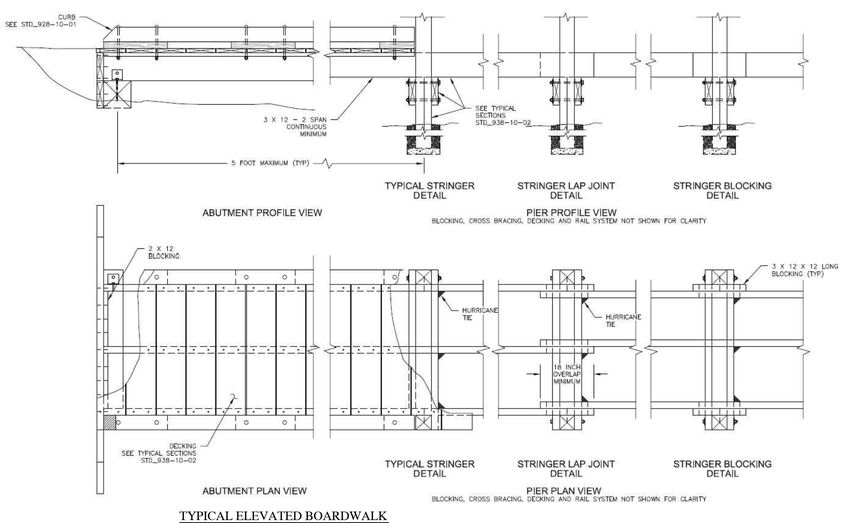
TYPICAL ELEVATED BOARDWALK
CROSS SECTION
NOT TO SCALE



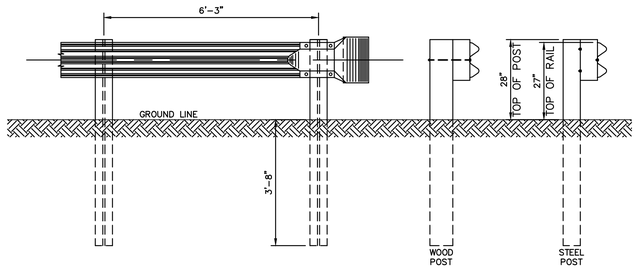
NOTES:

1. DESIGN LOAD: 100 PSF PEDESTRIAN LOAD.
2. ALL MATERIAL TYPE SHALL BE DOUGLAS FIR OR SOUTHERN PINE NO. 2 OR BETTER AS SPECIFIED IN THE ABOVE TABLE.
3. ALL FASTENERS SHALL BE GALVANIZED.
4. FASTENERS:
   - DECKING: 60d 6 INCH RING SHANK NAILS OR DECK SCREWS 2 PER DECK STRINGER CONNECTION.
   - RAILING: NO. 10 X 4 INCH LONG WOOD SCREWS 2 PER RAIL POST CONNECTION.
   - STRINGERS & BACKWALLS: 40d 5 INCH LONG RING SHANK NAILS.
5. ALERNATIVE FOR 7/8 BOLTS FOR HEADER BEAM IS BRACKET WITH AN ALLOWABLE LOAD OF 1100 LBS EACH SIDE.

TYPICAL ELEVATED BOARDWALK
CURB DETAILS
NOT TO SCALE



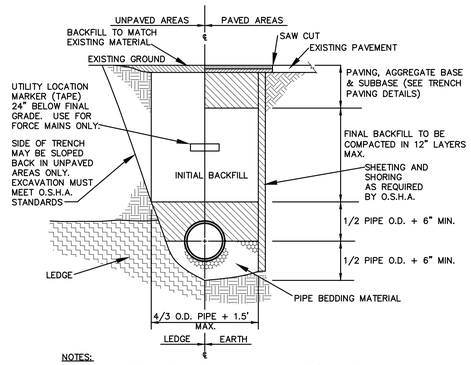
TYPICAL ELEVATED BOARDWALK
PLAN/PROFILE DETAILS
NOT TO SCALE



NOTES:

1.) WOOD POSTS FOR GUARD RAIL SHALL BE 6"X8" WITH 6"x6" OFFSET BLOCKS.
2.) STEEL POSTS AND OFFSET BRACKETS FOR GUARD RAIL SHALL BE W6x8.5 OR W6x9.

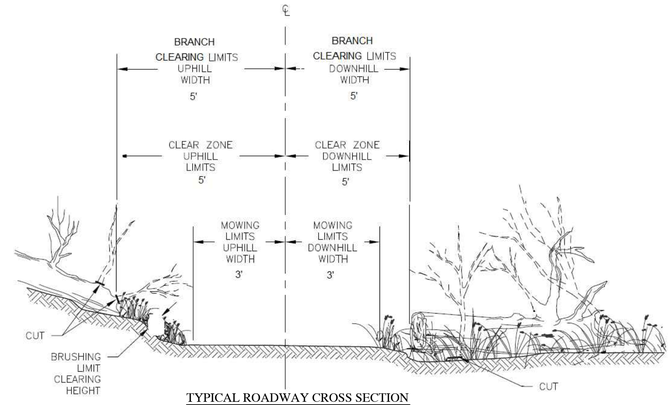
TYPICAL GUARD RAIL DETAIL
NOT TO SCALE



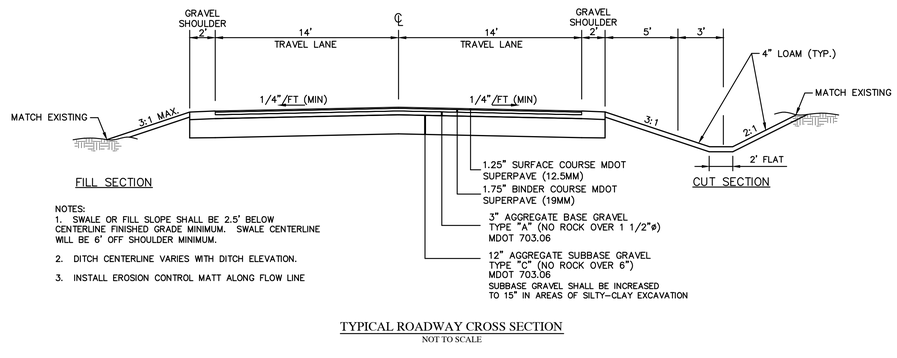
NOTES:

1. INSTALL 3 FOOT LONG IMPERVIOUS DAMS IN BEDDING/INITIAL BACKFILL MATERIAL EVERY 100 FEET TO PREVENT TRENCH GROUNDWATER FROM BEING CHANNELED ALONG BEDDING/INITIAL BACKFILL
2. REFER TO LATEST MDOT SPECIFICATIONS FOR BEDDING AND BACKFILL REQUIREMENTS.
3. INITIAL BACKFILL TO BE 12 INCHES OVER TOP OF PVC PIPE ONLY.

TYPICAL TRENCH DETAIL
NOT TO SCALE



TYPICAL ROADWAY CROSS SECTION
NOT TO SCALE

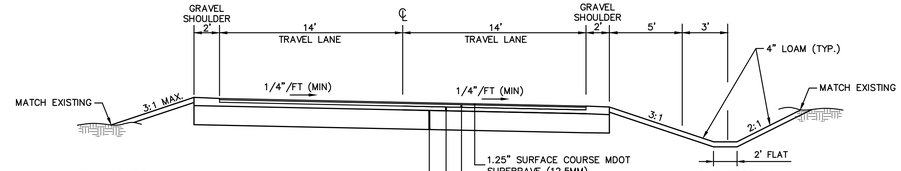


FILL SECTION

CUT SECTION

NOTES:
1. SWALE OR FILL SLOPE SHALL BE 2.5' BELOW CENTERLINE FINISHED GRADE MINIMUM. SWALE CENTERLINE WILL BE 6' OFF SHOULDER MINIMUM.
2. DITCH CENTERLINE VARIES WITH DITCH ELEVATION.
3. INSTALL EROSION CONTROL MATT ALONG FLOW LINE

TYPICAL ROADWAY CROSS SECTION
NOT TO SCALE



FILL SECTION

CUT SECTION

NOTES:
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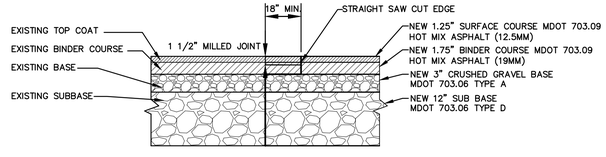
2. DITCH CENTERLINE VARIES WITH DITCH ELEVATION.
3. INSTALL EROSION CONTROL MATT ALONG FLOW LINE

SUPER-ELEVATED ROADWAY CROSS SECTION
NOT TO SCALE



PAVEMENT SAWCUT SECTION
NOT TO SCALE

5.	11-16-15	REVISED PER STAFF COMMENTS	CYN
4.	10-30-15	REVISED PER MDEP COMMENTS	CYN
3.	09-28-15	SUBMITTED TO MDEP FOR SLODA AMENDMENT	CYN
2.	09-15-15	SUBMITTED FOR FINAL REVIEW	JJM
1.	06-02-15	SUBMITTED TO TOWN OF BRUNSWICK	RPL

TITLE:
CONSTRUCTION DETAILS

PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
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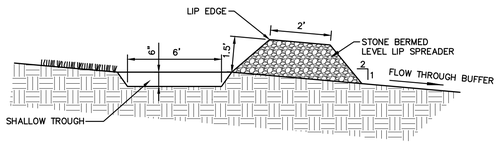
STATE OF MAINE
CURTIS
Y.
NEUFELD
9779
LICENSED
PROFESSIONAL ENGINEER
12-04-15

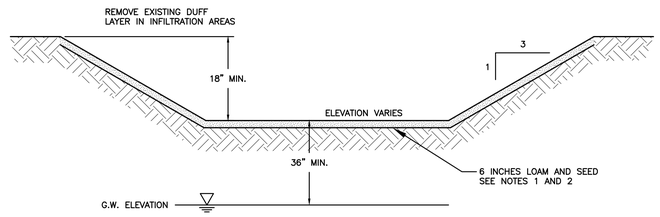
FIELD WK:		SCALE: AS SHOWN	SHEET: 7
DRN BY: DAM		JOB #: 731.03	
CH'D BY: CYN		MAP/LOT:	
DATE: 3-16-09		FILE: 731.03-COVER	



BERM STONE SIZE	
SEIVE DESIGNATION (US CUSTOMARY)	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
12 IN	100
6 IN	84 – 100
3 IN	69 – 83
1 IN	42 – 55
NO. 4	8 – 12

LEVEL LIP SPREADER SCHEDULE		
I.D.	LIP ELEV.	REQUIRED LENGTH
LLS–1	139.5	20 L.F.
LLS–2	149.5	20 L.F.

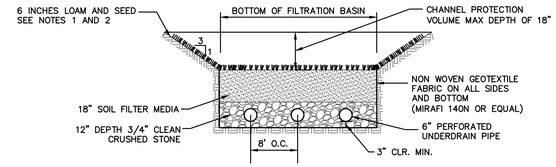
STONE BERMED - LEVEL LIP SPREADER
NOT TO SCALE



NOTES:

1. SEED MIX SHALL BE A PREMIUM WATERWAY MIX: 35% CREEPING RED FESCUE, 20% RED TOP GRASS, 20% PERENNIAL RYE GRASS, 20% ANNUAL RYE GRASS, 5% ALSIKE CLOVER. SEEDING RATE SHALL BE 5–LBS./1,000 SQ. FT.
2. TILL FIRST THREE INCHES OF LOAM INTO NATIVE SOIL.
3. MINIMIZE USE OF HEAVY EQUIPMENT IN INFILTRATION AREAS
4. WHERE INFILTRATION AREA WILL BE CONSTRUCTED IN DISTURBED AREAS, USE ON SITE SOIL TO BACK FILL TO FINAL GRADE WITHOUT COMPACTION.
5. PROTECT INFILTRATION AREAS FROM SEDIMENT DEPOSITION DURING CONSTRUCTION AND WORK IN ADJACENT AREAS.
6. REMOVE ANY SEDIMENT FROM INFILTRATION AREAS PRIOR TO FINAL GRADING AND SEEDING.

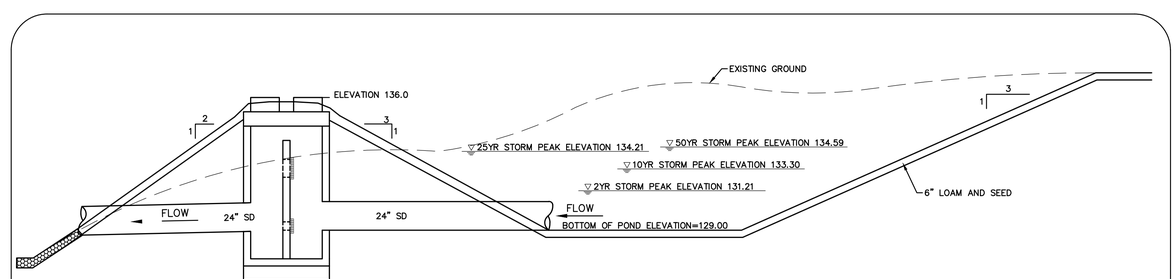
INFILTRATION BASIN
NOT TO SCALE



NOTE:

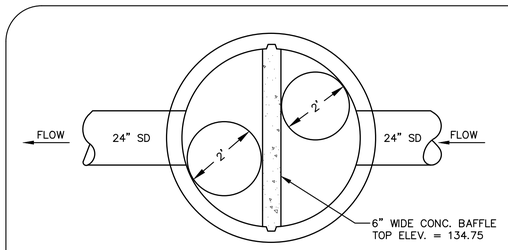
1. SEED MIX SHALL BE A PREMIUM WATERWAY MIX: 35% CREEPING RED FESCUE, 20% RED TOP GRASS, 20% PERENNIAL RYE GRASS, 20% ANNUAL RYE GRASS, 5% ALSIKE CLOVER. SEEDING RATE SHALL BE 5–LBS./1,000 SQ. FT.
2. TILL FIRST THREE INCHES OF LOAM INTO NATIVE SOIL.
3. SOIL FILTER: GRAVELY COARSE SAND MIXED WITH 20–30% BY VOLUME OF WOOD FIBER MULCH. IF SUPERHUMUS IS USED THEN THE RATIO NEEDS TO BE EQUIVALENT TO 2 PARTS–ONE PART BY VOLUME. THE COMBINED MIXTURE MUST HAVE NO MORE THAN 10% FINES PASSING THE #200 SIEVE.
4. THE FILTER MEDIA SHALL BE INSTALLED ONLY AFTER ITS ASSOCIATED DRAINAGE AREA HAS BEEN FULLY STABILIZED.
5. INSTALL SEDIMENT BARRIERS BETWEEN WATER QUALITY FEATURE AREAS AND UNSTABILIZED AREAS. SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL ITS ASSOCIATED DRAINAGE AREA HAS BEEN FULLY STABILIZED.

VEGETATED UNDERDRAIN GRASS FILTER DETAIL
NOT TO SCALE

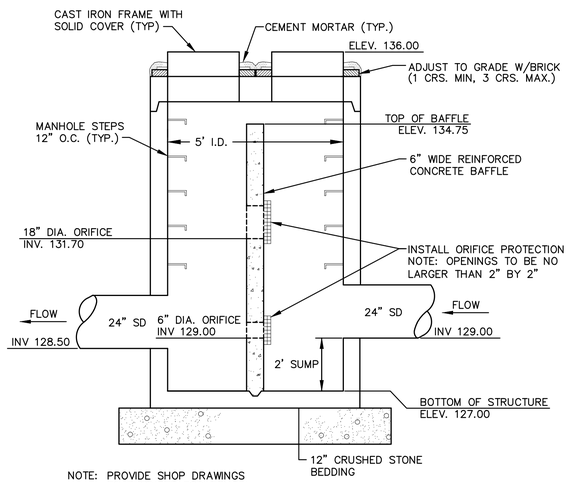


SECTION VIEW
DETENTION BASIN CROSS SECTION A - A'
SCALE: NOT TO SCALE

ALREADY CONSTRUCTED
INCLUDED FOR REFERENCE ONLY



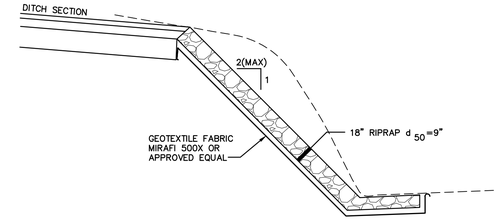
PLAN



NOTE: PROVIDE SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ORDERING.

OUTLET CONTROL STRUCTURE (OCS-1)
NOT TO SCALE

ALREADY CONSTRUCTED
INCLUDED FOR REFERENCE ONLY



RIPRAPPED CHUTE
NOT TO SCALE

5.	11–16–15	REVISED PER STAFF COMMENTS	CYN
4.	10–30–15	REVISED PER MDEP COMMENTS	CYN
3.	09–28–15	SUBMITTED TO MDEP FOR SLODA AMENDMENT	CYN
2.	09–15–15	SUBMITTED FOR FINAL REVIEW	JJM
1.	06–02–15	SUBMITTED TO TOWN OF BRUNSWICK	RPL

PROGRESS PRINT
THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.

STATE OF MAINE
CURTIS
Y.
NEUFELD
9779
LICENSED
PROFESSIONAL ENGINEER
12–04–15

TITLE:
STORMWATER DETAILS

PROJECT:
SPRUCE MEADOWS SUBDIVISION
OLD PORTLAND ROAD, BRUNSWICK, MAINE

PREPARED FOR:
MOORE PROPERTIES, INC.
228 OLD PORTLAND ROAD, BRUNSWICK, MAINE

SITELINES, PA
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FIELD WK: NA	SCALE: AS SHOWN	SHEET: 8
DRN BY: DAM	JOB #: 731.03	
CH'D BY: CYN	MAP/LOT: 13/34, 66-78	
DATE: 3-16-09	FILE: 731.03-COVER	

BRUNSWICK PLANNING BOARD
MEETING MINUTES
SEPTEMBER 10, 2015

MEMBERS PRESENT: Chair Charlie Frizzle, Bill Dana, Dale King, Jeremy Evans, and Richard Visser

STAFF PRESENT: Town Planner, Jared Woolston

A meeting of the Brunswick Planning Board was held on Thursday, September 10, 2015, in Town Council Chambers, 85 Union Street. Chair Charlie Frizzle called the meeting to order at 7:00 P.M.

1. Case # 15-015 Meadow Rose Farm Subdivision: The Board will review and take action regarding a Final Plan Major Development Review application, submitted by Two Clarks, LLC, for a proposed 12-lot residential subdivision, associated conservation lands, and a 1,500 linear foot private lane accessed from Church Road, located on a 71.4 acre lot in the Rural Brunswick Smart Growth Overlay District, within the Coastal Protection 2 (CP2) Zoning District. Assessor's Map 17, Lot 126.

Jared Woolston introduced the application for a Final Plan Major Development for a proposed 12-lot residential subdivision with a 2,200 foot private road.

Kevin Clark, applicant representative from Sitelines, PA., presented a PowerPoint presentation for Meadow Rose Farms Subdivision. Kevin provided in his presentation a project overview, design philosophy, infrastructure overview, reasons behind the waivers being requested, DEP permitting and items pending reflected in the Conditions of Approval. Kevin reviewed the open space areas, lot layouts and buffers of the subdivision.

Charlie Frizzle noted that this application requires a DEP stormwater permit as well as a natural resources protection permit which extends into the Army Corps. of Engineers permit. The applicant also needs a Central Maine Power permit crossing right-of-way agreement and these have all been included in the Conditions of Approval. Charlie noted that most of the drawing changes recommended by the Staff Review Committee have been included in the revised drawings such as the fact that the road will be constructed to private road standards and will begin with a two car length construction. Bill Dana replied that it is noted that if the Homeowners Association chooses to, they can upgrade the road to Town standards. Charlie replied that this would be a great undertaking and would require an amended DEP stormwater permit.

Charlie Frizzle opened the meeting to public comment.

Martin McKenna, resident of 202 Church Road, questioned whether lot 12 was a developable lot in terms of size. Charlie Frizzle replied that it is developable. Martin stated that the lot is a slope. Charlie replied that anyone who wishes to develop on a slope would have to build according to the Town's steep slope requirements.

Thomas Carney, resident of 84 Greenwood, asked about pesticides and about the possible road extension. With regards to pesticides, Kevin Clark replied that they will be following all applicable application methods and that no fertilizer shall be placed on frozen grounds; all pesticides used shall be used according to instructions / restrictions. Kevin explained the reasons behind the dead end road length waiver.

Brigitte Kornblum, resident of 84 Greenwood Road, asked where the domestic water supply pond was that is supposed to be shown on the plan per the last Planning Board meeting. Charlie Frizzle replied that there are other topographical maps that do show the pond. Brigitte asked why she was not invited to the site walk and stated that she was disappointed. Charlie Frizzle replied that the walks were noticed in accordance to Town requirements, but that her lack of notification would need to be researched.

Martin McKenna asked if the sewer will extend down the road. Kevin Clark replied that it will not and that the homeowners will have septic systems. Martin noted that he too was not notified of the rescheduled site walk.

Robert Burgess, resident of 64 Friendship Street, asked about runoff and stated that he is concerned about the amount of rainwater that comes off; is this something that DEP will look into? Charlie Frizzle stated that DEP will look into the entire development and that this is their job to ensure that runoff from this development does not run into or adversely affect adjacent properties.

Chair Charlie Frizzle closed the public comment period.

MOTION BY JEREMY EVANS TO DEEM THE MEADOW ROSE FARM SUBDIVISION FINAL PLAN MAJOR DEVELOPMENT REVIEW APPLICATION COMPLETE. MOTION SECONDED BY DALE KING, MOTION MOVED UNANIMOUSLY.

MOTION BY BILL DANA THAT THE BOARD WAIVES THE FOLLOWING REQUIREMENTS:

1. Profile, cross-section dimensions, curve radii of existing streets
2. Class A Soil Survey
3. Location of existing trees over 10-inches in diameter
4. Maximum Length of Dead End Street waivers

MOTION SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.

MOTION BY RICHARD VISSER THAT THE FINAL SUBDIVISION PLAN IS APPROVED WITH THE FOLLOWING CONDITIONS:

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, his representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a

minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.

2. That prior to issuance of the entrance permit the applicant shall revise the Final Subdivision Plan with any changes required by the DEP for the approved NRPA permit.

3. That prior to issuance of the entrance permit the applicant shall revise the Final Subdivision Plan with any changes required by the DEP for the approved Stormwater Management Law permit.

4. That prior to the issuance of a building permit for any proposed building that is accessible to a sewer or drain of the District as required pursuant to 38 M.R.S. Section 1160 the applicant obtain a statement that capacity is available for the sewer connection from the Superintendent of the Brunswick Sewer District.

5. That prior to the issuance of the entrance permit the applicant shall obtain a statement from the Brunswick-Topsham Water District of conditions under which the District will supply water, and approve the size and location of mains, valves and hydrants proposed.

6. That prior to issuance of a building permit for an individual lot the lot owner shall pay the Solid Waste Impact Fees in the amount of $258.56.

7. That prior to issuance of a building permit for an individual lot a Recreation Impact fee shall be approved by the Director of Parks and Recreation and/or the Recreation Commission, and proof of payment per unit shall be provided by the applicant.

8. That prior to the issuance of an entrance permit the applicant shall record the proposed conservation easement in the Cumberland County Registry of Deeds and provide a copy of the recorded easement to the Director of Planning and Development.

9. That prior to the issuance of a building permit a performance guarantee approved by the Town Engineer shall be posted in accordance with Section 521 of the Zoning Ordinance.

10. That prior to the issuance of the entrance permit the applicant shall obtain a revised easement with sufficient rights to develop the proposed subdivision and provide a copy of the recorded easement to the Director of Planning and Development for review and approval.

MOTION SECONDED BY DALE KING, MOTION MOVED UNANIMOUSLY.

2. Case # 15-037 Brunswick Landing Subdivision Lots 30 and 32 Amendment: The Board will review and take action regarding a combined Major Development Review application, submitted by Sandy River II, Inc., dba Sandy River Company, to revise boundary lines for Lots 30 and 32 of the approved Brunswick Landing Subdivision Plan, Phase 1. Located in BNAS Reuse Zoning District Reuse-Residential (RR); Assessor's Map 40, Lots 50 & 82.

Jared Woolston introduced the application to amend lot lines for Lot 30 and Lot 32 at Brunswick Landing.

Will Conway of Sebago Technics, applicant representative, stated that the applicant wishes to redivide the lot lines for the Avita lot, Lot 30, which will consist of 9.3 acres of land and Lot 32 which will comprise of 4.3 acres of land. Will stated that they have included 2 easements in the plan.

Chair Charlie Frizzle opened the meeting to the public, hearing none, the public comment period was closed.

MOTION BY BILL DANA THAT THE AMENDED SUBDIVISION APPLICATION IS DEEMED COMPLETE. MOTION SECONDED BY JEREMY EVANS, APPROVED UNANIMOUSLY

MOTION DALE KING THAT ALL APPLICABLE PRIOR CONDITIONS RELATING TO THIS AMENDMENT REMAIN IN EFFECT, IN ADDITION TO ANY NEW CONDITIONS CONTAINED HEREIN. MOTION SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY.

MOTION BY BILL DANA THAT THE AMENDED SITE PLAN APPLICATION IS APPROVED WITH THE FOLLOWING CONDITIONS ADDED TO PRIOR CONDITIONS CURRENTLY IN PLACE:

1. That the Board's review and approval does hereby refer to the plans and materials submitted by the applicant and the written and oral comments of the applicant's representatives, reviewing officials and members of the public as reflected in the public record and that any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require review and approval in accordance with the Brunswick Zoning Ordinance.

MOTION SECONDED BY JEREMY EVANS, APPROVED UNANIMOUSLY.

~~**3. Case # 15-020 Brunswick Landing Subdivision Phase 2:** The Board will review and take action regarding a Final Plan Major Development Review application submitted by the Midcoast Regional Redevelopment Authority for the proposed creation of eleven (11) new lots, a proposed private street to intersect with Orion Street, and associated improvements. The project is situated on 21.55 acres to the east of Orion Street, in the BNAS Reuse District, within the Business & Technology Industries Land Use District (RBTI). Assessor's Map 40, Lots 55 & 81.~~

Removed from agenda per applicants request.

4. Zoning Ordinance Rewrite Committee (ZORC) Update

Charlie Frizzle stated that the next meeting is scheduled for September 23, 2015.

5. Approval of Minutes

MOTION BY DALE KING TO APPROVE THE MINUTES FOR MAY 27, 2015. MOTION SECONDED BY JEREMY EVANS, APPROVED UNANIMOUSLY AMONG THOSE PRESENT.

MOTION BY BILL DANA TO APPROVE THE MINUTES OF JUNE 9, 2015. MOTION SECONDED BY RICHARD VISSER, APPROVED UNANIMOUSLY AMONG THOSE PRESENT.

6. Other Business

Adjourn

This meeting was adjourned at 7:48 P.M.

Respectfully Submitted,

Tonya Jenusaitis

Recording Secretary

BRUNSWICK PLANNING BOARD
MEETING MINUTES
OCTOBER 6, 2015

MEMBERS PRESENT: Chair Charlie Frizzle, Vice Chair Margaret Wilson, Bill Dana, Dale King, Jeremy Evans, Soxna Dice,and Richard Visser

STAFF PRESENT: Director of Planning and Development, Anna Breinich; Town Planner, Jeremy Woolston

A meeting of the Brunswick Planning Board was held on Tuesday, October 6, 2015, in Town Council Chambers, 85 Union Street. Chair Charlie Frizzle called the meeting to order at 7:00 P.M.

1. Case # 15-020 Brunswick Landing Subdivision, Phase 2: The Board will review and take action regarding a Final Plan Major Development Review application submitted by the Midcoast Regional Redevelopment Authority for the proposed creation of eleven (11) new lots, a proposed private street to intersect with Orion Street, and associated improvements. The project is situated on 21.55 acres to the east of Orion Street, in the BNAS Reuse District, within the Business & Technology Industries Land Use District (RBTI). Assessor's Map 40, Lots 55 & 81.

Jeremy Woolston clarified which set of Draft Findings of Fact were to be used for this meeting. Anna Breinich introduced the application for Final Plan Major Development Review for an 11 lot subdivision, previously approved on May 27, 2015, and reviewed the project summary dated October 6, 2015. Anna noted that this review is based on the original 7 lot plan and said that determinations of the US Navy FOSTS for the 4 additional lots has been delayed for further testing.

Steve Levesque, Executive Director or MRRA, reviewed the FOST procedure and pointed out that the 7 lots being considered at this meeting have already received a signed FOST by the Navy. Steve said that once they have a received a signed FOST for the remaining 4 lots, they will come back to the Board for approval.

Jan Weigman, or Wright Pierce, reviewed the proposed subdivision and site improvements. Jan noted that because they are proposing construction of a new roadway, they have had to go to DEP for a site law amendment, these comments have just been received and they are in the process of addressing these comments. Jan noted out that 3 of the lots currently have existing facilities on them; New England Tent and Awning, Frosty's Donuts and a vacant building.

With respect to waivers, Margaret Wilson asked if Commerce Street had any trees. Jan Weigmna replied that there are some white pine trees at the end. Anna Breinich noted that the limits of tree growth were shown on the Sketch Plan application.

Chair Charlie Frizzle opened the meeting to public comment. No public comment was made and the public comment period was closed.

MOTION BY DALE KING THAT THE MAJOR FINAL SUBDIVISION PLAN DEVELOPMENT REVIEW APPLICATION IS DEEMED COMPLETE. MOTION SECONDED BY BILL DANA, APPROVED UNANIMOUSLY.

MOTION RICHARD VISSER THAT THE BOARD WAIVES THE FOLLOWING REQUIREMENTS WITH THE CONDITION THAT THEY BE SUBMITTED AS PART OF AN APPLICATION FOR DEVELOPMENT REVIEW OF ANY PROPOSED NEW DEVELOPMENT IN THE SUBDIVISION:

1. Section 412.2.B.3 – Lot monumentation.

2. Section 412.2.B.8. – Profiles and cross-sections and curve radii of existing streets.

3. Section 412.2.B.13– Profile and cross-section of existing utilities.

4. Section 412.2.B.16. – A Class A (high intensity) Soil Survey prepared in accordance with the standards of the Maine Association of Professional Soil Scientists.

5. Section 412.2.B.17. – Location of all existing trees over 10 inches in diameter, and locations of tree stands.

MOTION SECONDED BY SOXNA DICE, APPROVED UNANIMOUSLY.

MARGARET WILSON THAT THE FINAL SUBDIVISION PLAN IS APPROVED WITH THE FOLLOWING CONDITIONS:

1. That the Board's review and approval does hereby refer to these findings of fact, the plans and materials submitted by the applicant and the written and oral comments of the applicant, his representatives, reviewing officials, and members of the public as reflected in the public record. Any changes to the approved plan not called for in these conditions of approval or otherwise approved by the Director of Planning and Development as a minor modification shall require a review and approval in accordance with the Brunswick Zoning Ordinance.

2. That Lots 52, 53, 54, and 55 are removed from the Final Plan prior to the recording of the plan.

3. That the applicant revises the Final Subdivision Plan with any changes required by the DEP to the stormwater management plan for the Site Location of Development Application for Minor Amendment prior to recording of the plan.

4. That Stormwater Management Plans be required for all future development and, to the greatest practical extent, site-specific, Low Impact Development stormwater management strategies and practices are required for all new development, in accordance with Section 504 of the Town's Zoning Ordinance and the Brunswick Landing Design Guidelines and BNAS Reuse Plan.

5. That the Site Location of Development Application for Minor Amendment is approved by the Maine DEP prior to the recording of the plan.

6. That sidewalks approved by the Director of Public Works are provided as part of the construction of Commerce Drive.

7. That, prior to the start of construction, a performance guarantee is paid for the construction of Commerce Drive in an amount determined by the Director of Public Works.

8. In accordance with Section 411.24, Environmental Compliance in the BNAS Reuse and Conservation Districts, the applicant must provide evidence of compliance to the Department of Planning and Development on a site-specific basis at time of future development.

MOTION SECONDED BY BILL DANA, APPROVED UNANIMOUSLY.

2. Report on Staff Review Committee Minor Development Plan Approvals: No approvals to review at this meeting.

3. Zoning Ordinance Rewrite Committee (ZORC) Update: Anna Breinich reviewed the meeting schedule and stated that staff continues to work on revisions.

4. Approval of Minutes

MOTION BY BILL DANA TO APPROVE THE MINUTES OF JULY 7, 2015. MOTION SECONDED BY RICHAARD VISSER, MOTION APPROVED BY THOSE PRESENT.

5. Other Business

- Anna Breinch reviewed the agenda items for the next meeting, October 13, 2015: Bangor Savings Bank.

Adjourn

This meeting was adjourned at 7:26 P.M.

Respectfully Submitted,

Tonya Jenusaitis

Recording Secretary