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Acting Secretary of Natural and Historic Resources

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COMMONWEALTH of VIRGINIA
DEPARTMENT OF CONSERVATION AND RECREATION

Approved February 12, 2025

Date Received by DCR February 11, 2025

Frank N. Stovall
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Soil and Water Conservation*

Laura Ellis
*Deputy Director for
Administration and Finance*

Chip Kramer
Brightpoint Community College
13101 Route 1
Chester, Va 23831

Your nutrient management plan (NMP) dated March 1, 2025 located in Chester Va. has been approved by the Virginia Department of Conservation and Recreation (DCR). The approved plan is for 15.5 acres. Only nutrient recommendations for applications to be made after the date of this letter are approved by this letter. Your NMP was written by Sara Shelton, a nutrient management planner certified by DCR.

This site has not been inspected by DCR and this approval is contingent upon site conditions being as stated in the NMP. Any revisions to this plan must be approved by DCR. Any change in personnel resulting in a change to the plan manager should be reported to the Certified Nutrient Management Planner who will then make DCR aware. Please note that this letter should be kept with the NMP and supporting documentation including nutrient application records. This plan expires on March 1, 2028. Please feel free to contact me with any questions or concerns regarding this approval.

Best regards,

James Janney

James Janney
Urban Nutrient Management Coordinator
Division of Soil and Water Conservation
600 East Main Street, 24th Floor
Richmond VA 23219
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Nutrient Management Plan

**Chester Campus
Brightpoint Community College
Chester, Virginia**

**Prepared for
Brightpoint Community College
c/o Chip Kramer
Director of Facilities and Safety
13101 Route 1
Chester, Virginia 23831
804.840.8354**

**Prepared by
Sara Shelton, CLA, CNMP
Wetland Studies and Solutions, Inc.
1620 Brook Road
Richmond, Virginia 23220**

February 4, 2025



Nutrient Management Plan for the Chester Campus Brightpoint Community College

Prepared for:

Brightpoint Community College
C/O: Chip Kramer
13101 Route 1
Chester, Virginia, 23831

Prepared By:

Sara Shelton/Certified Nutrient Management Planner
Certification No. 943
Wetland Studies and Solutions, Inc.
1620 Brook Road
Richmond, VA 23220

Location Information	
Physical Address	<i>13101 Route 1</i>
City State Zip	<i>Chester, VA 23831</i>
Coordinates	<i>37° N 20' 43.61"</i>
NAD 83 Deg Min Sec	<i>77° W 24' 27.73"</i>
VAHU6 Watershed Code	<i>Western portion of Campus: JA45 – Appomattox River-Ashton Creek Eastern Portion of Campus: JL03 – James River-Proctors Creek</i>
County	<i>Chesterfield</i>
Square Footage of Management Areas	
Total	<i>15.50 acres (675,149.80 ft²)</i>
Area 1	<i>15.50 acres (675,149.80 ft²)</i>
Plan Start Date	<i>March 1, 2025</i>
Plan End Date	<i>March 1, 2028</i>
Planner Signature	<i>Sara Shelton</i>

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1.0 INTRODUCTION AND SITE DESCRIPTION

1.1. Introduction

This Nutrient Management Plan (NMP) is for the Chester Campus of the Brightpoint Community College (BCC) located in Chesterfield County, Virginia just north of Old Bermuda Hundred Road between Interstate 95 and Route 1 (Figure 1).

The purpose of this NMP is to maintain and improve turf conditions and facilitate effective turf management while protecting water quality. This NMP addresses only the managed turfgrass areas at the campus. Management of other vegetated areas containing trees, flowering ornamentals, small shrubs and groundcovers, is performed by each campus and their landscape contractor based on site-specific conditions including but not limited to the type and status of vegetated areas, annual soil testing, and the occurrence of pests and weeds. This NMP is effective for three years (until March 1, 2028) or until major renovation or other changes to maintenance practices occur. This NMP should be used as a resource for planning the quantity and timing of turfgrass nutrient application based on sound agronomic practices.

1.2. Site Description

The 59-acre Chester Campus contains turfgrass in many areas within the campus grounds, including around campus buildings, along roadways, and around and within parking lots. The dominant turfgrass at the campus is bermudagrass, which is categorized as warm season turf.

During the site visit in November 2024 turf areas around Chester Campus generally appeared in good condition. The Chester Campus contains no athletic fields. Turf areas in front of Goyne Hall and the Nicholas Center are irrigated. Turf in the median along Brightpoint Drive and the roadside turf along Route 1 are also irrigated. The remainder of the turf is non-irrigated.

There are several environmentally sensitive areas including a dry swale, three detention ponds and eight filterras identified on the Chester Campus as shown on Figures 2, 3, and 4. A dry detention pond is situated in the southwest portion of the property, south of the Facilities building. A dry swale and two detention ponds are located in the northern portion of the property. The eight filterras are in parking lots southeast of the property. Section 4 addresses environmentally sensitive areas.

1.3. Current and Future Turf Maintenance

Current maintenance of turf at the BCC Chester campus consists of mowing, periodic aeration and seeding, and pesticide/herbicide applications. No nutrients have been applied in the last couple of years. Campus personnel have indicated the potential for increased management of turf in the future including application of fertilizers to improve turf conditions. However, they do not intend to intensively manage turf at the campus and prefer to follow a basic nutrient management program.

Campus staff are responsible for maintenance of turf including mowing, herbicide fertilizer and lime application, as well as aeration and overseeding. It is the responsibility of the Plan Administrator to ensure this nutrient management plan is followed.

2.0 SOIL SAMPLING AND ANALYSIS

Using the NRCS Web Soil Survey application, Wetland Studies and Solutions, Inc. (WSSI) personnel reviewed mapped soil data for the campus. Most of the soils at the Campus are mapped as Lucy-Orangeburg and Faceville-Gritney series. Although most of the soils in the turf areas have been modified by cut and fill activities, the soils still retain much of the mapped soil series characteristics and are classified as loamy sand and fine sandy loam.

Areas of managed turfgrass were divided into two sampling areas based on topography, soil properties, and management intentions. Soil samples were collected from the turfgrass areas across the campus and submitted for laboratory analysis including pH, buffer pH, phosphorus and potassium, and other soil properties. Figure 2 shows the locations of the soil sampling areas and environmentally sensitive areas, and Table 1 summarizes the laboratory results. Appendix A presents the soil laboratory data. No sampling was performed within the wooded areas, or landscaped areas.

Soil laboratory results were converted into nutrient management ratings based on the Virginia Nutrient Management Standards and Criteria (VNMS&C). Soil phosphorous ratings rated Low+ to Medium-, and potassium concentrations for the sampling areas ranged from Medium to Low+. Soils in both sampling areas exhibited a low pH. Soil samples were generally acidic, with pH values of 5.5 and 6.0, below the pH target level of 6.2 for turfgrass.

3.0 NUTRIENT MANAGEMENT AREAS

Based on the soil test results, current turf conditions, the intensity of use, overall visibility and aesthetic considerations, and the request of campus personnel implement a straightforward nutrient management program, one (1) Nutrient Management Area (NMA) at the Chester Campus has been established for this NMP. The one NMA will adequately maintain and improve turf conditions, facilitate effective management, and protect water quality. Figures 3 and 4 show the nutrient management areas and the liming areas, respectively. Table 2 presents a suggested application schedule for the nutrient management and liming areas, discussed in greater detail in Section 3.1 below.

3.1 Nutrient and Liming Applications

3.1.1. Nitrogen, Phosphorous and Potassium

Nitrogen, phosphorous (P₂O₅) and potassium (K₂O) are the three macronutrients essential for healthy turf, and therefore, are the central focus of the NMP along with lime applications. Phosphorous and potassium recommendations found on Table 2 are based on the soil laboratory results, the VNMS&C, and the overall turf conditions as observed during the soil sampling site visit. Nitrogen recommendations are based on turfgrass needs defined by VNMS&C, not soil test results, which vary based on the type of turfgrass (cool vs. warm season) and level of management (standard vs. intensive).

The acceptable window for nitrogen application for non-overseeded warm season turfgrass at the Chester Campus is from April 10 until September 30. April or May nitrogen applications should not be made until after complete green-up of turf. Fields overseeded with ryegrass in the fall are allowed additional late fall and early spring nitrogen applications after the perennial ryegrass is well established as identified in Table 2.

3.1.2. Lime and pH

Soil acidity is critical to plants as it affects the availability of nutrients in the soil and potential leaching of nutrients from the soil. Most turfgrasses prefer a slightly acidic soil pH of approximately 6.2 Standard Units (SU). Periodic lime applications are necessary for many Virginia soils to correct low pH, add buffering capacity, and provide secondary nutrients calcium and magnesium as well as some micronutrients. Liming rates provided by the laboratory are based on the soil pH and the pH buffer indices.

According to the laboratory results, a liming application of 30 lbs. per 1,000 ft² for Soil Sampling Area 1 and 10 lbs. per 1000 ft² for Soil Sampling Area 2 for the first year of this NMP. See Table 2 for recommended amounts and timing of applications.

Liming recommendations are only for the first year following sampling. The soil should be tested for soil pH and Buffer pH in the late fall to winter each following year to determine if liming is necessary following the initial recommended liming.

3.2 Problem Turfgrass Areas and Temporarily Inactive Nutrient Management Areas

Some turf areas have ineffective groundcover including turfgrass in poor condition. The poor turfgrass conditions are the result of poor soil quality, over-compaction, active erosion, steep slopes, shading, or poor soil moisture conditions. Areas where there is ineffective groundcover should be temporarily removed from active nutrient management until corrective measures can be applied to improve the turfgrass or groundcover conditions. At the time of the development of this NMP, there were no active construction sites or turf areas that were designated as ineffective and removed from active management.

Corrective action options vary by area but may include additional soil amendments (compost/topsoil), aeration or shallow tilling, and the use of mulch, turf mats and blankets. Alternative landscaping such as non-turf groundcovers, pavers, and other hardscape treatments may be the best alternative for some areas. If turfgrass is the desired vegetative cover, the soil should be retested for soil and buffer pH and adjusted accordingly with limestone as part of corrective action.

3.3 Selection of Fertilizers

Specific fertilizers and herbicides have not been selected as a part of this NMP to provide greater flexibility and cost savings. The nutrient applicator has the option to select either commonly used fertilizer blends already in stock or are readily available, or they can use custom blends, a common practice in the commercial landscaping industry. Slow-release nitrogen containing fertilizers are recommended. This NMP will require revision should the Director of Facilities and Safety decide to use animal manures or Class B biosolids (not of exceptional quality).

Provided the maximum rate of nitrogen per application and the total annual rates of all three nutrients are not exceeded as detailed in Table 2, the landscape contractor may use their discretion with the exact ratio of nutrients applied per application.

3.4 Pre and Post Emergent Herbicides

Weed control is a necessary requirement for healthy turf and has been implemented in the past at the Campus. Herbicides with nitrogen included may be used in the spring provided the application of nitrogen follows the amount allowed by this NMP and the VNMS&C. However, additional straight application of herbicides without nitrogen additives may be required.

3.5 Precautions for Fertilizer Applications

General precautions for fertilizer application include:

- Avoid applying fertilizers on steep slopes 48-hours prior to a rain event.
- Do not apply fertilizers to frozen or snow-covered ground, nor should they ever be used as ice melt.
- Avoid/minimize application of fertilizers to impervious areas such as parking lots, roads, and sidewalks, and within 25 feet of environmentally sensitive areas and stormwater collection/management facilities.
- Remove any granular materials that land on impervious surfaces by sweeping, collecting, and either placing material back in the bag or spreading it onto the turf.

4.0 ENVIRONMENTALLY SENSITIVE AREAS, STORMWATER MANAGEMENT FACILITIES, AND RECOMMENDED BUFFERS

Environmentally sensitive areas including three stormwater management facilities were identified on the Chester Campus as shown on Figures 2, 3, and 4:

- A dry detention pond in the southwest portion of the property, south of the Facilities building.
- A dry swale and two detention ponds between the Nicholas Center and Interstate 95.
- Eight filterstrips in the parking lots in the southeast portion of the property.

A no-fertilizer/pesticide application buffer area of at least 25 feet and preferably 50 feet should be established around these sensitive areas. Where practicable, native vegetation may be an alternative to turf in the buffer areas. Turf in and around the detention basins should be mowed at a greater height.

It is noted that identification of sensitive natural resources areas such as wetlands and streams is based on the publicly available National Hydrologic Dataset and the U.S. Fish & Wildlife Service (USFWS) National Wetland Inventory Maps. Field mapping of other wetlands and streams that may exist on the campus was outside the scope of this NMP.

5.0 OTHER TURF MANAGEMENT CONSIDERATIONS

Aeration - Extensive core cultivation/aeration in the late summer to early fall is recommended for the campus. Core aeration is very disruptive to surface smoothness, but it is the best way to relieve the physical effects of soil compaction and increase soil oxygen levels.

Grass Seed Type - Reference the most recent Virginia Cooperative Extension's *Virginia Turfgrass Variety Recommendations* found online at <https://www.sites.ext.vt.edu/newsletter-archive/turfgrass/index.html> when selecting seed mix for over-seeding. The seed type should be suitable to regional environmental conditions.

Iron - Iron applications (particularly foliar applications) may periodically be used for enhanced greening as an alternative to nitrogen. These applications are most beneficial if applied in late spring through summer for cool season grasses and in late summer/fall applications for warm-season grasses. Since iron is a micronutrient, its application levels are very low. The color response is short-lived (typically two to three weeks) because the iron-induced color response in the leaves is removed by mowing.

Returning and Management of Grass Clippings - The recycling of grass clippings on turf should be encouraged as an effective means of recycling nitrogen, phosphorus, and potassium. Where aesthetics allows, all clippings from mowing events should be returned to the turf rather than discharging them onto sidewalks or streets. Clippings should not be blown onto impervious surfaces or surface waters, dumped down stormwater drains, or piled outside where rainwater will leach out the nutrients creating the potential for nutrient loss to the environment

Spreader Equipment Calibration - Spreader equipment calibration is critical to NMP implementation. The fertilizer applicator should supply equipment calibration records to the campus facility manager on a routine basis.

6.0 RECORDKEEPING

Proper NMP implementation requires diligent record keeping of fertilizer, lime and herbicide applications, and turfgrass conditions. Important information to retain with this NMP includes soil tests reports; spreader settings; calibration results, dates of fertilizer application and rates applied; seeding or renovation; and unusual stresses caused by disease, drought, and pests. This information will also provide the background needed for future revisions of the NMP. NMP Application record keeping forms are included in Appendix B for use for tracking fertilizer, lime, pesticide and herbicides.

7.0 REFERENCES

Nutrient Management Training and Certification Regulations 4VAC50-85 (effective date November 23, 2014)

Virginia Nutrient Management Standards and Criteria (Revised July 2014):

<https://www.dcr.virginia.gov/document/standardsandcriteria.pdf>

Urban Nutrient Management Handbook (August 16, 2019); 430-350:

<https://resources.ext.vt.edu/>

A Spreadsheet-Based Soil Test Converter for Turfgrass Professionals and Nutrient Management Planning in Virginia (November 1, 2018); SPES-60P:

<https://resources.ext.vt.edu/>

Soil Test Note #1 – Explanation of Soil Tests (December 1, 2018):

<https://resources.ext.vt.edu/>

Tables

Table 1 - Soil Test Summaries

Site: Chester Campus – BCC											
Lab: Waypoint Laboratories											
Sample Date: 11/06/24											
Soil Sampling Area ID	Square Feet	Soil pH (SU)	Buffer pH (S.U.)	P (Mehlich III) (ppm)	P (Mehlich I) (ppm)	P (H/M/L)	P (Mehlich III) (ppm)	K (Mehlich I) (ppm)	K (H/M/L)	Soil Description	Turf Species
CH-1	150,864.91	5.5	6.82	17	5	L+	74	53	M	Dark Brown, Sandy Loam	Warm season, Bermudagrass
CH-2	524,284.89	6.0	6.86	22	7	M-	51	36	L+	Dark Brown, Sandy Loam	Warm season, Bermudagrass

Notes: SU = Standard Units; ppm = parts per million; P and K ratings are from Virginia Nutrient Management Standards & Criteria.

Table 2 – Nutrient Application Worksheet (Schedule 1)

Site: Chester Campus

Operator: Brightpoint Community College

Begins: 2/1/2025

Expires: 2/1/2028

Nutrient Management Area: 1 (CH-1 & CH-2)

Square Feet: 675,149.80

Landscape Plants: Warm Season Turf (Bermudagrass)

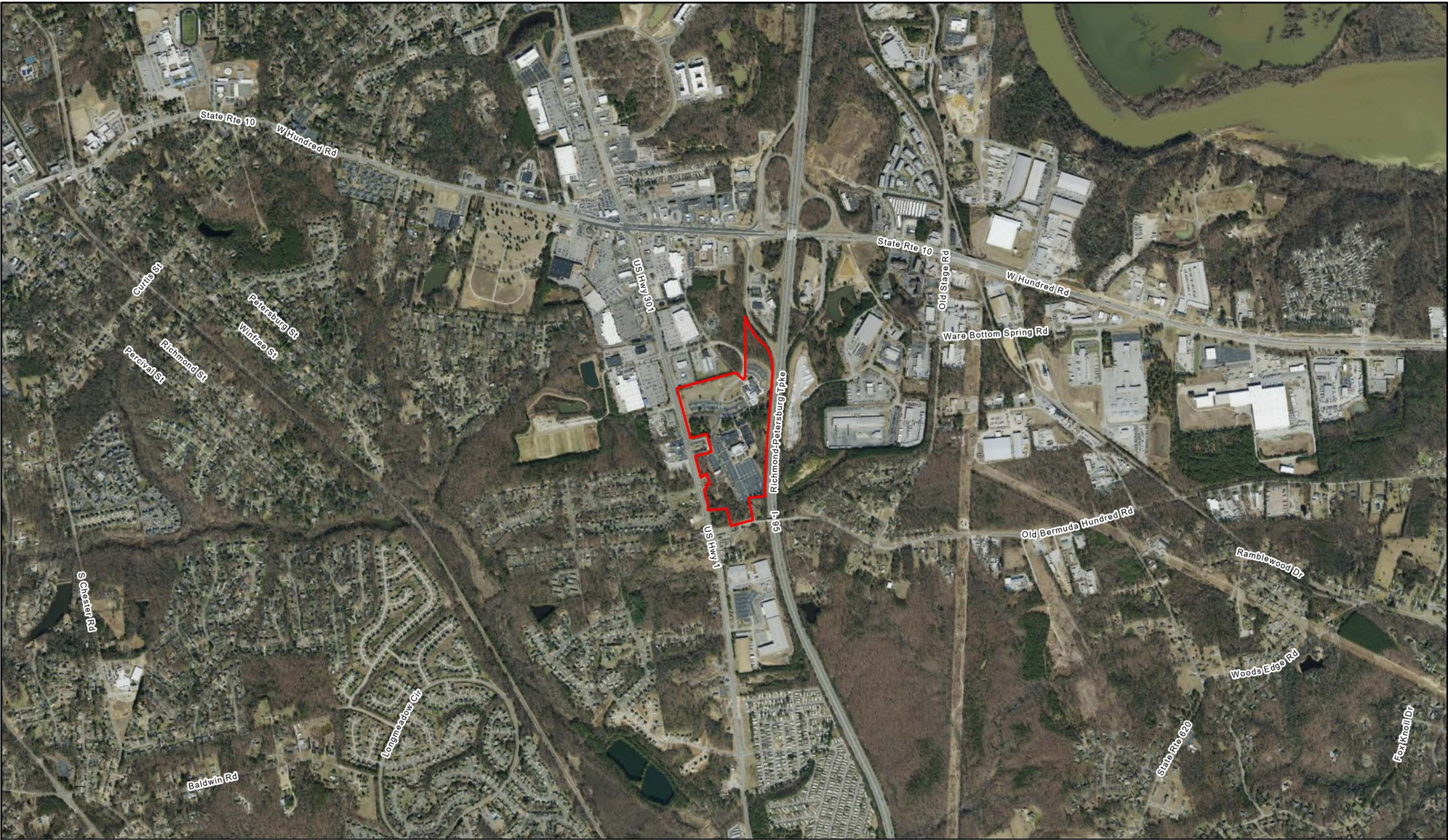
Annual Nutrient Needs (lbs./1000 ft ²) ^{1c}	Application Month/Day ^{1,2}	Amendment Material Notes	% Slow-Release N	Total N (lbs./1000 ft ²)	Total P ₂ O ₅ (lbs./1000 ft ²)	Total K ₂ O (lbs./1000 ft ²)	Lime Recommendation (lbs./1000 ft ²) ³
4.0^(1e)-2.0-1.5	March 1	Lime		0	0	0	30 (CH 1) & 10 (CH 2)
	April 10	N	50% or greater	1.0 ^(1b,1d)	0	0	
	May 10	N	50% or greater	1.0 ^(1b,1d)	0	0	
	June 10	N	50% or greater	0.5 ^(1a,1b)	0	0	
	July 10	N & K ₂ O	50% or greater	0.5 ^(1a,1b)	0	.5	
	August 10	N & K ₂ O	50% or greater	0.5 ^(1a,1b)	1.0	.5	
	Sept 10	N, P ₂ O ₅ & K	50% or greater	0.5 ^(1a, 1b)	1.0	.5	
	Totals:				4.0	2.0	1.5
If Overseeded with Perennial Ryegrass							
1.0^(1f)-0-0	Oct 10 – Nov 10	N	50% or greater	0.5 ^(1e)	0	0	
	Feb 10 – Mar 10	N	50% or greater	0.5 ^(1e)	0	0	
	Totals:			1.0^(1f)	0	0	

Notes:

- Fertilizer recommendations are flexible if the following conditions are met: (a) no more than 0.7 pounds of Water Soluble N per 1000 ft² is applied within a 30-day period; (b) no more than 1.0 pounds of Total N per 1000 ft² may be applied within a 30-day period; (c) total annual fertilizer amounts for each nutrient shall not exceed the Annual Nutrient Needs listed in column 1; (d) if a material containing slowly available forms of nitrogen is used, nitrogen application rates up to 1.0 lb./1000 ft² may be applied in a single application with a minimum of 30 days between applications; (e) If the Campus decides to add N for overseeding, they must reduce the other applications to a total of 3 pounds as the maximum allowable N for commercial turf is 4 pounds. (f) up to 1.0 lb./1000 ft² of additional nitrogen is allowed if overseeding with perennial ryegrass. This may be accomplished using split applications of 0.5 lbs./1000 ft² applied with a minimum of 15 days between applications.
- The fertilization window is from April 10th until September 30th. The day designations in column 2 are general guidelines. The application day can vary as long as the application intervals are adhered to, and the applications occur within the window dates.
- Lime areas are shown in Figure 4. One application of pelletized agricultural dolomitic limestone at a rate of 30 lbs./1000 ft² is recommended for Soil Sampling Area CH-1 and 10 lbs./1000 ft² for Soil Sampling Area CH-2. Lime applications are only for the first year. Liming for years 2 and 3 shall be based on additional soil testing.
- Do not apply inorganic fertilizers on frozen or snow-covered ground, or on denuded areas. Sweep or blow any fertilizer found on impervious surfaces into turf areas. Do not use fertilizers as ice melt.
- Apply pre and/or post emergent herbicides as needed, but do not use fertilizer containing herbicide before April 10th. Conditions must be met in Note 1.

Figures

Figure 1: Project Location



Campus Boundary

Prepared by WL, 1/14/2025 12:51 PM
 Sources: VGIN Most Recent
 Projection: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

FIGURE 1
PROJECT LOCATION
 BCC - Chester NMP

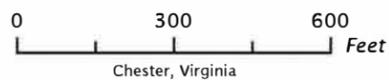
0 1,000 2,000
 Feet

Chester, Virginia

Figure 2: Soil Sampling Areas



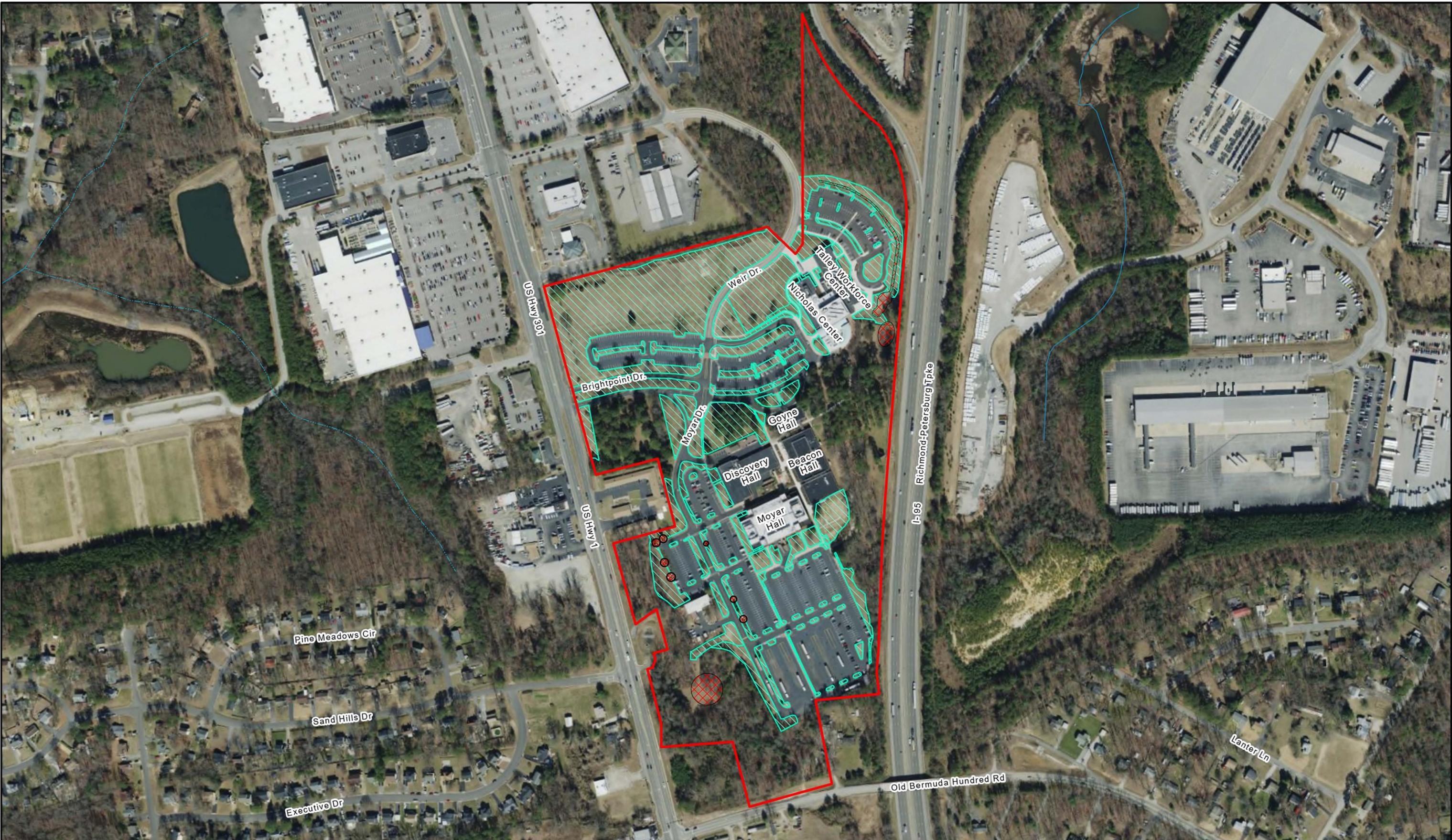
FIGURE 2
SOIL SAMPLING AREAS
 BCC - Chester NMP



Prepared by WL, 1/14/2025 12:52 PM
 Sources: VGIN Most Recent
 Projection: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

- CH-1
- CH-2
- National Hydrography Dataset (NHD)
- Campus Boundary
- Environmentally Sensitive Area

Figure 3: Nutrient Management Areas



Prepared by WL, 1/14/2025 12:59 PM
 Sources: VGIN Most Recent
 Projection: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

 NMA-1
 National Hydrography Dataset (NHD)

 Environmentally Sensitive Area
 Campus Boundary

FIGURE 3
NUTRIENT MANAGEMENT AREAS
 BCC - Chester NMP
 0 300 600 Feet
 Chester, Virginia

Figure 4: Liming Areas



Prepared by WL, 1/14/2025 12:52 PM
 Sources: VGIN Most Recent
 Projection: NAD 1983 StatePlane Virginia South FIPS 4502 Feet

- Liming Area:**
- 30 lbs/1000 ft²
 - 10 lbs/1000 ft²
- National Hydrography Dataset (NHD)
 - Environmentally Sensitive Area
 - Campus Boundary

FIGURE 4
LIMING AREA
 BCC - Chester NMP

0 300 600 Feet

Chester, Virginia

Appendices

Appendix A: Laboratory Soil Test Results

SOIL ANALYSIS

Client : Wetlands Studies Solutions 1620 Brook Road Richmond VA 23220	Grower : Brightpoint Community College 13101 Route 1 Chester, VA 23831	Report No: 24-311-0503 Cust No: 78934 Date Printed: 11/07/2024 Date Received : 11/06/2024 Date Analysis : 11/07/2024 Page : 1 of 12
Lab Number : 12474	Field Id :	Sample Id : CH-1

Test	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
		Very Low	Low	Medium	Optimum	Very High	
Soil pH	5.5						4.2 meq/100g
Buffer pH	6.82						
Phosphorus (P)	17 ppm						Calculated Cation Saturation
Potassium (K)	74 ppm						
Calcium (Ca)	459 ppm						%K 4.5
Magnesium (Mg)	78 ppm						%Ca 54.6
Sulfur (S)							%Mg 15.5
Boron (B)							%H 26.2
Copper (Cu)							Hmeq 1.1
Iron (Fe)							
Manganese (Mn)							
Zinc (Zn)							K : Mg Ratio
Sodium (Na)							0.29
Soluble Salts							Ca : Mg Ratio
Organic Matter	3.0 % ENR 104						3.52
Nitrate Nitrogen							

SOIL FERTILITY GUIDELINES

Crop : Bermudagrass Lawn

Rec Units: LB/1000 SF

(lbs)	LIME (tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe
30		3.5	3.5	5.5	0						
Crop :											
Rec Units:											

Comment :

Brandi Watson

SOIL ANALYSIS

Client : Wetlands Studies Solutions 1620 Brook Road Richmond VA 23220	Grower : Brightpoint Community College 13101 Route 1 Chester, VA 23831 PO:	Report No: 24-311-0503 Cust No: 78934 Date Printed: 11/07/2024 Date Received : 11/06/2024 Date Analysis : 11/07/2024 Page : 2 of 12
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Lab Number : 12474

Field Id :

Sample Id : CH-1

SUGGESTED FERTILIZATION PROGRAM

First Application		Second Application		Third Application		Fourth Application	
#/1000 Sq. Ft.	Fertilizer	#/1000 Sq. Ft.	Fertilizer	#/1000 Sq. Ft.	Fertilizer	#/1000 Sq. Ft.	Fertilizer
12	10-20-15	12	10-20-15	12	10-0-20		

Comments:

Bermudagrass Lawn

Limestone application is targeted to bring soil pH to 6.2.

- Apply the amount of lime recommended in first page to raise pH
-
- Use calcitic limestone to correct the pH.
- The above fertilizer application recommendation is a general guideline, if the specified grades can not be found, replace with fertilizer having similar N:P:K ratio. The best time to apply fertilizer for warm season grass (bermuda, St. Augustine, zoysia, bahia, centipede) is in the late spring and summer when grass is growing. For Mid-Atlantic region the time is from May to Mid September. Apply with the interval of 4-6 weeks. These grades of fertilizer are the best fit for your requirements for Nitrogen and Phosphorus. It may cause the amount of Potassium being slightly lower than the amount required. This problem should not affect the growth of your lawn and can be easily adjusted from resubmitting soil sample same time next year.



SOIL ANALYSIS

Client : Wetlands Studies Solutions 1620 Brook Road Richmond VA 23220	Grower : Brightpoint Community College 13101 Route 1 Chester, VA 23831	Report No: 24-311-0503 Cust No: 78934 Date Printed: 11/07/2024 Date Received : 11/06/2024 Date Analysis : 11/07/2024 Page : 3 of 12
Lab Number : 12475	Field Id :	Sample Id : CH-2

Test	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
		Very Low	Low	Medium	Optimum	Very High	
Soil pH	6.0						4.7 meq/100g
Buffer pH	6.86						
Phosphorus (P)	22 ppm						Calculated Cation Saturation
Potassium (K)	51 ppm						
Calcium (Ca)	649 ppm						%K 2.8
Magnesium (Mg)	75 ppm						%Ca 69.0
Sulfur (S)							%Mg 13.3
Boron (B)							%H 14.9
Copper (Cu)							Hmeq 0.7
Iron (Fe)							
Manganese (Mn)							
Zinc (Zn)							K : Mg Ratio
Sodium (Na)							0.17
Soluble Salts							Ca : Mg Ratio
Organic Matter	2.7 % ENR 97						5.19
Nitrate Nitrogen							

SOIL FERTILITY GUIDELINES

Crop : Bermudagrass Lawn

Rec Units: LB/1000 SF

(lbs)	LIME (tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe
10		3.5	2.5	5.5	0						

Crop :

Rec Units:

(lbs)	LIME (tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Comment :



SOIL ANALYSIS

Client : Wetlands Studies Solutions 1620 Brook Road Richmond VA 23220	Grower : Brightpoint Community College 13101 Route 1 Chester, VA 23831 PO:	Report No: 24-311-0503 Cust No: 78934 Date Printed: 11/07/2024 Date Received : 11/06/2024 Date Analysis : 11/07/2024 Page : 4 of 12
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Lab Number : 12475

Field Id :

Sample Id : CH-2

SUGGESTED FERTILIZATION PROGRAM

First Application		Second Application		Third Application		Fourth Application	
#/1000 Sq. Ft.	Fertilizer	#/1000 Sq. Ft.	Fertilizer	#/1000 Sq. Ft.	Fertilizer	#/1000 Sq. Ft.	Fertilizer
12	10-20-15	12	10-20-15	8	16-4-8		

Comments:

Bermudagrass Lawn

Limestone application is targeted to bring soil pH to 6.2.

- Apply dolomitic lime to raise pH and improve the magnesium level.
- Apply the amount of lime recommended in first page to raise pH
-
- Use dolomitic limestone to correct the pH.
- The above fertilizer application recommendation is a general guideline, if the specified grades can not be found, replace with fertilizer having similar N:P:K ratio. The best time to apply fertilizer for warm season grass (bermuda, St. Augustine, zoysia, bahia, centipede) is in the late spring and summer when grass is growing. For Mid-Atlantic region the time is from May to Mid September. Apply with the interval of 4-6 weeks. These grades of fertilizer are the best fit for your requirements for Nitrogen and Phosphorus. It may cause the amount of Potassium being slightly lower than the amount required. This problem should not affect the growth of your lawn and can be easily adjusted from resubmitting soil sample same time next year.



Appendix B: Application Record Forms

Fertilizer Application Records

Fertilizer Application Records									
Customer Information					Management Area Information				
Name:					Management Area ID:				
Address:					Management Area Size:				
					Target Species:				
					Notes:				
Date	Supervisor/Applicator	Weather Conditions			Fertilizer Analysis	Rate	Amount Fertilizer Used (1000 lbs/AC)	Application Equipment Used	
		Temp	Wind Speed	Precip					

When was the last time your fertilizer equipment was calibrated??? For information on calibration see Chapter 10 of the "Urban Nutrient Management Handbook". Available for download at <http://pubs.ext.vt.edu/430/430-350/430-350.html>

Herbicide Application Records

Herbicide Application Records									
Customer Information					Management Area Information				
Name:					Management Area ID:				
Address:					Management Area Size:				
					Target Species:				
					Notes:				
Date	Supervisor/Applicator	Weather Conditions			Herbicide Analysis	Rate	Amount Herbicide Used	Application Equipment Used	
		Temp	Wind Speed	Precip					

When was the last time your fertilizer equipment was calibrated??? For information on calibration see Chapter 10 of the "Urban Nutrient Management Handbook". Available for download at <http://pubs.ext.vt.edu/430/430-350/430-350.html>

Lime Application Records

Lime Application Records									
Customer Information					Management Area Information				
Name:					Management Area ID:				
Address:					Management Area Size:				
					Notes:				
Date	Supervisor/Applicator	Weather Conditions			Lime Analysis	Rate	Amount Lime Used (1000 lbs/AC)	Application Equipment Used	
		Temp	Wind Speed	Precip					

When was the last time your fertilizer equipment was calibrated??? For information on calibration see Chapter 10 of the "Urban Nutrient Management Handbook". Available for download at <http://pubs.ext.vt.edu/430/430-350/430-350.html>

Pesticide Application Records

Customer Information					Management Area Information			
Name:					Management Area ID:			
Address:					Management Area Size:			
					Target Species:			
					Notes:			
Date	Supervisor/Applicator	Weather Conditions			Pesticide Analysis	Rate	Amount Pesticide Used	Application Equipment Used
		Temp	Wind Speed	Precip				

When was the last time your fertilizer equipment was calibrated??? For information on calibration see Chapter 10 of the "Urban Nutrient Management Handbook". Available for download at <http://pubs.ext.vt.edu/430/430-350/430-350.html>