EXECUTIVE SUMMARY
UMES MASTER PLAN 2008 - 2018

Update to the 2002-2012 Master Plan

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Civil / Structural Engineer

Mr. Peter A. Okemmuo
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Planner

Mr. Ayan Sen
Planner / Architect

Ms. Michele Dempsey
Architect

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INTRODUCTION

UMES Mission Statement

University of Maryland Eastern Shore (UMES), the State's Historically Black 1890 Land-Grant institution, emphasizes baccalaureate and graduate programs in the liberal arts, health professions, sciences, and teacher education. In keeping with its land-grant mandate, the University's purpose and uniqueness are grounded in distinctive learning, discovery, and engagement opportunities in agriculture, marine and environmental sciences, technology, engineering and aviation sciences, health professions, and hospitality management. Degrees are offered at the bachelors, masters, and doctoral levels.

UMES is committed to providing access to high quality values-based educational experience, especially to individuals who are first-generation college students of all races, while emphasizing multicultural diversity and international perspectives. The University serves the education and research needs of businesses, industries, government and non-government organizations. The University is committed to meeting the economic development needs on the Eastern Shore; workforce development needs of the State; international development priorities of the nation; and commercialization and entrepreneurial ventures of the University, through engagement activities and partnerships.

UMES is a teaching/research institution that nurtures and launches globally competent citizens. It will continue to embrace its interdisciplinary curriculum, sponsored research initiatives, rural and economic development priorities, and community engagement. UMES will continue to expand its partnerships and collaborative arrangements with the University System of Maryland institutions, other universities, community colleges, public schools, government, and other external agencies and constituencies.

The 2008-2018 Master Plan

The principal aim of the 2008-2018 Master Plan is twofold. First, the Master Plan aims to determine where and how all planned and anticipated construction projects can be accommodated within a well-defined urban design and open space framework. Second, the Master Plan aims to support the University of Maryland's recent Climate Commitment and Sustainability Initiatives. Dr. Thelma B. Thompson signed the American College and University Presidents' Climate Commitment (ACUPCC) in Spring of 2007, pledging the UMES campus to take significant steps to reduce greenhouse gas (GHG) emissions from campus operations and move towards the goal of carbon neutrality (zero net GHG emissions). At UMES, the President has appointed the Climate Change Committee and it has met the institution's ACUPCC commitment, conducted a greenhouse gas inventory and is now preparing the UMES Climate Action Plan.

Master Planning Process

The UMES Facility Master Plan (FMP) Update (2008-2018) has laid out a framework for the academic and physical growth of the University over the next ten years guided by the projected enrollment growth and space needs. The Office of the Vice President of Administrative Affairs steered the planning process, with the technical assistance of the consultants from the firm of Beyer Blinder Belle Architects and Planner, LLP (BBB).

In 2007, UMES once again secured the services of BBB to update the ten-year facility master plan. Originally scheduled for completion in 2008, it was completed on November 11, 2009. The 2008 through 2018 FMP mirrored the previous FMP in organizing newly collected data and making updates. The FMP update does not include Space Planning Guideline Datasheet, DBFP Space Guideline allowance and Existing/Projected inventories. It does include: a study addressing the new Sustainability mandate covering Building, Energy, Site, Transportation and Water issues;

and, the resolutions reached under the Hazard Mitigation committee meetings. Enrollment and other demographic data in this FMP update are current. Several capital projects and system funded projects are identified.

The essence of this master plan is to provide a conceptual site plan that illustrates the proposed development for the campus, but does not attempt detailed site design.

Planning Input

The Office of the Vice President of the Administrative Affairs facilitated data collection from the different constituents of the University. These are the most active participants:

(i) Institutional Effectiveness and Assessment
(ii) Facility Planning, Design and Construction
(iii)Office of Academic Affairs
(iv)Hazard Mitigation Committee
(v) The Consultants

Planning Efforts

The planning efforts were executed by the team from Facility Planning, Design and Construction that met on several occasions with the consultants (BBB) to study the new issues relevant to the FMP update (2008-2018). Since BBB produced the previous FMP, there was a carryover of prior experience, understanding and campus master planning needs. All issues treated in the previous FMP received more in-depth attention and study. The themes were similar; however, much of the updated data had changed. After each presentation, the group held intensive work sessions to dissect the themes with greater insight and understanding. In addition, the Hazard mitigation committee met several times. The Princess Anne community (around UMES) were invited to participate in some of the meetings. The resolutions from these meetings, chaired by staff from Facility Planning, Design and Construction, have been included in thee updated FMP.

UNIVERSITY OVERVIEW

Academic Profile

UMES has four main Academic Divisions: the School of Agricultural and Natural Sciences, the School of Arts and Professions, the School of Business and Technology, and the School of Pharmacy and Health Professionals. While the Carnegie Foundation classifies UMES in its new system as Masters (Comprehensive) Colleges and Universities, MA 1, the University aspires to Doctoral/Research Universities-Intensive classification as it develops new doctoral programs. This aspiration will be supplemented by an increase in bachelors' and masters' programs. Future planned program emphases include such programs as new health care needs, especially those in rural areas. UMES plans to add to its allied health sciences programs at all degree levels. The University, in order to accommodate changes in the accountancy licensure exam, will develop a master's program in accounting.

Student Population

Student enrollment continues to grow and for the Fall of 2008 the headcount totaled 4,290. By Fall 2018, this number is projected to be 5,358 with a Full-Time Equivalent of 4,772 and a Full Time Day Equivalent (FTDE) of 4,085.

Institutional Capabilities

UMES views with pride its achievements regarding the provision of high-quality academic programs and services for ethnically and culturally diverse students. Toward that end, the University offers programs and assistance that attract, serve, retain, and graduate first-generation college students, nationally-recognized scholars, and international clientele as part of its core capacity. Students come from over 70 different countries. At the faculty level, the University is impressively diverse. The number of full-time, non-African-American faculty exceeds the number of those of African-American descent.

Research and development activities focus on information technology, faculty and student development, agricultural and environmental sciences, and international development. UMES plays a pivotal role in responding to local, state, national and international priorities. Grants and research focus on information technology, faculty and student development, agricultural sciences and international programs.

The presence of first-rate graduate faculty with strong national reputations increases the probability that stronger students will come to the University. Faculty-student research pairs present their findings to the University, community funding agencies, and national professional conference participants. Thus, UMES attracts, supports, and graduates the academically capable who have experience in research.

UMES' Office of Information Technology and Outreach, using a value-added strategy, is committed to leveraging the advances in information technology to support innovative research, education, and service to meet the needs of the University, students, and external constituents. The Applied Information Technology Research and Education Center (AIT Center) emphasizes both research and educational objectives, while providing state-of-the-art information technology services in support of government agencies, regional businesses, and university aspirations.

Institutional Objectives and Outcomes

University progress depends upon the success of its accountability practices; therefore, strategic planning, assessment and evaluation are key to measuring an institution's success. The University's strategic planning process ensures that it uses a systematic process to engage in ongoing, dynamic and comprehensive assessment of the annual UMES Strategic & Operations Plan. Goals are carefully tracked and reports are regularly disseminated to assist faculty, students and administrators in using data-based decision-making to map progress.

The UMES Strategic Plan was developed during academic year 2003-2004. The Plan represents the collective effort of the President, executive units (cabinets, expanded cabinet and executive council), faculty, students, staff and community members.

The UMES 2004-2009 Strategic Plan is consistent with and supports the five goals of the 2004 Maryland State Plan for Post Secondary Education: (1) Quality and Effectiveness, (2) Access and Affordability, (3) Diversity, (4) Student Centered Learning Systems, and (5) Economic Growth and Vitality. Concomitantly, UMES goals are well aligned with the University System of Maryland (USM) and its updated Strategic Plan: The USM in 2010.

Goal I	Continue to design and implement academic programs that are responsive to the UMES mission and are systematically reviewed for sustained quality, relevance and excellence to meet the challenges of a highly competitive and global workforce.
Goal II	Promote and sustain a campus environment that supports a high quality of life and learning and that responds to the needs of a diverse student population.
Goal III	Enhance university infrastructure to advance productivity in research, technology development and transfer; contribute to an enhanced quality of life in Maryland; and facilitate sustainable domestic and international economic development.
Goal IV	Redesign administrative systems to accelerate learning, inquiry and engagement (outreach).
Goal V	Efficiently and effectively manage the resources of the University and aggressively pursue public and private funds to support the enterprise.

PROGRAM INITIATIVES

School of Business and Technology
Emergency Management (B.S.)
Information Systems (B.S.)
Accounting (M.S.)
Entrepreneurship (M.S.)
Hospitality Management (M.S.)
Mathematics (M.S.)
Applied Computer Science (Ph.D.)
Business (Ph.D)

School of Agriculture and Natural Sciences
Biochemistry (B.S.)
Applied Physics (B.S.)
Urban Forestry (B.S.)
Biology (M.S.)
Chemistry (M.S.)
Human Ecology (M.S.)
Quantitative Fisheries Management (M.S.)
Biology (Ph.D)
Chemistry (Ph.D)
Ornamental Horticulture concentration in the General Agriculture Degree Program (B.S.)
Veterinary Technology concentration in the General Agriculture Degree Program (B.S.)

School of Arts and Professions
Communications (B.A.)
Dance (B.A.)
Forensics Science (B.S.)
Modern Languages (B.A.)
Music Business (B.S.)
Psychology (B.S.)
Speech and Drama (B.A.)
Studio Recording (B.S.)
Sociology (M.S.)
Speech and Language Pathology (M.A.)
African-American Art Museum for the African and the African American Studies Program and the Department of Fine Arts

School of Pharmacy and Health Professions
Rehabilitation Psychology (B.S.)
Deafness Concentration in the Rehabilitation Services Degree Program (B.S.)

Certificate Programs
Autism Spectrum Disorders
Culinology
Food Safety and Food Defense
Global Studies
Information Security
Homeland Security
Personnel Management
Therapeutic Rehabilitation

BUILDING & FACILITY DATA

Acquisitions in the Past 10 yrs (1998-2008)

Project #	Properties	Classification	Acreage	Date Acquired
1	Hawk's Landing	Acquired	38	2001
2	ENT Farm	Acquired	100	1998
3	Doane Property	Acquired	0.5	1998

Project #	Buildings	Classification	GSF	NASF	Date Acquired
1	Hawk's Landing Apartments	Acquired / Built	51,558	44,140	2001
2	Hawks Landing House	Acquired	2,996	2,300	2001
3	Hawks Landing Shop	Acquired	3,612	3,100	2001

New building projects completed in the Past 10 yrs (1998-2008)

Building #	Building name	GSF	NASF	Year Construction
931	Temp Class	3,600	3,500	1999
932	Access & Success	5,432	4,832	1999
995	Outfield House	800	560	1998
996	Physical & Health Ed.Center	115,000	75,403	1998
997	Student Services Center	152,172	117,953	2001
958	300 Bed Residence	71,989	62,089	2001
998	Hawks Landing Apartment	51,558	44,140	2001
999	Hawks Landing Shop	3,612	3,100	2001
934	Modular Building	10,752	9,552	2000
910	Food Science & Technology	37,250	18,400	2003
918	Paul Sarbanes Center/Coastal Ecology	11,000	7,080	2005
958	300 Bed Residence	71,989	62,089	2001
960	Richard Hazel Hall	113,265	71,616	2004
	Total	648,419	480,314	

Projects in Progress

Project #	Building	Classification	NASF	GSF	Cost
CAPITAL FUNDED					
1	Somerset Hall Renovation	Renovation	12,885	21,901	6,000,000
2	Civil/Site Improvement Phase III	Upgrade	n/a	n/a	1,501,139
3	Civil/Site Improvement Phase II	Upgrade	n/a	n/a	3,639,135
4	Civil/Site Improvement Phase I	Upgrade	n/a	n/a	685,865
SYSTEM FUNDED					
1	Wicomico Hall Renovation	Renovation	20,597	12,123	5,000,000
2	Student Residential Complex Renovation	Renovation	16,640	16,384	1,500,000

Renovation of buildings over the Past 10 yrs (1998-2008)

Building #	Building name	GSF	NASF	Year Construction	Renovation Cost
944	Student Apartment #1	12,984	8,194	1980	243,000
945	Student Apartment #2	12,984	8,194	1980	243,000
946	Student Apartment #3	12,984	8,194	1980	243,000
947	Student Apartment #4	12,984	8,194	1980	243,000
948	Student Apartment #5	12,984	8,194	1980	243,000
949	Student Apartment #6	12,984	8,194	1980	243,000
900	Student Development Center	44,364	21,370	1976	6,500,000
937	Waters Hall Renovation	27,166	17,449	2004	7,490,000
936	Murphy Annex Renovation	20,578	13,029	1964	607,000

Facility Renewal in UMES

Projects	Completed / Continuous
Electrical Services Improvement	*Continuous*
New Telecommunications System and Improvements	*Continuous*
Boiler Replacement	Completed
Re-surfacing Campus Road	*Continuous*
Improvement of Telecommunication Utilities	*Continuous*
Site Amenities	*Continuous*
Replacement of Boiler into Energy Efficient Boiler	*Continuous*
Electrical Systems	*Continuous*
Chiller Systems	*Continuous*
Sewer Systems	*Continuous*
Roof Replacement	*Continuous*
Existing Building Envelope Improvements	*Continuous*
Building Systems Improvements	*Continuous*
Upgrade Outdoor Tracks	*Continuous*
Pedestrian and Vehicular Bridge Replacement	*Continuous*
Selected Site Improvements	*Continuous*

Capital Funded Projects in the Next 10 Yrs

Project #	Building	Classification	NASF	GSF	Start Construction	Completion
1	Aviation Science and Engineering Center	NEW	89,755	163,350	2012	2014
2	Replacement of Early Childhood Center	NEW	25,165	43,800	2014	2015
3	Construction of Farm Support Building	NEW	25,200	36,000	2012	2014
4	Kiah Hall Building Renovation	Renovation	33,019	55,934	2014	2016
5	Arts and Technology Building Renovation	Renovation	28,970	50,497	2014	2016
6	Wilson Hall Renovation	Renovation	8,101	13,000	2014	2016
7	Carver Hall Renovation and Addition	Renovation	51,000	160,345	2013	2014
8	Performing Arts Renovation and Addition	Renovation	42,000	78,127	2014	2016
9	Trigg Hall Renovation	Renovation	16,227	27,509	2015	2017
10	Construction of Pharmacy Building	NEW	23,000	38,000	2016	2018
11	Douglass Library Renovation and Addition	Renovation/Addition	14,600	26,000	2014	2016
12	Site Improvement Projects Campuswide	Upgrade	n/a	n/a	2015	2016
13	J.T. Williams Building Renovation and Addition	Renovation/Addition	11,719	18,764	2017	2018
14	Construction of Aquaculture Wildlife Building	NEW	14,600	26,000	2017	2018
15	UMES Research Center	NEW	24,000	36,000	2017	2019

System Funded Projects

Project #	Building	Classification	NASF	GSF	Start construction	Completion
1	400 Bed Residence Hall Phase II	NEW	71,000	90,000	2011	2012
2	Nuttle Hall Residential Renovation	Renovation	13,678	22,392	2012	2013
3	New 400 Bed Residence Hall Phase III	NEW	71,000	90,000	2012	2013
4	Murphy Hall Annex Renovation	Renovation	62,089	71,751	2013	2014
5	Court Plaza Renovation	Renovation	22,378	26,010	2014	2015
6	Graduate Students Apartments	NEW	62,089	71,751	2014	2015
7	Plaza Residence Renovation	Renovation	22,378	26,010	2015	2016
8	University Terrace Renovation	Renovation	62,089	71,751	2015	2016
9	UMES President's Residence	NEW	6,300	7,000	2015	2016
10	Advancement and Alumni Center	NEW	9,000	15,000	2016	2018
11	UMES Sports Complex (10,000 seat football and baseball field)	NEW	N/A	N/A	2016	2018
12	Public Safety Building	NEW	11,000	17,000	2016	2018

Projected Cost of Projects Planned at UMES (2008-2018)

Project #	Building	Total Project Cost	NASF	GSF
1	Aviation Science and Engineering Center	103,150,000	89,755	163,350
2	Replacement of Early Childhood Center	25,955,000	25,165	43,800
3	Construction of Farm Support Building	13,475,000	25,200	36,000
4	Kiah Hall Building Renovation	23,705,000	33,019	55,934
5	Arts and Technology Building Renovation	29,965,000	28,970	50,497
6	Wilson Hall Renovation	6,720,000	8,101	13,000
7	Carver Hall Renovation and Addition	44,920,000	24,732	66,345
8	Performing Arts Renovation and Addition	46,920,000	42,000	78,127
9	Trigg Hall Renovation	14,460,000	16,227	27,509
10	Construction of Pharmacy Building	27,655,000	23,000	38,000
11	Douglass Library Renovation and Addition	15,615,000	14,600	26,000
12	Site Improvement Projects Campuswide	15,615,000	n/a	n/a
13	J.T. Williams Building Renovation and Addition	11,510,000	17,236	17,236
14	Construction of Aquaculture Wildlife Building	14,835,000	14,600	26,000
15	UMES Research Center	15,000,000	24,000	36,000
	Total Capital Funds in Planning UMES Facilities	**409,500,000**	**1,364,029**	**736,170**

Project #	Building	Total Project Cost	NASF	GSF
1	400 Bed Residence Hall Phase II	25,000,000	71,000	90,000
2	Nuttle Hall Residential Renovation	5,500,000	13,678	22,392
3	New 400 Bed Residence Hall Phase III	25,000,000	71,000	90,000
4	Murphy Hall Annex Renovation	5,500,000	12,123	20,578
5	Graduate Students Apartments	16,000,000	6,300	7,000
6	Court Plaza Renovcation	16,000,000	13,678	22,392
7	Plaza Residence Renovation	16,000,000	22,378	26,010
8	University Terrace Renovation	16,000,000	62,089	71,751
9	UMES President's Residence	1,600,000	6,300	7,000
10	Advancement and Alumni Center	6,000,000	9,000	15,000
11	UMES Sports Complex (10,000 seat football and baseball field)	15,000,000	N/A	N/A
12	Public Safety Building	6,800,000	11,000	17,000
	Total System Funds in Planning UMES Facilities	**136,400,000**	**296,570**	**397,163**

Projects in Progress

Project #	Building		NASF	GSF
(Capital funded)				
1	Somerset Hall Renovation	6,000,000	12,885	21,901
2	Civil/Site Improvement Phase III	1,501,139	n/a	n/a
3	Civil/Site Improvement Phase II	3,639,135	n/a	n/a
4	Civil/Site Improvement Phase I	685,865	n/a	n/a
(System funded)				
1	Wicomico Hall Renovation	5,000,000	20,597	12,123
2	Student Residential Complex Renovation	1,500,000	16,640	16,384
	Total Capital and System Funds UMES Facilities Projects in Progress	**18,326,139**	**48,446**	**50,408**
	Total Costs of Planned Projects in the Future	**503,100,000**		
	Total	**521,426,139**		

PHYSICAL ENVIRONMENT

Regional Location

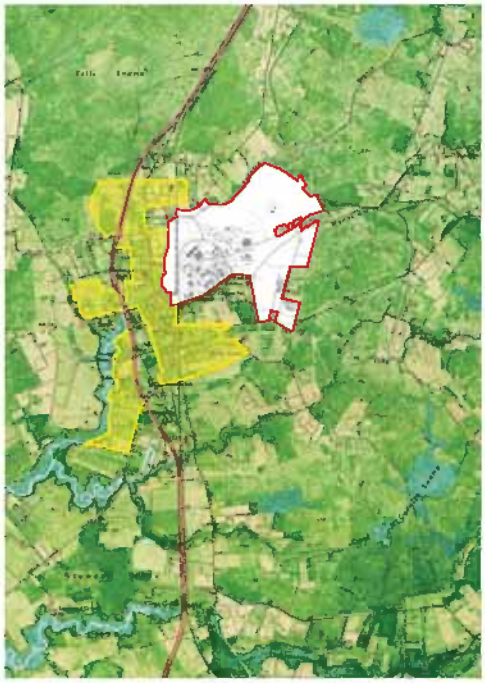
UMES is located in the town of Princess Anne and occupies a significant area of approximately 745 acres. Salisbury and Pocomoke City, both about 20 miles away to the north and south, respectively, are the nearest cities within farmland, wetland and forest areas. To the north, UMES is bordered by the Loretto Branch and to the south, by the Manokin Branch. These branches of the Manokin River, which empties into the Chesapeake Bay, are not so significant in size and scale as to prohibit future expansion and acquisition of land beyond their borders, as was evidenced by the acquisition of the ENT Farm to the south east. To the east it is bordered by Forestation Reserves. To the west, the campus is bordered by an active freight railway line, which separate Hawk's Landing from the main campus.

Campus Scale and Environment

UMES campus exhibits different physical patterns. The figure-ground illustrates the variations in building location, size, and arrangement as a result of use, age, and planning principles established in previous Master Plans. Along the historic quad, the figure ground shows building footprints, which are smaller in size and scale. The character of the buildings, reflect the Architectural building style of that period. It also seems consistent with the scale and character of Princess Anne. Buildings were organized around a central open space that formed the heart of the campus. As expansion proceeded northward, larger academic buildings, in response to growing academic needs, were arranged around more loosely defined quads.

Although there are significant differences in the size of building footprints and amount of square footage, there is uniformity in building height throughout the campus. No building exceeds four stories and few are under three stories.

There are intimate open spaces and more vast open spaces as well as tree lined corridors. Some areas of campus are well manicured and landscaped while others appear unfinished and barren, specifically along the outer edges of Backbone Road. Some areas are densely forested, especially along the eastern edge of campus and a good portion of the land is large, open fields used for agriculture, animal pastures and farming.



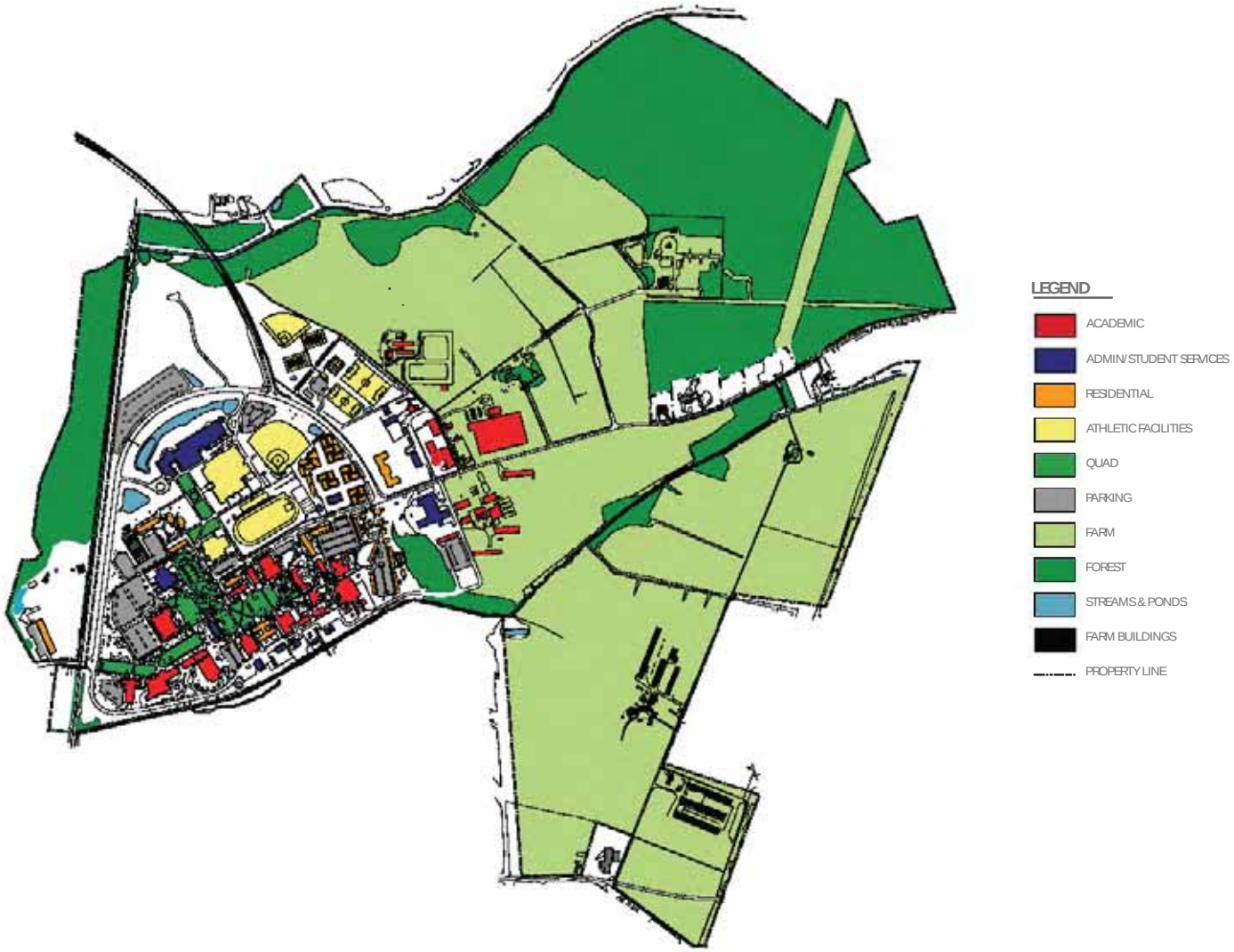
PHYSICAL ENVIRONMENT - EXISTING CONDITIONS

Land Use

The primary building and land uses consist of Academic, Research and Administrative functions, Residential, Athletic facilities and Farmland.

The rich natural character of UMES is due in large part to the variety and quality of open spaces. The land use plan shows three types of open spaces: Formal quadrangles, Athletic fields and Farmlands. These series of open spaces create the unique campus character. Though the open areas on the main campus are linked together by a series of pedestrian paths, greenways and smaller quadrangles, presently the east campus is edgeless and the open spaces are undefined and inadequately linked to the main campus. The forest area and forestation reserve are along the eastern boundaries while the forest area on Hawk's Landing is along the western edge of the campus.

It is evident that the parking has intentionally been planned on the periphery to allow for uninterrupted quads and greenways and a pedestrian environment within the campus.



PHYSICAL ENVIRONMENT - EXISTING CONDITIONS

Vehicular Circulation & Parking

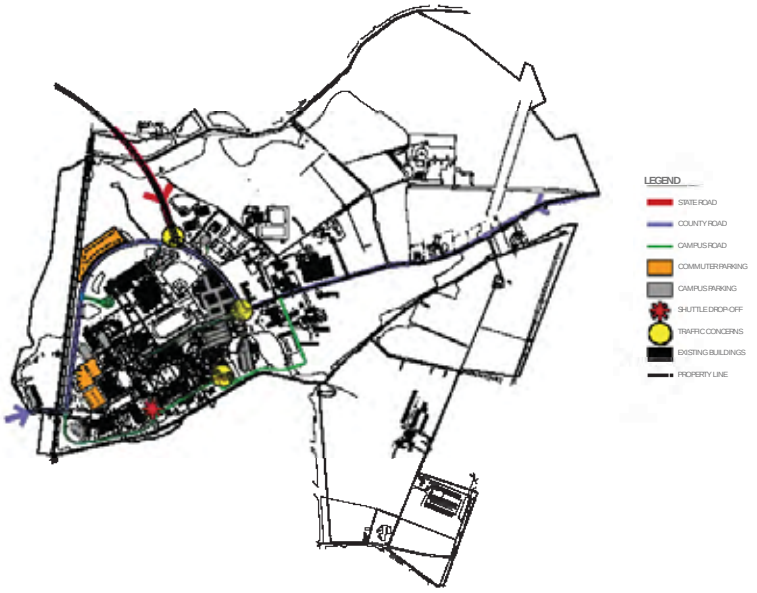
UMES has historically had a relationship with Princess Anne and its primary campus gate oriented westward towards the town center. The gateway at the end of Broad Street is on axis with the International quad, and used to be the main entry into campus. In fact, McCain Drive used to cut directly through the middle of what is now the main campus, just north of the historic quad. It was diverted in the 80's and now vehicles are looped around to the other side of campus along Backbone Road.

Today, the main entry to campus is the Maryland Rt. 822- UMES Boulevard, which brings traffic from US 13 directly into campus without having to pass through the city. At the end of this road, there is need for a prominent signage to UMES depicting an appropriate entrance.

Most of the parking is easily accessed from Backbone Road as it has been kept to the periphery. There are parking lots designated primarily for commuter parking. There is also a drop off point for the commuter shuttle in front of Waters Dining Hall and the Students' Service Center. The traffic pattern allows for landscaped open space and limits the vehicular circulation and service access.

Pedestrian Circulation

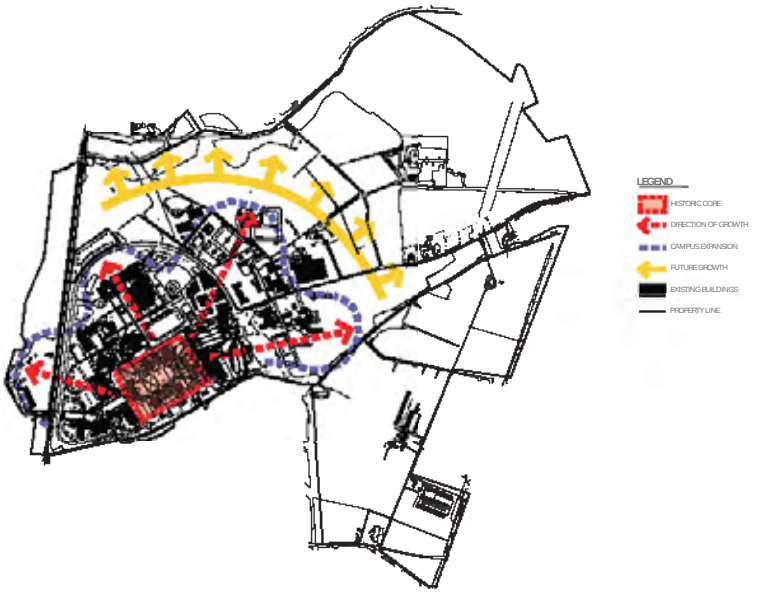
The walking distances from major points of arrival, such as shuttle drop-off and commuter parking as well as from the main residential core of campus, are affected by their position at the periphery of campus. From these points, typically a five-minute walk will get a pedestrian half way across campus. A ten-minute walk will cover most of the campus. Because most parking is located to the north side of Backbone Road in the Backbone Parking Lot, the walk to the main academic core of campus around the historic quad is outside of the 5-minute comfortable walking distance. One way of resolving this issue is to better distribute the parking in the future and perhaps provide some parking just south of the historic quad on the opposite side of the Manokin Branch possibly within the future Land Acquisition area.



PHYSICAL ENVIRONMENT - CAMPUS GROWTH

Campus Growth

Growth on campus, primarily building growth and sports facilities, has emanated from the historic core. The direction of growth was originally north and west of the historic core, but is now naturally towards the east and northeast since this is where the largest areas of undeveloped land are presently located, with the exception of the development of Hawk's Landing to the west.

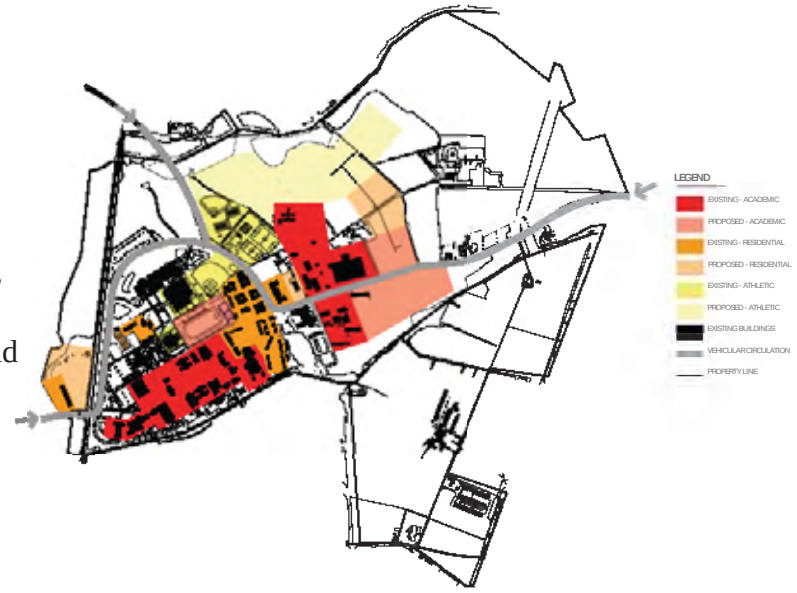


Residential Growth

Residential Districting should occur so that the residential zones are evenly distributed across the campus. With the present residential complex at what is now the east edge of the main campus and Hawk's Landing apartments and the existing dormitory along Backbone Road on the western edge, it makes sense to provide another cluster on the eastern edge of what will eventually be part of the expanded campus.

Academic Growth

As the academic districts begin to grow, the land on the main campus should be optimized. Once the track/ field and ball field are moved, these zones can be given back to academic purposes. Some academic zones have already begun an eastward migration. This can be developed further so that McCain Drive becomes an academic corridor. There is a balanced relationship between the amount of residential and academic land as well as the distances between them.



Sports Facilities Growth

As the athletic district moves north, an athletic campus begins to form. This district becomes an entity unto itself, but is still close enough to the academic and residential zone that walking to practice and spectator events are feasible.

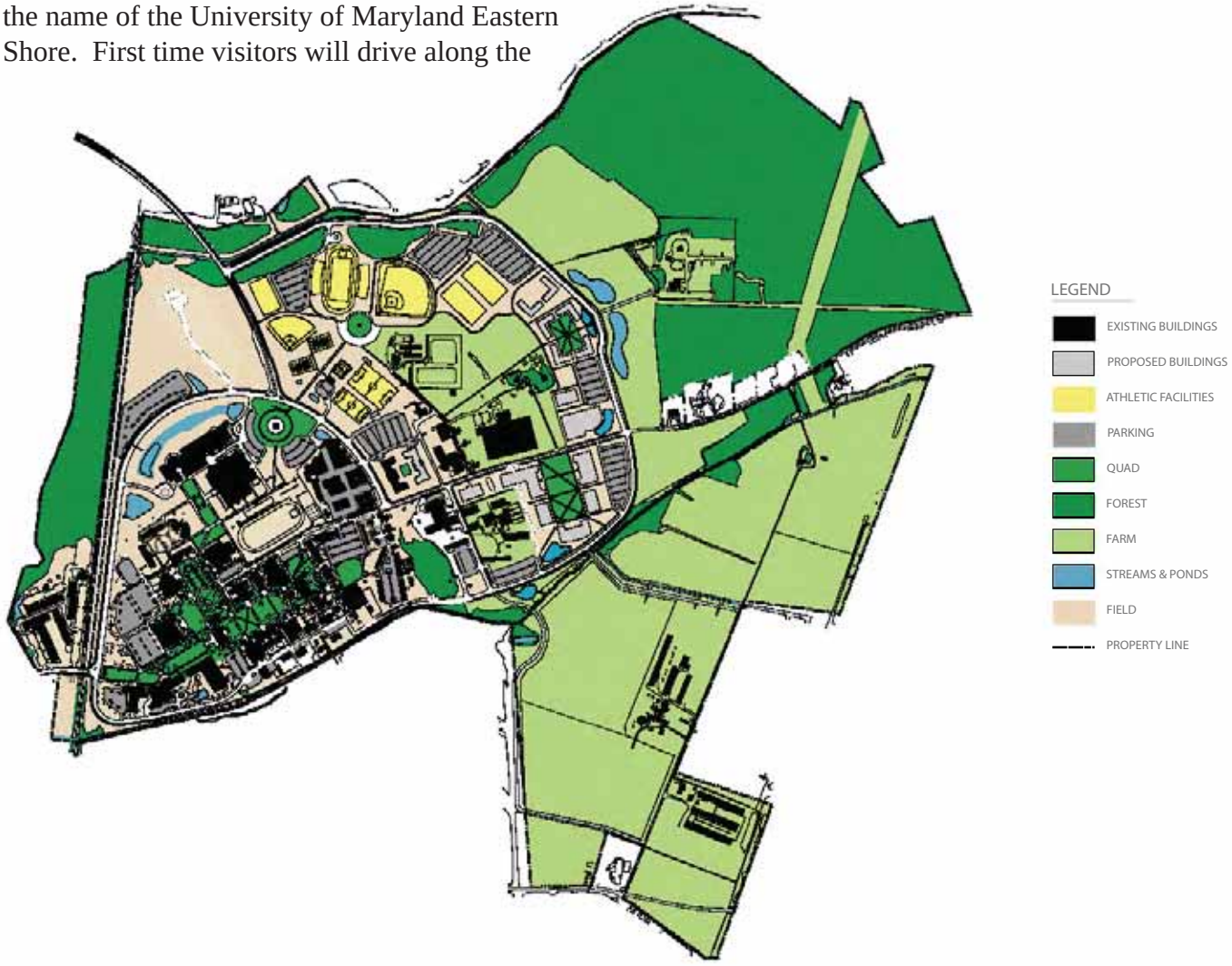
PROPOSED MASTER PLAN

Proposed Plan

The Master Plan Proposal resolves some of the major planning issues. A loop road has been created which allows external traffic to be diverted and internal traffic to quickly reach all points around campus. All roads within the loop become campus roads and will have much less traffic. A bike path to the outside of the loop road is intended for student and community usage.

Most notably, the campus has been given a grand entrance and a proper gateway deserving a premier University. At the end of the University Boulevard and directly on axis with it, a tall arrival feature will stand surrounded by beautiful landscaping and parking along the outer edges. The arrival feature, perhaps a clock tower, will act as a point of orientation and will proudly display the name of the University of Maryland Eastern Shore. First time visitors will drive along the University boulevard past the new UMES football stadium. At the end of the road, they will have the option of stopping at an information kiosk, currently under construction. There will also be proper signage to help provide direction and integrate with the arrival feature. The visitors can then proceed onto their destination or park around the arrival feature, which have pedestrian paths leading them either into the heart of the main campus or to the athletic fields in the east campus.

The land use districts, which were established, based on the analysis phase have been implemented successfully. An internal network of quads, greenways, pedestrian and vehicular systems link the main campus with the new athletic campus, east campus and research campus.



Capital and System Funded Projects

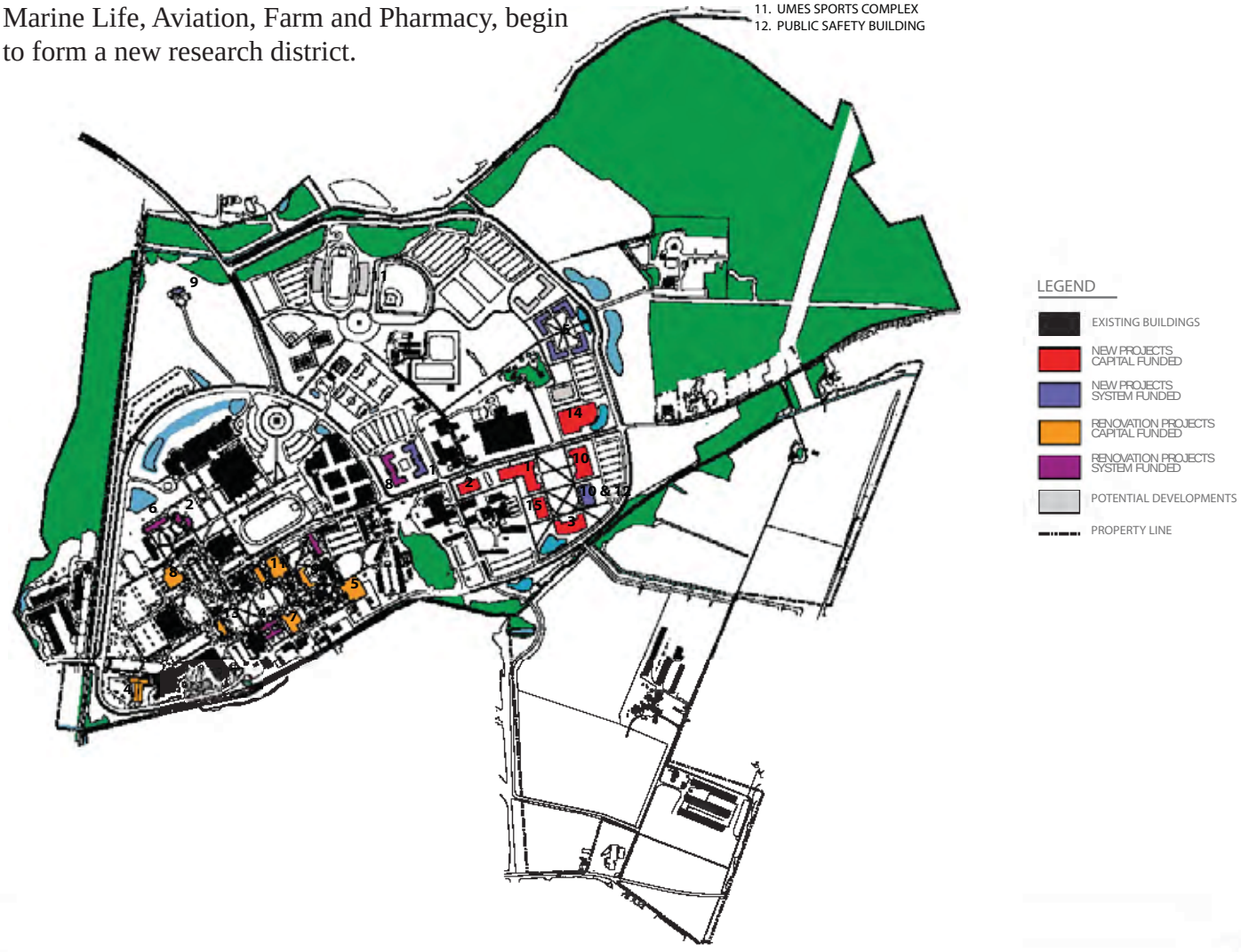
Over the next ten years there are numerous Capital and System Funded Projects. It is important to locate these future projects in a position that benefits the user groups and the campus environment as a whole. The diagram illustrates where these projects are either presently located, as in the case of a renovation, or proposed to be located for new projects.

It was decided that the new Arts Center and Early Childhood facilities be placed on McCain Drive. This will provide a link between the academic core and future development. These functions would do well to be close to the academic core and other like functions. On the other hand, a cluster of research buildings has been located out past the Hydroponics facility along McCain Drive. This group of buildings, Aquaculture and Marine Life, Aviation, Farm and Pharmacy, begin to form a new research district.

The new ball stadium, hockey, soccer and lacrosse field will be located on the athletic campus. The new dormitory and apartments will be split between the residential districts.

CAPITAL FUNDED CONSTRUCTION
1. AVIATION SCIENCE & ENGINEERING
2. REPLACEMENT OF THE EARLY CHILDHOOD CENTER
3. CONSTRUCTION OF FARM SUPPORT BUILDING
4. KIAH HALL BUILDING RENOVATION/ADDITION
5. ARTS & TECHNOLOGY BUILDING RENOVATION
6. WILSON HALL RENOVATION
7. CARVER HALL RENOVATION/ADDITION
8. PERFORMING ARTS RENOVATION/ADDITION
9. TRIGG HALL RENOVATION
10. CONSTRUCTION OF NEW PHARMACY BUILDING
11. DOUGLASS LIBRARY RENOVATION/ADDITION
12. SITE IMPROVEMENT PROJECTS CAMPUSWIDE
13. J.T. WILLIAMS RENOVATION/ADDITION
14. CONSTRUCTION OF AQUACULTURE/WILDLIFE BUILDING
15. UMES RESEARCH CENTER

SYSTEM FUNDED CONSTRUCTION
1. 300 BED RESIDENCE HALL (PHASE 2)
2. NUTTLE HALL RESIDENCE RENOVATION
3. 300 BED RESIDENCE HALL (PHASE 3)
4. MURPHY HALL/ANNEX RENOVATION
5. GRADUATE STUDENT APARTMENTS
6. COURT PLAZA RENOVATION
7. PLAZA RESIDENCE RENOVATION
8. UNIVERSITY TERRACE RENOVATION
9. NEW PRESIDENT'S RESIDENCE
10. ADVANCEMENT AND ALUMNI CENTER
11. UMES SPORTS COMPLEX
12. PUBLIC SAFETY BUILDING



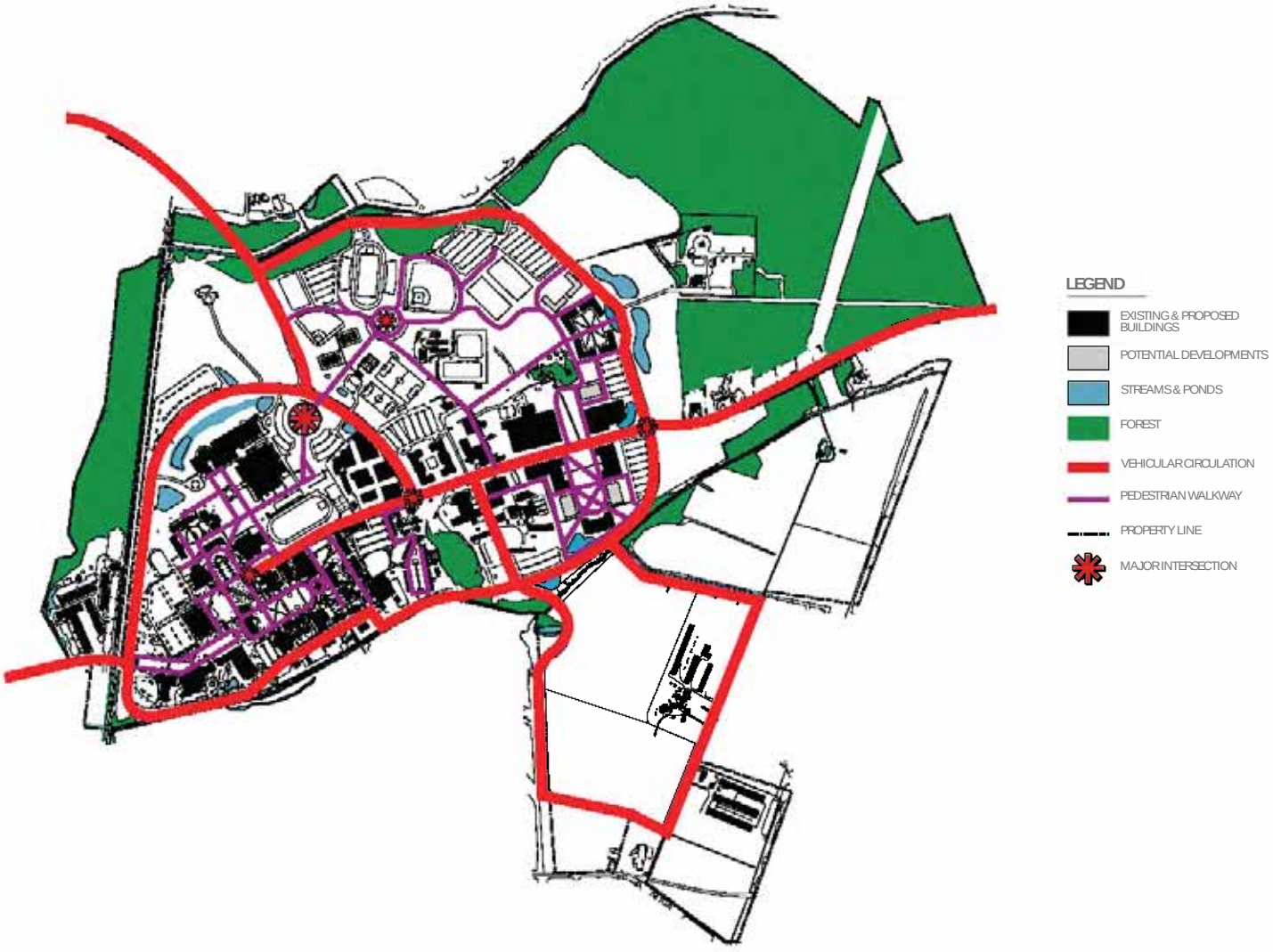
Proposed Vehicular and Pedestrian System

The first major move in improving the vehicular and transportation system was to create a continuous loop road around the entire campus. Simultaneously it diverts traffic towards the athletic field during major events. The loop also eliminates the dead end at College Road and provides continuous access around the campus.

The parking has been kept to the periphery so that lots are accessible primarily from the new loop road. Off shoots of the internal roads make it possible to service all proposed buildings. There is also a secondary loop road connected to the main loop road that circles the ENT Farm. This road provides quick access to the ENT Farm with minimum impact on the landscape thereby maintaining the integrity of the farmland

McCain Drive, once a major thoroughfare, becomes an internal campus road with pedestrian walks on both sides. Since much of the new residential and academic development occurs along this road, a new corridor is proposed that can be tree lined and pedestrian friendly thereby fostering a strong link from the main campus to the research campus.

The proposed pedestrian systems reflect the character of the existing campus pattern. They move diagonally and orthogonally and creating convenient walking paths among a system of quads and greenways, capitalizing on axial views and vistas.



Proposed Land Use Districts

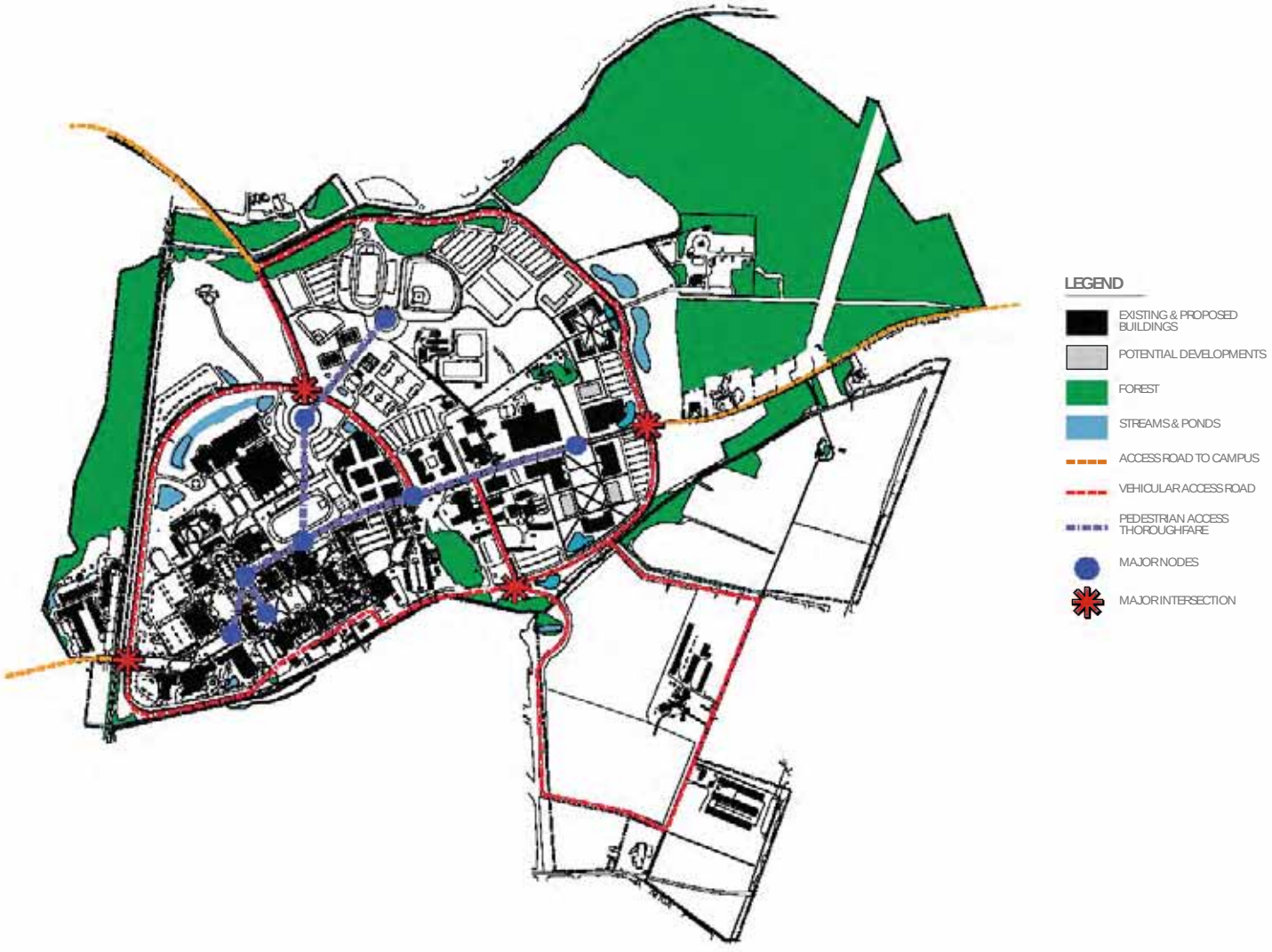
Utilizing the Land Use District analysis from the analysis of existing conditions on campus phase buildings were located in areas that seemed to be a natural progression from the main campus patterns. The residential zones are well distributed throughout the campus. The Academic district and the New Research district both are surrounded by student housing and within close proximity to the new athletic campus. The ENT Farm is undisturbed and accessible from campus by the secondary loop road. It is advised that the farmland and grazing fields that have been developed in this 10 year plan be replaced in future acquisitions in order to satisfy the needs of the agricultural programs.

Proposed Nodes and Linkages

This diagram illustrates how the major nodes and linkages connect and relate throughout the campus making it evident that the campus is not a series of individual parts, but rather a cohesive whole.

The nodes, which represent major points of activity, connect the hearts of the two academic cores along a major corridor and relate axially to the new arrival point and the athletic campus.

At all major intersections there are clear directions for vehicular access roads, parking lots, and most major nodes that can be easily reached.



Proposed Parking

The proposed parking pattern follows the existing parking patterns on campus by keeping the parking to the periphery, within reasonable distances from the buildings or events they service and accessible from the loop road. The parking requirement for the campus in the next 10 yrs is based on the following calculations:

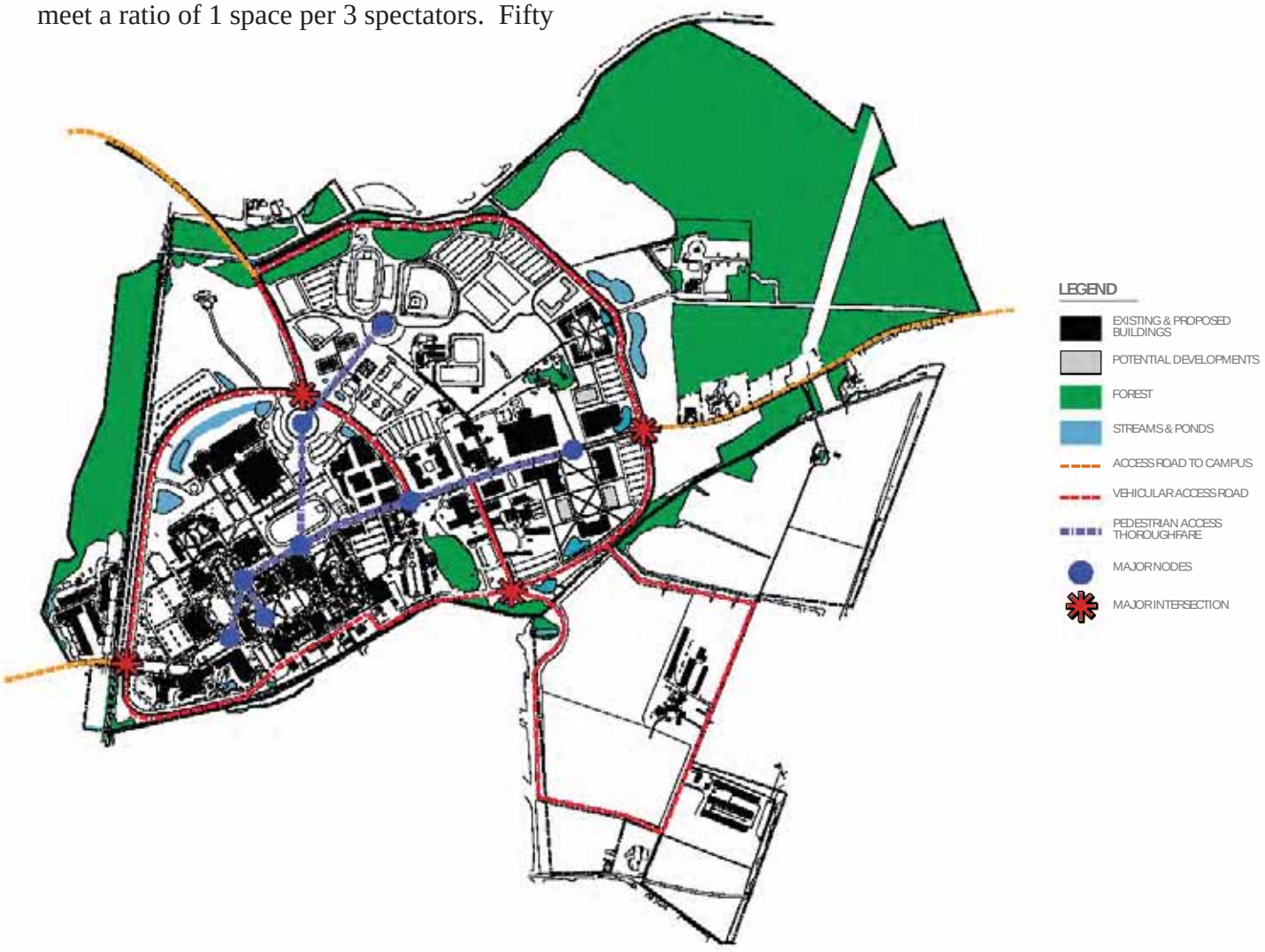
FTDE in 2018 = 4085 students
* Parking need 4085 / 1.5 = 2724 spaces.
FTE Faculty and Staff = 593
Parking need = 593 parking spaces.
Total Parking need = 3317 spaces.

*One parking space per 1.5 students

The new 10,000-seat football stadium would need approximately 3,300 parking spaces in order to meet a ratio of 1 space per 3 spectators. Fifty percent of the parking can be on grass, which may be located just northeast of the stadium parking next to the baseball field (1650 spaces).

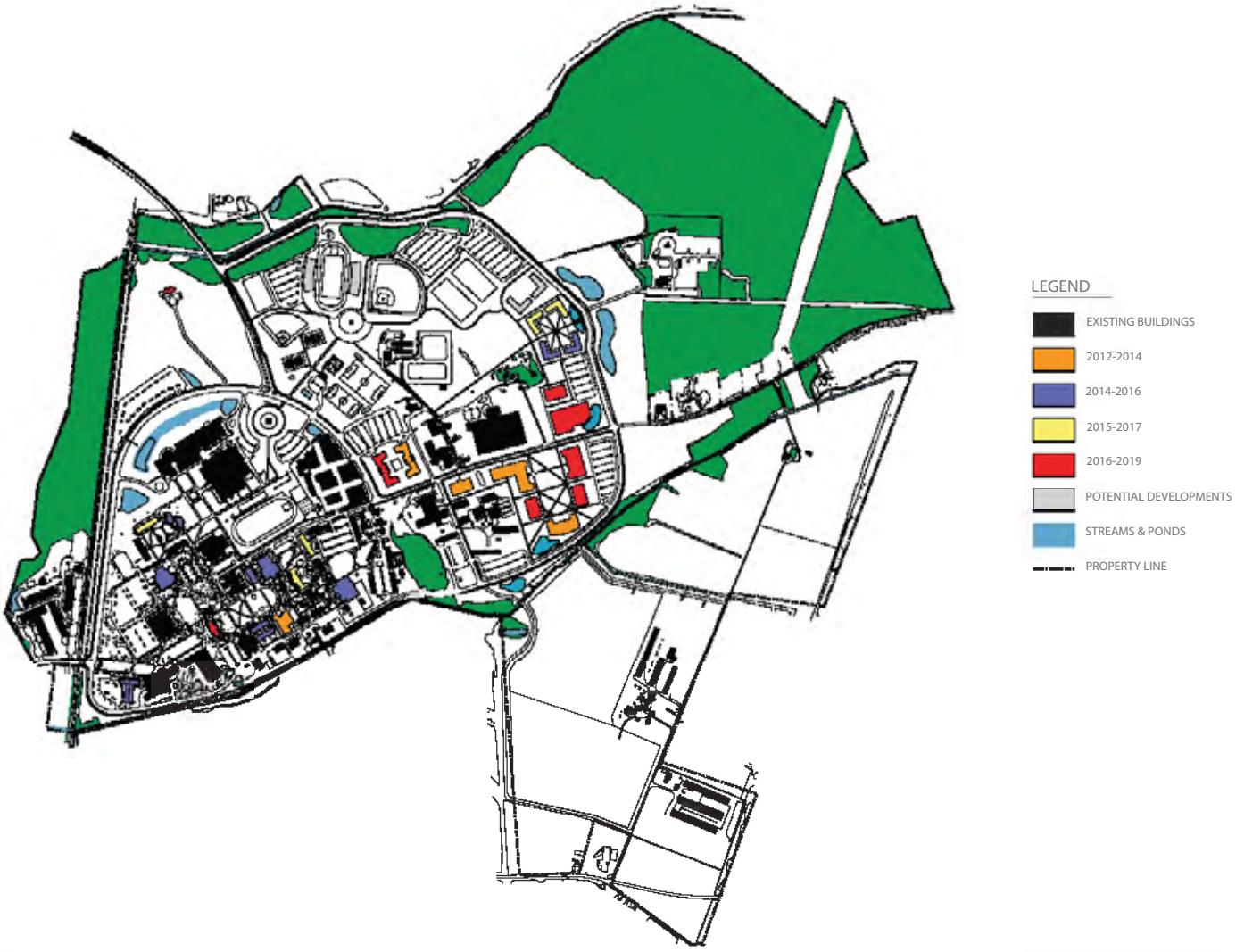
Grand Total need =
3317 +1650 = 4976 parking spaces
Parking spaces provided =
2432 (Existing) + 2540 = 4972 spaces

During major sports events, the intention is to satisfy the parking demand by sharing other parking areas on campus. Similarly Sports Facility parking will be shared by students to satisfy parking requirement.



Proposed Phasing Diagram

This Phasing Diagram illustrates the timeline and order in which projects will be accomplished over the next 10 years. It shows where the new buildings will be located in the proposed plan in relationship to existing buildings. It also offers locations for future potential development sites so that major corridors and quads will have proper building edges in order to create the desired spaces.

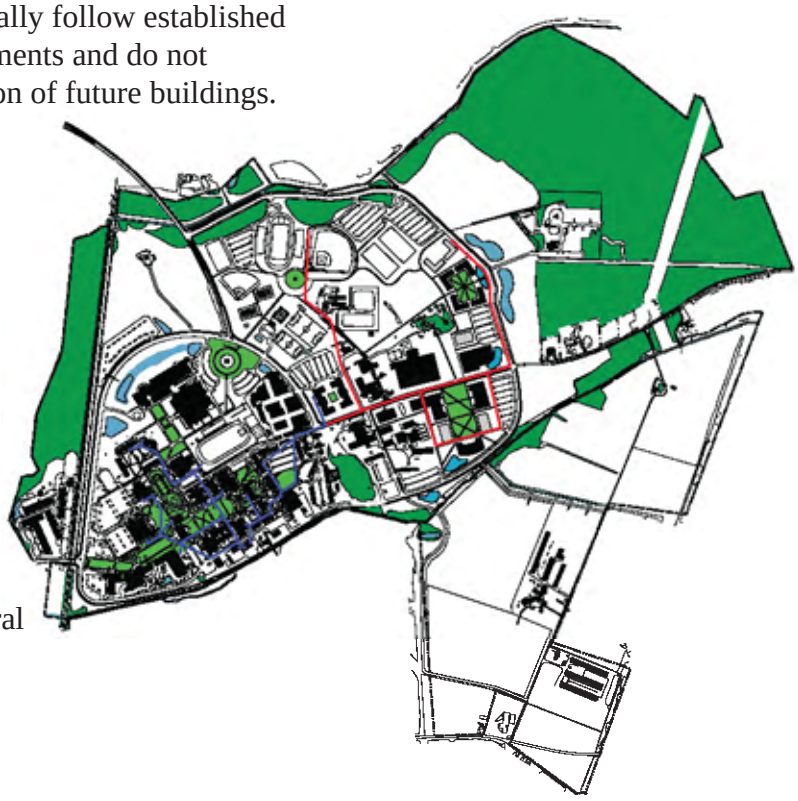


Utilities Analysis and Expansion

The University of Maryland Eastern Shore has developed a Utility Improvement Plan, which was considered in the development of the master plan. The utility easements generally follow established open spaces and road alignments and do not interfere with logical position of future buildings.

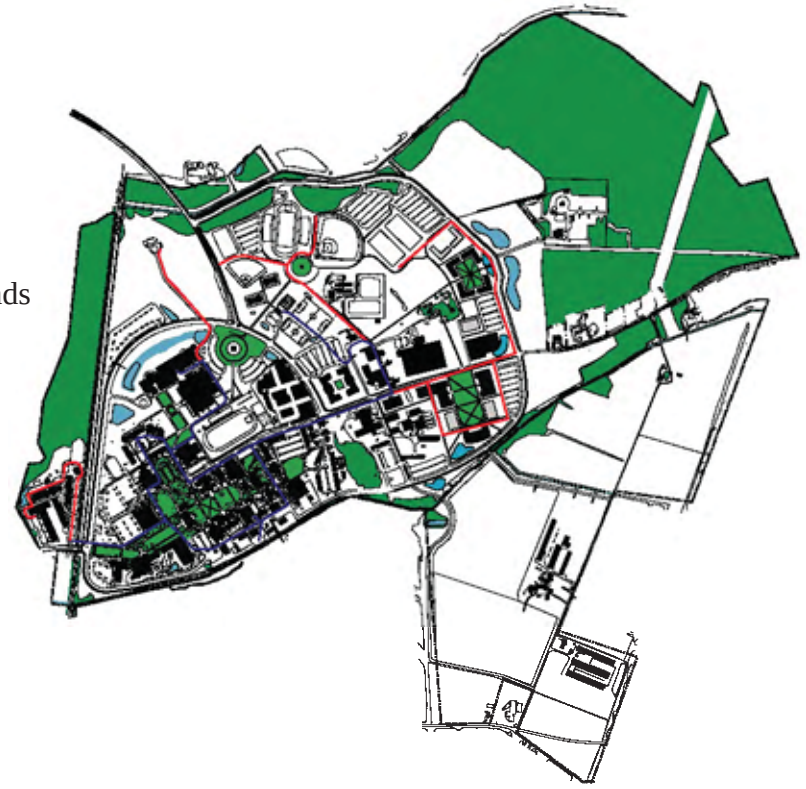
- Mechanical Services

The proposal will allow integration of the current mechanical systems to the proposed buildings on campus over the next 10 years, especially with the new Physical Plant being centrally located. This central location will allow better distribution of systems.



- Electrical Services

The proposal will allow an expansion of the electrical system. The proposal extends the system of transformer and distribution boxes to the proposed buildings on campus over the next 10 years.



SUSTAINABILITY

The University is committed to Climate Change Mitigation through Climate Neutrality and campus-wide sustainability consistent with the USM system-wide sustainability initiatives (including participation in the ACUPCC). This Facilities Master Plan, by necessity, focuses more on the physical components of sustainability. Other, non-physical sustainability initiatives will be addressed in other strategic planning efforts.

The Master Plan goal is to set the stage for long-term, comprehensive sustainability. The concept of "sustainability", as defined by the UN World Commission on Environment and Development Report 1987, involves "meeting the needs of the present generation, without compromising the ability of future generations to meet their own needs."

University of Maryland Eastern Shore President's Climate Change Update: February 18, 2009

University of Maryland Eastern Shore has made remarkable strides in meeting our commitment within the provisions of the American Colleges & University Climate Commitment (ACUPCC) and the University System of Maryland (USM) Sustainability Initiatives. Since Dr. Thelma Thompson UMES President signed the commitment with ACUPCC, UMES has developed an effective organizational structure charged to implement the commitment. The Organization structure consists of a 26 member steering committee, and nine (9) sub-committees that are working with the entire campus community in the development of the UMES Climate Action Plan. The committees are: GHG Inventory Committee, Stationary, Recycling & Solid Waster Committee, Energy Committee, Community Partnership Committee, Campus Master Plan & Architecture Committee, Student Engagement/Residence Life Committee, Academic Curriculum Committee, Campus Research, Agricultural Research & Institutional Data Committee, and the Transportation Committee. There are between 15-20 members that are representative of the campus community in each committee. The various committees will report to the steering committee and each committee has representatives from the steering committee. The University Liaison and co-chair is responsible for coordinating the overall climate change program with assistance from other co-chairs.

At the interim UMES has met its obligation with ACUPCC and submitted its Greenhouse Gas (GHG) inventory with strategies for reducing carbon footprint. Additional steps will include the implementation of new initiatives for strengthening research in clean energy, and the development of new academic curricula that is supportive of sustainability and the well-designed and built environment.

Moreover, UMES has incorporated long term comprehensive sustainability concepts in its 2008-2018 Master Plan that will be presented to the University System of Maryland Board of Regents in March 2009. Our sustainability strategic goals and implementation plans are evolving and comprehensive in nature. In the area of clean energy and energy consumption reduction strategies, UMES has been implementing energy management strategies that have reduced energy uses and cut costs across the campus. Not only are we procuring Energy Star certified appliances and equipment, we are also using green certified products in our housekeeping and maintenance programs. In addition, UMES and the USM are currently reviewing a Request for Proposal (RFP) that will lead to the construction of a 20 acre Solar Farm that will generate about 2.2 Megawatts of clean electricity. A geothermal system will be used in generating heating and cooling in the on-going Wicomico Residence Hall renovation - a first in the University System of Maryland. All these efforts are geared toward responsive facility operation and the reduction in our carbon

footprint.

UMES is part of the University System of Maryland. The USM chancellor and the various institutions are committed to a minimum LEED silver rating for its major capital projects. To achieve this goal, some of our facilities staff is certified as LEED Accredited Professionals and will work with other professionals to ensure that required LEED-rated facilities are constructed. We already have programs in the National Sciences that focus on environmental sustainability and preservation. New courses in green building concepts are being offered in the Technology Department and additional measures and programs are being contemplated.

In the area of transportation, UMES has developed partnerships with the Maryland's Eastern Shore Transit System in creating one of the public transportation systems in the Eastern Shore. This system has enabled UMES students, faculty and staff to travel to nearby institutions and towns. Necessary infrastructure such as bus shelters, bicycle sheds and racks are provided across the UMES campus. Recycling, waste management, and material conservation programs are in place and are receiving improvement measures. We intend to continue to expand campus-wide awareness and our role in climate change and sustainability initiatives and programs as resources are available. The Climate Action Plan is being developed.

SUSTAINABILITY - BUILDING

Objective: Create superior places to study, work and live that enhance the health and performance of building occupants through sustainable planning, design, construction, operations, retrofits and biomimicry.

USGBC LEED Standards

All new buildings and major renovations on the UMES Campus must meet or exceed LEED-Silver, or equivalent, standards.

Materials Standards

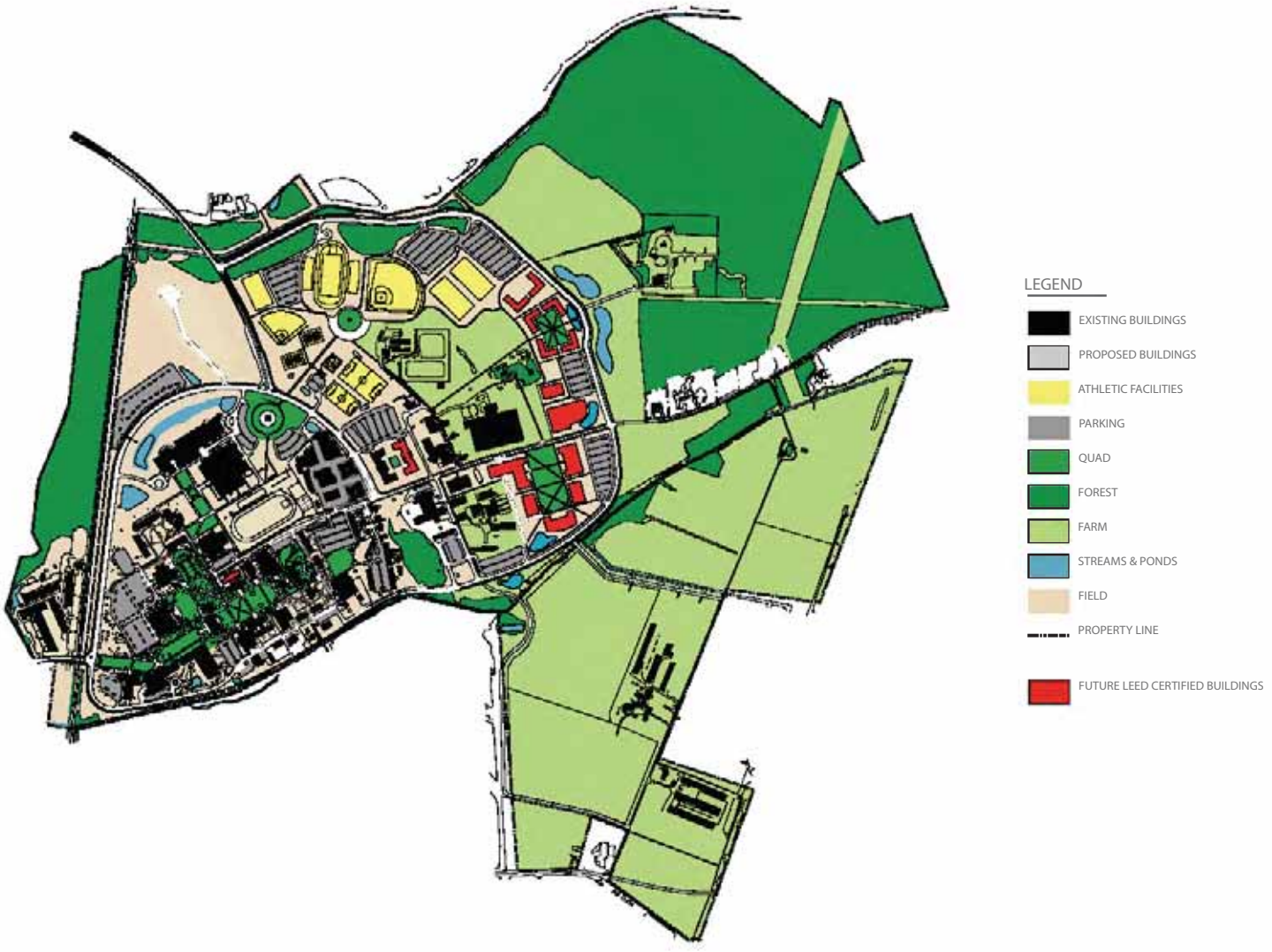
UMES encourages the achievement of LEED points (or equivalent standards) related to: certified recycled/ recyclable, locally produced, and low-emitting materials.

Mechanical/Electrical Equipment Standards

UMES encourages the achievement of LEED points (or equivalent standards) related to: the optimization of energy performance, utilization of high-efficiency / Energy Star mechanical / electrical equipment and appliances, advanced commissioning, and measurement and verification.

Roof Configuration

All new buildings should have roof configurations capable of accommodating present or future solar panel equipment and/or green roof plantings. This includes siting buildings so that portions of roofs designated as potential locations for solar harvesting have sufficient (un-shaded) exposure.



SUSTAINABILITY - ENERGY

Objective: Minimize greenhouse gas emissions as much as possible, through energy efficiency, conservation, on-site generation and strategic procurement of clean and renewable energy.

Infrastructure Improvements

UMES will focus on the continued renovation and increased efficiency of all HVAC and lighting systems on campus.

Green Power Production or Purchasing

Begin purchasing or producing at least 15% of UMES's electricity consumption from renewable resources.

Central Chiller Plant

UMES will study the feasibility for developing a central chiller plant on campus.

Solar Farm

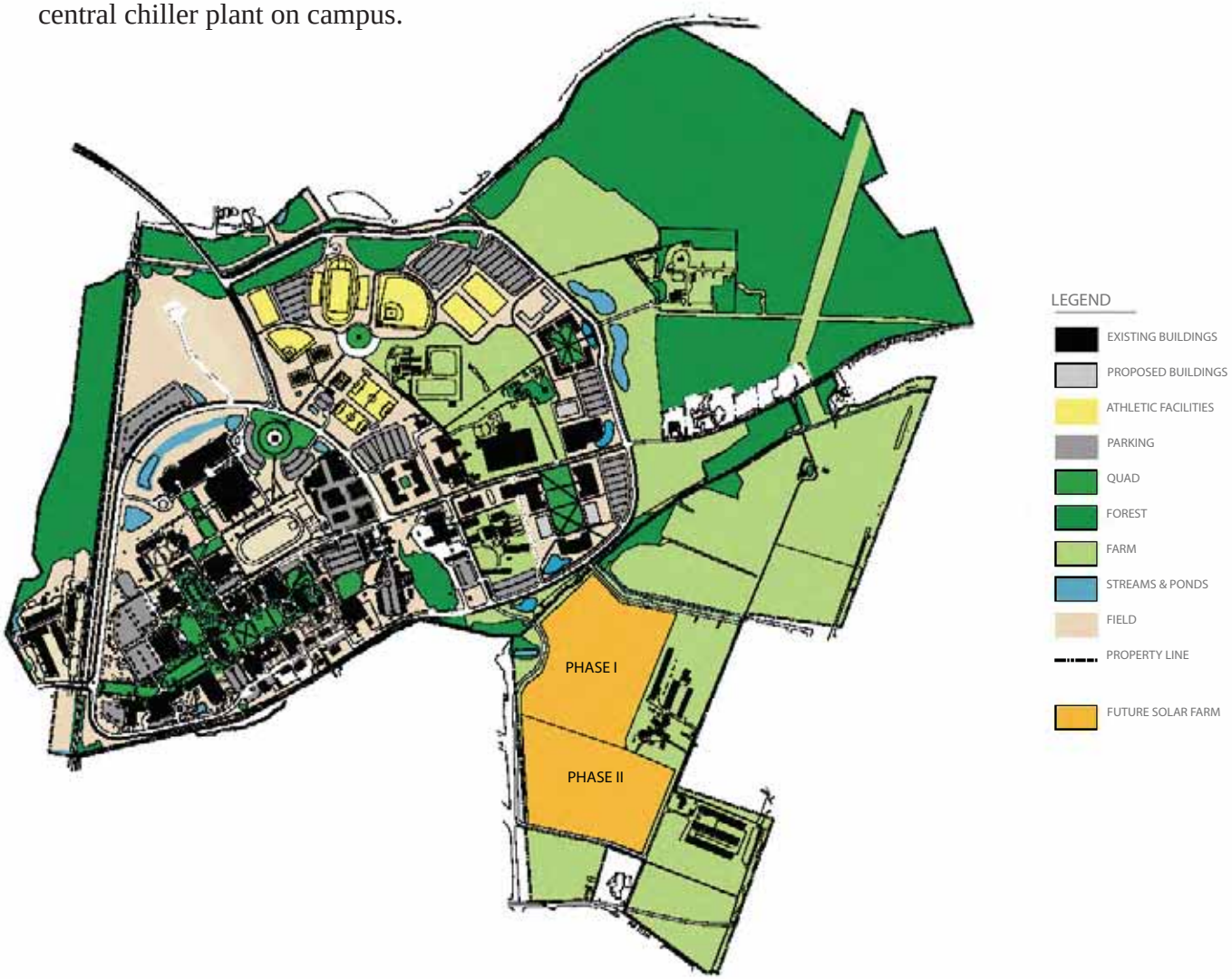
UMES will follow-through on plans to develop an approximately 40 acre Solar Farm (to be completed in two phases) for harvesting solar energy.

Biomass Energy Program

UMES will study the feasibility for developing a small-scale Biomass energy plant on campus.

ENERGY STAR Procurement

Adopt an energy-efficient appliance purchasing policy requiring purchase of ENERGY STAR certified products in all areas for which such ratings exist.



SUSTAINABILITY - SITE

Objective: Protect and maintain the natural campus environment through restoration, preservation, and education while enhancing the campus as a classroom.

Clustering of Similar Functions

Cluster similar functions for efficiency and walkability, and provide remote areas for potential solar and wind power generating equipment, biomass energy production, composting, waster management, and recycling facilities.

Heat-Island Effect and Impervious Surfaces

Reduce impervious surfaces to help mitigate the urban heat-island effect; maintain a high percentage of pervious surfaces.

Forest Conservation

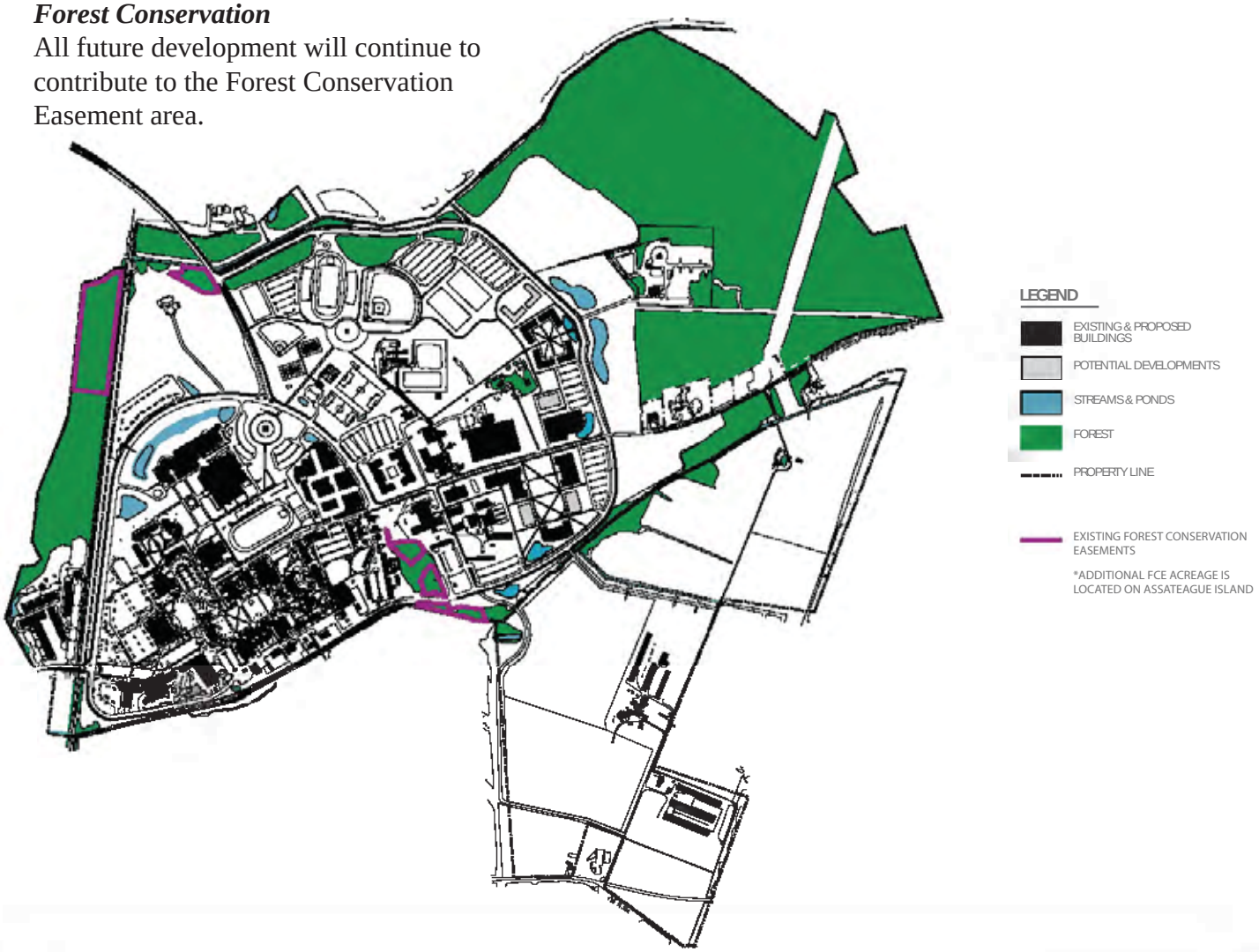
All future development will continue to contribute to the Forest Conservation Easement area.

Shade Trees and Liberal Plantings

In order to encourage pedestrian activity throughout the UMES Eastern Shore campus, provide additional shade trees at all main walkways and sidewalks to encourage pedestrian mobility.

Bioswale Improvement

In order to prevent runoff and sediment, bioswales cleanse water before it enters Maryland's stream network. New and existing campus bioswales can be improved from simple drainage ditches into "rain gardens". This can be achieved with the abundant native planting, which may include a selection of wetland edge vegetation, such as wildflowers, sedges, rushes, ferns, shrubs and small trees, that take up excess water flowing into the rain garden.



SUSTAINABILITY - TRANSPORTATION

Objective: Develop transportation strategies that reduce fuel use, air pollution and carbon dioxide emissions while providing opportunities for alternative transportation including bicycle and pedestrian infrastructure.

Campus Transit - Bus/ Shuttle

In addition to walking and biking opportunities, encourage students to utilize campus transit (bus/ shuttle) with an improved system. Potential improvements include: stops located no more than a five-minute walk (1/4 mile) from any major campus facility and parking lot; covered waiting areas at every stop; decreased wait times between shuttles; improved signage.

Campus Bike Facilities

Supplement existing bike facilities with the following:
-Covered bike storage facilities at every campus housing cluster
-At least one additional covered bike storage facility at a central campus location (for use by commuters and off-campus housing)
-Bike racks at every campus facility/building

Campus Bike Sharing Program

UMES will study the feasibility of campus-wide bike-sharing program, evaluating other college campus bike-sharing precedents.

Bike and Walking Paths

Maintain continuous, interconnected paved biking and walking paths throughout the campus.

Alternative Fueling

Provide facilities fro refueling of vehicles operating on alternative or mixed fuels.

SUSTAINABILITY - WATER

Objective: Reduce potable water use while protecting and conserving all water resources within the campus watershed through implementation of efficiency measures, collection technologies, re-processing and re-use.

Runoff/Stream Protection During Construction
Meet the LEED site prerequisite standards regarding construction activity pollution prevention, in which an Erosion and Sedimentation Control Plan is required for new projects. This plan should follow the 2003 EPA Construction General Permit or local erosion and sedimentation control standards, whichever is more stringent. The intent is to prevent sedimentation of storm sewer or receiving streams.

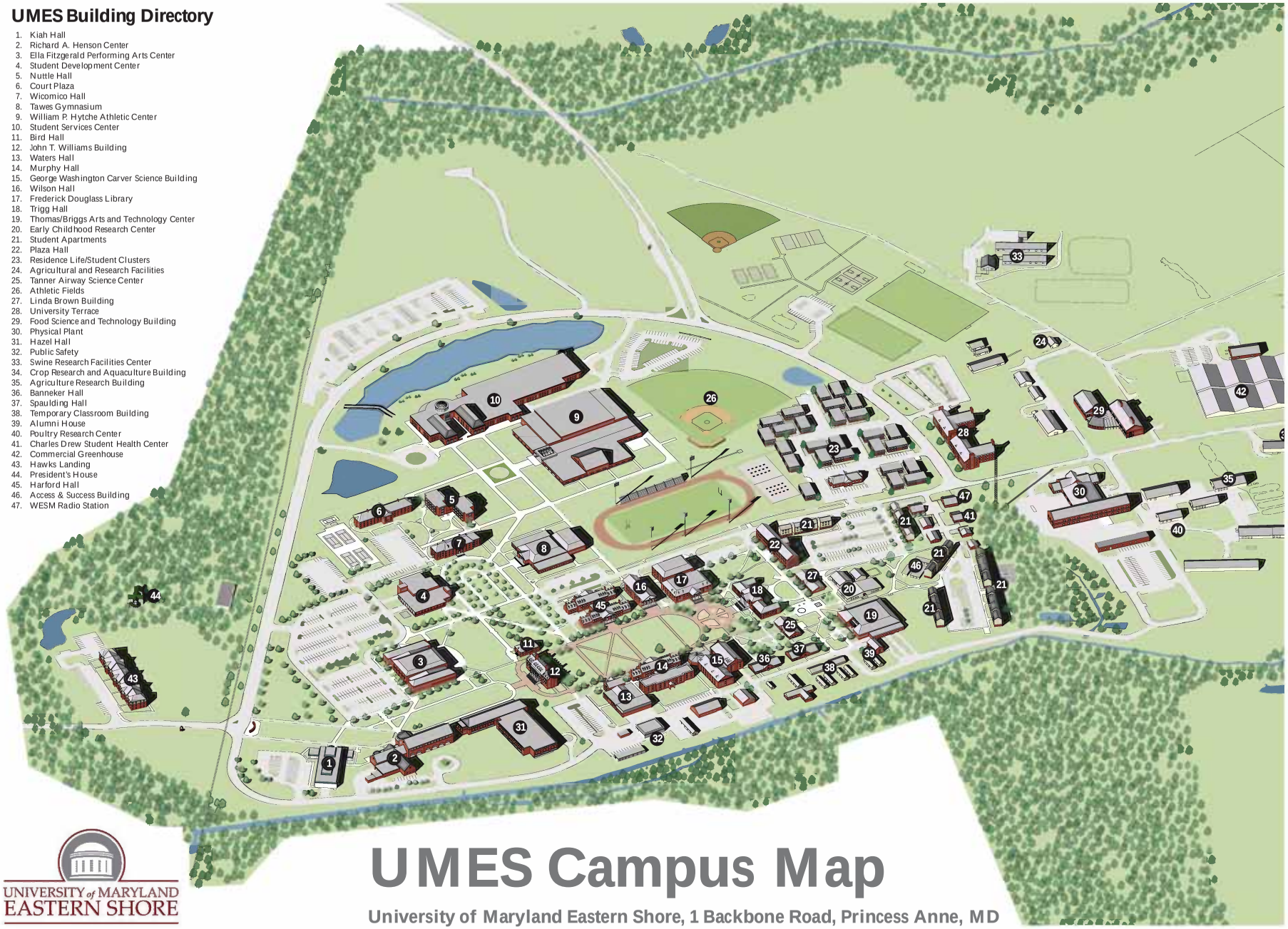
Drought Resistant Landscaping
Utilize drought-resistant landscaping (often native species) to minimize irrigation needs.

Sanitary Systems
UMES will consider advanced water-saving technologies in new buildings. These include, dualflush and waterless toilets and urinals, and monitored sanitary systems.

Storm Water Management
-Maintain and maximize pervious surfaces, including green roofs, throughout the campus to minimize stormwater runoff.
-Reduce use of potable water for landscape irrigation and building sewage conveyance through the use of captured rainwater and/or recycled greywater.

UMES Building Directory

1. Kiah Hall
2. Richard A. Henson Center
3. Ella Fitzgerald Performing Arts Center
4. Student Development Center
5. Nuttle Hall
6. Court Plaza
7. Wicomico Hall
8. Tawes Gymnasium
9. William P. Hytche Athletic Center
10. Student Services Center
11. Bird Hall
12. John T. Williams Building
13. Waters Hall
14. Murphy Hall
15. George Washington Carver Science Building
16. Wilson Hall
17. Frederick Douglass Library
18. Trigg Hall
19. Thomas/Briggs Arts and Technology Center
20. Early Childhood Research Center
21. Student Apartments
22. Plaza Hall
23. Residence Life/Student Clusters
24. Agricultural and Research Facilities
25. Tanner Airway Science Center
26. Athletic Fields
27. Linda Brown Building
28. University Terrace
29. Food Science and Technology Building
30. Physical Plant
31. Hazel Hall
32. Public Safety
33. Swine Research Facilities Center
34. Crop Research and Aquaculture Building
35. Agriculture Research Building
36. Banneker Hall
37. Spaulding Hall
38. Temporary Classroom Building
39. Alumni House
40. Poultry Research Center
41. Charles Drew Student Health Center
42. Commercial Greenhouse
43. Hawks Landing
44. President's House
45. Harford Hall
46. Access & Success Building
47. WESM Radio Station



UMES Campus Map

University of Maryland Eastern Shore, 1 Backbone Road, Princess Anne, MD