EXECUTIVE SUMMARY

This section contains an overview of the scope, methodology and key findings of this study. Topics include:

- Background
- Scope
- Methodology
- Participants
- Key Findings

  Vision

  Analysis

  Plan

  Implementation

Background

Armstrong Atlantic State University developed a comprehensive Master Plan in 1998 which was updated in 2003. Since then, the Board of Regents has undertaken analyses that indicate significant potential for growth in the Savannah metro area and Coastal Georgia. In addition, AASU has undertaken several initiatives such as Site Acquisitions, Sector Plans, interface with potential road work and creating a new Strategic Plan. These activities set the stage for the need to update the Master Plan following the guidelines set by the Physical Master Planning Template of the Board of Regents of the University System of Georgia.

Scope

To that end, the Institution developed a specific scope to do the technical analysis of campus facilities and space use as the first portion of that Update. The campus selected a Prime Consultant, Comprehensive Facilities Planning (CFP), to provide the services related to Space Use Analysis and Planning for Future Needs. Following the initiation of that work, AASU engaged a Planning Consultant firm, Sizemore Group (SG), as a sub-consultant to CFP. Their focus was to lead in completing the task of Physical Planning and address land use elements such as parking, open space, playing fields, strategic land acquisitions and location of future development. The intent was to integrate the total analysis of the space needs with those physical opportunities that create an exciting vision for the future growth of the campus. The outcome was to provide AASU with a road map for implementing the strategic development needed to support that growth. This document records the process and findings.

Methodology

Master Planning is best described as a series of successive approximations. The first step is to establish a clear understanding of the overall goals and opportunities. Once this is done, each step of the process better defines the issues, challenges and options available to meet the intended goals. Throughout the process, the assumptions and options become more evident and are narrowed down, leading to a final solution. The process for developing this Master Plan Update included the following steps:

1. Vision - This step focused on articulating the Client's vision and goals for this project.

2. Analysis - This step covered pertinent data and assumptions that are accepted as factual information or planning parameters, including an analysis of the space projections and the site: context, open space and land use.
3. Plan - This step presents the conceptual ideas to be considered for implementing the goals. It also explored comprehensive options for the physical resolution of the future growth on this site.
4. Implementation - This step developed the specific distribution of functions, phasing, schedule and order of magnitude costs.

Participants

Key representatives of the AASU Campus Team:

Dr. Tom Jones, President
Dr. Ellen Whitford, Vice President for Academic Affairs & Dean of Faculty
Dr. William Megathlin, Assistant to the President
David Carson, Vice President for Business and Finance
David Faircloth, Director of Plant Operations
Mr. Jeff Floyd, The Alpha Group, Capital Planning Consultant

Key representatives of the Consulting Team:

Ms. Lisa Macklin, Comprehensive Facilities Planning
Mr. Brian Bell, Comprehensive Facilities Planning
Ms. Lily del C. Berrios, Sizemore Group
Mr. Venky Babu, Sizemore Group
Ms. Vani Herlekar, Sizemore Group

Key Findings

1. Vision

AASU's aspirations and directives for this project were founded on two sets of criteria. The first set, developed prior to this effort, was AASU's Strategic Plan 2007. Its elements can be summarized as follows:

"Leadership through academic excellence in the arts and humanities, science and technology, health professions, and teacher education."

Key Strategic Goals are listed below:

Goal 1: Renew Armstrong Atlantic State University's commitment to excellence in education.

Goal 2: Establish Armstrong Atlantic State University as a leadership institution and a dynamic partner in advancing the success of the coastal region.

Goal 3: Enhance the quality of life for all members of the University community and cultivate traditions.

Goal 4: Achieve effectiveness and efficiency through intentionality in decision-making, resource allocation and assessment.

With this as the background, the Team developed a list of Goals specific to the Physical Master Planning process. They are listed below:

To be a 'student centered' university

- Respond to the students' need to have a physical environment that enables them to be successful and develop academically and physically.
- Develop a new Student Life Quadrangle.
- Create a vibrant, lively and livable campus for 'student living' by providing an array of services, activities and facilities.
- Create a pedestrian-focused campus.

To create a strong 'AASU image'

- Create a 'theme-based' campus environment: coastal, water.
- Build an image and enhance the existing campus character and feel.
- Preserve the Historic Quad.

- Be environmentally responsive.
- Create clear gateways to the campus and front door to the campus.

To retain existing 'Campus Feel'

- To maintain the scale of the buildings – 2-4 stories high.
- Preserve the 'green environment and the arboretum.'
- Create a walkable campus.
- Phase out vehicular traffic from the core of the campus – parking on the periphery
- Discourage cut-through traffic.

To plan for 'Future Growth'

- Plan for the growth of the campus for student targets and its implications – 8,000, 10,000 and 12,000 head counts.
- Consider alternative scenarios for the growth – land acquisitions, satellite campuses, collaborations and distance learning, etc.

To improve infrastructure and provide operational efficiency

To optimize the CIP Funding Cycles

AASU Property Boundaries

2. Analysis

Context

The AASU campus, located in Savannah, Georgia, is approximately 30 minutes south of Downtown Savannah. It is bound by Abercorn Street on the north, Apache Street on the west, Roger Warlick Drive on the south and residences to the east. In general, it has commercial development to the north and west and residential development along the south and east.

The campus has expanded to a total of approximately 269 acres over the past several years to include properties to the east and west of the main campus, along with 24 acres north of Abercorn Street which has not been yet developed. The goals of this property have not been identified and therefore, it was not included in the new Plan.

Open spaces and Quads

Open Spaces and Character

The campus has a variety of open spaces, both formal and informal. The area located between Abercorn Street and Burnett Boulevard provides a good buffer between the campus and the high volume of traffic on Abercorn Street. Burnett Boulevard features an allee of mature trees providing a dense over-story with minimal under-story as a welcoming shady campus façade.

The most formal open spaces on campus are within the main campus quadrangle bordered by Burnett Boulevard to the north, Arts Drive to the east, Library Drive to the south and Science Drive to the west. This includes the entry spaces of academic buildings fronting Science Drive, University Drive and Library Drive outside of the campus quad. Reminiscent of the quadrangles in Downtown Savannah, the main space in the center is a clear rectangle, defined by the surrounding buildings. Special plant collections are integrated throughout as part of a movement to provide a campus-wide Arboretum. Future plans include further development of the Arboretum towards the outer ring of open spaces surrounding the quad.

In this zone, new student gathering areas have been provided in the in the form of pocket plazas with site furnishings such as benches and picnic tables. These spaces occur throughout the academic building areas. The informal open lawn on the northeast corner of campus is also intended for student gathering. The central quad also provides some gathering areas.

With the expansion of student services into the new Student Union, there is an opportunity to develop a new open space on campus. This space may serve as a transition from the academic to the residential and recreational areas of campus. Its development should provide spaces that may be used by students for a variety of informal recreational or passive activities. Similarly, the quads within the student housing area should be developed in a more informal manner, one that encourages use by the students.

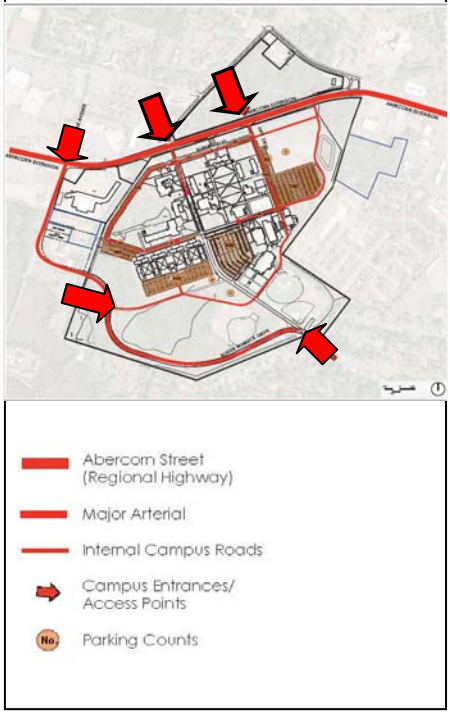
The west and southwestern portion of the campus have significant portions of land that is heavily wooded and underdeveloped. They could be developed in a manner that responds and maintains a certain amount of the hydrology and vegetation that exists today. They may provide opportunities for 'outdoor' labs, playing areas and parking.

Finally, existing and future parking areas should accommodate additional planting in order to enhance their appearance and reduce the heat island effect.

Pedestrian Flow
The pedestrian circulation walks between buildings and through spaces are adequate and paths are in good condition. Pedestrian way-finding is unclear and should be improved. Walkways should be added to safely maneuver within the larger parking lots and provide a logical sequence of pedestrian movement from the parking areas to main buildings and other places.

ASSU has received a Transportation Enhancement Grant from the Department of Transportation to fund a multiuse trail system. Construction Documents are complete for a one-mile arc trail around the west side of the campus beginning at the northwest corner of the quad down University Drive and connecting with Roger Warlick Drive, winding around to Science Drive at the southern terminus of the campus. Future developments should complement this asset.

Access and Egress



Vehicular Circulation and Parking
The main campus fronts Abercorn Street (GA 204), a major arterial road. The campus now has two access points from Abercorn Street via Arts Drive and Science Drive. Additional access points are also available off Apache Avenue and Roger Warlick Drive.

Future DOT plans include the potential of elevating portions of Abercorn Street and, as a result, access and egress to the campus will be affected. Also, given the magnitude of future growth, additional access and egress points need to be explored off of Roger Warlick Drive and through the Powell property on the east.

Athletic and Recreational Facilities
The ball fields and sports facilities owned by AASU on the southern end of campus comprise of a considerable amount of open space that is formal in terms of layout and use. This includes tennis courts, baseball fields and multi-purpose fields. In the future, additional fields will be needed for recreational purposes.

Utilities
The electrical system capacity on campus is currently adequate to serve the existing student population and spare capacity is available to serve up to a 9,000 or 10,000 head count.

The existing natural gas infrastructure is adequate to meet the current needs of the campus. The system has the capacity to accommodate future growth on campus; however the infrastructure itself is dated and obsolete.

The existing sewer system on the AASU campus needs assessment. It should be adequate to serve the existing population but is showing symptoms of strain. The storm drainage system on the AASU campus needs assessment. It is meeting the current needs, but aging infrastructure is also showing signs of strain.

The potable water on the AASU campus is serviced by the City and the infrastructure is currently adequate. The water pressure seems to be adequate for up to 3 stories height. For all proposed buildings with 4 stories or more, the water pressure needs to be tested.

The data/ communication system seems adequate and has the potential to accommodate the future needs.

Wetland
Currently, there are two distinct wetlands identified on campus: one is located immediately north of University Hall and the second one is at the extreme southwest corner of the campus.
Another area of sensitivity is the marshlands located directly southwest of the campus. Care should be taken so that no untreated storm water runoff reaches the marshlands.

Buildings
There are approximately 30 buildings on the main campus housing over 830,000 gsf of functions. This includes The Armstrong Center, University Crossings and University Terrace. In addition, the University leases space nearby and at The Liberty Center. It should be noted that the Student Union is under construction and when completed, will add approximately 60,000 gsf to the inventory.

Academic Programs
As of the 2007 Fall term, the University had an enrollment of 6,831 students and 5,763 full time equivalent students. In 2008, the University reorganized creating three colleges and one school. A breakdown of the majors in each college/ school is presented in the table below:

College/School	Undergraduate	Graduate
College of Education	497	379
College of Health Professions	881	234
College of Liberal Arts	1,256	58
School of Science and Technology	887	9
Pre-Professional and Other Programs	2,347	135
Totals	**5,868**	**815**

The 2006-2007 University Tactical Plan proposed two new bachelor degree programs filed with the System office with ten additional programs being considered. In addition one graduate degree program was filed with the system and eleven are pending

Population – Current and Future Student and Faculty
The future space needs for Armstrong Atlantic State University (AASU) were determined by three enrollment growth scenarios defined by the University: 8,000, 10,000 and 12,000 head count students. The current and projected student and faculty/ Staff population addressed in this Master Plan are summarized in the table below:

	Students		Faculty/ Staff		Total Staffing	
Planning Scenario	**FTE**	**Difference**	**FTE**	**Difference**	**FTE**	**Difference**
Current	4,827	N/A	325	N/A	787	N/A
8,000 HC	5,641	814	375	50	863	76
10,000 HC	7,024	2,197	493	168	975	188
12,000 HC	8,428	3,601	559	234	1,081	294

- At the 8,000 head count level, the overall enrollment growth rate is 16.9%; 46% at 10,000 and 75% at 12,000.
- The Fall 2007 total faculty/ staff for the University totaled 787. Personnel projections were developed for each of the academic departments based on the three enrollment scenarios. Increases to faculty and staff in departments sensitive to enrollment shifts were based on current faculty/ staff to student ratios and discussions with the administration. Other departments were adjusted on a case-by-case basis.
- Current faculty/ staff, including full and part-time, total 325. Projected growth in faculty/ staff at the 8,000 head count level is 50 or 15%; at the 10,000 head count level -168 or 51.6% and at the 12,000 head count level - 234 or 72%.
- Aggregate growth in staffing at the 8,000 head count level is 76 or 9.7%; at the 10,000 head count level -188 or 23.9% and at the 12,000 head count level - 294 or 37.4%.

Space – Existing and Future Needs
Under current conditions, the University is deficient by 48,000 assignable square feet. With the enrollment growing to 8,000 head count, the calculated needs identified an aggregate deficit of 122,600 assignable square feet or approximately 200,000 gross square feet. At the 10,000 head count leve,l the deficit need increases to about 218,300 assignable square feet or approximately 358,000 gross square feet. At the 12,000 head count scenario, the total deficit, as compared with current space, grows to about 334,000 assignable square feet or approximately 550,000 gross square feet.

Classrooms: The University has capacity in its existing classroom supply to address the demand of a student enrollment in excess of 8,000 students. As the University grows to the

10,000 head count enrollment scenario, about 8,400 assignable square feet of additional classroom space will be needed. At the 12,000 head count enrollment level, the need is for an additional 23,500 assignable square feet.

Instructional Labs: At the 8,000 head count level, there is a need for 24,000 assignable square of additional teaching laboratory space. This need is concentrated in five academic departments. Art, Music and Theater have the greatest need followed by Engineering Studies, the Department of Health Sciences and Health and Physical Education. A deficit of almost 50,000 assignable square feet is identified at the 10,000 head count level. The needs (deficit) will increase further at the 12,000 head count level exceeding 75,400 assignable square feet.

Research Labs: At the 8,000 head count level, the projected need is just over 33,000 assignable square feet or a 20,800 assignable square feet deficit. Biology and Chemistry/ Physics are the two departments with the greatest need. The Research Lab deficit grows to just over 26,500 assignable square feet at the 10,000 head count level and increases to 33,800 assignable square feet at 12,000.

Offices: The available space for offices is adequate to meet both current as well as the calculated need at the 8,000 head count level. However, at the 8,000 head count level, there is a deficit of over 10,200 assignable square feet in the office support sub-category. At the 10,000 head count level, the campus should begin adding office space by about 12,300 assignable square feet and as the office support deficit increases to over 15,500 assignable square feet. At the 12,000 head count level, the office needs will exceed 45,400 assignable square feet with almost 25,000 assignable square feet in offices and about 20,500 assignable square feet in office support.

Library: The calculated space needs for library space indicate there is a need for just over 25,000 assignable square feet of space as the campus grows to 8,000 head count students. This deficit grows to over 32,200 square feet at 10,000 head count level; and to 39,400 at 12,000.

Athletic/ PE: The calculated needs for the 8,000 and 10,000 head count levels indicate deficits of about 16,000 and 26,000 assignable square feet, respectively. In both cases, these needs are only for campus recreation space to address student enrollment growth. Activity space for Athletics and HPE are adequate but as the campus grows, it will be necessary to separate the instructional and athletic functions. This separation is likely to be required as the campus approaches the 12,000 head count level.

Food Facilities: In light of the new dining facility to be included in the new Student Union, no additional major dining facilities are expected to be required even as the enrollment grows. However, there is an anticipated need for smaller satellite "grab and go" types of facilities, especially as on-campus housing is added. Modest increases in food service space are, therefore recognized in the 10,000 and 12,000 head count levels to address the expected needs with additional space required of about 4,000 assignable square feet and 7,500 assignable square feet, respectively.

Student Lounge Space: Based on the calculations developed, the University will need to double its current student lounge space with the deficit climbing to about 8,600 assignable square feet and 11,400 assignable square feet in the 10,000 and 12,000 head count scenarios, respectively.

Support: For each of the enrollment scenarios, the campus is in need of additional support space (i.e. shops, storage, etc.) ranging from 17,600 to 41,100 assignable square feet.

Vehicular Circulation and Access

3. Plan

Key Principles for Planning

The overall strategy for developing the Plan included following these principles:

1. Build on the theme of quadrangles - maintain the main campus quad and develop additional quadrangles as gathering spaces.
    - For academic precincts – colleges organized around open spaces.
    - For student gathering – passive and recreation

2. Reinforce and extend main visual axes as a way to extend and tie new and existing pathways and spaces.
3. Increase pedestrian circulation in the heart of the campus and minimize the vehicular circulation within it by moving roads and parking to the perimeter.
4. Maintain and expand on the existing functional organization of the campus: academic zones to the north, student services and residences from the center to the south and a zone of open playing fields along the southern edge.
5. Maintain a low to medium density with buildings not exceeding 3 stories (non residential) to 4 stories (residential).
6. Integrate new properties to the east (Powell) and the west (The Armstrong Center) of campus.

Planted/ Landscaped Formal Quads

Open Lawns for passive recreation

Athletic and Recreational Fields

Visual Axis (Green Pedestrian connections)

Campus Quadrangles and visual axes

Functional Zones

Distribution of Functional Zones

The Final Master Plan accommodates almost all academic and administrative growth towards the east side of the campus. This academic campus organization creates a Science & Technology Precinct integrated with a Health Professions Precinct. This will allow for increased affinities and inter-disciplinary curriculum. This eastward growth direction would also realize the large amount of campus land available for development.

The first phase of new freshman housing (suite style) will be located to the immediate south of the existing Compass Point Housing parking lot and the detention canal. The next phase will be sited on the surface parking lot. The housing would be arranged in small, compact quads, clustering all new housing in the current housing zone.

Other additions and renovations include a Library addition to the west of the existing Library that would connect it to the proposed Student Union via the upper floors, along with an addition to the Fine Arts Hall.

- Existing Academic
- Existing Residential
- Proposed Academic
- Proposed Residential
- Fields/Open spaces /Quads
- Vehicular Circulation /Parking

Open Spaces and Character

Academic Quadrangles

The existing quadrangle (approximately 4 acres), south of Burnett Hall will be maintained. This formal quadrangle, defined by the surrounding buildings and geometric path layout provides limited contiguous open space for student activities. New linear green connections are proposed along the east–west axis to provide visual continuity and links from existing academic buildings on the west to the new Science & Technology Precinct proposed to the east of Arts Drive.

Student Quadrangles and Gathering Spaces

The surface lot in front of the Sports Center is to be (gradually) converted into green space in the center of the campus. This open space will be anchored by the new Student Union building on the north, student housing to the west and recreation spaces to the south and east. This new quad would serve as the "heart" of student activity and would provide an open venue for campus events and gatherings. The new student housing would be organized using smaller quads that provide private, open spaces for gathering and passive recreation.

The existing pedestrian circulation on the AASU campus serves all the academic buildings and formal open spaces. New pedestrian paths are proposed, in conjunction with the green spaces, to connect the student housing to the academic clusters, as well as the recreation buildings and playing fields.

Vehicular Circulation and Parking

The Final Master Plan restricts vehicular circulation to the campus core in order to allow for a pedestrian-friendly zone for students and faculty/ staff. A proposed loop road will run south of the new student housing and parallel to Warlick Drive. This road would be routed in front of the Sports Center, parallel to the eastern edge of the campus and would eventually connect to Burnett Boulevard on the east side. Circulation on Science Drive and Library Drive would be curtailed to provide for a central green space flanked by the freshman housing and other student buildings, including the Student Union, proposed Library extension and recreation facilities.

Most of the surface parking will be provided outside of the loop road. As the surface parking lot in front of the Sports Center is converted into green space, a deck is proposed for the location of

the existing tennis courts to accommodate all the displaced parking and serve the visiting population attending events and/ or gatherings at the Sports Center. With the increase in student enrollment, additional parking decks can potentially be sited on the east and west zones of the campus. Final site selection should take into consideration that paying customers may have to be close to activities and yet avoid creating conflicts between pedestrians and vehicles.

Athletic and Recreational Facilities
Additional athletic and recreational needs are provided for in two separate buildings: one is an addition to the Aquatic and Recreation Center to the south which would connect to the Sports Center; and then a second building addition north of the Student Recreation Center.

Space Allocation
To address these needs the Master Plan has identified a number of new construction and renovation projects. These projects will address the University's highest academic priorities, necessary functional consolidations; space quality issues, as well as meeting specific departmental space deficiencies. A synopsis of these projects and the priorities they meet are presented below:

8,000 Head count Scenario:

- Lane Library Addition: a major 40,000 assignable square feet addition to the Lane Library will provide for much needed student study space and will be integrated with the Memorial College Center to expand this core area of the campus to be more student-centered. It may also help with the student lounge deficit.
- The Armstrong Center Student Services Renovations: The renovation of space in The Armstrong Center to consolidate and house various student service functions, currently located in Victor Hall, will provide facilities for a more cohesive "one-stop shop" location for students situated in a more accessible part of the campus. This will also permit the reclamation of Victor Hall back into the academic core.
- Health Profession Phase 1-A will initiate the process of consolidating the College of Health Professions into a new campus precinct by relocating the current occupants of Ashmore Hall; address some of the University's greatest academic space quality issues; provide the campus with shorter-term teaching lab

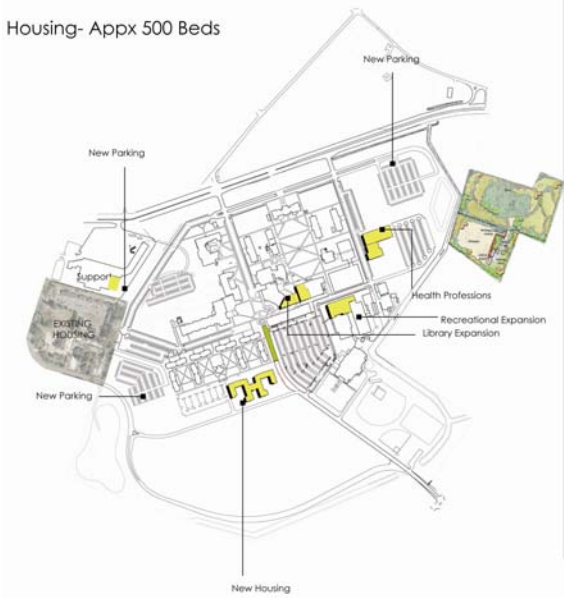
relief for Biology (and HP) and vacate Ashmore Hall to be repurposed for more suitable functions.

- Victor Hall Renovation: The relocation of the student service operations out of Victor Hall will allow this facility, located in the academic core, to be reclaimed for academic space needs and become part of the new Health Professions Precinct by housing the Health Sciences Department.

- Ashmore Hall Renovation: The repurposing of this facility to classrooms and offices will address the most pressing space needs in the College of Liberal Arts, and will provide growth capacity for the departments of Language, Literature & Philosophy and Criminal Justice, Social & Political Science. The use of this facility to house Liberal Arts programs will reinforce the west side of the campus as the Liberal Arts College Precinct.

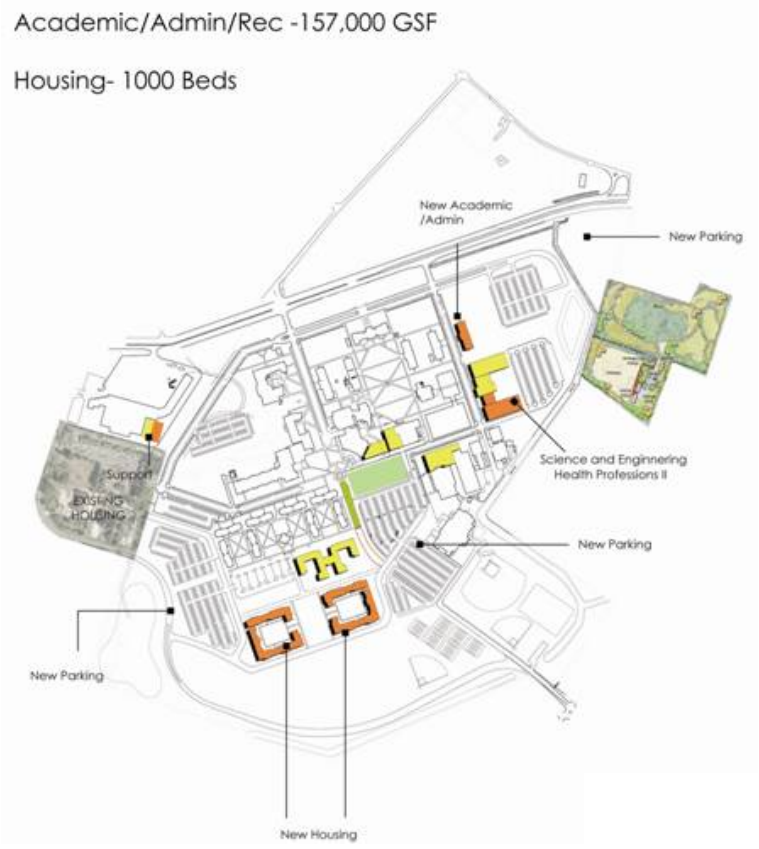
- Gamble Hall Renovation: The renovation of this space will permit the upgrade of one of the original campus facilities that has not undergone any substantial improvements, to address quality and functional issues, as well as develop this facility into a major classroom building that will meet both short- and long-term needs.

- Backfill Projects: With the completion of the Victor Hall Renovation, classroom space will be released in the Science Center to be refitted to address additional science teaching lab needs; and office space in Solms Hall will be reassigned to meet the needs of the Mathematics Department.



10,000 Head count Scenario:

- Health Professions Phases 1B and 2: Two additional phases to the Health Professions complex will be developed as the campus grows to the 10,000 head count enrollment level. Phase 1B will accommodate the needs of the Health Professions Departments currently housed in University Hall, along with the build-out for unaddressed needs of the departments occupying Phase 1A. Phase 2 will complete the College's consolidation by relocating the two departments located in the Savannah Mall and building-out unaddressed needs of the Phase 1B departments. In addition, about one-half of the unmet needs of the College of Science and Technology, as well as permanent homes for Engineering Studies and Information Technology will be addressed in Phase 2.
- Backfill Project: The relocation of the Physical Therapy and Radiologic Sciences Departments out of University Hall will release space to accommodate identified needs for the College. of Education.



12,000 Head count Scenario:

- Fine Arts Addition: The instructional laboratory needs of the Department of Art, Music and Theatre will be addressed through the construction of a 42,000 gross square feet addition to the Fine Arts Building.

4. Implementation

Phasing

AASU Master Plan Phasing

	GSF (New Construction)	TARGETS FOR NEW CONSTRUCTION
8000 Head Count		**199,592**
Armstrong Center		
Victor		
HP 1.A	63,000	
HP 1.B	60,000	
Ashmore		
Gamble		
ScienceCenter		
Library	42,000	
Bond Sub Total		
Housing Phase 1		
East Parking and green		
West Parking and green		
Recreation Expansion	20,000	
Support	15,000	
Sub Total	**200,000**	
10,000 Head Count		**156,803**
HP 2	90,000	
Support	30,000	
New Academic/Admin	38,000	
Bond Sub Total		
Parking west of Rec.		
Student Quad Step One		
Housing Phase 2 and road, detention		
Housing Phase 3 and road, detention		
Sub Total	**158,000**	
12,000 Head Count		**193,715**
Fine Arts	42,000	
Other Renovations		
Bond Sub Total		
Housing Phase 4		
Parking		
Sports Center Addition	40,000	
New Academic/ Admin-1	36,000	
New Academic/ Admin-2	50,000	
New Support	24,000	
Sub Total	**192,000**	

Schedule

The following chart illustrates the proposed schedule and the order of magnitude cost of the academic and administrative Capital Implementation Projects recommended: