3.11.3 Physical Facilities

3.11.3 The institution operates and maintains physical facilities, both on and off campus, that appropriately serve the needs of the institution's educational programs, support services and mission-related activities.

Judgment of Compliance

In Compliance

Narrative of Compliance

The University of Alabama is committed to ensuring that its physical facilities are adequate to serve the needs of its educational programs, research efforts, support services, and other mission-related activities. The adequacy of the campus physical assets are assured through an integrated, yet flexible process that receives input from numerous campus stakeholders and relies on a culture of continuous assessment through established processes and allows for multiple feedback channels from across the campus community to address concerns. The University Facilities areas accept the responsibility for physical facilities by proactively addressing operation and maintenance issues and by striving to provide The University of Alabama community with an attractive, clean, comfortable, and safe environment that is well-maintained and functional.

Adequacy and Appropriateness of Physical Facilities by Program and Functional Areas

The adequacy and appropriateness of physical facilities by functional areas are assessed in two primary ways. First, the University Planning and Design and Construction Administration Departments regularly communicate with administrators, faculty, staff and other stakeholders through our campus master planning process to ensure campus growth, both in physical facilities and infrastructure, appropriately serves the needs of the institution's educational program, research enterprise, support services and other mission related activities. This process is accomplished through regular meetings with the Campus Master Plan Committee, Faculty Senate, Staff Assembly, Student Government, senior administrators and a variety of other stakeholders to assure our annual capital development plan and our five year development plan are accurately reflecting the overall mission of the university to not only ensure that facilities are adequate but also to address deficiencies. Because planning for physical facilities is not static, Planning and Design also uses on-line surveys and web access for comments to allow constituents to have constant contact with the planning process and to promote good communication that facilitates understanding all the needs of the campus community. The campus master plan and the annual capital development plan are adjusted to reflect the feedback received.

Second, the Facilities and Grounds Departments meet with each Dean annually to discuss major renovations, mechanical and infrastructure projects, as well as improvements in landscaping. Annual meetings with over 75 Building Representatives are also held to discuss and solicit feedback regarding campus and facility policy changes, process and building improvements, and future goals. These annual meetings include team strategy sessions aimed to improve procedures needed to accomplish long range visions and campus plans. Providing experienced, professional, engineering design and guidance is our most effective tool for providing safe, competent, reliable, and efficient facilities to our stakeholders.

This process requires two-way communication. In addition to meetings set up by Facilities and Grounds, information is received from the stakeholders through the Work Order System, electronic communication, and one-on-one daily personal on-campus encounters. The continuous improvement of campus Facilities
and Grounds through this process will provide optimal and long term conditions adequate and appropriate physical facilities that are conducive for successful teaching, research, and service for our stakeholders well into the future.

Third and finally, in executing campus projects, both individually and long term across the portfolio, the Construction Administration department addresses and ensures the adequacy and appropriateness of physical facilities, for both program and specific functional areas, through an integrated yet flexible process that provides user feedback and input and the utilization of comprehensive standards that are developed collaboratively with the appropriate stakeholders to reflect their specific needs. Not only do these processes ensure adequacy, but they also enhance the overall efficiency of all units by ensuring consistency across projects and providing economies of scale in numerous ways.

Adequacy through User feedback and expert knowledge input is systematically ensured on a project starting with the initial design programming effort. Typically, subject matter experts are retained for the programming effort to bring a current and broad perspective to the particular type of project. Current codes, accreditation standards, typical program requirements, trends, and the knowledge gained from other projects are then seamlessly integrated into the University project. The programming process also requires numerous stakeholder meetings and feedback loops so that their perspective is incorporated into the goals and basis of design.

Design reviews involving numerous stakeholders, including the academic users, are required at progressive stages for each project to gain stakeholder perspective and to make sure the design meets their programmatic goals. These comments are compiled and provided to the project designer for review and incorporation into the design. Stakeholders are also encouraged to provide relevant inspections at the appropriate times during the project.

Another way adequacy and appropriateness is ensured is through the comprehensive use of highly developed standards. These standards are developed in a collaborative manner with the primary party and others who may have relevant input, and then the standard is published for use. The standards are critically reviewed on a periodic basis for current relevance, incorporation of lessons learned, and technological or code change issues. These standards are incorporated into the Campus Master Plan.

The adequacy and appropriateness of the standards are achieved through many channels, not the least of which is the utilization of objective subject matter experts as detailed above, but primarily through a culture of continuous improvement. This process is accomplished through lesson learned reviews on projects, post occupancy inspections and reviews, continuous training (both off and on site), participation in professional organizations, attendance at trade shows and conferences, and graduate student research projects.

In general, the Construction Administration department maintains an enterprise perspective by continually updating and implementing standards and protocols necessary for our internal partner business processes and compliance requirements. Examples of these include integration of crime prevention through environmental design (CPTED) principles, evidence based design, campus emergency notification, classroom technology, risk management requirements, environmental health and safety regulations, and information technology to name just a few. This perspective is also maintained through the communication of projects to the campus community through multiple sources and channels and a mandate to over communicate.

Finally, the Construction Administration department considers functional appropriateness relative to the primary purpose of a space as a part of its facility assessments. Most facility assessments focus on conditions, such as, what is the condition of a roof or the mechanical system and what is the associated liability to address that issue. Assessing functional appropriateness goes a step further to ensure that the space is actually appropriate for its purpose. A simple example of this might be a large space that was adapted to a lecture hall. Its functional appropriateness would be measured by adequate sight lines, current technology integration, sound characteristics and properties, and maybe even the comfort of the seating.
Documented teaching and learning outcomes associated with both a supportive and a detracting physical environment are acknowledged. This environment is a paramount concern in the development and maintenance of the physical space.

Physical Facilities

Synopsis of GSF and Number of Buildings

The University of Alabama operates and maintains 279 academic, administrative, and residential buildings which include 11,177,304 gross square feet (GSF). The University will experience an increase in square footage of approximately 1,202,500 GSF when in-process construction projects are completed. In addition, in 2010, the University purchased Capstone Village, a retirement center, located on the University campus. This purchase included 14 buildings with a total of 291,828 GSF.

Land Holdings

The acquisition of the Bryce Hospital property is one of the University's most significant accomplishments in recent years. This acquisition will ensure adequate facilities to meeting our mission. This purchase from the State of Alabama Department of Mental Health (ADMH) in May 2010, for $77.8 million, added an additional 168 acres to the University's existing 830.62 acre campus. As part of the agreement with ADMH, the University has committed to spending $6.5M in building restoration efforts in the future. In connection with the purchase of the Bryce Property, the University has leased the facility back to ADMH for a period estimated to last 3 to 4 years for $1 while ADMH constructs a new adult psychiatric facility. University Planning is in the process of developing a campus master plan for this property.

In addition to the 998.62 acre campus proper, the University owns approximately 37,507 acres of land in Alabama. Most of the land was acquired through a grant in 1884 from the United States Government. Approximately 33,000 acres of these lands are considered part of the University endowed lands. The proceeds from coal and gas royalties are part of a true endowment and have been used to support academic chairs. Currently, the coal and gas royalties are committed to fund the purchase of Bryce Hospital from ADMH. The proceeds from timber sales are part of a quasi endowment and have been designated by the Board of Trustees of the University of Alabama for library support and computer upgrades. The endowment income earned on the true and quasi endowments are allocated to the library and deferred maintenance.

New Facilities

Since 2005, the University has completed several new facilities to meet the demand for its growing student population. These new facilities are delineated below by primary mission:

Instruction and Research

• Science and Engineering II
• Capstone College of Nursing

Support

• Riverside Residential Community
• Bryant Residential Community
• Lakeside Residential Community
• North Ridgecrest Residential Community
• South Ridgecrest Residential Community
• North ten Hoor Parking Deck
• South Ridgecrest Parking Deck
• Five (5) new Greek life residences
• Ancillary Services Building
• Lakeside Dining

**Major Renovations and Additions**

In addition to new facilities, numerous renovations and additions have also been executed to take advantage of critical adjacencies, shorten the period that campus would be disturbed by new construction, improve land use and density, expand existing infrastructure, and eliminate the deferred maintenance backlog associated with those facilities. These major renovations are delineated below by primary mission:

**Instruction and Research**

• Lloyd Hall
• Graves Hall
• Adams Hall
• Law School Addition

**Support**

• Bryant Denny North and South End Zone Expansions
• Foster Auditorium
• Coleman Coliseum
• Six (6) Greek Life residences

**Deferred Maintenance**

Since 2003, the University has invested over $52 million in addressing specific deferred maintenance issues including upgrading life safety systems; replacing roofs, windows, and elevators; upgrading mechanical and electrical systems; and addressing other code and modernization improvements. This investment has reset the condition of numerous buildings and components, which ensure comfort and convenience by providing systems that are more flexible and controllable than those provided previously. This greatly enhances the teaching and learning environment within existing facilities. See Facilities Update Report.

**Campus Infrastructure**

During this period, investments in campus infrastructure have also been made to improve access to campus, provide additional capacity for transportation systems, enhance utility system reliability and capacity, improve the efficiency of thermal energy systems, and provide additional and improved technology access and capacity through enhanced network infrastructure. This investment of over $50 million was critical to maintain convenience to the community in accessing campus and in providing a campus "backbone" that is was supportive of the campus community.

**Facilities Razed**

The University has removed numerous buildings and structures from the campus inventory that which represented facilities which were prohibitively expensive to renovate, not appropriate for current uses, or the land was required for new, more efficient development. Forty-eight structures have been removed, which represents 447,960 square feet that had deferred maintenance liabilities of over $31 million.
Future Buildings and Infrastructure

The planning of additional facilities and renovations continues to meet the needs of the campus. To support student life, a new residence hall complex, which will initially increase bed space by 971 beds, is scheduled for completion in August 2012. This project is a continuation of the living-learning centers that support the University's planned enrollment growth while providing a positive student experience that is also conducive to learning. The new complex will allow Residential Life to proactively manage their facility assets, to accommodate future increases in enrollment, and to provide capacity to address deferred maintenance within the existing housing inventory. For instructional purposes, major renovations and additions are scheduled for Russell and Moore Halls to bring them up to modern standards and to provide additional classroom space on campus. A new Science and Engineering building is in design to provide state of the art research and teaching facilities. Finally, six new Greek Life projects are in development to provide adequate capacity to this important residential and social program.

In addition to the planned construction and renovation of buildings, the University is in the midst of a design/build project to construct a second energy plant in the heart of the campus. Once in operation, this plant will allow a portion of the University's building inventory to operate in a more energy efficient manner, thereby reducing associated expenses. This University initiative commenced with the construction of the Shelby Energy Plant in 2009, and the University continues to develop this plant's effectiveness as it continues to expand the number of buildings that it serves.

Furthermore, the University is committed to additional infrastructure projects throughout the campus that will serve to support the growth of the campus as the University absorbs the Bryce property and expands its facilities inventory. The North Campus Substation project and East Campus Storm Water project are two prime examples of where the University is currently expending resources not just to meet the campus demands but to allow for necessary future expansion.

Other Facilities

The University has 43 additional facilities located off campus, including Brewer-Porch Children's Center and the Moundville State Archaeological Park. In 2008, the University completed the construction of three additional secure dormitories to house approximately 36 emotionally disturbed children at the Brewer-Porch Children's Center. This project also encompassed the addition to an existing facility of multiple classrooms and a commercial kitchen. The University, in 2010, completed the renovation and expansion of the Jones Archaeological Museum at the Moundville State Archaeological Park. This project served to enhance the museum by modernizing and expanding the facility as well as updating the displays. Additional projects are in the planning stages for the Moundville State Archaeological Park complex to facilitate and improve the visiting experience, such as the refurbishment of the bath house and campground parking.

Another off-campus facility, the Gadsden Center, is located in Gadsden, Alabama. The Gadsden Center serves North Alabama, Northwest Georgia, and the Tennessee Valley and extends the University's teaching, research, and service mission to those areas.

Processes and Procedures

The processes and procedures utilized to manage the campus asset portfolio are predicated on Board of Trustees policy, specifically Board Rule 415 described as follows:

"The purpose of this Rule is to set forth policies, practices, and associated responsibilities for the planning and management of the System's capital assets. The Rule specifically provides for:
A. Campus Master Planning
B. Systematic planning for capital projects, purchase of equipment, and real property acquisition/disposition
C. The establishment of an orderly process for the accomplishment of major capital projects
D. The selection and appointment of architects, engineers, construction managers, program managers, and other design and construction entities with primary contractual responsibilities for project delivery
E. The delegation of responsibility for the management of existing capital assets

The process that incorporates the above requirements and which inherently addresses and ensures the adequacy of the facilities is summarized as follows:

A. A Campus Master Plan is required to be a comprehensive effort that addresses a wide variety of concerns including land use, way finding, pedestrian/vehicular circulation, utility services, landscaping, and architectural design standards to name a few. The Master Plan is required to be updated every five years or when significant changes are proposed.
B. An Annual Capital Development Plan is required to be submitted for each Fiscal Year. The Plan provides information relative to capital projects that will have action in that FY and also potential projects that could take place in the next five years. The adequacy and relevance to the campus mission are specifically and comprehensively addressed in the documentation for these projects including, but not limited to comparative space utilization and related information, potential relationships and enhancements to existing campus programs, and the financial relationships and impacts of the project.
C. A five-year deferred maintenance plan is required to identify the associated liability and funding commitments necessary to address them and maintain adequacy of the campus facilities.

All of these plans are compiled in coordination with the deans, maintenance shop managers, facilities leadership, facilities business administration, and executive administration. The campus specific entities responsible for effecting and executing these requirements, and the supplemental information and procedures they utilize, are detailed as follows. See Annual Consolidated Capital Projects and Facilities Report.

Generally, projects are identified through continuous assessments of facilities, planned renewal based on expected service life, and information provided by a partial audit of campus facilities performed by the ISES Corporation. In 2003, ISES Corporation performed a Facility Condition Analysis for over 50 percent of the University's physical facilities, including Housing. The findings of this analysis provided the University with an objective assessment of the status of its facilities and a complete list of deficiencies with projected costs for upgrading each evaluated building. The main objectives of this study were to provide a clearer view of the adequacy of University facility assets and to prioritize capital reinvestment needs. This information has been downloaded into the University’s facility management software to facilitate analysis and reporting. The data are periodically updated as assessments are performed. These updates include revisions resulting from the execution of renovation projects, and information from new assets is added.

**Facilities Departments**

Three departments work together and are responsible for building, renovating, and maintaining the facilities of The University of Alabama. These departments are University Planning, Construction Administration, and Facilities Operations and Maintenance. A discussion of these departments' contribution to operating and maintaining physical facilities, both on and off campus, that are adequate to serve the needs of the institution, is provided below.
University Planning

The Department of University Planning oversees the development of the Campus Master Plan, which is periodically updated as detailed above pursuant to Board of Trustees requirements. The current comprehensive Master Plan and Design Guild was completed and approved by the Board of Trustees in 2007. It has been an invaluable tool, guiding the unprecedented growth of the campus since that time. The current Campus Master Plan has received two prestigious awards since its completion: The Alabama Chapter of the American Planning Association Award for Outstanding Urban Design and the Society of Campus and University Planning Merit Award for Excellence in Planning for a District or Campus Component. University Planning has begun the 2012 Master Plan Update, which will include the newly acquired Bryce Hospital property. University Planning is also primarily responsible for ensuring that the principles contained within the Campus Master Plan are integrated into projects and plans through comprehensive project plan reviews.

Construction Administration

Construction Administration is responsible for the University's capital projects and the execution of contracted renovation, deferred maintenance, or miscellaneous projects, which currently total over $300 million. The University utilizes both internal and outsourced management of these projects to create a more effective, efficient, and flexible process for project completion based on requirements and intricacies of the project and current workloads. Construction Administration oversees all aspects of the projects, including the selection of the architect/engineer for design, communication with the user and other campus stakeholders to ensure incorporation of their needs into the project, the award of construction contracts, and oversight as project manager during construction.

Additionally, specific focus is given to ensuring that the faculty and student environment is not impacted by either the physical condition of the campus or the efforts to maintain and construct the same. These efforts include scheduling construction and maintenance work during off hours and around the academic calendar, monitoring noise level standards for projects in progress, providing offsite parking for construction workers, routing pedestrian and traffic plans around the perimeter of projects, developing perimeter protection and way finding, preventing deliveries during peak times, and communicating across numerous media resources activities that will impact access.

Facilities Operations and Maintenance

Facilities Operations and Maintenance (FO&M), consisting of the Facilities and Grounds Departments, has the responsibility to ensure that the University's physical facilities, as well as the landscape and grounds on campus, are maintained, not just adequately, but to the high standards of both The University of Alabama (UA) Campus Master Plan and the Landscape and Grounds Strategic Plan. FO&M has taken a holistic approach to accomplish this task by utilizing daily work orders, campus inspections, facilities/grounds evaluations, deferred maintenance priorities through the five-year Annual Consolidated Capital Project and Facilities Report, no-notice issues/emergencies, and special renovation programs/requests. This concept addresses the full scope of operations and maintenance for any University facility within the core campus, in addition to off-campus facilities (Moundville Archeological Park, Tanglewood, Brewer-Porch, Harry Pritchett Golf Course, Arboretum, Boone Cabin, Strode House, Rowing Facility, etc.).

One tool used to accomplish this task is the UA Facilities Enterprise Asset Management System (EAM) called AiM. This system, which can be easily accessed by students, faculty, and staff through the UA Facilities webpage, is used to initiate daily routine maintenance work/corrective action, schedule critical preventive maintenance, and coordinate renovation and restoration of buildings and grounds maintenance work. Preventive maintenance schedules are established for all major mechanical equipment and building systems. The purpose of the preventive maintenance (PM) program is to extend the life of the University's assets and to preempt premature equipment and system failures. Proper implementation of the PM system reduces our systems/equipment failure, extends the life expectancy of the buildings and infrastructure, and
maximizes the availability of FO&M to support the University's mission. The completion of PM also minimizes breakdown maintenance and repair by replacement. PM work receives the highest priority after emergency repairs when scheduling the maintenance department's trades. This work is done in a predicted and scheduled manner, resulting in a more cost effective and efficient operation.

AiM is also used to compile reports on work assignments, maintenance trends, and cost tracking while providing critical customer service feedback to all Facilities and Grounds Department shops (Elevator, Heating/Plumbing, Custodial, Air Conditioning, Electrical, Grounds, Energy and Building Maintenance).

In addition, the Facilities and Grounds Departments shops benchmark their process and results against over 250 other university and college institutions nationwide. This assessment is accomplished by utilizing the largest verified facilities database in the country provided by Sightlines. This database report, called the "Return on Physical Assets" (ROPA), analyzes and covers Annual Stewardship, Asset Reinvestment, Operating Effectiveness, and Service through independent campus evaluations and inspections. Sightlines' multifaceted consulting, technological knowledge and facts-based approach leads campuses through a discovery and improvement process. This process is unmatched for evaluating, then initiating corrective action in areas of facilities, grounds and custodial services management, campus environmental stewardship, and student residential housing issues. The University of Alabama has consistently ranked at or among the top when compared side-by-side with peer institutions that include Texas A&M University, Ohio State University, Georgia Tech and Florida State University, to name just a few. Customer feedback is also received from various other sources and is constantly assessed by the FO&M team. Assessment is done routinely through the following processes:

- The Assistant Vice President for Facilities and Grounds meets routinely with all UA Deans and various department heads for academic, business, and student affairs to discuss ongoing FO&M operations and planning.
- The Assistant Vice President for Facilities and Grounds, as well as the executive heads of his staff, are members of several campus-wide committees composed of faculty, staff, and students, allowing for direct dialog with many cross functional campus groups.
- Building liaisons have been appointed for every building on campus, and these building representatives provide direct feedback on FO&M performance.
- Customer feedback forms are available on-line via the maintenance work order system.
- E-mail communications, both of a negative and positive nature, are received and addressed in a timely manner by the appropriate FO&M staff member.

All of these types of feedback are analyzed by FO&M in an effort to modify processes and performance as required, with an overall goal of achieving continuous improvement of our facilities and grounds operations. Additionally, Sightlines offers the University, through their "Go-Green Measurement and Analysis" report, an in-depth look at our carbon emissions through a three scope view. Scope (1) covers fossil fuel consumption, Scope (2) is purchased electricity, and Scope (3) covers campus student, faculty and staff commitment to such things as commuting, reduced air travel, and wastewater stewardship. Again, the University ranked at the top of the class in efficient consumption when compared to peer output. With our expanded campus growth, Sightlines' services has provided another tool for the facilities and grounds management team to use in our continued development of campus strategies that align with our academic, research and educational programs, facilities and grounds needs, support and campus services, and financial resources, which help achieve our mission to advance the intellectual and social condition of the people of the State through quality programs of teaching, research, and service.

Physical Space

The Office of the Provost oversees general classroom space. The Provost is responsible for determining the adequacy of space to meet the academic needs of each college and school, and for making appropriate assignment decisions. The senior facility analyst provides reports on the utilization of classrooms and class labs to the Provost to ensure efficient use of academic space.
In addition, a new department was added in 2008 named Building Information Services (BIS). This department is responsible for maintaining a comprehensive space management system that includes CAD files and detailed building and room information for the UA's physical facilities. This valuable space information is used to track and maintain space utilization, building inventory, and produce space data reports. This information is provided to the Office of Institutional Research and other campus constituents upon request to support the teaching, research, and service of the University.

BIS employs a team of draftsmen to develop and maintain up-to-date CAD files for all UA physical facilities. Since 2008, BIS has created and/or updated the CAD files for all UA physical facilities in operation. These CAD files are used to populate our Enterprise Asset Management System (AiM) with up-to-date space data such as Net Assignable Square Footage (NASF), Gross Square Footage (GSF), and Room Type (classroom, lab, etc). The data maintained in AiM is used to produce numerous State and Federal reports related to UA physical facilities. These reports are defined below and included as fs:

- **Alabama Commission of Higher Education (ACHE) Building Inventory Report** - This report is submitted every other year. The last required submittal was November, 2009. The report includes all UA buildings, gross and net assignable square footage for each building, funding category (Education/General, Health related, Hospital, Auxiliary, or Other), ownership code, construction/renovation year, and the building condition code.
- **ACHE Inventory of Space by Category (1A, 1B, 1C, 1A Hosp, 1B Hosp, 1C Hosp)** - This report is submitted every other year. The last required submittal was November, 2009. The report includes net assignable square footage for all UA building rooms by room type (classroom, labs, offices, residences, etc.).
- **ACHE Facilities Master Plan/Capital Project Request (1A, 1B, 1C, project descriptions)** - This report is submitted annually. The last required submittal was October, 2010. This report includes capital projects planned (next year, year after, and following 5-year period) for new construction, major renovations, and deferred maintenance. The report includes details of the funding source (State of Alabama, Federal Grants, Bonds, etc.), projected gross and net assignable square footage, category of space (Education and General, Auxiliary, etc.), projected start/completion dates, and the basis or need for the project (new programs, capital renewal, safety, enhancement of existing programs, etc.). Also included in the report is a description of planned projects.
- **ACHE Space Data Report (main category, medical, CEDC, and Gadsden, Alabama branch)** - This report is submitted annually. The last required submittal was August, 2010. This report describes any changes in gross square footage (gsf) for all UA buildings for the reporting year. The report lists each building where changes occurred, the number of gsf included in the change, and the reason for the change (construction/renovation, demolition, audit difference due to CAD update, acquisition, etc.).
- **Net Assignable Square Footage by Room Type**

Along with providing accurate and up-to-date space information, BIS creates the foundational data for AiM (UA's Enterprise Asset Management System) to operate effectively. AiM integrates property management, space utilization, and facilities work order management into one integrated system. By doing this, the University is able to better track and control maintenance expenses, maximize resource utilization, reduce equipment downtime, improve space utilization, improve service delivery, and produce reliable and accurate physical plant information upon request at an enterprise level.

**Insurance of Facilities**

The University insures all real and personal property based on 100% of the estimated replacement value other than those buildings either scheduled for demolition or deemed to be functionally obsolete, which are insured on an actual cash value or salvage value basis. The insured property is appraised every 3-5 years by either the State of Alabama Department of Risk Management (ALDORM) or a qualified appraisal firm engaged by ALDORM. In the years following the appraisal up until the property is reappraised, the insurable values are reviewed and adjusted annually based on construction inflation/deflation factors.
provided by reputable organizations such as MSB (formerly known as Marshall & Swift and Boeckh Appraisal). The University also maintains a comprehensive business interruption insurance program to cover loss of income and increased expenses resulting from damaged University property. The amount of business interruption insurance is reviewed and updated annually based on projected revenues and expenses for the coming fiscal period.