Final Report of the Vision OHIO Infrastructure Implementation Committee

I Introduction

The job of our committee has been to look at the campus infrastructure and recommend changes to better align its capabilities with the current needs of the campus. We also looked at the pressure on campus infrastructure caused by possible or probable changes that will result from the activities arising from Vision OHIO recommendations made by other groups, such as in the general area of Research and Creative Activity (RCA). Because the details of which sorts of activities will be emphasized as part of that process are not yet known, it has not always been possible to give specific information about resulting infrastructure needs. For that reason, many of our recommendations are for the sorts of infrastructure that would commonly be affected by possible changes with the purpose of keeping those needs in mind as Vision OHIO transforms Ohio University.

I.A Charge to the Team

The Vision OHIO Infrastructure Implementation Team will:

- Review goals and metrics related to the development of the institutional infrastructure identified in Vision OHIO.
- Review best practices related to Infrastructure development efforts at other educational institutions, our peer institutions in particular.
- Outline a timeline for realizing each goal.
- Outline processes for realizing each goal.
- Identify barriers to and solutions for realizing each goal.
- Communicate with the University community on a regular basis as the team's work progresses.
- Identify interest groups on campus related to issues of Infrastructure development and communicate with and actively seek input and feedback from them.
- Host focus groups and open forum discussions to identify barriers and solutions to Infrastructure development efforts at Ohio University
- Develop a prioritized budget for implementing the goals.
- Identify the groups responsible for realizing each goal (who “owns” each goal).
- Coordinate with other implementation teams as necessary.

I.B Membership With Position and Department

- Shawn Ostermann, team chair, associate professor and chair, Electrical Engineering & Computer Science
- Charlie Adkins, AFSCME Local 1699
- Marilyn Bradshaw, associate professor and chair, Art History
- Terry Eiler, professor and director, Visual Communication
- Mike Elliott, instructional support specialist, Computer Services, Lancaster Campus
- Patty Griffith, director, Computer Services, Chillicothe Campus
- John Kotowski, assistant vice president, Facilities and Planning
- Sean McGann, assistant professor of management information systems
- Tom Reid, director, Communication Network Services
- Christine Sheets, director, Business & Auxiliary Services
- Andy Snow, director, School of Communication Systems Management
- Duane Starkey, director, Computer Services
- Tim Vonville, Student Senate
- Jean Witkowski, assistant dean, Arts & Sciences
- Mike Yeager, administrative coordinator, College of Osteopathic Medicine
- Julia Zimmerman, dean, University Libraries

I.C Process Overview

Our team is divided into five subcommittees

- Housing – both on-campus residence halls and off-campus housing
- IT – networks, computer infrastructure and support
- Instructional Space – classrooms, library, student meeting areas
- Research and Creative Activity Space – offices, labs, studios
- Physical Infrastructure

Each subcommittee worked separately on its piece of the task, bringing in outside experts as appropriate. After the bulk of the information was collected, the whole committee was invited to biweekly meetings where the data were combined and the action items emerged to be ranked by the committee.

I.D Report Index

II Recommendations

II.A Summary of Action Plans

Plan	Description	Priority	Cost	Roadblocks
Increase housing space	Need new residence hall for swing space	**URGENT**	$22 M (already funded)	Project has already started
SIS	Plan and implement a modern SIS system	**URGENT**	<= $20 M	Project has been started
IT Security infrastructure	Recent security problems reinforce the need for more support	**URGENT**	<= $2 M	Funding has been approved by the Board of Trustees (although source in uncertain)
Classroom technology	Standardize technology in all classrooms and document carefully in scheduling software	**HIGH**	$400,000	Additional base funding needed
Central control of classrooms	Improves utilization and allows alternate-density classrooms	**HIGH**	Minimal	Buy-in from departments and colleges. Standardize technology
Convert many classrooms for improved interactions	Modern pedagogy needs lower density, break-out rooms, and improved interaction	**HIGH**	Minimal	Requires standardized technology and centralized scheduling. Will decrease total seats.
Research and creative activity space – A&S	Study results show that A&S lacks sufficient RCA space for Vision OHIO initiatives	**HIGH**	Unknown	Buildings and funding
Research and creative activity space – Engineering	The Russ College lacks sufficient research space for current activities	**HIGH**	Money already committed	Building currently under design will address the problem
Research and creative activity space – General	As RCA increases in accordance with Vision OHIO, a great deal of additional space should be made available to the colleges involved	**HIGH**	Variable	Buildings and funding
IT Central infrastructure	Evidence suggests inadequate IT support has caused some of the high-profile IT problems	**HIGH**	<= $2 M	Funding has been approved by the Board of Trustees (although source in uncertain)
Quality of space	Subjective *quality of space* varies greatly across campus and should be taken into account in budget models	**HIGH**	Minimal (although burdens shift among units)	Finding appropriate metrics to equate space quality to $$

Plan	Description	Priority	Cost	Roadblocks
Utility infrastructure	Heating, cooling, water, and electricity should scale as RCA grows.	**HIGH**	$2 M (Funded by Capital Plan)	Capital appropriation tentative.
Business continuity planning	We should have plans in place for business continuity after disasters.	**HIGH**	Minimal (for planning)	Implementation may be costly. Work is currently under way.
Financial services	Financial services, particularly grants and contracts, should grow.	**HIGH**	Roughly 5 staff	Funding
EHS	Environment Health and Safety (EHS) should grow to keep up with RCA.	**HIGH**	Up to 5 staff as RCA grows	Funding
Counseling and psychological services	Not currently meeting the needs of students and problems are increasing.	**HIGH**	2-3 staff	Funding
Student health facility	Hudson is in need of renovation.	**HIGH**	Depends on the extent of the renovation	Funding Will require high priority from Capital Planning process.
Master plan implementation	The Capital Matrix Committee should prepare plan for how to address the needs in the master plan.	**HIGH**	Minimal	Planning only at this point.
Accessibility	Accessibility on campus is problematic.	**HIGH**	Unknown	Funding
Land use & green space	All planning should balance physical infrastructure, placement of facilities, and green space.	**HIGH**	Minimal	Philosophical shift required.
Campus accessibility maps	Publish and distribute campus maps showing appropriate parking, building entrances, etc.	**HIGH**	Low	None
Library	Athens and most regional libraries need additional funding for collections, staffing, and additional storage space.	**HIGH**	$1.5 M annually $2 M-3 M capital funding, $20 M in capital plan	Additional base funding; capital funding for Depository module and renovation of Alden.
Internal audit	Oversight functionality should expand.	MEDIUM	1 or 2 people	Funding
Sustainability	All infrastructure planning and implementation should be done with sustainability in mind.	MEDIUM	Minimal	Philosophical shift required on campus.
Transportation infrastructure	Expand transportation and parking systems.	MEDIUM	Unknown	Long-term planning needed.

II.B Explanation of Action Plan Items

II.B.1 Urgent Priority

- **Increased Housing Space**
  A detailed assessment of projected residence hall space (part of a study done in early fall 2005) recommended the need for a new residence hall to allow "swing space" to be used while older residence halls were being renovated. Plans for that new facility are now under way. See Section II.C.1 and the report mentioned in Appendix III.B.

- **Student Information System**
  Plans for a modern SIS system, desperately needed, are being developed and are essential to the future. It's important that this new system not drain needed resources from other Information Technology areas and goals. See Section II.C.2.

- **IT Security Infrastructure**
  Recent University events have highlighted the need for increased IT infrastructure security. The board of trustees has approved funding for improvements in this area. See Section II.C.2

II.B.2 High Priority

- **Classroom Issues (3)**
  These three items are separate, but intertwined. To allow for the pressures of increasing enrollment and new pedagogies that require lower-density and more interactive classrooms, we should bring more classrooms under central control. Central control increases classrooms, but will require uniform classroom technology. See Section II.C.3.1 and Appendix III.F.

- **Research and Creative Activity Space – A&S, Engineering, and in General**
  Thorough study results show that several colleges lack sufficient space at present. The growth in research and creative activity (RCA) planned for Vision OHIO will require a large amount of additional space; the distribution of that space will depend on where the University decides to concentrate its efforts. The most serious shortages are in the Russ College of Engineering & Technology (which will be partly alleviated when their new addition becomes available) and the College of Arts & Sciences. Since many of the possible opportunities for future growth are likely to be in the College of Arts & Sciences, its space needs should be specifically addressed.

- **IT Central Infrastructure**
  Recent University events have highlighted the need for increased investment in our central IT infrastructure. The first step should be a careful, detailed, fair, and open look at IT on our campus. That study should make specific recommendations about where we should invest to get the University back on track with IT. See Section II.C.2.

- **Quality of Space**
  There is great variability in the quality of space on campus. To create the right incentives and rewards, it is important that the new budget models incorporate some notion of the *quality* of the space, not just the *quantity*.

- **Utility infrastructure**
  Our heating, cooling, water, and electricity infrastructure must expand with the rest of the University. The new University center and Integrated Learning and Research Facility (ILRF) require upgrades to these systems that already are part of the plans for capital improvements. Increased RCA as a part of Vision OHIO will require continuing commitments to this infrastructure into the future. See Section II.C.5.2.

- **Business Continuity Planning**
  It is vital that the business of the University continue in the face of various types of emergencies and unforeseen circumstances. The University is just beginning the process of formal planning for these situations, and it is important that this work continue. The planning is relatively inexpensive, but implementation may be expensive to cover some scenarios. See Section II.C.5.9.

- **Financial Services**
  Financial services, particularly grants and contracts, should grow to meet the increased RCA and faculty/staff/student needs. See Section II.C.5.10.

- **Environmental Health and Safety**
  Environmental health and safety should grow with the University, but its help is particularly important as RCA increases on campus. See Section II.C.5.12.

- **Counseling and Psychological Services**
  Support for the mental of physical well-being of our students is important to student retention. See Section II.C.6.2.

- **Student Health Facility**
  Hudson Health Center is in need of renovation if it is to continue to serve our growing student population. See Section II.C.6.3.

- **Master Plan Implementation Plan**
  With the master plan and its planning toolkit under completion, it is vital that the University outline a plan for the ongoing completion of recommended changes on campus in a thoughtful and careful manner. See appendix III.A.

- **Accessibility**
  Accessibility on campus is a persistent problem. See Section II.C.5.4.

- **Land Use and Green Space**
  As the campus expands, it is vital that we shift our thinking to include discussion of appropriate land use and adequate green space. See Sections II.C.5.6 and II.C.5.7.

- **Campus Accessibility Map**
  One inexpensive way to help address accessibility concerns is a published map of accessible building entrances and parking. See Section II.C.5.4.

- **Library**
  Our libraries are losing ground in comparison to those of peer institutions and other research libraries. Athens and most regionals need additional funding for collections, staffing, and additional storage space. Needs:
  $1.5 M annually for collections and staff;
  $2 M-$3 M capital funding for Depository module (Athens)
  $20 M is currently in capital plan for renovation of Alden
  See Section II.C.3.3.

II.B.3 Medium Priority

- **Internal Audit**
  There is concern that the Office of Internal Audit lacks the resources necessary to keep an eye on the ever-increasing complexity of the University and its increased RCA and IT infrastructure. See Section II.C.5.11.

- **Sustainability**
  Ohio University has a special relationship with the concept of sustainable growth and sustainable infrastructure. As the campus evolves according to Vision OHIO and the Campus Master Plan, it is important that we keep sustainability in mind. See Section II.C.5.3.

- **Transportation Infrastructure**
  The transportation and vehicle storage of the University should expand as the number of people on campus increases. See Section II.C.5.1.

II.C Detailed Reports

II.C.1 Housing

Much of the research into the needs for residence halls happened in parallel with the Housing Study that was done along with the Campus Master Plan. The report that resulted from the study (pointed to in Appendix III.B) contains detailed recommendations and findings. That plan is an attempt to answer a number of questions, including:

1. What policy guidelines should be developed for upperclass students on campus? (A draft is under development between Housing and Student Affairs.)
2. What graduate housing should be available on campus for married and international students, and students with families? What role should the University play in providing for housing targeted at meeting the needs of married, international, and graduate students? How might the housing needs of these students best be met?
3. What off-campus housing projects that are proposed will actually be development and ready when needed?
4. How do we collaborate with the residential needs of the Athens community and expand off-campus housing within the appropriate radius as well as maintain quality (Public/Private Partnerships)?
5. What future on-campus new construction will be needed to meet the growing enrollment demands and what should be our maximum housing capacity on campus?
6. What strategy should be taken for the large deferred maintenance of the on-campus residences and dining halls and the disbursement of limited annual cash reserves?
7. How does Ohio University need to plan for the future to allow its residential campus to compete in the market and support recruitment?
8. What services and amenities are important to the next generation of students and what individual fees should be assessed?
9. Where should our fee structure be placed as compared to those of our competitors if we are to maintain adequate funds for upkeep and renovations?

The primary recommendation of that exploration was the desperate need for additional housing. That recommendation resulted in the planning for the new residence hall that is currently being constructed near the Ping Center.

II.C.2 Information Technology

Determining the current state of Information Technology at Ohio University has proven an unattainable goal for the 2005-06 school year, which was the lifespan of this committee. For readers who may stumble onto this report in subsequent years, we offer only this: as of June of 2006, the University has seen severe and embarrassing IT security lapses, IT personnel changes, IT management changes, plans for a new Student Information System, more IT personnel changes, and still more IT management and hierarchy changes. During that time, numerous reports both internal and external have arisen with conflicting, questionable, and/or contradictory recommendations and visions. In the fullness of time, we have no doubt that a clear and unified vision for IT at Ohio University will emerge. For the time being, in the interest of scientific honesty, we decided that the only way to accurately and impartially describe the IT infrastructure built on those shifting sands was to say as little as possible. We have, however, been able to agree on and recommend action plans to address three well-understood problems in IT at Ohio University:

1. SIS
   It has been well understood for many years that the computer systems collectively known as SIS, which keep all of the information about our classes, students, grades, etc., are badly out of date. The process to acquire a new, modern SIS system began in the summer of 2005 and is ongoing. Ohio University desperately needs this new SIS system. It is vital that a good system be found and that adequate resources for acquiring, maintaining, managing, and user-training for the new system are devoted to the task.

2. Computer and Network Security
   The underlying problems that resulted in recent IT security breaches are clearly severe. The Board of Trustees in June 2006 agreed to allow the University to devote substantial resources (both one-time and ongoing) to solve this problem. It is extremely important that these resources be made available to get the University's IT infrastructure back into step with modern computer and network-security practices.

3. Central resources for IT
   Many problems in central IT at Ohio University, including and most importantly the recent security problems, have been blamed on inadequate staffing, training, and facilities. As mentioned above, the exact details of which needs are most urgent are not currently clear. It's extremely important that the University undertake a serious effort to form a clear vision of what our IT infrastructure should look like. This should include a detailed report outlining recommended steps that will almost certainly include requests for additional staffing and training. We feel that it's very important that this planning be done carefully and openly and that resources are made available for its implementation.

II.C.3 Instructional Space

II.C.3.1 Classrooms

II.C.3.1.1 Athens campus:

Number of classrooms: It is the impression among faculty and administrators that there are not enough classrooms on the Athens campus, especially with the past year's large first-year class, along with the assumption that the shortage will likely increase if enrollment increases significantly over the next few years. In fact, according to the Office of Space Management, the current inventory of Athens campus classrooms (excluding medical and miscellaneous noncredit rooms) can support an enrollment of approximately 21,000 if efficiency in use of room hours is improved. Mean use was 28.3 hours in FY 2004-05 and 29.7 hours in FY 2005-06. A more ideal campus mean, which would support an enrollment of 21,000, is 31 hours per week. The potential for the current classroom inventory to support increased enrollment may be constrained by four factors:

- Some units are converting classrooms to offices and labs, while others are converting from conventional to active-learning environments with substantially reduced room capacities.

- Although mean use of capacity is adequate, there is marked disparity between enrollment demand profiles and available classroom capacities. Smaller rooms are used for fewer hours at high capacity while larger rooms are used for more hours at low capacity.

- Swing-space classrooms in the Research & Technology Center (RTC), intended originally to accommodate relocations for capital projects and emergencies, now constitute 4 percent of the regularly scheduled classrooms on the Athens campus. The growth assumption depends on continued use of these classrooms in the regular inventory.

- Although exclusively controlled classrooms in some areas are utilized heavily, credit-generating use of exclusively controlled classrooms in general is lower than credit-generating use of commonly scheduled rooms.

Size and configuration: There is concern that the size and configuration of classrooms are not aligned with needs. For example, there are not enough large lecture halls for large freshman courses. Many classrooms have fixed seating and layout and lack features such as modular furniture and movable walls that will accommodate different types of activities.

To address these problems, we recommend that classroom technology be standardized (see Appendix III.F) and fully deployed and that most of the classrooms be brought under central scheduling control. This will allow a higher utilization of the existing facilities, which will both decrease the pressure on the number of classrooms needed and also allow existing classrooms to be updated to smaller sizes and/or more flexible designs that allow more interaction among the students to better support new teaching pedagogies.

Teaching Laboratories: One-third of academic departments and schools do not have enough teaching laboratory space for their current levels of instructional activity. The net deficit is approximately 21,500 assignable square feet (asf) distributed primarily in the colleges of Arts & Sciences, Business, Communication, and Fine Arts. Enrollment and educational objectives of Vision OHIO warrant a net increase of approximately 55,000 asf in teaching laboratory space, i.e., 33,500 in new space in addition to elimination of the current deficit. In addition to space for the four colleges with current deficits, the net increase would include teaching lab space for Engineering & Technology and a small amount of space for Education.

II.C.3.1.2 Regional campuses:

Most campuses are in agreement that space is a broad issue, involving not only physical space but its appropriate utilization.

- Zanesville: The Zanesville Campus reports that they are relatively in good shape: 1) Two years ago the entire first floor of the main classroom building, Elson Hall was renovated. This included computer labs. The second floor will be renovated starting in 2008. 2) A new wing with six classrooms, a 75-seat lecture hall and seven faculty offices opened on Jan.1, 2006, to replace leased modular classroom units.
- Lancaster/Pickerington: The Pickerington Center should increase the number of classes offered from roughly 65 to 100. In order to achieve that, more classroom space is needed. Currently the Pickerington Center has 10,000 sq. ft. of leased space. At the end of 2005, 5,000 square feet was freed up. Additional space will be available when other current lessors vacate their space, which will be refurbished primarily as classroom space. There may be limited office space in the building to provide an ongoing presence, and, of course, a student gathering space.
- Chillicothe: The Chillicothe campus is near capacity in available classroom space at peak times of the day, especially between 3 P.M. and 7:30 P.M. The campus has approximately 20 traditional classrooms. Classes that do not need computer-lab technology have been assigned there because it was the only space available. This prevents the accommodation of last-minute requests for computer lab use. All of the campus classrooms are equipped with technology. The campus has adequate space for science labs, but the quality of the rooms leaves a lot to be desired. The auditorium also serves as a theater, which is not the ideal situation. Production practice interferes with classes, and the stage cannot be used for other purposes.

II.C.3.2 Classroom technology

- **Athens campus:** As indicated in the report on classroom technology, in Appendix III.F, an additional $400,000 per year in base funding is needed to complete the conversion of all classrooms to standard technology and to keep the equipment up to date over time.

- **Regional campuses:** The majority of the regional campuses have followed the IMTS departments' recommendation (configuration) and installed the technology in the classrooms. Lancaster, Chillicothe, and Zanesville are close to having all rooms configured with the "standard" bundle of equipment. Consistency applies not only to the Athens campus but to the regional campuses as well. (This bundle is described in Sean O'Malley's report in Appendix III.F.)

II.C.3.3 Library Space

II.C.3.3.1 Athens campus (Alden, Music/Dance, Depository/Anne)]

Compared with our peer institutions, Ohio University Libraries are at the bottom in terms of total library expenditures. Additionally, except for Washington State, we have the fewest books and journals. Only Auburn has a smaller library staff, and staff reductions resulting from the recent budget cut will probably place Ohio University behind Auburn in terms of staff. Without adequate funding for collections and a strong staff, the libraries' contributions to teaching, learning, and research as outlined in Vision OHIO are curtailed. Furthermore, our national ranking, as reflected by membership in the Association of Research Libraries has dropped 20 places (from 68 to 87) in the past few years. Increases in funding for staff and information resources (books, journals, etc.) will be required if we are to maintain or improve our rank.

The preliminary Space Utilization and Management Study (SUMS) report states that Alden Library will need 53,000 additional net assignable square feet (asf) over the next ten years. In 2007, about 8,000 asf will be converted into the Faculty Commons, raising the 10-year deficit to 61,000 asf.

The Athens campus libraries have run out of shelf space for new hard-copy materials, which are acquired at a rate of about 20,000 volumes per year. The space shortage has forced the removal of older, less-used materials from the collection. An addition to the Depository storage facility is anticipated in 2009.

II.C.3.3.2 Regional campuses

- Chillicothe reports adequate funding for the library and plenty of space. In an adjacent unused area, a Learning Commons is being established. Phase I will equip the area with technology and furniture by fall 2006. Glass meeting/study rooms will be available for student use, along with comfortable furniture—tables and chairs for work areas, as well as computers. The facility also includes a Learning Center, which offers support in writing and math, and special software for foreign-language study. The curricular offerings will be expanded. In addition to the above-mentioned areas, the campus Library also is part of the Learning Commons.

- Eastern reports that recent budget cuts have resulted in a loss of one position and a reduced collections budget. Space is tight and not equipped for current technology.

- Lancaster has plans for a Commons but has not yet found funding. The budget for collections has been reduced several times in recent years as has overall space. There is no room for new materials and user space is in short supply.

- Southern reports a shortage of space for both materials and quiet study. It needs one additional professional librarian. The collections budget is inadequate for student and faculty needs.

- Zanesville has installed a technology-enhanced Learning Commons within the Library and it is working well. The campus administration has asked the Library to seek grants to develop long-term partnerships and work toward national recognition, but the low level of staffing is a constraint. The collections budget is inadequate to accommodate some faculty requests for research materials. Space is tight and will be insufficient if enrollment increases.

II.C.3.4 Student Meeting Space

II.C.3.4.1 **Athens campus**

Student meeting space will be dramatically improved with the new University Center coming online in January and is expected to satisfy the need for the next few years.

II.C.3.4.2 **Regional campuses**

Many of the campuses already provide such areas for eating, library space, etc., but there is growing concern that the space is not prime space—hard to find, inconvenient, etc. Therefore the campuses have noted in their respective master plans the need for well-placed student meeting areas. Most plan to implement a Learning Commons much like the Alden Library's new space to achieve this goal of meeting the students' needs and providing a space that utilizes many resources that the University offers.

II.C.3.5 Computer Labs

- **Athens campus:** Joan Wigal, Computer Services Center (CSC), has recently completed a survey of computer labs on the Athens and regional campuses. It is believed that there are enough labs for current and future use. This report can be found in Appendix III.E.

- **Regional campuses:** Reports indicate that there are adequate computer labs for students at these campuses.

II.C.4 Research and Creative Activity Space

II.C.4.1 Research and Creative Activity Space

According to the SUMS study (see pointer in Appendix III.C), adequacy of research and creative activity space for current initiatives varies across colleges. The Russ College of Engineering & Technology and the College of Health & Human Services have substantial current deficits in research space. The College of Arts & Sciences has a surplus, but some specific Arts & Sciences departments (Geography, Physics, and Psychology) have deficits. The current net deficit for the campus is approximately 16,500 assignable square feet (asf), and the potential to add lab-based research initiatives through more efficient use of existing laboratory space is limited to a few departments with current surpluses. The stated goal of increasing externally sponsored research to $100 million per annum warrants a net increase of approximately 66,000 asf in additional research laboratory space in the colleges of Arts & Sciences, Engineering & Technology, and Health & Human Services, and in the department of Biomedical Sciences, i.e., 49,500 square feet in new space in addition to elimination of the current deficit.

The needs for research space in the Russ College of Engineering & Technology will soon be met with the ILRF facility. Because of the likelihood that several new RCA activities will be initiated in the College of Arts & Science (because of its size), it is likely that additional RCA space will be needed in that college regardless of which initiatives are chosen. Other colleges and their units will also likely need additional space to support the increased RCA generated by Vision OHIO, but the details of which colleges and where the space will be needed will have to wait until specific initiatives are targeted.

In addition to concerns of raw amounts of space, there is also a wide variation of *quality* of space. In the case of the College of Fine Arts, for example, both Siegfried Hall and Glidden Hall have serious problems that are keeping them from reaching their full potential. We believe that the *quality of space* either should be more equal across campus or it should be taken into account in the new budgeting tools so that appropriate incentives will exist to make the situation more equitable.

II.C.4.2 Offices and Office-Related Service Space

Office and office-related service space (including conference, support areas, storage, etc.) in academic areas is adequate for present levels of staffing and activity, but adequacy varies across colleges. Most departments in Arts & Sciences, Engineering & Technology, Fine Arts, and University College have surplus space, but some departments in each of those colleges have current deficits. The colleges of Business, Communication, Education, and Health & Human Services have deficits in general. There is no current net deficit figure for the academic areas, but growth anticipated under Vision OHIO would create a net increase of 38,000 asf.

II.C.5 Physical Infrastructure

The Utilities and Physical Infrastructure Subcommittee (UPIS) of the Vision OHIO Infrastructure Implementation Committee (VOIC) is chaired by John Kotowski and its membership includes Charlie Adkins, Patricia Griffith, James (Mike) Yeager, Andy Snow, and Jean Witkowski.

Much of this committee's report will be made up of the master planning tool kit being developed by a broad-based University Steering Committee (USC) that will be an appendix to the VOIC document. Areas that UPIS felt should be examined more closely as the University moves forward with the implementation of the goals and objectives of Vision OHIO are as follows.

II.C.5.1 Transportation and Parking

Increases in enrollment and faculty will result in a greater burden to the transportation and parking systems. UPIS recommends that the use of bicycle transportation be looked at more closely as a viable means to move people about campus. The automobile needs more attention, as do service vehicles and their impact on the desire to maintain a pedestrian campus. The master planning tool kit contains specific information, recommendations, and mapping regarding transportation and parking.

II.C.5.2 Utilities

A growth in enrollment and an increase in research activities will have a major impact on campus utilities. It is important to understand that expansion of facilities as well as the modernization of existing facilities must have a corresponding expansion and improvement in utilities to meet the building demand. Areas that should be examined more closely are surface-water removal systems, chilled-water systems, electrical capacity, sanitary-sewer systems (both expansion and updating existing systems), steam and its distribution, natural gas and its distribution, and water supply needs. Again, the master planning tool kit addresses utilities on campus and the impact of future expansion of campus facilities.

II.C.5.3 Sustainability

The notion of sustainability and green buildings should be examined and a better-defined direction developed. The University, throughout its history, has developed buildings that are designed to endure time. Making sure that facilities are as energy-efficient as reasonably possible and that alternative energy options are examined on each project is important. Continuing and expanding efforts to make sure that the buildings are cost-effective and better understanding the life-cycle cost of those facilities is becoming more and more a necessity. This should become a very important part of our building-development process. The master planning tool kit includes a section dedicated to the idea of sustainability.

II.C.5.4 Accessibility

Making sure our campus is as accessible and open to all is very important to the success of Vision OHIO. The master plan and facilities development must make this a major goal and should be a metric in examining the success of building and site- improvement endeavors. As with the previous three sections, the master planning tool kit offers assistance in understanding accessibility needs on the Athens campus.

In the course of our investigation, it was suggested that we distribute "accessibility maps" showing locations for appropriate parking, the best building entrances, etc. Purdue University has a great Web site that shows what they do there: http://www.purdue.edu/accessibility/

II.C.5.5 Capital Planning

The UPIS recommends that the University look more closely at how it develops its capital strategy. The master planning process will be recommending a more participatory process and this subcommittee supports that recommendation. The planning process should become more like the process associated historically with the University Planning and Advising Committee (UPAC).

II.C.5.6 Land Use

Land use will become a major issue. The campus is built out. There are competing interests for this scarce resource. The master planning tool kit will develop a strategy for land use and identify the highest and best use for various parcels of land throughout the campus. The UPIS supports the land-use recommendations of the master-planning process and strongly recommends that these land uses be followed closely. The subcommittee also supports the attempts that should be made to integrate the Ridges into the campus and efforts to tie the two together better.

II.C.5.7 Green Space

More attention should be paid to and greater value given to green space as the institution grows. It is important to understand and elevate the value of recreation space, parks, informal lawns, athletic fields, and plantings.

II.C.5.8 Miscellaneous Issues

As the institution grows, issues such as flooding, erosion, light noise, and air pollution become a greater concern or issue. These are important elements that must be a part of all facility and infrastructure decisions.

The area of personnel needs on the support side of the University is an issue that should be addressed as we progress forward with the implementation of the goals and objectives of Vision OHIO. This subcommittee has identified the following areas that will be most impacted by the strategies of Vision OHIO. It is important to point out that a closer examination of each unit's self-assessment regarding the impact of Vision OHIO should be undertaken to assure that areas are not overlooked.

II.C.5.9 Disaster Recovery and Business Continuity

Environmental and Health Services (EHS) is working to coordinate a disaster recovery and business continuity plan for the University. The campus recently hosted a very informative meeting on Disaster Recovery and Business Continuity. Among the key action items of that effort are:

- Impossible to anticipate every possible contingency.
- Awareness and inclusion in the local county Emergency Management Agency's plan:
  - Information and awareness of types of disasters that may be encountered in the area – also timing and severity.
  - Community response plans.
  - Emergency shelters.
  - Local warning procedures used.
- Expect and plan for any emergency to be worse and longer than you would normally presume.
- Identify essential personnel:
  - Personnel to prepare for disaster (some are forewarned).
  - Personnel to clean up afterward.
- Train identified personnel for duties expected if disaster strikes:
  - Establish clear lines of authority.
  - Define compensation policies for disaster.
  - Identify procedures for evacuation.

- Communication:
  - Make sure campus community is aware of plan.
  - Consider multiple means of communication.
  - Plan what to do if no communication is available.
  - Prearranged post-disaster meeting (time and place).
- Data:
  - Consistently store backup copies of all documents away from campus.
- Identify alternative locations:
  - Continuation of operations.
  - Determine what is needed to continue operations and plan accordingly.
- Assessment/Review:
  - Review and update plan regularly.
  - Evaluate activities after emergency.
  - Evaluate activities after any close-call situations.

II.C.5.10 Financial Services

Financial services, particularly grants and contracts, must grow to meet the increased RCA and faculty/staff/student needs as recommended by Vision OHIO. Faculty and staff who make use of the services provided by those organizations are hampered in their efforts to fund their work by an inadequate number of staff who can assist in proposal preparation. In addition, it sometimes takes months to get grant accounts set up in the University system after the money has been awarded. As one of the goals expressed by President McDavis is to double funded research on campus, a corresponding investment in this vital infrastructure will clearly be required.

II.C.5.11 Internal Audit

Internal Audit (IA) advances Ohio University's mission of "conducting high-quality research" and its vision of engaging in "research activities that best serve the educational, societal, and economic needs of the region, state, nation and world." The advancement of this research will require increased monitoring and auditing.

II.C.5.11.1 Role in Research

OHIO operates in a complex decentralized environment. Shandy Husmann, managing director of the Huron Consulting Group in the "Ten Significant Compliance Risks in Research Administration," labeled "a complex, decentralized research environment" as the no. 1 risk in the research compliance environment. Husmann states that rapid growth in research causes increased scrutiny by regulators and notes that those experiencing rapid growth often lag in the development of appropriate infrastructure to support the expanded research.

Husmann states that the NIH inspector general named "conducting internal monitoring and auditing" as one of the eight elements necessary for a comprehensive research compliance program. Internal Audit is important for a comprehensive compliance program which supports OHIO's research mission.

In addition, the Council on Governmental Relations (COGR) develops policies and practices that define the obligations of agencies and universities in federal research and training. COGR lists the following in its "good management practices and principles:"

- **"The college or university has an audit management system which demonstrates that the institution is well-managed, in accordance with its own internal policies and federal regulations. The college or university's auditors and external auditors under appropriate circumstances have full access to the college or university's records, properties, and personnel as those relate to any given subject under review."**

- **"The college or university has procedures for recurring review of its finances, compliance with its administrative directives, and conformance with governmental laws and regulations."**

- **"Audits of systems and operations are developed and maintained on a regularly scheduled basis."**

Vision OHIO's guiding principles state that "accountability is essential to effective management." As a result of budget cuts, departments are eliminating positions and this has resulted in reduced monitoring and controls. As a result, Internal Audit is an increasingly important component for accountability in OHIO's quest to become a nationally respected research organization.

II.C.5.11.1 Role in IT

Following our recent security breaches, the University has been looking at the most appropriate way to distribute resources to effectively mitigate the serious risk associated with information technology. In light of this process, I recently submitted a proposal for an Information Technology (IT) audit position to fill the need for an ongoing and independent evaluation of the effectiveness of the University's IT control environment.

As a result of the security breaches, information technology departments are being reorganized. I have been asked to define responsibilities for information security and the contribution an IT internal auditor would make to the process.

Dan Swanson, CIA, CMA, CISA, CISSP, CAP, most recently director of professional practices at the Institute of Internal Auditors (IIA), answers the first question "Who is Responsible for Information Security" in a recent article. The following excerpts summarize Swanson's comments on information-security goals and responsibilities.

Major areas of responsibility are outlined in Swanson's article are as follows:

1) Management is ultimately responsible for protecting the organization's information assets. Managers must review and monitor security controls to ensure they are appropriate, despite ever-changing risks and business requirements. Business-unit managers should help define their security requirements, based on business objectives, the significance of the information involved, legal requirements, and the seriousness of threats to data privacy. Information security managers should organize and implement the organization's information-security program, including its monitoring.

Executive management must provide leadership to ensure that information security efforts are supported and understood across the organization. Executive management must also dedicate sufficient resources to allow controls to be effective.

2) The board of trustees must provide oversight at a level above business managers. The board's role in information security is to ask managers the right questions and encourage the right results. Trustees must set the right tone at the top, communicating to executive management the business imperative of effective information security management.

3) The internal audit function provides strategic, operational, and tactical value to an organization's operations. For example, internal auditing:

- Tells the board and management whether business units understand the importance of security and adhere to policies; whether key information assets and systems are secure; and whether programs are in place for continually updating and strengthening safeguards against internal and external security threats.
- Provides assurance to both the board and management that information security is as good as people say it is. Auditors identify weaknesses in existing security efforts, along with corresponding opportunities for improvement.
- Helps the board and management understand whether the information security function has the resources, systems, and processes it should be efficient and effective
- Independently validates that the organization's information security program efforts are proactive and effective against current and emerging threats. To provide this level of assurance, internal auditors also compare current organizational practices with industry practices to discern how their organization is operating compared to others.

Through ensuring that information security systems and management are subject to audit and review by qualified professionals, management advances the goal of overseeing the organization's information security program and ensuring its continuous improvement and success. The auditing function should "complement," but never replace, management's responsibility to ensure their IT controls are operating properly.

Internal Audit's role is also to provide IT organizations with some "authority" for addressing risks of which they are aware, but have not had the authority to address because of decentralization and/or lower level management placement. The value

of Internal Audit is to draw attention to these issues and place the authority of the Board on the evaluation of IT risk. The technical understanding of a trained IT auditor is essential to highlighting these risks.

In summary, in response to high-profile internal control breakdowns such as WorldCom and Enron, expectations from the federal government, donors, and others have increased. OHIO cannot afford for internal control and compliance failures to damage its reputation or the ability to advance its research mission. Internal Audit benefits OHIO through the review of the adequacy and effectiveness of internal control systems to ensure the University is in compliance with laws and regulations. These precautions will result in the prevention of irregularities and the associated loss of funding because of noncompliance.

II.C.5.12 Environmental Health and Safety

The Environmental Health and Safety operation is critical to all operations on the Athens campus. Any increase in either student enrollments or research activity will have an impact on this division.

EHS has responsibility for all the health, safety, and environmental needs of the campus. In fact it could be said that the areas for which EHS is responsible are not unlike the services of a small city. Following are just a few of the areas for which EHS is responsible:

- Water
- Sewage
- Garbage
- Food safety and sanitation
- Air quality
- Buildings and health-care facilities
- Pest control
- Fire protection

In addition to these areas, the uniqueness of an educational and research environment carries with it additional responsibilities, including:

- Teaching and research laboratory safety
- Radioactive, chemical and infectious waste handling
- Monitoring of special events on campus
- Large-crowd management

EHS is also a major player in risk management on campus. Emergency planning and response for situations such as flooding, emergency alerts, and homeland security are integral parts of its duties and responsibilities. EHS has also become the home of a Business Continuity Program (BCP) as directed by the Board of Trustees (BOT). This program will be designed to provide emergency backup for all computer data across the campus.

Virtually all areas for which EHS has responsibility are regulated by federal and state agencies that require strict compliance to their rules, regulations, policies, and procedures. Failure to comply could be devastating and could result in major issues for the University. It could put at risk the entire University community, its external research funding, and its ability to continue to carry out its mission and strategic plan as defined in Vision OHIO.

Growth in any area has the potential of impacting the Division of Environmental Health and Safety. Increased student enrollment will require additional personnel in the areas identified above and growth in research areas will place an even heavier burden on this division. The extent to which this impact is felt will be determined largely by the areas targeted for growth. Growth in student enrollment will result in one set of needs while increased research in the sciences will bring additional EHS needs.

At the present time, based on industry standards, the EHS office is understaffed. Currently with twelve staff members, EHS are five below the recommended level of seventeen. Growth in student enrollment and research activity will put additional pressure on an already-limited staff. In the past, EHS has relied heavily on its assistantships and student employees. However, the recent budget realignment has resulted in a dramatic cut in this area. Additional EHS space and improved facilities will also have to be addressed.

As growth on campus occurs, it will be essential to insure that EHS infrastructure (both from the standpoint of facilities & Human capital) is adequate to handle the growth. Depending on the area of growth (student enrollment vs. research activity), will determine what EHS costs might be associated with this expansion. A rule of thumb would be that for each additional square foot of “regular/non lab” space brought on line there will be an EHS associated cost of 15-25 cents per square foot. For additional research space, the cost increases to $3 per square foot.

Environmental Health and Safety is a critical area and one that will require additional institutional resources if the long-range strategic plan in Vision OHIO is to be realized.

II.C.5.13 Campus Safety

Campus Safety has recently contracted with a police association to perform a full assessment of their organization and to make recommendations for changes. The results of that study are expected to be available in late 2006. If those results show that resources are needed within Campus Safety, then it's important that those resources be made available.

II.C.5.14 Lifelong Learning, Independent & Distance Learning

Independent and distance learning allows the University to increase enrollments as stated in the Vision OHIO initiative with minimal impact on the physical space on campus. Through technology the University is able to offer courses to individuals not physically on campus.

- Online Courses – Course content management systems such as Blackboard allow access to course content by students anywhere, anytime. The virtual classroom and discussion board components allow for synchronous and asynchronous participation. Participants could essentially be located around the globe.
- Video Streaming – The new OULN equipment being installed at all campus locations, has the capacity to capture and video stream the audio and video from all of the classes in the OULN studios from any site. This would allow students to view and hear the courses from their desktop computers, either live, or at their convenience.
- Partnerships – The University can partner with outside entities and hold classes at remote sites, either in person or via technology.

In support of these areas, additional resources would be needed to support the distant students.

- Online advising.
- Library resources.
- Textbook distribution.

Faculty involved in the online/distance courses would also need additional support.

- Preparation of materials for Blackboard.
- Course-builder support for remote resources (library resources, URLs).

II.C.5.15 Airport

A report on the status of the airport, past funding success, and future plans can be found in appendix III.D. Plans for the airport indicate that they do not currently require the investment of additional Vision OHIO funds to meet their objectives.

II.C.5.16 Human Resources

The various functions within Human Resources (HR) should increase in proportion with the increased number of additional faculty and staff brought to the University as part of Vision OHIO initiatives. It would appear that those modest increases of faculty and staff can be adequately served with existing resources within Human Resources. The increased RCA that will result, however, will increase the demands on HR staff particularly when it comes to hiring research staff. In addition, the new RCM (Resource-Centered Management) process that is being implemented will require a great deal of training of the members of the University community. Depending on the complexity of that training and the fiscal expertise of existing staff, it may be necessary to secure additional resources to help HR in that effort.

II.C.6 Student Affairs

The Student Affairs Division's mission addresses the need to provide Ohio University students with support in areas outside the classroom. The culture of the campus is in large part why students choose OHIO as the University to attend, not just because of the academic programs. Recognizing its responsibility to provide the "total" experience for students, the Division of Student Affairs continues to seek and provide the resources and opportunities to students to accomplish its mission. Areas such as Career Services, Counseling and Psychological Services, Health Education and Welfare, Health Services, Judiciaries, Campus Life, and University Events fall under the preview of Student Affairs.

Any increase in student enrollment, whether incoming freshmen, transfer, or graduate students, has the potential of dramatically impacting the Division Student Affairs. Enrollment increases as identified in Vision OHIO will place additional strain on already limited resources in this division.

II.C.6.1 Peer Comparisons

Metrics that have benchmarked Ohio University's Student Affairs departments against our identified peer institutions indicate that the staffing levels are lower than those of our peers in almost all areas. This is also true when comparing comparable Ohio institutions.

Overall Ohio Student Affairs ranks eighth out of the eleven identified benchmark institutions (Washington State, Missouri-Columbia, Clemson, Delaware, Auburn, Connecticut, Tennessee, North Carolina-Chapel Hill, New Hampshire and Indiana-Bloomington) and last among state peers (Miami, Bowling Green and Kent State). Career Services ranks the lowest among our peers. Student Health Services ranks second lowest, while Health, Education and Wellness are in the bottom quartile and Counseling and Psychological Services are at the midpoint.

Overall the number of staff in the division has remained flat over the past five years. Considering the increased student enrollment, this actually puts them behind where they were five years ago. Continued enrollment increases will require additional human resources.

If Student Affairs division is expected to continue to address out-of-classroom issues and provide students with a "total" college experience, it will require increased funding and particularly additional personnel. Even without increasing enrollments, we fall behind our peer institutions. The extent of additional funding and increased personnel cannot be identified at this time.

II.C.6.2 Counseling and Psychological Services

The division of Counseling and Psychological Services is seen as an area that will require additional resources to meet current needs. Additional enrollments will exacerbate the problem. Over the past ten years there has been a 50 percent increase in students seeking counseling. There is concern that students with alcohol abuse problems and eating disorders receive the counseling they need. Without proper counseling for our students, the retention rate is likely to continue to decline. Additionally, there are no local resources available to students except for campus counseling services.

II.C.6.3 Student Health Facility

The Student Health facility on campus is woefully in need of remodeling or replacement. The present facility makes it difficult to provide adequate and proper health-care services to our students. Retention of students will continue to suffer if health-care issues become a critical issue. Currently all students, both graduate and undergraduate, rely on the Hudson Health center facility. If the University were to provide employee health care coverage for its graduate assistants, these students and their families would seek off-campus medical attention and could ease some of the impact on this facility.

II.C.6.4 Student Programming

Student Affairs continues to battle the issue of finding alternative programs for our students seeking entertainment in the uptown environment. Not only more possibilities but quality programs are needed. Efforts to address the issue of high risk drinking will require continued funding and additional resources.

III APPENDICES

III.A Master Planning Tool Kit / Master Plan

The campus master plan and master planning tool kit are extensive reports that contain a great deal of information that was used to prepare this report. Because of the size of the documents, they have not been included here but should be consulted to better understand the infrastructure needs of the University.

III.B Housing Study

The recently complete housing study is a large set of documents that are not included here, but should be consulted to better understand the housing needs of the University.

III.C SUMS Study

The SUMS (Space Utilization Master Study) report is a large document that is not included here, but should be consulted to better understand the space needs of the University.

III.D Airport Funding History and Future Plans

The airport is part of the National Plan of Integrated Airport Systems and receives $150,000 in AIP nonprimary entitlement funding each year.

III.D.1 2001

The initiative to expand the airport for future growth began in 2001. The airport received Airport Improvement Plan (AIP) funding of $4,360,000 to extend the runway and parallel taxiway by 1,400 feet. This created a total runway length of 5,600 feet. The extended runway increased safety and positioned the airport for future commercial operations by providing a runway length more consistent with the operating requirements of commuter-sized, commercial service aircraft. The runway extension was completed in 2003.

III.D.2 2002

The airport terminal building was completed and dedicated in 2002. This project was accomplished by using private contribution funds of $1,750,000. The airport also received $191,610 in AIP funds (entitlement & discretionary) for the following airport improvements:

- Rehabilitate t-hangar taxi lane.
- Rehabilitate aircraft apron.
- Improve airport drainage.
- Upgrade automated weather observing system sensors.

III.D.3 2003

The airport received $150,000 in AIP entitlement funding. These funds were carried over and combined with 2004 AIP funds.

The airport also applied for, and was initially awarded, funds through the Small Community Air Service Development Program. Funding in the amount of approximately $560,000 was to supplement scheduled commuter operations for a one-year startup period. In 2003, the FAA expanded its requirement for scheduled commercial operations from aircraft having a seating capacity of 30 or more seats to aircraft with 10 or more seats. Although, the aircraft type initially proposed would have been under the 30-seat minimum, the change in regulations now meant the airport would have to comply with Part 139 requirements. The requirements could not be met on such short notice, so the grant was returned.

III.D.4 2004

The airport received $1,267,833 in AIP discretionary and entitlement funds for FY 2004. This was combined with $150,000 in entitlement funds from FY 2003 for a total grant investment of $1,417,833. Projects accomplished with this funding are as follows:

- Construct perimeter security fence.
- Acquire snow-removal equipment.
- Update airport master plan and airport layout plan.
- Remove obstructions.
- Rehabilitate t-hangar taxi lane.
- Rehabilitate and mark runway 7-25.
- Conduct runway 7-25 safety area study.
- Wetland mitigation (phase 2).

The Avionics Engineering Center also completed a $2,000,000 project to construct a research center located at the airport. No AIP funds were used for this project.

III.D.5 2005

The airport received $150,000 in entitlement funding. Of these funds, $38,000 was spent on design and engineering costs for the sanitary sewer system connection and the remaining $112,000 was carried over to be combined with FY 2006 funds.

III.D.6 2006

An appropriations request was submitted for $1.8M with the following project breakdown.

Sanitary sewer construction	$ 316,297
Runway safety area grading, Phase I	$ 902,400
AWOS III (Automated Weather Observation System) replacement	$ 160,000
Rotating beacon relocation	$ 85,000
Runway 7 PAPI (Precision Approach Path Indicator) system	$ 120,029
Vehicle storage building, Phase I	$ 216,274
Total budget request	$1,800,000

From this request, the airport received an $800,000 discretionary earmark. Total funding currently available is as follows:

• Discretionary earmark	$ 800,000
• FY 2005 entitlement carry-over	$ 112,000
• FY 2006 entitlement	$ 150,000
• Total available funding	$1,062,000

Based on this available funding, a grant preapplication was submitted to the FAA, Detroit ADO on January 6, 2006, for the following projects:

• Construct sanitary sewer.	$ 382,440

- Upgrade automated weather observing system (AWOS). $ 170,250
- Relocate/replace rotating beacon. $ 85,000
- Install precision approach path indicator rwy 07 (PAPI). $ 99,764
- Install runway distance remaining signs (RSA improvements). $ 75,525
- Design snow removal equipment (SRE) storage building. $ 38,000
- Design aircraft ramp. $ 96,000
- Total project cost. $ 946,979

The FAA will fund projects at 95 percent with a 5 percent match from the airport sponsor. The FAA's share of the above projects amounts to $899,630.

- Total available funding (entitlement & discretionary) $1,062,000
- Funding requested for FY06 $ 899,630
- Remaining earmark set-aside for FY07 $ 162,370

The unused funding amount of $162,370 could be applied against the FY 2007 appropriations request total project cost.

III.D.7 2007

Consistent with the lobbying efforts to date, the airport seeks to continue with the initiatives outlined in our FY 2006 grant application. Emphasis is placed on the ability of projects to enhance safety, contribute to our economic development efforts, and support various aeronautical research initiatives. Funding for the following projects is requested:

- Construct aircraft ramp. $1,704,000
- Construct Maintenance Vehicle Storage Building. $ 393,500
- Runway Safety Area Improvements (design). $ 81,500
- Install Lighted Approach Aids. $ 75,000

Construct Aircraft Ramp: Developable sights with access to the runway/taxiway system are necessary to attract commercial and corporate operators to the airport. Expanded opportunities may also be created for public/private research projects.

Construct Maintenance Vehicle Storage Building: This facility should be viewed as a basic piece of infrastructure that is missing from our airport. Properly stored and maintained snow-removal equipment and deicing chemicals can directly impact safety of operations during winter. Commercial operators will evaluate the airport's ability to maintain a usable runway system regardless of weather conditions.

Runway Safety Area Improvements (design): Compliance with RSA design standards is a national priority for the FAA. These funds would accomplish engineering & design work to address the RSA issues on the north and south sides of the runway.

Lighted Approach Aids: A MALSR system would enhance the safety of the runway 25 ILS approach and provide for lower landing minimums, making the airport more usable under low-visibility conditions. The Avionics Engineering Center's seeks to receive a donated MALSR system from FAA surpluses. Refurbishment, engineering, and design would be accomplished in-house by AEC students. The requested funding would pay for installation and any required environmental studies.

III.D.8 Related Items

- The RSA Study has not received its final review and approval from the FAA. Therefore, projects related to the design and construction of RSA improvements are subject to change. We have had a number of detailed conversations with our Airports District Office and, at this time, we believe the projects outlined in FY 2006 and FY 2007 will meet with their final approval.

- The potential to receive excess AIP grant funds this spring may depend on the airport's ability to have projects already designed and ready to bid. The projects we currently have designed are already in our FY 2006 grant application. If we feel reasonably certain of our prospects to receive funding this way, we should consider funding the design work now so that we have biddable projects. The funds would be reimbursable under an AIP grant as long as the project is approved. Another option is to seek funding for the design work of future projects.

- We are in the process of updating our five-year ACIP (Airport Capital Improvement Plan) for years 2007-11. The plan is due March 1, 2006 and will be submitted to ODOT Aviation and the Detroit ADO. The plan will be consistent with our 07 appropriations request. Copies will be sent out to everyone upon completion.

- The updated Airport Master Plan and Airport Layout Plan should be finalized by April 2006.

III.E Computer Lab Study

CAMPUS	LAB NAME	LAB LOCATION	LAB OWNER
Athens	Boyd Hall	Boyd Hall	Computer Services
Athens	Computer Services Center Lab	CSC	Computer Services
Athens	Brown Hall	Brown Hall	Computer Services
Athens	CITL Lab	021 Scott Quad; ground floor	CITL
Athens	AAC Computer Learning Lab	101 1st Floor Alden Library	University College/AAC
Athens	Instructional Media Services	Alden Library, second floor	Instructional Media Services
Athens	Curriculum and Technology Center	215 McCracken Hall	College of Education
Athens	Department of Math & Soc Work Instr Lab	422 Morton Hall	Dept. of Math / Dept. of Social Work
Athens	GRID Lab	5 N. Court St - 2nd Floor (Next to Kinko's)	College of Communication
Athens	The Aesthetic Technologies Lab	235 Putnam Hal	College of Fine Arts
Athens	School of Visual Communication Labs	301 Seigfred Hall	School of Visual Communication
Athens	HSLS Clinic Student Reports Lab	Grover Center, 1st floor W170	HSLS Clinic
Athens	College of Communication Multimedia Lab	Scott Quad ground floor 010, 013, 015	College of Communication
Athens	Stocker Center computers	Stocker 127, 264, 267, 308, 414	College of Engineering & Technology
Athens	Alden Library	1st to 7th Floors Alden Library	The Library Systems Department
Athens	Department of Mathematics Instructional Lab	Morton Hall 314	Dept of Mathematics
Athens	Department of Mathematics Graduate Lab	Morton Hall 526	Dept of Mathematics
Athens	The Aesthetic Technologies Lab	235 Putnam Hall	College of Fine Arts
Athens	Clippinger Molecular Modeling Lab	393 Clippinger	Chemistry Department
Athens	Social Sciences Teaching Lab	012 Bentley Hall	Social Sciences (Arts & Sciences) Departments
Athens	Contemporary History Instructional Lab	Brown House	Contemporary History Department
Athens	Women's Studies Lab	Lindley Hall	Department of Women Studies
Athens	Bentley Lab	014 Bentley Hall	Social Sciences (Arts & Sciences) Departments
Athens	Economics Lab	Bentley Annex 3rd Floor Room 346	Department of Economics
Athens	Gordy Hall Cluster Labs	Gordy Hall: 012, 015 015A and 115	Linguistics and Modern Languages
Athens	Copeland Hall Lab	012 Copeland Hall Lab	College of Business
Athens	Copeland Hall Lab	018 Copeland Hall Lab	College of Business
Athens	Copeland Hall Lab	022 Copeland Hall Lab	College of Business
Athens	Copeland Hall Lab	202, 206, 211 Copeland Hall Lab	College of Business
Athens	Copeland Hall Lab	405 Copeland Hall Lab	College of Business
Athens	Copeland Hall Lab	014 Copeland Hall Lab	College of Business

Athens	Copeland Hall Lab	020 Copeland Hall Lab	College of Business
Athens	Copeland Hall Lab	205 Copeland Hall Lab	College of Business
Athens	Copeland Hall Lab	301 Copeland Hall Lab	College of Business

Lancaster	Lancaster Computer Services Open lab	215A Herrold Hall	Lancaster Computer Services
Lancaster	Lancaster Computer Services Instructional Lab	218 Herrold Hall	Lancaster Computer Services
Lancaster	Lancaster Computer Services Instructional Lab	214 Brasee Hall	Lancaster Computer Services
Lancaster	Lancaster Computer Services Instructional Lab	219 Herrold Hall	Lancaster Computer Services
Lancaster	Lancaster Computer Services Instructional Lab	215A Herrold Hall	Lancaster Computer Services
Lancaster	Lancaster Computer Services Instructional and Open lab	111 Pickerington Center	Lancaster Computer Services
Lancaster	Lancaster Computer Services Instructional Lab	405 Brasee Hall	Lancaster Computer Services
Lancaster	Lancaster Computer Services Instructional Lab	102 Herrold Hall	Lancaster Computer Services
Lancaster	Lancaster Computer Services Instructional Lab	217 Herrold Hall	Lancaster Computer Services

Southern	Open Computer Lab	210 Academic Center	Computer Services Center
Southern	Computer Lab	208 Dingus Center	Computer Services Center
Southern	Computer Lab	220 Dingus Center	Computer Services Center
Southern	Computer Lab	212 Academic Center	Computer Services Center
Southern	Computer Lab	218 Dingus Center	Computer Services Center

Chillicothe	Technology Services Lab	271 Bennett Hall	Technology Services
Chillicothe	Technology Services Lab	273 Bennett Hall	Technology Services
Chillicothe	Compass Testing Lab	270 Bennett Hall	Technology Services
Chillicothe	Technology Services General Lab	270 Bennett Hall	Technology Services
Chillicothe	Nursing Lab	030 Bennett Hall, Nursing Center	Associate Nursing Program
Chillicothe	Library Lab	Stevenson Center, Quinn Library	Quinn Library
Chillicothe	Technology Services Lab	272 Bennett Hall	Technology Services
Chillicothe	Technology Services Lab	274 Bennett Hall	Technology Services
Chillicothe	Deaf Studies Lab	130 Bennett Hall, Deaf Studies Center	Deaf Studies and Interpreting
Chillicothe	Video Production Lab	10 Bennett Hall	Electronic Media Services/TCOM
Chillicothe	Psychology Lab	20 Bennett Hall	Psychology Dept.

III.F Classroom Technology at Ohio University

III.F.1 Overview

Classroom technology can be divided into two broad categories: traditional classrooms and next-generation learning spaces. Ohio University currently faces challenges in both areas, with traditional classroom support underfunded and next-generation support not addressed at all.

OHIO has 247 classrooms on its Athens campus, of which 63 percent are centrally scheduled, shared rooms. The rest are reserved by individual academic departments for their exclusive use. The majority of these rooms are configured as traditional classrooms, with the instructor located at the front of the room.

Equipping just the centrally scheduled rooms with a basic technology package will require $800,000 annually. Extending that coverage to all Athens classrooms will require $1.1 million per year. Currently, classroom technology receives approximately $700,000. Thus, to sustain a minimal level of standardization on the Athens campus will require between $100,000 and $400,000 of additional, ongoing funding. Going anywhere beyond this minimal level will require even more funds and support staff. Renovation requirements and support for regional campuses are not included in these projections.

Next-generation learning spaces and technologies present an entirely different challenge, one that has yet to be addressed at OHIO on an institutional scale. Doing so will require comprehensive planning that takes into account not only technology and support designs and costs, but also renovation and construction allocations. Without such a comprehensive plan, it is not possible to provide an accurate projection of next-generation classroom technology support costs.

III.F.2 Minimum Standards - Traditional Classrooms

When it comes to traditional classroom technology, standardization is good. Instructors should be able to walk into a classroom, confident that they will find a basic and familiar technology package in that room. By Fall 2006, OHIO will have reached this basic level of standardization for its centrally scheduled rooms; however, funding and staffing levels should be increased if we are to sustain or extend this effort.

Based on faculty focus groups conducted by CNS in November, 2005[1], the minimum acceptable technology package for small and medium classrooms includes:

- Computer
- Projector and screen
- DVD/VCR
- Closed-caption unit
- Wall or podium-mounted speakers
- Laptop hookup cables
- Wireless remote for presentation-slide advancing
- Auxiliary video and audio inputs
- Push-button remote to control projector

Cost per room: $8,500

Larger lecture halls require additional items to accommodate space and audience demands, including:

- Document camera
- One or two high-lumen projectors and screens
- One or two computers
- High-end sound system

Cost per room: $30,000 to $80,000 based on room size and technology demands.

To equip just the centrally scheduled classrooms on campus with these basic packages will require $800,000 per year, of which only $700,000 currently is allocated. To equip all classrooms on the Athens campus will require $1.1 million per year.

III.F.3 Going Beyond the Minimum

Technology in the classroom is a rapidly evolving field, with interactive technologies such as student response systems (SRS) at the forefront. Supporting such systems on an institutionwide scale has yet to be addressed. Doing so will require careful planning and strong design upfront, and the financial backing to provide the ongoing technical support and training that such systems require.

“Clickers,” as student response systems are often called, are an excellent example of the challenges and opportunities posed by interactive classroom technologies. With clickers, instructors in large lecture-hall settings can poll their students during class, with results displayed in real time on the classroom’s computer. Thus, quizzes can be administered without the need for paper and pencil, and instructors can ascertain immediately whether their students have understood a difficult point by polling everyone anonymously and viewing the results.

Results from pilot projects on the Athens campus, including Walter Hall, indicate that, while these systems can provide a significant enhancement to large classes, they require intensive training and ongoing support, much more so than standard classroom packages.

Expanding the use of technologies like this campuswide currently is not addressed by OHIO's classroom technology budget.

III.F.4 Next-Generation Learning Spaces

The majority of OHIO's classrooms currently are set up as traditional classrooms, with fixed or movable desks and the instructor at the front of the room. As learning models evolve, demand for flexible classroom layouts will increase. OHIO currently does not have an institutionwide plan or budget for creating such learning spaces.

III.F.5 Conclusion

OHIO should address both traditional and next-generation classroom support.

Achieving basic standardization in traditional classrooms on the Athens campus will require an additional $400,000 per year in ongoing technology funding. Next-generation classroom technologies and learning spaces currently have neither funding nor a comprehensive, campuswide plan for implementation. To avoid a patchwork, difficult-to-support and unsustainable environment, the University must address these issues at the institutional level.