



Higher Education Fixed Assets Guidelines For Educational and General Programs*

HIGHER EDUCATION FIXED ASSETS GUIDELINES
FOR EDUCATIONAL AND GENERAL PROGRAMS

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HIGHER EDUCATION FIXED ASSETS GUIDELINES FOR EDUCATIONAL AND GENERAL PROGRAMS

Introduction

The Council of Higher Education has statutory responsibility to consider the future needs of higher education in Virginia, including the programs, facilities, and location of each institution of higher education. This responsibility includes developing policies, formulae, and guidelines for the fair and equitable distribution of public funds among the state-supported institutions of higher education, taking into account enrollment projections and institutional missions.

This Council responsibility has particular significance during this first decade of the 21st century. Current projections indicate that the population of Virginia will increase and so will enrollment in higher education. In addition, as pointed out by the Southern Regional Education Board, "schools, colleges and universities are the institutions to which we turn in order to acquire or create knowledge and to learn the skills that are critical to succeed in a fast-paced, technologically advanced society."

The major fixed assets of colleges and universities are land, buildings, infrastructure, and equipment. These assets are essential to the delivery of education and other services. Sound planning and careful management of them is important for many reasons:

- The amount and suitability of building space, infrastructure, and equipment directly affects the scope and quality of higher-education services that can be provided.
- Buildings, infrastructure, and equipment demand large capital investments and significant annual operating expenditures.
- Buildings, infrastructure, and equipment are long-term commitments that place significant on-going demands on college or university financial resources well into the future.
- Buildings are highly visible aspects of colleges or universities. Their design, construction quality, intensity of use, accessibility, and level of maintenance create the physical environment for education and scholarship.

Assets and Liabilities

Higher education is not only a labor-intensive enterprise; it also is capital intensive. Illustrative of this is the \$4.7 billion current construction value of the almost 3,000 buildings owned by Virginia's public colleges and universities. A central premise of the Council's fixed asset guidelines is that buildings, infrastructure, and equipment are both assets and liabilities:

- As assets, their value should be protected by sufficient annual investment in their maintenance, renewal, and adaptation.
- As assets, maximum return on them should be realized in high utilization or, in the case of revenue-producing facilities, in the dollar return on investment.
- As liabilities, fixed assets have heating, cooling, cleaning, staffing, maintenance, renewal, and future adaptation costs that must be considered before the assets are acquired.

Because new buildings create new liabilities, the economics of renovation must be compared to those of new construction in making decisions about fixed assets. Renovated space may be more or less costly than new space, and demolition and replacement may be the best option if a building is no longer functional. But renovation of existing space should be given full consideration before deciding to add new space.

How Technology Changes Planning Assumptions

The availability of existing technology and the future developments in technology adds both opportunity and complexity to fixed asset decision-making. In addition to population and enrollment growth trends, in 1989 Virginia's Commission on the University of the 21st Century emphasized new ways in which instruction can be delivered -- changes that significantly affect fixed assets. "The constraints of space and time will be reduced by thoughtful introduction of telecommunications and computers into the instructional mission of colleges and universities," the Commission wrote. At a growing number of institutions, students now have the opportunity to access courses via televised classes and draw information from multiple sources using the computers in their rooms. Colleges and universities are beginning to integrate Internet courses and other alternative delivery modes regardless of their physical location. The Commission's vision is becoming reality. As a result, the distinctions between the types of learning activities that go on in classrooms, laboratories, libraries, student centers, residence halls, and offices will become less clear.

Access to, rather than ownership of, information can reduce space requirements. Similarly, access to telecommunicated classes and computer-assisted instruction can reduce the amount of classroom space that is needed. Conversely, technology has its own space requirements. For example, people increasingly need two areas in which to work -- one with a computer and monitor and one without. Computers, printers, fax machines, and climate control equipment also create space needs that previously did not exist. Guidelines and funding mechanisms need to reflect the new opportunities and demands on space requirements and be flexible enough to encourage good choices.

Another word of caution about technology is appropriate. It is expensive to acquire and expensive to maintain. Buildings traditionally go for decades before renewal, but to remain current in technology will require renewal every few years.

Flexibility and Diversity

The guidelines that follow have been established to assist Virginia's public colleges and universities in sound planning and careful management of their major fixed assets. The general statewide guidelines will not always fit each institution's individual situation. However, they provide a framework for considering each institution's vision of its future and its individual needs. They are broad and flexible enough to accommodate the diversity and entrepreneurship which is the hallmark of Virginia's public colleges and universities.

The guidelines encourage renovation and maximum utilization of space before considering new construction, emphasize the increased importance of technology, and encourage institutions to adapt their fixed assets to their specific situations.

The guidelines that follow deal with fixed assets only within educational and general programs. There are no statewide fixed asset guidelines for auxiliary enterprises.

The guidelines are organized into five sections. The first section deals with the quantities of space and equipment needed to provide quality higher education. The second deals with the quality of fixed assets -- how it should be measured and how much spending is needed to sustain it. A third section deals with the productivity of space -- how intensely it should be used and a proxy for the Commonwealth's "return-on-investment" for research space that helps attract grants and contracts from government and the private sector. The fourth section presents the Council's guidelines relating to the funding sources for fixed assets. The last section summarizes the prioritization standards that result from the guidelines contained in the other sections.

HIGHER EDUCATION FIXED ASSETS GUIDELINES FOR EDUCATIONAL AND GENERAL PROGRAMS

I. FIXED ASSET NEEDS

A. Educational and General Space

Since 1972, the Council and the public colleges and universities have used space-planning guidelines to project space needs. The Council has used the guidelines to evaluate requests for funds to construct capital outlay projects. Six of the seven guidelines that follow are based on an allocation of space across the commonly accepted educational and general (E&G) functions of colleges and universities. These functions are taken from the *Postsecondary Education Facilities Inventory and Classification Manual*, published by the National Center for Education Statistics in 1992. Appendix A provides the taxonomy of functions from this manual.

Implicit in these space need guidelines are requirements for high levels of utilization. For example, the guideline for Instruction and Academic Support space assumes that a college or university will use its classrooms at least 40 hours a week, one of the most demanding state-level guidelines in the country.

The term "space need guidelines" indicates the approximate amount of space needed by the institution as a whole. It is not intended that the guidelines be used to design individual buildings.

None of the following guidelines apply to medicine, dentistry, or veterinary medicine. The E&G space for these space-intensive professional disciplines is judged on a case-by-case basis.

1. Guideline for Substituting Technology, Privatization, and Shared Use for New Space

Definition: The use of technology or arrangements with the private sector or with other public institutions as alternatives to providing physical space for the *E&G* functions of a college or university. These functions include instruction and academic support, libraries, research, public service, student services, institutional support, and physical plant.

Colleges and universities increasingly rely on telecommunications, academic and administrative computing systems, and the networks that bind these together to provide services. They also contract with the private sector to provide services and share services and space with other public institutions. Among the benefits of these approaches is that they can reduce the need for space.

Examples of substituting technology for space in instruction and academic support include using computer simulation for laboratory experiments instead of traditional laboratory stations, or having students earn credit from their homes or residence halls with the use of computers, networks, videos, and other technology rather than building more classrooms. Examples of substituting technology in institutional support include allowing some employees to work from home using technology or having purchases processed at another institution rather than building more administrative space. Examples of using private-sector contracts to reduce space needs include leasing warehouse space rather than building it or contracting with a nearby security firm rather than building a police station on campus. Examples of sharing space with other public institutions include offering evening or weekend courses in available classrooms at other institutions or coordinating central stores or warehouse space with other institutions or agencies.

The Guideline: Institutions are encouraged to use technology, private-sector contracts, and shared space with other public institutions as a substitute for adding new E&G space. When proposals to do this are pedagogically sound, efficient, and effective, institutions can expect the Council to recommend the additional resources needed to implement them. Institutions can trade state support for space needs for state support for technology. With the emergence of "virtual" libraries, classrooms, and even offices, institutions will need relatively more investment in technology and telecommunications and relatively less in new space. An example is trading a justified building in order to install a fiber-optic communications infrastructure throughout an institution. Another is reducing the size of a justified classroom building by half in order to install communications and computer equipment in every room for telecommunicated instruction. Institutions that substitute equipment in this way will be given priority in allocating money from an expanded equipment trust fund.

This is a guideline in a different sense than those that follow. It means that institutions should seek alternatives to asking for the space that can be justified by the space need guidelines for instruction and academic support, libraries, research, public service, student services and institutional support, and physical plant.

2. Space Need Guideline for Instruction and Academic Support Space

Definition: Space used primarily for general academic instruction, vocational/technical instruction, special-session instruction, community education, preparatory/remedial instruction, educational media services, academic computing services, academic administration, academic personnel development, and course and curriculum development. This guideline does not include library, ancillary support, museum, or gallery space. Library space has its own guideline and ancillary support, museum, and gallery space needs are evaluated on a case-by-case basis.

The Guideline: Forty-two and one-half (42.5) assignable square feet (ASF), plus up to 7.5 additional assignable square feet, per regular-session full-time equivalent student, depending on the institution's programs and disciplines.¹

An institution requesting additional space that would result in an institutional average of more than 42.5 ASF per student for the institution should submit a detailed justification for the additional space. An example of a factor that would justify the need for more assignable square feet than the basic 42.5 ASF is having large laboratory and related service-area needs in such disciplines as animal sciences, marine biology, engineering, fine arts, occupational therapy, oceanography, or mechanical and engineering technologies. Another example is the small community college (less than 1,500 full-time-equivalent students) that does not have economies of scale, and as a result, may need 50 assignable square feet per student for instruction and academic support.

3. Space Need Guideline for Library Space.²

Definition: Space used primarily for all those activities that directly support the collection, cataloging, storage, and distribution of published materials, primarily in support of the institution's academic programs. To be included in this guideline, a library should be separately organized, including both general and departmental libraries.

The Guideline: There is no square-footage space need guideline for library space. Virginia's institutions are diverse, and the dynamics of acquiring, accessing, storing, and providing information to users are changing so rapidly that future library space needs cannot be reduced to one or even several square-footage prescriptions.

Each institution requesting new library space must demonstrate that the following assumptions have been included as part of the planning process:

- As the use of technology grows, volume holdings alone will become less and less the measure of academic quality. Accessibility and linkages to other repositories of information will continue to increase.
- In addition to their traditional role of owning and lending printed information, libraries will provide access to information in electronic format. No single institution can afford a comprehensive collection, and a finite number of on-campus holdings are needed to provide a current library collection for students

¹ A regular-session full time equivalent student is a statistic derived by dividing the total number of on-campus undergraduate, first professional, and graduate credit-hours for both fall and spring terms by 30,30, and 24 respectively.

²This section draws heavily from *Toward A University Library of the 21st Century*, a report by the George Mason University Library Task Force.

and faculty. Library holdings should reflect the scope of programs offered by each institution and recognize that, in some disciplines, technology can support access in ways other than direct purchase of printed volumes. This means that while new information is continually available, institutions must manage their collections to keep materials for which there is high demand and provide access, or storage in less-costly facilities, for information that is in less demand.

- Electronic publishing has a greater effect on serial literature acquisitions (especially scholarly journals and reference works) than on traditional monographs. While it is difficult to predict the many formats in which library materials will be available, library space plans should consider that some items will be available only in one format and others in several formats. Planning should allow for flexible space.
- As computers have grown smaller and more powerful, students and faculty increasingly carry their personal computers with them. Library patrons, with computers in hand, often look for connections to information networks. As a result, campus infrastructure will need to meet connectivity requirements. Space is needed in libraries as well as other institutional facilities for customer's portable machines and the institution-owned equipment needed to meet increasing demands for electronic access to information.
- Many colleges and universities have modified their expectation that students always physically come to a classroom, or even the campus, to receive information. Libraries, following this trend, have created dial-in or on-line access to library catalogs and other material. Also, the speed of document delivery has improved with the general availability of fax machines. These trends toward electronic delivery of full-text materials outside of the library will continue.

4. Space Need Guideline for Research Space

Definition: Space used primarily to perform activities specifically organized to produce research outcomes, whether commissioned by an agency external to the institution or separately by an organizational unit within the institution. This includes institute and research centers and individual and project research. This guideline does not apply to space for research that is directly supported by the state from the general fund, such as for agriculture at Virginia Tech and Virginia State University or marine science at the College of William and Mary.

The Guideline:

Senior institutions: 800 assignable square feet per \$100,000 (in constant 1993 dollars) of annual research expenditures in the following disciplines: Agriculture and Natural Resources, Engineering, Computer Science, Biological Sciences, Applied Mathematics and Statistics, Physical Sciences, Architecture and Environmental Design, Fine and Applied Arts, Home Economics, Psychology, Communications, and Health Professions (except Medicine, Dentistry, and Veterinary Medicine);

Plus

450 assignable square feet per \$100,000 (in constant 1993 dollars) of annual research expenditures in the following disciplines: Education, Area Studies, Business and Management, Foreign Languages, Letters, Library Science, Mathematics, Public Affairs and Services, Law, and Social Sciences;

Plus

Ten (10) assignable square feet per annual full-time-equivalent on-campus graduate student in all disciplines excluding medicine, dentistry, or veterinary medicine.

5. Space Need Guideline for Public Service Space

Definition: Space used primarily to provide non-instructional services beneficial to individuals and groups external to the institution. Such activities may include seminars, projects, and various organizational entities established to provide services to particular sectors of the community. This includes community services, public broadcasting services, and cooperative extension services.

The Guideline: There is no space planning guideline for this space. Space identified under this category should be justified on a case-by-case basis.

6. Space Need Guideline for Student Services and Institutional Support Space

Definition: Space used for student-service administration, social and cultural development, counseling and career guidance, student admissions and records, financial-aid administration, and student health services. Institutional support space includes executive management, fiscal operations, general administrative services, administrative computing, logistical services, and public relations and development. It excludes physical plant operations.

The Guideline: Seven (7.0), plus up to three (3.0) additional, assignable square feet per regular-session full-time-equivalent student, depending on an institution's unique needs. An institution requesting additional space that would result in an institutional average of more than 7.0 ASF per student should submit a detailed justification for the additional space.

7. Space Need Guidelines for Physical Plant Space.

Definition: Space used primarily for the operation and maintenance of the physical plant. It includes all space for operations established to provide services and maintenance related to campus grounds and facilities.

The Guidelines:

- a. Senior Colleges and Universities: Four (4.0), plus up to three (3.0) additional, assignable square feet per regular-session full-time-equivalent student, depending on an institution's total size of physical plant. An institution requesting additional space that would result in an institutional average of more than 4.0 ASF per student should submit a detailed justification for the additional space.
- b. Two-Year and Community Colleges: Two (2.0), plus up to one and a half (1.5) additional, assignable square feet per regular-session full-time-equivalent student, depending on an institution's total size of physical plant. However, a minimum of 3,000 assignable square feet should be provided for every community college, regardless of the number of students it enrolls. An institution requesting additional space that would result in an institutional average of more than 2.0 ASF per student for the institution should submit a detailed justification for the additional space.

In determining an institution's need for space, SCHEV staff will consider the availability of space at the institution in each of the six areas identified above (instruction and academic support, libraries, research, public service, student services and institutional support, and physical plant). In the event an institution is requesting the addition of new space to replace existing leased or constructed space, SCHEV staff will exclude that space from the total available space to determine the space justification of a specific requested project. The institution must show that the construction of new space is more cost effective and/or programmatically justified than the existing leased space.

If Council staff determines that the institution needs additional space, a requested project will be considered space justified as long as the amount of additional space needed is at least 50% of the amount of space requested. This 50% threshold applies to all space except library space and public service space. An institution's space needs will decrease as projects meet SCHEV approval and are prioritized. The remaining space needs will be compared to the threshold after each allocation. In the event, an institution has multiple requests for the same type of space, the available need will be allocated based on SCHEV's priority ranking and the institution's priority ranking. When space needs run out, projects lose space justification.

In addition, pursuant to Section 23-9.6:1-11 of the Code of Virginia, SCHEV is required:

To review biennially and approve or disapprove all changes in the inventory of educational and general space, which any public institution of higher education may propose, and to make a report to the Governor and the General Assembly with respect thereto. No such change shall be made until thirty days after the adjournment of the session of the General Assembly next following the filing of such report.

B. Educational and General Equipment

Institutions use equipment budgets not only to buy equipment, but also to maintain it and replace what cannot be repaired. In the early 1980s the Council of Higher Education and the institutions established a conceptual framework for assessing equipment needs that had the following objectives: maintaining equipment in good working order, overcoming equipment deficiencies, and replacing obsolete equipment. The Council defines equipment deficiency as the absence of equipment a college or university should have given the curricula it offers. Obsolete equipment is defined as that which exceeds in age its realistic useful-life. Virginia's state comptroller prescribes useful-life guidelines for each type of equipment to help institutions and agencies plan for the regular replacement of equipment. Each piece of equipment with a value in excess of \$2,000 is recorded in the institution's equipment inventory system. This information is provided annually to the Council.

Definition: The state's budgeting and accounting systems establish the following categories for E&G equipment: computer, medical and laboratory, educational and cultural, electronic and photographic, office, specific use and stationary, and motorized. Detailed descriptions of the equipment included in each category is contained in the state's Expenditure Structure, issued by the Virginia Department of Planning and Budget in May 2000.

The Guideline: Each institution should be funded to maintain equipment in good working order, overcome equipment deficiencies, and replace obsolete equipment. In order to do this, institutions should maintain an equipment inventory with an average remaining useful life that does not exceed the Comptroller's useful life guidelines for educational and general equipment. The useful life guidelines for the major categories of equipment and the current distribution of that equipment are shown below.

Educational and General Equipment and Useful Life Guidelines

Type of Equipment	Percent Of Inventory Value	Comptroller's Average Useful Life In Years
Computer Equipment	37	5
Medical and Laboratory Equip.	25	10
Educational and Cultural Equip.	16	15
Electronic and Photographic Equip.	6	8
Office Equipment	6	10
Specific Use and Stationary Equip.	6	10
Motorized Equipment	4	7

II. FIXED ASSET QUALITY³

As in Section I, the guidelines in this section apply only to E&G space.

Since the 1960s, the Council of Higher Education and Virginia's colleges and universities have maintained a room-by-room and building-by-building inventory of space.

In 1982, following the Council's recommendation, a state maintenance reserve program was established to provide funding for the major repair or replacement of roofs, masonry, ceilings, and utility systems; for the correction of building deficiencies to conform with building and safety codes; and for the correction of major erosion and drainage problems.

The maintenance reserve program recognizes that "when physical facilities are not maintained in good condition, their ability to support the mission of the institution diminishes." The Council's recommendations for maintenance reserve appropriations are based on current construction values for buildings and infrastructure, and the cost of the existing building and infrastructure deficiencies reported in the facility condition report. From 1982 to 2002, the state has provided \$296 million in maintenance reserve appropriations to colleges and universities.

In 1992, the Council began requiring institutions to document the specific deficiencies of each E&G building and the dollar amount needed to correct deficiencies. Based on concepts and procedures developed by Coopers and Lybrand in association with Applied Management Engineering, P.C., institutions were asked to report the replacement values and estimated costs of operating and maintenance reserve deficiencies in those facilities. In March 2001, the Council issued guidelines requiring institutions to use current construction costs to value building inventory instead of replacement cost values.³ With this information, the Council and each institution can compare the total amount needed to correct a building's deficiencies to the building's current value and develop a building condition rating of good, fair, or poor for each building, based on scale below:

The cost of deficiencies as a percent of building value is summarized for all buildings at an institution to arrive at an overall condition rating for the institution.

³This section draws heavily from two publications:

Financial Planning Guidelines for Facility Renewal and Adaption, a joint project of The Society for College and University Planning (SCUP), The National Association of College and University Business Officers (NACUBO), The Association of Physical Plant Administrators of Universities and Colleges (APPA), and Coopers and Lybrand. It was published in 1989 by the Society for College and University Planning and was prepared by John A. Dunn Jr.

Managing the Facilities Portfolio: A Practical Approach to Institutional Facility Renewal and Deferred Maintenance, a joint project of Applied Management Engineering, P.C., and Coopers and Lybrand. It was published in 1991 by the National Association of College and University Business Officers.

³ SCHEV's Higher Education Facilities Condition Reporting Guidelines, issued in March 2001, is presented in Appendix B. Appendix C contains SCHEV's infrastructure reporting guidelines issued in July 2001.

Cost of Deficiencies As a Percent of Building <i>Construction Value</i>	Building Condition Rating
Under 5% 5 -10 Over 10	Good Fair Poor

The two categories of investment needed to keep buildings and their infrastructure in "good" condition are routine maintenance and plant renewal, and plant adaptation or expansion.

A. Guideline for Routine Maintenance and Plant Renewal

Definition: Routine maintenance is the regularly scheduled preventive and other maintenance activity funded by physical plant operating expenditures. It does not include custodial or utility expenses. Plant renewal is the replacement of a building's subsystems such as roofing, heating, ventilation, air conditioning, and plumbing. Funds for routine maintenance and plant renewal are provided in institutions' operating budgets and in the state's maintenance reserve appropriations.

The Guideline: Each institution should spend sufficient funds for routine maintenance and plant renewal to maintain the condition of all its facilities and infrastructure at a level such that no more than 5 percent of the asset value is deficient. As shown in the preceding chart, this equates to an overall condition rating of "good" for all of the institution's E&G assets (see Appendix B).

B. Guideline for Plant Renovation (Adaptation)

Definition: Plant renovation (adaptation) is the major renovation of buildings to adjust to changes in building standards; greater efficiency objectives; new technology; or changes in an institution's programs, disciplines, or enrollment. It is different from --and in addition to -- keeping facilities in good condition.

The Council has recommended the creation of a renovation trust fund that would provide a vehicle for on-going reinvestments to support the renovation of higher education facilities and infrastructure. Like the maintenance reserve program, institutions would be given a single appropriation through the renovation trust fund that could be applied to any renovation project meeting eligibility criteria set forth by the Council. As proposed, the fund would allow institutions to accrue balances from one biennium to the next in order to encourage cost-effective management of capital projects. If adopted by the Governor and General Assembly, specific criteria for project qualification will be incorporated into this guideline.

III. FIXED ASSET PRODUCTIVITY⁵

The guidelines in this section apply only to E&G space. Periodic evaluation of the use of college and university space can result in more efficient space use and in construction and operating cost savings. Different facilities require different productivity measures: physical, financial, or programmatic. The following paragraph from *Facilities Manager* describes these three measures:

Physical productivity measures focus on how effectively or intensively a space is used, and are generally most suited for evaluating spaces that are not supported by underlying revenue streams. Financial productivity measures focus on revenues generated, costs saved, or the more traditional concept of a financial rate of return. Programmatic productivity measures focus on less quantifiable benefits -- the enhancements to the university's ability to conduct its programs -- that accrue from certain types of facilities. A good example is the improved recruitment potential that a high-quality housing project or recreation facility offers.

Physical productivity measures are used by a number of state systems of higher education and are typically referred to as space utilization guidelines. They are used to evaluate how intensely classrooms, class laboratories, and other instructional space are used. For about 30 years, the Council has analyzed and reported on how intensely classrooms and class laboratories are used and how that intensity of use compares to the guidelines.

Financial productivity measures are appropriate for auxiliary enterprise space such as dormitories, dining facilities, and bookstores. These operations are self-supporting, and Virginia's long-standing policy has been that auxiliary enterprises receive no state funds. Financial productivity standards are also usually specific to a building or group of buildings within an institution. Accordingly, financial productivity measures for auxiliary space are appropriate for each institution to establish for itself.

One area within E&G programs in which financial productivity measures can be useful is research. Research space directly attracts revenues to an institution in the form of grants and contracts from the federal government, the private sector, and other sources; in so doing it provides a return on investment. The financial productivity of research space, therefore, can be measured by comparing the institution's sponsored research activity (expenditures) to the amount of research space it has.

Programmatic productivity measures often are not quantifiable. They are also often specific to an institution or even to a building. Accordingly, programmatic productivity measures are appropriate for each institution to establish for itself, and may provide sufficient justification for state funding.

⁵ The concepts in this section are based on those in "Productivity-Based Facilities Management: Managing to the University Bottom Line," an article by Thomas Hier in *Facilities Manager*, Fall 1992.

The guidelines that follow address the functional areas of college and university operations that are the framework for the space need guidelines in Section I.

A. Space Utilization Guidelines for Educational and General Space, Except Research

Definition: Space used for the E&G functions of instruction and academic support, libraries, public service, student services and institutional support, and physical plant.

The Guidelines: Measurements of productivity apply both at the institutional level and at the levels of classroom and laboratory space.

1. The actual utilization of all E&G space at each institution will be compared to the total amount of E&G space (except research space) that the space need guidelines (Section I) define as needed by that institution.

For example, the space need guidelines might define the cumulative need for E&G space for an institution as 69.5 assignable square feet per student. If the institution actually has 60 square feet per student, then it is using 9.5 square feet less than the space need guidelines define as needed. In this example, the institution would be considered productive in the overall use of all of its E&G space. By comparing each institution's actual E&G space with what the guidelines call for, an overall measure of each institution's utilization of space is obtained.

2. Within the educational and general space at an institution, the guideline for the utilization of all classroom stations (seats) is an average use of at least 24 hours a week. This guideline is the equivalent of using classrooms an average of 40 hours a week and filling an average of 60 percent of the stations in those classrooms when they are in use.
3. Within the E&G space of an institution, the guideline for the utilization of all class laboratory stations is an average use of at least 18 hours a week. This is the equivalent of using class laboratories an average of 24 hours a week and filling 75 percent of the stations in those laboratories when they are in use.

This guideline will be applied based on the type of space requested. Specifically, when the dominant amount of space requested is instructional and academic support space, the classroom station utilization and the class laboratory station utilization will be the units of measure. The utilization measure for all other space requests will be the utilization of all E&G space (except research).

B. Financial Productivity Guideline for Research Space

Definition: Space used for activities specifically organized to produce research outcomes, whether commissioned by an agency external to the institution or separately by an organizational unit within the institution. This includes institutes and research centers and individual project research. This guideline does not apply to space for

research that is directly supported by the state from the general fund, such as space for agriculture at Virginia Tech and Virginia State, or marine science at William and Mary.

The Guideline: Senior Institutions: The generation of at least \$100,000 per year (in constant 1993 dollars) in grant and contract revenues for every 800 assignable square feet of research space in the following disciplines: Agriculture and Natural Resources, Engineering, Computer Science, Biological Sciences, Applied Mathematics and Statistics, Physical Sciences, Architecture and Environmental Design, Fine and Applied Arts, Home Economics, Psychology, Communications, and Health Professions (except Medicine, Dentistry, and Veterinary Medicine). An institution generating more than \$100,000 in grant and contract revenues for every 800 assignable square feet in these disciplines, would exceed the guideline for research space financial productivity;

And

The generation of at least \$100,000 (in constant 1993 dollars) of annual research expenditures for every 450 assignable square feet of research space in the following disciplines: Education, Area Studies, Business and Management, Foreign Languages, Letters, Library Science, Mathematics, Public Affairs and Services, Law, and Social Sciences. An institution generating more than \$100,000 in grant and contract revenues for every 450 assignable square feet in these disciplines would exceed the guideline for research space financial productivity.

IV. FUND SOURCES FOR SUPPORT OF FIXED ASSETS

The Council's guidelines with respect to funding fixed assets are as follows:

- A. Space traditionally termed "educational and general" can be in any campus structure, including dormitories, dining halls, student services, and other types of buildings. State revenues (general fund, general obligation bonds, etc.) should fund all of such space if it is being used for an E&G purpose, or 50% of the space if it is being used for research.
- B. Fifty (50) percent of the cost of capital outlay requests for research space should be supported by state funds (general fund, general obligation bonds, etc.) and 50 percent from nongeneral funds. These nongeneral funds can come from indirect cost recoveries on research grants and contracts or other sources available to the institutions. This does not apply to space for research that is directly supported by the state from the general fund, such as for agriculture at Virginia Tech and Virginia State, or marine science at William and Mary.
- C. State funds (general fund, general obligation bonds, etc.) should not be appropriated to construct new facilities that are specifically designed and equipped for recreation.

- D. Expenditures for land acquisition, site preparation beyond five feet from a building, and the construction of additional outdoor lighting, sidewalks, outdoor athletic and recreational facilities, and parking lots in the community college system shall be made only from non-state funds, including local government appropriations, or the proceeds from a college's issuance of debt authorized by the General Assembly.
- E. Expenditures for operations, maintenance, and repair of athletic, recreational, and public service facilities shall be made only from non-state funds. Expenditures for maintenance, replacement, and repair of outdoor lighting, sidewalks, and other facilities may be made from any appropriated fund. The general policy of the Commonwealth is that parking should be operated as an auxiliary enterprise by all colleges and universities and that institutions should develop sufficient reserves for ongoing maintenance and replacement of parking facilities.
- F. The Commonwealth should encourage private funding for facilities, but E&G buildings acquired by an institution that are not justified by the state's space need guidelines should have pre-established provisions for non-state funds to cover their future operating, renewal and adaptation costs. The annual value of these costs averages 4 to 6 percent of the replacement value of a building. If, at some future date, growth of the institution results in the space in the facility being justified by the space-need guidelines, state funds could be used for its operating costs from that point forward.

V. PRIORITIZATION OF NEW E&G PROJECTS

The following prioritization schedule shall be used in the evaluation of new E&G projects. Prioritization is based on the yes/no answers to four questions.

Prioritization questions for new E&G projects:

1. Is the additional space currently justified?
2. Is the additional space justified in the last year of the second biennium of the institution's six-year plan?
3. Does the additional space have a compelling programmatic justification?
4. Does the institution meet SCHEV utilization criteria?

The following criteria will be considered in determining the extent to which a project is compelling.

1. The institution has explored other alternatives for addressing the new E&G space requested and can show that the alternatives are either more costly or less effective than the creation of new space. For instance, if an institution is requesting new space for a specific academic program, but has a surplus of E&G space overall, the institution would need to demonstrate why it is choosing to construct additional

E&G space rather than renovate existing space. Similarly, the institution would need to demonstrate that it has considered using distance learning, shared space arrangements, leasing options, and public-private partnerships, as appropriate.

2. The institution has specific space needs for the type of educational program that will be housed by the proposed facility. For instance, an institution may not have a space need overall, but may be adding a new academic program that requires specific classroom or laboratory arrangement not found in the campus' existing facilities.
3. For instructional and academic support space, the institution has a need for space in the given discipline(s) for which space is being requested.
4. The institution is currently using leased space to meet the need, but the lease is due to expire within a short time frame.
5. The space will be used to advance a specific institutional niche or a priority area of the Commonwealth.
6. The requested project has already received planning funds or preliminary commitment from the Governor and/or General Assembly.
7. The requested project is a high priority for advancing the institution's strategic goals.
8. The space will address current life, health or safety issues.

The prioritizations will be based on the type of space being requested.

Prioritization of All E&G Space, Excluding Research Space

- All four questions apply.
- For instructional and academic support space, utilization is based on meeting both classroom and class laboratory utilization, as described above. For other E&G space (excluding research), utilization is based on the institution's total available space in the E&G program.

Q1	Q2	Q3	Q4	Priority
Yes	Yes	Yes	Yes	1
Yes	Yes	No	Yes	2
Yes	Yes	Yes	No	2
Yes	Yes	No	No	3
Yes	No	Yes	Yes	2
Yes	No	No	Yes	4
Yes	No	Yes	No	2
Yes	No	No	Yes	4
Yes	No	No	No	4
No	Yes	Yes	Yes	1
No	Yes	No	Yes	3
No	Yes	Yes	No	2
No	Yes	No	No	4
No	No	Yes	Yes	2
No	No	Yes	No	3
No	No	No	Yes	4
No	No	No	No	4

Projects requested by the community colleges would be recommended using the same criteria with the exception of demonstrating a future space need. The community colleges do not project enrollments for future years. As a result, the community colleges' prioritization would be:

Q1	Q2	Q3	Q4	Priority
Yes	X	Yes	Yes	1
Yes	X	No	Yes	2
Yes	X	Yes	No	2
No	X	Yes	Yes	2
No	X	Yes	No	3
No	X	No	Yes	4
No	X	No	No	4
Yes	X	No	No	3

Priority 1 projects would be those that are most critical to the Commonwealth and meet the following conditions:

- a. Is fully space justified today and continues to be space justified in the out years and meet both the compelling justification and space utilization criteria

OR

- b. Is expected to be fully space justified by the end of the second biennium and meet the compelling justification and space utilization criteria.

Priority 2 projects would be those that are still of significant importance to the Commonwealth and the institution and meet the following criteria:

- a. Is either the institution meets 3 of the 4 criteria

OR

- b. SCHEV staff has identified that the combination of current or future space need and the compelling nature of the project merit a high prioritization.

Priority 3 projects would be those that are recommended by the Council, but are less immediate in terms of addressing a space or programmatic need.

Priority 4 projects do not meet SCHEV criteria and are not recommended by the Council.

Prioritization of Research Space

- o Space Utilization question does not apply.

Q1	Q2	Q3	Q4	Priority
Yes	Yes	Yes	X	1
Yes	Yes	No	X	2
Yes	No	Yes	X	2
Yes	No	No	X	4
No	Yes	Yes	X	1
No	Yes	No	X	4
No	No	Yes	X	3
No	No	No	X	4

Priority 1 projects would be those that are most critical to the Commonwealth and meet the following conditions:

- a. Is fully space justified today and continues to be space justified in the out years and meets the compelling justification criteria

OR

- b. Is expected to be fully space justified by the end of the second biennium and meets the compelling justification criteria.

Priority 2 projects would be those that are still of significant importance to the Commonwealth and the institution but do not demonstrate an on-going space need, despite the fact that they meet the criteria for compelling programmatic justification.

Priority 3 projects would be those that are not space justified but have a compelling programmatic justification.

Priority 4 projects do not meet SCHEV criteria and are not recommended by the Council.

The prioritization process serve as the foundation of capital budget recommendations, but Council has the flexibility to prioritize projects on a case-by-case basis based on additional information or considerations not captured by the prioritization process.

Appendix A

Taxonomy of Functions

This taxonomy is adapted from the *Financial Accounting and Reporting Manual for Higher Education* and the earlier *Management Reporting and Accounting for Colleges*, Second Edition (1988) by the National Association of College and University Business Officers (NACUBO). While the taxonomy was originally designed for financial reporting, it may be readily adapted to facilities reporting through limited modifications. For example, the category of Scholarships and Fellowships would not be used as a function in a facility's inventory. Categories for Independent Operations and Hospitals have been added to the taxonomy because they are necessary categories or facilities reporting. The following represents a brief synopsis of a possible adaptation of this taxonomy.

Definitions of Functional Categories

1.0 Instruction. This category includes all activities that are part of an institution's instruction program. Credit and noncredit courses for academic, vocational, and technical instruction for remedial and tutorial instruction, and for regular, special, and extension sessions should be included.

1.1 General Academic Instruction: Includes formally organized and/or separate instructional activities that are: 1) carried out during the academic year, 2) associated with academic disciplines, and 3) offered for credit as part of a formal post secondary education degree or certificate program.

1.2 Vocational/Technical Instruction: Formally organized and/or separate instructional activities that are 1) carried out during the academic year, 2) usually associated with academic disciplines, and 3) offered for credit as part of a formal post secondary education degree or certificate.

1.3 Special Session Instruction: Includes formally organized and/or separately budgeted instructional activities (offered either for credit or not for credit) that are carried out during a summer session, interim session, or other period not common with the institution's regular team.

1.4 Community Education: Includes formally organized and/or separate instructional activities that do not generally result in credit toward any formal post secondary degree or certificate.

1.5 Preparatory/Remedial Instruction: Includes formally organized and/or separate instructional activities that give students the basic knowledge and skills required by the institution before they can undertake formal academic coursework leading to a post secondary degree or certificate.

2.0 Research. This category should include all activities specifically organized to produce research outcomes, whether commissioned by an agency external to the institution or separately by an organizational unit within the institution.

2.1 Institutions and Research Centers

2.2 Individual and Project Research

3.0 Public Service. This category should include activities that are established primarily to provide non-instructional services beneficial to individuals and groups external to the institution.

3.1 *Community Services*

3.2 *Cooperative Extension Services*

3.3 *Public Broadcasting Services*

4.0 Academic Support. This category should include support services for the institution's primary missions -- instruction, research, and public service. Libraries, museums, academic computing, and course and curriculum development are examples of academic support.

4.1 *Libraries*

4.2 *Museums and Galleries*

4.3 *Educational Media Services*

4.4 *Academic Computing Services*

4.5 *Ancillary Support*

4.6 *Academic Administration*

4.7 *Academic Personnel Development*

4.8 *Course and Curriculum Development*

5.0 Student Services. This category should include offices of admissions and registrar and those activities whose primary purpose is to contribute to the student's emotional and physical well being and to his or her intellectual, cultural, and social development outside the context of the formal instruction program.

5.1 *Student Services Administration*

5.2 *Social and Cultural Development*

5.3 *Counseling and Career Guidance*

5.4 *Financial Aid Administration*

5.5 *Student Admissions*

5.6 *Student Records*

5.7 *Student Health Services*

6.0 Institutional Support. This category should include: 1) central executive-level activities concerned with management and long-range planning of the entire institution, such as the governing board, planning and programming, and legal services; 2) fiscal operations, including the investment office; 3) administrative data processing; 4) space management; 5) employee personnel and records; 6) logistical activities that provide procurement, storerooms, safety, security, printing, and transportation services to the institution; 7) support services to faculty and staff that are not operated as auxiliary enterprises; and 8) activities concerned with community and alumni relations, including development and fund raising.

6.1 *Executive Management*

6.2 *Fiscal Operations*

6.3 *General Administrative Logistical Services*

6.4 *Administrative Computing Services*

6.5 *Public Relations/Development*

7.0 Operation and Maintenance of Plant. This category should include the operation and maintenance of physical plants for all institutional activities, including auxiliary enterprises and independent operations.

7.1 *Physical Plant Administration*

7.2 *Building Maintenance*

7.3 *Custodial Services*

7.4 *Utilities*

7.5 *Landscape and Grounds*

7.6 *Major Repairs and Renovations*

8.0 This category includes Scholarships and Fellowships but is not used in facilities.

9.0 Auxiliary Enterprises. An auxiliary enterprise is an entity that exists to furnish goods or services to students, faculty, or staff, and that charges a fee directly related to, although not necessarily equal to, the cost of the goods or services.

9.1 *Auxiliary Enterprises -- Student*

9.2 *Auxiliary Enterprises -- Faculty/Staff*

9.3 *Intercollegiate Athletics*

10.0 Independent Operations. This category includes those operations that are independent of, or unrelated to, but which may enhance the primary missions of the institution.

11.0 Hospitals. This category includes patient care operations of the hospital, including nursing and other professional services, general services, administrative services, fiscal services, and physical plant operations and institutional support.

APPENDIX B

STATE COUNCIL OF HIGHER EDUCATION

Higher Education Facilities Condition Reporting Guidelines

March 23, 2001

Higher Education Facilities Condition Reporting Guidelines

Background

In 1982, following the Council's recommendation, the Commonwealth of Virginia established a state maintenance reserve program to provide supplemental funding for major repairs or replacement of roofs, masonry, ceilings, and utility systems, for the correction of building deficiencies to conform with building and safety code regulations, and for the correction of major erosion and drainage problems. The program was established to support educational and general (E&G) facilities.

In 1992, the Council began requiring institutions to document the specific deficiencies of each E&G building. Institutions were asked to report the replacement values and estimated costs of operating and maintenance reserve deficiencies in those facilities in a Facilities Condition Report (FCR).

Using the FCR, staff computed the facilities condition index (FCI), which serves as a relative measure of the condition of a facility or group of facilities. Historically, SCHEV has defined the FCI as the ratio of an asset's deferred maintenance costs to the asset's current replacement value. Staff summarized the condition of all E&G buildings to arrive at an overall facilities condition rating for each institution. The campus condition rating was based on the following scale.

FCI	Campus Condition Rating
Under 5%	Good
5-10%	Fair
Over 10%	Poor

In addition to providing information on the overall condition of an institution's facilities, SCHEV staff also used the FCR data to estimate maintenance reserve needs. Section 23.9-9 of the *Code of Virginia* states that "The State Council of Higher Education shall develop policies, formulae and guidelines for the fair and equitable distribution and use of public funds among the public institutions of higher education." In preparation for the 2000-02 biennial budget recommendations, SCHEV staff noted significant increases in the reported cost of deficiencies at several institutions. Because of potentially significant funding implications attributable to these changes and a growing concern that the assessment criteria used by institutions might not be uniform, the State Council recommended in November 1999 that the Governor and the General Assembly fund a study of the facility condition assessment methods used by the institutions of higher education. The Governor and the General Assembly responded by authorizing SCHEV and the Department of General Services (DGS) to hire a consultant to evaluate the uniformity of facility condition assessment procedures used to determine maintenance reserve needs of the Commonwealth's agencies and institutions of higher education.

The consultant's final report was released in November 2000. The consultant found that institutions used various methodologies to estimate building values and to determine estimated costs of repairing building deficiencies. Specifically, institutions used a variety of methodologies

to determine building values, relying primarily on replacement value data submitted to the Division of Risk Management for insurance purposes. In addition, most institutions reported deficiencies based on existing needs; however, some considered deficiencies to include projected needs based on life-cycle component renewal costs, or other cost components.

As a result, SCHEV staff, with the help of a workgroup of institutional representatives and DGS staff, has developed the following guidelines and procedures for reporting the facility condition ratings of higher education facilities. The goal of these guidelines is to provide public colleges and universities with common definitions, to increase institutional consistency in reporting facility data, and ultimately to recommend the fair and equitable allocation of available maintenance reserve resources to the institutions. Appendix A contains a list of terms and definitions that SCHEV staff and the workgroup have agreed are important in discussing maintenance reserve needs in general and in reporting facilities condition data.

The consultant also found that most institutions did not fully consider the value or deficiencies of their infrastructure. The infrastructure of an institution includes those items, which are required but are not related directly to a building, such as utilities connecting buildings to the power plant, sidewalks, and roads. SCHEV staff and the institutional workgroup continue working to develop a list of infrastructure assets and guidelines for valuing and reporting those assets. The guidelines for infrastructure will be released in late April. Institutions will be asked to report their infrastructure data to SCHEV by late June.

Instructions for Completing the Facilities Condition Report (FCR)

These instructions have been established to clarify what institutions should report in the FCR. Rather than rely on insured values or replacement values (see Appendix A for definitions), institutions should report a **building value** based on construction costs per gross square foot, adjusted for building-specific factors such as design complexity or historical designation. The Building Value Worksheet should be used to report asset specific information, which should then be summarized in the Facilities Condition Report. A sample of both the building value worksheet and the FCR are provided as Microsoft EXCEL files (accompanied by these instructions in a Microsoft WORD document) on the SCHEV website under Policies and Guidelines / Finance and Facilities. Institutions are asked to download the EXCEL files, replace the sample data with institutional data, and return the completed worksheet and report to SCHEV via diskette or e-mail.

A. Building Value Worksheet: Institutions are asked to complete the worksheet to estimate the current building value of each facility having E&G space. Current building value is the estimated construction cost to replace a facility. This amount should include the total funds required to duplicate the internal and external building envelope to provide the same level of functionality based upon accurate local labor and material costs. Soft costs, such as A&E fees, project management costs, and construction contingencies should not be included. Furnishings and equipment that are particular to a definite tenant

also should not be included. A few of the fields in the worksheet deserve further explanation.

1. **Building Identification.** Institutions should include in the FCR all facilities with E&G space for which the institution has maintenance responsibility. Institutions should identify each building by its building name and number. Institutions should also report the amount of gross square footage (GSF) of the building, the year the facility was built or acquired, and whether the building has been designated as an historic facility.

2. **Building Use.** Each facility should be assigned a building use **based on the predominant use of space within that facility**. Appendix B includes a list of all building categories for use in the FCR. The standard building use categories are incorporated to provide uniformity to the process of valuing state facilities. As a base cost, all buildings of a specific use should be valued at the same construction cost per gross square foot.

3. **Construction Cost Per Gross Square Foot.** As a base construction value, SCHEV recommends that institutions value all buildings of a specific type at the same construction cost per gross square foot. Based on national data from Marshall & Swift®, the unit costs provided in Appendix B are derived from the average construction cost per gross square foot for Classes A and B construction of "good" quality. These national figures have been adjusted to current dollars (January 1, 2001) and adjusted for geographical location.

4. **Estimated Construction Cost.** This calculated figure represents the base cost for the building. The GSF multiplied by the construction cost per square foot will yield the base cost of the facility. Institutions are required to use the unit costs per Appendix B to estimate the base construction cost of the building.

5. **Institution-Specific Adjustments.** It is anticipated that institutions may need to make adjustments to the estimated construction cost of some buildings to reach the actual building value. Appendix C contains a matrix of construction cost per gross square foot based on Marshall & Swift's building type, construction type, and quality levels, which institutions may use as a reference in making any necessary adjustments. For those buildings where adjustments are needed, please indicate the additional cost due to design complexity, historical considerations, recent bid experience, construction type/quality adjustment, or any other cost beyond the base cost. Please briefly explain all institution-specific adjustments.

6. **E&G Share.** The reported GSF should be the building's total gross square footage. The E&G share should be the percentage of the building that contains educational and general programs.

These guidelines aim only at estimating deferred maintenance needs at E&G facilities. Over the last several biennia, many institutions have also received nongeneral fund appropriations to address deferred maintenance needs at non-E&G facilities. To date, SCHEV has made little effort to collect facilities condition data for these buildings; however, in working with the institutional workgroup, there appears to be some value and interest in developing and maintaining system-wide data on non-E&G facilities, as well. Although not required for the 2000 FCR, SCHEV staff will continue working with institutions to determine the feasibility and desirability of collecting this data prior to the 2004-06 biennium.

7. **E&G Building Value.** This calculated figure is the E&G share of the building's construction cost. It is the sum of the estimated construction cost and institution-specific adjustments multiplied by the E&G percentage share of the facility.

B. Facilities Condition Report: The E&G building values calculated on the Building Value Worksheet should be reported in the Facilities Condition Report. In addition, the cost of the buildings' deferred maintenance deficiencies should be reported.

1. **Building Value:** Report each building and its value as calculated on the Building Value Worksheet.

2. **Deficiency costs:** The cost of deficiencies reported in the FCR is the cost of existing maintenance and repair deficiencies. The identified deficiencies should meet guidelines issued by the Department of Planning and Budget (DPB). Soft costs, such as A&E fees, project management costs, and construction contingencies should not be included in deficiency costs.

A deficiency project that meets one or more of the following criteria may be included in the FCR:

- Repair or replacement of functionally obsolete, damaged, or inoperable built-in equipment such as elevators, furnaces, plumbing fixtures, air conditioning, and ventilation;
- Repair or replacement of components of plant such as exterior wood, masonry, ceilings, floors, floor coverings, doors, windows, roofs, sidewalks, parking lots, fencing, and exterior lighting;
- Repair or replacement of existing utility systems, such as steam lines, natural gas, air, electrical, water, and sewer; and
- Correction of problems resulting from erosion and drainage.

The cost of deficiencies included in one or more of the following criteria should **not** be included in the FCR:

- Maintenance contracts to clean, maintain, repair, or protect existing plant, property, or equipment;
- Routine periodic maintenance such as servicing, adjusting, minor repairs, painting, scraping, cleaning, and spraying of plant or property;
- Repair or replacement of office, motorized, medical, laboratory, electronic, photographic, educational, cultural, computerized, and other specific-use, moveable equipment that is not permanently installed as a part of the plant or property; and
- Leak testing and monitoring of underground storage tanks and the removal of underground storage tanks not associated with tank replacement.

DPB guidelines also provide that maintenance reserve funds can be used to address work related to handicapped access, energy conservation, building and safety codes compliance, lead paint abatement, or asbestos correction when the work is determined to be necessary in conjunction with another deficiency project. As a result, institutions should include only deficiencies in these areas that will be addressed through another maintenance reserve project. Stand-alone projects for handicapped access, energy conservation, code compliance, lead paint abatement, and asbestos correction should not be included when completing the FCR. For example, institutions should not report the cost of removing asbestos in a facility as a maintenance deficiency. However, the cost of removing asbestos required as part of a maintenance reserve project should be reported.

In addition, it is important to note that while an institution's maintenance program may include life-cycle projections or planned renewal of components, the Facilities Condition Report should reflect a facility's condition at a point in time. As such, the cost of projected maintenance and repair, and component renewals should not be included in the building deficiencies reported to SCHEV. And, as with building values, the value of deficiencies reported in the FCR should not include soft costs, furnishings, or equipment.

3. Facility condition index. The FCI is calculated as shown on the Facilities Condition Report Worksheet. For each building, it is the cost of the building's deficiencies as a percent of its building value. For the institution as a whole, it is the cost of all deficiencies as a percent of the value of all buildings.

$$\text{Facility condition index} = \frac{\text{Cost of Deficiencies}}{\text{Current Building Value}}$$

The campus condition ratings will continue to be evaluated on the three-tier scale as shown above.

C. Record Keeping: Institutions are not required to submit detailed deficiency data to SCHEV. However, SCHEV staff shall, as needed, request this information on an institution's buildings.

D. Web Access: These instructions can be accessed on the SCHEV website under Policies and Guidelines / Finance and Facilities. The sample worksheet and report can also be downloaded from the website.

Appendix A

Terminology and Definitions

Building Deficiency: Costs of replacing or repairing systems or components suffering from any of the following: a) loss of functionality; b) necessity for frequent repair; c) obsolescence; or d) failure. Building deficiencies can be grouped into two categories depending on the magnitude of the deficiency. Deficiencies ranging between \$25,000 and \$500,000 are normally funded through the maintenance reserve program while deficiencies valued at less than \$25,000 are normally funded through operating budgets.

- **Maintenance Reserve Deficiency:** Deficiencies funded through the maintenance reserve program, with costs ranging between \$25,000 and \$500,000.
- **Operating Deficiency:** Deficiencies funded through institutions' operating budgets, with costs less than \$25,000.

Capital Renewal: Major capital renovations to primary building systems and subsystems (e.g. roof, HVAC, electrical, plumbing, and interior renovations) required either to address specific facility needs for a given program or to manage deferred maintenance. Capital renewal does not include the construction of new buildings.

Component Renewal: Planned replacement of a component or system based on the end of its projected useful life cycle. For purposes of assessing current deficiencies, component renewal should not be reported in either operating or maintenance reserve deficiencies.

Current Building Value: Estimated construction cost to replace a facility. This amount should include the total funds required to duplicate the internal and external building envelope to provide the same level of functionality based upon accurate local labor and material costs. Soft costs such as A&E fees, project management costs, and construction contingencies should not be included.

Current Replacement Value: Current replacement value is the estimated construction cost required to duplicate the internal and external building envelope to provide the same level of functionality based upon labor and material costs (current building value) plus soft costs such as A&E fees, project management costs, and construction contingencies. It should not include the value of furnishings, equipment, or land.

Deferred Maintenance Backlog: The total dollar amount of existing major maintenance repairs and replacements, identified by a comprehensive facilities condition audit of buildings, and infrastructure needs. It does not include projected maintenance and replacement or other types of work, such as program improvements or new construction. These items are viewed as separate capital needs. Deferred maintenance backlog is the sum of operating deficiencies and maintenance deficiencies. (*Other common terminology – Accumulated Deferred Maintenance or Deferred Maintenance.*)

Gross Square Feet: Sum of all space on all floors within a building to the outside faces of exterior walls.

Net Assignable Square Feet: Sum of all space on all floors in a building available for assignment to an occupant for specific use.

Routine Maintenance: Systematic, day-to-day maintenance or upkeep funded through the annual operating budget to control deterioration of the plant facilities (structures, systems, equipment, pavement, grounds), including repetitive work (site maintenance, housekeeping, grounds keeping) and scheduled periodic work (preventative maintenance planned to provide adjustments, cleaning, minor repair, and routine inspections.)

Soft Costs: Costs beyond construction cost that cover items such as A&E fees, daily project inspections, project management or administration, and construction contingencies. It should not include the value of furnishings and equipment, or land.

Unscheduled Major Maintenance: Work requiring immediate action to restore services or prevent risk to health and safety. Examples include loss of electrical power, water, refrigeration, or building failures creating hazards to personnel or equipment.

Appendix B
Construction Cost By Building Use

Predominant Building Use	Construction Cost Per Gross Square Foot
Classrooms	\$111
Library	\$126
Admin/Office	\$109
Laboratory	\$132
Student Union	\$128
Physical Education Building	\$114
Dormitories	\$99

Appendix C

Construction Cost Per Gross Square Foot

Building Type	Type of Construction		Level of Quality		
			1-Average	2-Good	3-Excellent
Classrooms	Rated	(1A, 1B, 2A, 2B)	91	111	136
	Protected	(3A, 4, 5A)	79	99	120
	Unprotected	(2C, 3B)	69	90	109
	Wood Frame	(5B)	64	82	106
Library	Rated	(1A, 1B, 2A, 2B)	93	126	163
	Protected	(3A, 4, 5A)	81	109	143
	Unprotected	(2C, 3B)	70	92	125
	Wood Frame	(5B)	67	89	122
Admin/Office	Rated	(1A, 1B, 2A, 2B)	82	109	137
	Protected	(3A, 4, 5A)	73	98	129
	Unprotected	(2C, 3B)	64	87	121
	Wood Frame	(5B)	61	83	117
Laboratory	Rated	(1A, 1B, 2A, 2B)	107	132	164
	Protected	(3A, 4, 5A)	97	120	149
	Unprotected	(2C, 3B)	88	109	134
	Wood Frame	(5B)	85	105	131
Student Union	Rated	(1A, 1B, 2A, 2B)	105	128	156
	Protected	(3A, 4, 5A)	93	118	146
	Unprotected	(2C, 3B)	81	109	137
	Wood Frame	(5B)	67	89	122
Physical Education Building	Rated	(1A, 1B, 2A, 2B)	83	114	135
	Protected	(3A, 4, 5A)	71	98	125
	Unprotected	(2C, 3B)	59	83	115
	Wood Frame	(5B)	57	80	111
Dormitory	Rated	(1A, 1B, 2A, 2B)	77	99	121
	Protected	(3A, 4, 5A)	67	88	110
	Unprotected	(2C, 3B)	59	78	102
	Wood Frame	(5B)	56	74	100

INSTITUTION NAME
BUILDING VALUE WORKSHEET 2000 FACILITIES CONDITION REPORT
EDUCATIONAL AND GENERAL PROGRAMS

Building Identification				A	B	C=A*B	D	E	F	G	H	I	J	K=(C+I)*J	
Building Identification				Baseline Costs			Institution Specific Adjustments ¹								
Building Name	Building Number	Year Built	Historical Designation	Building Type	GSF	Construction Cost Per Square Foot	Estimated Construction Cost	Design Complexity	Historical Considerations	Recent Bid Experience	Type/Quality Adjustment	Other	Subtotal of Adjustments	E&G Share	E&G BUILDING VALUE
Smith Hall	0045	1938	No	Classrooms	54,000	\$111	\$5,994,000	N/A	\$500,000	N/A	N/A	N/A	\$500,000	81%	\$5,260,140
Jones Hall	0129	1961	No	Laboratories	50,000	\$132	\$6,600,000	N/A	N/A	\$1,000,000	N/A	N/A	\$1,000,000	65%	\$4,940,000

¹ Please explain any entry in this section.

Institution Name

2000 FACILITIES CONDITION REPORT EDUCATIONAL AND GENERAL PROGRAMS

FACILITIES	A	B		C	D = (B + C) / A
	Building Value	Deficiency Backlog		Maintenance	Facility Condition Index
		Operating			
Smith Hall	\$5,260,140	\$22,000		\$320,000	6.5%
Jones Hall	\$4,940,000	\$17,000		\$185,000	4.1%
Total, All Buildings	\$10,200,140	\$39,000		\$505,000	5.3%

APPENDIX C

STATE COUNCIL OF HIGHER EDUCATION

**Higher Education Facilities Condition Reporting Guidelines
Instructions for Reporting Infrastructure Data**

July 9, 2001

Fixed Asset Guidelines

C-1

Facilities Condition Reporting Guidelines
For Infrastructure Assets - July 9, 2001

Higher Education Facilities Condition Reporting Guidelines For Infrastructure Assets

Background

In July 2000, the State Council of Higher Education for Virginia (SCHEV) and the Department of General Services (DGS) hired a consultant to evaluate the uniformity of facility condition assessment procedures used to determine the maintenance reserve needs of the Commonwealth's agencies and institutions of higher education.

The consultant's final report was released in November 2000. Among its findings, the consultant reported that institutions used various methodologies to estimate building values and to determine estimated costs of repairing building deficiencies. The consultant also found that most institutions did not fully consider the value of infrastructure assets or the cost of deficiencies of infrastructure assets when reporting the condition of their facilities. The infrastructure of an institution includes those items, which are required but are not related directly to a building, such as utilities connecting buildings to the power plant, sidewalks, and roads.

SCHEV staff, with the help of its consultant, a workgroup of institutional representatives, and DGS, has developed a list of infrastructure assets (see Appendix A) and the following guidelines for valuing those assets and reporting their deficiencies.

Instructions for Reporting Infrastructure Assets in the Facilities Condition Report

These instructions have been established to clarify what institutions should report as infrastructure in the Facilities Condition Report (FCR). Institutions should use the Infrastructure Value Worksheet to report asset specific information. The institution's total infrastructure will be summarized as one line in the FCR. A sample of the infrastructure value worksheet is included in Appendix C. It is also provided as a Microsoft EXCEL file on the SCHEV website under Policies and Guidelines / Finance and Facilities Policies. Institutions are asked to download the EXCEL file, replace the sample data with institutional data, and return the completed worksheet to SCHEV via diskette or e-mail. SCHEV staff will incorporate your infrastructure data into the FCR that has already been submitted for building values and deficiency costs.

These guidelines aim at estimating only the deferred maintenance needs of E&G infrastructure. Although not required for the 2000 FCR, SCHEV staff will continue working with institutions to determine the feasibility and desirability of collecting non-E&G data prior to the 2004-06 biennium.

A. Infrastructure Value Worksheet (Appendix C): Institutions are asked to complete the worksheet to estimate the current value of each type of infrastructure asset the institution maintains. The amount reported should include the total funds required to replace the asset at the same level of functionality based upon accurate local labor and material costs. Soft costs, such as A&E fees, project management costs, and construction contingencies should not be included. Site preparation costs, which were initially incurred, also should not be included in the construction cost of your infrastructure asset.

In addition, it is important to note that while an institution's maintenance program may include life-cycle projections or planned component renewals, the FCR should reflect an asset's condition at a point in time.¹ As such, the cost of projected maintenance and repair, and component renewals should not be included in the infrastructure deficiencies reported to SCHEV.

With these provisions, the infrastructure value worksheet contains each of the elements described below. A detailed description of the required reporting for each element is also required below:

1. **Infrastructure asset.** Institutions should report all of the major infrastructure assets that they maintain. Appendix A includes the major types of infrastructure assets that should be reported by each institution, if applicable.

2. **Unit Measure.** The quantity of each infrastructure should be reported using a standard single unit of measure, such as linear or square feet. The worksheet identifies standard unit measures for each infrastructure type.

3. **Total Units.** Institutions should report the total units of the asset for which it is responsible.

4. **Cost Per Unit.** As a base value, SCHEV recommends that institutions value all infrastructure of a specific type at the same cost per unit. The standard unit costs provided in Appendix A are based on a compilation of actual cost data provided by several institutions, and national data sources such as RSMeans®, and Marshall & Swift® provided by the consultant and DGS. An inflationary factor has been applied to these figures to adjust them to current (January 1, 2001) dollars.

In addition, Appendix B contains specific schedules in cases where institutions may find enough variability in an asset type that it is difficult to determine one standard

¹ For purposes of the 2000 FCR, institutions should value their assets as of January 1, 2001.

unit cost. These figures were derived in conjunction with DGS and the consultant and are based on national data sources such as R. S. Means® and Marshall & Swift.® An inflationary factor has been applied to all figures to adjust them to current (January 1, 2001) dollars. As indicated in the Infrastructure Unit Cost table located in Appendix A, institutions should refer to the appropriate schedule in Appendix B to estimate the base cost per unit of these asset types.

5. **Estimated Cost Value.** This calculated figure represents the base cost for the asset. The number of units that the institution owns of the infrastructure asset multiplied by the cost per unit will yield the base cost of the infrastructure asset. Institutions are required to use the unit costs per Appendix A to estimate the base replacement costs of the asset.

6. **Institution-Specific Adjustments.** It is anticipated that institutions may need to make adjustments to the estimated base cost of some infrastructure assets due to institution-specific conditions that may increase or decrease the replacement cost for each asset. For those infrastructure assets where an adjustment is made, please indicate the additional cost (or reduction in cost) and briefly explain why the adjustment is necessary.

7. **E&G Share.** The reported number or units of the infrastructure asset should be the institution's total units. The E&G share should be the percentage of the units that belong to the educational and general program.

8. **E&G Infrastructure Value.** This calculated figure is the E&G share of the infrastructure assets cost value. It is the sum of the estimated construction cost and institution-specific adjustments multiplied by the E&G percentage share of the facility. Only the E&G share of the infrastructure assets' values and deficiency costs will be carried forward to the FCR.

9. **Deficiency costs:** The cost of deficiencies reported in the FCR is the cost of existing maintenance and repair deficiencies. The identified deficiencies should meet guidelines issued by the Department of Planning and Budget (DPB). Soft costs, such as A&E fees, project management costs, and construction contingencies should not be included in deficiency costs.

A deficiency project that meets one or more of the following criteria may be included in the FCR:

- Repair or replacement of functionally obsolete, damaged, or inoperable built-in equipment such as elevators, furnaces, plumbing fixtures, air conditioning, and ventilation;

- Repair or replacement of components of plant such as exterior wood, masonry, ceilings, floors, floor coverings, doors, windows, roofs, sidewalks, parking lots, fencing, and exterior lighting;
- Repair or replacement of existing utility systems, such as steam lines, natural gas, air, electrical, water, and sewer; and
- Correction of problems resulting from erosion and drainage.

The cost of deficiencies included in one or more of the following criteria should **not** be included in the FCR:

- Maintenance contracts to clean, maintain, repair, or protect existing plant, property, or equipment;
- Routine periodic maintenance such as servicing, adjusting, minor repairs, painting, scraping, cleaning, and spraying of plant or property;
- Repair or replacement of office, motorized, medical, laboratory, electronic, photographic, educational, cultural, computerized, and other specific-use, moveable equipment that is not permanently installed as a part of the plant or property; and
- Leak testing and monitoring of underground storage tanks and the removal of underground storage tanks not associated with tank replacement.

In addition, it is important to note that while an institution's maintenance program may include life-cycle projections or planned renewal of components, the Facilities Condition Report should reflect a facility's condition at a point in time. As such, the cost of projected maintenance and repair, and component renewals should not be included in the infrastructure deficiencies reported to SCHEV. And, as with building values, the value of deficiencies reported in the FCR should not include soft costs.

B. Facilities Condition Report: The E&G total infrastructure value calculated on the Infrastructure Value Worksheet should be carried forward to the Facilities Condition Report. In addition, the cost of deferred maintenance of infrastructure assets should be reported.

Due to the fact that institutions have already submitted building data for the 2000 FCR, SCHEV staff will add the infrastructure data to the FCR for the 2000 reporting cycle. Therefore, institutions need to only submit the Infrastructure Value Worksheet at this time.

C. Record Keeping: Institutions are not required to submit detailed deficiency data to SCHEV. However, SCHEV staff shall, as needed, request this information on an institution's buildings or infrastructure.

D. Web Access: These instructions can be accessed on the SCHEV website under Policies and Guidelines / Finance and Facilities. The sample worksheet and report can also be downloaded from the website.

Appendix A Infrastructure Unit Cost

Infrastructure Asset Description	Unit of Measure	Valuation Cost Per Unit
Campus Drives & Streets:		
a. concrete pavement	Sq. Yd.	29.00
b. asphalt pavement	Sq. Yd.	14.00
c. parking area - paved	Sq. Yd.	24.00
d. parking area - unpaved	Sq. Yd.	10.00
e. pedestrian bridge	Sq. Ft.	107.00
Sidewalks:		
a. concrete	Sq. Yd.	43.00
b. asphalt pavement	Sq. Yd.	16.00
c. brick or flagstone	Sq. Yd.	93.00
d. gravel	Sq. Yd.	10.00
e. exterior stairs	Lin Ft.	20.00
Automatic Irrigation	Lin. Ft.	3.00
Exterior lighting	Pole	2,313.00
Signage	Ea.	63.00
Electrical:	Lin. Ft.	19.00
a. electric Lines	Lin. Ft.	19.00
b. electric transformers		See Schedule
c. electric substations		See Schedule
Communication Cable	Lin. Ft.	6.15
Gas Mains	Lin Ft.	33.00
Direct-Bury Steam and Chilled Water Lines	Lin. Ft.	100.00
Steam and Chilled Water in Tunnels:		
a. up to 3-1/2"	Lin. Ft.	42.00
d. 4" to 8"	Lin. Ft.	159.00
e. 10" and larger	Lin. Ft.	205.00
Water Mains:		
a. up to 4"	Lin. Ft.	24.00
b. 4-1/2" to 8"	Lin. Ft.	38.00
c. 9" and larger	Lin. Ft.	53.00
Utility Tunnels		See Schedule
Storm Sewer:		
a. up to 12"	Lin. Ft.	33.00
b. 13" to 26"	Lin. Ft.	62.00
c. 27" to 41"	Lin. Ft.	88.00
d. 42" to 59"	Lin. Ft.	130.00
e. 60" and greater	Lin. Ft.	175.00
f. 4' x 6' box culvert	Lin. Ft.	270.00
Sanitary Sewer:		
a. up to 2"	Lin. Ft.	36.00
b. 3" to 7"	Lin. Ft.	54.00
c. 8" to 12"	Lin. Ft.	98.00
d. 13" to 15"	Lin. Ft.	108.00
e. 16" to 24"	Lin. Ft.	160.00
f. greater than 24"	Lin. Ft.	203.00

INFRASTRUCTURE UNIT COST

Infrastructure Asset Description	Unit of Measure	Valuation Cost Per Unit
Septic Tanks/Fields Basic System:		
a. basic system plus pump	Each	5,800.00
b. basic system plus pump and pre-treatment	Each	17,800.00
Sewage Pump Stations:		
a. small station - less than 5,000 gallons/day	Each	23,700.00
b. medium station - 5,000 to 15,000 gallons/day	Each	105,750.00
c. large station - greater than 15,000 gallons/day	Each	227,850.00
Tanks:		
a. water tanks		See Schedule
b. above ground fuel storage		See Schedule
c. underground fuel storage		See Schedule
Fire Plugs	Each	2,242.00
Bulkheads	Sq. Ft.	556.00
Piers	Sq. Ft.	40.00
Retaining Walls	Lin. Ft.	See Schedule
Fencing - chain link	Lin. Ft.	22.00
Phy.Ed./Recreation Areas:		
a. playing fields	Sq. Ft.	5.00
b. outdoor basketball courts	Sq. Ft.	7.75
c. tennis courts	Sq. Ft.	7.35
d. running tracks	Sq. Ft.	8.50
e. bleachers		See Schedule

Appendix B COSTING SCHEDULES

Transformers				Substations	
Dry Type		Oil Filled		KVA Rating	Cost/KVA
Single-phase, 240/480-V primary, 120/240 secondary		Three phase or Y, 5-KV or 15-KV with taps, 277/480-V secondary			
Size	Cost	Size	Cost		
3 KVA	500	150 KVA	14,250	150	\$235
5	600	300	17,500	500	\$120
7.5	890	500	27,250	1000	\$85
10	1,075	750	34,250	2000	\$60
15	1,300	1,000	45,000		
25	1,675	1,500	49,000		
37.5	2,500	2,000	58,000		
50	2,950	2,500	60,500		
75	3,800	3,000	72,000		

Underground Fuel Storage

Costs are averages for fiberglass and steel tanks, completely installed, including fittings.

Nominal Capacity (gallons)	Fiberglass		Steel (sti-P3)		Fiber Coated Steel	
	Single Wall Tank Cost	Double Wall Tank Cost	Single Wall Tank Cost	Double Wall Tank Cost	Single Wall Tank Cost	Double Wall Tank Cost
1,000	3,150	5,775	2,520	4,305	3,045	4,550
2,000	3,990	7,210	3,290	5,165	3,850	5,600
3,000	4,515	8,068	3,675	6,020	4,375	6,937
4,000	5,093	9,398	4,288	6,720	4,935	7,350
5,000	5,810	10,150	4,900	8,365	5,583	8,925
6,000	6,720	11,830	5,810	9,503	6,475	10,115
8,000	7,490	12,513	6,510	10,675	7,245	11,410
10,000	8,960	14,525	7,928	13,055	8,680	14,000
12,000	10,325	16,485	8,925	14,210	9,975	15,960
15,000	12,600	19,950	10,920	18,970	12,250	19,425
20,000	16,450	25,025	14,175	21,875	15,925	23,660
25,000	2,030	30,450	17,675	27,195	19,600	28,700
30,000	24,325	35,525	20,825	32,725	23,275	33,600
50,000	40,250	56,000	32,900	50,925	N/A	51,625

COSTING SCHEDULES

Above Ground Fuel Storage Tanks

Costs are average for UL-listed cylindrical internal steel tanks encased inside a 6" pre-cast concrete vault, providing a 2-hour fire-wall and ballistic protection. The protective concrete outer shell is pre-cast in two sections to allow periodic internal tank inspection. Costs include fittings and installation on the buyer's foundation.

Capacity (gallons)	Size (feet)	Single Compartment		Dual Compartment	
		Single Wall	Double Wall	Single Wall	Double Wall
1,000	5 1/2 x 12	\$9,725	\$12,450	\$11,000	\$14,000
2,000	7 x 14	14,875	19,250	16,250	2,100
4,000	9 1/2 x 13	23,250	30,250	27,000	35,000
6,000	9 1/2 x 18	30,000	39,000	33,750	44,000
8,000	9 1/2 x 23	40,000	52,000	43,500	56,750
10,000	9 1/2 x 29	43,500	56,750	47,000	61,250
12,000	9 1/2 x 34	52,500	68,750	56,500	73,500

Utility Tunnels

The following costs of tunnels carrying utilities between buildings are smoothed averages of reinforced concrete-lined tunnels **per cubic foot** of tunnel including lighting and drainage.

Wall Thickness	Light Soil	Medium Soil	Hardpan	Rock
3"-5"	\$12.55	\$13.75	\$15.25	\$16.75
5"-7"	14.70	16.50	18.00	20.15
7"-10"	17.20	19.20	21.65	24.10

Retaining Walls (concrete)

Per Lin. Ft.

Wall Height (excluding footing)	Concrete Gravity Wall	Reinforced Concrete
4'	\$133	\$133
6'	\$204	\$199
8'	\$270	\$245
10'	\$581	\$520
20'	\$770	\$689

COSTING SCHEDULES

Welded Steel Watertanks

Costs are average costs of surface reservoirs including typical tank ancillaries such as roofs, ladders, painting, fittings on tank, etc.

Capacity (gallons)	Cost	Capacity (gallons)	Cost
100,000	\$ 93,450	750,000	\$ 289,800
125,000	\$ 100,800	1,000,000	\$ 334,950
150,000	\$ 108,938	1,500,000	\$ 467,513
200,000	\$ 123,113	2,000,000	\$ 569,363
250,000	\$ 138,863	2,500,000	\$ 665,700
300,000	\$ 153,825	3,000,000	\$ 761,775
400,000	\$ 192,413	4,000,000	\$ 929,250
500,000	\$ 225,750	5,000,000	\$ 1,086,488

Grandstands and Bleachers

The following are typical costs of grandstands and bleachers. Costs include stairs, ramps, handicap platforms and press boxes commensurate with type and quality, as well as designers' fees.

Type	Per Square Foot (Horizontal Projection)	Per Seat
Permanent bleachers, wood frame and benches		
up to 1,000 seats	\$16.00	\$53.00
1,000 to 2,000 seats	\$15.00	\$50.00
over 2,000 seats	\$14.00	\$46.00
Grandstand bleachers, open steel frame, metal, fiberglass or wood benches, school or fairground type;		
up to 1,000 seats	\$40.00	\$130.00
1,000 to 5,000 seats	\$38.00	\$120.00
over 5,000 seats	\$37.00	\$110.00
add for roofed areas	\$8.00	\$24.00
add for press box area	\$40.00	
Concrete or steel bleachers, no interior construction, stadium type, closed deck;		
under 5,000 seats	\$62.00	\$210.00
5,000 to 10,000 seats	\$61.00	\$205.00
over 10,000 seats	\$60.00	\$200.00
add for roofed areas	\$10.00	\$30.00
Concrete or steel bleachers with built-in dressing and training rooms, restrooms snack bars, press box, lighting, college or small municipal stadium type;		
under 5,000 seats	\$100.00	\$300.00
5,000-15,000 seats	\$83.00	\$260.00
over 15,000 seats	\$80.00	\$250.00
add for roofed areas	\$10.00	\$30.00

Appendix C

INFRASTRUCTURE VALUE WORKSHEET 2000 FACILITIES CONDITION REPORT

Infrastructure Asset	Baseline Costs				Institution-Specific Adjustments ¹	E&G Share	E&G Infrastructure Value	DEFICIENCY BACKLOG	
	Unit Measure	Quantity	Unit Cost	Estimated Value				Operating	Maintenance Reserve
Water Main up to 4"	Linear Feet	3,500	\$23	\$80,500	\$1,500	80%	\$65,600	\$0	\$0
Paved Parking Area	Square Yard	5,000	\$24	\$120,000	\$0	10%	\$12,000	\$0	\$0
Total Infrastructure				\$200,500	\$1,500		\$77,600	\$0	\$0

¹ Please explain why the adjustment is necessary.

Appendix D

Report on the Development of Auxiliary Enterprise Guidelines For Two-Year Institutions

November, 2010

Report on the Development of Auxiliary Enterprise Guidelines for Two-Year Institutions

Introduction

The State Council of Higher Education for Virginia (SCHEV), under authority of the Code of Virginia, evaluates the need among the Commonwealth's public institutions of higher education for new academic space under its Higher Education Fixed Asset Guidelines for Educational and General Programs. The relevant section is found at:

§ 23-9.9. Preparation of budget requests; submission of budget requests to Council; coordinating requests; submission of recommendations to Governor and General Assembly.

The Council of Higher Education shall develop policies, formulae and guidelines for the fair and equitable distribution and use of public funds among the public institutions of higher education, taking into account enrollment projections and recognizing differences as well as similarities in institutional missions. Such policies, formulae and guidelines as are developed by the Council shall include provisions for operating expenses and **capital outlay programs** and shall be utilized by all public institutions of higher education in preparing requests for appropriations. The Council shall consult with the Department of Planning and Budget in the development of such policies, formulae and guidelines to insure that they are consistent with the requirements of the Department of Planning and Budget¹ (Emphasis added).

SCHEV's Fixed Asset Guidelines are the means by which the capital outlay portion of this mandate is implemented. These guidelines constitute a valuable means for the equitable distribution of available resources among the colleges and universities and have long been relied upon by the Governor and General Assembly as an important source of empirically based impartial analysis in the development of the Commonwealth's long-range capital outlay planning for higher education.

However, until now SCHEV's guidelines dealt with fixed assets only within Educational and General programs. There have been no statewide fixed asset guidelines for Auxiliary Enterprises.

Inclusion in the 2010 Appropriation Act of language directing the Council to establish such guidelines is largely a reaction to the increase in requests for major auxiliary enterprise facilities by two-year institutions that has occurred over the last

¹§ 23-9.9 Code of Virginia. Preparation of budget requests; submission of budget requests to Council; coordinating requests; submission of recommendations to Governor and General Assembly. [LIS Code of Virginia 23-9.9](#)

several years.² Traditionally, these types of facilities have not been essential features on two-year college campuses and the Council has been directed to develop a means to evaluate the need for them now.

Educational and General V. Auxiliary Enterprises

Within higher education finance, “Educational and General” (E&G) is a term used to describe all operations related to an institution’s core educational objectives.

All activities associated with instruction, research, public service, academic support, student services, institutional support and operation and maintenance of plant are included in this classification. Excluded are expenditures for student financial assistance, auxiliary enterprises, and independent operations.³

It has been the long-standing policy of the Commonwealth that E&G operations at public colleges and universities receive significant financial support from the general fund. This is also true for institutions’ E&G capital outlay budgets. Such facilities are routinely financed with general funds or with state-supported debt.

In the treatment of construction of new E&G facilities, SCHEV’s Fixed Asset Guidelines, in most cases, prescribe the amount of academic and support space, by program and category, needed to accommodate any given level of full-time equivalent on-campus enrollment.⁴ Further, the guidelines also prescribe productivity targets for the instructional component of this space. For example, under the guidelines classrooms should be in use, on average, forty hours per week with an occupancy rate of 60%.

It is possible for SCHEV’s guidelines to achieve this level of precision in their treatment of E&G space because they are the product of many years of shared experience among campus facility planners and higher education executives applied to similar sets of activities nationwide. In other words, certain activities are common to all institutions of higher education and require roughly an equivalent amount of space to perform depending on the number of students involved. As will be discussed below, this is not necessarily the case with Auxiliary Enterprise space.

² 2010 Acts of Assembly, Chapter 874, Item 139, N. the State Council of Higher Education has been directed to, “... (E)stablish guidelines to govern recommendations on the construction of student housing, student centers, and other auxiliary facilities at two-year institutions of higher education...”

³ Chart of Accounts for Virginia State-Supported Colleges and Universities, Virginia Department of Accounts and the State Council of Higher Education for Virginia, 1990.

⁴ For the categories of Public Service and Libraries, there are no square-footage space need guidelines. Council’s recommendations are based on programmatic justification on a case-by-case basis.
http://www.schev.edu/AdminFaculty/Fixed_Asset_Guidelines_2001.pdf

Auxiliary Enterprises is the term used to describe operations that are not related to an institution's core educational objectives. Unlike E&G operations, Auxiliary Enterprise operations receive no general fund support. The National Association of College and University Business Officers (NACUBO) provides this definition of Auxiliary Enterprises:

An Auxiliary Enterprise exists to furnish goods or services to students, faculty, staff, other institutional departments, or incidentally to the general public, and charges a fee directly related to, although not necessarily equal to, the cost of the goods or services. **The distinguishing characteristic of an auxiliary enterprise is that it is managed to operate as a self-supporting activity.** Over time, the revenues will equal or exceed the expenses, although in any individual year there may be a deficit or a surplus. Examples are residence halls, food services, intercollegiate athletics (only if essentially self-supporting), college stores, faculty clubs, parking, and faculty housing. Student health services, when operated as an auxiliary enterprise, also are included. Hospitals, although they may serve students, faculty, or staff, are classified separately because of their financial significance.⁵ (Emphasis added).

Not only are Auxiliary Enterprise operations required to be self supporting but also Auxiliary Enterprise capital projects. Therefore, such facilities are routinely financed through the issuance of revenue bonds whose debt service payments are generated by user fees.

As noted above, SCHEV's Fixed Asset Guidelines do not address the need for Auxiliary Enterprise space. This is primarily due to the fact that, unlike E&G programs, Auxiliary Enterprise programs receive no state support, are not related to the core educational objectives of the institution and they lack the commonality across institutions and institution types that is ordinarily required to develop meaningful standards.

The General Assembly's requirement that SCHEV develop capital outlay guidelines for Auxiliary Enterprises, therefore, will require the addition of a new category of programmatic activity to the existing guidelines. The Council will need to develop a framework within which it can assess a public two-year institution's need for dormitories, student centers, *etc.* and to make recommendations related to specific proposals for such projects. Notwithstanding the novelty of capital outlay guidelines for self-supporting activities, the guidelines will, nevertheless, need to conform in principle to those that currently govern the Council's recommendations. The fundamental principles underpinning these guidelines are an adherence to Council's traditional support for

⁵ Financial Accounting and Reporting Manual (FARM), National Association of College and University Business Officers. 2009.

institutional autonomy tempered with its traditional insistence on institutional accountability.⁶

The Changing Model

Considerable disparity exists between the scale of Auxiliary Enterprise operations at the four-year and two-year institutions in Virginia but this is simply a natural reflection of the differences in the roles played by four- and two-year institutions in the Commonwealth's system of higher education. As residential institutions, Auxiliary Enterprises at Virginia's four-year colleges and universities include dormitories, dining halls, telecommunications systems, student health services, student unions, transportation systems, bookstores, and parking. At the two-year non-residential institutions Auxiliary Enterprises have traditionally been limited to bookstores, parking facilities and food service (vending) operations.

This disparity can best be illustrated by a comparison of the annual auxiliary enterprise expenditures at the four-year and two-year institutions. At the public four-year institutions in Virginia, in the most recent year for which national data are available, expenditures in the program of Auxiliary Enterprise totaled \$829 million.⁷ By contrast, at the public two-year institutions the amount was \$14 million. To put this in a real life context, the total Auxiliary Enterprise expenditures for the entire community college system were less than half of those posted for Longwood University.

The disparity is also evident in the amount of space dedicated to Auxiliary Enterprise programs in the institutions' facilities inventories. In the most recent year for which data were submitted, the public four-year institutions reported having 18,000,000 assignable square feet of space dedicated to Auxiliary Enterprise programs. The two-year institutions reported only 162,000 assignable square feet.

The traditional model in the Commonwealth that these examples represent is changing, however. During the past several years the Governor and General Assembly have broken new ground in Virginia by authorizing the construction of major new student

⁶ State Council of Higher Education for Virginia, *Change and Improvement in Virginia Higher Education: A Preliminary Report to the Governor and General Assembly*, 1993. "Central state government should adopt a corporate management model of operation, at least in regard to higher education. It should set general policy, provide service to institutions in their decisions on how to implement those policies, and monitor results. Operational decisions should be made at the closest point to the delivery of services -- at the college or university. The term often used to describe this approach is **decentralization**... This flexibility should permit those institutions that have the capacity and wish to do so to operate their own financial, personnel, purchasing, and capital outlay systems. The institutions, of course, would comply with both state law and state policy and generally accepted accounting principles and other standards. Other models should be established to accommodate colleges and universities that do not have the capacity to decentralize to this degree... The objective of these changes is to give institutions maximum flexibility to concentrate their resources on direct services to their clients." (Emphasis added).

⁷ Source: Integrated Postsecondary Education Data System (IPEDS) Finance Survey 2007-08, National Center for Education Statistics .

fee-supported student centers and residential facilities on the campuses of its two-year institutions.

Displayed below are excerpts from the legislation which authorized, or modified the authorization, of these projects. It is important to note that these projects were authorized in the absence of any relevant state-wide fixed asset guidelines for such projects. It is also important to note that the language in Chapter 874 directing SCHEV to establish Auxiliary Enterprise guidelines contains the following provision, "...In developing these guidelines the State Council shall not utilize previous authorizations as precedents." Nevertheless, an analysis of the rationale for these projects, an assessment of their impact on student fees, and a general evaluation of their overall success can serve as a valuable resource in the development of the guidelines

Recently Authorized Auxiliary Enterprise Projects at Two-Year Institutions

Richard Bland College (241)

C-37.10. Richard Bland College is authorized to enter into a long-term lease or other financing agreement with its affiliated foundation relating to the construction, operation, and payment of debt service on residential facilities in an amount up to **\$27 million** for housing up to 258 students on Richard Bland College land to be leased to said foundation for such purposes. Richard Bland College is further authorized to enter into a written agreement with the foundation for the support, maintenance, and operation of such student housing facilities. Alternatively, Richard Bland College may finance said project through the issuance of 9(d) revenue bonds of the college. In the event student fees are inadequate to provide debt service, Richard Bland College intends to support such project financing with its general revenues.⁸

Virginia Community College System (260)

C-62. New Construction: Construct Student Center, Norfolk Campus, Tidewater (17068)..... \$1,100,000
 Fund Sources: Trust and Agency \$1,100,000

Additional funds provided in this Item are for the equipment portion of a previously approved capital project authorized in 2004, (Chapter 4, 2004 Acts of Assembly). The total cost of the project with the supplement is **\$18,695,000.**⁹

Virginia Community College System (260)

C-63. New Construction: Construct Student Center, Virginia Beach Campus, Tidewater (17067)..... \$1,700,000
 Fund Sources: Trust and Agency \$1,700,000

⁸ Chapter 781, 2007 Virginia Acts of Assembly, Item C-37.10

⁹ Chapter 874, 2010 Virginia Acts of Assembly, Item as noted.

Additional funds provided in this Item are for the equipment portion of a previously approved capital project authorized in 2004, (Chapter 4, 2004 Acts of Assembly). The total cost of the project with the supplement is **\$29,070,000.**¹⁰

Virginia Community College System (260)

C-64. New Construction: Construct Student Center,
 Portsmouth Campus, Tidewater (17397)..... \$1,100,000
 Fund Sources: Trust and Agency \$1,100,000

Additional funds provided in this Item are for the equipment portion of a previously approved capital project authorized in 2007, (Chapter 847, 2007 Acts of Assembly). The total cost of the project with the supplement is **\$19,496,000.**¹¹

Virginia Community College System (260)

C-65. New Construction: Construct Student Center,
 Chesapeake Campus, Tidewater (17625)..... \$1,100,000
 Fund Sources: Trust and Agency \$1,100,000

Additional funds provided in this Item are for the equipment portion of a previously approved capital project authorized in 2008, (Chapter 879, 2008 Acts of Assembly). The total cost of the project with the supplement is **\$21,853,000.**¹²

Virginia Community College System (260)

C-58. New Construction: Construct Student Housing,
 Northern Virginia (17854) \$0
 Fund Sources: Higher Education Operating..... \$0

The General Assembly authorizes Northern Virginia Community College, Alexandria Campus to enter into a written agreement either with its affiliated foundation or a private contractor to construct a facility to provide on-campus housing on College land to be leased to said foundation or private contractor for such purposes. Northern Virginia Community College, Alexandria Campus, is also authorized to enter into a written agreement with said foundation or private contractor for the support of such student housing facilities and management of the operation and maintenance of the same.¹³

The projects listed above will be discussed in the next section of the report in the categories of Student Housing Facilities and Student Centers.

¹⁰ Ibid., Item as noted.
¹¹ Ibid., Item as noted.
¹² Ibid., Item as noted.
¹³ Ibid., Item as noted.

Student Housing Facilities

The locations of the two recently authorized student housing projects at two-year institutions, the first such facilities in Virginia, are: 1) The Richard Bland College of William and Mary (RBC) and 2) the Alexandria Campus of Northern Virginia Community College (NVCC). The project at RBC has been completed and is in its third year of operation. The project at NVCC has only recently been authorized and is still in the planning stage.

Richard Bland College

The 258 bed dormitory at Richard Bland College, as noted above, is now in its third year of operation. The \$27 million dollar facility was financed with Industrial Development Authority bonds (IDAs) backed by a pledge of user fees (rental payments). The facility consists of 1, 2, 3, and 4 bedroom units with one occupant per bedroom. Management reports that to-date the project has been very successful.

The single largest source of financial risk associated with dormitory construction is overestimation of demand in the planning process. Despite allowing for enrollment variations and for the accumulation of cash reserves, a substantial vacancy rate can lead to significant institution-wide fiscal distress. This has not been the case at RBC. In fact, management reports that in each year of operation demand for on-campus housing has exceeded supply leading to waiting lists for dorm rooms. Revenues from housing rental fees have met expectations and have been sufficient to satisfy debt service requirements and reserve fund contribution requirements.

The keys to the success of this venture are sound financial planning, accurate demand estimates, and attractive residential facilities. An issue that still requires close monitoring is the adequacy of the cash reserves intended to fund routine maintenance and periodic major system renewal and replacement as the facility ages.

Two points of particular interest regarding this project relate to comprehensive fees and student grades. Comprehensive fees are of interest because none are required to support this project. Revenues from user fees in the form of dorm rental income have been sufficient to service the debt and defray normal operating costs. Therefore, costs associated with this project are not borne by students not living in the dorms, thus keeping the overall cost of attendance down. Student grades are of interest because, as noted above, demand for rooms exceeds supply and management has, therefore, established minimum GPA requirements as a condition of qualifying for on-campus housing. This could ultimately have a beneficial effect on overall retention and graduation rates at the college.

Northern Virginia Community College

Though still in the preliminary stages, documents supplied by NVCC describe the project as follows:

The project consists of the construction of an approximately 300-bed student housing complex on the upper portion of the Alexandria Campus. This project will be accomplished through a PPEA, and the College has been approached by three different developers with interests in financing and constructing such a project. Preliminary estimate indicate that the 300-bed scope is accurate, and the College is currently engaged in a comprehensive demand study to ratify the current proposed scope and better determine the ultimate scope for the project.

The cost of the project is estimated at \$32 million. As envisioned, the total cost of debt service and operations would be covered by revenues from user fees (rental payments). There are no plans to assess a comprehensive student fee to support the project.

Although both of the housing projects discussed here involve two-year institutions, it would be impossible to generalize the Richard Bland experience to this project. In the first place, enrollment at the Alexandria Campus of NVCC is several times that at RBC. Thus, a much smaller percent of the student population would be required to achieve full occupancy. Secondly, the demographics of the student bodies differ significantly between the institutions. For example, 68% of RBC's students are full-time versus 37% for NVCC. Also, 78% of RBC's students are in the 17 to 21 age group whereas the comparable figure for NVCC is 44%. These differences could have a material impact on the need for or desirability of on-campus housing at the two institutions. Finally, the Alexandria Campus of NVCC is situated in an highly urban area with abundant alternatives to on-campus housing. This would result in much less price elasticity when setting dorm rental charges.

One point of particular interest regarding this project is that it represents the Commonwealth's first venture into on-campus housing for Community College students. This is a significant departure from past practice. A review of state policy documents regarding the establishment of the Community College System clearly demonstrate that the colleges were not envisioned as residential institutions. In 1975, the Joint Legislative Audit and Review Commission (JLARC) conducted the first comprehensive state-wide review of the VCCS. In several sections, that report notes the significance of the concept of "geographic accessibility" in establishing the system and the strategies designed to achieve that goal.

The General Assembly established the VCCS to make educational opportunities more accessible to Virginians. Accessibility was viewed as encompassing three major areas; geographic, financial and program access... **Geographic access to post-secondary education was perhaps the primary factor influencing the decision to create a community college system...** The 32 existing campuses are located throughout the

Commonwealth and offer virtually complete geographic coverage of the State.¹⁴ (Emphasis added).

The master plan divided the state into 22 regions and colleges were to be located within either 35 miles or 45 minutes of at least the majority of potential students. This meant that some colleges would have more than one campus, e.g. Northern Virginia (5), Tidewater (3), Rappahannock (2), J. Sargeant Reynolds (2), and Southside (2).¹⁵

In a follow-up report JLARC re-emphasized the importance of “geographic access” to the mission of the VCCS:

The Virginia Community College System (VCCS) plays a unique role in Virginia higher education. The VCCS was specifically structured to be geographically and financially accessible to Virginia citizens desiring further education and skill development... The State Board, as one of its first actions, commissioned a consultant to develop A Proposed Master Plan for a Statewide System of Community College Education in Virginia. Recommending that a college campus be within commuting distance of every citizen, the plan divided the entire state into 22 college regions, each to be served by a community college.¹⁶

The residential facility at NVCC authorized by the 2010 General Assembly should prove to be an interesting pilot. Given the original mission of the VCCS, an unusual feature of the initial project proposal was that the project was targeted to meet the needs of foreign students. The following excerpt is from that proposal.

In addition, the Alexandria Campus is the one most likely to be attended by foreign students, which the College is actively recruiting. However, a consistently mentioned drawback of NOVA, based on comments and observations by touring groups trying to establish a foreign student program, is that the College lacks housing. Housing could allow these students to attend NOVA...

Since the project is still in the early planning stages it will be several years before an occupancy permit is awarded. The VCCS does not have any other proposals for student housing facilities in its Board-approved Six-Year Capital Outlay Plan.

¹⁴ Joint Legislative Audit and Review Commission, *Program Evaluation: The Virginia Community College System*, March 17, 1975. p. 34.

¹⁵ *Ibid.*, p. S-2

¹⁶ Joint Legislative Audit and Review Commission, *Follow-Up Report of the Joint Legislative Audit and Review Commission on Review of the Virginia Community College System*, Senate Document No. 4, 1991. pp. 1-3.

In terms of the guidelines under development these two examples provide valuable but incomplete policy direction. Richard Bland College's experience clearly demonstrates that on-campus student housing facilities can become a successful component of the small, public junior college model in the Commonwealth. Unfortunately, its impossible to generalize this experience to other such institutions because RBC is the Commonwealth's only small public junior college.

NVCC's experience thus far hasn't yielded any meaningful policy direction simply because the process is just getting underway. The implications that this project may have on the development of Auxiliary Enterprise space guidelines are years away.

Student Centers

The location of the four recently authorized student center projects at two-year institutions are the Norfolk, Virginia Beach, Chesapeake and Portsmouth campuses of Tidewater Community College (TCC). These are the first large-scale student centers authorized for construction at a community college in the Commonwealth.

Each of the student centers authorized for TCC are designed to accommodate student support activities, student services, SGA offices, lounge/study areas, copier services, recreation rooms, bookstores, food service operations, child care services and other support offices.

The Financial Feasibility Study submitted by the VCCS in support of these projects provided the following rationale for their construction.

Increasingly, traditional college age students – many directly out of high school – are choosing to begin their collegiate education at community colleges. These students have a greater tendency to be enrolled on a full-time basis and to be engaged in the co-curricular programs of the college. They – and many of their non-traditional classmates – need places to go between classes and they need services such as those typically provided by a student union or center on a traditional 4-year campus. The college has no alternatives available to provide these kinds of amenities to the students who increasingly expect and demand them.

This group of projects represents a significant departure from past practice that will radically alter the physical profile of the college.

In Fall 2008 the VCCS reported a total of 17,166 square feet of Auxiliary Enterprise space across all four campuses of Tidewater Community College. These four new projects will add 257,000 square feet of such space.

The total cost of the combined projects, as detailed in the Appropriation Act, is \$88,914,000. Of this amount \$73,412,000 is student-fee supported debt.¹⁷ The impact on

¹⁷ Source: Financial Feasibility Studies submitted by the VCCS.

student fees is significant. The revenue to support the debt service is generated by a \$600 per year mandatory non-E&G fee assessed against all TCC students.¹⁸ The current base annual tuition and mandatory fees for the VCCS is \$3,285. Thus, the \$600 fee to support these projects translates into an 18% premium being paid by TCC's students.

Since none of the facilities are completed it is premature to assess their performance. The student center at the Norfolk Campus, with an anticipated opening date of January 2011, will be the first to go into operation.

In terms of the guidelines under development these projects, although not yet on-line, do provide useful information. They serve to illustrate the large impact on student fees that a commitment to this course of action entails. By consciously incorporating elements of the cost structure and physical facilities traditionally associated with four-year institutions TCC has relinquished some of the unique characteristics of the other institutions in the Community College System.

The Guidelines

As noted earlier in this report the guidelines under development here are a new type of guideline. During the deliberations on the proposed residential facility at NVCC in January 2010, one member of a legislative committee asked if SCHEV had guidelines related to the construction of such projects. It was clear from the context of the discussion that the legislator wasn't looking for guidance on the appropriate number of square feet per student nor on the recommended size of the kitchen. The policy guidance sought from SCHEV on this issue was whether construction of a student residence facility was consistent with the mission of a community college. Until now, SCHEV's capital outlay guidelines have been silent on such issues.

Further, student fees assessed to pay the debt service and operating costs of Auxiliary Enterprise facilities are an increasingly significant cost driver of financial aid need. As these costs escalate, especially at our lowest cost institutions, policy makers are wondering whether or not the Commonwealth can afford to continue to include these fees in the calculation of student need for financial assistance.¹⁹

It's no accident that in the same legislation requiring the development of Auxiliary Enterprise guidelines for two-year institutions SCHEV is also being asked to perform a review of funding requirements for student financial assistance.²⁰ The General Assembly is seeking policy guidance from SCHEV on whether or not construction of student centers and other auxiliary facilities, and their attendant cost to students,

¹⁸ A full-time student load is defined as 15 credit hours per semester or 30 credit hours per year. The student fee is assessed at \$20 per credit hour. Therefore 30 hrs X \$20 = \$600 per full-time student per year.

¹⁹ Please see: *SCHEV Review of the Funding Model for Student Financial Assistance*, October 2010. p. 13. Also please see floor approved amendments to 2010 HB 30, Item 139.M.1.

²⁰ 2010 Virginia Acts of Assembly, Chapter 874, Item 139.M.1

constitutes a barrier to attendance for the populations traditionally served by this sector of the higher education system.

Fortunately, the conceptual framework that provides Council the avenue to address these critical policy issues in its biennial capital outlay recommendations is already in place. This framework consists of two major components; 1) the Financial Feasibility Study, which is already a legislative requirement for institutions requesting state-sponsored debt and 2) qualitative, as opposed to quantitative, capital outlay guidelines that rely on programmatic justification rather than square-foot-per-student formulas. Libraries and Public Service space guidelines are examples of this type of guideline already in use by the Council.

Financial Feasibility Studies

Colleges and universities in Virginia are required by law to submit Financial Feasibility Studies to SCHEV and/or the State Treasurer for projects where debt service is to be paid from student fees or other institutional funds. The language in the Act is shown below.

§ 4-4.01 GENERAL

j. Capital Projects Financed with Bonds: Capital projects proposed to be financed with (i) 9 (c) general obligation bonds or (ii) 9(d) obligations where debt service is expected to be paid from project revenues or revenues of the agency or institution, shall be reviewed as follows:

...

2. By August 15 of each year, institutions shall also prepare and submit copies of financial feasibility studies to the State Council of Higher Education for Virginia for 9(d) obligations where debt service is expected to be paid from project revenues or revenues of the institution. The State Council of Higher Education shall identify the impact of all projects requested by the institutions of higher education, and as described in § 4-4.01 j.1. of this act, on the current and projected cost to students in institutions of higher education and the impact of the project on the institution's need for student financial assistance. The State Council of Higher Education for Virginia shall report such information to the Secretary of Finance and the Chairmen of the House appropriations and Senate Finance Committees no later than October 1 of each year.²¹

Financial Feasibility Studies (FFS) are comprehensive debt-financed capital outlay project evaluation instruments. Financial Feasibility Studies allow the borrowing institution to provide a complete description of the projects for which state-sponsored debt is being requested and to provide detailed information on the anticipated costs associated with the project and on the sources and uses of funds associated with the

²¹ 2010 Acts of Assembly, Chapter 874, § 4-4.01.j.2

project.²² Part 1 of the instrument consists of four sections; General Information, Cost Information, Revenue Information and General Financial Condition. Part 2 consists of Cost, Revenue and Net Revenues/Coverage spreadsheets.

Under current law, for each applicable project, SCHEV is responsible for receiving FFSs from the institutions, determining the cost to students, estimating the impact of the project on the institution's need for student financial aid, and reporting its findings to the Secretary of Finance and to the money committee chairmen.

Currently, SCHEV's findings are transmitted simply as an information item. They do not constitute a recommendation of the Council.

Recommendation #1: The State Council of Higher Education should include not only an assessment of the impact on student fees in its statutorily required Financial Feasibility Report but also its recommendation on the programmatic justifiability of the two-year institutions' auxiliary enterprise projects contained therein. This approach would:

- Respect the autonomy of the governing boards in developing each institutions' comprehensive Six-Year Capital Outlay plan. Each project submitted would have been subject to its Board approval process and to the criteria applicable to that institution.
- Not impose any new reporting requirements. The Financial Feasibility Studies are already a legal requirement for requesting participation in state-sponsored debt issues.
- Ensure accountability by requiring the disclosure of the impact of the projects on student fees and their impact on the need for student financial assistance.

Qualitative Capital Outlay Guidelines

SCHEV's Fixed Asset Guidelines, which underlie the Council's biennial capital outlay recommendations, have remained largely unchanged for many years. The Council's recommendations have long been relied upon by the Governor and General Assembly in the development of the Commonwealth's long-range capital outlay planning for higher education.

Many of the programmatic activities in higher education, such as instruction, academic support, student services, *etc.* readily lend themselves and their attendant space requirements to quantitative measurement and standardization. Credit hours of instruction, converted to full-time equivalence, and student headcount are the primary drivers of the need for space in these programs and therefore serve as the primary inputs to the quantitative components of SCHEV's capital outlay model.

²² A copy of the Financial Feasibility Study appears as Appendix A.

However, the Council recognized the existence of certain programmatic activities that did not readily lend themselves nor their attendant space requirements to quantitative measurement. Among these, for example, are academic libraries. Recent technological innovations ranging from on-line catalogs to entire collections of digital material allowed for radically different physical space requirements among what are otherwise similar institutions. Therefore, SCHEV's capital outlay recommendations treat requests for library construction on a case-by-case basis.

Public Service is another example of a program area for which standard space requirements are difficult, if not impossible, to establish. This broad program encompasses workforce development services which are often characterized by irregularly scheduled instructional activity of varying durations. It also encompasses agricultural extension activities, lecture series for the general public, community service functions and even public broadcasting studios. Recognizing that these types of activities had unique space requirements, Council, again, incorporated into its guidelines the flexibility to assess the need for new construction projects in this program on a case-by-case basis.

Auxiliary Enterprises activities, like Public Service activities, have unique space requirements that defy standardization. For example, among four-year institutions, not all campuses have dormitories and among those that do the capacity varies widely. Some institutions have sufficient capacity to house over 80% of their undergraduates while others can only accommodate 25% to 30%. Similarly, the existence of transportation systems and parking garages can be influenced by the residential character of an institution or by its size or by the degree of urbanization of its surroundings.

Telecommunication systems are another example of Auxiliary Enterprises that can have widely varying capital outlay requirements on campus. Some institutions have land-line systems while other campuses have gone almost completely wireless.

There are numerous other examples of Auxiliary Enterprise activities whose space needs cannot be standardized based on typical higher education inputs such as credit hours of instruction or student headcount.

Recommendation #2: The State Council of Higher Education should incorporate into its Fixed Asset Guidelines the new category of Auxiliary Enterprise Space for Two-Year Institutions which, like Public Service and Library Space, relies on programmatic justification rather than square-foot-per-student formulae. Adding this guideline would:

- Provide the Council with the flexibility to consider the unique character of each institution and its unique needs in formulating its recommendations. It would not impose a one-size-fits-all formula across all institutions.
- Allow the Council to consider the detailed Financial Feasibility Studies submitted by the institutions in support of their projects. Each major Auxiliary Enterprise

project submitted by a two-year institution could be thoroughly evaluated on a case-by-case basis with particular attention paid to the:

- Centrality of the project to the institution's mission,
- Probable effects of the project on the community and environment,
- Effects of the project on student fees and on the institution's need for student financial aid,
- Probable effect on student retention and graduation, and
- Impact of the project on the institution's debt ratio.

Conclusion

In order to meet its ongoing statutory obligation to develop policies, formulae and guidelines for the fair and equitable distribution and use of public funds among the public institutions of higher education, and in order to meet the more immediate requirement to establish guidelines to govern recommendations on the construction of student housing, student centers, and other auxiliary facilities at two-year institutions of higher education the Council should modify its existing fixed asset guidelines as described above in Recommendations 1 and 2 and communicate these changes to the General Assembly.

Addendum

Council staff would like to gratefully acknowledge the assistance provided by the leadership and the staffs of the two-year institutions, the money committee staffs and representatives of the Department of Planning and Budget in the development of this report. Without their help this project would not have been possible.

Furthermore, it's critically important to note that a central theme recurred throughout this study. That theme is the perceived need for additional individual and group study space and for social and cultural development space at our two-year institutions. It's no secret that enrollment at Virginia's community colleges is growing rapidly. This raises the question: Is there sufficient space on these campuses to accommodate this enrollment surge and is the existing space configured appropriately to accommodate the needs of these students?

Historically, SCHEV would have measured the adequacy of various types of space, including student study space, by referencing its Fixed Asset Guidelines and comparing the institutions' actual space inventory against its formula-driven estimate of the need for such space. Unfortunately, the formulaic determinant in the guidelines was a component of the Library Space guide and the use of this component of the guidelines

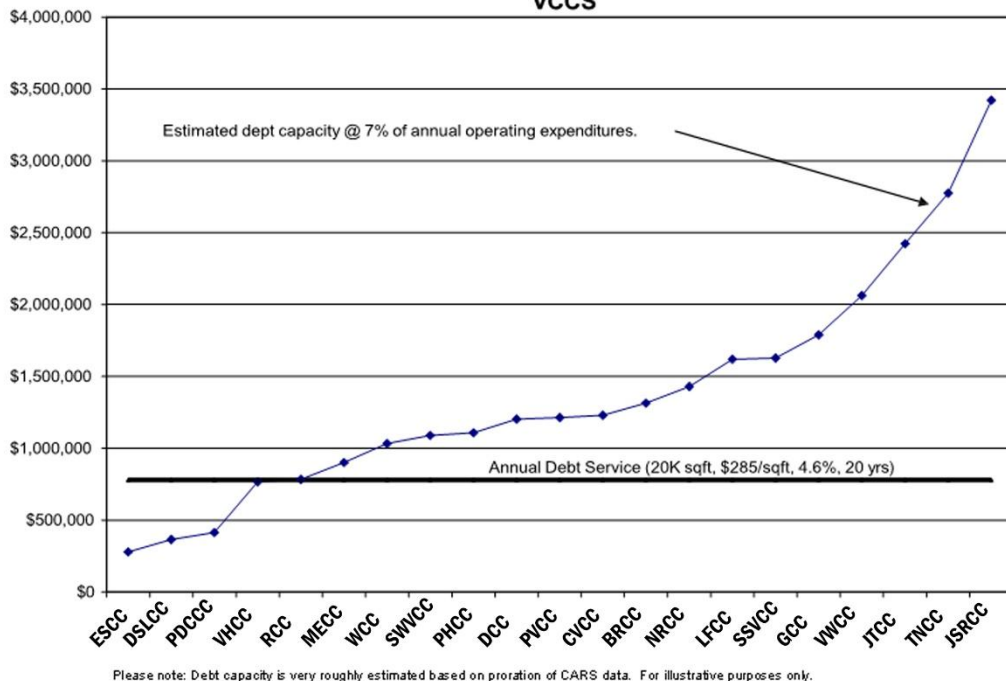
was discontinued in the mid-90s. Therefore, there is no longer a simple way to measure the adequacy of this space through the traditional means.

Insofar as this and similar types of space are also usually included in auxiliary enterprise student centers, a possible strategy on the part of the two-year institutions to address the perceived shortage is to include such facilities in their Six-Year Capital Outlay Plans.

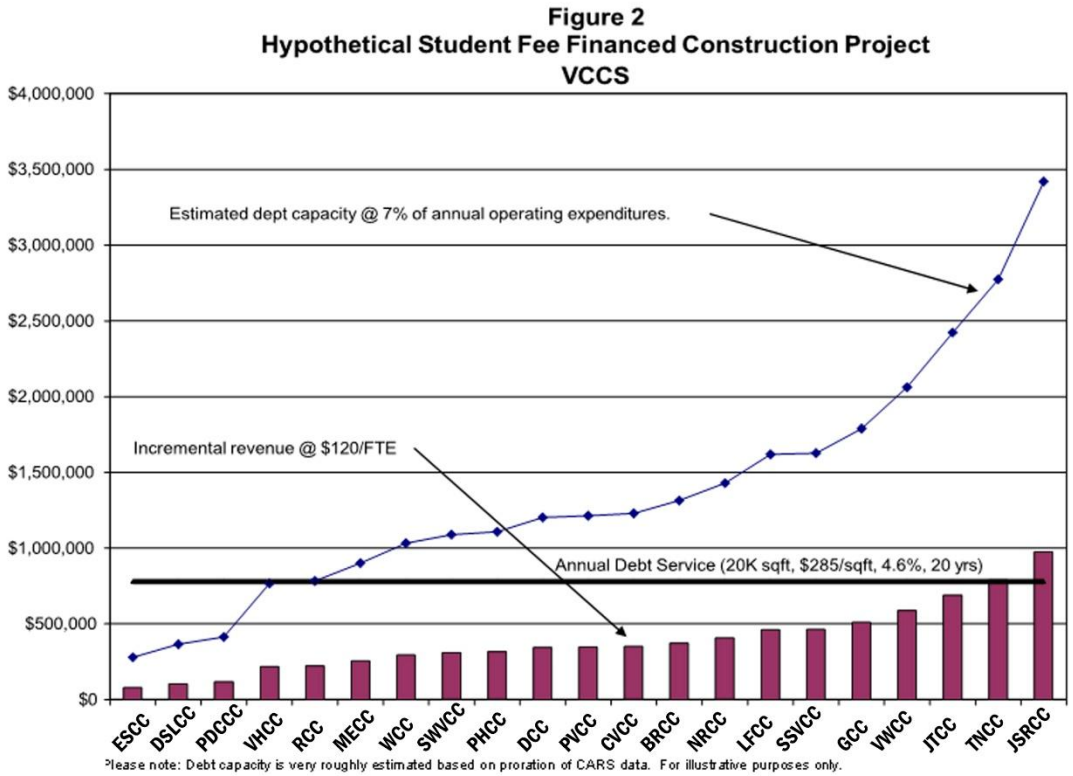
The Auxiliary Enterprise guidelines proposed earlier in this report, would appear to provide a sound approach for Council to evaluate these types of proposals. Modest student fee-financed student centers could be designed to provide individual and group study space, space for student activities and appropriate dining facilities. In fact, two-year institutions with large enough student populations could realistically finance such projects. (Please see Figures 1 and 2 below).

These figures illustrate the approximate debt service payments on a 20 year bond issued at 4.6% used to finance a hypothetical auxiliary enterprise general purpose facility of about 20,000 square feet. They also show the approximate estimated debt capacity of the institutions. Using these rough approximations, all but four of the VCCS institutions could support this project under a debt capacity ceiling of 7% of operating expenses.

Figure 1
Hypothetical Student Fee Financed Construction Project
VCCS



The second figure superimposes the revenue that could be generated by assessing a \$120 per year annual student fee by each institution to support the project. Please note that while most institutions could afford the debt service under the 7% ceiling, very few could actually raise sufficient incremental revenue at this fee level.



However, the question remains: Shouldn't the E&G guidelines provide for much of this type of space, especially study space, rather than requiring the institutions to fund it themselves with student fees?

As the institutions develop their Six-Year Capital Outlay Plans for submission in 2011, SCHEV staff will continue to explore ways to insure that appropriate strategies are available for use by the two-year institutions to address their student's need for study space and space for unstructured activities.

For the Biennial Budget for

Submission Date _____

Name of Agency/Institution _____ Agency Code _____

Project Name _____ Project Code _____

Project Amount \$ _____

Proposed Financing Arrangement: Bond _____ Capital Lease _____ Other (specify) _____

Requested Type of Financing _____ **9(c) *** - Obligations secured by project revenues (e.g., dormitory, dining) and the full faith and credit of the Commonwealth. **Submit to Treasury.**

_____ **9(d) *** - Any other financing arrangement. **Submit to SCHEV.**

Submitted by: Name _____

Title _____

E-mail _____

Telephone Number _____

Fax Number _____

The attached Financial Feasibility Study has been prepared using information and projections believed to be reliable and accurate for the purpose of estimating the demand and affordability of the proposed capital project.

Chief Financial/Fiscal Officer

Feasibility Studies may be submitted via e-mail to:

9(c) Feasibility Studies
Department of the Treasury
leslie.english@trs.virginia.gov

9(d) Feasibility Studies
State Council of Higher Education for Virginia
 JessicaMinnis-
 McClain@schev.edu

9(c) Debt – Refers to bonds or other obligations authorized under the provisions of Article X, Section 9(c) of the *Constitution of Virginia*. Such debt is secured by (i) net project revenues and (ii) the full faith and credit of the Commonwealth (i.e., a general obligation pledge). Consequently, only revenue-producing capital projects are eligible (e.g., dormitories, dining facilities, etc.). Authorization for 9(c) bonds requires an affirmative vote of two-thirds of the members elected to each house of the General Assembly. Further, prior to its authorization by the General Assembly, and again prior to its issuance, the Governor must certify that the anticipated net revenues of the project will be sufficient to pay principal and interest on the debt. The FFS is a critical part of this determination. 9(c) bonds are issued by the Treasury Board.

9(d) Debt – Refers to bonds or other obligations authorized for issuance under the provisions of Article X, Section 9(d) of the *Constitution of Virginia*. Such debt may or may not be secured by state funds. Project authorization must be provided in the Appropriation Act or other Act of the General Assembly. A financial feasibility study should be completed for any project expected to be supported in whole or in part from project revenues or general revenues of the agency or institution. This includes projects to be financed under the Virginia College Building Authority (VCBA) Pooled Bond Program. The project may or may not be revenue producing. Capital leases and other obligations are included in this category

FFS's for 9(d) projects must be submitted to State Council of Higher Education for Virginia by August 15th of each year. The State Council of Higher Education shall identify the impact of all projects requested by the institutions of higher education on the current and projected costs to students in institutions of higher education and the impact of the project on the institution's need for student financial assistance. The State Council of Higher Education for Virginia shall report such information to the Secretary of Finance and the Chairman of the House Appropriations and Senate Finance Committees no later than October 1 of each year.

Capital Lease – Capital leases are considered long-term obligations for accounting purposes. The State Comptroller defines capital leases as leases which meet any one (or more) of the following criteria:

- 1) transfer of ownership of the property to the lessee at the end of the lease term;
- 2) bargain purchase option at the end of the lease term;
- 3) lease term equal to 75% or more of the estimated economic life of the leased property; and
- 4) present value of the net minimum lease payments equal to or exceeding 90% of the fair market value of the property.

Capitalized Interest – Interest to be paid on the bonds during the period of construction that is financed as part of the bond issue. Capitalizing interest increases the overall cost of borrowing, but may be necessary in cases where project revenues are to be used to pay debt service. Conversely, where revenues are already being collected (i.e., a fee or fee increase has already been implemented), capitalized interest may not be appropriate.

General Revenue Pledge – A pledge of all general operating revenues of the institution of higher education (as opposed to a pledge of a specific revenue or revenue stream). The general revenue pledge is generally stronger than a specific revenue pledge. A general revenue pledge is required for the VCBA Pooled Bond Program. General operating revenues include: total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general fund appropriations and other revenues not required by law to be used for another purpose.

Incremental Annual Operating Expenses – The increase in annual operating costs attributable to the project.

Non-recurring costs – One-time project costs (e.g., land acquisition, special utility fees, permits, etc.) required for project completion.

Private Use – means any use by a trade or business that is carried on by persons or entities other than state or local governmental entities. Such use could involve ownership, management, service or incentive payment contracts, research agreements, leases, subleases, loans, or any other arrangement that conveys special legal entitlements or economic benefit to the non-governmental entity from the beneficial use of the project.

Reserve Fund – An amount set aside, usually from project revenues or bond proceeds, to mitigate the impact of fluctuations or interruptions in the flow of revenues to pay debt service. The presence of a reserve fund may enhance the credit. For the purposes of the feasibility study, reserve funds are generally for debt service and are funded from project or institutional revenues. 9(c) projects are expected to generate sufficient net revenues to fund a reserve at an amount equal to approximately 10% of the amount financed.

1. Describe the project in sufficient detail so that an uninformed reader has a clear understanding of the project. Indicate whether the project involves new construction or is a renovation/addition to an existing facility.
2. Describe how the project is essential to fulfilling the institution's/agency's mission. What alternatives are available?
3. Was the project part of the agency's capital outlay submission? If so, include a copy of the project narrative.
4. Describe the effect the project will have on those students or users who will financially support the project.
5. Describe the probable effects of the project on the community and environment, including changes to the value of property as a result of the project.
6. Explain how the project and its impact have been conveyed to local officials and their reaction/response.
7. Describe any other positive or negative aspects of the project.
8. Briefly describe the financing proposal. Indicate if this proposal is for a bond financing, a capital lease, or some alternative financing arrangement.
9. Are specific revenues planned to support debt service or lease payments? (If so, you will need to complete Section 3.)
10. Describe how the financing fits within your debt management policy?
11. Provide your institution's debt ratios as estimated under your debt management policy:
 - (a) as of June 30, 2010, including any authorized and unissued estimated debt; and
 - (b) including the financing of this project.

Private Use

12. Will any person or entity other than the governmental unit provide (directly or indirectly) any part of debt service on the portion of the bonds issued for the project? For example, will a private foundation or federal agency be required (or expected) to make an annual contribution toward the payment of debt service.

___ Yes ___ No. If yes, please identify the person or entity and the percent of debt service to be provided.

13. Do you anticipate that any person or entity other than the state institution/agency will have a contractual right, different from the rights available to the general public or students, to use any part of the project or to use or buy goods or services produced at the project? For instance, have you contracted parking spaces in a parking deck to a nearby corporate office?

Yes No If yes, briefly summarize the planned contractual agreement.

14. Do you contemplate any part of the project being managed or operated by any person or entity other than the state institution/agency under a management or service contract, incentive payment or other “privatized” arrangement? Examples include contracts for food service, parking service, dormitory management, bookstore management, etc.

Yes No If yes, summarize the anticipated contractual arrangement (i.e., contract term, renewal options, compensation arrangements, etc.).

Note: These arrangements may impact whether the project is eligible for tax-exempt financing. Once tax-exempt bonds have been issued, entering into this type of contract or arrangement may affect the bond’s tax-exempt status. **So long as the bonds are outstanding**, the terms of any such arrangement must be reviewed and approved by the State Treasurer prior to the execution of any contract.

Section 2 – Cost Information (complete for all projects)

15. Do you anticipate the need for capitalized interest on any bond financing (i.e., to pay interest during construction)? If so, explain.
16. Itemize the capital costs of the project. Estimate the costs of issuance at 2% of the cost of the project. Please subtotal project costs net of the 2% cost of issuance and then show a gross cost of project including the cost of issuance. Note that the total cost should be used as the AMOUNT BORROWED field of the worksheet. Attach the CO-2 estimate or further estimate of project cost, if available.

A & E	\$
Land Acquisition	
Sitework/Utilities	
Construction	
Equipment/Furnishings	
Contingencies and Other Costs	
Subtotal	0
Costs of Issuance (2% of Subtotal)	
Capitalized Interest (Estimate)	
Total Cost	0

17. What is the anticipated useful life of the project?
18. List and describe any initial **Non-Recurring Costs** related to the project and the source of funding for each of these items.
19. List and estimate the **Incremental Annual Operating Expenses**. Provide any supporting documentation and illustrate how your estimate was made. These expenses include personnel costs, utilities, contractual services, supplies and materials, indirect costs, equipment, etc.

Using **2.0%** as the rate for investment of the Reserve Fund (reinvestment rate) and the following borrowing assumptions,

Please contact the Department of the Treasury for current Borrowing Rates.

<u>Term</u>	<u>9(c) Borrowing Rate</u>	<u>9(d) Borrowing Rate</u>
20 years	4.40%	4.60%
15 years	4.10%	4.30%
10 years	3.50%	3.70%
7 years		3.50%

Section 3 Revenue Information. (Complete for all revenue-producing projects)

20. Describe the Revenue Sources that will be used for payment of debt service and the expenses associated with these revenues. Consider what other expenses are planned to be supported by the revenues, and how much revenue will actually be available for debt service.
21. If revenues will be derived from a group of similar facilities (a system) and an increase in system revenues will be used to support the debt, provide justification for any system contribution and any marginal increase in system-wide fees.
22. If revenues will be derived from just one facility of several similar facilities in a campus system, show all fees for all similar facilities and justify any differential in pricing between the facilities.
23. Will project revenues or revenues pledged to the payment of debt service be available prior to completion of the project? Describe the timing of revenues and when they will be available and sufficient to begin servicing the debt.
24. What studies have been completed to demonstrate the demand for the facility and the reliability of the revenue stream? (Attach copies if available.)
25. If any portion of the revenues are already pledged or otherwise committed to other debt service payments, provide a schedule of debt service payments (by issue). Identify the portion of the revenue source that is committed or being used to pay debt
26. If any revenues are projected to increase, explain how the projections were calculated. Do not use an automatic growth rate.
27. If institutional reserves are to be used to service the debt, include the source of funds, balances for the last five years, and impact on future balances. Identify the authorization for using these funds to pay debt service and other costs.
28. If any amounts currently used for debt service are expected to be available and used for debt service on this project (i.e., the existing debt will be retired), provide the project(s), the bond series, and the annual amount to be available. Address the status of the existing facility's physical condition and plans for repair or maintenance. Conversely, explain why any such amounts scheduled to be available are not planned for use for debt service on this project.

Section 4 General Financial Condition - Complete this section for all projects

29. Provide the following FTE enrollment and admissions information.

	Last 5 years				
Enrollment	2009-10	2008-09	2007-08	2006-07	2005-06
Undergraduate					
Graduate & 1st Prof.					
Total	0	0	0	0	0
On-Campus					
Off-Campus					
Admissions					
Applications Received					
Applications Accepted					
Students Enrolled					

30. Provide the annual Per Student Fee(s) to be assessed to support the project

	Domicile	
Student Level	Virginian	Nonvirginian
Undergraduate		
First Professional		
Graduate		
Unclassified		

31. Provide the Total Annual Student Fee(s) Revenue assessed to support the project

	Domicile	
Student Level	Virginian	Nonvirginian
Undergraduate		
First Professional		
Graduate		
Unclassified		

Section 5 Capital Lease Projects – Complete Items 32 through 35 only if the financing involves a capital lease.

32. Discuss the alternatives that were considered before deciding that the capital lease structure was the best option.

33. Who is the Lessor? Who is the Lessee?

34. Who will manage the facility during and after construction?

35. Who will be issuing bonds or otherwise financing the project? Will it be tax-exempt debt?

Financial Feasibility Study - Part 2

Instructions

Note: To provide users with an example, the spreadsheets provided include certain debt and revenue information. It may be necessary to clear or “zero-out” some or all of this data. User input areas have been shaded or highlighted and appear in blue type.

Spreadsheet #1 - Cost Components

1. Complete agency name and project name at the top of Spreadsheet #1.
2. At the bottom of Spreadsheet #1 under DEBT INFORMATION, input the planned year the financing would occur, the amount to be borrowed (which should agree to the Total Cost as it appears in Question 15 of Part 1), the appropriate borrowing rate (see Question 19 of Part 1), the term (5, 10, 15 or 20 years), and the Reserve Fund Target (typically 10% of the financed amount).
3. Also at the bottom of Spreadsheet #1 under ANNUAL OPERATING EXPENSES, input the Incremental Annual Operating Expenses described in your response to Question 19 of Part 1.
4. At the top of the Spreadsheet in Column J, input the Non-Recurring Costs identified in Question 18. Such costs may occur in a single year or may cover several years.

This determines the Total Cost of financing the project.

Worksheet 2 - Revenue Components

5. If revenues are to be derived from User Fees (e.g., a dormitory fee or a dining fee), enter the fee amount and the number of users on which the fee is based at the bottom of Spreadsheet #2. The Summertime/Part Time input area permits an alternative fee scenario, if applicable.

Example: If the project involves an across-the-board increase in dormitory fees, then you might indicate the number of dormitory students in # Units and the amount of the incremental fee increase in Session Fee. Alternatively, for a project creating new capacity (i.e., a new dormitory), you might indicate the new dorm occupancy in # Units and the Dormitory Fee to be charged.

6. If all or a portion of project revenues are to be derived from operations (e.g., a bookstore), complete the Net Revenues From Operations portion at the bottom of the spreadsheet.
7. Revenues derived from any other source (e.g., other student fees, indirect cost recoveries, institutional reserves, and retirement of existing debt) should be entered directly to the spreadsheet in amounts estimated for each year.

This determines the Total Revenues available to support the project.

Worksheet 3 - Net Revenues/Coverage

This spreadsheet loads information from sheets 1 and 2 and provides revenue to debt coverage information. The debt coverage ratio determines if the project being financed generates sufficient net revenues (net of operating expenses) to pay debt service, plus a margin of at least 10% (i.e., 110% coverage).

Print all three worksheets and include in your FFS package.

	Debt Service	Principal	Interest	Reserve Fund Payment	Reserve Fund Balance	Total Debt Service	Annual Expenses	Non Recurring Initial Outlays	Total Cost
1	2011	0	0	0	0	0	0	0	0
2	2012	0	0	0	0	0	0	0	0
3	2013	0	0	0	0	0	0	0	0
4	2014	0	0	0	0	0	0	0	0
5	2015	0	0	0	0	0	0	0	0
6	2016	0	0	0	0	0	0	0	0
7	2017	0	0	0	0	0	0	0	0
8	2018	0	0	0	0	0	0	0	0
9	2019	0	0	0	0	0	0	0	0
10	2020	0	0	0	0	0	0	0	0
11	2021	0	0	0	0	0	0	0	0
12	2022	0	0	0	0	0	0	0	0
13	2023	0	0	0	0	0	0	0	0
14	2024	0	0	0	0	0	0	0	0
15	2025	0	0	0	0	0	0	0	0
16	2026	0	0	0	0	0	0	0	0
17	2027	0	0	0	0	0	0	0	0
18	2028	0	0	0	0	0	0	0	0
19	2029	0	0	0	0	0	0	0	0
20	2030	0	0	0	0	0	0	0	0
21	2031	0	0	0	0	0	0	0	0
22	2032	0	0	0	0	0	0	0	0
23	2033	0	0	0	0	0	0	0	0
24	2034	0	0	0	0	0	0	0	0
25	2035	0	0	0	0	0	0	0	0
26	2036	0	0	0	0	0	0	0	0
27	2037	0	0	0	0	0	0	0	0
28	2038	0	0	0	0	0	0	0	0
29	2039	0	0	0	0	0	0	0	0
30	2040	0	0	0	0	0	0	0	0
	2041	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0
	PV @4.40%	0		0		0	0	0	0

(1) DEBT INFORMATION

Borrowing Year	2011
Amount Borrowed	0
Borrowing Rate	4.400%
Term (Years)	20
Reinvestment Rate	2.00%
Reserve Fund Target	0

(2) ANNUAL OPERATING EXPENSES

Personal Services	0
Contractual Services	0
Supplies and Materials	0
Indirect Cost	0
Utilities	0
Equipment	0
Other	0
Total Annual Expenses	0

	User Fees	Part Time User Fees	Other Student Fees	Indirect Cost Recoveries	Revenue From Operations	Institutional Reserves	Retirement of Existing Debt	Other	Total Revenues
2011									
2012	0	0	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0
2015	0	0	0	0	0	0	0	0	0
2016	0	0	0	0	0	0	0	0	0
2017	0	0	0	0	0	0	0	0	0
2018	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0
2020	0	0	0	0	0	0	0	0	0
2021	0	0	0	0	0	0	0	0	0
2022	0	0	0	0	0	0	0	0	0
2023	0	0	0	0	0	0	0	0	0
2024	0	0	0	0	0	0	0	0	0
2025	0	0	0	0	0	0	0	0	0
2026	0	0	0	0	0	0	0	0	0
2027	0	0	0	0	0	0	0	0	0
2028	0	0	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0	0	0
2030	0	0	0	0	0	0	0	0	0
2031	0	0	0	0	0	0	0	0	0
2032	0	0	0	0	0	0	0	0	0
2033	0	0	0	0	0	0	0	0	0
2034	0	0	0	0	0	0	0	0	0
2035	0	0	0	0	0	0	0	0	0
2036	0	0	0	0	0	0	0	0	0
2037	0	0	0	0	0	0	0	0	0
2038	0	0	0	0	0	0	0	0	0
2039	0	0	0	0	0	0	0	0	0
2040	0	0	0	0	0	0	0	0	0
2041	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
PV @4.40%	0	0	0	0	0	0	0	0	0

USER FEE INFO

# of Units	0
Session Fee	0
Rate increase years 1-4	0.000%
Rate increase years 5+	0.000%
SUMMER/PARTIME USER FEES	
# of Units	0
Session Fee	0
Rate increase years 1-4	0.000%
Rate increase years 5+	0.000%

NET REVENUES FROM OPERATIONS

Net Sales	
Cost	
Profit	0
Operating Expenses	
Selling	
General Administrative	
Lease Payment	
Gross Operating Income	0
Rate increase years 1-4	0.000%
Rate increase years 5+	0.000%

	Total Cost	Reserve Fund Payment	Adjusted Total Cost	Total Revenues	Net Revenues	Coverage Percent
2011	0					
2012	0	0	0	0	0	0.00%
2013	0	0	0	0	0	0.00%
2014	0	0	0	0	0	0.00%
2015	0	0	0	0	0	0.00%
2016	0	0	0	0	0	0.00%
2017	0	0	0	0	0	0.00%
2018	0	0	0	0	0	0.00%
2019	0	0	0	0	0	0.00%
2020	0	0	0	0	0	0.00%
2021	0	0	0	0	0	0.00%
2022	0	0	0	0	0	0.00%
2023	0	0	0	0	0	0.00%
2024	0	0	0	0	0	0.00%
2025	0	0	0	0	0	0.00%
2026	0	0	0	0	0	0.00%
2027	0	0	0	0	0	0.00%
2028	0	0	0	0	0	0.00%
2029	0	0	0	0	0	0.00%
2030	0	0	0	0	0	0.00%
2031	0	0	0	0	0	0.00%
2032	0	0	0	0	0	0.00%
2033	0	0	0	0	0	0.00%
2034	0	0	0	0	0	0.00%
2035	0	0	0	0	0	0.00%
2036	0	0	0	0	0	0.00%
2037	0	0	0	0	0	0.00%
2038	0	0	0	0	0	0.00%
2039	0	0	0	0	0	0.00%
2040	0	0	0	0	0	0.00%
2041	0	0	0	0	0	0.00%
	0	0	0	0	0	