



REPORT TO THE BOARD OF TRUSTEES

Five-Year Capital Budget

2004-05 TO 2008-09

June 3-5, 2004

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Antioch University Five Year Capital Budget 2004-05 Budget

INTRODUCTION

The purpose of the Five Year Capital Budget process is to formalize the planning of major acquisitions for a period longer than a single year. In order to focus on a five-year planning period, the Campuses have revised their existing processes or introduced new procedures. In several cases, this has been more difficult than was initially thought, and more time will be required before these processes achieve the necessary involvement and structure originally envisioned. After seven years the units are beginning to appreciate the five-year planning concept as a key element in the management of their resources, but the process at most campuses does not receive sufficient attention.

Prior to the decision to budget depreciation at the campuses, the campuses did not embrace the concept of multi-year capital planning because the financial future often seemed unpredictable. Resources were generally scarce and capital expenditures were often perceived as deferrable or even discretionary. Unfortunately, failure to make routine investments in our plant and equipment eventually requires debt-financed expenditures in order to "catch up". This negative view of planning for future capital expenditures began changing, however, with the arrival of depreciation funds.

Beginning mid-way through 2001-02, the University changed the way it budgeted for depreciation. Prior to 2001-02, depreciation was budgeted centrally, but now each campus is responsible for its own depreciation. This means that the campuses and other units must treat depreciation as an operating expense and set aside revenue to cover it. Suddenly, the campuses have a lot of cash that can be spent only on capital equipment, facilities and debt principal. Annual depreciation for the entire University is nearly \$2.9 million, and this amount of money justifies planning.

This Five Year Capital Budget is concerned primarily with technology and facilities. These two areas constitute the largest locus of investment being made by the University and the Campuses in recent years, and we believe that these areas will capture the largest part of our capital expenditures in each of the next five years. Technology, in particular, is likely to be the focus of considerable attention at the campuses as each attempts to respond to increasing student demands for greater and greater computer sophistication. High-speed data circuits now make video conferencing possible, and distance learning is becoming highly dependent on electronic technology. In addition to technology and

facilities, this Capital Budget contains a third section dealing with all other types of capital acquisition, but expenditures in this third section are primarily for library periodicals and monographs.

The Five Year Capital Budget is presented by campus. For each of the five years, a narrative description is provided for facilities, technology and other acquisitions. In addition, a schedule summarizing the items by year and category is provided following the narrative. It is intended that by adopting the 2004-05 operating budget, the Board of Trustees will simultaneously adopt the capital acquisition plan contained in the first year of the Five Year Capital Budget.

Glenn Watts
Vice Chancellor and
Chief Financial Officer

Antioch University
Five Year Capital Budget
Projects above \$10,000
2004-05 Budget

ANTIOCH COLLEGE

2004-05 PROPOSED EXPENDITURES

I. FACILITIES 2004-05

- A. **Priority 1: Fire Alarm System Upgrades.** In recent years, a number of tragic fires have occurred in dormitories at campuses across the nation. The comprehensive review of the College buildings conducted by the Safety Committee revealed that several of the major campus buildings have inadequate fire alarm and detection systems or no system at all.
 - B. **Analysis.** In 2003-04 we installed fire alarm systems in all dormitories that had no centrally monitored detection and alarm system with the exception of North Hall. At present, North Hall relies on local smoke detectors that frequently malfunction or are inoperative. Even when functioning properly, they can alert only a local area and have no capacity to summon the fire department.
 - C. **Proposed Action.** The systems to be installed will take into account the fact that cooking and smoking occurs in dormitories. In order to minimize the number of false alarms, if permitted by code, rapid heat rise detectors will be installed rather than smoke detectors in some areas. These detectors will minimize the number of false alarms. The limited availability of funding does not permit the installation of new systems in all buildings in 2004-05, but a system will be added to North Hall
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- A **Priority 2: Drives, Walkways and Landscaping.** The College has resurfaced several parking lots in recent years, and some sidewalks have been redone.

- B. Analysis. However, several parking lots are in poor condition and most of the walkways on campus need to be replaced.
 - C. Proposed Action. In 2004-05 the College will repave the Mills parking lot, pave a parking lot along Livermore Street that will be added during 2003-04, and pave the south end of a parking lot at Birch Hall. The Birch Hall lot is not entirely paved and a muddy and rutted area requires frequent attention. In addition, the fire lane between Weston Hall and Birch Hall will be repaired.
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- A. **Priority 3: Roof Replacement Physical Plant.** The roof of the physical plant building has been repaired numerous times, but each successive repair becomes less effective.
 - B. Analysis. The area in question contains the plant offices, custodial supplies and equipment storage, central paper and printed material storage and the archives for the college blue prints. The roof has leaked so extensively that portions of the roof deck has collapsed. The roof has exceeded its useful life and will be replaced in 2004-05. Failure to replace this roof will necessitate the abandonment of this building.
 - C. Proposed Action. Install trusses and install a conventional 30-year shingle roof over the failed flat BUR roof.
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- A. **Priority 4: ADA Doors, Ramps and Restrooms.** The Library is one of the most heavily used buildings on campus, but it is almost inaccessible to the handicapped. In addition, the present main entrance is failing structurally.
 - B. Analysis. This building is slated to be renovated as part of the Capital Campaign, but the need to improve the entrance way will require renovation before the rest of the building.
 - C. Proposed Action. Procure design assistance for repairs and handicap accessibility. Prepare specifications for bidding, solicit bids, and award contract for repairs.

- A. **Priority 5: Residence Halls Shower Replacement.** Present showers in several dorms are leaking and are impossible to sanitize properly.
 - B. **Analysis.** Dormitory showers can create conditions that promote mold and cause cosmetic and structural damage when water leaks into adjacent areas.
 - C. **Proposed Action.** In 2004-05, the showers in West Hall will be renovated. The renovated units will provide greater comfort for students and they will also conserve water because they will be fitted with low-flow shower controllers.
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- A. **Priority 6: Roof Replacement Union Building.** The roof in the Union building is presently leaking. It has been repaired several times and has currently exceeded its reasonable life.
 - B. **Analysis.** Re-roofing of the building was started several years ago with the installation of a new type B rubber roof on the central one story portion of the building.
 - C. **Proposed Action.** In 2004-05 a two year project to replace the balance of the roof with a 15-year warranted EPDM membrane roof should begin.
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- A. **Priority 7: Deck & Stair Repair North Hall.** The East concrete porch and stairs, a code required exit from this building, is in poor condition.
 - B. **Analysis.** The deck has cracked over time allowing water intrusion which, in conjunction with freezing and thawing, is causing damage in this area.
 - C. **Proposed Action.** Timely repairs will rescue this area and preclude the need for total demolition and replacement.

- A. **Priority 8: Heating Improvements.** Numerous heating exchanger coils (used to convert steam to hot water for both heating and domestic use) have exceeded their normal life expectancy.
- B. **Analysis.** These units are the only source of space heating and domestic hot water in numerous buildings. The units in North Hall and Presidents are the most senior.
- C. **Proposed Action.** Non-destructive testing will be attempted prior to selecting specific units for replacement.

II. TECHNOLOGY 2004-05

- A. **Priority 1: Computer Workstations.** Replacement of obsolete and failing machines is needed to allow the College to remain competitive with other institutions.
 - B. **Analysis.** Computers will continue to play an increasingly import role in the communications and working lives of students, faculty and staff. Unfortunately, much of the hardware currently in use at the College is completely obsolete - only capable of running no longer supported operating systems and, in some cases, decade old software. With the purchase of new machines we also obtain bundled software and current operating systems.
 - C. **Proposed Action.** Because funding is not available to replace all obsolete computers in one year, workstations will be replaced over several years. The investment in 2004-05 will be \$30,000.
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- A. **Priority 2: Classroom Technology.** In order to accommodate larger enrollments, it will be necessary to create a new computer classroom.
 - B. **Analysis.** Finding sufficient space for a new computer classroom is a challenge. One possibility is to use the storage room in the basement of Antioch Hall. Renovating this area should provide lab space for approximately 30 student workstations, an instructor station and a media development workstation. This space will require the removal of old desks, old equipment, and may require Physical Plant to replace the HVAC for the room. New computers will be purchased and out-fitted with an appropriate software suite that matches the requirements of

the teaching faculty.

- C. **Proposed Action.** Physical Plant will investigate the feasibility of using the basement space. If this area can be made accessible during evening hours without increasing security problems for Antioch Hall, the project will proceed at a cost of \$50,000, including equipment.

- A. **Priority 3: Wireless Access to the Internet. Phase II.** Progress has been made at the College to connect the various buildings to a central data transmission backbone, but many buildings remain unable to connect to the network.

- B. **Analysis.** Installing physical wire to each office has the advantage of allowing faculty, staff, and students to not only connect their computers at high speed, but also to have telephone service and, where appropriate, television connections. Unfortunately, it is time-consuming and expensive to install wire to every campus location and our greatest need at the moment is for students and staff to have high-speed Internet access.

Most of our administrative offices already have telephone service and high-speed access to the campus network. Academic offices, however, while having telephone service, often are not served with high-speed data connections. Generally, they are using their telephone line and a modem to connect for e-mail and the Internet.

Some of our students have access to telephone service in their rooms, and these students also have access to high-speed data transmission. In about half of our dorm rooms, however, students do not have access to either telephone service or high-speed data transmission. Students have resolved the telephone problem by bringing cell phones, but they are stymied by not being able to connect to the campus data network. In some dorms, the few hallway telephone lines have been commandeered for data traffic on a first-come, first-served basis. This blocks incoming telephone calls and serves only one individual at a time.

In order to meet the need for high-speed data transmission, we began a phased introduction of wireless high-speed access to the campus network in 2003-04. This involved installing a series of low-power transceivers and equipping student and faculty machines with wireless interface cards. The number of transceivers required depends on the type of construction used and the location of the individual users. In addition, each of the

transceivers needs to have a high-speed connection to the campus network.

- C. Proposed Action. Using wireless technology, a much larger percentage of the campus population can be given access to the Internet and the campus network at a lower cost. The only drawback is that wired services (telephone and video) will not be introduced in the dormitories at the same time that high-speed data services are provided. The cost of Phase II will be \$60,000

III. OTHER 2004-05

- A. **Priority 1:** Air-conditioning Chiller Replacement. Air-conditioning for the west side of the Union building is provided by an aged, used, reciprocating compressor that was installed 5 years ago. The ground water pump has failed, as has the compressor. Both components must be restored before the unit will operate.
 - B. Analysis. It was hoped that one time repairs to the unit and the associated ground water pump would be effective for the 2004 air-conditioning season, but a report from the contractor hired to examine the machine has said that there can be no guarantee that the system will work, and if it starts, that it will continue to operate. An engineering study has ascertained that the most energy efficient and environmentally friendly AC system would be an air exchange unit. The current water exchange system uses nearly three million gallons of water per month; and, after passing through the system, the water is dumped into a storm sewer.
 - C. Proposed Action. As quickly as possible, award a contract for an air-based air-conditioning system.
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- A. **Priority 2:** Replacement of Residence Halls Furniture. Mattresses and some other furniture were replaced in Presidents and Spalt in 2002-03 because of mold. The furniture in other dormitories receives considerable use and has not been replaced in any systematic fashion.
 - B. Analysis. The condition of furniture in common areas says much about the campus. Periodic replacement is necessary to insure reasonable comfort for the residents and to assist with the recruitment of new students.

- C. Proposed Action. Identify a durable type of furniture, one that will withstand periodic professional cleaning and begin to systematically replace common area furniture. Establish a schedule for replacement of in room dormitory furniture as an ongoing cost of dormitory operation.

2005-06 PROPOSED EXPENDITURES

I. FACILITIES 2005-06

- A. **Priority 1:** Environmental Control Systems Phase I. Nearly all of the buildings on the College campus were built before modern environmental control systems were developed. Some of the buildings such as South Hall, have been renovated and retrofitted with efficient thermostatic control systems, but most of the buildings have less than adequate systems. In some cases, the original compressed air systems are not working at all. In these buildings, temperatures are regulated during the winter by opening windows.
 - B. Analysis. As a first step to evaluating the cost-benefit of system upgrades or replacements, the College contracted with Viron Energy Services in 2003-04 to perform at no cost a study of the energy conservation opportunities available to the College. This initial survey showed that there are a large number of opportunities to save money and energy, and suggested a more comprehensive analysis. Phase I of this work will begin in 2004-05 and the next stage of improvements to the energy control systems will be added in 2005-06.
 - C. Proposed Action. Identify those areas that have the greatest potential for energy savings, and hence return on investment, and begin to implement the identified control upgrades.
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- A. **Priority 2:** Landscaping. The physical appearance of the College is a major factor in the decision-making process of many parents and students when considering whether to select Antioch.
 - B. Analysis. Evaluating the intellectual capacities of the faculty or the quality of the library holdings is a difficult task for most families, but the appearance of the grass and the trim of the hedges and trees is something everyone understands. Besides being an important factor in the selection process, landscaping also is important in setting the tone of the campus. Attractive grounds suggest a pleasant environment in which to work and study

- C. Proposed Action. This year, funds will be used to improve the appearance of the Horseshoe Drive and adjacent areas.
- A. **Priority 3: Sidewalks**. The majority of the campus walkways are blacktop, many of them are old and deteriorating. Many of the campus concrete walks suffer from severe spalling. Brick patio and paving has become uneven over time and has become unsafe.
- B. Analysis. Interior walks and patio areas need to be upgraded to safely provide access routes for emergency and fire vehicles. A series of bollards will be used to prevent casual vehicular intrusion into the heart of the campus, but still provide necessary emergency access.
- C. Proposed Action. In 2005-06, a major effort will be made to upgrade these narrow drives and walkways to concrete and to widen them sufficiently to permit snow removal with power equipment.
- A. **Priority 4: HVAC Improvements**. During the last 30 years, air conditioning in dormitories has moved from “non-existent” to “expected.”
- B. Analysis. Some of the College dormitories have air conditioning, but most do not. Therefore, to make these facilities more attractive both to students living there and as an inducement to potential students to enroll at the College, more of the dormitories need to have central air conditioning.
- C. Proposed Action. In 2005-06, HVAC improvements are planned for Presidents and North Hall. At present, North Hall does not have sufficient electrical capacity to support air conditioning. However, as part of the electrical upgrades planned for this year, electrical service should be available. If for some reason the electrical improvements contemplated in Priority 5 are not completed, the HVAC project for North Hall will have to be deferred.

- A. **Priority 5: Upgrade Electrical Service.** The College has two electrical distribution systems, a 2400-volt system and a 12,400-volt system.
- B. **Analysis.** We are attempting to migrate all buildings to the 12,400-volt system because it provides “cleaner” and more reliable power. In addition, as we reconfigure the distribution system, we are changing the metering system. Much of our electricity is now on a secondary meter system, but a change to a primary metering system could save us as much as 10% of our electricity cost.
- C. **Proposed Action.** During 2005-06, we plan to extend the 12,400-volt system and primary metering to Spalt, the Union, Weston Hall, Normont Hall and North Hall. Metering will be centered at the G Space.
- A. **Priority 6: Energy-Efficient Lighting.** Interior lighting quality and energy costs are a serious concern.
- B. **Analysis.** The College continues to use incandescent bulbs in many areas and there are relatively few of the new, energy-efficient florescent tubes in use.
- C. **Proposed Action.** Most hallway, restroom and stairwell lights never get turned off. Replacing incandescent fixtures with either halogen or high-efficiency florescent tubes will cut costs and improve the quality of indoor lightening. Older florescent fixtures should also be updated. Motion detectors installed in areas where lights are frequently left on will quickly pay for the investment. Exit signs should be changed to LED-type signs to save energy and the labor cost associated with replacing bulbs. Existing exterior lighting needs to be evaluated and upgraded, plus some areas need additional lighting installed.
- A. **Priority 7: Hot Water Heaters/Tube Bundles (Curl Gym, McGregor Hall, North Hall).** Aged and partially functioning equipment robs the campus of potential energy savings.
- B. **Analysis.** The tubes in the heat exchangers used to heat water and a number of campus buildings have become corroded and clogged or lack controls and the mechanical equipment to move heat efficiently from the converter to other parts of the building or within individual rooms.

C. Proposed Action. Replacement with more efficient designs will provide more efficient, lower maintenance operation.

A. **Priority 8: New Vehicle for Security**. The present security vehicle, a retired Yellow Springs police cruiser, has been in use for 129,419 miles (5/4/2004).

B. Analysis. The present security vehicle is unreliable and inefficient. It is a surplus cruiser with a V8 engine.

C. Proposed Action. Purchase a smaller, more efficient vehicle for the Antioch College Security Department.

A. **Priority 9: Replace Existing Mower**. Frequent breakdowns lead to inability to maintain the mowing schedule.

B. Analysis. The maintenance costs and downtime on the large batwing mower dictates its replacement.

C. Proposed Action. After thorough analysis of equipment available, purchase a new, environment-friendly mower.

A. **Priority 10: Replace Service Vehicles**. Continue to replace service vehicles with hybrid non-licensed vehicles.

B. Analysis. The maintenance costs, including difficult parts availability, poor fuel economy and frequent breakdowns strongly recommend the replacement of these old technology vehicles.

C. Proposed Action. After thorough analysis of institutional needs and equipment available, purchase new energy efficient non-licensed, hybrid vehicles or diesel engine powered units that can use bio-diesel.

II. TECHNOLOGY 2005-06

A. **Priority 1: Computer Workstations**. Few subjects can be taught today without the use of personal computers.

- B. Analysis. Much of the hardware currently in use at the College is obsolete and incapable of running current software. Many students own their own laptops and expect that the faculty will take advantage of the hardware and software that is currently on the market. The faculty, however, are frequently required to use hardware and software that is several generations older than what the students have.
 - C. Proposed Action. Each year for the foreseeable future, it will be necessary to acquire a number of personal computers for use by the faculty and for the computer labs used by students who do not own their own equipment. There is a backlog of obsolete machines that need to be replaced, and our initial efforts are concentrated on upgrading these workstations. At our annual rate of investment in new machines, it will take several years to become reasonably current with the acceptable level of technology.
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- A. **Priority 2: Backup and Storage File Server**. The College has provided back-up service for faculty, staff, and students, but the server used for this purpose is woefully inadequate.
 - B. Analysis. The size and reliability of the current server no longer meet the needs of the campus. When the only data being transmitted was text messages, the amount of server space needed to retain all of the information generated during a term was relatively small. However, the expansion of multi-media applications requires much larger storage space.
 - C. Proposed Action. Purchase a new back-up and storage file server that will insure that many hours of student and faculty effort are not lost due to a component failure.
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- A. **Priority 3: Network Expansion and Upgrade**. Improve the speed of the existing campus network.
 - B. Analysis. Much of the College data network consists of fiber optic cabling that runs under ground between the campus buildings. The type of fiber that has been in use up until this point is multi-mode fiber that is capable of carrying data at 100 Mbps (fast Ethernet speed). Almost all of the College's network hardware connected to this fiber is only capable of operating at 10 Mbps. Therefore, we are not taking advantage of the fiber we currently have.

- C. Proposed Action. A three-phase approach over time should be used to update the campus network:
- 1) *Purchase 100 Mbps Network Hardware* - The College should invest in 100 Mbps Ethernet switches and connect them to the existing fiber to handle 100 Mbps speeds in "normal" traffic areas of the campus.
 - 2) *Upgrade the Network Backbone to Gigabit Speed* - Although Gigabit Ethernet products have been available since 1998, they are now becoming sufficiently economical to fit into the College budget. Those sections of the network backbone that connect to servers and other high-traffic generators should be connected using Gigabit Ethernet.
 - 3) *Purchase and Run Single Mode Fiber* - The multi-mode fiber should be replaced with high bandwidth capacity single mode fiber for "high" traffic areas of the campus network (i.e., areas where large amounts of data need to be regularly moved over the network, or where audio or video needs to be streamed).

III. OTHER 2005-06

- A. **Priority 1:** Vehicle Replacement. Replace several existing fleet vehicles with more appropriate and energy efficient units.
- B. Analysis. While it is not possible to state with certainty the kinds of vehicles that will be most appropriate in 2005-06, it is clear that vehicle replacements will be required. It is not likely that hydrogen vehicles will be available at this time, but LNG vehicles may be practical if a local refueling site is functioning.
- C. Proposed Action. Purchase two energy efficient and use-appropriate vehicles.
- A. **Priority 2:** Replacement of Residence Halls Furniture. Mattresses and some other furniture were replaced in Presidents and Spalt in 2002-03 because of mold. The furniture in other dormitories receives considerable use and has not been replaced in any systematic fashion.
- B. Analysis. The condition of furniture in common areas says much about the campus and periodic replacement is necessary to insure reasonable comfort for the residents and to assist with the recruitment of new students.

- C. Proposed Action. Identify a durable type of furniture, one that will withstand periodic professional cleaning and begin to systematically replace common area furniture. Establish a schedule for replacement of in room dormitory as an ongoing cost of dormitory operation.

2006-07 PROPOSED EXPENDITURES

I. FACILITIES 2006-07

- A. **Priority 1:** Drives, Walkways and Trees. As the campus is progressively upgraded those areas which have not received attention begin to look worse by comparison.
 - B. Analysis. The College has resurfaced several parking lots in recent years, and some sidewalks have been redone. However, several parking lots are in poor condition and many of the walkways on campus need to be replaced. Landscaping and replacement of major trees will also be a priority for 2006-07.
 - C. Proposed Action. Continue the upgrading of walks and patio areas to provide access roadways for fire and emergency vehicles. Begin emphasis on arbor work on major old growth campus trees to increase their life span and help enhance campus safety.
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- A. **Priority 2:** Environmental Control Systems, Phase II. Nearly all of the buildings on the College campus were built before modern environmental control systems were developed.
 - B. Analysis. Some of the buildings such as South Hall, have been renovated and retrofitted with efficient thermostatic control systems, but most of the buildings have less than adequate systems. In some cases, the original compressed air systems are not working at all. In these buildings, temperatures are regulated during the winter by opening windows. . Work will have been done during previous Phase, but more will be needed before all the energy control problems are resolved.

- C. Proposed Action. The College will be contracted to implement Viron Energy Services suggestions; Those areas which yield the greatest ROI will receive priority consideration while continuing the college's philosophy of single source control providers to reduce replacement parts inventories and employee training requirements.

- A. **Priority 3: HVAC Improvements.** While not all dormitories are air conditioning, airconditioning in dormitories is now expected.
- B. Analysis. Some of the College dormitories have air conditioning, but most do not. Therefore, to make these facilities more attractive both for students living there and as an inducement to potential students to enroll at the College, more of the dormitories need to have central air conditioning.
- C. Proposed Action. In 2006-07, HVAC improvements were planned for Presidents and North Hall. In 2006-07, additional dormitories without air conditioning will be considered for upgrading. In some instances it may be necessary to increase the electric service to the housing units to accommodate the new air-conditioned.

- A. **Priority 4: Landscaping.** The physical appearance of the College is a major factor in the decision-making process of many parents and students when considering whether to select Antioch.
- B. Analysis. Evaluating the intellectual capacities of the faculty or the quality of the library holdings is a difficult task for most families, but the appearance of the grass and the trim of the hedges and trees is something everyone understands. Besides being an important factor in the selection process, landscaping also is important in setting the tone of the campus. Attractive grounds suggest a pleasant environment in which to work and study
- C. Proposed Action. This year the emphasis will be on rejuvenating and enhancing the appearance of the Academic commons and adjacent areas.

- A. **Priority 5: Upgrade Electrical Service.** The College has two electrical distribution systems, a 2400-volt and a 12,400-volt system.

- B. Analysis. We are attempting to migrate all buildings to the 12,400-volt system because it provides “cleaner” and more reliable power. In addition, as we reconfigure the distribution system, we are changing the metering system. Much of our electricity is now on a secondary meter system, but a change to a primary metering system could save us as much as 10% of our electricity cost.
 - C. Proposed Action. During 2006-07, we plan to extend the 12,400-volt system and primary metering to additional campus buildings choosing those where the ROI is the greatest. Metering will continue to be centered at the G Space.
- A. **Priority 6: Energy-Efficient Lighting.** Interior lighting quality and energy costs are a serious concern.
- B. Analysis. The College continues to use incandescent bulbs in many areas and there are relatively few of the new, energy-efficient florescent tubes in use.
 - C. Proposed Action. Most hallway, restroom and stairwell lights never get turned off. Replacing incandescent fixtures with either halogen or high-efficiency florescent tubes will cut costs and improve the quality of indoor lightening. Older florescent fixtures should also be updated. Motion detectors installed in areas where lights are frequently left on will quickly pay for the investment. Exit signs should be changed to LED-type signs to save energy and the labor cost associated with replacing bulbs. Existing exterior lighting needs to be evaluated and upgraded, plus some areas need additional lighting installed.
- A. **Priority 7: ADA Doors, Ramps and Restrooms.** Campus buildings were designed and constructed before there was much thought to making them accessible to the handicapped.
- B. Analysis. As a consequence and despite considerable effort in recent years, a few buildings and parts of several others remain to be made handicap-accessible.
 - C. Proposed Action. To the extent possible, the remaining major buildings that are not accessible will be ramped to permit access. Power doors will be installed on additional entrances. A major effort will be made to provide a handicapped restroom on each floor of each building.

- A. **Priority 8: Window Replacement.** Much energy is wasted as a result of inefficient windows and worn out glazing. The windows in Antioch Hall should be replaced and those in the Science Building are notoriously energy inefficient.
 - B. **Analysis.** Depending on which buildings have been renovated with funds raised by the Capital Campaign, priorities for window replacements may change.
 - C. **Proposed Action:** The buildings that will receive new windows in 2006-07 will depend on which buildings have been previously retrofitted.
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- A. **Priority 9: Roof Replacement and Repair.** Roofs on several College buildings are in poor condition and will need replacement in 2006-07.
 - B. **Analysis.** The college is about to embark on a major cycle of roof repair and replacement. The order in which the roof work will proceed will be dictated by the roof survey completed in 2004-2005.
 - C. **Proposed Action:** State of the art roofing systems will be employed for both new roofs and repairs to existing roof systems. Additional insulation will be installed during these projects to reduce heating and cooling costs.
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- A. **Priority 10: Replace Service Vehicles.** Continue to replace service vehicles with hybrid non licensed vehicles.
 - B. **Analysis.** The maintenance costs, including difficult parts availability, poor fuel economy and frequent breakdowns strongly recommend the replacement of these old technology vehicles.
 - C. **Proposed Action.** After thorough analysis of institutional needs and equipment available, purchase new energy efficient non-licensed, hybrid vehicles.

II. TECHNOLOGY 2006-07

- A. **Priority 1: Classroom Technology.** Few of the College classrooms support the use of modern teaching technology. Whenever a faculty member wants to use a PowerPoint presentation as part of his lecture, he or she needs to bring a portable projector, a laptop, power cords, etc., and arrive at least thirty minutes before class in order to set Up all of the equipment. The extension of the campus high-speed network to the academic buildings will allow the faculty to use the Internet as a teaching resource, but this can happen only if adequate teaching technology is available in the classroom. In 2006-07, several classrooms will be equipped with screens, projectors, dedicated computers, etc., and each classroom will be fully connected to the campus network. New computers will be purchased for faculty who commit to using these facilities and out-fitted with an appropriate software suite that matches the requirements of the faculty.

Cost: 80,000

- A. **Priority 2: Computer Workstations.** Few subjects can be taught today without the use of personal computers. Unfortunately, much of the hardware currently in use at the College is obsolete and incapable of running current software. Many students own their own laptops and expect that the faculty will take advantage of the hardware and software that is currently on the market. The faculty, however, are frequently required to use hardware and software that is several generations older than what the students have. In each year for the foreseeable future, it will be necessary to acquire a number of personal computers for use by the faculty and for the computer labs used by students who do not own their own equipment. There is a backlog of obsolete machines that need to be replaced, and our initial efforts are concentrated on upgrading these workstations. At our annual rate of investment in new machines, it will take several years to become reasonably current with the acceptable level of technology.

Cost: 30,000

- A. **Priority 3: Campus Network Upgrade, Phase II.** Much of the College data network consists of fiber optic cabling that runs under ground between the campus buildings. The type of fiber that has been in use up until this point is multi-mode fiber that is capable of carrying data at 100 Mbps (fast Ethernet speed). Almost all of the College's network hardware connected to this fiber is only capable of operating at 10 Mbps. Therefore, we are not taking

advantage of the fiber we currently have. A three-phase approach over time should be used to update the campus network:

- 1) *Purchase 100 Mbps Network Hardware* - The College should invest in 100 Mbps Ethernet switches and connect them to the existing fiber to handle 100 Mbps speeds in "normal" traffic areas of the campus.
- 2) *Upgrade the Network Backbone to Gigabit Speed* - Although Gigabit Ethernet products have been available since 1998, they are now becoming sufficiently economical to fit into the College budget. Those sections of the network backbone that connect to servers and other high-traffic generators should be connected using Gigabit Ethernet.
- 3) *Purchase and Run Single Mode Fiber* - The multi-mode fiber should be replaced with high bandwidth capacity single mode fiber for "high" traffic areas of the campus network (i.e., areas where large amounts of data need to be regularly moved over the network, or where audio or video needs to be streamed).

Cost: 60,000

III. OTHER 2006-07

- A. **Priority 1: Vehicle Replacement**. Replace several existing fleet vehicles with more appropriate and energy efficient units.
 - B. **Analysis**. While it is not possible to state with certainty the kinds of vehicles that will be most appropriate in 2005-06, it is clear that vehicle replacements will be required. It is not likely that hydrogen vehicles will be available at this time, but LNG vehicles may be practical if a local refueling site is functioning.
 - C. **Proposed Action**. Purchase two energy efficient and use appropriate vehicles.
-
- A. **Priority 2: Replacement of Residence Halls Furniture**. Mattresses and some other furniture were replaced in Presidents and Spalt in 2002-03 because of mold. The furniture in other dormitories receives considerable use and has not been replaced in any systematic fashion.

- B. Analysis. The condition of furniture in common areas says much about the campus and periodic replacement is necessary to insure reasonable comfort for the residents and to assist with the recruitment of new students.
- C. Proposed Action. Identify a durable type of furniture, one that will withstand periodic professional cleaning and begin to systematically replace common area furniture. Establish a schedule for replacement of in room dormitory as an ongoing cost of dormitory operation.

2007-08 PROPOSED EXPENDITURES

I. FACILITIES 2007-08

- A. **Priority 1:** Environmental Control Systems, Phase III. Nearly all of the buildings on the College campus were built before modern environmental control systems were developed.
 - B. Analysis. Some of the buildings such as South Hall, have been renovated and retrofitted with efficient thermostatic control systems, but most of the buildings have less than adequate systems. In some cases, the original compressed air systems are not working at all. In these buildings, temperatures are regulated during the winter by opening windows. Work will have been done during previous Phases but more will be needed before all the energy control problems are resolved.
 - C. Proposed Action. The College will contracted to implement Viron Energy Services suggestions. Those areas which yield the greatest ROI will receive priority consideration while continuing the college's philosophy of single source control providers to reduce replacement parts inventories and employee training requirements.
-
- A. **Priority 2:** Energy-Efficient Lighting. Interior lighting quality and energy costs are a serious concern.
 - B. Analysis. The College continues to use incandescent bulbs in many areas and there are relatively few of the new, energy-efficient florescent tubes in use.

- C. Proposed Action. Most hallway, restroom and stairwell lights never get turned off. Replacing incandescent fixtures with either halogen or high-efficiency florescent tubes will cut costs and improve the quality of indoor lightening. Older florescent fixtures should also be updated. Motion detectors installed in areas where lights are frequently left on will quickly pay for the investment. Exit signs should be changed to LED-type signs to save energy and the labor cost associated with replacing bulbs. Existing exterior lighting needs to be evaluated and upgraded, plus some areas need additional lighting installed.

- A. **Priority 3: Landscaping.** The physical appearance of the College is a major factor in the decision-making process of many parents and students when considering whether to select Antioch.

- B. Analysis. Evaluating the intellectual capacities of the faculty or the quality of the library holdings is a difficult task for most families, but the appearance of the grass and the trim of the hedges and trees is something everyone understands. Besides being an important factor in the selection process, landscaping also is important in setting the tone of the campus. Attractive grounds suggest a pleasant environment in which to work and study

- C. Proposed Action. This year the emphasis will be on rejuvenating and enhancing the appearance of the Student Housing commons and adjacent areas.

- A. **Priority 4: Drives, Walkways and Trees.** As the campus is progressively upgraded those areas which have not received attention begin to look worse by comparison.

- B. Analysis. The College has resurfaced several parking lots in recent years, and some sidewalks have been redone. However, several parking lots are in poor condition and many of the walkways on campus need to be replaced. Landscaping and replacement of major trees will also be a priority for 2006-07.

- C. Proposed Action. Continue the upgrading of walks and patio areas to provide access roadways for fire and emergency vehicles. Begin emphasis on arbor work on major old growth campus trees to increase their life span and help enhance campus safety.

- A. **Priority 5: Window Replacement.** Much energy is wasted as a result of inefficient windows and worn out glazing. The windows in Antioch Hall should be replaced and those in the Science Building are notoriously energy inefficient.
 - B. **Analysis.** Depending on which buildings have been renovated with funds raised by the Capital Campaign, priorities for window replacements may change
 - C. **Proposed Action:** The buildings that will receive new windows in 2006-07 will depend on which buildings have been previously retrofitted.
-
- A. **Priority 6: Roof Replacement and Repair.** Roofs on several College buildings are in poor condition and will need replacement in 2006-07.
 - B. **Analysis.** The college is about to embark on a major cycle of roof repair and replacement. The order in which the roof work will proceed will be dictated by the roof survey completed in 2004-2005.
 - C. **Proposed Action:** State of the art roofing systems will be employed for both new roofs and repairs to existing roof systems. Additional insulation will be installed during these projects to reduce heating and cooling costs.
-
- A. **Priority 7: ADA Doors, Ramps and Restrooms.** Campus buildings were designed and constructed before there was much thought to making them accessible to the handicapped.
 - B. **Analysis.** As a consequence and despite considerable effort in recent years, a few buildings and parts of several others remain to be made handicap-accessible.
 - C. **Proposed Action.** To the extent possible, the remaining major buildings that are not accessible will be ramped to permit access. Power doors will be installed on additional entrances. A major effort will be made to provide a handicapped restroom on each floor of each building.

- A. **Priority 8: Upgrade Electrical Service.** The College has two electrical distribution systems, a 2400-volt and a 12,400-volt system.
 - B. **Analysis.** We are attempting to migrate all buildings to the 12,400-volt system because it provides “cleaner” and more reliable power. In addition, as we reconfigure the distribution system, we are changing the metering system. Much of our electricity is now on a secondary meter system, but a change to a primary metering system could save us as much as 10% of our electricity cost.
 - C. **Proposed Action.** During 2007-08, we plan to extend the 12,400-volt system and primary metering to additional campus buildings choosing those where the ROI is the greatest. Metering will continue to be centered at the G Space.
-
- A. **Priority 9: Replace Existing Mower.** Frequent breakdowns lead to inability to maintain mowing schedule particularly in the spring and fall.
 - B. **Analysis.** The maintenance costs, including difficult parts availability on aged unit and downtime on the medium sized batwing mower dictates its prudent replacement.
 - C. **Proposed Action.** After thorough analysis of equipment available purchase new energy efficient mower.
-
- A. **Priority 10: Repair of Exterior Brickwork** Many exterior walls of the historic buildings at Antioch College are in desperate need of re-pointing.
 - B. **Analysis.** The college will begin a multi year project to repair and preserve the envelope walls of its historic buildings. The results of the study and analysis performed in 2006-2007 provide us with the mortar formula and material sources to begin this vital work.
 - C. **Proposed Action:** Using study results we will begin a five year program to repair and re-point all exterior envelope walls on campus.

- A. **Priority 11: Replace Service Vehicles.** Continue to replace service vehicles with hybrid non licensed vehicles.
- B. **Analysis.** The maintenance costs, including difficult parts availability, poor fuel economy and frequent breakdowns strongly recommend the replacement of these old technology vehicles.
- C. **Proposed Action.** After thorough analysis of institutional needs and equipment available, purchase new energy efficient non-licensed, hybrid vehicles.

II. TECHNOLOGY 2007-08

- A. **Priority 1: Classroom Technology Phase II.** Few of the College classrooms support the use of modern teaching technology. Whenever a faculty member wants to use a PowerPoint presentation as part of his lecture, he or she needs to bring a portable projector, a laptop, power cords, etc., and arrive at least thirty minutes before class in order to set up all of the equipment. The extension of the campus high-speed network to the academic buildings will allow the faculty to use the Internet as a teaching resource, but this can happen only if adequate teaching technology is available in the classroom. In 2007-08, additional classrooms will be equipped with screens, projectors, dedicated computers, etc., and each classroom will be fully connected to the campus network. New computers will be purchased for faculty who commit to using these facilities and out-fitted with an appropriate software suite that matches the requirements of the faculty.

Cost: 30,000

- B. **Priority 2: Campus Network Upgrade, Phase III.** Depending on the intensity with which the campus computer network is being used, it may be necessary to upgrade the speed capacity of the backbone and some of the distribution channels. It is anticipated that by 2007-08, music, video, graphics, and other data will place a severe demand on the network. It may also be necessary to extend the backbone to some areas that have been previously served by wireless technology, or to replace the wireless segments with fiber optic cable. This cannot be determined with precision at this time, but it is a virtual certainty that data traffic demands will be far higher in 2007 -08 than they are today.

Cost: 60,000

III. OTHER 2007-08

- A. **Priority 1: Vehicle Replacement.** Replace several existing fleet vehicles with more appropriate and energy efficient units.
 - B. **Analysis.** While it is not possible to state with certainty the kinds of vehicles that will be most appropriate in 2005-06, it is clear that vehicle replacements will be required. It is not likely that hydrogen vehicles will be available at this time, but LNG vehicles may be practical if a local refueling site is functioning.
 - C. **Proposed Action.** Purchase two energy efficient and use appropriate vehicles.
-
- A. **Priority 2: Replacement of Residence Halls Furniture.** Mattresses and some other furniture were replaced in Presidents and Spalt in 2002-03 because of mold. The furniture in dormitories receives considerable use and has not been replaced in any systematic fashion.
 - B. **Analysis.** The condition of furniture in common areas says much about the campus, and periodic replacement is necessary to insure reasonable comfort for the residents and to assist with the recruitment of new students.
 - C. **Proposed Action.** Identify a durable type of furniture, one that will withstand periodic professional cleaning and begin to systematically replace common area furniture. Establish a schedule for replacement of in room dormitory as an ongoing cost of dormitory operation.

2008-09 PROPOSED EXPENDITURES

I. FACILITIES 2008-2009

- A. **Priority 1: Environmental Control Systems, Phase IV.** Nearly all of the buildings on the College campus were built before modern environmental control systems were developed.

- B. Analysis. Some of the buildings such as South Hall, have been renovated and retrofitted with efficient thermostatic control systems, but most of the buildings have less than adequate systems. In some cases, the original compressed air systems are not working at all. In these buildings, temperatures are regulated during the winter by opening windows. Work will have been done during previous Phases, but more will be needed before all the energy control problems are resolved.
 - C. Proposed Action The College will contracted to implement Viron Energy Services suggestions; Those areas which yield the greatest ROI will receive priority consideration while continuing the colleges philosophy of single source control providers to reduce replacement parts inventories and employee training requirements.
-
- A. **Priority 2: Energy-Efficient Lighting.** Interior lighting quality and energy costs are a serious concern.
 - B. Analysis. The College continues to use incandescent bulbs in many areas and there are relatively few of the new, energy-efficient florescent tubes in use.
 - C. Proposed Action. Most hallway, restroom and stairwell lights never get turned off. Replacing incandescent fixtures with either halogen or high-efficiency florescent tubes will cut costs and improve the quality of indoor lightening. Older florescent fixtures should also be updated. Motion detectors installed in areas where lights are frequently left on will quickly pay for the investment. Exit signs should be changed to LED-type signs to save energy and the labor cost associated with replacing bulbs. Existing exterior lighting needs to be evaluated and upgraded, plus some areas need additional lighting installed.
-
- A. **Priority 3: Landscaping.** The physical appearance of the College is a major factor in the decision-making process of many parents and students when considering whether to select Antioch.
 - B. Analysis. Evaluating the intellectual capacities of the faculty or the quality of the library holdings is a difficult task for most families, but the appearance of the grass and the trim of the hedges and trees is something everyone understands. Besides being an important factor in the selection process, landscaping also is important in setting the tone of the campus. Attractive grounds suggest a pleasant environment in which to work and study.

- C. Proposed Action. This year the emphasis will be on rejuvenating and enhancing the appearance of the Arts commons and adjacent areas.

- A. **Priority 4: Drives, Walkways and Trees.** As the campus is progressively upgraded those areas which have not received attention begin to look worse by comparison.

- B. Analysis. The College has resurfaced several parking lots in recent years, and some sidewalks have been redone. However, several parking lots are in poor condition and many of the walkways on campus need to be replaced. Landscaping and replacement of major trees will also be a priority for 2008-09.

- C. Proposed Action. Continue the upgrading of walks and patio areas to provide access roadways for fire and emergency vehicles. Begin emphasis on arbor work on major old growth campus trees to increase their life span and help enhance campus safety.

- A. **Priority 5: Window Replacement.** Much energy is wasted as a result of inefficient windows and worn out glazing. The windows in Antioch Hall should be replaced and those in the Science Building are notoriously energy inefficient.

- C. Analysis. Depending on which buildings have been renovated with funds raised by the Capital Campaign, priorities for window replacements may change

- C. Proposed Action: The buildings that will receive new windows in 2008-09 will depend on which buildings have been previously retrofitted.

- A. **Priority 6: Roof Replacement and Repair.** Roofs on several College buildings are in poor condition and will need replacement in 2008-09.

- B. Analysis. The college will continue to implement a major cycle of roof repair and replacement. The order in which the roof work will proceed will be dictated by the roof survey completed in 2004-2005.

- C. Proposed Action: State of the art roofing systems will be employed for both new roofs and repairs to existing roof systems. Additional insulation will be installed during these projects to reduce heating and cooling costs.

- A. **Priority 7: Repair of Exterior Brickwork**. Many exterior walls of the historic buildings at Antioch College are in desperate need of re-pointing.
- B. Analysis. The college will begin a multi year project to repair and preserve the envelope walls of its historic buildings. The results of the study and analysis performed in 2006-2007 provide us with the mortar formula and material sources to begin this vital work.
- C. Proposed Action: This is the second year of a five year program to repair and re-point all exterior envelope walls on campus.

- A. **Priority 8: Replace Existing Dump Truck**. Frequent breakdowns and extremely poor fuel economy indicate the need to replace this unit.
- B. Analysis. The maintenance costs, including difficult parts availability and frequent breakdowns strongly recommend the replacement of this old truck.
- C. Proposed Action. After thorough analysis of institutional needs and equipment available, purchase new, energy efficient truck.

- A. **Priority 9: Replace Service Vehicles**. Continue to replace service vehicles with hybrid non licensed vehicles.
- B. Analysis. The maintenance costs, including difficult parts availability, poor fuel economy and frequent breakdowns strongly recommend the replacement of these old technology vehicles.
- C. Proposed Action. After thorough analysis of institutional needs and equipment available, purchase new energy efficient non-licensed, hybrid vehicles.

II. TECHNOLOGY 2008-09

- A. **Priority 1: Technology.** Given the current pace of technological change, it seems prudent to leave the fifth year of a capital narrative largely undefined. This flexibility will also allow projects from previous years that could not be funded to be reintroduced during this year.

Estimated Cost: \$60,000

III. OTHER 2008-09

- A. **Priority 1: Vehicle Replacement.** Replace several existing fleet vehicles with more appropriate and energy efficient units.
- B. **Analysis.** While it is not possible to state with certainty the kinds of vehicles that will be most appropriate in 2005-06, it is clear that vehicle replacements will be required. It is not likely that hydrogen vehicles will be available at this time, but LNG vehicles may be practical if a local refueling site is functioning.
- C. **Proposed Action.** Purchase two energy efficient and use appropriate vehicles.
- A. **Priority 2: Replacement of Residence Halls Furniture.** Mattresses and some other dormitory furniture have been replaced under our scheduled replacement program. The furniture in dormitories receives considerable use and has not been replaced in any systematic fashion.
- B. **Analysis.** The condition of furniture in common areas says much about the campus and periodic replacement is necessary to insure reasonable comfort for the residents and to assist with the recruitment of new students.
- C. **Proposed Action.** Identify a durable type of furniture, one that will withstand periodic professional cleaning and begin to systematically replace common area furniture. Establish a schedule for replacement of in room dormitory as an ongoing cost of dormitory operation.

Joan Straumanis
President

Antioch University
Five Year Capital Budget Summary
Antioch College

2003-04 Base Year Capital Expenditures (Est.)	Amount	Source
Land Improvements	\$9,483	Operating Budget
Facilities	\$313,337	Operating Budget
Furniture	\$20,488	Operating Budget
Equipment	\$14,315	Operating Budget
Vehicles	\$22,243	Operating Budget
Technology	\$81,084	Operating Budget
Books	\$28,398	Operating Budget
TOTAL	\$489,348	

2004-05 Proposed Expenditures	Amount	Source
Facilities		
Fire Alarm System Upgrades	\$37,000	Operating Budget
Drives, Walkways and Landscaping	\$85,000	Operating Budget
Roof Replacement Physical Plant	\$35,000	Operating Budget
ADA Ramps, Doors, Restrooms	\$50,000	Operating Budget
Residence Halls Shower Replacement	\$30,000	Operating Budget
Roof Replacement Union Building	\$50,000	Operating Budget
Deck and Stair Repair, North Hall	\$25,000	Operating Budget
Heating Improvements	\$30,000	Operating Budget
Technology		
Computer Workstations	\$30,000	Operating Budget
Classroom Technology	\$50,000	Operating Budget
Wireless Access to the Internet, Phase II	\$60,000	Operating Budget
Other		
Air Conditioning Chiller Replacement	\$85,000	Operating Budget
Replacement of Residence Hall Furniture	\$50,000	Operating Budget
Library Books	\$30,000	Operating Budget

Antioch University
Five Year Capital Budget Summary
Antioch College

TOTAL **\$647,000**

2005-06 Proposed Expenditures	Amount	Source
Facilities		
Environment Control System Phase I	\$100,000	Operating Budget
Landscaping	\$50,000	Operating Budget
Sidewalks	\$50,000	Operating Budget
HVAC Improvements	\$75,000	Operating Budget
Upgrade Electrical Service	\$150,000	Operating Budget
Energy-Efficient Lighting	\$50,000	Operating Budget
Water Heaters (Curl Gym, McGregor Hall, North Hall)	\$50,000	Operating Budget
New Security Vehicle	\$30,000	Operating Budget
Mower Replacement	\$34,000	Operating Budget
Replace Service Vehicles	\$21,000	Operating Budget
Technology		
Computer Workstations	\$30,000	Operating Budget
Backup and Storage File Server	\$10,000	Operating Budget
Network Expansion and Upgrade	\$80,000	Operating Budget
Other		
Vehicle Replacement	\$64,000	Operating Budget
Replacement of Residence Halls Furniture	\$75,000	Operating Budget
Library Books	\$30,000	Operating Budget
TOTAL	\$899,000	

2006-07 Proposed Expenditures	Amount	Source
Facilities		
Drives, Walkways and Trees	\$80,000	Operating Budget
Environment Control System Phase II	\$100,000	Operating Budget
HVAC Improvements	\$125,000	Operating Budget

Antioch University
Five Year Capital Budget Summary
Antioch College

Landscaping	\$50,000	Operating Budget
Upgrade Electrical Service	\$100,000	Operating Budget
Energy-Efficient Lighting	\$25,000	Operating Budget
ADA Doors, Ramps and Restrooms	\$50,000	Operating Budget
Window Replacement	\$75,000	Operating Budget
Roof Replacement and Repair	\$100,000	Operating Budget
Replace Service Vehicles	\$42,000	Operating Budget
Technology		
Classroom Technology	\$80,000	Operating Budget
Computer Workstations	\$30,000	Operating Budget
Campus Network Upgrade, Phase II	\$60,000	Operating Budget
Other		
Vehicle Replacement	\$66,000	Operating Budget
Replacement of Residence Hall Furniture	\$80,000	Operating Budget
Library Books	\$30,000	Operating Budget
TOTAL	\$1,093,000	

2007-08 Proposed Expenditures	Amount	Source
Facilities		
Environment Control System, Phase III	\$100,000	Operating Budget
Energy-Efficient Lighting	\$25,000	Operating Budget
Landscaping	\$50,000	Operating Budget
Drives, Walkways and Trees	\$80,000	Operating Budget
Window Replacement	\$75,000	Operating Budget
Roof Replacement and Repair	\$100,000	Operating Budget
ADA Doors, Ramps and Restrooms	\$50,000	Operating Budget
Upgrade Electrical Service	\$100,000	Operating Budget
Replace Mower	\$25,000	Operating Budget
Repair Exterior Brickwork	\$100,000	Operating Budget
Replace Service Vehicles	\$42,000	Operating Budget

Antioch University
Five Year Capital Budget Summary
Antioch College

Technology

Classroom Technology Phase II	\$30,000	Operating Budget
Campus Network Upgrade, Phase III	\$60,000	Operating Budget

Other

Vehicle Replacement	\$66,000	Operating Budget
Replacement of Residence Halls Furniture	\$80,000	Operating Budget
Library Books	\$30,000	Operating Budget

TOTAL **\$1,013,000**

2008-09 Proposed Expenditures

Amount

Source

Facilities

Environment Control System Phase IV	\$100,000	Operating Budget
Energy-Efficient Lighting	\$25,000	Operating Budget
Landscaping	\$50,000	Operating Budget
Drives, Walkways and Trees	\$80,000	Operating Budget
Window Replacement	\$75,000	Operating Budget
Roof Replacement and Repair	\$100,000	Operating Budget
Repair Exterior Brickwork	\$150,000	Operating Budget
Dump Truck Replacement	\$52,000	Operating Budget
Replace Service Vehicles	\$42,000	Operating Budget

Technology

Technology	\$60,000	Operating Budget
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Other

Vehicle Replacement	\$66,000	Operating Budget
Replacement of Resident Halls Furniture	\$82,000	Operating Budget
Library Books	\$30,000	Operating Budget

TOTAL **\$912,000**

Antioch University
Five Year Capital Budget
Projects above \$10,000
2004-05 Budget

GLEN HELEN ECOLOGY INSTITUTE

Glen Helen's budget is small (~\$700,000) relative to the other units of Antioch University. The Institute, however, is responsible for the maintenance of 22 facilities/structures (buildings, storage, bridges), multiple parking areas, and a 1,000 acre nature preserve. Historically, the GHEI has lacked funds to direct toward capital maintenance and improvements. The recent University decision to expense depreciation will now provide approximately \$20,000 for such projects (over the next five years). Repair, replacement, and upgrade needs of the Glen's facilities far exceed the funds available; however, these funds provide a significant start. To provide a capital budget that is a useful planning tool for the Institute we have included expenses that are \$1,000 or above. In addition, the GHEI proposes several significant capital projects for the construction and rehabilitation of its facilities at an estimated expense of \$2.5 million (to be funded through the capital campaign).

2004-2005 Proposed Expenditures

I. FACILITIES

- A. **Priority 1: Vehicle Replacement.** The GHEI's vehicle fleet is aging. There is an immediate need for replacement of the full-size pickup. (\$12,000)
- B. **Priority 2: Outdoor Education Center Furniture Replacement.** Old bunk beds in the dormitories will continue to be replaced. (\$1,500) *Funding Source GHEI Capital Campaign*
- C. **Priority 3: Intern Residence Hosing Furniture Replacement.** Quality housing is a critical factor in the Institute's ability to attract interns for its Outdoor Education Center. We propose to purchase furniture for either the Farm House or Clayton House (the two principal intern housing units). (\$2,000) *Funding Source GHEI Capital Campaign*

- D. **Priority 4: Telephone and Voice Mail System.** The current telephone system is inadequate to meet the needs of the staff. We lack a sufficient number of phone lines and there is no voice mail system. Staff currently relies on volunteers to answer the phones and take messages. (\$4,000)
- E. **Priority 5: Glen Helen Building Classroom Upgrades.** Programming, formal Antioch College programs and Institute educational program continue to increase. The building's classroom will be upgraded to include classroom furniture and teaching aids. (\$1,500)

II. TECHNOLOGY/EQUIPMENT

- A. **Priority 1: Research/Natural Resource Management Equipment.** This equipment will continue to support efforts to enhance our knowledge of the Glen Helen's natural resources and aid overall management efforts. This year we will seek to purchase a dissecting microscope. (\$5,000).

Unless otherwise noted, funding source for items above is the Operating Budget.

2005-2006 Proposed Expenditures

I. FACILITIES/EQUIPMENT

- A. **Priority 1: Roof Replacement and Repair – Glen Helen Building.** The existing roof was installed in 1973 and is currently leaking in several places. The complete replacement of the roof will occur over three years. This year the section encompassing the auditorium will be replaced and it will be an "Eco-Roof" with plantings. (\$12,000)
- B. **Priority 2: Outdoor Education Center Furniture Replacement.** Old bunk beds in the dormitories will continue to be replaced as will the furniture in the Intern housing. (\$2,000) *Funding Source GHEI Capital Campaign*
- C. **Priority 3: Trail Maintenance and Restoration.** Many trails in the North Glen are over used and eroding. Necessary work will be carried out on these trails. (\$1,500)

II. TECHNOLOGY/EQUIPMENT

- A. **Priority 1: Research/Natural Resource Management Equipment.** This equipment will continue to support efforts to enhance our knowledge of the Glen Helen's natural resources and aid overall management efforts. (\$5,000)

Unless otherwise noted, funding source for items above is the Operating Budget.

2006-2007 Proposed Expenditures

I. FACILITIES

- A. **Priority 1: OEC Drive.** Grading, drainage, and paving of the main drive to the OEC Campus. (\$10,000)
- B. **Priority 2: Glen Helen Building Library Furniture Equipment.** The Glen Helen Building Library needs to be renovated and better support its collection. (\$1,500)
- C. **Priority 3: Land Management/Trail Maintenance and Restoration.** Priority areas will be restored and eroding trails repaired. (\$2,000)

Unless otherwise noted, funding source for items above is the Operating Budget.

II. TECHNOLOGY/EQUIPMENT

- A. **Priority 1: Research/Natural Resource Management Equipment.** This equipment will continue to support efforts to enhance our knowledge of the Glen Helen's natural resources and aid overall management efforts. (\$5,000)
- B. **Priority 2: Computer Acquisition.** Continue to replace aging computers for use by staff. (\$2,000)

2007-2008 Proposed Expenditures

I. FACILITIES

- A. **Priority 1: Roof Replacement and Repair – Glen Helen Building.** The existing roof was installed in 1973 and is currently leaking in several places. The complete replacement of the roof will occur over multiple years. This will be the second section of a three section replacement. We will continue with the use of an "Eco-Roof" with plantings. (\$15,000)
- B. **Priority 2: Land Management/Trail Maintenance and Restoration.** Priority areas will be restored and eroding trails repaired. (\$3,000)

Unless otherwise noted, funding source for items above is the Operating Budget.

II. TECHNOLOGY/EQUIPMENT

- A. **Priority 1: Computer Acquisition.** Continue to replace aging computers for use by staff. (\$3,000)

2008-2009 Proposed Expenditures

I. FACILITIES

- A. **Priority 1: Tractor Replacement.** The current Steiner Tractor has been a workhorse for the Glen for the past 20 years. It is used extensively throughout Glen Helen to Maintain land areas. (\$15,000)
- B. **Priority 2: Drives.** There are several gravel-topped drives and parking areas that need annual repairs and major repairs every few years to include regarding and adding of new layer of gravel. In addition, periodically landscape maintenance must be completed to include tree trimming and drainage enhancement. (\$5,000)

Unless otherwise noted, funding source for items above is the Operating Budget.

Additional Projects for Consideration

Over the next five years additional capital projects will be considered depending upon funding. One source of potential funds is from the Capital Campaign.

- A. **Priority 1: OEC Administrative Offices.** The OEC staff is currently housed in a rented trailer providing limited office space. At the GHEI's OEC a new administrative/education facility will be built providing offices, classrooms and meeting space to serve existing programs. Secondly the space will serve Antioch College and regional businesses and other organizations seeking retreat and meeting space. The additional space will provide additional revenue through weekend rentals of the space. (\$350,000)

An alternative requiring considerably less funding is to rehabilitate the old office building. At a cost of \$20,000 to \$25,000 per year the building could be completely rehabilitated over a period of 3-5 years. The initial investment in year 1 would provide for structural enhancement.

- B. **Priority 2: Trailside Museum & Visitor Center and Corry Street Entrance Complex.** Originally built in 1951, this 750 sq. ft. museum is in need of major renovation. The building is poorly insulated, has its original furnace and a roof 30 plus years old. The exhibits are out of date and of poor quality. Plans include a new roof and possible facility expansion. The building will be retrofitted to be more energy-efficient, including insulation and HVAC

system. Additions will also include a sign-in area, and point of entry with maps, and toilets facilities, all constructed of eco-friendly material. The Adjoining Corry Street complex will include a new “gateway” structure including an outdoor “greenscape” to link the Glen Helen Building and parking area. (\$225,000)

- C. **Priority 3: Renovation of Outdoor Education Center Lodge.** This is a major renovation. It will include replacement of the aging kitchen with a new and enlarged kitchen and storage; upgrade toilet and utilities to be ecosystem friendly; open existing kitchen and dining area for partitioned classroom and dining space; and upgrade finishes and use energy conservation materials. \$250,000
- D. **Priority 4: Renovation of existing Hickory and Sycamore Dormitories.** Each dormitory provides 32 beds. This is a major renovation. A new flat roof and new HVAC system will be installed. Teacher rooms will be enhanced and toilet and shower facilities will be upgraded. Will upgrade finishes and use energy conservation materials. Four beds will be added to each dorm.
- E. **Priority 5: Renovation of Outdoor Education Center Intern Housing.**
 - a. **Clayton House:** Currently an Intern Residence, will be renovated (exterior and interior repair and renovations – water heaters, furnaces, plumbing, gutters, siding, furniture) for use as either staff housing or be converted to student “eco-house.” \$75,000
 - b. **Farm House:** Currently an Intern Residence, will be renovated (exterior and interior repair and renovations – water heaters, furnaces, plumbing, gutters, siding, furniture) for use as either staff housing or appropriate educational use. \$75,000
 - c. **Barn at Clayton House:** This is a major renovation. The barn will be converted to Naturalist Housing (replacing the Clayton and Farm Houses). This multi-level facility will have a common gathering area, apartments and laundry, classrooms, greenhouse and meeting space. \$500,000
- F. **Priority 6: Renovation of the Raptor Center Lab and Educaton Building known as the Roost.** General upgrades will be completed to include the roof, furnace, water heater, furniture. \$50,000

Robert S. Whyte
Executive Director

Antioch University
Five Year Budget Summary
Glen Helen Ecology Institute

2003-04 Base Year Capital Expenditures (Est.)	Amount	Source
Land Improvement	\$4,867	
Facilities	\$12,253	
Furniture	\$10,608	
Equipment	\$3,633	
Vehicle	\$3,750	
Technology	\$2,442	
TOTAL	\$37,553	

2004-05 Proposed Expenditures	Amount	Source
Facilities		
Vehicle Replacement	\$12,000	Operating Budget
Outdoor Education Center Furniture Replacement	\$1,500	GHEI Capital Campaign
Intern Residence Housing Furniture Replacement	\$2,000	GHEI Capital Campaign
Telephone and Voice Mail System	\$4,000	Operating Budget
Glen Helen Building Classroom Upgrades	\$1,500	Operating Budget
Technology		
Research/Natural Resource Management Equipment	\$5,000	Oper. Budget & Add.Gift Support
TOTAL	\$26,000	

2005-06 Proposed Expenditures	Amount	Source
Facilities		
Roof Replacement & Repair - Glen Helen Building	\$12,000	Operating Budget
Outdoor Education Center Furniture Replacement	\$2,000	GHEI Capital Campaign
Trail Maintenance and Restoration	\$1,500	Operating Budget
Technology		
Research/Natural Resource Management Equipment	\$5,000	Operating Budget

Antioch University
Five Year Budget Summary
Glen Helen Ecology Institute

TOTAL **\$20,500**

2006-07 Proposed Expenditures

	Amount	Source
Facilities		
OEC Drive	\$10,000	Operating Budget
Glen Helen Building Library Furniture & Equipment	\$1,500	Operating Budget
Land Management/Trail Maintenance & Restoration	\$2,000	Operating Budget
Technology		
Research/Natural Resource Management Equipment	\$5,000	Operating Budget
Computer Acquisition	\$2,000	Operating Budget
TOTAL	\$20,500	

2007-08 Proposed Expenditures

	Amount	Source
Facilities		
Roof Replacement and Repair - Glen Helen Building	\$15,000	Operating Budget
Land Management/Trail Maintenance & Restoration	\$3,000	Operating Budget
Technology		
Computer Acquisition	\$3,000	Operating Budget
TOTAL	\$21,000	

2008-09 Proposed Expenditures

	Amount	Source
Facilities		
Tractor Replacement	\$15,000	Operating Budget
Drives	\$5,000	Operating Budget
TOTAL	\$20,000	

Antioch University
Five Year Capital Budget
Projects above \$10,000
2004-05 Budget

ANTIOCH NEW ENGLAND GRADUATE SCHOOL

While we have filled in the Five-Year Capital Budget Summary grid, it is important here to acknowledge the fact that we have identified needs and potential expense, realizing that replacement and/or upgrade does not easily translate to a specific timetable.

2004-2005 PROPOSED EXPENDITURES

I. FACILITIES

- A. **Priority 1:** Classroom Painting. \$20,000. After ten years it is time to paint the classroom wing, both rooms and hallways.
- B. **Priority 2:** Classroom upgrade. \$11,815. After painting the classrooms we will add tables, chairs, and marker boards as needed.
- C. **Priority 2:** Multi-function room. \$154,457. Renovate the remaining space in the West Wing and add one or more large classroom/s and one very large multi-purpose room which would enable us to hold major conferences and accommodate large gatherings for lectures, etc. Funding source: capital campaign dollars to augment capital budget outlays.

- D. **Priority 4:** HVAC valve replacement. \$5,000. Some of the valves that open and close vents to our heating, ventilation and air conditioning system are wearing out and we need to replace them. It would cost about \$75,000 to replace all of them at once so we will replace them as they fail.

II. TECHNOLOGY

Technology is a perpetual “work in progress,” and we are implementing our long-term plan to address the critical issues related to technological development. In addition, we are following a plan for prioritizing replacement, upgrading, and application needs, as well as personnel support needs. Presently, we are generally pleased with our technology infrastructure, though more resources can always be used.

- A. **Priority 1:** Replacement, upgrade servers. \$20,000. Some of our servers (ANEl Appleshare, Voyager, Backup NT) are “at the limit” of their usefulness and we need to replace them.
- B. **Priority 2:** 100 base T switch. \$2,000. Purchase an additional T switch for our phone system so we can expand as needed.
- C. **Priority 3:** New and Replacement computers. \$85,000. We continue to support computer hardware replacement and the purchase of new computers as needed.
- D. **Priority 4:** Wireless Mobile Lab. \$13,829. The Education department has a need for a Wireless Mobile Apple lab. The 10-unit lab combines the management and control of a computer lab on a lockable rolling base.

III. OTHER

- A. **Priority 1:** Instructional Technology room. \$36,925. None of our classrooms are appointed with technological enhancements. We intend to outfit one of the Library spaces to be a model tech classroom. While it won't have all the cutting edge appointments, it will be a big jump forward for us.
- B. **Priority 2:** ES herbarium Lab upgrade. \$40,000. For the purchase of a dry combustion oven and infrared gas analyzer. The Environmental Studies department is upgrading the lab and these additions will allow students to

conduct experiments that will elevate graduate student research and make us more competitive with other graduate programs.

- C. **Priority 3:** Development Software. \$20,000. Our development office would like to purchase Raiser's Edge software. We are currently running Gift Maker Pro and the program is not adequate for our needs.
- D. **Priority 4:** Maintenance upgrade library collection. \$40,000. To cover the cost of maintaining journal subscriptions, licensing fees, book acquisitions and dissertation abstracts.
- E. **Priority 5:** Scanner/software disability services. \$4,500. So far we haven't had any students that have required special needs equipment. We need to gear up for that eventuality.

2005-06 PROPOSED EXPENDITURES

I. FACILITIES

- A. **Priority 1:** Purchase Property. \$180,000. It is important we start thinking about purchasing nearby properties. Our expansion options are limited due to the various local regulations. If we start to pick up a few of the properties that are in the commercial zone on Pearl Street, our options expand.
- B. **Priority 2:** Refinish secondary parking lot. \$12,500. This lot is rough and it needs a resurfacing.
- C. **Priority 3:** HVAC valve replacement. \$10,000. Some of the valves that open and close vents to our heating, ventilation and air conditioning system are wearing out and we need to replace them.

II. TECHNOLOGY

- A. **Priority 1:** Computer Hardware replacement. \$80,000. We continue to support computer hardware replacement and the purchase of new computers as needed.

III. OTHER

- A. **Priority 1:** Maintenance upgrade library collection. \$80,000. To cover the cost of maintaining journal subscriptions, licensing fees, book acquisitions and dissertation abstracts.

2006-07 PROPOSED EXPENDITURES

I. FACILITIES

- A. **Priority 1:** Purchase Property. \$200,000. It is important we start thinking about purchasing nearby properties. Our expansion options are limited due to the various local regulations. If we start to pick up a few of the properties that are in the commercial zone on Pearl Street, our options expand.

II. TECHNOLOGY

- A. **Priority 1:** Computer Hardware replacement. \$95,000. We continue to support computer hardware replacement and the purchase of new computers as needed.

III. OTHER

- A. **Priority 1:** Maintenance upgrade library collection. \$93,000. To cover the cost of maintaining journal subscriptions, licensing fees, book acquisitions and dissertation abstracts.

2007-08 PROPOSED EXPENDITURES

I. FACILITIES

- A. **Priority 1:** HVAC valve replacement. \$10,000. Some of the valves that open and close vents to our heating, ventilation and air conditioning system are wearing out and we need to replace them.

II. TECHNOLOGY

- A. **Priority 1:** Computer Hardware replacement. \$120,000. We continue to support computer hardware replacement and the purchase of new computers as needed.

III. OTHER

- A. **Priority 1:** Maintenance upgrade library collection. \$93,000. To cover the cost of maintaining journal subscriptions, licensing fees, book acquisitions and dissertation abstracts.

2008-09 PROPOSED EXPENDITURES

I. FACILITIES

- A. **Priority 1:** HVAC valve replacement. \$10,000. Some of the valves that open and close vents to our heating, ventilation and air conditioning system are wearing out and we need to replace them. It would cost about \$75,000 to replace all of them at once so we will replace them as they fail.

II. TECHNOLOGY

- A. **Priority 1:** Computer Hardware replacement. \$115,000. We continue to support computer hardware replacement and the purchase of new computers as needed.

III. OTHER

- A. **Priority 1:** Maintenance upgrade library collection. \$90,000. To cover the cost of maintaining journal subscriptions, licensing fees, book acquisitions and dissertation abstracts.

Peter Temes
President

Antioch University
Five Year Budget Summary
Antioch New England Graduate School

2003-04 Base Year Capital Expenditures (Est.)	Amount	Source
Facilities	\$38,966	
Furniture	\$1,586	
Equipment	\$15,169	
Technology	\$155,132	
Books	\$33,903	
TOTAL	\$244,756	

2004-05 Proposed Expenditures	Amount	Source
Facilities		
Classroom Painting	\$20,000	Operating Budget & Dep. Res.
Classroom upgrade	\$11,815	Operating Budget & Dep. Res.
Multi-function Room	\$154,457	Operating Budget & Dep. Res.
HVAC valve replacement	\$5,000	
Technology		
Replacement, upgrade servers	\$20,000	Operating Budget & Dep. Res.
100 base T switch	\$2,000	Operating Budget & Dep. Res.
Replacement and New Computers	\$85,000	Operating Budget & Dep. Res.
Wireless Mobile Lab	\$13,829	Operating Budget & Dep. Res.
Other		
Instructional Technology Room	\$36,925	Operating Budget & Dep. Res.
ES herbarium Lab upgrade	\$40,000	Operating Budget & Dep. Res.
Development software	\$20,000	Operating Budget & Dep. Res.
Maintenance upgrade library collection	\$40,000	Operating Budget & Dep. Res.
Scanner/software disability services	\$4,500	Operating Budget & Dep. Res.
TOTAL	\$453,526	

Antioch University
Five Year Budget Summary
Antioch New England Graduate School

2005-06 Proposed Expenditures	Amount	Source
Facilities		
Purchase property	\$180,000	Operating Budget
Refinish secondary parking lot	\$12,500	Operating Budget
HVAC valve replacement	\$10,000	Operating Budget
Technology		
Computer hardware replacement	\$80,000	Operating Budget
Other		
Maintenance upgrade library collection	\$80,000	Operating Budget
TOTAL	\$362,500	

2006-07 Proposed Expenditures	Amount	Source
Facilities		
Purchase property	\$200,000	Operating Budget
Technology		
Computer hardware replacement	\$95,000	Operating Budget
Other		
Maintenance upgrade library collection	\$93,000	Operating Budget
TOTAL	\$388,000	

2007-08 Proposed Expenditures	Amount	Source
Facilities		
HVAC valve replacement	\$10,000	Operating Budget

Antioch University
Five Year Budget Summary
Antioch New England Graduate School

Technology		
Computer hardware replacement	\$120,000	Operating Budget
Other		
Maintenance upgrade library collection	\$93,000	Operating Budget
TOTAL	\$223,000	

2008-09 Proposed Expenditures	Amount	Source
Facilities		
HVAC valve replacement	\$10,000	Operating Budget
Technology		
Computer hardware replacement	\$115,000	Operating Budget
Other		
Maintenance upgrade library collection	\$90,000	Operating Budget
TOTAL	\$215,000	

Antioch University
Five Year Capital Budget
Projects above \$10,000
2004-05 Budget

ANTIOCH SEATTLE

2004-05 PROPOSED EXPENDITURES

I. FACILITIES 2004-05

- A. **Priority 1:** Remodel 4000 SF Of Tenant Space At Expiration Of Lease To Create New Classrooms. Create 3 to 5 large learning areas and furnish. Project includes the addition of two smaller restrooms, offices, and a storage space to accommodate expansion needs. Utilization analysis has determined that we need new classrooms to accommodate existing courses and the addition of the Psychology Doctoral Degree courses. Configure classrooms so they can also be used as observation rooms by the Psychology Department.
- B. **Priority 2:** Tenant Space Improvement. Remodel the 940 SF Café, upon expiration of current lease, to meet the needs of both the university and/or prospective tenants.
- C. **Priority 3:** Miscellaneous Items under \$10,000.
Install dimmers & motion detectors in room 100.
Replace carpet on main stairwell.

II. TECHNOLOGY 2004-05

- A. **Priority 1:** Upgrade Faculty and Staff Computers & Upgrade Network Equipment. Having last year completed a 3-year comprehensive upgrade cycle, we are in a new round of continued upgrades to address new needs, obsolescence, and hardware deterioration through normal wear and tear. Specific new needs

include the increased demand for the use of laptop computers by faculty and staff with field assignments. Our current network backbone hardware is almost 4 years old. To proactively ensure the stability of this key resource we are planning for a phased upgrade of this equipment.

- B. Analysis. Our new standard for a faculty computer is 20G hard drive, 128 MB of RAM, and 1 GHz of processor speed. Network hardware will be based on a 100 MB/s standard. The market for these products changes so rapidly it is not possible to identify a specific brand and vendor. Comparative shopping is required at the time of each batch purchase.
- C. Proposed Action. This year we have allocated approximately \$85,000 toward computer and network equipment purchases. Computers are being phased in through a 4-5 year upgrade cycle for staff and faculty. Network equipment upgrades are being phased in over a 3-year period. We anticipate maintaining (if not increasing) this amount in the budget each year to keep up with the need to replace and upgrade computers on an on-going basis.

III. OTHER 2004-05

- A. **Priority 1: Renovation: Purchase And Install Dedicated AV Equipment In Room 100.** This project focuses on providing advanced audio/visual equipment for the campus' large community meeting room.
- B. Analysis. Improvements will enhance functionality for internal users; it will increase rental opportunities and revenues.
- C. Proposed Action. Individual elements include high resolution extra high bright LCD projector which will be flush mounted to the ceiling on an electric lift, recessed 5'x7' electric screen, six input panels located around the room. In addition, lockable lectern will house VCR/DVD combination player, document camera, cassette player/recorder, distribution amplifier, speaker amplifier, cables and remotes. Six ceiling mounted speakers will be added to existing system and will be connect through an amplifier and provide even sound throughout the room. All wall plates, plenum cables and misc. hardware are included in bid. Installed equipment will reduce set-up time, wear and tear on the building posed by moving large carts through narrow hallways. Individual elements were chosen on the basis of quality of construction, ease of use, price, age of technology, availability and

manufacturers' warranty. Vendor was chosen on the basis of price, reputation and ability to service products after installation. University Relations department is currently exploring grant source opportunities for full or partial funding.

- A. **Priority 2: New Furniture For Additional Faculty And Staff Positions.**
Purchase new furniture for 7 new faculty and staff positions.
- A. **Priority 3: Replacement Bookstore Bookcases.** Replace freestanding office bookcases with suitable retail fixtures. Changes focus on using floor and wall space to optimal capacity for maximum revenue-generation impact. Increase linear feet of selling space by purchasing and installing heavy-duty wall mounted shelving for textbooks along back and side store walls to replace sagging bookcases. Improve window display and interior merchandise showcasing by purchasing see-through shelving fixtures, which will take advantage of our large street-front windows. Add flexibility in use of cramped floor space by purchasing fixture units built on casters. Vendor was chosen on basis of reputation among regional college stores and price.
- A. **Priority 4: Upgrade Public Area Furnishings, Phase II.** Replace, upgrade, and add common area furnishings in second floor gathering and waiting areas and in the open area of the space we added in 2001. This includes the chairs outside the President's office, and more upholstered benches along the second floor hall. We made creating gathering spaces a priority in designing our building, and have found that students and employees use these spaces regularly. The furnishings were already old when we moved to this building and have received a lot of wear and tear since.
- A. **Priority 5: Miscellaneous Items under \$10,000.**
Upgrade furnishings in the student lounge. They are over 15 years old.
Phones for new employees.
Phase 2 of inventory bar code system.

2005-06 PROPOSED EXPENDITURES

I. FACILITIES 2005-06

- A. **Priority 1: Resurface Rooftop-Parking Area, Repair And Recoat Built-Up Roofing.** The current concrete roof slab is at end of its life cycle. The top slab is deteriorating rapidly, allowing excessive water penetration and

causing increasing wear and tear on substrate water barrier and insulation to the point of failure. Water penetration and deterioration is evident along outer walls and at various spots throughout the interior of the building. This project would remove and replace the top slab and loose substrate material. While the top slab is removed, the exposed built-up vapor barrier would be recoated, the drainage system would be cleaned and repaired, the existing nonessential chimneys at the center (east and west) parapet wall would be removed and sealed, and all nonessential penetrations and voids filled. We will epoxy seal and repair the outer perimeter parapet wall where it is separating along the building edge to prevent water infiltration and damage to structural reinforcing steel and the building's interior. Re-stripe parking spaces and install parking curbs around wall areas to prevent vehicles from hitting and penetrating moisture protection on rooftop parapet.

A. **Priority 2:** Remodel 2400 SF Of Tenant Space At Possible Expiration Of Lease To Create New Classrooms/Clinic/Offices. Project could possibly include the addition of a large learning area, the creation of a clinic for the Psy.D program and possible office spaces with outside access and increased visibility. (Dependent on current tenant.)

A. **Priority 3:** Install An Electronically Activated Security Gate, Rooftop Parking. Install an electronically controlled parking security gate at the entrance of the rooftop-parking ramp. This project would allow free access to bicyclists and pedestrians, and limit vehicular access to authorized permit holders, visitors and daily parkers. It would include electronic access via touch key and card reader, and an intercom system for visitor access. This option would greatly reduce unauthorized parking, visitor confusion and ticketing. The end result would be to free up over thirty hours a week in staff involvement with ticketing and grievance resolution on the part of both staff and faculty.

II. TECHNOLOGY 2005-06

A. **Priority 1:** Continue computer and network upgrade cycles.

A. **Priority 2:** Expand Telephone System. Expand telephone system to add capacity for digital and analog ports. Digital ports are used for telephone extensions. We currently have 168 digital ports and we are running out of capacity for additional extensions. Analog ports are used for devices such as modems, faxes, credit card machines, etc. We have 24 analog ports and we are almost out of available ports.

- A. **Priority 3: Purchase POS and ICS systems for Bookstore.** Purchase a point of sale (POS) and inventory control systems (ICS) for the Bookstore. An Inventory Control System (ICS) is an integrated merchandise control tool. It keeps track of textbook, trade book and general merchandise stock providing up-to-date inventory information. It is also a useful tool for verifying the annual physical inventory counts and an aid to loss control efforts. It automatically updates quantities as merchandise is received, sold (through POS) and/or returned. It interfaces faculty orders with on-hand merchandise and generates want lists for distributor and publisher orders. It updates want lists as orders are placed, so orders for titles aren't duplicated or lost. It facilitates returns to publisher by printing returns lists and labels. It also prints price labels. The system requires \$1,400 in annual fees in addition to the initial purchase.

A Point-of-Sale (POS) register provides a comprehensive point-of-sale system tracking transactions by clerk, department, title, and time. It provides price look-up capabilities for accuracy and can be programmed to perform automatic discounts on sale items. It will scan incoming checks for previous NSF checks and prompt the clerk to ask for alternate form of payment. It can be set up to accommodate financial aid / scholarship accounts and can also be set up to accept campus account charge accounts (for departmental purchases) and gift certificates. All transactions will update on-hand inventory information in the ICS. The system requires \$2,500 in annual fees.

2006-07 PROPOSED EXPENDITURES

I. FACILITIES

- A. **Priority 1: Remodel And Paint Building Exterior.** The existing paint is faded and spotted. Stress cracks along the exterior of the building are allowing weather infiltration and adding to the deterioration of the structural walls. Clean the exterior walls, fill cracks, patch/repair surface irregularities, seal expansion joints, and repaint building and signage. Apply a veneer/curtain wall to the Sixth Avenue face of the building to give it a distinctive and distinguished look and feel. Repair and paint moisture damaged interior plaster walls.
- A. **Priority 2: Replace Smoke/Heat Detectors and Fire Alarm Panel.** The Building's fire alarm system will be at the end of its useful ten-year life cycle. Replace the current system with an addressable fire alarm system, to include an addressable fire alarm panel and compatible smoke and heat detectors. Presently when a smoke alarm alerts or goes bad the entire zone has to be searched to find the alarm or signal in trouble. The new system will show

the exact unit in trouble right at the panel saving both the fire department and maintenance valuable time in searching out the cause and taking corrective action. This project would place us in compliance with the Uniform Fire Code.

A. **Priority 3:** Expand Bookstore. Expand Bookstore in order to increase sales and services. In 5 years we assume the Assistant Manager will be a full time position and would need an office. Expanded space and product lines would require specialized shelving and display fixtures.

A. **Priority 4.** Miscellaneous Items. Repair south entrance doors & replace entrance mat.

II. TECHNOLOGY 2005-06

A. **Priority 1:** Continue computer and network upgrade cycles.

2007-08 PROPOSED EXPENDITURES

I. FACILITIES 2007-08

A. **Priority 1:** Add 4th floor to the 2326 6th Avenue Building. Projections in our strategic plan indicate a need for space to accommodate up to 1200 students. Studies are underway to determine the most cost effective way to accommodate growth. One primary option is to add a floor to our current building. Other possibilities are to ramp up lease space for a few years or move to another, larger location.

A. **Priority 2:** Level Sidewalks. The trees fronting the building along Sixth Avenue and Battery Street are causing the sidewalks to heave in areas where their root structures have been able to grow unrestrained toward the surface. The uneven surface of the sidewalk is causing a safety problem for pedestrians. This project would bring in an arborist to cut or redirect the roots without harm to the trees. Once this has been accomplished a bio-barrier would be placed to redirect any further root growth away from the surface curtailing any future upheaval of the sidewalk. The sidewalk could then be reinstalled to its original condition providing a smooth, safe walkway.

A. **Priority 3:** Replace Carpeting In High Traffic Areas And Stairwells. Replace carpeting in high traffic areas.

Replace stairwell carpeting with a more durable, low maintenance and skid resistant surface.

II. TECHNOLOGY 2007-08

A. **Priority 1:** Continue computer and network upgrade cycles.

III. OTHER 2007-08

A. **Priority 1:** Replace Classroom Chairs. New chairs were purchased after we moved to 2326 Sixth Avenue. We continued to add new chairs over the next 3 years. The first chairs purchased are 10 years old. This is the beginning of a cycle of replacing classroom chairs.

A. **Priority 2:** Install Audio And Visual Equipment In Classrooms. Install a multi-media presentation system in all classrooms. Technology would be consistent throughout the school and suitable for the needs of the faculty. Includes the installation of a projector, a wall mounted screen, a document camera, and an integrated sound and recording system.

A. **Priority 3:** Install A Public Address System. Install a public address system throughout the university. Install the primary controls at the front desk and locate speakers in all common areas and classrooms.

2008-09 PROPOSED EXPENDITURES

I. FACILITIES 2008-09

A. **Priority 1:** Install A Moveable Storage System In Archives. Install a moveable shelving system in the Archives room. This type of system would increase storage capacity by 70% and aid in the storage and retrieval of files.

A. **Priority 2:** Replace Existing Single Pane Glass with Double Insulated Glass. The existing single pane glass is drafty, stained and weathered – hinders visibility, creates cold spots and presents a poor appearance. Replace single pane glass in second floor windows with a more energy-efficient double pane insulated low-e glass. Test for lead and asbestos containing material in the window caulk and abate as necessary.

A. **Priority 3:** Install Vandal Shield/ Polycrylic Film. Install vandal shield on first floor street windows facing Sixth Avenue and Battery Street to prevent excessive cost of window replacement due to vandalism and reduce fading of Bookstore's inventory. Currently, the unprotected windows are vulnerable to damage from broken glass due to terrorist, earthquakes, hurricanes, riots, vandalism and other activities. Security film can dramatically reduce damage and injury from fractured glass hazards and provide a virtually scratch resistant surface against graffiti. It not only provides surface protection, but can be energy-efficient, offering high-heat rejection properties. Using the proper film will add up to 50% to the insulation factor of the window. The pyrolytic film reflects up to 99% of the sun's UV rays, reducing fading and the deterioration of store merchandise, furnishings and carpeting.

II. TECHNOLOGY 2008-09

A. **Priority 1:** Continue computer and network upgrade cycles.

Toni Murdock
President

Antioch University
Five Year Capital Budget Summary
Antioch Seattle

2003-04 Base Year Capital Expenditures (Est.)	Amount	Source
Facilities	\$251,871	
Furniture	\$86,928	
Equipment	\$13,043	
Technology	\$95,915	
TOTAL	\$447,757	
2004-05 Proposed Expenditures	Amount	Funding Source
Facilities		
Remodel: Build out into vacant tenant spaces	\$350,000	Oper. Budget, Capital Res. & Loan
Remodel: Tenant space improvement allowance for new café vendor	\$10,000	Oper. Budget & Capital Res.
Replace/Upgrade: Repair/replace carpet on main stairwell.	\$2,000	
Addition: Install dimmers/motion in Room 100	\$3,000	Operating Budget
Technology		
Replacement/Upgrade: Computer and network upgrades	\$85,000	Operating Budget
Other		
Renovation: Purchase and install dedicated AV equipment in room 100.	\$30,000	Operating Budget
Addition: Furniture for new faculty / staff members	\$15,400	Operating Budget
Replacement/Upgrade: Replace free-standing office bookcases.	\$8,000	Operating Budget
Replacement/Upgrade: Upgrade common area furnishings.	\$7,500	Operating Budget

Antioch University
Five Year Capital Budget Summary
Antioch Seattle

Replacement/Upgrade: Purchase new furnishings for student lounge	\$6,000	Operating Budget
Addition: Phones and Misc. Office equipment for new employees.	\$5,000	
Phase 2 of inventory bar code system	\$2,000	Operating Budget

TOTAL	\$523,900	
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2005-06 Proposed Expenditures	AMOUNT	FUNDING SOURCE
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Facilities

Maintenance: Resurface rooftop parking, repair and recoat built up roofing	\$180,000	Operating Budget and Capital Reserve
Remodel: Remodel 2400 SF of space	\$200,000	Operating Budget and Capital Reserve
Addition: Install an electronic security gate for rooftop parking	\$15,000	Operating Budget

Technology

Upgrades: Computer upgrades, network update	\$90,000	Operating Budget
Addition: Expand phone system	\$8,000	Operating Budget
Addition: Point of sale, webstore and inventory systems for Bookstore	\$12,000	Operating Budget

TOTAL	\$505,000	
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2006-07 Proposed Expenditures	AMOUNT	FUNDING SOURCE
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Facilities

Maintenance: Remodel and paint building exterior	\$250,000	Operating Budget
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Antioch University
Five Year Capital Budget Summary
Antioch Seattle

Maintenance: Replace smoke/heat detectors and fire alarm panel.	\$10,000	Operating Budget
Additions: Expand Bookstore	\$55,000	Operating Budget
Maintenance: Repair south entrance doors	\$3,000	Operating Budget

Technology

Upgrades: Computer upgrades	\$105,000	Operating Budget
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Other

TOTAL	\$423,000	
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2007-08 Proposed Expenditures	AMOUNT	FUNDING SOURCE
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Facilities

Add 4th Floor to the 2326 6th Avenue Building	\$10,000,000	Issuance of New Bonds
Maintenance: Level sidewalk along west and north sides of the building	\$12,000	Operating Budget
Replace/Upgrade: Replace carpeting in high traffic areas and stairwells	\$16,000	Operating Budget

Technology

Upgrades: Computer upgrades	\$125,000	Operating Budget
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Other

Replacement/Upgrade: Replace classroom chairs	\$10,000	Operating Budget
Addition: install fixed audio/visual equipment in classrooms	\$100,000	Operating Budget
Addition: Install a public address	\$10,000	Operating Budget

TOTAL	\$10,273,000	
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Antioch University
Five Year Capital Budget Summary
Antioch Seattle

2008-09 Proposed Expenditures	AMOUNT	FUNDING SOURCE
Facilities		
Addition: Install moveable storage system in archives	\$18,000	Operating Budget
Replacement/Upgrade: Replace single glazed windows	\$12,000	Operating Budget
Maintenance: Install pyrolytic film over first floor windows (vandal proof)	\$18,000	Operating Budget
Technology		
Upgrades: Computer upgrades	\$145,000	Operating Budget
TOTAL	\$193,000	

Antioch University
Five Year Capital Budget
Projects above \$10,000
2004-05 Budget

ANTIOCH SOUTHERN CALIFORNIA

A comprehensive schedule accompanies this narrative. It summarizes all proposed spending for both campuses for the entire five-year period. The Santa Barbara lease expires in September 2006. Therefore, in the third year of this five-year plan, we have built in special costs associated with the anticipated move to new space.

Please note that the AUSC staff worked with the following capital expenditure annual ceilings (increasing 15% per year):

2004-2005	\$214,237
2005-2006	\$246,373
2006-2007	\$283,328
2007-2008	\$325,828
2008-2009	\$374,702

Overall Rationale:

These are necessary upgrades to maintain excellent service to students, staff, faculty, prospects, and alumni. The specific items and levels of investment were developed by fiscal, facility, and IT specialists from both campuses working in concert.

SANTA BARBARA 2004-05

TECHNOLOGY

Rolling SB AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$13,320
Rolling PC replacement program, 75 PCs@ \$1150; \$86,250 spread over 5 years.	\$17,250

Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 20 printers, \$46,000 over 5 years.	\$10,000
Ceiling mount LCD projectors for 5 classrooms, @\$7700 x 5, \$38,500 over 3 years.	\$12,834
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$10,000

FURNITURE

Furniture upgrades and replacements	\$10,000
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LOS ANGELES 2004-05

TECHNOLOGY

Rolling LA AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$26,640
Rolling PC replacement program, 141 PCs@\$1150; 11 IMACs@ \$712.	\$33,996
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 40 printers.	\$18,400
Computer lab furnishings, computer-style tables with chairs x 16, @\$500.	\$10,000
Digital LCD projectors at \$3100 each.	\$10,000
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$5,000

FURNITURE

Large Board room furniture & furnishings upgrade.	\$30,000
Furniture upgrade and replacement.	\$10,000

OTHER

Library holdings.	\$10,000
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SANTA BARBARA 2005-06

TECHNOLOGY

Rolling SB AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$13,320
Rolling PC replacement program, 75 PCs@\$1150; 5 Macs at \$712.	\$17,250
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 20 printers.	\$10,000

Ceiling mount LCD projectors for 5 classrooms, @\$7700 x 5, \$38,500, over 3 years.	\$12,833
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$20,000

FURNITURE

Furniture upgrades and replacements.	\$20,000
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LOS ANGELES 2005-06

TECHNOLOGY

Rolling LA AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$26,640
Rolling PC replacement program, 141 PCs@\$1150; 11 IMACs@ \$712.	\$33,996
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 40 printers.	\$18,400
Computer lab furnishings, computer-style tables with chairs x 16, @\$500.	\$10,000
Digital LCD projectors at \$3100 each.	\$10,000
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$30,000

FURNITURE

Furniture upgrade and replacement.	\$10,000
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OTHER

Library holdings.	\$10,000
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SANTA BARBARA 2006-07

Note: Santa Barbara lease expires in September 2006. In the third year of this 5-year plan, we have built in special costs associated with the move.

TECHNOLOGY

Rolling SB AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$13,320
Rolling PC replacement program, 75 PCs@\$1150; 5 Macs at \$712.	\$17,250
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 20 printers.	\$10,000
Ceiling mount LCD projectors for 5 classrooms, @\$7700 x 5, \$38,500, over 3 years.	\$12,833

Move in September 2006: IT infrastructure (cabling, etc.) \$90,000 total.	\$90,000
Move in September 2006: Network gear for new location: Cisco gear and switches.	\$100,000

FURNITURE

Move in Sept 2006: Special furniture upgrade and replacement.	\$75,000
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OTHER

Library holdings.	\$10,000
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LOS ANGELES 2006-07

TECHNOLOGY

Rolling LA AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$26,640
Rolling PC replacement program, 141 PCs@\$1150; 11 IMACs@ \$712.	\$33,996
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 40 printers.	\$18,400
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$5,000

SANTA BARBARA 2007-08

TECHNOLOGY

Rolling SB AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$13,320
Rolling PC replacement program, 75 PCs@\$1150; 5 Macs at \$712.	\$17,250
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 20 printers.	\$10,000
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$87,000

FURNITURE

Furniture upgrades and replacements.	\$20,000
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OTHER

Library holdings.	\$10,000
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LOS ANGELES 2007-08

TECHNOLOGY

Rolling LA AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$26,640
Rolling PC replacement program, 141 PCs@\$1150; 11 IMACs@ \$712.	\$33,996
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 40 printers.	\$18,400
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$60,000

FURNITURE

Furniture upgrade and replacement.	\$25,000
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OTHER

Library holdings.	\$10,000
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SANTA BARBARA 2008-09

TECHNOLOGY

Rolling SB AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$13,320
Rolling PC replacement program, 75 PCs@\$1150; 5 Macs at \$712.	\$17,250
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 20 printers.	\$10,000
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$95,000

FURNITURE

Furniture upgrades and replacements.	\$20,000
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OTHER

Library holdings.	\$10,000
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LOS ANGELES 2008-09

TECHNOLOGY

Rolling LA AUSC Web Development, for on-line registration, bill payment, job applicants, etc.	\$26,640
Rolling PC replacement program, 141 PCs@\$1150; 11 IMACs@ \$712.	\$33,996
Rolling Printer replacement program, HP2300 or equivalent, @ \$2300 x 40 printers.	\$18,400
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$60,000

FURNITURE

Furniture upgrade and replacement.	\$30,000
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OTHER

Library holdings.	\$10,000
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LucyAnn Geiselman
President

Antioch University
Five Year Capital Budget Summary
Antioch Southern California

2003-04 Base Year Capital Expenditures (Est.)	Amount	Source
Facilities	\$24,774	
Furniture	\$84,897	
Equipment	\$4,808	
Technology	\$232,085	
TOTAL	\$346,564	

SANTA BARBARA 2004-05

Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 20 printers, \$46k over 5 yrs	\$10,000	Oper. Budget & Prior Yr. Depr. Res.
Ceiling mount LCD projectors for 5 classrooms, @\$7700 x 5, \$38.5k, over 3 yrs	\$12,834	Oper. Budget & Prior Yr. Depr. Res.
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$10,000	Oper. Budget & Prior Yr. Depr. Res.
FURNITURE		
Furniture upgrades and replacements	\$10,000	Oper. Budget & Prior Yr. Depr. Res.
TOTAL	\$389,398	

LOS ANGELES 2004-05

TECHNOLOGY

Rolling LA AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$26,640	Operating budget & prior year depreciation reserves
Rolling PC replace program, 141 PCs@\$1150; 11 IMACs@ \$712	\$33,996	Operating budget & prior year depreciation reserves
Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 40 printers	\$18,400	Operating budget & prior year depreciation reserves

Antioch University
Five Year Capital Budget Summary
Antioch Southern California

Computer lab furnishings, computer-style tables with chairs x 16, @\$500	\$10,000	Operating budget & prior year depreciation reserves
Digital LCD projectors at \$3100 each	\$10,000	Operating budget & prior year depreciation reserves
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$5,000	Operating budget & prior year depreciation reserves
FURNITURE		
Large Board room, furniture & furnishings upgrade	\$30,000	Operating budget & prior year depreciation reserves
Furniture upgrade and replacement	\$10,000	Operating budget & prior year depreciation reserves
OTHER		
Library holdings	\$10,000	Operating budget & prior year depreciation reserves
TOTAL	\$154,036	
TOTAL SOUTHERN CALIFORNIA	\$543,434	

SANTA BARBARA 2005-06

TECHNOLOGY

Rolling SB AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$13,320	Operating budget
Rolling PC replace program, 75 PCs@\$1150; 5 Macs at \$712	\$17,250	Operating budget
Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 20 printers	\$10,000	Operating budget
Ceiling mount LCD projectors for 5 classrooms, @\$7700 x 5, \$38.5k, over 3 yrs	\$12,833	Operating budget
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$20,000	Operating budget

FURNITURE

Antioch University
Five Year Capital Budget Summary
Antioch Southern California

Furniture upgrades and replacements	\$20,000	Operating budget
TOTAL	\$93,403	

LOS ANGELES 2005-06

TECHNOLOGY

Rolling LA AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$26,640	Operating budget
Rolling PC replace program, 141 PCs@\$1150; 11 IMACs@ \$712	\$33,996	Operating budget
Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 40 printers	\$18,400	Operating budget
Computer lab furnishings, computer-style tables with chairs x 16, @\$500	\$10,000	Operating budget
Digital LCD projectors at \$3100 each	\$10,000	Operating budget
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$30,000	Operating budget

FURNITURE

Furniture upgrade and replacement	\$10,000	Operating budget
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OTHER

Library holdings	\$10,000	Operating budget
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TOTAL	\$149,036	
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TOTAL SOUTHERN CALIFORNIA	\$242,440	
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SANTA BARBARA 2006-07

TECHNOLOGY

Rolling SB AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$13,320	Operating budget
Rolling PC replace program, 75 PCs@\$1150; 5 Macs at \$712	\$17,250	Operating budget

Antioch University
Five Year Capital Budget Summary
Antioch Southern California

Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 20 printers	\$10,000	Operating budget
Ceiling mount LCD projectors for 5 classrooms, @\$7700 x 5, \$38.5k, over 3 yrs	\$12,833	Operating budget
Move in Sept 2006: IT infrastructure (cabling, etc.) \$90k total	\$90,000	Operating budget
Move in Sept 2006: Network gear for new location: Cisco gear and switches, \$100k	\$100,000	Operating budget

FURNITURE

Move in Sept 2006: Special furniture upgrade and replacement	\$75,000	Operating budget
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OTHER

Library holdings	\$10,000	Operating budget
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TOTAL	\$328,403	
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LOS ANGELES 2006-07

TECHNOLOGY

Rolling LA AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$26,640	Operating budget
Rolling PC replace program, 141 PCs@\$1150; 11 IMACs@ \$712	\$33,996	Operating budget
Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 40 printers	\$18,400	Operating budget
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$5,000	Operating budget

TOTAL	\$84,036	
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TOTAL SOUTHERN CALIFORNIA	\$412,440	
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SANTA BARBARA 2007-08

Antioch University
Five Year Capital Budget Summary
Antioch Southern California

TECHNOLOGY

Rolling SB AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$13,320	Operating budget
Rolling PC replace program, 75 PCs@\$1150; 5 Macs at \$712	\$17,250	Operating budget
Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 20 printers	\$10,000	Operating budget
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$87,000	Operating budget

FURNITURE

Furniture upgrades and replacements	\$20,000	Operating budget
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OTHER

Library holdings	\$10,000	Operating budget
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TOTAL	\$157,570	
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LOS ANGELES 2007-08

TECHNOLOGY

Rolling LA AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$26,640	Operating budget
Rolling PC replace program, 141 PCs@\$1150; 11 IMACs@ \$712	\$33,996	Operating budget
Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 40 printers	\$18,400	Operating budget
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$60,000	Operating budget

FURNITURE

Furniture upgrade and replacement	\$25,000	Operating budget
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OTHER

Library holdings	\$10,000	Operating budget
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Antioch University
Five Year Capital Budget Summary
Antioch Southern California

TOAL **\$174,036**

TOTAL SOUTHERN CALIFORNIA **\$331,606**

SANTA BARBARA 2008-09

TECHNOLOGY

Rolling SB AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$13,320	Operating budget
Rolling PC replace program, 75 PCs@\$1150; 5 Macs at \$712	\$17,250	Operating budget
Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 20 printers	\$10,000	Operating budget
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$95,000	Operating budget

FURNITURE

Furniture upgrades and replacements	\$20,000	Operating budget
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OTHER

Library holdings	\$10,000	Operating budget
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TOTAL **\$165,570**

LOS ANGELES 2008-09

TECHNOLOGY

Rolling LA AUSC Web Devel, for on-line registration, bill payment, job applicants, etc.	\$26,640	Operating budget
Rolling PC replace program, 141 PCs@\$1150; 11 IMACs@ \$712	\$33,996	Operating budget
Rolling Printer replace program, HP2300 or equiv, @ \$2300 x 40 printers	\$18,400	Operating budget
Other technology upgrades (firewalls, servers, network switches & gear, etc).	\$60,000	Operating budget

Antioch University
Five Year Capital Budget Summary
Antioch Southern California

FURNITURE

Furniture upgrade and replacement

\$30,000

Operating budget

OTHER

Library holdings

\$10,000

Operating budget

TOTAL

\$179,036

TOTAL SOUTHERN CALIFORNIA

\$344,606

Antioch University
Five Year Capital Budget
Projects above \$10,000
2004-05 Budget

ANTIOCH UNIVERSITY MCGREGOR

2004-05 PROPOSED EXPENDITURES

I. FACILITIES 2004-05

- A. **Priority 1.** Remodel two restrooms on the main floor. Replace fixtures and modernize.
- B. Analysis. In year 2003-04 we painted one of the restrooms, but that still leaves the outdated fixtures and floors that, at the very least, need to be refinished. Since visitors and prospective students use these restrooms, it is reasonable to think they may have an impact on first impressions.
Cost - \$2,500
- A. **Priority 2.** Directory for Lobby.
Cost - \$1,000
- A. **Priority 3.** Heating.
(presently there is none) in the Boulding Library
Cost - \$5,000
- A. **Priority 4.** Window Replacement.
- C. Proposed Action. Replace windows and frames in lobby.
Replace windows and frames in large conference room.
Replace windows and frames in main Student and Alumni Services room.
Screens for windows that do not presently have screens.
Cost - \$25,000

II. TECHNOLOGY 2004-05

A. **Priority 1: Employee Workstation Standardization.**

- B. Analysis. During this fiscal year, Antioch McGregor's desktop computer/ portable computer technologies used by faculty, administration, and staff will become, in part, obsolete. The computer industry has changed so rapidly that equipment acquired a few years ago is no longer capable of handling current software applications. This project would replace the most obsolete units within the McGregor technology environment.
- C. Proposed Action. Purchase enough workstations to upgrade employee computers.
Estimated Cost: \$60,000.

A. **Priority 2: Network Hardware Replacement and Expansion.**

- B. Analysis. This year must be used to upgrade obsolete networking hardware for the campus. New areas of the Fels building are being renovated for offices and networking hardware must be expanded to accommodate the new area. This may entail the purchase of new routers, switches, UPS units, and other miscellaneous hardware.
- C. Proposed Action. Purchase, install, and configure new network hardware.
Estimated Cost: \$25,000

A. **Priority 3: Mobile Computer Lab.**

- B. Analysis. The McGregor Technology Council has identified the instructional need for a cart/laptop based portable lab that can be brought into campus classrooms to allow for computer aided instruction or training.
- C. Proposed Action. Purchase, install, and configure a new mobile lab.
Estimated Cost: \$50,000

III. OTHER 2004-05

- A. **Priority 1: Classroom of the Future 2004-05.** Additional A.V. equipment and technology upgrades.
Estimated Cost: \$90,000.

2005-06 PROPOSED EXPENDITURES

I. FACILITIES 2005-06

Difficult to determine at this time due to building plans underway.

II. TECHNOLOGY 2005-06

- A. **Priority 1: WebCT Server Replacement.**
- B. **Analysis.** During this fiscal year, Antioch McGregor's web-based course delivery system may be obsolete. This project would replace the Sun Enterprise 250 with current hardware and WebCT software and tools.
- C. **Proposed Action.** Estimated Cost: \$35,000.

III. OTHER 2005-06

- A. **Priority 1: Classroom of the Future 2005-06.** Additional A.V. equipment and technology upgrades.
- B. **Proposed Action.** Estimated Cost: \$50,000.

- A. **Priority 2: Network Printer Replacement.** This budget year will be used to replaced the obsolete units with the campus printer pool.
- B. **Analysis.** Old and unreliable printers are a significant frustration for network users.

- C. Proposed Action. Purchase new Hewlett Packard high-speed network laser printers.
Estimated Cost: - \$2,000 each X 5 = \$10,000.

2006-07 PROPOSED EXPENDITURES

I. FACILITIES 2006-07

To be determined/new building; separate proposal will be made to the Board.

II. TECHNOLOGY 2006-07

A. Priority 1: Employee Workstation Standardization.

- B. Analysis. During this fiscal year, Antioch McGregor's desktop computer/ portable computer technologies used by faculty, administration, and staff will become, in part, obsolete. The computer industry has changed so rapidly that equipment acquired a few years ago is no longer capable of handling current software applications. This project would replace the most obsolete units within the McGregor technology environment.

- C. Proposed Action. Purchase enough workstations to upgrade employee computers.
Estimated Cost: \$30,000.

III. OTHER 2006-07

A. Priority 1: Classroom of the Future 2006-07. Additional A.V. equipment and technology upgrades

- B. Proposed Action. Estimated Cost: \$50,000.

2007-08 PROPOSED EXPENDITURES

I. FACILITIES 2007-08

TBD due to new building.

II. TECHNOLOGY 2007-08

A. **Priority 1.** Network Hardware Replacement.

B. Analysis. If it has not been possible up to this point, this year must be used to upgrade obsolete networking hardware for the campus. This may entail the purchase of new routers, switches, UPS units, and other miscellaneous hardware.

C. Proposed Action. Purchase, install, and configure new network hardware.
Estimated Cost: \$50,000.

A. **Priority 2:** Classroom of the Future 2007-08. Additional A.V. equipment and technology upgrades

B. Proposed Action. Estimated Cost: \$70,000

2008-09 PROPOSED EXPENDITURES

I. FACILITIES 2008-09
TBD due to new building.

II. TECHNOLOGY

Given the current pace of technological change, it seems prudent to leave the fifth year of a capital narrative largely undefined. This flexibility will also allow projects from previous years that could not be funded to be reintroduced during this year.

Estimated Cost \$60,000.

A. **Priority 1:** Classroom of the Future 2008-09. Additional A.V. equipment and technology upgrades

B. Proposed Action. Estimated Cost: \$70,000.

Barbara Gellman-Danley
President

Antioch University
Five Year Capital Budget Summary
Antioch University McGregor

2003-04 Base Year Capital Expenditures (Est.)	Amount	Source
Facilities	\$36,535	
Furniture	\$17,413	
Equipment	\$12,929	
Technology	\$46,229	
TOTAL	\$113,106	
2004-05 Proposed Expenditures	Amount	Source
Facilities		
Remodel two restrooms on Main floor	\$2,500	Oper. Budget & Prior Yr. Depr. Res.
Directory for Lobby	\$1,000	Oper. Budget & Prior Yr. Depr. Res.
Heating Boulding Library	\$5,000	Oper. Budget & Prior Yr. Depr. Res.
Window Replacement	\$25,000	Oper. Budget & Prior Yr. Depr. Res.
Completion of Office Remodeling	\$84,000	Oper. Budget & Prior Yr. Depr. Res.
Technology		
Employee Workstation Standardization	\$60,000	Oper. Budget & Prior Yr. Depr. Res.
Network Hardware Replacement and Expansion	\$25,000	Oper. Budget & Prior Yr. Depr. Res.
Mobile Computer Lab	\$50,000	Oper. Budget & Prior Yr. Depr. Res.
Other		
Classroom of the Future: Additional A.V. Equipment and Technology Upgrades	\$90,000	Oper. Budget & Prior Yr. Depr. Res.
TOTAL	\$342,500	
2005-06 Proposed Expenditures	Amount	Source
Facilities		
Difficult to determine at this time due to building plans underway.		

Antioch University
Five Year Capital Budget Summary
Antioch University McGregor

Technology

WebCT Server Replacement	\$35,000	Oper. Budget & Prior Yr. Depr. Res.
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Other

Classroom of the Future: Additional A.V. Equipment and Technology Upgrades	\$50,000	Oper. Budget & Prior Yr. Depr. Res.
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Classroom of the Future: Network Printer Replacement	\$10,000	Oper. Budget & Prior Yr. Depr. Res.
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TOTAL	\$95,000	
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2006-07 Proposed Expenditures

Amount

Source

Facilities

To be determined/new building; separate proposal will be made to the Board.

Technology

Employee Workstation Standardization	\$30,000	Oper. Budget & Prior Yr. Depr. Res.
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Other

Classroom of the Future: Additional A.V. Equipment and Technology Upgrades	\$50,000	Oper. Budget & Prior Yr. Depr. Res.
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TOTAL	\$80,000	
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2007-08 Proposed Expenditures

Amount

Source

Facilities

TBD due to new building

Technology

Network Hardware Replacement	\$50,000	Oper. Budget & Prior Yr. Depr. Res.
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Antioch University
Five Year Capital Budget Summary
Antioch University McGregor

Other

Classroom of the Future: Additional A.V. Equipment
and Technology Upgrades

\$70,000

Oper. Budget & Prior Yr. Depr. Res.

TOTAL

\$120,000

2008-09 Proposed Expenditures

Amount

Source

Facilities

TBD due to new building

Technology

Open for Upgrading

\$60,000

Oper. Budget & Prior Yr. Depr. Res.

Other

Classroom of the Future: Additional A.V. Equipment
and Technology Upgrades

\$70,000

Oper. Budget & Prior Yr. Depr. Res.

TOTAL

\$130,000

Antioch University
Five Year Capital Budget
Projects above \$10,000
2004-05 Budget

WYSO PUBLIC RADIO

2004-05 PROPOSED EXPENDITURES

II. TECHNOLOGY 2004-05

- A. **Priority 1: Generators.** Due to continued power outages, we need to acquire two generators. One is for the production facilities in Yellow Springs as well as a larger capacity unit for use at the transmitter site.
- B. **Analysis.** In order for WYSO to deliver consistent, professional public radio in the Greater Miami Valley, reliability is an absolute must.
- C. **Proposed Action.** Acquire and install the two generators for automatic support should a power outage occur.

- A. **Priority 2: Transmitter Replacement (Planning).** Accomplish engineering/planning studies for transmitter replacement.
- B. **Analysis.** The transmitter, which is 11 years old, is aging poorly, physically as well as technologically. We need to put a plan in place to replace the transmitter. At this time, we have a four-year plan, with the first year being the planning stage. After that, each successive year will be spent sourcing the funds for the purchase and construction of a digital transmitter.
- C. **Proposed Action.** Research potential financial sources and write grant proposals.

2005-06 PROPOSED EXPENDITURES

- A. **Priority 1: Transmitter Replacement.** Develop funding sources for transmitter replacement.

- B. Analysis. The transmitter, which is 11 years old, is aging poorly, physically as well technologically. We need to put a plan in place in order to replace the transmitter. At this time, we have a four-year plan. The first year will be the planning stage. After that, each successive year will be spent sourcing the funds for the purchase and construction of a digital transmitter.
- C. Proposed Action. Write grant proposals and research potential financial sources.

2006-07 PROPOSED EXPENDITURES

- A. **Priority 1: Transmitter Replacement**. Develop funding sources for transmitter replacement.
- B. Analysis. The transmitter, which is 11 years old, is aging poorly, physically as well technologically. We need to put a plan in place in order to replace the transmitter. At this time, we have a four-year plan. The first year will be the planning stage. After that, each successive year will be spent sourcing the funds for the purchase and construction of a digital transmitter.
- C. Proposed Action. Write grant proposals.

2007-08 PROPOSED EXPENDITURES

- A. **Priority 1: Transmitter Replacement**. Develop funding sources for transmitter replacement.
- B. Analysis. The transmitter, which is 11 years old, is aging poorly, physically as well technologically. We need to put a plan in place in order to replace the transmitter. At this time, we have a four-year plan. The first year will be the planning stage. After that, each successive year will be spent sourcing the funds for the purchase and construction of a digital transmitter.
- C. Proposed Action. Construction and installation of the transmitter.

Joe Colvin
Interim General Manager

Antioch University
Five Year Capital Budget Summary
WYSO Public Radio

2003-04 Base Year Capital Expenditures (Est.)	Amount	Source
TOTAL	0	
2004-05 Proposed Expenditures	Amount	Source
Other		
Equipment: Generators at transmitter site and at production facilities	\$20,000	
Transmitter Replacement	\$20,000	Operating Expense
Total	\$40,000	
2005-06 Proposed Expenditures	Amount	Source
Other		
New Transmitter	\$100,000	
Total	\$100,000	
2006-07 Proposed Expenditures	Amount	Source
Other		
New Transmitter	\$100,000	
Total	\$100,000	
2007-08 Proposed Expenditures	Amount	Source
Other		
New Transmitter	\$100,000	
Total	\$100,000	
2008-09 Proposed Expenditures	Amount	Source
Total		

Antioch University
Five Year Capital Budget
Projects above \$10,000
2004-05 Budget

University Wide

2004-05 PROPOSED EXPENDITURES

I. FACILITIES 2004-05

- A. **Priority 1: Remodel Computing Services Office.** The two staff members who support the mission-critical Datatel system are cramped into two very small interior offices. These cramped offices restrict the employees' ability to spread out work and to have adequate documentation binders close at hand. By any reasonable standard, these individuals do not have sufficient workspace to do their jobs. The situation will become acute in 2004-05 with the hiring of an additional Datatel employee.
- B. **Analysis.** Renovation of existing space will allow the creation of three reasonably sized offices to house the Datatel staff. Space would also be available to accommodate documentation on the Datatel system, the server and support equipment. Keeping this material in better order will help the staff respond more quickly to problems and allow them to have quicker access to needed information that is essential to project design and development.
- C. **Proposed Action.** Creation of three offices within existing space with additional lighting and electrical service will improve the productivity and comfort of the Datatel staff. The administration recommends that the remodeling project take place in 2004-05 at a cost of about \$25,000.
- A. **Priority 2: Fiber Optic Cable Upgrade.** The Kettering Building is currently connected to the rest of the Antioch buildings in Yellow Springs by a two-pair fiber optic cable that runs to the Sontag-Fels Building and then on to Antioch Hall. All four strands of this cable are currently in use and there is no reserve capacity if one of the fibers

should fail. While failure is unlikely unless the cable is physically damaged, a failure would create problems for all three units in Yellow Springs. The situation will become more critical in 2004-05 when the Kettering Building will become the point of presence (POP) for high-speed internet service for all Yellow Springs operations. Currently, a series of T-1 circuits provide connection to the Internet. These circuits are on copper wire and terminate in different buildings across the campus. These circuits no longer provide the capacity that we need and they cannot be combined to allow us to make maximum use of the capacity. A new gigabit circuit will provide much greater capacity at a lower price and we will be able to apportion the combined capacity to those applications that need it most.

- B. Analysis. The new gigabit service to Antioch's Yellow Springs operations will terminate at the Kettering Building. Critical network components will be located here and then service will be routed to the rest of the buildings in Yellow Springs. Because of the higher capacity of the gigabit circuit, additional fiber channels are needed to connect computers across the campus. In the near future, much of the backbone of the data network in Yellow Springs will need to be upgraded to gigabit capacity (most of it currently operates at 10 megabits per second with some sections at 100 megabits per second) in order to assure that students, staff and faculty will be able to efficiently share graphics, documents, video, audio and other media.
- C. Proposed Action. If the existing conduit will accommodate a 25-pair fiber optic cable, it is recommended that this size cable replace the existing fiber circuits. The difference in cost between a 12-pair and a 25-pair is relatively small; the cost of installing the cable tends to be the largest expense.

II. TECHNOLOGY 2004-05

- A. **Priority 1:** Network Packet Management System. Effective management of Internet resources requires hardware known as a packet shaper. This device is a long-term solution for controlling and preventing network slowdowns. In addition to normal academic and business traffic over the Internet, peer-to-peer file sharing programs, which students use to exchange music and video files, are causing the College network to run very slowly. The immediate goal in acquiring a packet shaper is to reclaim bandwidth and restore network responsiveness that have been lost due to an overabundance of peer-to-peer file sharing. The device will also assure that the University's investment in video conferencing equipment will be realized by providing adequate network capacity to accommodate multiple video connections.

- B. Analysis. When the University combines its existing network capacity onto a single gigabit channel, it runs the risk of having the entire capacity consumed by peer-to-peer video and audio downloads. While there is a place within the College for such downloads, priority needs to be given to the critical applications that support instruction and the business operations of the College, McGregor and University Administration. A packet shaper will permit the available bandwidth to be allocated by function and each function can be given a priority. These priorities can be changed automatically by day of the week or time of day. For example, after 6:00 pm when the administrative load on the Datatel system begins to decline as campuses in the eastern time zone close their offices, more bandwidth could be made available for use by students. Similarly, after 9:00 pm when campuses on the west coast are closed, even more bandwidth can be made available. The packet shaper could automatically handle this redistribution.

The alternative is to close ports that are commonly used by peer-to-peer software so that these applications would not be able to function. While such action would preserve bandwidth capacity during the day, it would also preclude students from using these applications during the evening when more bandwidth is available.

Video conferencing, to be effective, is dependant on the availability of adequate bandwidth. If a spike in demand from other applications reduces the amount of bandwidth available for the video conference, the picture is degraded and even the audio may become difficult to understand. By using a packet shaper, adequate bandwidth can be assigned to the video conference so that it is not interrupted by peak demands from other local applications. With a packet shaper in use, the video conference will proceed smoothly but e-mail and web surfing may slow briefly during period of peak demand. Most users of e-mail would be unaware of the brief slow down, and those doing web searches would probably not notice the additional time needed to respond to one of their inquiries.

- C. Proposed Action. The University Administration recommends the purchase of a packet shaper that can handle a data flow of 45 megabits per second or more. Although this is not equal to the capacity of the one gigabit circuit, it is considerably larger than the capacity that we will actually purchase for the foreseeable future. Purchasing a larger-capacity packet shaper would considerably increase the cost and it is very likely that we will not need this additional capacity for at least four or five years. Should we need to have more capacity sooner, trade-in or resale of the packet shaper should be possible. The cost of the packet shaper should be about \$16,000.

- A. **Priority 2: Control Unit for Video Conferences**. The function of a Multipoint Control Unit (MCU) is to enable rich media conferencing between groups of three or more people. In order for a group to interactively conference and collaborate over a network, the MCU creates a "virtual" conference room and manages and distributes voice, video, and data between participants. The MCU functions as a multimedia processor and a gateway capable of supporting both Internet (H.323) and ISDN (H.320) based conferencing. The unit can facilitate multipoint video conferences as well as allow sites with different frame rates, connection speeds, audio algorithms, resolutions and network protocols, to transparently connect with one another.
- B. **Analysis**. Each of the video units currently in use by the campuses is theoretically capable of supporting three other connections. However, none of the campuses, including Yellow Springs, currently has enough bandwidth capacity to reliably handle four simultaneous video connections. This means that in order to hold a video conference, we need to "daisy chain" the campuses together so that no campus has to handle more than two simultaneous video channels. Even with the video connections limited in this way, problems occur when data bursts occur at a given campus. These short-term demands for high bandwidth disrupts the video stream and, because the connections are daisy chained together, a burst along the chain affects each of the links. In 2004-05, Yellow Springs will consolidate its bandwidth capacity and have a packet shaper that can allocate bandwidth to the video conference so that all campuses can connect directly to Yellow Springs if an MCU is available.
- C. **Proposed Action**. In order to take full advantage of the additional bandwidth available in Yellow Springs, and to improve the quality and ease of connection of video conferences, the University should purchase a Multipoint Control Unit. The unit should have capacity for at least 12 simultaneous video connections to insure that all campuses and the Ph. D. program can be connected together for training and ULC meetings. Because the cost to equip an individual PC with a camera suitable for quality video conferencing is about \$400, some individuals at remote locations may also be connected for video conferencing. A 12 channel unit will meet our foreseeable needs and allow some additional expansion capability.
- A. **Priority 3: VPN Server**. A virtual private network (VPN) will allow each campus to connect to the Datatel server in Yellow Springs over the Internet using secure communications links. The VPN connection across the Internet logically operates as a dedicated wide area network (WAN) by using encryption to ensure that data that travels over the Internet can't be intercepted and used by others. This security is provided by Point-to-Point Tunneling Protocol (PPTP) or Layer Two Tunneling Protocol (L2TP). With either protocol, even if network data is intercepted, it cannot be read because of the encryption. The VPN server will also provide a means of connecting to the University network by way of a dial-up connection to the Internet. This combines the virtues of

a dial-up connection with the security of a dedicated circuit.

- B. Analysis. More and more, Antioch employees are working at home or on the road at night and on the weekends. They need to be able to access Datatel using a dial-up or high-speed Internet connection (such as cable or DSL), but unless we can assure adequate security, we cannot open the Datatel system to them. VPNs use authenticated links to ensure that only authorized users can connect to our network. In April, 2004, the University experienced an intrusion into the Datatel system. Although no damage was done, it became apparent that we needed to impose additional security to protect student and financial information. Therefore, ports and methods normally used by individuals to reach the Datatel system from their homes or while traveling had to be closed because these open ports were also available to intruders.

Data encryption, critical to a Virtual Private Network, requires additional computing capacity as a complex algorithm is applied to every packet of data that enters or leaves the server. Remote PCs that are accessing the central server are not affected by this because the load is relatively small compared to their processing capacity, but the central machine would feel a considerable overhead burden from all of the connections that it handles. In addition, special software is needed to handle the encryption and this software operates best on a dedicated server. A dedicated server can also be configured to minimize the opportunities it presents for intrusion. Because it performs a single function, it needs to have a minimum number of ports available and those ports can be carefully guarded. The VPN structure is the most secure arrangement currently available for remote access to a central server.

- C. Proposed Action. The risk to Antioch's critical data is quite high without a VPN server, and the cost is quite reasonable. Therefore, the University Administration recommends the purchase and installation of a VPN Server at the earliest possible time in the 2004-05 fiscal year. The cost of the VPN Server should not exceed \$6,000.

2005-06 PROPOSED EXPENDITURES

I. FACILITIES 2005-06

- A. **Priority 1: Emergency Power Generator**. University operations are becoming more and more dependant on Datatel and First Class messaging services. We have acquired Uninterruptible Power Supplies (UPS) for critical servers and communication links, but the larger servers can only be supported for about 30 minutes before the batteries in the UPS units are exhausted. Power interruptions that are longer than 30 minutes require that we

shut down Datatel and lose E-mail communication.

- B. Analysis. Severe weather is a fact of life for the Miami Valley and one component of an emergency response plan is to be able to keep critical servers and networks operating. Tornadoes, ice storms, blizzards and lightning can all result in prolonged power interruptions. Over the past five years we have had four or five interruptions that have lasted beyond the capacity of our UPS units and required us to shut down Datatel services. Had any of these interruptions occurred at a critical time, such as when payrolls are being prepared or when students are being registered, the consequences would have been far more than inconvenience. To date, we have been fortunate that none of the interruptions have lasted longer than three or four hours, but outages of this duration are quite possible.

Emergency power can also be of critical value if a power shortage occurs and the utility company is required to invoke rolling blackouts or brownouts. The growing demand for electricity is taxing generation facilities as well as the distribution network. Northern Ohio experienced a major blackout along with much of the northeast last year. Events of this kind appear to be more likely as the demand for electricity increases.

Modern backup generators for emergency situations are equipped with auto-start features and special switching equipment that isolates the generator from the public electric grid. These generators run on natural gas and/or propane, start automatically, shutdown automatically when power is restored, and perform periodic self-tests without the need for human involvement.

- C. Proposed Action. The University has prepared a concrete pad behind the Kettering Building and installed underground conduit to the pad from the building. A generator could be mounted here and readily connected to the building without much difficulty. A generator of about 20 KW would be sufficient to sustain the electronic equipment essential for the operation of the University and provide necessary cooling to keep the computer room within the operating range of the equipment. The Administration recommends that an automated Emergency Power Generator be acquired and installed behind the Kettering Building during the 2005-06 fiscal year.
- A. **Priority 2: Kettering Building Pipe Maintenance**. The water supply and drain lines in the Kettering Building are almost entirely from the original construction of 1953. Virtually all of the water supply lines are galvanized pipe and this pipe is beginning to rust through in several places. In addition, most of the major shutoff valves have

become “frozen” with time and could not be used to turn off the water supply in an emergency. Leaking water has ruined ceiling and floor tiles, damaged lights and other electrical circuits, and could cause major flooding.

- B. Analysis. Replacing all of the galvanized pipe in the Kettering Building is not economically feasible, but certain pipe segments and several of the major valves need to be replaced or repaired. Unless the leaking and weakened pipe segments are replaced, they will continue to leak and cause damage to the building and equipment. If the main valves are not replaced or repacked, they will continue to leak and will not be available to shut off the water supply if there is a pipe break or plumbing fixtures in the building need to be serviced.
- C. Proposed Action. It is recommended that a qualified plumbing contractor inspect the piping in the building to determine the full extent of the structural repair needs and to replace or repair pipe sections and valves that have failed or may fail in the near future. It is estimated that the survey and repair of the most seriously weakened components will cost \$6,500.
- A. **Priority 3. Air Conditioning Compressor**. The Kettering Building offices of the Chancellor and Vice Chancellor are served by a two-chiller system that is separate from the rest of the Kettering Building. These offices are in a more recent addition to the building and that is why they are served by a separate system. As a result of problems with the control system, the two chiller units previously operated throughout the winter. As a result, the primary unit was frequently frozen and this resulted in premature failure. This unit cannot be repaired economically and needs to be replaced.
- B. Analysis. The system was originally designed with two chilling units that operate in series. When the weather is mild, one unit is sufficient to keep the offices cool, but when the temperature get above 85 degrees, the second unit is necessary. The need for chilling has increased as the amount of electronic equipment used in the office has increased. The additional equipment adds heat to the interior and, because the windows cannot be opened, there is no way to remove excess heat.

At the present time, the Number 2 chiller is cooling the offices, but if it should fail during the summer cooling period, the offices will rapidly become too hot to allow people to work productively.

- C. Proposed Action. A replacement for the Number 1 chiller should be purchased. Once installed, this new chiller can assume the primary load for cooling the office space and the Number 2 chiller can return to its back-up role.

Because the Number 2 chiller has been weakened by operating in winter temperatures, its useful life has probably been shortened. By returning it to the back-up role, we can maintain the entire system for a far longer period of time.

- A. **Priority 4: Kettering Window Replacement, Phase I.** The main portion of the Kettering Laboratory building was constructed in 1953 with single-pane glazing and storm windows. The single-paned windows and the uninsulated aluminum framing transmit a large amount of heat to the exterior during winter and allow a large amount of heat to enter the building during summer.
- B. **Analysis.** Antioch University McGregor uses much of the first floor for classroom instruction. As part of a renovation project to the classrooms, a number of windows have been replaced on the first floor. These are quality windows, double-glazed and insulated. They can be easily opened to allow fresh air to enter, an important feature in a building that has no central air circulation system. New windows would greatly enhance the energy efficiency of the building and increase its future value regardless of how it is used.
- C. **Proposed Action.** The University Administration recommends that the windows in the Kettering Building be replaced over a three-year period using the same type of glazing and frame as has been installed in the classroom areas. The total cost of the project is estimated to be about \$110,000, with the first year cost set at \$25,000, the second year cost set at \$60,000 and the third at \$25,000.

II. TECHNOLOGY 2005-06

- A. **Priority 1: Upgrade Laptop/Desktop Computers.** The University Administration depends on its computers for the production of documents and as our interface with the Datatel system. In addition, these machines are used for E-mail, whether we are in the office or on the road. They receive a great deal of use and several of the machines are becoming obsolete and need to be replaced.
- B. **Analysis.** The price of both desktop and laptop machines has decreased steadily and the functionality and speed of the newer machines is considerably greater than the capacity of machines that were manufactured only three or four years ago. Laptops have become much lighter and this makes it easier to take them home for evening and weekend work. The ability to restructure huge databases, prepare large spreadsheets, and to manipulate

graphics for presentations will all be enhanced by faster machines with larger hard drives.

- C. Proposed Action. The University recommends that one desktop and two laptop machines be replaced during the fiscal year. The estimated cost for the machines, network cards, monitors and associated equipment should not exceed \$4,500.

- A. **Priority 2: Video Conference System.** The University began using video conferencing products that take advantage of the high-speed data carrying capacity of the Internet during the second half of 2003-04. Conference units are located in New England, Yellow Springs, Seattle and each of the Southern California campuses. The conference units not only allow the campuses to connect, but they also allow personal computer users to participate in two-way video discussions.

- B. Analysis. Video conferencing for administrative and teaching purposes is coming into broader use as the Nation's telecommunication system becomes more capable of handling the high-speed data transmissions needed to make video conferencing acceptable. Video conferencing between buildings connected by a local area network is also quite useful; the pictures are clear and the motion is fluid.

Our use of this technology has shown that it works for administrative meetings and is exceptionally cost-effective. Video conferences can be arranged on very short notice, are economical, and are as effective as face-to-face meeting, but without the travel costs or lost work time.

- C. Proposed Action. The growing use of video conferencing means that a second conference unit is needed in Yellow Springs. It is recommended that a complete camera and video display unit be purchased during 2005-06.

OTHER 2005-06

- A. **Priority 1: Replace Copy Machine.** The University Administration produces virtually all of the printed material sent to Trustees and external groups in-house. Relatively few jobs are sent to outside job printers. Therefore, an efficient and reliable copy machine with collating capability is required. Such a machine has been in use in the Chancellor's Office and it will be about nine years old in 2005-06.

- B. Analysis. It may well be possible to continue to use the existing copier for another year or more, but print quality and reliability will decrease. If the machine fails at a critical production moment, material for board meetings or other events could be delayed. There are other copiers on campus and they can be employed in a crisis, but transferring a major production job to these smaller machines would disrupt the routines of those offices or displace other important work.
- C. Proposed Action. Replacement of the large-volume copier in the Chancellor's Office will insure that quality printed material is available to the Board of Trustees and other groups. The quality of reproduced material is important to the image of the University and the ability to produce large volumes of printed material on a short time table is important for the Chancellor and Vice Chancellor. The net cost of the replacement machine will depend on the residual value of the existing machine. While a new machine might cost \$10,000 or more, the actual cost in 2005-06 should be somewhat less because of the residual value that can be applied against the purchase cost.

2006-07 PROPOSED EXPENDITURES

I. FACILITIES 2006-07

- Priority 1: Kettering Window Replacement, Phase II.** The main portion of the Kettering Laboratory building was constructed in 1953 with single-pane glazing and storm windows. The single-paned windows and the uninsulated aluminum framing transmit a large amount of heat to the exterior during winter and allow a large amount of heat to enter the building during summer. This is Phase II of the project.
- B. Analysis. Antioch University McGregor uses much of the first floor for classroom instruction. As part of a renovation project to the classrooms, a number of windows have been replaced on the first floor. These are quality windows, double glazed and insulated. They can be easily opened to allow fresh air to enter, an important feature in a building that has no central air circulation system. New windows would greatly enhance the energy efficiency of the building and increase its future value regardless of how it is used.
 - C. Proposed Action. The University Administration recommends that the windows in the Kettering Building be replaced over a three-year period using the same type of glazing and frame as has been installed in the

classroom areas. The total cost of the project is estimated to be about \$110,000 with the first year cost set at \$25,000, the second at \$60,000, and the third year cost set at \$25,000.

II. TECHNOLOGY 2006-07

- A. **Priority 1: Upgrade Desktop/Laptop Computers.** The University Administration depends on its computers for the production of documents and as our interface with the Datatel system. In addition, these machines are used for e-mail, whether we are in the office or on the road. They receive a great deal of use and several of the machines are becoming obsolete and need to be replaced.
- B. **Analysis.** The price of both desktop and laptop machines has decreased steadily and the functionality and speed of the newer machines is considerably greater than the capacity of machines that were manufactured only three or four years ago. Laptops have become much lighter and this makes it easier to take them home for evening and weekend work. The ability to restructure huge databases, prepare large spreadsheets, and to manipulate graphics for presentations will all be enhanced by faster machines with larger hard drives.
- C. **Proposed Action.** The University recommends that at least two desktop and one laptop machine be replaced during the fiscal year. The estimated cost for the machines, network cards, monitors and associated equipment should not exceed \$4,500.

III. OTHER 2006-07

- A. **Priority 1: Replace Copy Machine.** The University Administration produces virtually all of the printed material sent to Trustees and external groups in-house. Relatively few jobs are sent to outside job printers. Therefore, an efficient and reliable copy machine with collating capability is required. Such a machine has been in use in the Vice Chancellor's Office and it is nearing the end of its useful life.
- B. **Analysis.** It may well be possible to continue to use the existing copier for another year or more, but print quality and reliability have decreased. If the machine fails at a critical production moment, material for board meetings or other events could be delayed. There are other copiers on campus and they can be employed in a crisis, but transferring a major production job to these smaller machines would disrupt the routines of those offices or displace other important work.

- C. Proposed Action. Replacement of the medium-volume copier in the Vice Chancellor's Office will insure that quality printed material is available to the Board of Trustees and for routine business of the Human Resources, Finance and Computing Services staff. The quality of reproduced material is important to the image of the University and the ability to produce printed material on a short time table is important for the Vice Chancellor. The net cost of the replacement machine will depend on the residual value of the existing machine. While a new machine might cost \$6,000 or more, the actual cost in 2006-07 should be somewhat less because of the residual value that can be applied against the purchase cost.

2007-08 PROPOSED EXPENDITURES

I. FACILITIES 2007-08

- A. **Priority 1:** Kettering Window Replacement, Phase III. The main portion of the Kettering Laboratory building was constructed in 1953 with single-pane glazing and storm windows. The single-paned windows and the uninsulated aluminum framing transmit a large amount of heat to the exterior during winter and allow a large amount of heat to enter the building during summer. This is Phase III of the project.
- B. Analysis. Antioch University McGregor uses much of the first floor for classroom instruction. As part of a renovation project to the classrooms, a number of windows have been replaced on the first floor. These are quality windows, double glazed and insulated. They can be easily opened to allow fresh air to enter, an important feature in a building that has no central air circulation system. New windows would greatly enhance the energy efficiency of the building and increase its future value regardless of how it is used.
- C. Proposed Action. The University Administration recommends that the windows in the Kettering Building be replaced over a two-year period using the same type of glazing and frame as has been installed in the classroom areas. The total cost of the project is estimated to be about \$110,000 with the first year cost set at \$25,000, the second at \$60,000, and the third year cost set at \$25,000.
- A. **Priority 2:** Replacement of Kettering Heating Units, Phase I. The Kettering Building, with the exception of the front addition occupied by the Offices of the Chancellor and Vice Chancellor, is heated using a single pipe system that supplies heated water to wall units in each of the laboratories and offices. These units contain a radiator and

a two-speed blower to circulate air. In addition, each unit contains a drip pan and a drain connection to handle condensate when the unit was used for cooling. These units were installed when the building was built. Six of the units were rehabilitated in 1999-2000, but the others have had little or no attention since the building was constructed.

- B. Analysis. Examination of the remaining units revealed that the motors of several had been cannibalized to keep more critical units operating. Most of the motors are no longer capable of multi-speed operation, others are noisy because of bearing problems, and some have failed completely. The valves used to regulate the hot water supply to the units are not operating, and many are leaking. The drip pans used to collect condensate when the units were used for cooling have rusted through, and the drain lines have become clogged with debris. Because the three compressors used to cool the building have been abandoned, the wall units are not being used for cooling at this time.

Although most of the classrooms and laboratories have more than one wall unit, there have been enough failures that much of the space on the second and third floors cannot be adequately heated. These units are structurally sound, but early attempts at rehabilitation have not been entirely successful. Rehabilitation, although less expensive than replacement, has lasted only for a few years before the old components begin to fail.

- C. Proposed Action. The University Administration recommends that all room-heating units in the Kettering Building be replaced with new units that can handle both heating and cooling. This should be done on a phased basis to avoid excessive capital expense in any one year. The estimated cost of Phase I is \$45,000.

II. TECHNOLOGY 2007-08

- A. **Priority 2: Upgrade Desktop & Laptop Computers**. The University Administration depends on its desktop computers for the production of documents and as our interface with the Datatel system. In addition, these machines are used for E-mail throughout the day. They receive a great deal of use and several of the machines in the office are becoming obsolete and need to be replaced.
- B. Analysis. The price of desktop machines has decreased steadily and the functionality and speed of the newer machines is considerably greater than the capacity of machines that were manufactured only three or four years ago. The ability to restructure huge databases, prepare large spreadsheets, and to manipulate graphics for

presentations will all be enhanced by faster machines with larger hard drives.

- C. Proposed Action. The University recommends that six desktop machines be replaced during the fiscal year. The estimated cost for the machines, network cards, monitors and associated equipment should not exceed \$10,000.

2008-09 PROPOSED EXPENDITURES

I. FACILITIES 2008-09

- A. **Priority 2: Replacement of Kettering Heating Units, Phase II**. The Kettering Building, with the exception of the front addition occupied by the Offices of the Chancellor and Vice Chancellor, is heated and cooled using a single pipe system that supplies heated (or chilled) water to wall units in each of the laboratories and offices. These units contain a radiator and a two-speed blower to circulate air. In addition, each unit contains a drip pan and a drain connection to handle condensate when the unit was used for cooling. These units were installed when the building was built. Six of the units were rehabilitated in 1999-2000, but the others have had little or no attention since the building was constructed. Replacement of these units began with Phase I in 2004-05.
- B. Analysis. Additional examination of the remaining units revealed that the motors of several had been cannibalized to keep more critical units operating. Several of the motors are no longer capable of multi-speed operation, others are noisy because of bearing problems, and some have failed completely. The valves used to regulate the hot water supply to the units are not operating, and many are leaking. The drip pans used to collect condensate when the units were used for cooling have rusted through, and the drain lines have become clogged with debris. Because the three compressors used to cool the building have been abandoned, the wall units are not being used for cooling at this time.

Although most of the classrooms and laboratories have more than one wall unit, there have been enough failures that much of the space on the second and third floors cannot be adequately heated. These units are structurally sound, but early attempts at rehabilitation have not been entirely successful. Rehabilitation, although less expensive than replacement, has lasted only for a few years before the old components begin to fail.

- C. Proposed Action. The University Administration recommends that all room-heating units in the Kettering Building be replaced with new units that can handle both heating and cooling. This should be done on a phased basis to avoid excessive capital expense in any one year. The estimated cost to complete this project is \$45,000.

II. TECHNOLOGY 2008-09

- A. **Priority 1:** Replace Datatel Server. By 2008-09 the Datatel Development Server will have been in use for eight years and, based upon our prior experience, it will no longer be capable of handling the demands of the campuses. We expect that it may also not be capable of supporting the newest operating system.
- B. Analysis. The upgrade path for the current production server is a machine with faster processors than our current unit. The database that we use with the Datatel software has limited multi-thread processing, but it will accommodate multiple processors. While it is possible that this software will be rewritten before 2008-09 or we will have converted to a different database, multi-thread processing has proven effective and is the viable route for Antioch.
- C. Proposed Action. We recommend that a higher speed server be acquired during 2008-09 to replace the existing production server acquired in 2003-04, and that the production server replace the development server. It may also be necessary to replace the disk drives with higher-capacity, faster units unless they have already been replaced. Faster disk drive access times may be required to take advantage of the faster processing speed of the new server. It may also be necessary to increase the capacity of the disk drives to handle the increased volume of data that will accompany new, web-based applications.

Glenn Watts
Vice Chancellor and
Chief Financial Officer

Antioch University
Five-Year Capital Budget Summary
University Wide

2003-04 Base Year Capital Expenditures (Est.)	Amount	Source
Land Improvements	\$11,016	Operating budget
Facilities	\$19,723	Operating budget
Technology	\$60,986	Operating budget
TOTAL	\$91,725	
2004-05 Proposed Expenditures	Amount	Source
Facilities		
Remodel Computing Services Office	\$25,000	Operating Budget
Fiber Optic Cable between Sontag-Fels & Kettering Bld.	\$3,000	Operating Budget
Technology		
Network Packet Management System	\$16,000	Operating Budget
Multipoint Control Unit for Video Conference	\$26,000	Operating Budget
VPN Server & Network Upgrade	\$6,000	Operating Budget
TOTAL	\$76,000	
2005-06 Proposed Expenditures	Amount	Source
Facilities		
Emergency Power Generator	\$10,000	Operating budget
Pipe Maintenance	\$6,500	Operating budget
Air Conditioning Compressor	\$10,000	Operating budget
Kettering Window Replacement, Phase I	\$25,000	Operating budget
Technology		
Upgrade Desktop/Laptop Computers	\$4,500	Operating budget
Video Conference System	\$10,000	Operating budget
Other		
Replace Copy Machine	\$10,000	Operating budget
TOTAL	\$76,000	

Antioch University
Five-Year Capital Budget Summary
University Wide

2006-07 Proposed Expenditures	Amount	Source
Facilities		
Kettering Window Replacement, Phase II	\$60,000	Operating budget
Technology		
Upgrade Desktop/Laptop Computers	\$4,500	Operating budget
Other		
Replace Copy Machine	\$6,000	Operating budget
TOTAL	\$70,500	
2007-08 Proposed Expenditures	Amount	Source
Facilities		
Kettering Window Replacement, Phase III	\$25,000	Operating budget
Heating Units, Phase I	\$45,000	Operating budget
Technology		
Upgrade Desktop/Laptop Computers	\$4,500	Operating budget
TOTAL	\$74,500	
2008-09 Proposed Expenditures	Amount	Source
Facilities		
Heating Units, Phase II	\$45,000	Operating budget
Technology		
Replace Datatel Server	\$75,000	Operating budget
TOTAL	\$120,000	