



**STRATEGIC FACILITY PLANNING
MAY 1998**

AcademicHealthCenter

UNIVERSITY OF MINNESOTA

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Executive Summary



"Our ability to carry out our education, research and service missions depends on having sufficient space to meet programmatic needs and having space that is functional, cost-effective, well-maintained, and well-managed."

- Dr. Frank Cerra

From the initiative started in April 1997 and completed in May 1998, a wide range of participants contributed to the creation of this strategic facility planning document. This document and its approach is meant to provide a "working vision" to guide the planning and management of Academic Health Center (AHC) facilities into the next century.

The AHC consists of 15 buildings located in a coherent district within the University of Minnesota's Minneapolis Campus, additional buildings located throughout the Saint Paul Campus, and several other leased space facilities. Six colleges are components of the AHC, including the Schools of Dentistry, Nursing, Medicine, Public Health, Veterinary Medicine, and Pharmacy. AHC-wide issues make up a 7th component member.

The AHC and each of the schools developed strategic facility goals as component schools, then worked together to outline guiding principles and themes for the planning of the entire AHC district.

Guiding Principles

- AHC is an institution that cares about its people
- Facilities should aesthetically foster learning, collegiality & discovery
- Members of the AHC community need gathering spaces to create sense of community
- AHC needs vital spaces that can respond flexibly to program and grant requests
- All facilities need to be clean and work properly
- AHC will have a sense of "here" with common theme, circulation spaces or identifiers within each school
- Curriculum needs should drive the design of new and renovated spaces
- Faculty offices should be accessible to students by creating common areas for students outside of faculty office zones
- Create "short streets" between clinical and basic science researchers

Facility Assessment

Addressing programmatic space needs as well as revitalizing existing physical space became one of the elements of the Plan. The Minnesota Facilities Model (MFM) highlighted some generalized needs for amount and type of facilities. The MFM is used as a comparison of space needs over the entire University of Minnesota system. The summary totals noted below give an indication of the growing space needs across all areas of the AHC.

Summary of Totals

In Assignable Square Feet

| | Current Inventory | MFM Generated 1997 | MFM Generated 2002 |
|---------------------|------------------------------|-------------------------------|-------------------------------|
| Medical School | 1,042,820 | 1,348,152 | 1,367,230 |
| Pharmacy | 63,899 | 78,373 | 89,418 |
| Nursing | 33,552 | 42,407 | 52,062 |
| Public Health | 191,276 | 182,540 | 213,830 |
| Veterinary Medicine | 289,460 | 303,825 | 305,310 |
| Dentistry | 174,537 | 187,286 | 199,061 |
| AHC Wide | <u>144,523</u> | <u>96,294</u> | <u>110,544</u> |
| Totals | 1,940,067 | 2,238,877 | 2,337,455 |

Primary Themes

The principles were filtered through the physical planning needs and discussed among the planning committees to create a list of primary themes that guide the development of a physical vision for the AHC. The members were all concerned that there be a significant identity established for the AHC, to reflect its position as a key institution in medical practice within the Upper Midwest.

These themes are noted below, and make up the basis for the graphic sketch shown on the following page.

Primary Themes

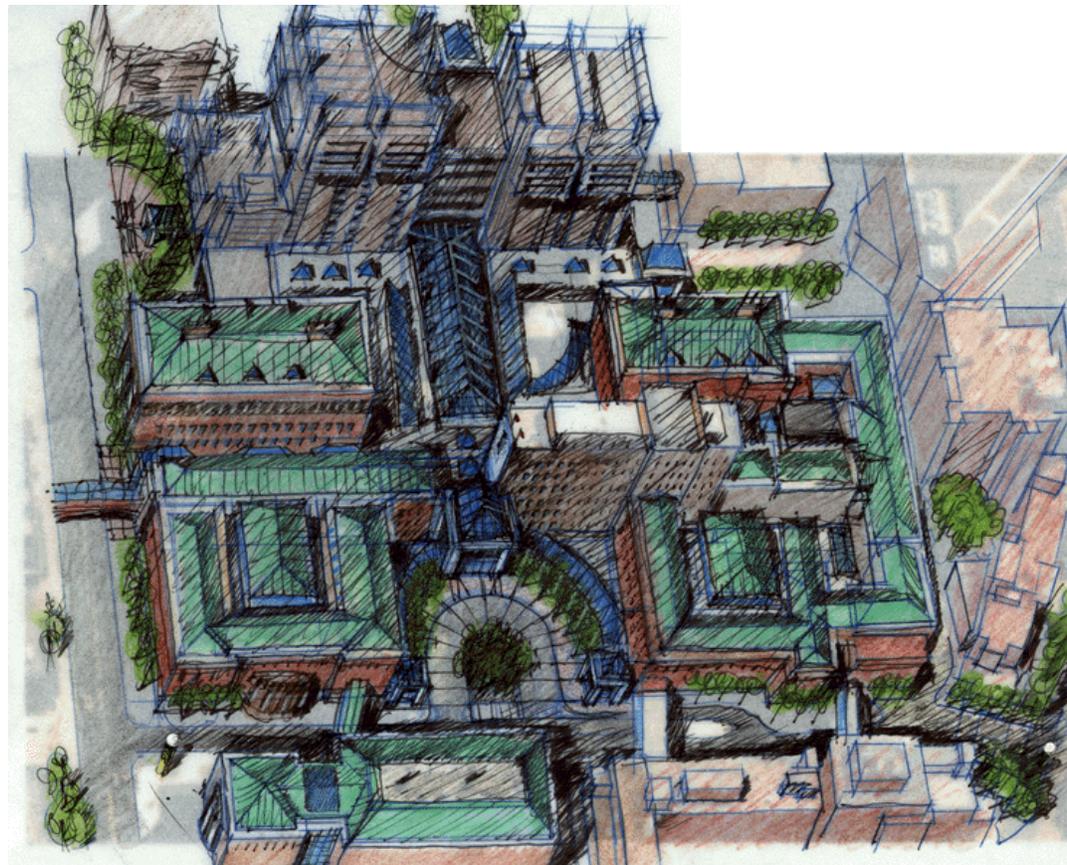
- Give vision to what the AHC needs are
- A large Central people park - people piazza, providing a common denominator / identity for the AHC
- Establish improved connections within the AHC and beyond to the entire University
- Establish image of identity - defining the edges and major entry points to the AHC
- Identify patient/visitor/student orientation and zones of activities
- Enhance the quality and habitability of Spaces - Natural light, fresh air, student gathering spaces
- Enhance visible and physical sense of continuity and cohesiveness of the AHC
- Major entries will be welcoming to all, with clear identification and orientation

Guidelines for Development



An aerial photograph of the Academic Health Center from the West. BSBE is in the bottom foreground with Washington Avenue on the left and Mississippi River Blvd. on the right.

The Academic Health Center must create common collegial spaces. It should incorporate consistent architectural language to create an identifiable zone within the University. Circulation for automobile traffic should be kept separate from the central spaces, yet be easily connected. The exterior of these facilities should build on the traditions of the university while finding massing and accent variety to allow individuality. The interior spaces of the AHC should emphasize the new Academic Health Center.

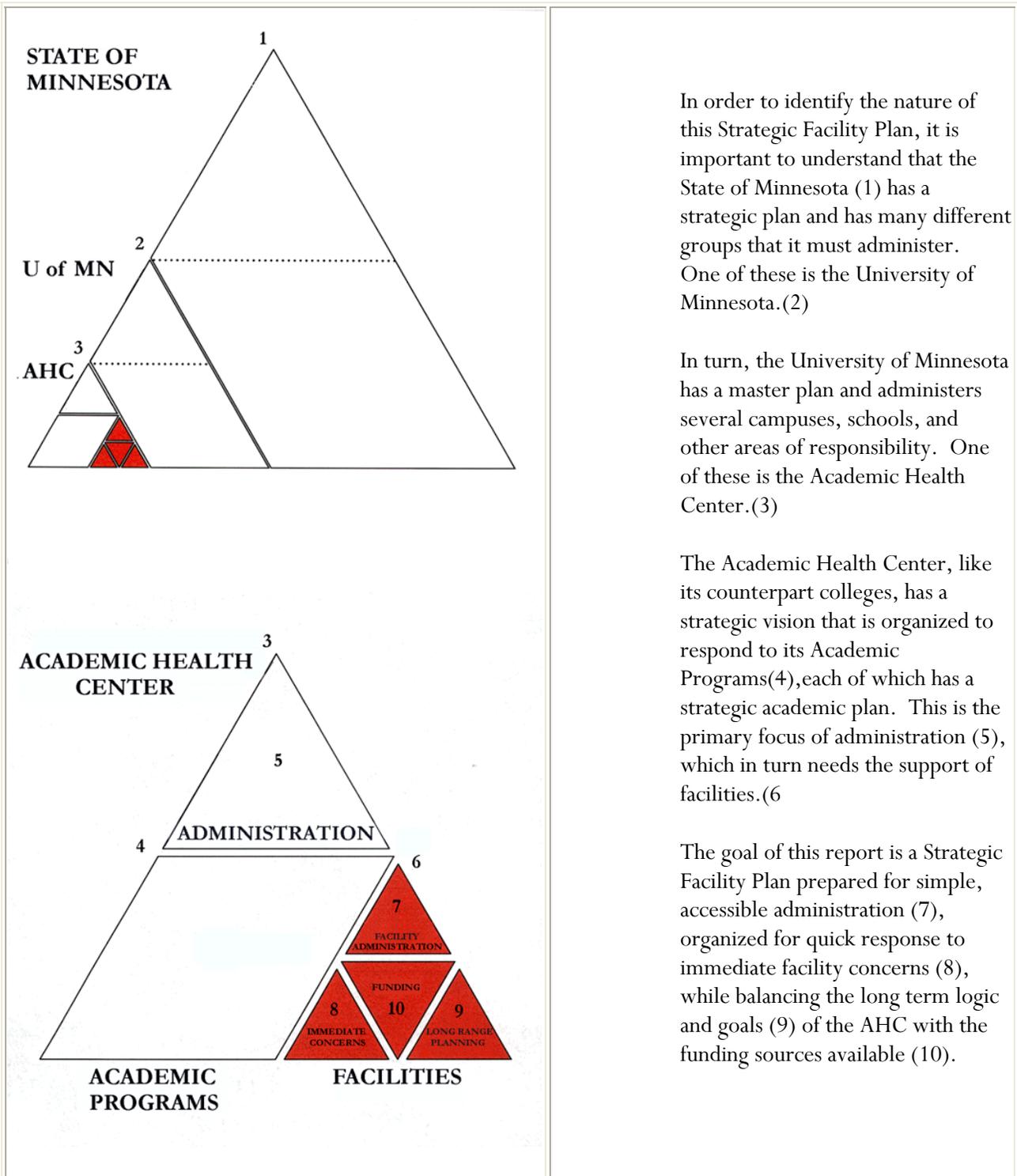


Based upon the Steering Committees Analysis of our current facilities and strategic objectives, the following observations were made.

Strategic Facility Planning Observations

- Program requirements suggest we need an additional 300,000 square feet to support the academic and research activities of the AHC. Within this amount, office types of spaces need to increase by 27%, Research by 20% and instructional space by 30%
- An increasing amount of research is taking place in offices—not bench or wet labs.
- There are over 186,000 square feet leased off campus in AHC properties, costing the University \$2.8 million per year.
- Without the benefit of Medical School and AHC Shared Space input to the Phase III Qualitative data, quality of space appears to be slightly less than acceptable. There are no evaluations of "works well".
- Most comments in Phase III Qualitative Analysis focused on poor maintenance of space issues and the need for additional small group spaces.
- Equipment and infrastructure support for many of our labs and teaching spaces is outdated.
- Newer technology will require well designed spaces that are adaptable and can be redesigned for multiple purposes.
- Available instructional space is poorly matched to current and emerging teaching methodology and technology needs. While there is some need to increase square footage available for instruction, the greater needs are to provide access to useable space, improve quality of space and increase technology resources.
- Public spaces—i.e. corridors, entrances, centrally scheduled classrooms, restrooms, study areas and elevators—are not "owned", therefore, there appears to be no plan or responsibility for improvement, advancement or resource allocation.
- We need to find better ways of using the support space we have, such as developing a manageable and retrievable record storage facility at the Hospital Distribution Center. This has potential to free up storage within the AHC for required offices.
- Most of the major space requests, including JOML Replacement and Public Health, represent a pent-up demand for geographically consolidated and physically expanded space. The disincentives for growth on campus have created patch-worked departments and services. Program consolidations will likely require additional square footage.
- The incentives to receive more new grants, and to start and expand new programs are not balanced with availability of space.
- There is a perception that we have underused and unused space. There are no incentives for departments to give up space or share information about unused space.
- We have space, including Fairview release space, which cannot be strategically used because funds have not been allocated for this purpose.
- Improvements appear to be unreasonably expensive.

Concept Diagrams



In order to identify the nature of this Strategic Facility Plan, it is important to understand that the State of Minnesota (1) has a strategic plan and has many different groups that it must administer. One of these is the University of Minnesota.(2)

In turn, the University of Minnesota has a master plan and administers several campuses, schools, and other areas of responsibility. One of these is the Academic Health Center.(3)

The Academic Health Center, like its counterpart colleges, has a strategic vision that is organized to respond to its Academic Programs(4),each of which has a strategic academic plan. This is the primary focus of administration (5), which in turn needs the support of facilities.(6)

The goal of this report is a Strategic Facility Plan prepared for simple, accessible administration (7), organized for quick response to immediate facility concerns (8), while balancing the long term logic and goals (9) of the AHC with the funding sources available (10).

Process Organization

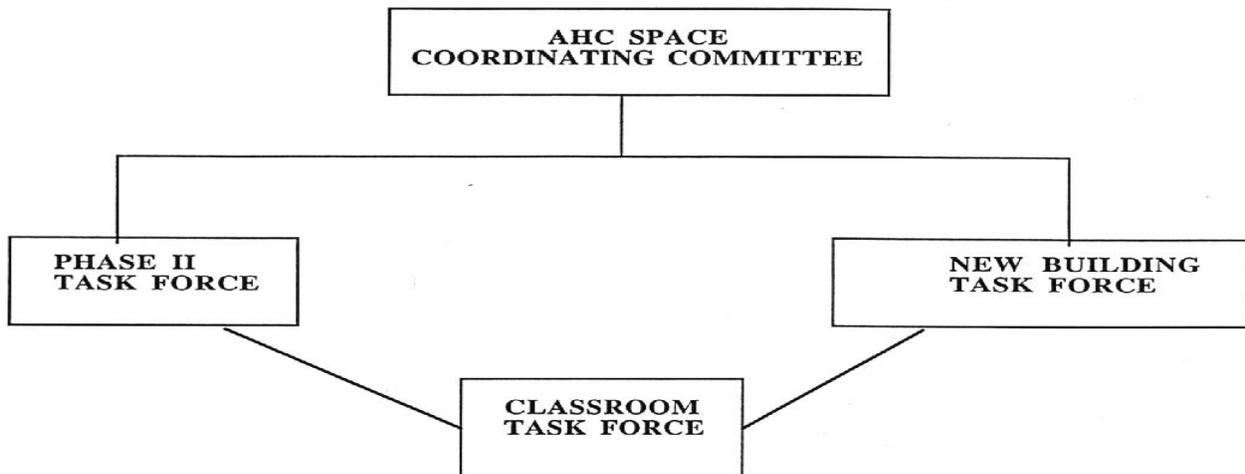
History

The initiative for a Strategic Facility Plan for the Academic Health Center began in April 1997. Dr. Frank Cerra, Sr. Vice President for the Academic Health Center, addressed a letter to all AHC faculty, staff, and students, in which he expressed the need for a restructuring of facilities management. That need was based on a variety of challenges that the AHC and its schools faced currently and in the future. These needs included: a high demand for space that exceeded current capacity, a recognition of the structural and functional deficiencies of AHC facilities, and a considerable amount of off-campus leased space "at a several million dollar expense annually."

Given these challenges, Dr. Cerra stressed that, "Our ability to carry out our education, research and service missions depends on having sufficient space to meet programmatic needs and having space that is functional, cost-effective, well-maintained, and well-managed." He noted an effort given by faculty in the AHC to solve problems on an individual school basis, which created a spirit of competition within and between schools for space. In order to address the challenges faced by the AHC, we needed to develop an AHC-wide approach to solve these problems.

Process vs Plan

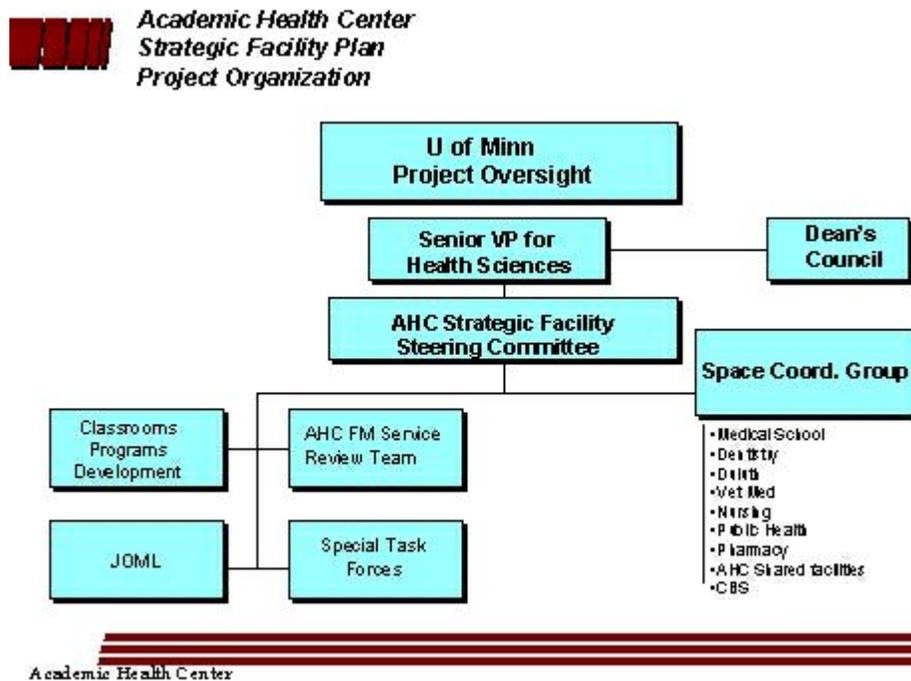
Dr. Cerra envisioned creating a better process by which to address the challenges faced by facility management and resources. He put forth a charge to all faculty, staff, and students to serve on committees that would assist in the development of this process. In Dr. Cerra's original planning structure, he saw the need for an AHC Space Coordinating Committee to draft a master plan, and for three task forces to support that committee: one to address the completion of the work for the Basic Sciences and Biomedical Engineering Building project; one that would plan a new building to replace the Jackson-Millard-Owre-Lyons complex (JOML); and a final task force to develop a plan for improving AHC classrooms.



Dr. Cerra's Committee Organizational Plan

Planning Process

The planning process evolved in direct response to Dr. Cerra's charge. The original committee model structured by Dr. Cerra was transformed into a planning structure consisting of two committees (the AHC Strategic Facility Steering Committee and the Space Coordinating Group) and four task forces (Classrooms Programs Development, AHC Service Review, JOML Replacement, and Special Task Forces).



The reason for the development of strategic facility plan, and the direction the process needed to take in order to develop such a plan was described in Dr. Cerra's vision — to arrange and manage AHC facility resources so that the AHC mission in education, research and service is fully supported by a well-managed, cost-effective and efficient environment. The focus on creating a new facilities management process and a strategic plan would fall on two areas: space management and facility services, and matching strategic interests with facility resources.

During this evolutionary phase, the underlying elements of the Strategic Facility Plan — the basis for planning, the ground rules for participation, and the guiding principles — were established in order to lay a framework for the task at hand.

The Basis for Planning

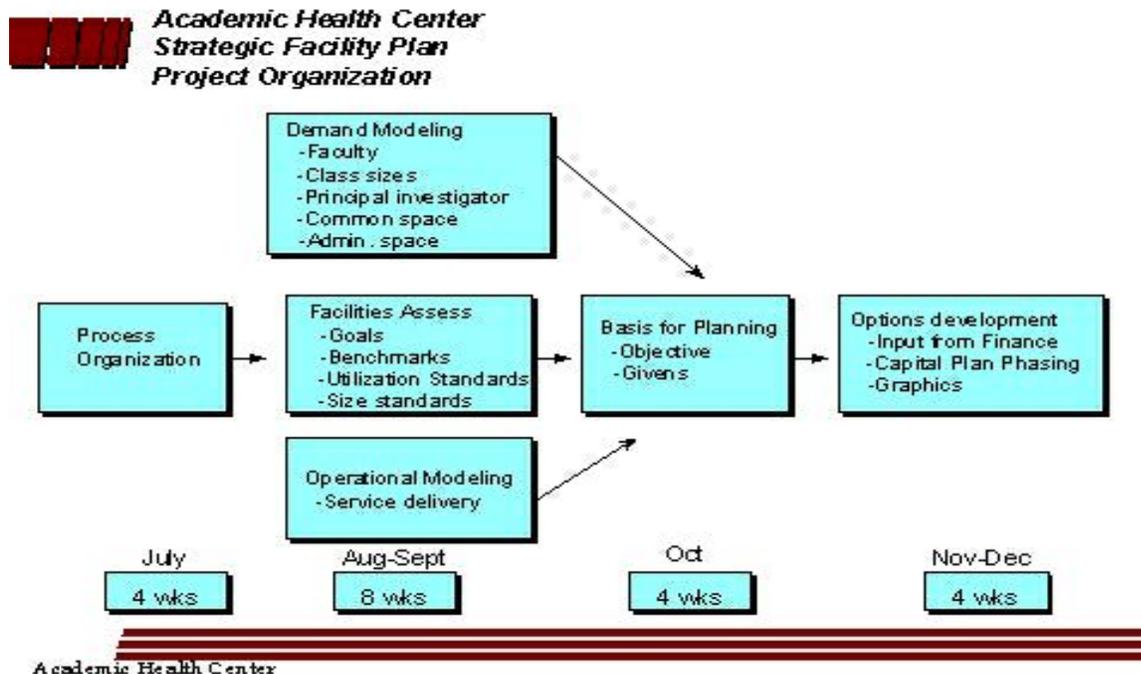
- To discuss and create program, facility and operational objectives?i.e., curriculum changes, classroom development objectives, reorganization of biological sciences, etc.
- To pinpoint what is already given--i.e. JOML, infrastructure upgrades, deferred maintenance
- To examine what the plan should look like

The Ground Rules for participants in developing the Strategic Facility Plan

- Commitment--process, time, participation
- Communication
- Consistency in format of data documentation
- Focus on the issues at hand; a disciplined use of time

The Guiding Principles:

- Use "holistic" or systemic approach
- Keep it simple
- Have fun
- "The best laid plans . . . will change . . . so plan for it"



The University of Minnesota Project Oversight Committee

The responsibility of the Project Oversight Committee in the planning process is to determine that the Strategic Facility Plan constructed fits into the overall plan for the University of Minnesota. The committee's role is to resolve large strategic planning issues, to resolve issues between the AHC and the greater university, and to finalize strategic capital budget issues.

The AHC Strategic Facility Steering Committee

The charge of the Steering Committee is to weigh and consider all of the policy/process and management, program, and facility assessment information and develop coherence for the plan.

The roles and responsibilities of the Steering Committee are:

- Act as a comprehensive and holistic guide for the entire AHC
- Makes ultimate facility decisions within the AHC subject to Senior Vice President approval
- Develops and defines objectives — "This is our vision"
- Approves and commits AHC resources
- Approves priorities
- Resolves issues within AHC; Recommends to Oversight Committee if beyond AHC
- Removes barriers; blocks end runs

The Space Coordinating Committee

The Space Coordinating Committee reports to the Steering Committee. Its charge is to develop a new paradigm for facilities management in the AHC, including the policy and process for handling space requests across collegiate boundaries and recommended space standards for the AHC. The committee also coordinates and gathers collegiate and program information as a resource for strategic planning. It makes its recommendations regarding intercollegiate space requests to the Facility Management Director or Dean's Council.

Space Program Review Teams

The Space Program Review teams are an organization of teams that represent each school and report to the AHC Space coordinating group.

The roles and responsibilities of these teams are:

- Develops policy and process for handling space requests within collegiate boundaries
- Review, receive and respond to space requests within college/program
- Assemble and report demand modeling, facility assessment, and operational models from each unit for strategic facility planning

Facilities Management Service Review Team

The charge of the FM Service Review Team is to set standards for service and to remove any barriers that obstruct those standards.

The roles and responsibilities of the FM Service Review Team are:

- Define Service and Goals
- Identify operative Problems and barriers to service
- Identify quality improvement indicators
- Recommend best operating practice

THE TASK FORCES

The task forces have a shared set of roles and responsibilities, which include:

- Define programmatic needs to be met
- Define operational programs
- Develop operational standards
- Define performance characteristics for the project
- Bottom line — collect, gather, develop additional information that will serve to further establish need for these projects

JOML Replacement

Charge: Plan a new building to replace the JOML complex. The planning will include: developing the scope, programmatic needs and general design of the building; developing a plan for phased construction and the move into the new building; Provide input to the build-out of the facility; and developing a financing plan for the facility.

Classroom Task Force

Charge: Perform a space, capacity, and use analysis of current classroom facilities; develop a plan for interim improvement of current classroom facilities; develop a plan for new classrooms; and serve as a resource for the JOML Replacement Task Force.

People Involved and their Feedback

The call for volunteers to serve on committees and task forces was answered enthusiastically, and the chairpersons of each committee were challenged to select members in order to develop committees with a balanced mix of faculty, staff and students. These volunteers had numerous concerns about the direction facilities planning was headed. Those wanting to be involved in the process were prompted by a variety of different incentives, ranging from interest in “who makes what decision and why” to sentiments of those “just excited to participate in this endeavor.”

The process for developing a master plan commenced with an Ignition Meeting in July 1997. The goal for this meeting was to communicate the AHC Strategic Facility Planning structure, process and product to participants and stakeholders. The purpose of this meeting was built on four objectives:

- introduce faculty and staff to what the AHC wanted to accomplish in developing a Strategic Facility Plan
- break the process down into smaller steps
- introduce the committees and the participants involved in creating the plan
- discuss the roles of committees and participants in the planning process

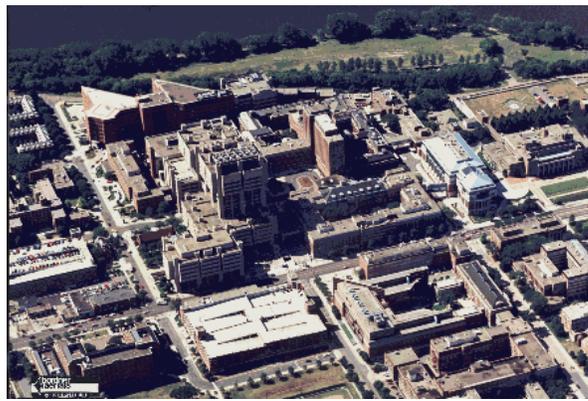
The majority of feedback received through discussing the concept of a strategic facility plan fell in four areas of interest:

1. **developing better classroom areas**
2. **facilitating areas for use of the latest technology**
3. **improving facilities for students and instruction**
4. **creating a facilities plan that is more uniform and efficient**

Overall, the complexity of the situation facing the AHC is a result of many factors:

- Increasing and changing programmatic needs of AHC schools
- Aging AHC facilities
- An extensive backlog of deferred maintenance and upkeep of University facilities
- The inadequacy of current classrooms to meet current and future needs
- The high cost of renovating old buildings
- The non-feasibility of renovating many existing AHC facilities for research laboratories
- The serious structural problems of the Jackson, Owre, Millard, and Lyons complex and the consequent need to replace it
- The University’s plans under RCM to charge for space
- The opening of the new Basic Sciences and Biomedical Engineering Building
- The sale of the University Hospital facility and continued leasing of space to Fairview for hospital and clinic operations
- The Strategic Facility Plan will consider these factors and concerns, and create a process that not only addresses, but endeavors to solve them.

Programmatic & Facility Assessment



During the first few months of the strategic facility planning effort, the Steering Committee took great effort to understand everything they could about our current facilities and strategic areas that would require facility support. The results of this effort are reported here.

Phase I, II & III Data

Strategic Facility Planning for the Academic Health Center initially involved gathering and analysis of data from the Academic Health Center's six schools as well as units that comprise AHC shared services. The data was collected for current space needs and for five years out, the year 2002.

The Minnesota Facilities Model (MFM) was the instrument used in this model. MFM is a methodology of standards and guidelines for the allocation of space, and is based on FTE faculty, staff, and students.

The process of data collection and analysis occurred in three stages:

Phase I: SPACE NEEDS

The distribution and gathering of data from each unit, regarding the numbers and types of FTEs, and the translation of that data into an amount of space of space needed by those units.

Phase II: CURRENT INVENTORY

An inventory of the total amounts of space and current types of spaces currently occupied and assigned each unit. These types of spaces were categorized as office, research, instruction or support.

Phase III: QUALITY & FUNCTION

A survey form distributed to units that solicited information as to the condition and functionality of space.

The following tables represent summaries of data gathered during Phase I and II.
Results: (MFM data Forms)

How much space do we need in 1997?

Note This table is based on Phase I data converted to MFM*

| | <u>Office</u> | <u>Research</u> | <u>Instruction</u> | <u>Support</u> | <u>Total</u> |
|--|---------------|-----------------|--------------------|----------------|------------------|
| Medical School | 603,497 | 609,475 | 43,650 | 91,530 | 1,348,152 |
| Pharmacy | 37,140 | 29,080 | 6,569 | 5,584 | 78,373 |
| Nursing | 28,790 | 1,590 | 7,757 | 4,270 | 42,407 |
| Public Health | 118,575 | 50,680 | 3,302 | 9,983 | 182,540 |
| Veterinary Medicine | 49,650 | 66,915 | 32,735 | 154,525 | 303,825 |
| Dentistry | 67,425 | 34,690 | 11,530 | 73,641 | 187,286 |
| AHC Wide | 30,150 | 54,494 | 10,600 | 1,050 | 96,294 |
| Total Required Assignable Sq. Ft. (ASF) | 935,227 | 846,924 | 116,143 | 340,583 | 2,238,877 |

How much space do we occupy?

Note This table will be updated when all of Phase II data is in*

| | <u>Office</u> | <u>Research</u> | <u>Instruction</u> | <u>Support</u> | <u>Total</u> |
|--|----------------|-----------------|--------------------|----------------|------------------|
| Medical School | 339,422 | 485,000 | 27,312 | 191,086 | 1,042,820 |
| Pharmacy | 20,572 | 31,690 | 6,443 | 5,194 | 63,899 |
| Nursing | 21,271 | 354 | 7,122 | 4,805 | 33,552 |
| Public Health | 165,541 | 18,969 | 2,583 | 4,183 | 191,276 |
| Veterinary Medicine | 59,120 | 44,080 | 14,759 | 171,501 | 289,460 |
| Dentistry | 50,370 | 28,792 | 11,530 | 83,845 | 174,537 |
| AHC Wide | 28,117 | 69,882 | 10,600 | 35,924 | 144,523 |
| Total Required Assignable Sq. Ft. (ASF) | 684,413 | 678,767 | 80,349 | 496,538 | 1,940,067 |

How much space will we need in 2002?

Note This table is based on Phase 1 data converted to MFM*

| | <u>Office</u> | <u>Research</u> | <u>Instruction</u> | <u>Support</u> | <u>Total</u> |
|--|---------------|-----------------|--------------------|----------------|------------------|
| Medical School | 603,570 | 628,450 | 43,650 | 91,560 | 1,367,230 |
| Pharmacy | 43,125 | 34,140 | 6,569 | 5,584 | 89,418 |
| Nursing | 35,675 | 3,360 | 8,657 | 4,370 | 52,062 |
| Public Health | 141,600 | 59,475 | 3,302 | 9,453 | 213,830 |
| Veterinary Medicine | 56,175 | 61,875 | 32,735 | 154,525 | 305,310 |
| Dentistry | 70,150 | 43,740 | 11,530 | 73,641 | 199,061 |
| AHC Wide | 39,000 | 59,894 | 10,600 | 1,050 | 110,544 |
| Total Required Assignable Sq. Ft. (ASF) | 989,295 | 890,934 | 117,043 | 340,183 | 2,337,455 |

Summary of Totals

| | Current Inventory | MFM Generated 1997 | MFM Generated 2002 |
|------------------------|------------------------------|-----------------------------------|-------------------------------|
| Medical School | 1,042,820 | 1,348,152 | 1,367,230 |
| Pharmacy | 63,899 | 78,373 | 89,418 |
| Nursing | 33,552 | 42,407 | 52,062 |
| Public Health | 191,276 | 182,540 | 213,830 |
| Veterinary Medicine | 289,460 | 303,825 | 305,310 |
| Dentistry | 174,537 | 187,286 | 199,061 |
| AHC Wide | 144,523 | 96,294 | 110,544 |
| Totals | 1,940,067 | 2,238,877 | 2,337,455 |

Strategic Plan Summaries

A fundamental goal in creating a Strategic Facility Plan for the AHC is to develop facilities and a facility management plan that carries out the missions of the Academic Health Center and its schools. In developing the plan, we have looked specifically at the Strategic Plans for the Comprehensive AHC as well as at the Strategic Plan of each AHC School. These plans state objectives and goals that are significant determinants in creating the Strategic Facility Plan because they require specific facilities in order to be achieved.

Academic Health Center: Comprehensive

The facility implications of the AHC Strategic Plan fall into four categories: Interscholastic Education and Research, Information Technology, Administrative Services and Clinical Operations.

Interscholastic Education and Research

As interscholastic education and research programs increase, there will be a need for more space, especially space that is highly flexible and adaptable. Many, if not most, of these programs will begin quite small with current AHC faculty, staff and students. These faculty, staff and students will need to be co-located and/or need to have additional offices, conference rooms, classrooms and labs where they can meet and work together. If these programs grew because of increased private and public research funding or new tuition, we will need the flexibility to expand space quickly. We may want to consider a dedicated space (offices, conference rooms, etc.) where new programs can be housed temporarily when they are first established or where expanding programs can be housed temporarily.

Information Technology

The increased use of information technology in instruction, the increased use of distance technology and the increased use of advanced information technology for research will require major upgrading of the information technology networks in all AHC buildings (with the exception of the Basic Sciences and Biomedical Engineering Building).

Administrative Services

Administrative services redesign and administrative cost savings will decrease the need for administrative office space AHC-wide, but may require relocating staff and reconfiguring offices. The development of some administrative services will require additional office space. The potential growth areas are Information Technology Services and the Research Services Office, as privately funded research increases in the AHC.

Clinical Operations

The integration of the Fairview University Medical Center (FUMC) operations and the establishment of University of Minnesota Physicians (UMP) has several implications. First, over the next three to five years a significant amount of clinic space will be released to the AHC to use for academic programs. Most of this space, however, is unusable without significant remodeling and renovation. Its best use would be for offices and classrooms. Little of the space can be used for research labs because building code requirements and the prohibitive cost of remodeling. Second, there are significant transportation and parking implications. If FUMC consolidates operations on the University campus, there will be an increased need for employee and visitor parking. If FUMC consolidates operations on the Riverside campus, there will be an increased need for faculty, staff and students to move between two campuses. If UMP moves its clinics off-campus, there will be decreased need for visitor and staff parking and an increased need for faculty and students to move between the campus and the UMP clinical site.

School of Dentistry

The facility implications of the strategic plan for the School of Dentistry require maintaining the School's contiguity; improving technology; expanding research, continuing education and the Faculty Practice Clinic; and improving accessibility and the internal configuration.

Maintain Contiguity of the Dental School

The School of Dentistry facilities, especially clinics and research laboratories, must remain close to each other. During the 25 years in which the School has occupied its present facility, the convenience and interrelationships caused by geographic proximity of clinicians and scientists have been a hallmark of the School's success. The School is engaged in many research projects in which patients, clinicians and basic researchers work together; the current configuration of space serves the School well.

Wire All Classrooms and Teaching Spaces for the Internet

Improve Simulation (Virtual Reality) Capacity. Install Sim-Lab

Most dental schools are gradually shifting from bench-type pre-clinical laboratory experiences to more simulated Virtual Reality models. Not only is this important for learning, but it also will become a competitive disadvantage if the School does not have this capacity. The School of Dentistry has been a leader in this movement, and recently was awarded a NIH grant of \$1.2 million to develop the Virtual Dental Patient. Converting the School's present pre-clinical laboratories to accommodate this new technology will be mandatory.

Office and Research Space

Over the past several years the School's research enterprise has expanded greatly. To date, these additional activities have been accommodated within existing School of Dentistry space. According to the Minnesota Model, the School of Dentistry is short of both office and research space. New research activities (e.g. NIH Grant to develop Virtual Dentist Patient, the School's potential for being awarded a Pain Center for Discovery, and on-going collaboration with industrial partners such as 3M, Smith-Kline-Beecham and other biomedical companies) will place additional demands on current space.

Endowed Chair in Rural Dentistry

One of the objectives of the School of Dentistry is to become the first dental school in the country to have an Endowed Chair in Rural Dentistry. Although just in the initial stages of planning, the idea, to date, has been received with considerable enthusiasm, including several potential sources for funding. This will be a completely new component of the School that will coordinate the majority of its clinical outreach activities, as well as develop considerable research in health care policy and delivery. Space must be available for this activity to go forward.

Expand Size, Technological Capacity and Convenience of Continuing Education Facilities

A deficiency of the School of Dentistry is a lack of first-class facilities for Continuing Education. Any plan developed should include multidisciplinary facilities on the Minneapolis campus for both on-site and remote site education. To the extent that is not done AHC-wide, the School of Dentistry will have to provide this service to its CE participants individually.

Improve Accessibility (Designated & Well-Identified Elevators)

The School of Dentistry has been plagued with a major design deficiency since it opened in 1974. Simply stated, patients cannot find the clinics. Careful attention must be paid to improving accessibility, including signage, directional symbols and, above all, designated and well-identified elevators that will deliver patients conveniently and expeditiously to its clinics.

Internal Configuration

- Improve patient flow among clinics (install escalators)
- Remodel facilities to accomplish a modern admissions capacity
- Develop a Dental Radiology facility for both teaching and service
- Update all patient care clinics

The School of Dentistry is the only entity in the University system in which students, in addition to paying tuition, are compelled to generate income to pay for their education. This is accomplished by providing direct patient care in the School's clinics. Approximately \$5.5 million generated annually by students becomes a component of the Dental School's O&M budget. Changes in dental care delivery over the past 25 years have made the School's clinics less efficient and effective than they should be. Various aspects of patient care frequently require movement between floors and clinics during the same appointment. Not only is this inefficient, it is confusing and offensive to patients, and makes rendering quality care more difficult. The internal configuration of our clinical floors should be redesigned to bring this facility into the twenty-first century.

Expand Faculty Practice Clinics

As demands are placed on components of the AHC to become more involved in population based contracting for patients, the capacity of the Dental School faculty to serve as providers will have to be increased. The current Faculty Practice Clinic is not suitable for expansion, and additional space will be needed.

Medical School

The facility implications of the Medical School Strategic Plan are related to the plans for the JOML Complex, Education, Research and the University as a whole.

The Plans for the Jackson/Owre/Millard/Lyon Complex

Having appropriate facilities is tied to the research objectives of the plan and to the education program as it is envisioned.

A clear plan for providing interim lab space for 36 investigators is critical. Faculty must be able to complete work on current grants and must certify that appropriate space is available in order to compete for new grants.

Interim space will be essential for any recruiting, be it faculty or graduate students during the period of construction.

One clear objective of the plan is to strengthen the financial foundation of the Medical School. Planning for interim space is as critical as the new building, since care must be taken to avoid jeopardizing the significant external funding that supports the work done by the investigators and others in the JOML Complex.

Other interim and permanent core requirements include a plan for existing 24,000 assignable square feet of Histo/Neuro and Gross Anatomy Labs and related principle investigator and departmental offices. The entire administrative suite, currently occupying 14,340 square feet of assignable space requires interim and permanent facility solutions. Much, but not all, of the permanent solution is embodied in the Education Center discussed in the following section.

Related to Education

A recent and recurring criticism cited by accrediting bodies (Liaison Committee on Medical Education [LCME] 1990 and 1997) is the lack of student space and student support space in the Medical School. It is especially acute given the commuter nature of the student body. An Education Center to accommodate study space, social space, advising and computer rooms, small meeting rooms, lockers, a skills laboratory and resource rooms has been planned and endorsed as a top priority of the Medical School. The Center should have appropriate entrance to the School in areas supporting admissions, students affairs, administration and curriculum functions to provide an identity that it currently does not project to student, potential students and parents, or to other visitors. A proposal for approximately 35,000 assignable square feet is essential. Improvement to existing classroom and teaching laboratory space is assumed in order to create the environment envisioned in the plan.

Detailed planning for the Education Center should be done as soon as possible. It is not a component of the new Molecular and Cellular Biology project but clearly will be affected by that facility. The Medical School is amenable to financing some preliminary planning inasmuch as it appears that private funding will be required in order to move forward.

Related to Research

The planned Molecular and Cellular Biology facility to replace JOML will meet some of the needs of the reorganized basic sciences. In addition, the School's plan foresees the development of several centers of excellence that will require new or renovated space.

The goal for the University and the goal of the Medical School is to maintain and improve its competitive position. This means more grants. It means recruiting more faculty. Facilities must be planned for such development.

Related to the University

We are keenly aware of the criticism by the LCME accrediting team of the Biomedical Library. We are also aware of how poorly the University's Biomedical Library compares with other major medical schools. The Library is an integral part of the education and research support required by our students and faculty. The Director of the University Libraries and the Director of the Biomedical Library have been in discussion about the serious nature of this matter and the impact another citation from the LCME may have on this School's national standing. We urge immediate attention and encourage joint planning that will complement the Education Center and enrich the student experience.

School of Nursing

The facility implications of the School of Nursing correlate with the School's goals, to: commit to two to three centers of excellence; increase the number of faculty in these centers of excellence; double the amount of extramural research support by 2001; recruit outstanding doctoral, masters and baccalaureate students; increase the diversity and cultural competency of the faculty and student body; create an organizational climate that fosters the attainment of these goals; and lead in selected AHC and University-wide interdisciplinary programs.

Commit to two to three centers of excellence; increase the numbers of faculty in the centers of excellence; and double the amount of extramural research support

The commitment to two or three existing and evolving centers of excellence, the increase of faculty in these centers through recruiting distinguished faculty, supporting current faculty and implementing development activities for current faculty, and the goal of doubling the amount of extramural research support necessitates additional space to house the anticipated research projects. Most of this space will be for offices with the potential need of some space for making clinical evaluations of subjects. There is also likely to be a need to reconfigure current space so that members of the centers of excellence can cluster in reasonable proximity to one another and to their support staff.

Recruit Outstanding Students

The success of recruiting outstanding doctoral, masters and baccalaureate students could require an additional need for student study and congregating space.

Increase diversity and Cultural Competency

Increasing the diversity and cultural competency of the faculty and student body may provide a critical mass of minority students wanting a setting where they can meet for mutual support and study groups. Space may also be needed for tutorial and remedial assistance.

Create an organizational climate that fosters the attainment of these goals

The School of Nursing lacks a convenient, logical site for faculty and staff to congregate for coffee, visiting, and other social exchange. Previous attempts to establish a lounge have been unsuccessful because of inconvenient locations and insufficient environments for creating community. In order to create the organizational climate necessary to foster the attainment of the School of Nursing's vision and goals, a convenient and logical site is necessary.

Participation in Selected Interdisciplinary programs

It is the goal of the School of Nursing to lead and participate in selected AHC and University-wide interdisciplinary programs. The School currently houses one such program, but is approaching the point when it will need to use this interdisciplinary space for other projects. Policies concerning interdisciplinary projects space needs would be useful to meet strategic objectives.

College of Pharmacy

The facility implications of the College of Pharmacy Strategic Plan include: implementing the Pharm.D. Program, increasing the strength and funding of research, enhancing the quality of graduate programs, working with professional and external constituents, developing collegiate involvement in post-graduate education and providing administrative support for mission related goals.

Implement Pharm.D. Program

The Pharm.D. program requires an active learning methodology necessitating flexible classrooms, small group or breakout rooms, and gathering spaces for students. Implementing the program will add one year to the current curriculum, creating a need for increased classroom capacity. The hiring of four or five new faculty members and four or five off-campus faculty members for the program will require additional office and laboratory space, including space to meet with students.

Increase the Strength and Funding of Research

Increased funding per faculty member, leading to an increase in number of lab workers, and the hiring of new faculty members including two endowed chairs will require increased research and laboratory space. The possibility of a Drug Design Institute (1999) with the potential of a new research program would also require new laboratory and office space.

Enhance the Quality of Graduate Programs

A new degree option in Experimental and Clinical Pharmacology will add ten to twenty new graduate students over a three to five year period, requiring additional office and lab space.

Work with Professional and External Constituents

New outreach educational programs including Nontraditional Pharm.D., Certificate Programs and CE, requires five to six new offices of administrative space. Hiring staff support for Public Relations and marketing would also create a need for office space.

Develop Collegiate Involvement in Post-Graduate Education (Residencies and Fellowships)

Appointing or hiring a residency/fellowship coordinator would require one additional office space.

Provide Administrative Support for Mission Related Goals

A restructuring of space need to increase efficiency of use and to allow contiguous space for collaborating groups will require renovatio dollars for Weaver-Densford Hall. Also, the retirement phase-out and replacement plan being developed will provide overlapping new faculty members with emeritus faculty, creating a need for expanded lab and office space over the next five to ten years.

School of Public Health

The facility implications of the School of Public Health's Strategic Plan include: refurbishing space vacated by the Health Care Administration program, refurbishing laboratories in Boynton basement, increasing space and consolidating the School's main functions in a single building.

Refurbish Space Vacated by the Health Care Administration Program

With the move of the HCA program to the Carlson School, roughly 5,700 ASF has become vacant on the third floor of Mayo. This space needs refurbishing with respect to painting, carpeting, replacement or maintenance of antiquated window air conditioning units, etc.

Refurbish Laboratories in Boynton Basement

With resolution of the space costs for the School's occupancy of the basement of Boynton Health Service, several facilities issues related to this space need addressing. Some teaching laboratories need urgent renovations. Some space and equipment in these labs have not been renovated in over thirty years, and are unsuitable for teaching to be conducted there. As the industrial hygiene and microbiology programs add new faculty in the next year, there will be much greater need for these teaching laboratories.

Increase in Space

Based on the Minnesota Facilities Model, the School of Public Health will need another 40,000 ASF within three to five years. Additional space will be needed for new faculty and staff, sustaining the School's research enterprise and its teaching activities, as well as alumni affairs, outreach, continuing education, and support functions.

Consolidation of the School's Main Functions in a Single Building

For many years, and in several ways, the School of Public Health has made a case that it needs to have its divisions and its dean's office under one roof. The School is presently in eleven separate locations, which has led to harmful fragmentation of its teaching and research foundations, as well as substantial inefficiencies with respect to the administration and financial management of the School. The School of Public Health's number one need is for a new building dedicated to the School's functions.

College of Veterinary Medicine

The facility implications of the College of Veterinary Medicine Strategic Plan stem from the goals of the college: to enhance the clinical and professional competence of its graduates and the learning experience for DVM students, to enhance the sense of community in the CVM mission and focus collegiate research programs, to position the Veterinary Teaching Hospital to continue as the predominant specialty referral veterinary hospital in the region, and to strengthen collegiate outreach efforts.

Enhance the Clinical & Professional Competence of CVM Graduates; Enhance the learning experience for DVM students

In order to enhance both the clinical and the professional competence of College of Veterinary Medicine (CVM) graduates, and to enhance the learning experience for DVM students, the College of Veterinary Medicine requires all classroom and teaching spaces wired for Internet access. Also required is the redesign of two large classrooms to support current and future teaching needs.

Enhance the sense of community & ownership in the CVM Mission

The establishment of an Educational Commons Area for faculty, students and staff to meet, socialize and plan, proposed for the old Dairy Barn, would help enhance the sense of community and ownership in the College of Veterinary Medicine mission.

Enhance & Focus Collegiate Research Programs

In order to enhance and focus collegiate research programs, the College of Veterinary Medicine requires the establishment of a Biological Containment Level 3 Isolation Facility, the redesign of the Animal Housing Facilities to allow AAALAC Accreditation, and the renovations of research labs to support ongoing and future research needs.

Position the VTH to continue as the predominant specialty referral veterinary hospital in the region

The positioning of the Veterinary Teaching Hospital to continue as the predominant specialty referral veterinary hospital in the region depends upon the construction of a state of the art Intensive Care Unit for the Small Animal Hospital and the provision of a safe and convenient examination area for equine patients. Also required is the correction of current functional and health and safety deficiencies in the ventilation and heating system in the VTH.

Strengthen Collegiate Outreach Efforts

The construction of an ITV room for Continuing Education and Extension students would help strengthen the collegiate outreach efforts of the College of Veterinary Medicine.

Facility Assessment

An inventory of currently owned and leased buildings is available in Appendix B.

Basis for Planning

The Basis for Planning was developed through a series of discussions at the Steering Committee level of the Strategic Facility Planning Process. These discussions attempted to bridge the gap, in broad terms, between what we have in facilities (facility assessments) and what we need (strategic objectives), and allowed us to create a vision of facilities for the Academic Health Center. The discussions centered on four broad themes:

1. Core Challenges — what we have ...
2. Guiding Principles — what we desire ...
3. Primary Themes — what it could look like ...
4. Major Objectives — how to get there ...

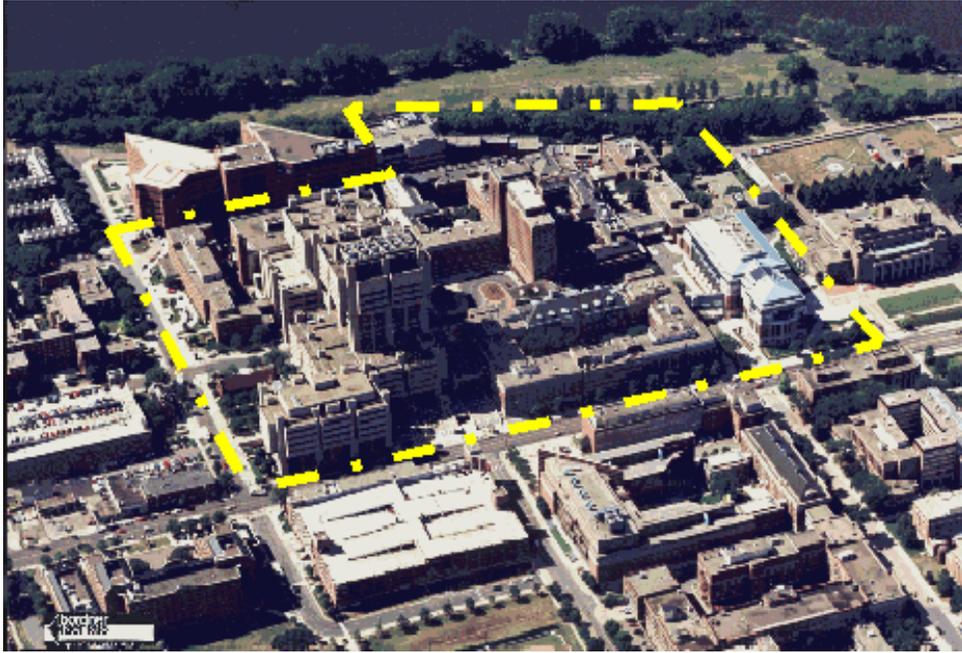
Core Challenges: Existing Conditions

The Core Challenges of Strategic Facility Planning were developed through intercollegiate discussion concerning the existing conditions that need improvement within the Academic Health Center facilities. The challenges faced by the AHC center around the need to optimize existing space and create adaptability for the future. Currently, a lack of standards for the utilization of existing space prevents such optimization. Also, the development capacity of the AHC in terms of being able to build additional facilities is a concern that needs to be addressed.

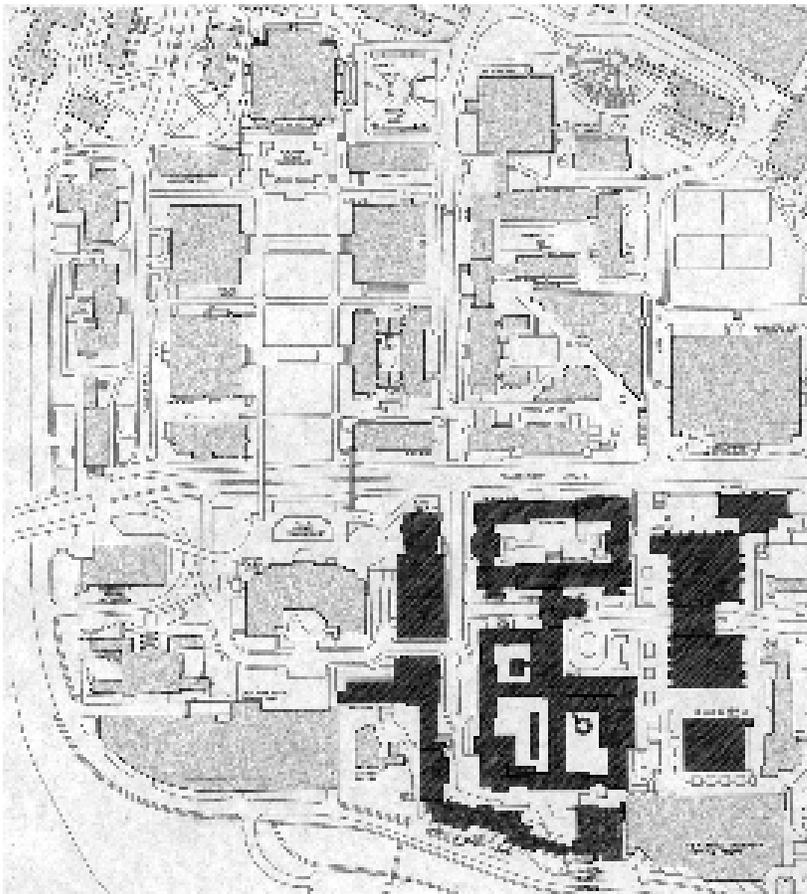
Until the creation of the AHC Strategic Facility Plan, there were no criteria, nor was there an existing plan that could be used in the allocation of space AHC-wide. Due in part to this, the organization experienced persistent difficulty caused by a lack of ownership of common spaces in the AHC. These spaces compete with central facilities management for resource allocation, causing maintenance of common spaces to be limited. Deferring maintenance in common spaces, as well as for other facilities, has created a situation in which outdated facilities require significant investment to meet current standards and needs. Problematic situations outside the physical structure of the AHC, such as parking and traffic through the campus, need to be addressed as well. Incentives and disincentives for the ownership and responsibility of space need to be established.

CORE CHALLENGES

- **Common spaces lack ownership and thus are not adequately maintained**
- **Common spaces compete with central for resource allocation**
- **Better relationship of labs/offices/classrooms needed**
- **No criteria is applied to allocate space and no space plan exists**
- **Development capacity: How much more can be built?**
- **Safety, capacity and location of parking & traffic**
- **Adaptability and flexibility of spaces for future needs**
- **What are the incentives/disincentives (financial & others) to change the status quo?**
- **Deferred maintenance needs to be an integral part of ongoing operations**
- **Outdated facilities require significant investment**
- **Lack of utilization standards prevents schools from optimizing existing spaces**



EXISTING CONDITIONS *The existing Academic Health Center Site Location is highlighted on both the Photograph and the Plan.*



The Academic Health Center consists of 15 buildings on the Minneapolis campus and 7 buildings on the St. Paul Campus. The conceptual physical planning was concentrated to the Minneapolis Campus location.

Guiding Principles: *What is desired...*

The Guiding Principles of the Concept Plan create the framework and characteristics of what is desired. The Strategic Facility Plan continues to explain these desires through the development of themes and objectives. The AHC is an institution that cares about its people and the facilities that house its people should reflect that. AHC facilities should aesthetically foster learning, collegiality and discovery. All facilities should be clean and work properly. The AHC should have a sense of "here" with common theme, circulation space or identifiers in each. Members of the AHC community need gathering spaces that create a sense of community. Faculty offices should be accessible to students by creating common areas for students outside of faculty office zones. At the same time, the AHC should center around curriculum driven design which can develop vital spaces that respond to program needs, such as the creation of "short streets" between clinical and basic science researchers.

Guiding Principles

- AHC is an institution that cares about its people
- Facilities should aesthetically foster learning, collegiality & discovery
- Members of the AHC community need gathering spaces to create sense of community
- AHC needs vital spaces that can respond flexibly to program and grant requests
- All facilities need to be clean and work properly
- AHC will have a sense of "here" with common theme, circulation spaces or identifiers within each school
- Curriculum needs should drive the design of new and renovated spaces
- Faculty offices should be accessible to students by creating common areas for students outside of faculty office zones
- Create "short streets" between clinical and basic science researchers

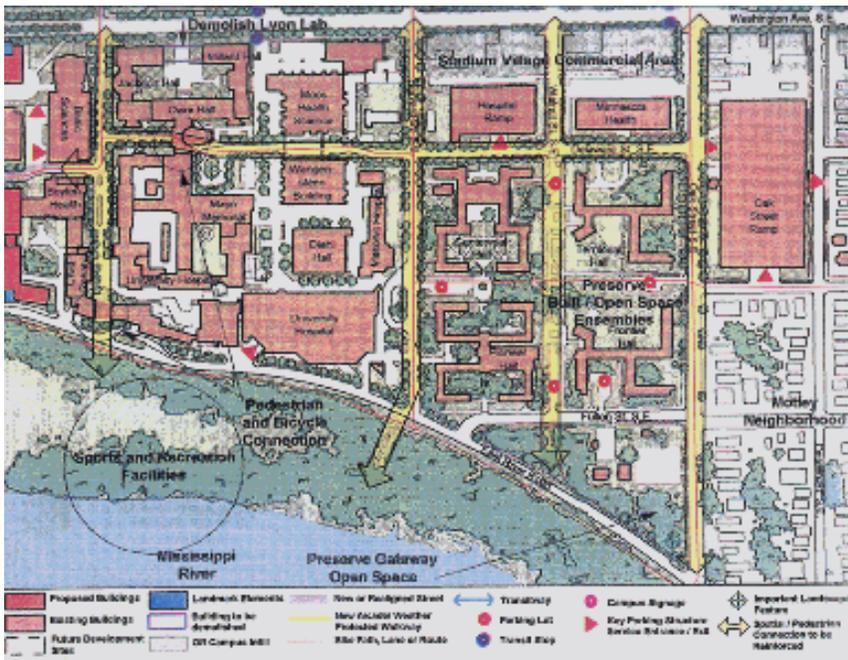
Primary Themes: Guidelines for Development

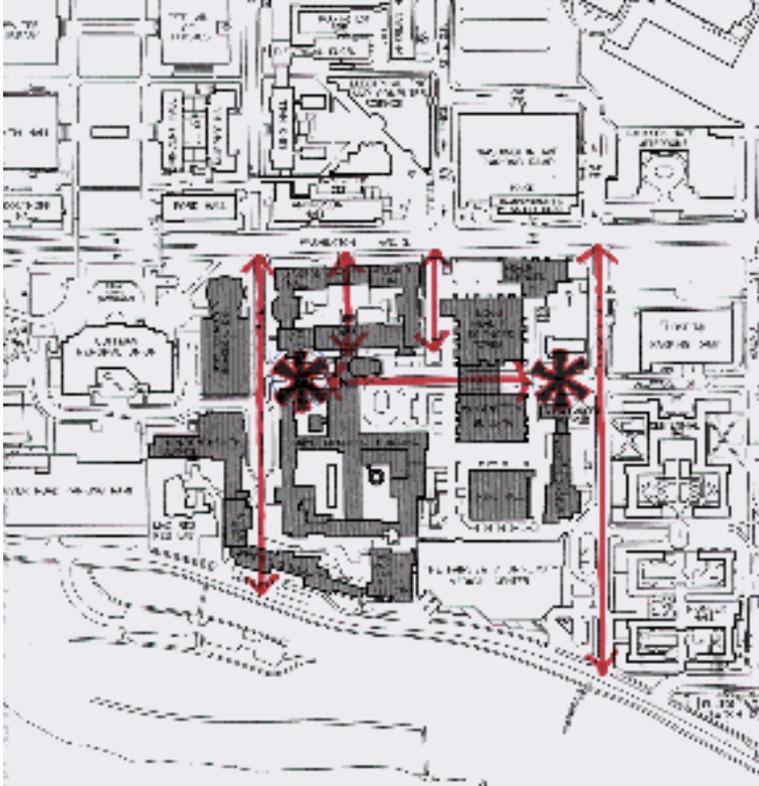
The primary themes addressed in the Strategic Facility plan serve as the overall guidelines for development. This suggests what it might look like, as a physical vision. These are diagrammed on the following pages. Establishing an image of identity, of welcoming, and a connectedness throughout the AHC are essential guidelines in this endeavor. The vision that focuses and drives development should be clear but also flexible. The enhancement of the visible and physical sense of community and cohesiveness of the AHC, and the quality and habitability of spaces, should also be central guidelines in creating a facility plan. Patient, visitor and student orientation and zones of activity should be identified and established. Elements such as natural light, fresh air and student gathering spaces need to be considered, and possibly addressed in the development of a "people piazza", a central people park.

Primary Themes

- Give vision to what the AHC needs are
- A large Central people park - people piazza, providing a common denominator / identity for the AHC
- Establish improved connections within the AHC and beyond to the entire University
- Establish image of identity — defining the edges and major entry points to the AHC
- Identity Patient/visitor/student orientation and zones of activities
- Enhance the quality and habitability of Spaces - Natural light, fresh air, student gathering spaces
- Enhance visible and physical sense of continuity and cohesiveness of the AHC
- Major entries will be welcoming to all, with clear identification and orientation

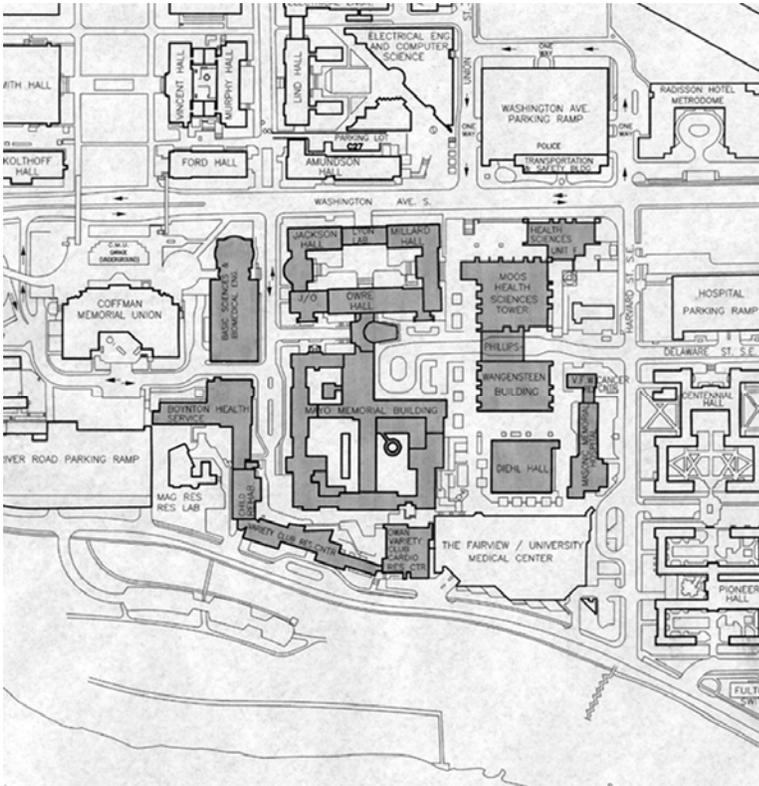
GUIDELINES FOR DEVELOPMENT (Pedestrian Circulation)





Among the key concerns for the Academic Health Center (called the Health Sciences) in the 1996 University of Minnesota — Twin Cities Campus Master Plan, was pedestrian circulation. The plan indicates removing a portion of JOML in order to create student access from Washington Avenue. In addition, movement between Delaware and Church Streets are emphasized. Connecting circulation patterns are also recommended to the River Road. These three issues establish the basis for further development of the AHC Strategic Facility Plan. The emphasis will be on:

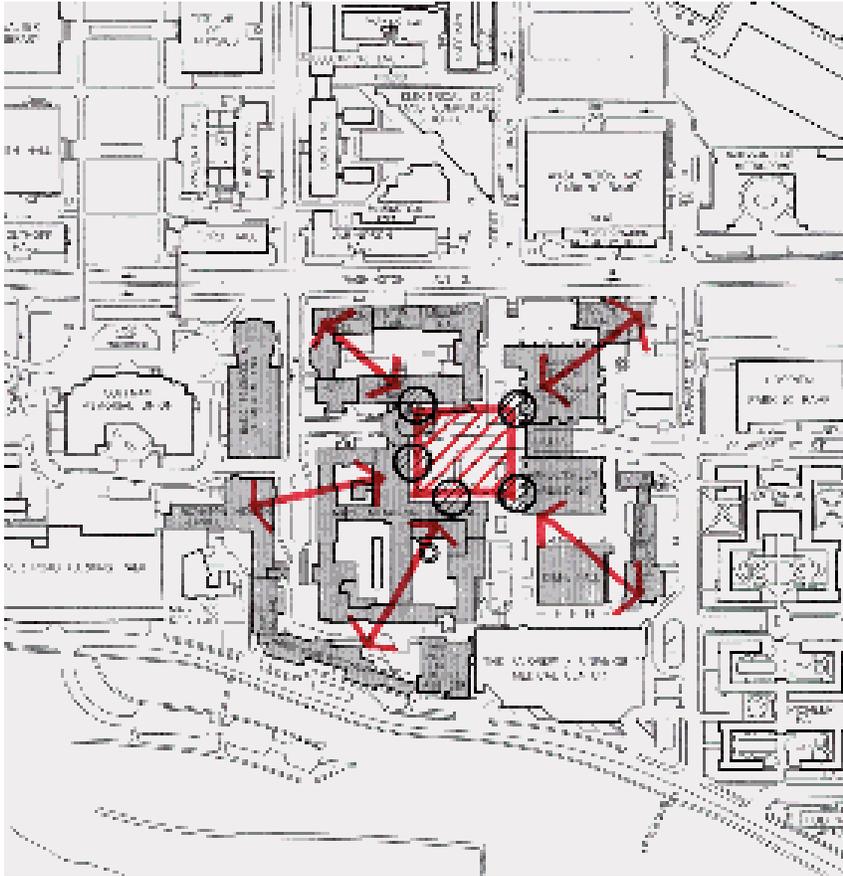
- Access
- Movement
- Circulation



Administrative Centers for each of the schools within the Academic Health Center are located throughout the buildings.

1. Academic Health Center
2. Dentistry
3. Medical School
4. Nursing
5. Pharmacy
6. Public Health

Vet. Medicine (St. Paul Campus)

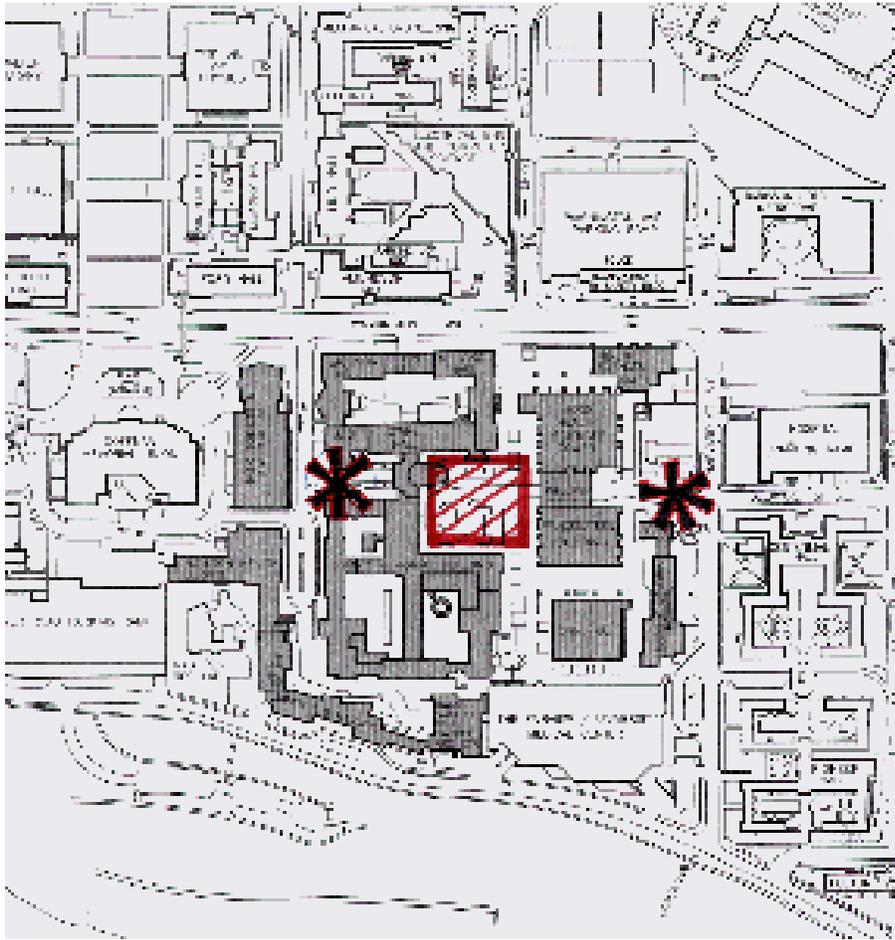
GUIDELINES FOR DEVELOPMENT (Strong Central Focus)

A strong central space should be created in the heart of the AHC. The central space will establish a focal point for orientation to all areas of the AHC. Locating some (or all) administrative functions for each AHC school within or adjacent to this central space will allow all visitors to easily access the separate schools. This space will also become a collegial area for interaction among students, faculty, administrators, and the larger university population. It should provide classrooms, as well as study areas and retail sales.

Key factors for this concept are:

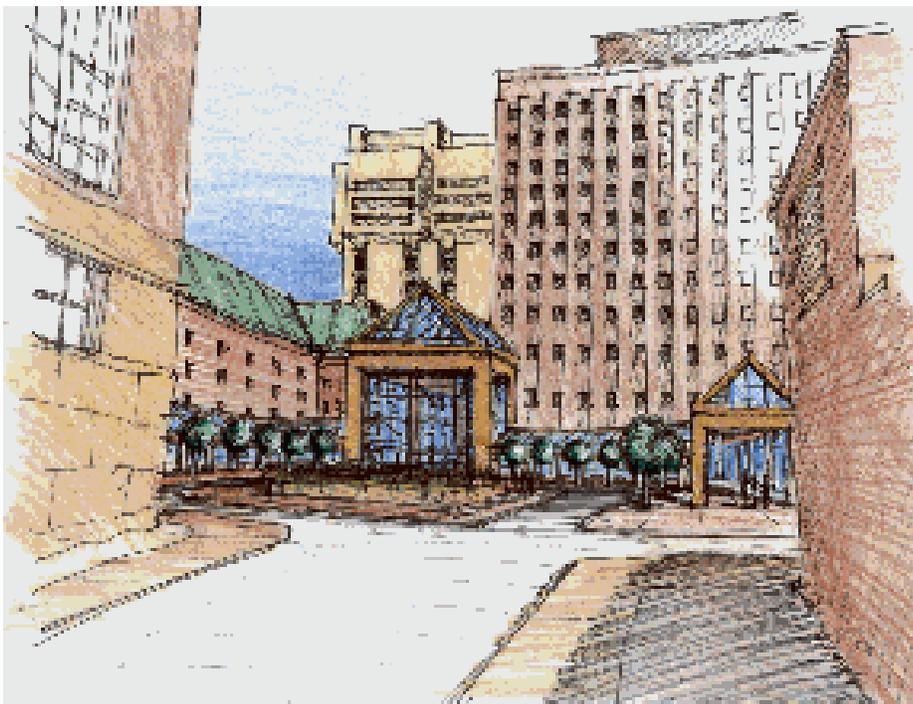
- *Relates strongly to U of M Master Plan*
- *Solve core challenges for student focus*
- *Space is available for productive use.*
- *Serves as a connecting area for all AHC activities*

GUIDELINES FOR DEVELOPMENT (Entry/Portals)



The creation of two new entry points for drop-off and pick-up will reduce the need for automobile traffic to penetrate into the central area. It will create more flexibility for traffic and thus begin to minimize congestion. In addition, for visitors, it will begin to develop an identity for the AHC.

A major pedestrian entry along Washington Avenue should also be developed as a mid-block plaza/entrance to the AHC. This will also help to enhance the identity of the AHC along Washington Avenue.



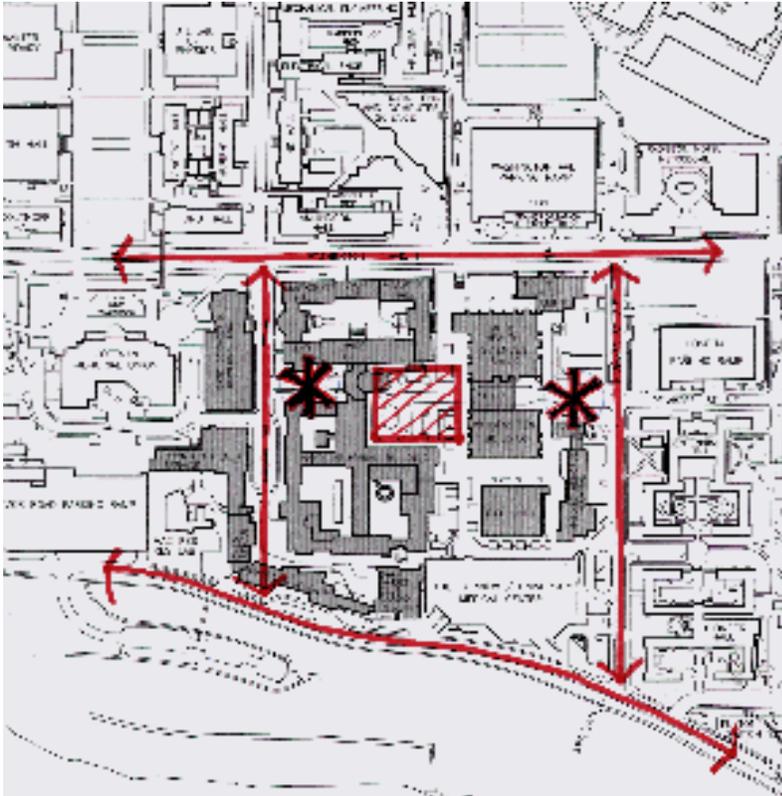
This concept view of a west entry at Church Street, suggests landscaping, entry vestibule, and a covered walkway at an automobile/ circle drop-off.



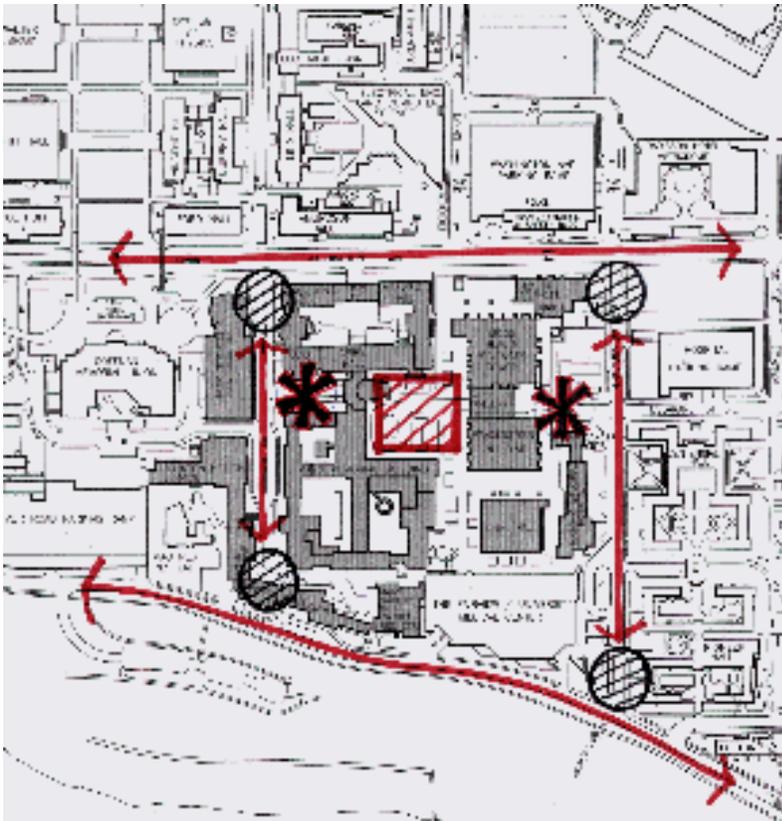
It will be extremely important to create an entry point to the AHC complex that will be a welcoming and exciting transition for pedestrians. These entries should be emphasized as portals to create a 'front door' to the complex.



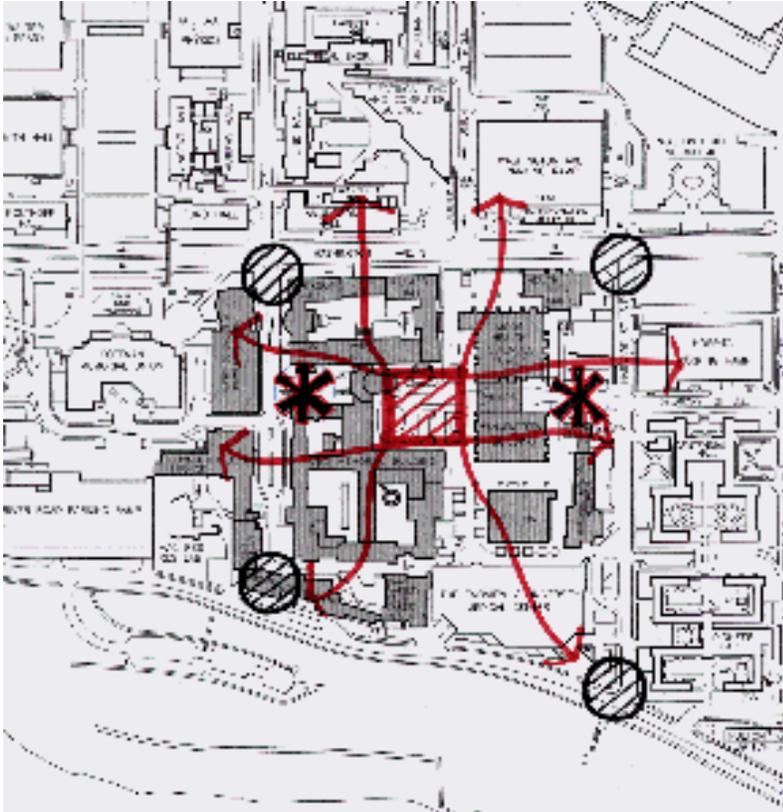
GUIDELINES FOR DEVELOPMENT (Circulation)



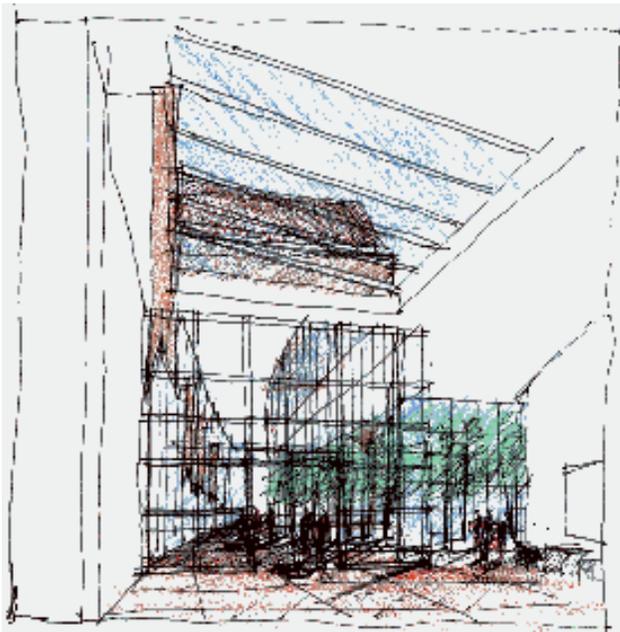
As identified in the U of M Master Plan, circulation should be organized to move in two directions connecting Washington Avenue with the Riverfront. This provides stronger visual, pedestrian, and vehicular connections from Washington Avenue to East River Road at Church Street and Harvard Street. These streets enhance the connections to the Mississippi River Greenway.



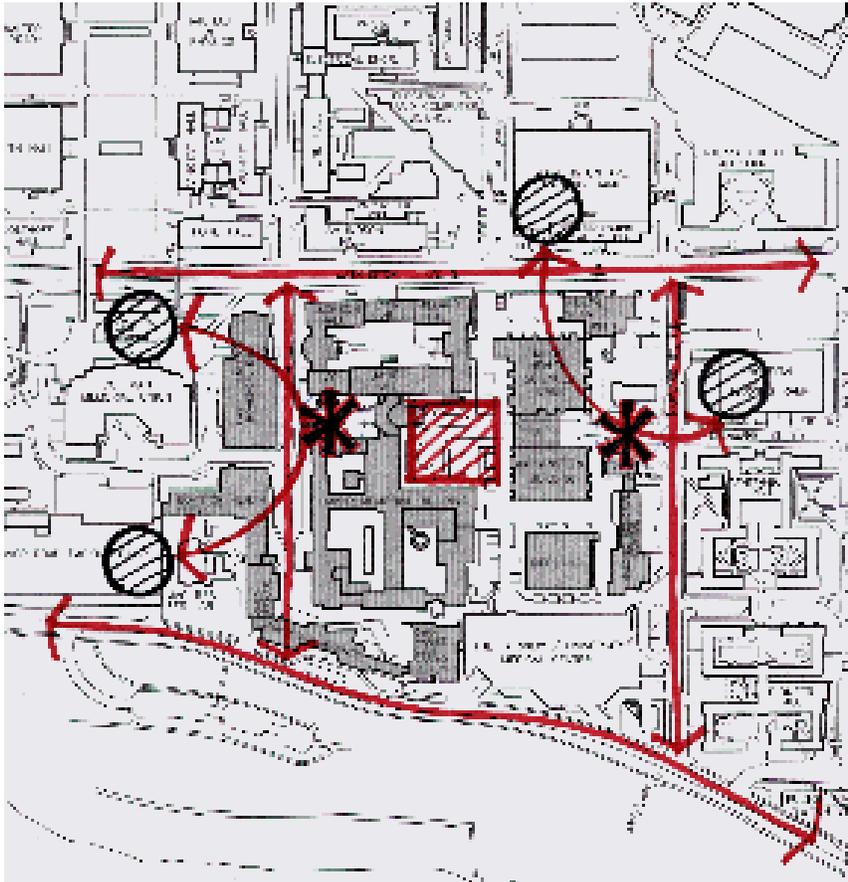
The Academic Health Center should begin an energetic pathfinding identification system at these four key locations. This program should be aimed at the identity of the Academic Health Center and at clear directional instructions.



Maintain and enhance the circulation patterns throughout the AHC, bringing each through the new focal central space, and extending the circulation beyond the boundaries of the AHC.

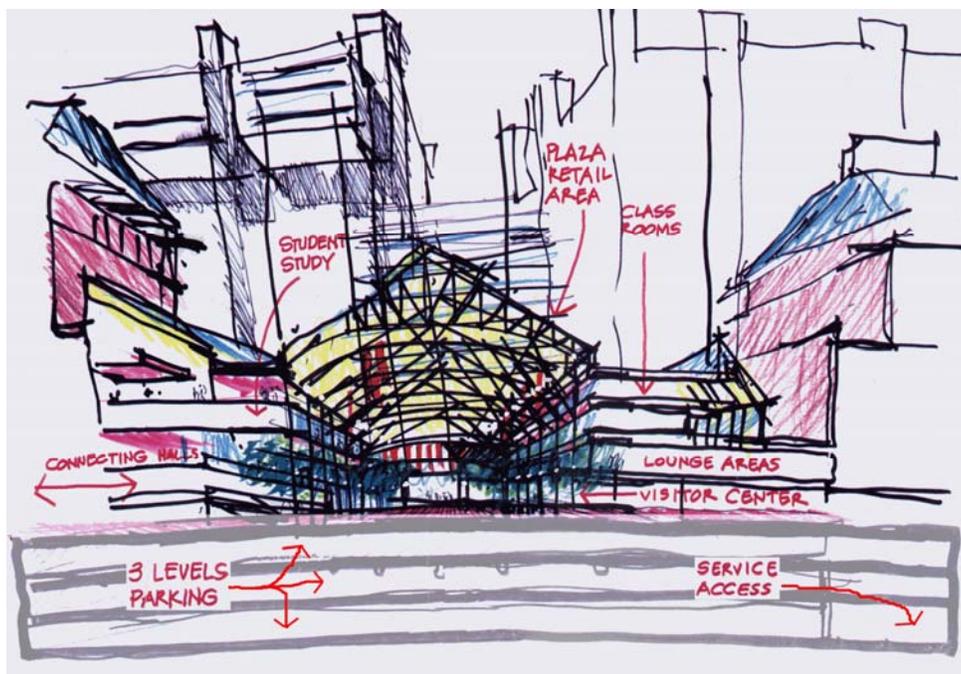


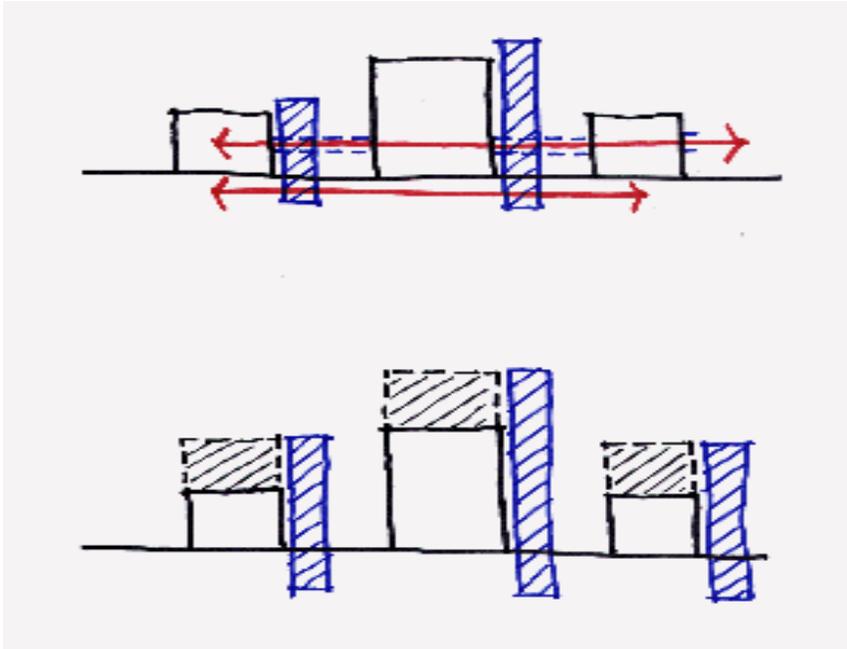
Concept sketch identifying "main streets" with natural light, landscape, exterior views, contact with the student plaza and areas to relax



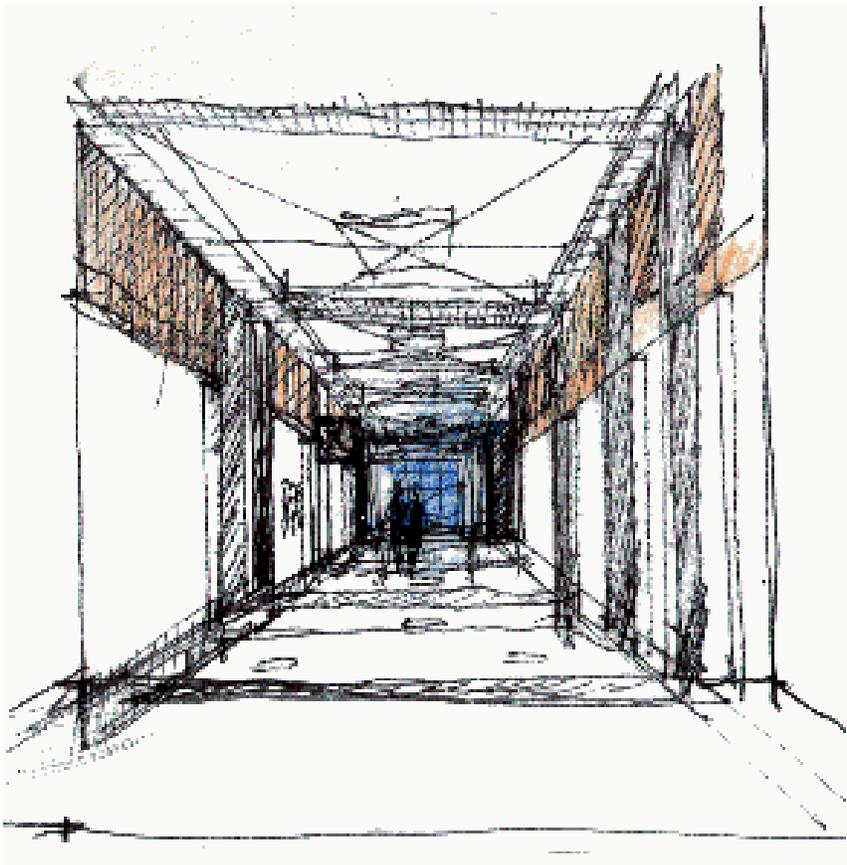
In addition to a central parking area beneath the AHC plaza, care should be taken to maintain and add to the perimeter parking system. Internal AHC parking should be underground or drop-off only. This diagrammatic section below demonstrates the key components of the AHC Central plaza Concept.

- Academic Areas
- Collegial Areas
- Natural light
- Common circulation with all AHC colleges and schools
- Parking beneath



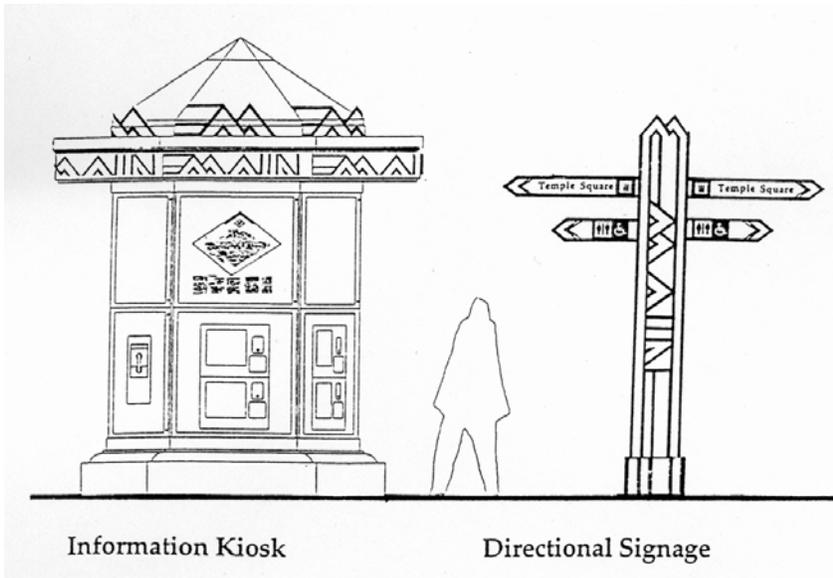


Clarify and enhance the 3 level circulation system established within the AHC at basement, street, and skyway levels. Introduce additional vertical circulation elements at key areas to provide a more straightforward orientation. Consider vertical building expansion where possible, in combination with new circulation elements.



Internal corridors should place strong emphasis on "pathfinding" clarity. They should have architectural articulation and patterns for variety and natural beauty. An "institutional" feel should be eliminated.

GUIDELINES FOR DEVELOPMENT (Identity and Wayfinding Techniques)



Adding new signage or 'wayfinding' communication will help reinforce the identity and clarify orientation within and around the AHC complex

SIGNAGE

Credit to James E. Johnson & Associates



Focusing on existing elements that are familiar within the AHC will also be important to the identity and orientation within the AHC complex. Furthermore, focusing on elements that speak of the complex's history contribute to the AHC's sense of place.



An aerial photograph of the Academic Health Center from the West. BSBE is in the bottom foreground with Washington Avenue on the left and Mississippi River Blvd. on the right.

*The Academic Health Center must create common collegial spaces. It should incorporate consistent architectural language to create an identifiable zone within the University. Circulation for automobile traffic should be kept separate from the central spaces, yet be easily connected. The exterior of these facilities should build on the traditions of the university while finding massing and accent variety to allow individuality. The interior spaces of the AHC should emphasize the **new** Academic Health Center.*



Major Objectives: *How to get there ...*

The Major Objectives of the Strategic Facility Plan focus on how to meet the immediate needs of the Academic Health Center and anticipate future needs. One desired outcome of the plan is to create a space allocation usage and utilization policy that is logical and efficient. The ability to respond quickly with facilities for grant requests is another required outcome. Other objectives include the improvement of AHC classroom facilities, the enhancement and simplification of circulation and wayfinding patterns within the AHC, and the maintenance and improvement of patient access especially subterranean access. The creation of an off-campus property development logic that pays attention to on-campus access is also vital.

The rebuilding of the AHC, with the replacement of the JOML Complex as one step, is a central objective of this plan. The consolidation of the School of Public Health is also a desired outcome. The idea of "a working vision", the provision of ongoing assessment, creates an objective that allows the Strategic Facility Plan to adapt and evolve to meet unanticipated needs.

Major Objectives

- Provide an ongoing assessment "a working vision", with immediate, short and long term goals
- Rebuild AHC with JOML replacement as one of the first steps
- Allocate Fairview release space in a manner to assist efficiencies
- Improve AHC classroom facilities
- Resolve the needs of Public Health consolidation
- Enhance and simplify circulation and wayfinding patterns within the AHC
- Maintain/improve patient access to all areas of the AHC
- Create a space allocation usage and utilization policy
- Create an off-campus property development logic that pays attention to on-campus access

OPTIONS FOR DEVELOPMENT

The next step in Strategic Facility Planning was to create a series of specific objectives for each school and across the AHC that would be consistent with the Basis for Planning as we had developed it. Each school was asked to identify those objectives, develop a list of projects reflecting those objectives, and then rank those objectives according to agreed upon criteria. The objectives and ranking criteria follow here.

Objectives

AHC Wide Objectives

- More space for interscholastic research and education - flexible/adaptable
- Dedicated space for start-up programs
- Major upgrades of information technology networks in all AHC buildings
- Office space that supports the reorganization of administrative services
- Ability to respond to outcomes of FUMC consolidation

Pharmacy

- Increased classroom capacity
- Need small group rooms and flexible classrooms
- Increase office and lab space for additional faculty and grad students
- Renovate space to improve utilization —efficiency and connectivity of programs (reconfigure)

Dentistry

- Maintain contiguity of Dental School
- Wire all classrooms & teaching spaces for Internet
- Improve simulations (virtual reality) capacity- install sim-lab
- Expand office space by 10,000 sq ft and research space by 6,000 sq ft
- Provide space for Endowed Chair in Rural Dentistry
- Expand size, technological capacity, convenience of continuing education facilities
- Improve patient access and internal lay-out of clinic facilities
- Provide space to expand faculty practice clinic
- Planning for facility redesign based on new delivery of dental education

Medical School

- JOML swing space
- Dean's office space relocation
- Development of education center for 35,000 sf
- Ability to respond competitively with appropriate research facilities in recruiting new faculty
- Biomedical library

Nursing

- Space for research project to support new centers of excellence
- Reconfiguration of existing space to support new centers of excellence
- Expand student study & lounge spaces
- Space to support diversification of faculty & student body
- Staff support & lounge spaces

Veterinary Medicine

- Wire all classrooms and teaching spaces to provide access to Internet
- Redesign 2 large classrooms to support current and future teaching needs
- Establish a Biologic Containment Level 3 Isolation Facility
- Redesign the Animal Housing Facilities to allow AAALAC Accreditation
- Make research lab renovations to support ongoing and future research needs (5,000 sq.ft.)
- Construction of a state of the art Intensive Care Unit for the Small Animal Hospital
- Correction of current functional and health & safety deficiencies in the ventilation and heating system in the VTH
- Provide a safe and convenient examination area for equine patients
- Construct an ITV room for Continuing Education/Extension
- Establish an Educational Commons Area for faculty, student and staff to meet, socialize and plan (proposed in old Dairy Barn)

Public Health

- Refurbish space vacated by Health Care Administration
- Increase space to meet programmatic needs
- Consolidation of all Public Health functions into one Building

Implementation Strategies

After developing the list of objectives, a plan for discussion of each school's and the AHC's objectives was set in order to ensure that all schools and objectives were represented in developing a Comprehensive Plan. The following Seven-Step Process explains the schedule used for this discussion, the Implementation Strategy.

AHC Strategic Facility Planning Implementation Strategy Seven-Step Process

| | <u>Who</u> | <u>By when</u> |
|--|--------------------|----------------|
| Step 1 Identification of requirements to meet strategic Objectives | Deans | Complete |
| Step 2 Apply standardized criteria and develop priority listing by Advocate | Advocates | Complete |
| Step 3 Presentation / debate of all requirements by advocates to The Strategic Facility Plan Steering Committee. This committee will formulate AHC-wide recommendation to the Senior Vice President and Dean's Council | Advocates | Complete |
| Step 4 Forecast available funds and funding assumptions. Determine financing model for prioritized projects within. Examples of categories of fundraising are: <ul style="list-style-type: none"> o State Funding o Self-funded o Creative Financing o Development | CFO | |
| Step 5 Create alternative financing options | CFO | |
| Step 6 Present recommended implementation and financing strategies to the Senior Vice President and Dean's Council | Director | 5/14/98 |
| Step 7 Ongoing assessment of Objectives | Steering Committee | ongoing |

Projected Projects

AHC EDUCATION

Goal: To enhance the competitive relevance and position of the AHC

- Faculty offices need to be accessible to students
- Improve all AHC classrooms
- Create space allocation usage and utilization policy
- Rebuild AHC with JOML replacement as Step 1
- Use curriculum driven design in all renovation and new building projects (function determines structure)
- Enhance the quality and habitability of spaces by using natural light and fresh air
- Create student gathering spaces
- Create spaces that aesthetically foster learning

| Projects | Cost | Source | Scope | Operations |
|---|------------|--------|----------------------|--|
| Renovation and or relocation of teaching labs including Gross Anatomy, Neurology, Histology, Physiology and Neuroscience | \$9.3 mil. | | Immediate | Establish maintenance standards for all classroom facilities and enforcement by zone FM. |
| Develop new AHC Student Center and Education commons to include student lounges, study spaces, continuing and interactive education activities, small group rooms, computer rooms, seminar rooms, consolidated student services etc. and renovate student commons area on St. Paul campus | 12.6 mil | | Short-Long Term | Establish Educational Services Organization for increased control, authority and accountability over classroom access, scheduling and support services |
| Renovation of existing school classrooms-Vet Medicine, Nursing, Pharmacy, Public Health, centrally scheduled | TBD | | Immediate-short term | |
| Create hi tech virtual teaching labs including dental patient labs | TBD | | Short term | |
| Renovation of Biomedical Library | TBD | | Immediate-short term | |

AHC RESEARCH**Goal: To enhance the competitive relevance and position of AHC**

- Have the ability to respond quickly with facilities for grant requests
- Create adaptability in facility design and use for future requests
- Optimize existing space
- AHC needs vital spaces which are responsive to program needs
- AHC is an institution that cares about its people—this should be reflected in the research facilities designed and built
- Create “short streets” between clinical and basic science researchers
- Facilities should aesthetically foster learning, collegiality and discovery.

| Projects | Cost | Source | Scope | Operations |
|--|-------------|---------------|----------------------|--|
| Create a biologic containment facility at vet med and equine exam area | TBD | | Short term | Make maximum use of what we have |
| Renovate existing labs for Vet Medicine, Molecular Medicine, Genetics, Developmental Biology, Pharmacy, Public Health, Endowed Chair in Rural Dentistry to support NIH and other sponsored funding | TBD | | Immediate-short term | Provide incentives for shared space |
| Create a pool of research labs for recruitment and retention commitments and interscholastic opportunities | TBD | | Immediate-short term | Develop space allocation program for use across the AHC that optimizes current occupancy |
| Improve space and utilization for Research Animal Resources | TBD | | Immediate-short term | |
| Increase Square footage available for AHC research programs by 20% | TBD | | Short-long term | |

AHC CLINICAL AND OUTREACH

Goal: to improve competitive position of clinical and outreach services for all health professionals in the AHC

- Develop ways for facilities to respond quickly to market opportunities
- Create “short streets” between clinical/basic science research
- Create off-campus property development that pays attention to on-campus access (i.e. off-campus clinics)
- Clinical Service improvements to be funded by clinical revenues when feasible

| Projects | Cost | Source | Scope |
|---|-------------|---------------|----------------------|
| Renovation of clinical areas including School of Dentistry’s clinical areas, CUHCC Clinic and Clinical Research Center | TBD | | Immediate-Short term |
| Provide consolidation and expansion opportunities for identified clinical services including University of Minnesota Transplant Institute, KDWB Variety Family Home and Cardiology Services | TBD | | Immediate-Short term |
| Develop relocation plan for UMP Clinic | | | Short-term |

OFFICE

Goal: Enhance the office environment to promote faculty and staff creativity, excellence and productivity

- Improve the quality and habitability of office spaces
- Optimize existing space
- Faculty and staff need clean and properly working facilities
- Use program driven design in all renovations
- Faculty offices should be accessible to students
- Create relationships between labs/offices/classrooms

| Projects | Cost | Source | Scope | Operations |
|--|-------------|---------------|--------------------------------|--|
| Renovation of existing offices | TBD | | Immediate-short term-long term | Establish maintenance standards for all offices and enforcement by Zone FM. |
| Increase square footage available for AHC offices by 27% | TBD | | Long term | Develop space allocation program for use across the AHC that optimizes current occupancy and assigns new space fairly. |
| Develop opportunities to improve departmental efficiency by reassigning space that allows for consolidated programming | TBD | | Immediate | |

AHC CONSOLIDATION

Goal: To enhance the competitive relevance of programs that are geographically dispersed or in facilities that no longer support them by creating opportunities for physical consolidation and or plans for renovation that will allow for more effective use of the space we have

- Rebuild AHC with JOML replacement as Step 1
- Create adaptability in facility design and use for future requests
- Use curriculum driven design in all renovation and new building projects
- Enhance and simplify circulation patterns within the AHC
- Create a common denominator place for all AHC schools and programs
- Optimize existing space
- Create connectedness

| Projects | Cost | Source | Scope | Operations |
|--|------|--------|----------------------|--|
| Public Health consolidation | TBD | | Immediate-Short term | Increase efficiency of all school operations |
| Planning for facility redesigns -Dentistry -Nursing -Pharmacy | TBD | | Immediate | Reduce overall lease costs |
| Consolidation of Lab Medicine and Pathology, Hematology/Oncology, Bone Marrow Transplant and Med/Derm/Neuro Administration | TBD | | Immediate-Short term | |
| Relocation of Center for American Indian and Minority Health | TBD | | Short term | |

AHC INFRASTRUCTURE

Goal: Establish an efficient and effective support services infrastructure across the AHC

- Create space allocation usage and utilization policy
- Enhance and simplify circulation patterns within the AHC
- Create a common denominator place for all AHC schools and programs
- Create a welcoming image for AHC students, faculty, patients and visitors
- Enhance the quality and habitability of AHC spaces
- Optimize use of existing space
- Faculty and staff need clean and properly working facilities
- Develop and implement improved wayfinding
- Improve patient/visitor access and orientation
- Improve parking and traffic around the AHC

| Projects | Cost | Source | Scope | Operations |
|--|-------------|---------------|----------------------|---|
| Develop signage and corridor upgrades throughout AHC mainstreets (interior and exterior) | TBD | | Immediate-Short term | FM Zone |
| Develop IT plan for AHC including research computing | TBD | | Immediate-Short term | Parking and Transportation |
| Replace Mayo garage | TBD | | Short term | Environmental Health and Safety |
| Develop improved access and entry programs | TBD | | Short term | Develop space allocation program for use across the AHC |
| Develop security program for AHC | TBD | | Short term | |

Comprehensive Planning Worksheets data can be found in Appendix A

Special Reports

JOML

PROJECT DESIGN STATEMENT

The Molecular and Cellular Biology Building is one of the University of Minnesota’s higher priorities and is the keystone facility for the University’s efforts to enhance its national stature in the biological sciences. The building will provide research space for 60 scientists and 360 research staff focused primarily on Molecular and Cellular Biology. In addition, this project will provide classrooms and instructional laboratories for undergraduate, graduate and professional students. The total project will contain 230,000 SF of new research and classroom space. It will initiate the replacement of Millard, Owre and Lyon Halls; 225,000 SF of the 350,000 SF JOML complex. These buildings have been repeatedly determined as unsuitable, economically and functionally, for reuse as laboratory space. This project is vital to the continued physical renewal and upgrade of the Academic Health Center.

| | |
|---|--------------------------------|
| New Construction | 230,000 SF |
| Demolished or Decommissioned Space | 225,000 SF |
| Estimated Project Cost | \$70 Million |
| Completion | January 2002 |
| Estimated Increased Operating Expenses | Up to \$230, 000 savings/year* |
| * Resultant savings from removal of 225,000 SF of the 363,000 SF JOML complex | |

PROJECT BACKGROUND

SUMMARY OF THE STATUTORY REQUIREMENTS

The statutory mission of the University of Minnesota is to offer undergraduate, graduate and professional instruction through the doctoral degree, and be the primary state supported academic agency for research and extension services.

The mission of the University is threefold: research and discovery, teaching and learning, and outreach and public service. The mission of the University of Minnesota Twin Cities Campus is to be a comprehensive university providing extensive professional, graduate and undergraduate educational programs in liberal arts, fine arts, education, business, human services, science, engineering, architecture and the health sciences.

Research, lifelong learning opportunities and community outreach activities are also part of the UM Twin Cities Campus mandate.

There are no specific statutory mandates applying directly to molecular and cellular biology programs.

SUMMARY OF OPERATIONAL PROGRAM

On the Twin Cities campus, the University's molecular and cellular biology programs are the responsibility of the College of Biological Sciences (CBS), the Medical School and other schools of the Academic Health Center (AHC) and the College of Agriculture, Food and Environmental Sciences (COAFSES).

The College of Biological Sciences provides instruction at the undergraduate level for students majoring in biological sciences and for non-majors, and instruction at the graduate level both for masters and doctoral degree programs. Its faculty conducts research in the fields of biochemistry; ecology, evolution and behavior; genetics and cell biology; plant biology; and other areas.

The Academic Health Center provides undergraduate, professional and graduate education and conducts research in human and veterinary medicine, dentistry, nursing, pharmacy and public health. Basic science and molecular/cellular biology-based courses are a fundamental component of the health sciences curricula. Basic biomedical research and its translation into clinical advances is fundamental to and a key emphasis of AHC health sciences research. The College of Agriculture, Food and Environmental Sciences conducts research and instruction at the undergraduate and graduate level in agronomy and plant genetics; animal science; biosystems and agricultural engineering; entomology; food science and nutrition; horticultural science; plant biology; plant pathology and soil, water and climate.

The University's strategic initiative in molecular and cellular biology requires significant facility and programmatic investment. It will provide advanced research laboratories for research faculty from the Academic Health Center, particularly the Medical School; faculty research and other highly regarded, recruited faculty for a total of 60. In addition to these principle investigators, there will be 360 research staff and a support staff of 30. The facility will also provide classrooms and instructional laboratories for undergraduate, professional and graduate instruction in the biological and health sciences. The strategic initiative will also require investments in improving St. Paul Campus research facilities whose primary focus is plant and animal biology.

RELATIONSHIP TO THE UNIVERSITY'S ACADEMIC PLAN

Molecular and cellular biology is one of the University's five strategic academic initiatives. Facility and programmatic investments in this area are critical to developing major scientific breakthroughs in the next decade, enhancing the University's international leadership in interdisciplinary biological research and education, promoting economic growth in the state, preparing its students for 21st century jobs, and improving the health and quality of life for the citizens of Minnesota.

Strengthening molecular and cellular biology at the University of Minnesota will build on the existing partnerships among the College of Biological Sciences, the Academic Health Center, and the College of Agriculture, Food, and Environmental Sciences, particularly Microbiology and Plant Biology. It will also require investing in targeted hiring of international leaders in molecular and cellular biology and strengthening

collaborative ties with the Institute of Technology and the College of Science and Engineering in Duluth. As part of the initiative, The University is reorganizing its biological science programs to better integrate efforts and strengthen collaboration across disciplines as the distinctions between fields in both basic and applied biology for plants, animals, and humans fade with advances in our knowledge about the structure of molecules and how cells work.

The Molecular and Cellular Biology Building project supports the primary goals of this strategic initiative by:

1. providing space to reorganize biology's fragmented faculty and unifying key components of the faculty physically and administratively
2. providing state-of-art research and teaching facilities
3. allowing close interaction among faculty and between faculty and students in related areas.

SUMMARY OF NEEDS ANALYSIS AND PLANNING PROCESS

Molecular and cellular biology has undergone a revolution in the past thirty years that has placed it at the forefront of health care, agriculture, and the pharmaceutical industry. It has spawned the biotechnology industry and become a major concern in public policy, law, and environmental matters.

Advances in the fields of molecular and cellular biology have been dramatic, leading to major breakthroughs in developmental biology, genetics, microbiology, molecular medicine, neuroscience, plant sciences, animal breeding and health, and clinical care. Advances in virtually all of these fields are now dependent upon continually expanding knowledge in molecular and cellular biology. Consequently, competition among research institutions is intense.

In contrast to many universities, the University of Minnesota has not made major investments in this area in recent years. This has had many negative consequences. The University's rankings in biology by the National Research Council place it on the average in the top 30 to 40 universities. New industries based on recent technology transfer from cellular and molecular biologists at the University to the private sector are not as well developed in Minnesota, as they are elsewhere, most notably in Massachusetts, California and Washington.

The payback for taking an international leadership role is large, and this project offers a critical strategic opportunity for the University and the state. If the University is to increase its standing in the top ranks of research institutions and continue to have a significant impact on the economy of the state, then the University must significantly increase its efforts in molecular and cellular research and education.

1. To achieve that objective, improved research and instructional facilities for molecular and cellular biology are critically needed because:
2. current research and educational facilities are outdated and inadequate
3. quality research and academic facilities enhance the recruitment and retention of faculty of world-class stature
4. the faculty is spread out across two campuses hindering collaboration
5. many faculty are housed in the JOML complex which has repeatedly been
6. determined as unsuitable for reuse as laboratories.

The existing JOML complex has served as the primary research facility for the Medical School for many years. Its laboratories have been used for research in cell biology, anatomy, biochemistry, physiology, microbiology, laboratory medicine, and pathology. The complex, built incrementally from 1911 to 1958, is in very poor condition and lacks flexibility for adaptation to a contemporary molecular and cellular biological research center. Its floor-to-floor height, floor plate dimensions, column spacing, and general configuration make conversion into a highly technical laboratory and classroom building impossible. Numerous code deficiencies and aging building systems contribute to the problem. In fact, codes for research laboratories have changed so significantly during the life of this complex that it is technically impossible to upgrade the space for laboratory use. A thorough building assessment conducted in 1993 concluded that the cost of correcting all the building's code-related and physical deficiencies would cost \$55 million (in 1993 dollars). Based on the extremely high cost of renovating JOML and its inflexibility for contemporary use, the University has determined that construction of a new facility is a wiser investment than renovating most of the existing structure.

PROGRAMMATIC NEED/MFM RESULTS

All programmed areas for this facility, outlined in Section 3 of this report, meet the criteria established by the Minnesota Facilities Model (MFM). Additional studies of the laboratory/office areas have allowed the assignable area per researcher to be lower than that allowed by the MFM. This efficiency permitted the project to increase the capacity of researchers and other academic and research functions.

ALTERNATIVES CONSIDERED

Several options have been studied regarding renovations. These include major renovations of JOML, Moos, PWB and Mayo Hospital. It is not economically or functionally feasible to satisfy the program by remodeling.

The University of Minnesota's main campus in Minneapolis has only two viable site options for new construction. One is the present JOML site and the second is a site south of Coffman Union (South Mall). The U of M Twin Cities Campus Master Plan requires parking on the lower levels of the South Mall site with housing or other functions above. However, the vibrations generated from parking cannot satisfy the long term needs for a vibration free laboratory space, if the laboratory space is placed above the parking.

Thus, the only viable alternative is the JOML site. This is also the preferred alternative because of its central location within the Academic Health Center (AHC) complex which facilitates greater collaboration between the health and biological sciences. The entire existing JOML complex can be removed but this would eliminate any possibilities for swing space. The final recommended option calls for the partial removal of JOML. This allows for swing space. This location also allows the AHC to redefine its difficult circulation patterns and strengthen connections between the AHC departments and other University units.

DESCRIPTION OF THE PLANNING PROCESS

This facility program is the result of a participatory planning process that included University administrators, faculty members from affected academic programs, representatives of University and Academic Health Center Facilities Management, and architectural consultants. The University's plan for the reorganization of biology and the Academic Health Center strategic plan provided the foundation for facility planning. An interactive

model was used to develop and evaluate alternative concepts for accommodating identified needs and to reach consensus among participants.

FINANCIAL INFORMATION

PROJECT COSTS

The anticipated project budget for the physical facilities required for this initiation is \$70 M. The key budget elements include:

| | |
|------------------------|--------------|
| Construction Cost | \$53,415,500 |
| Demolition Costs | \$ 2,000,000 |
| Non Construction Costs | \$14,575,000 |

ANNUAL OPERATING COSTS

The projected cost of operating the new facility is approximately \$2,314,000 per year based on experience with other high-intensity research facilities, such as the new Basic Sciences and Biomedical Research Building. This represents an increase of approximately \$725,000 per year from the current cost of operating the portions of the existing JOML complex to be replaced by this project.

PROGRAM COSTS

To strengthen the University's molecular and cellular biology programs, \$2 million in new recurring funds are needed to recruit 11 blue-chip faculty. An additional 15 junior faculty will be hired over three years by redirecting positions and funding available to the University due to retirements. \$18 million in one-time funding will be needed for faculty start-ups. These investments are included in the University's supplemental request to the legislature in 1998.

SCHEDULE INFORMATION

IMPLEMENTATION SCHEDULE

The schedule for implementation of the Molecular and Cellular Biology Building and the demolition of JOML is as follows:

| | |
|--------------|-------------------------------------|
| June 1998 | Begin Design Process |
| July 1999 | Bid & Award Contract |
| July 1999 | Begin Demolition and Construction |
| January 2002 | Complete Construction and Occupancy |

FUNDING SEQUENCE

The proposed funding sequence is:

1. Predesign funded by the University during FY 1998
2. Design, construction drawings and construction funding requested of the Legislature for FY 1999-2000

PROJECT DESCRIPTION

SUMMARY OF PRELIMINARY FACILITY PROGRAM

The Molecular and Cellular Biology Building will provide 145,000 assignable square feet of research laboratories, biological support facilities, offices, classrooms, instructional laboratories, and research animal facilities.

About 225,000 GSF of the JOML Building will be demolished to make way for this initial replacement piece. This project is vital to help the University enhance undergraduate education by co-locating these programs with the University's graduate education and advanced research programs. It enables the University to:

1. Focus strategic investment in molecular and cell biology.
2. Enhance the University's national and international reputation.
3. Recruit and retain world-class faculty for the future.

The program for the Molecular and Cellular Biology Building is a direct out growth of the Academic Health Center's operational program and the University's plans for reorganization of the biological sciences. It is part of an overall strategy that is focused on academic excellence and responsiveness to emerging scientific inquiries. It is also part of a strategy to establish a stronger visual sense of place as a focal point for the Academic Health Center as well as enhance connections with other key University departments. The project offers the opportunity to create an identifiable entrance into the Health Sciences area including a "front door" along Washington Avenue. Additionally, a major landscaping area will establish a strong focal point within the Academic Health Center.

The proposed facility program will not satisfy all the programmatic needs identified for the molecular and cellular research and instruction and for the Academic Health Center. A phased approach will be required, with the highest priority areas being housed in this new facility. Efficiency in the layout and design of the laboratory and instructional environment will be critical to the success of the building.

STATEMENT ON TECHNOLOGY AND TELECOMMUTING PLAN COMPLIANCE

The University of Minnesota is a separate entity under the law and is not considered to be a "state agency" or "agency". Therefore, the following statutes do not cover the University of Minnesota:

Minnesota Statutes 16B.335, Subd 5 (1994)

Minnesota Statutes 115.95, Subd 10

Laws of Minnesota for 1992, Chapter 513, Article 4, Section 23

FM Service Review Team

Background

In response to the University of Minnesota Academic Health Center initiative, "to arrange and manage AHC facility resources so that our mission in education, research and service is fully supported by a well managed, cost effective and efficient environment," the Facility Management Service Review Team was created. The team's charge has been 1) to define service goals and standards, 2) to identify operative problems and barriers to service, 3) to identify quality improvement indicators, and 4) to recommend best operating practices.

The team decided that the following services would be considered in its discussion:

| | |
|---|--|
| <input type="checkbox"/> Custodial Services | <input type="checkbox"/> Security |
| <input type="checkbox"/> Maintenance | <input type="checkbox"/> Parking |
| <input type="checkbox"/> Construction management/renovation | <input type="checkbox"/> Environmental health and safety |
| <input type="checkbox"/> Project planning | <input type="checkbox"/> Lab safety |
| <input type="checkbox"/> Waste management | <input type="checkbox"/> Fire and safety |
| <input type="checkbox"/> Keying/key control | <input type="checkbox"/> Signage |
| <input type="checkbox"/> Temperature control | |

To review facility services thoroughly and thoughtfully, the team:

- Held meetings to identify issues and to consider options
- Heard presentations from University Facilities Management and AHC Facilities Management staff members
- Included participation by University and AHC Facility Management Staff
- Reviewed the "Facilities Management Services Guide, Fall 1996"
- Reviewed the "Facilities Management Custodial Service Levels" document
- Reviewed the report on "Operation and Maintenance for Facilities at the University of Minnesota: Recommended Principles and Practices, May 1994" (the Brenner Report)
- Toured the Zone 3 Facilities Management Office and work spaces
- Developed case studies to illustrate certain types of issues and situations
- Surveyed the AHC college and school Space Review Teams
- Sought and received input from the AHC Student Consultative Committee

Facilities Services Organization

Facilities Management

The University of Minnesota Facilities Management (U-FM) department delivers its services to the Twin Cities campuses through six zones, each having its own administrative and skilled staff. U-FM has five divisions: planning, the university architect, finance, human resources and operation.

The Facility Management zones are the customer's single access point to all services. Zone 3 is responsible for the School of Dentistry, the School of Nursing, the Medical School, the College of Pharmacy and the School of Public Health on the Twin Cities campus. Zone 1 is responsible for the College of Veterinary Medicine on the St. Paul campus. The University of Minnesota-Duluth is responsible for facilities management for the School of Medicine-Duluth, which is part of the Academic Health Center.

Preventative maintenance is a significant responsibility for U-FM and its zones. This function alone accounts for 65% of its work. Repair and maintenance accounts for 35%.

Academic Health Center Facilities Management

The University of Minnesota Academic Health Center has also established a Facilities Management Office (AHC-FM), organized in 1997 under the leadership of Dr. Frank Cerra, Senior Vice President for Health Sciences. This office is responsible for AHC strategic facilities planning, space assignments, remodeling coordination and support for the Senior Vice President for Health Sciences.

Department of Health, Safety and Transportation

Other University operations deal with facilities-related issues, especially the Department of Health, Safety and Transportation, which has the responsibility for security, the University police, emergency services, environmental lab and safety, hazardous waste disposal and parking.

Other

A few facilities-related responsibilities, such as internal/external signage and classroom scheduling, have no single university "home," but are split among several departments or programs.

GUIDING PRINCIPLES

The following guiding principles are the foundation for the recommendations in this report:

1. Customers should receive the best possible service.
2. Service should always come before bureaucracy.
3. Timeliness and responsiveness should always be priorities.
4. Collaboration and cooperation are imperative.
5. Communication is an essential element of success.
6. Students should always receive immediate attention.

RESPONSE TO THE TEAM'S CHARGE

To define service goals and standards

- The team generally supports the Brenner recommendations on facilities operations and maintenance. U-FM and AHC-FM must take the next steps to update and clarify those recommendations.
- U-FM, in collaboration with University constituencies, must articulate custodial standards within its reach and cease using the document that describes its vision for custodial services. As U-FM is able to add or expand services, those changes will be reflected in its standards.
- The senior vice presidents for finance and health sciences should resolve construction management issues prior to demolition and replacement of the Owre-Millard-Lyon complex. The U-FM zone managers and AHC-FM director will implement the decisions of the senior vice presidents.
- U-FM and AHC-FM should develop a plan for defining, communicating and achieving service goals in the AHC. The plan must include a description of "customer."
- U-FM and AHC-FM must work closely with the Department of Health, Safety and Transportation on environmental health, security, parking and other issues within its jurisdiction. Objectives in these areas should be included in the service plan.
- The Academic Health Center must develop an internal and external signage plan in collaboration with appropriate University representatives, University of Minnesota Physicians and Fairview-University Medical Center.

To identify operative problems and barriers to service

- The senior vice presidents for finance and health sciences have not clearly defined the relationship between U-FM and AHC-FM
- A master facilities plan for the Academic Health Center does not exist
- U-FM, AHC-FM and the Department of Health, Safety and Transportation do not coordinate, collaborate or communicate well with each other.
- Roles and responsibilities are ill defined. Customers are confused.
- Construction management of and commissioning for the Cancer Center and BSBE projects have been problematic. Unresolved issues remain in both projects.
- No custodial standards exist. Custodial worker productivity is lower than expected. Service is inconsistent across the AHC.
- U-FM often does not complete many maintenance and small projects in a timely manner. In many cases, customers are not notified of the reasons nor are they given specific alternate dates for completion.
- Students have no clear process to resolve their facilities issues.
- U-FM fees and cost estimates often seem high. Customers are not allowed to seek other bids without approval of U-FM.
- No financial oversight exists for facilities planning and management. Too many sources of funds exist with little, if any, strategic financial thinking behind the uses of money. The U-FM zones have budgets; AHC-FM has a budget; the schools and colleges have budgets; departments and programs have funds for facilities.
- The creation of the AHC-FM office has the potential to delay the completion of work and confuse the process for customers to access facilities services.

To identify quality improvement indicators

- An approved master facilities plan for the Academic Health Center and agreement between the senior vice presidents on the division of responsibilities
- A highly coordinated and collaborative facilities services enterprise whose structure is invisible to the customer
- Happy students and satisfied customers
- Facilities managers in the schools and colleges who have a clear understanding of process and procedures
- Frequent communications with U-FM customers whose projects have been delayed
- More effective planning, construction and occupancy of new buildings
- Clean and well maintained classrooms, offices and public spaces
- A new FM computer system is in place, is operational and improves customer service

To recommend best operating practices

- The senior vice presidents or their designees must determine policy, define roles and responsibilities, and resolve disputes.
- U-FM/AHC-FM must develop a joint facilities plan to assure a coordinated, collaborative and highly effective facilities management delivery system.
- U-FM and AHC-FM must communicate effectively with 1) each other, 2) faculty and staff, 3) students 4) University administration, 5) AHC school and college facilities managers and 6) AHC leadership.
- All U-FM information regarding AHC projects and work orders should be accessible on-line by AHC-FM; all AHC-FM lists and information should be accessible on-line by U-FM.
- An AHC facilities advisory group should be established and meet monthly with U-FM and AHC-FM to discuss priority issues. Immediate action on important concerns should be taken after each meeting.
- Service should never be compromised or delayed because of bureaucracy or administrative differences of opinion. The customers' needs must always be the priority.

SPECIFIC FINDINGS AND RECOMMENDATIONS

Roles and Responsibilities

Finding #1: Confusion exists regarding various roles, responsibilities, financing and accountabilities in facilities services.

Recommendations:

1. The senior vice presidents for health sciences and finance should immediately define roles and responsibilities between U-FM and AHC-FM. They may designate senior administrators to act on their behalf.
2. The senior vice presidents should direct their staffs further to clarify roles, responsibilities, authority and accountabilities among University Facilities Management, the zone leadership, the AHC Facilities Management Office, the Department of Health, Safety, and Transportation, and the other offices providing facilities related services.
3. Generally, the team recommends that U-FM remain the service provider and the first contact for individuals in need of service. AHC-FM would have planning and oversight responsibility as well as

serving as a "super customer" of U-FM. This might mean problem-solving, advocating, resolving financial disputes and raising policy issues. AHC-FM is also responsible for supporting the priorities of the senior vice president for health sciences and implementing the AHC's new strategic facilities plan.

Finding #2: Little collaboration exists among the managers in the AHC-FM, U-FM zones 1 and 3, UMD-FM and the Department of Health, Safety and Transportation. This causes conflicts among staff and confusion among the customers of facilities services.

Recommendations:

1. The senior vice presidents should charge the managers in U-FM zones 1 and 3, UMD and the AHC Facilities Management director to develop and implement a collaborative service model based on the results of the role clarification process. Evaluate the model annually.
2. Ask U-FM and AHC-FM to prepare and distribute a joint publication outlining roles and responsibilities. Post the brochure copy on appropriate web sites.
3. Have the senior vice presidents' designees resolve conflicts that may arise.

Service Delivery

Finding #1: While U-FM Zone 3 completes the majority of its assignments to the customers' satisfaction, there are still serious concerns about the responsiveness of the zone office and the timeliness of its services.

Recommendations:

1. U-FM should accelerate existing plans to streamline processes within the zone offices. This includes the consolidation of the planners/schedulers and the operations supervisors into a single position.
2. U-FM should accelerate existing plans for a new computer system. Give AHC-FM on-line viewing access to facilities services work orders and records.
3. U-FM should automatically assign work order numbers when a call is first taken by U-FM. U-FM should inform the caller of the work order number and explain the process of using the number if the caller wants information on the order at a future time.
4. U-FM should give next day priority to jobs scheduled, but cancelled, on a given day. Exceptions may be made if there has been an emergency or another irregular occurrence.
5. U-FM should immediately inform the customer/client if a job cannot be completed in a timely manner or if there is a delay.
6. U-FM should create a customer service "hotline" to answer questions and check on requests.

Finding #2: Students have difficulty resolving facility issues, such as uncomfortable classroom temperatures and poor quality of custodial services in student lounges.

Recommendations:

1. U-FM should assign a staff member responsibility for student issues. Calls from students to the zone office should be immediately referred to the assigned staff member.
2. U-FM should post signs in classrooms and student spaces telling occupants to call U-FM if there are any problems.
3. AHC-FM and U-FM should meet regularly with the AHC Student Consultative Committee and C.H.I.P. to discuss student-related facilities issues.

Finding #3: No custodial standards exist for the University. There is a set of standards to which custodial services aspire (APPA 2), but no current expectations are defined. Generally, custodial services do not meet expectations and are inconsistent across the Academic Health Center.

Recommendations:

1. U-FM should establish reasonable custodial standards that can be applied adequately and consistently across the University.
2. U-FM should explore a wider use of the custodial model now in place in the BSBE building.
3. U-FM should exercise more supervision over custodians to assure a specific quality of work.
4. U-FM should strive to increase worker productivity.
5. U-FM should assign break spaces for workers. Workers should not be allowed to lounge in public areas.

Finding #4: U-FM does not assess customer satisfaction regularly or comprehensively.

Recommendation:

1. U-FM, in collaboration with AHC-FM, should evaluate customer satisfaction on an annual basis.
2. The survey results should be published in AHC periodicals.
3. U-FM and AHC-FM should work together to improve service based on the survey results.

Finding #5: Costs and the question of "who pays" are serious concerns across the University. U-FM's policy of charging for construction cost estimates is also criticized. IN most cases, there are good reasons why the cost estimates are high (building codes, union requirements, labor rates, etc.) for maintenance or renovation projects.

Recommendations:

1. U-FM should explain to customers why cost estimates are so high, if that is the case. The explanation should be in writing and submitted along with the estimate.
2. U-FM should post standardized prices for commonly done work on the Internet.
3. U-FM and AHC-FM should determine who pays the costs associated with public spaces and classrooms.
4. The AHC should be allowed to seek outside estimates and contract the work with a vendor if 1) the price is lower and/or 2) the work can be done in a more timely manner. This may require a change in Regent's policy.
5. U-FM and AHC-FM should determine Zone 3 spending priorities together to assure maximum impact for the investment of the limited funds available to maintain and repair facilities.
6. AHC-FM should work closely with the departments and programs to monitor, oversee and report on facilities spending in the seven schools and colleges.

-

Construction Management/Renovation

Finding #1: The Academic Health Center has concerns about the way in which the University manages construction projects. These concerns are primarily based on unresolved problems associated with the Cancer Center and the Basic Sciences Building.

Recommendations:

1. The offices of the senior vice presidents need to resolve outstanding issues related to construction management. Given the potential for legislative funding for a new molecular biology building, this should be a priority.
2. U-FM and AHC-FM should organize a Basic Sciences/Biomedical Engineering building debriefing. The debriefing team would revise University standards and guidelines, procedures for review and comment, and processes for construction supervision. The lessons learned in the debriefing should be applied to the construction of the new molecular and cellular biology building.
3. Whatever the division of responsibility between U-FM and the Academic Health Center, the party assigned construction management authority will be responsible for financing solutions to problems related to the project discovered after the completion of the building.
4. We should learn from experience. Lessons from recent construction projects should be factored into planning for any new construction.

Finding #2: New building commissioning has been undertaken after construction is nearly complete. Given the problems in the Cancer Center and BSBE, this seems too late.

Recommendation:

The University must hire commissioning agents early in the design process. The commissioner should review the schematic design and follow design development.

Finding #3: Poor equipment choices were made in the BSBE building, including eye wash stations, necropsy tables, glass washing and drying. Some equipment was unnecessarily expensive.

Recommendation:

The AHC should retain the responsibility for selecting equipment.

Finding #4: Some occupants of the BSBE building have complained that its features do not efficiently address their needs.

Recommendation:

During program development, an AHC users group should be formed to interact with architects and engineers, building code officials, and the Department of Environmental Health and Safety. The AHC group would describe the needs of researchers, review design proposals, answer design related questions and help to select design alternatives.

-

Communications

Finding #1: The University community remains confused about U-FM and the zone system that remains widespread despite U-FM's effort to communicate. Even U-FM's listing in the University directory is difficult to understand. This confusion has increased as a result of the creation of the AHC-FM office.

Recommendations:

1. A single U-FM/AHC-FM communications plan should be developed to assure that customers understand roles and responsibilities, know how to access services and receive information about policies, practices and new services.
2. U-FM/AHC-FM should identify contacts in each AHC School, college and program that have responsibility for facilities.
3. U-FM/AHC-FM should meet regularly with those individuals who are responsible for space and facilities in the AHC schools and colleges. Minutes from the meetings should be distributed to department heads, program directors, deans and the senior vice president for health s and his staff.
4. U-FM/AHC-FM should use existing AHC communications vehicles (i.e.?News Capsules and AHCommunity News) for announcements or to convey facilities information. An e-mail newsletter to a limited audience could be used for more technical information.
5. U-FM/AHC-FM should pay special attention to assuring a flow of communications about facilities issues managed by other offices, such as parking and security.
6. The FM zones should host open houses and give tours of their operations to increase an appreciation for the challenges of facilities management.

Finding #2: Customers often have difficulty communicating effectively with U-FM. For example, there are occasions when it takes many customer calls and contacts to track and complete a single job.

Recommendations:

1. Each Friday, U-FM should contact customers with unfinished projects updating them on the status of requests.
2. When a student calls the zone office, the call should immediately be forwarded to a staff person who "owns" student issues. U-FM and AHC-FM will work together to respond to student calls.
3. AHC-FM should serve as an advocate for AHC faculty, staff and students who are having difficulty with U-FM. The zone managers and AHC-FM should work together to resolve these issues. AHC-FM should be copied on the weekly status updates.
4. U-FM should post signs in public areas and classrooms saying "If there is a problem with this room, please call 624-2900."

Finding #3: U-FM and AHC-FM do not communicate with each other.

Recommendations:

1. U-FM zones and AHC-FM staff should meet once a month to identify opportunities and to resolve issues. Minutes of those meetings should be forwarded to the designees of the senior vice presidents.
2. The U-FM zone managers and the AHC-FM should seek each other's expertise when dealing with important facilities issues.

Other Issues

Finding: Parking remains a controversial issue at the University, but is not within the authority of U-FM.

Recommendation:

AHC-FM should engage in a study of parking and a review of the waiting lists. This is especially important given the plans for reconstructing the south mall of the University.

Finding: Internal and external signage is outdated and inadequate.

Recommendation:

U-FM and AHC-FM should develop a strategic signage plan in collaboration with appropriate University officials, the AHC Office of Communications, Fairview-University Medical Center, and University of Minnesota Physicians.

CONCLUSIONS

The Team's conclusions are simple: Baseline facilities management decisions must be made between the senior vice presidents or their designees; U-FM, AHC-FM and the Department of Health, Safety and Transportation must implement those decisions collaboratively to achieve the necessary objectives; communications must be improved; and the needs of customers must always be the priority.

The University is very fortunate to have capable and dedicated individuals staffing facilities management operations across the University. The next step is to create a cohesive and coordinated effort that results in improved facilities for us all.

Appendix A: Comprehensive Planning Sheets

Ranking Criteria

Ranking Criteria were developed utilizing, in part, the State of Minnesota / University of Minnesota Legislative criteria as a model. Additional criteria specific to the AHC were also added. A criteria "score" was created, first through the evaluation by the individual school, and secondly through an open presentation / discussion among members of the Steering Committee.

The criteria are summarized below.

Critical Criteria:

- Critical Life Safety Emergency — corrective action is deemed urgent and unavoidable
- Critical Legal Liability — Known and substantiated legal liability which is currently pending
- Prior Binding Commitment — Require action due to previous legislative action which creates a binding commitment

Strategic Criteria:

- Linkage to University Strategic Plan — matches specific strategic objective of the University of MN
- Linkage to AHC Strategic Plan — matches specific strategic objective of the Academic Health Center
- Linkage to School or College Strategic Plan — matches specific strategic objective of the school or college
- Safety Concerns — life safety issues but not in critical condition
- Customer Service / Statewide Significance — ability of the project to improve services for citizens of Minnesota, looks at geographic dispersion of benefit
- College or School Priority — priority ranking of the school
- User and Non-State Financing — incentive to find non-state funds
- Asset Management — maintenance, repair and adaptive re-use of current assets
- Operating Savings or Efficiencies — demonstrates a reduction in net operating costs or increased efficiency
- Contained in Six-Year Plan — Project has been included in previous six-year capital plans

Sorting / Assessment

Once assessed through the ranking criteria, the list of development ideas were sorted by numerous categories. The most effective sort was by correlation to the overall AHC vision statement which produced 5 major goals or "options for development". These options serve to:

- Create synergies across schools
- Depersonalize individual projects in favor of "group" projects
- Through the grouping of major objectives — schools will work together to gather funds
- This list is a summary of needs — allowing all of the AHC to understand the demand — not a ranking of projects

This process for creating development options establishes a source of consolidated information.

AHC Strategic Facility Planning Comprehensive Worksheet

| Space Request Service Delivery | | | | EDUCATION | | 3/31/1998 | | | | Sort Criteria: E = Education services; R = Research; O = Offices; N = New Program; C = Clinical; S = Support Services; UA = Unassigned | | | | | |
|--|-----|-----|----|---|-------------|------------------|--------|-------------|------------|--|-----------|----------|---------|-------------|----------|
| Department Code: AC = Academic Health Center; MCB = Molecular & Cellular Biology; MS = Medical School; PHS = Pharmacy School; SS = Swing Space; VM = College of Veterinary Medicine; SPH = School of Public Health; N = Nursing; D = Dentistry | | | | Criteria Score | Item Number | Item Description | Amount | Fund Source | Yr. Funded | Link to Master Plan | EDUCATION | RESEARCH | OFFICES | NEW PROGRAM | CLINICAL |
| | MCB | 740 | 4 | MCB Building | 227,000 SF | | | | E | R | | | | | |
| | MS | 710 | 2 | Gross Anatomy Classroom and Student Spaces: Chip lounge / Moos café | 12000 SF | | | | E | | | | | | |
| | AC | 695 | 22 | | | | | | E | | | | | | |
| | MS | 690 | 1 | Educational Center | 35000 SF | | | | E | | | | | | |
| | AC | 680 | 6 | Jackson Permanent Space | 100000 SF | | | | E | | O | | | | |
| | PHS | 650 | 5 | Planning for facility Redesign | | | | | E | R | O | | | | |
| | N | 630 | 7 | Classroom resizing (more 22-40 and >100 seat rooms) | | | | | E | | | | | | |
| | PHS | 620 | 17 | Student Study Space | | | | | E | | | | | | |
| | MCB | 615 | 2 | Teaching Rms: MCB | 5 @1000 | | | | E | | | | | | |
| | SPH | 605 | 10 | Consolidated Public Health Facility | 300000 SF | | | | E | R | O | | | | |

| AHC Strategic Facility Planning Comprehensive Worksheet | | | | | | | | | | | | | | | | | | | | | |
|---|---------------|------------------|--|----------------|-------------|--|--|------------|--------|-------|-------------|------------|---------------------|---|----------|---------|-------------|----------|---------|------------|--|
| Renovation | Space Request | Service Delivery | Department Code: AC = Academic Health Center; MCB = Molecular & Cellular Biology; MS = Medical School; PHS = Pharmacy School; SS = Swing Space; VM = College of Veterinary Medicine; SPH = School of Public Health; N = Nursing; D = Dentistry | Criteria Score | Item Number | RESEARCH | | 3/31/1998 | Amount | Units | Fund Source | Yr. Funded | Link to Master Plan | Sort Criteria: E = Education services; R = Research; O = Offices; N = New Program; C = Clinical; S = Support Services; UA = | | | | | | | |
| | | | | | | Item Description | | | | | | | | EDUCATION | RESEARCH | OFFICES | NEW PROGRAM | CLINICAL | SUPPORT | UNASSIGNED | |
| | | | VM | 770 | 2 | Biologic Containment Facility | | | | | | | | | | | | | | | |
| | | | MCB | 740 | 4 | MCB Building | | 227,000 SF | | | | | | | E | R | | | | | |
| | | | PHS | 650 | 5 | Planning for facility Redesign | | | | | | | | | E | R | O | | | | |
| | | | PHS | 630 | 1 | Pharmacy Endowed Chair - Pharmacotherapy for the Elderly | | 2300 SF | | | | | | | | R | O | | | | |
| | | | | 620 | 3 | Research Lab Renovations | | | | | | | | | | R | | | | | |
| | | | SPH | 605 | 10 | Consolidated Public Health Facility | | 300000 SF | | | | | | | E | R | O | | | | |
| | | | SS | 585 | 4 | Swing Space: Biochemistry Res | | 14000 SF | | | | | | | | R | | | | | |
| | | | SS | 585 | 5 | Swing Space: Physiology Res | | 27400 SF | | | | | | | | R | | | | | |
| | | | MS | 575 | 27 | Transplant Institute | | 25000 SF | | | | | | | | R | O | N | C | | |
| | | | MS | 570 | 7 | Molecular Medicine Program | | 11000 SF | | | | | | | | R | O | | | | |
| | | | MS | 570 | 8 | Genetics Institute Programs PWB7, Moos2, frog room | | | | | | | | | | R | | | | | |
| | | | PHS | 565 | 13 | PharmD new faculty labs | | 3@1000 SF | | | | | | | | R | | | | | |
| | | | MS | 540 | 14 | Health Outcomes Research / managed care | | 1475 SF | | | | | | | | R | O | N | | | |

| | | | | | | | | | | | | | | | | | | |
|--|-----|-----|----|--|---------|--|--|--|--|--|--|---|---|---|--|--|--|--|
| | MS | 535 | 10 | Hsiao Research | 2500 SF | | | | | | | R | | | | | | |
| | AC | 530 | 31 | Research Animal Resources: Consolidation | | | | | | | | R | | | | | | |
| | AC | 530 | 30 | Research Animal Resources: SPF Mouse facility | | | | | | | | R | | | | | | |
| | MS | 525 | 6 | Primary Care Research | 1975 SF | | | | | | | R | | | | | | |
| | AC | 505 | 27 | Pool of Labs & Offices for Recruitment & Retention | | | | | | | | R | O | | | | | |
| | MS | 500 | 12 | BMEI Lab and Offices | 4000 SF | | | | | | | R | O | N | | | | |
| | AC | 485 | 16 | Interscholastic Research Spaces | | | | | | | | R | | | | | | |
| | D | 485 | 5 | Endowed Chair in Rural Dentistry | | | | | | | | R | | | | | | |
| | D | 475 | 3 | Research Labs | 5900 SF | | | | | | | R | | | | | | |
| | SPH | 455 | 5 | New Research Offices | 8000 SF | | | | | | | R | | | | | | |
| | PHS | 450 | 7 | 8th floor WDH lab renovation--3 Departments | | | | | | | | R | | | | | | |
| | PHS | 440 | 8 | Endowed Chair - Industrial Pharmacy (1500 lab+300 off) | 1800 SF | | | | | | | R | | | | | | |
| | SPH | 440 | 3 | Industrial Hygiene Laboratories | | | | | | | | R | | | | | | |
| | SPH | 430 | 6 | New Research Laboratories | 2000 SF | | | | | | | R | | | | | | |
| | PHS | 420 | 10 | Experimental + Clinical Pharmacy: Grad student labs | 2000 SF | | | | | | | R | | | | | | |
| | MS | 410 | 35 | Neurology Research Renovation | | | | | | | | R | | | | | | |
| | PHS | 405 | 21 | Renovation of 3-120 Weaver Densford | | | | | | | | R | | | | | | |
| | PHS | 400 | 18 | P3 Research Space--3-4 Faculty | | | | | | | | R | | | | | | |
| | MS | 395 | 36 | Pain Program | | | | | | | | R | | | | | | |
| | MS | 380 | 28 | Developmental Biology: 5-245 Moos, Hughes | | | | | | | | R | | | | | | |
| | SPH | 375 | 2 | Microbiology Laboratories | | | | | | | | R | | | | | | |
| | MS | 340 | 18 | Prevention Center (VCRC) | | | | | | | | R | | | | | | |
| | MS | 300 | 13 | Vischer Chair | 6000 SF | | | | | | | R | | | | | | |
| | MS | 300 | 32 | Peptide Lab relocation | | | | | | | | R | | | | | | |
| | MS | 260 | 25 | Recruitment Space for Lab Medicine and Pathology | | | | | | | | R | O | | | | | |
| | MS | 245 | 26 | Consolidation of Lab Medicine and Pathology Space | | | | | | | | R | O | | | | | |
| | MS | 225 | 23 | Stone Labs relocation | | | | | | | | R | | | | | | |
| | | 0 | 6 | Equine Exam area | | | | | | | | R | | | | | | |

| AHC Strategic Facility Planning Comprehensive Worksheet | | | | | | | | | | | | | | | | |
|---|---------------|------------------|----------------|-------------|---|----------|-------------|------------|---------------------|---------------------|--|---------|-------------|----------|---------|------------|
| Renovation | Space Request | Service Delivery | NEW PROGRAM | | | | 3/31/1998 | Units | Yr. Funded | Link to Master Plan | Sort Criteria: E = Education services; R = Research; O = Offices; N = New Program; C = Clinical; S = Support Services; UA = Unassigned | | | | | |
| Department Code: AC = Academic Health Center; MCB = Molecular & Cellular Biology; MS = Medical School; PHS = Pharmacy School; SS = Swing Space; VM = College of Veterinary Medicine; SPH = School of Public Health; N = Nursing; D = Dentistry Critical Life Safety Emergency Yes=1 No=0 | | | Criteria Score | Item Number | Item Description | Amount | Fund Source | Yr. Funded | Link to Master Plan | EDUCATION | RESEARCH | OFFICES | NEW PROGRAM | CLINICAL | SUPPORT | UNASSIGNED |
| | MS | | 575 | 27 | Transplant Institute | 25000 SF | | | | | R | O | N | C | | |
| | MS | | 540 | 14 | Health Outcomes Research / managed care | 1475 SF | | | | | R | O | N | | | |
| | MS | | 515 | 5 | KDWB Variety Family Home | | | | | | | O | N | C | | |
| | MS | | 500 | 12 | BMEI Lab and Offices | 4000 SF | | | | | R | O | N | | | |
| | PHS | | 375 | 2 | Drug Design Institute- | | | | | | | | N | | | |
| | AC | | 230 | 7 | Bridge to Amundson Hall | 120 LF | | | | | | | N | | | |
| | MS | | 230 | 22 | Edward Dir Cardiovascular Disease | 3500 SF | | | | | | | N | | | |

Appendix B: Building Summaries



JACKSON HALL

321 Church St. S.E.

Building Number 032

Constructed: 1912

Occupancy Type: B/H-2

(Classroom/Research)

Construction Type: III-1 Hr.

Allowable Area: 54,000 sf Actual:

67,413 sf

Number of Stories: Max. 4

Actual: 6

Code Deficiency Rating: 0



MILLARD HALL

435 Delaware St. S.E.

Building Number: 033

Constructed: 1912

Occupancy Type: B/H-2

(Classroom/Research)

Construction Type: III-1 Hr.

Allowable Area: 54,000 sf

Actual: 80,190 sf

Number of Stories: Max. 4

Actual: 6

Code Deficiency Rating: 0



OWRE HALL

421 Delaware St. S.E.

Building Number: 054

Constructed: 1930

Occupancy Type: B/H-3

(Classroom/Research)

Construction Type: III-1 Hr.

Allowable Area: 54,000 sf

Actual: 83,700 sf

Number of Stories: Max. 4

Actual: 6

Code Deficiency Rating: 0



VARIETY CLUB RESEARCH CENTER

401 East River Rd.

Building Number: 069
 Constructed: 1949
 Occupancy Type: B/H-3
 (Treatment/Research)
 Construction Type: II-FR
 Allowable Area: 79,800 sf
 Actual: 80,147 sf
 Number of Stories: Max. 12
 Actual: 5
 Code Deficiency Rating: 0



MAYO MEMORIAL BUILDING

420 Delaware St. S.E.

Building Number: 074/29
 Constructed: 1954
 Occupancy Type: B/1-1.2
 (Office/Hospital)
 Construction Type: 1-FR
 Allowable Area: Unlimited sf
 Actual: 731,840 sf
 Number of Stories: Unlimited
 Actual: 15/Penthouse
 Code Deficiency Rating: 0



LYON LABORATORIES

420 Washington Ave. S.E.

Building Number: 079
 Constructed: 1952
 Occupancy Type: B/H-3
 (Classroom/Research)
 Construction Type: III-1 Hr.
 Allowable Area: 54,000 sf
 Actual: 41,813 sf
 Number of Stories: Max. 4
 Actual: 7
 Code Deficiency Rating: 0



MASONIC CANCER CENTER

424 Harvard St. S.E.

Building Number: 107
 Constructed: 1957
 Occupancy Type: B/H-3 (Health Care/Office)
 Construction Type: II-FR
 Allowable Area: 60,400 sf
 Actual: 72,343 sf
 Number of Stories: Max. 3
 Actual: 5/Penthouse
 Code Deficiency Rating: 0



VFW CANCER RESEARCH CENTER

406 Harvard St. S.E.

Building Number: 109
 Constructed: 1958
 Occupancy Type: B/H-3
 (Office/Research)
 Construction Type: III-1 Hr.
 Allowable Area: 54,000 sf
 Actual: 21,694 sf
 Number of Stories: Max. 4
 Actual: 4
 Code Deficiency Rating: 2



DIEHL HALL

505 Essex St. S.E.

Building Number: 111
 Constructed: 1958
 Occupancy Type: A-3/B /H3
 (Office/Classroom Lab)
 Construction Type: II-FR
 Allowable Area: 89,700 sf
 Actual: 182,380 sf
 Number of Stories: Max. 12
 Actual: 6
 Code Deficiency Rating: 0



JACKSON-OWRE ADDITION

321 Church St. S.E.

Building Number: 114
 Constructed: 1958
 Occupancy Type: B/H-2
 (Classroom/Research)
 Construction Type: III-1 Hr.
 Allowable Area: 54,000 sf
 Actual: 46,746 sf
 Number of Stories: Max. 4
 Actual: 6
 Code Deficiency Rating: 0



CHILDREN'S REHABILITATION CENTER

426 Church St. S.E.

Building Number: 115
 Constructed: 1962
 Occupancy Type: B (Health Care/Office)
 Construction Type: II-FR
 Allowable Area: 60,400 sf
 Actual: 61,019 sf
 Number of Stories: Max. 3
 Actual: 7/Penthouse
 Code Deficiency Rating: 1



MALCOLM MOOS HEALTH SCIENCE

515 Delaware St. S.E.

Building Number: 142
 Constructed: 1973
 Occupancy Type: B (Office/Classroom/Research)
 Construction Type: I-FR
 Allowable Area: Unlimited
 Actual: 592,583 sf
 Number of Stories: Unlimited
 Actual: 19/Basement
 Code Deficiency Rating: 0



**DVAN VARIETY CLUB
CARDIOVASCULAR RESEARCH
CENTER**

401 East River Rd.

Building Number: 143
 Constructed: 1974
 Occupancy Type: B/H-3
 (Treatment/Research)
 Construction Type: I-FR
 Allowable Area: Unlimited
 Actual: 92,027 sf
 Number of Stories: Unlimited
 Actual: 6
 Code Deficiency Rating: 3



PHILIPS-WANGENSTEEN UNIT BC

516 Delaware St. S.E.

Building Number: 144
 Constructed: 1978
 Occupancy Type: B (Office/
 Classroom/Research/Hospital)
 Construction Type: I-FR
 Allowable Area: Unlimited
 Actual: 592,583 sf
 Number of Stories: Unlimited
 Actual: 19/Basement
 Code Deficiency Rating: 3



**HEALTH SCIENCE UNIT F
Weaver-Densford Hall**

308 Harvard St. S.E.

Building Number: 147
 Constructed: 1980
 Occupancy Type: B
 (Office/Lab)
 Construction Type: I-FR
 Allowable Area: Unlimited
 Actual: 171,607 sf
 Number of Stories: Unlimited
 Actual: 10/Penthouse
 Code Deficiency Rating: 4

St. Paul Campus



VETERINARY ANATOMY

1946 Fitch Ave.

Building Number 316

Constructed: 1901

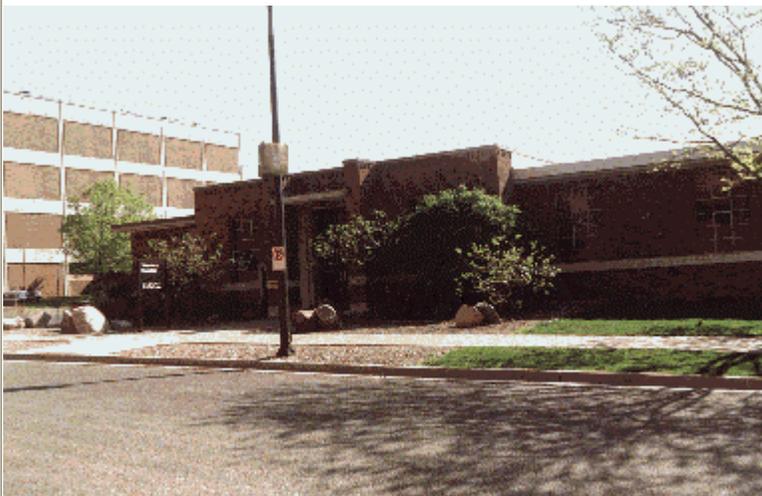
Occupancy Type: B (Office/Lab.)

Construction Type: III-N

Allowable Area: 48,000 sf Actual: 13,792 sf

Number of Stories: Max. 2 Actual: 2

Code Deficiency Rating: 0



VETERINARY TEACHING HOSPITAL

1352 Boyd Ave.

Building Number: 371

Constructed: 1948

Occupancy Type: B
(Office/Classroom/Lab)

Construction Type: II-1 Hr.

Allowable Area: 720,000 sf

Actual: 83,700 sf

Number of Stories: Max. 4

Actual: 2/Basement

Code Deficiency Rating: 0



VETERINARY SCIENCE

1971 Commonwealth Ave.

Building Number: 374

Constructed: 1951

Occupancy Type: B
(Office/Classroom/Lab)

Construction Type: III-1 Hr.

Allowable Area: 72,000 sf

Actual: 81,069 sf

Number of Stories: Max. 4

Actual: 4/Basement

Code Deficiency Rating: 1

Additional St. Paul Buildings

| | |
|---|--|
| <p>VETERINARY DIAGNOSTIC LAB 1942 Carter Ave.</p> <p>Building Number: 385 Constructed: 1958 GSF: 69,471 ASF: 37,898</p> | <p>LARGE ANIMAL HOLDING BARN 1997 Carter Ave.</p> <p>Building Number: 417 Constructed: 1973 GSF: 15,647 ASF: 14,474</p> |
| <p>VETERINARY ISOLATION BUILDING 1346 Gortner Ave.</p> <p>Building Number: 386 Constructed: 1958 GSF: 10,080 sf ASF: 4,594 sf</p> | <p>VETERINARY TEACHING HOSPITAL 1365 Gortner Ave.</p> <p>Building Number: 427 Constructed: 1982 GSF: 119,122 sf ASF: 62,256 sf</p> |
| <p>VETERINARY ANIMAL FACILITY BARN C 1340 Gortner Ave.</p> <p>Building Number: 397 Constructed: 1965 GSF: 4,840 sf ASF: 4,225 sf</p> | <p>GABBERT RAPTOR CENTER Building Number: 434</p> <p>Constructed: 1987 Occupancy Type: B Office/Treatment Construction Type: II — 1 Hr. Allowable Area: 72,000 sf Actual: 17,734 sf Number of Stories: Max. 4 Actual: 2 Code Deficiency Rating: 4</p> |
| <p>ANIMAL SCIENCE/VETERINARY MEDICINE 1988 Finch Ave.</p> <p>Building Number: 416 Constructed: 1975 Occupancy Type: Office/Classroom/Lab Construction Type: II FR Allowable Area: 159,600 sf Actual: 123,647 sf Number of Stories: Max. 12 Actual: 4 Code Deficiency Rating: 2</p> | <p>MN MOLECULAR AND CELLULAR THERAPY BLDG 1900 Fitch Ave.</p> <p>Building Number: 436 Constructed: 1988 GSF: 37,957 sf ASF: 17,452 sf</p> |

| AHC - LEASE SPACE REPORT | | | | | | |
|---------------------------------|--|---|---|--|---------------------------|---|
| | Property Address /Description | WHO IS IN THE SPACE? | WHAT IS THE SQ. FOOTAGE OF THE SPACE? | WHAT IS THE ANNUAL LEASE COST OF THE SPACE? | Monthly lease cost | WHAT IS THE TERM OF THE LEASE? |
| L-109 | Stone Labs, 421 29th Ave. S.E., Mpls. | Lab Medicine and Pathology--THE BASEMENT IS NOT INCLUDED (MED SCHOOL) | 14654 | \$ 65,373.06 | \$ 5,447.76 | information not given/fiscal 96-97--month to month |
| L-227 | Boynnton Health Service, 410 Church St. S.E., | School of Public Health (PUBLIC HEALTH) | 3873 | \$ 31,000.00 | \$ 2,583.33 | Lease continuation until terminated--began on July 1, 1978 |
| L-259 | Stadium Village Mall, 212 Ontario Street S.E., Mpls | Colon Cancer (PUBLIC HEALTH) | 6812 | \$ 112,465.44 | \$ 9,372.12 | Month to month |
| L-334 | Suite(s) 200 and 310 and 1 undergrd. Parking space, 2221 University Ave. | Biostatistics (PHARMACY) | 31189 | \$ 560,474.04 | \$ 46,706.17 | Renewal Letter to 6/30/2000 with (1) two year option. |
| L-370 | 5775 Wayzata Blvd., Mpls | Mincep(Mn Cerebral Palsy)-Epilepsy Program (PUBLIC HEALTH) | 2965 | \$ 44,792.40 | \$ 3,732.70 | sending letter to go through 6/30/98 (approval for ICR funding through them). |
| L-393 | U-tech, 1313 5th St., Suite 207 | MNTap, (PUBLIC HEALTH) | 4292 | \$ 64,592.67 | \$ 5,382.72 | Extending through 6-30-99--No OPTIONS. |
| L-396 | In the Radisson University Metrodome Hotel | Continuing Medical Education (MED SCHOOL) | 2200 | \$ 8,400.00 | \$ 700.00 | |
| L-429 | Annex and Suite 112, Loring Park Office Building--4280 Oak | Pediatrics (MED SCHOOL) | 3481 | \$ 55,976.76 | \$ 4,664.73 | Lease throught 12/14/98 |
| L-433 | Suite 302 Park Ave. Medical Office Bldg., 710 E. 24th St. | Epidemeology-Fracture Intervention (PUBLIC HEALTH) | 2362 | \$ 50,783.04 | \$ 4,231.92 | month to month/ currently being amended TO 12/31/2001with (2)one year options . |
| L-442 | 2611-2621 Franklin Ave. E., Mpls. | (MEDICAL SCHOOL)--Family Practice--utility costs are not in the lease, but rather paid by the school. | 18877 | \$ 253,162.08 | \$ 21,096.84 | 1/1/94 through 11/30/2000 with (3) one year automatic renewals.(+ADDITIONAL OPTIONS & OPTIONAL COSTS) |
| L-442A | 2611-2621 Franklin Ave. E., Mpls. | (MEDICAL SCHOOL)--Family Practice-Parking Ramp--15 PARKING SPACES | This lease is for the parking lot attached to this space. | \$ 4,500.00 | \$ 375.00 | 1/1/94 through 11/30/2000 with (3) one year automatic renewals.(+ADDITIONAL OPTIONS & OPTIONAL COSTS) |

| AHC - LEASE SPACE REPORT | | | | | | |
|---------------------------------|---|--|--|--|---------------------------|---|
| | Property Address /Description | WHO IS IN THE SPACE? | WHAT IS THE SQ. FOOTAGE OF THE SPACE? | WHAT IS THE ANNUAL LEASE COST OF THE SPACE? | Monthly lease cost | WHAT IS THE TERM OF THE LEASE? |
| L-445 | Bassett Creek Plaza, 5851 Duluth Street, Golden Valley | Epidemiology- (PUBLIC HEALTH) | 5416 | \$ 83,173.32 | \$ 6,931.11 | 3/5/94- 8/31/97 with a one year option followed by two 6 month options.Goes through 2/28/99 |
| L-468 | Hawthorn Crossings, 1020 W. Broadway, North Memorial Medical Center | University Family Physicians (MED SCHOOL) | 15406 | \$ 300,346.00 | \$ 25,028.83 | 5/1/95-4/30/2000-(4)--one year options to renew..(+ADDITIONAL OPTIONAL COSTS) |
| L-468A | Hawthorn Crossings, 1020 W. Broadway, North Memorial Medical Center | University Family Physicians--Sub-lease for URGENT CARE-- (MED SCHOOL) | 2956 | \$ 24,920.52 | \$ 2,076.71 | 5/1/95-4/30/2000-five one year options to renew, plus |
| L-475 | Suites 103, 201A& B, and basement storage locker, Stadium Village Mall, 212 Ontario Street/A25 Washington Ave. S.E. | Family Practice (MED SCHOOL) | 6260 | \$ 105,243.72 | \$ 8,770.31 | through Dec. 31, 1997, with (3) one year options through Dec. 31, 1999--month to month--Landlord hasn't signed renewal letter yet for extension through Dec. 31, 1997 |
| L-476 | Suite 101E, Stadium Village Mall, A25 Washington Ave. S.E. | Family Practice (MED SCHOOL) | 1891 | \$ 28,635.72 | \$ 2,386.31 | through Dec. 31, 1997, with one year option through Dec. 31, 1998--month to month--Landlord han't signed renewal letter yet for extension through Dec. 31, 1998 |
| L-477 | 712 Washington Ave. S.E. | Family Practice (MED SCHOOL) | 1577 | \$ 23,655.00 | \$ 1,971.25 | Nov. 97 through Oct. 31, 98--has (3) one year options |
| L-479 | 23 N.E. 4th St. | Psychiatry (MED SCHOOL) | 2000 | \$ 19,497.00 | \$ 1,624.75 | month to month--doing lease through a term--RATES ARE GOING UP. |
| L-495 | Suite 106, University Professional Center, 2701 University Ave. S.E. | Psychiatry (MED SCHOOL) | 5341 | \$ 87,609.04 | \$ 7,300.75 | Jan. 95 through Dec. 98,with (2) one year options. |

| AHC - LEASE SPACE REPORT | | | | | | |
|---------------------------------|--|---|--|--|---------------------------|--|
| | Property Address /Description | WHO IS IN THE SPACE? | WHAT IS THE SQ. FOOTAGE OF THE SPACE? | WHAT IS THE ANNUAL LEASE COST OF THE SPACE? | Monthly lease cost | WHAT IS THE TERM OF THE LEASE? |
| L-563 | Suite 201, 2324 Universtiy Ave., St. Paul | Pediatrics (MED SCHOOL) | 2318 | \$ 32,678.52 | \$ 2,723.21 | Sep1, 97 through Aug. 31, 98, with (2) one year options. |
| L-593 | St. Paul Phalen Clinic, 1414 Maryland Ave. East, St. Paul | Family Practice (MED SCHOOL) | 10600 | \$ 195,899.88 | \$ 16,324.99 | 4-1-96 to 3-31-2001 with(15) one year options |
| L-602 | Rms 129 through 131, Bethesda Clinic, 580 Rice Street, St. Paul, MN | Health East sublease between U of M and Metropolitan Pharmacy-- (FAMILY PRACTICE) | 16166 | \$ 279,353.52 | \$ 23,279.46 | April 1, 97 through March 31, 2000, 2 Year Notice--(17) one year options. |
| L-602A | Rms 129 through 131, Bethesda Clinic, 580 Rice Street, St. Paul, MN | Health East sublease between U of M and Metropolitan Pharmacy-- (FAMILY PRACTICE)(\$ goes back to Family Practice Account) | 830 subleased to Metropolita | \$ 15,000.00 | \$ 1,250.00 | April 1,98 through March 31, 2000-- Automatic year to year.--Unless they give a 3 Month Notice. |
| L-948 | Apartment 202, 916 East 3rd St., Duluth, MN | Center for American Indian and Minority Health--Apartments do not give square footage. (MED SCHOOL) | Not Applicable | \$ 11,100.00 | \$ 925.00 | Oct. 1, 97 through Sept. 30, 98 |
| L-1017 | 212 Washington Ave. S.E. | Family Practice (MED SCHOOL) | 1277 | \$ 21,405.00 | \$ 1,783.75 | Expires Dec. 31, 1997 with 2 one year options--Landlord has signed renewal letter for extension through Dec. 31, 1998 |
| L-1024 | 2701 Universtiy Ave., Suites 202, 206 | Psychiatry (MED SCHOOL) | 2122 | \$ 36,180.12 | \$ 3,015.01 | Nov.1, 97 through Dec. 1, 98-- BEING AMENDED |
| L-1031 | Alina Health System, suite 305 | Epidemeology (PUBLIC HEALTH) | 3740 | \$ 85,466.88 | \$ 7,122.24 | Jan. 97 through Dec. 31, 99???? |
| L-1034 | Suite 100, 2221 University Ave. S.E. | American Indian and Minority Health- (MED SCHOOL) | 1397 | \$ 21,393.24 | \$ 1,782.77 | Expires June 30, 1999, with (2) one year options. |
| L-1042 | Great Lakes Reit, Inc., 2221 University Ave., Suite 112 | Rural Health (PUBLIC HEALTH) | 2273 | \$ 42,841.92 | \$ 3,570.16 | Expires 9/30/99, with (2) one year options. |
| L-1051 | Calvary Baptist Church, 2608 Blaisdell | (CUHCC)Variety Club Children's Clinic (AHC) | rental of temporary use of space??? | | \$ 1,000.00 | 1996 with (2) one year options-- Current lease through Dec. 31, 98 plus (1) one year option. |

| AHC - LEASE SPACE REPORT | | | | | | |
|---|---|--|--|--|--|--|
| | Property Address /Description | WHO IS IN THE SPACE? | WHAT IS THE SQ. FOOTAGE OF THE SPACE? | WHAT IS THE ANNUAL LEASE COST OF THE SPACE? | Monthly lease cost | WHAT IS THE TERM OF THE LEASE? |
| L-1081 | Alina Real estate Dept, 7103 24th Ave., Suite 402 | Dept of Epidemeology (PUBLIC HEALTH) | 2891 | \$ 66,493.00 | \$ 5,541.08 | April 1, 98 to Aug. 31, 99 with (2) one year options |
| L-1082 | Alina Health System, suite 308, Park Ave. Medical Bldg. , 710 E. 24th St. | Dream Project for Neurology (MED SCHOOL) | 1905 | \$ 15,000.00 | \$ 1,250.00 | My 15, 97 thorough Nov(last day)-2000 |
| L-1093 | Lutheran Social Service,2414 Park Ave. south, Suite 191, Mpls. | Lead poisoning--Pediatrics (MED SCHOOL) | 876 | \$ 11,826.00 | \$ 985.50 | through 8/31/98--then goes month to month |
| L-7078 | County of Anoka Child Psychiatry, Suite 375, 1201 89th Ave., Blaine, MN | Child Psychiatry Early Risers Program (MED SCHOOL) | 1608 | \$ 17,688.00 | \$ 1,474.00 | March 17, 1997 through May 31, 2001+ OPTIONS AND OPTIONAL COSTS(eg. Utilities) |
| TOTAL SQUARE FOOTAGE LEASE SPACE | | | 178725 | | | |
| WEST BANK OFFICE BUILDING(WBOB) | | | | | | |
| (This area is defined by the Real Estate Department --Not as Leased Space, but as Rent which goes towards the University's purchase of the building.) | | | | | | |
| | | | | Annual Rent | Monthly Central Funding Rent | |
| | 1st Floor | Program in Human Sexuality | 7396 | \$ 120,498.79 | \$ 10,041.57 | |
| | 3rd, 4th, & 7th Floors | Epidemiology | 47001 | \$ 948,312.50 | \$ 79,026.04 | |
| | | | | | (\$128,600.00 Paid toward rent from Central) | |
| TOTAL SQUARE FOOTAGE WEST BANK OFFICE | | | 54397 | | | |
| TOTAL SQUARE FOOTAGE OF LEASE AND RENTAL | | | 233122 | | | |

The following faculty and staff of the Academic Health Center have contributed to the development of this planning process. We are grateful for their input and participation.

AHC Dean's Council

| | | |
|----------------|----------------|------------------|
| Terry Bock | Frank Cerra | Sandra Edwardson |
| John Fetrow | Kathy Johnston | Edith Leyasmeyer |
| Alfred Michael | Chris Roberts | Marilyn Speedie |
| Michael Till | Roby Thompson | Rick Ziegler |

AHC Strategic Facility Plan Steering Committee

| | | |
|------------------|-----------------|------------------|
| Muriel Bebeau | Peter Bitterman | Terry Bock |
| Sandra Edwardson | Bob Elde | Dan Feeney |
| Kathy Johnston | George Wilcox | Edith Leyasmeyer |
| Al Michael | Chris Roberts | Marilyn Speedie |
| Michael Till | Micky Trent | Larry Schook |
| Lorie Wederstrom | | |

AHC Space Coordinating Group

| | | |
|------------------|----------------|-----------------|
| Donald Adderley | Barbara Alter | Bonnie Amundson |
| Jib Banister | Judith Beniak | Peter Bitterman |
| Cynthia Gillettt | Cynthia Gross | Ian Greaves |
| Carl Jessen | Joyce Lantto | Russell Luepker |
| Les Martens | Marilee Miller | Mani Mokala |
| Larry Schook | Howard Schur | George Wilcox |

Classroom Development Committee

| | | |
|----------------|-----------------|------------------|
| John Anderson | Florence Brown | Peg Dimatteo |
| Lael Gatewood | Kathryn Hanna | Helene Horwitz |
| Tom Larsen | Terry Margo | Marilee Miller |
| Lori Ogden | Nancy Peterson | Meegan Schaeffer |
| Stuart Speedie | Wendy St. Peter | Rebecca Strick |
| Micky Trent | | |

JOML Replacement Committee

| | | |
|---------------------|----------------|-----------------|
| Bob Baker | David Bernlohr | Terry Bock |
| Dale Branton | Jim Burak | Jim Cloyd |
| Kevin Engel | Tony Faras | Cynthia Gillett |
| David Ingbar | Ross Johnson | Pat Kumar |
| Alex Lange | David Lee | Ruth Lindquist |
| Russell Luepker | Harry Orr | Judy Peterson |
| Charlese Schachtele | Vic Vickmanis | Roger Wegner |
| George Wilcox | | |

FM Service Review Team

| | | |
|-----------------|-----------------|----------------|
| Donald Adderley | Bonnie Amundson | Don Archibeque |
| Mike Armstron | Mike Austin | Bob Copeland |
| Joan Felty | Candace Holmbo | Denise Karney |
| Judy Peterson | Chris Roberts | Sam Talbert |

Also, we wish to express appreciation to Craig Rafferty and Paul May from Rafferty, Rafferty, Tollefson Architects for their contributions to his report. Additionally, the staff of the AHC Office of Facilities have contributed significantly to its preparation and the support of these committees: Donald Adderley, Bonnie Amundson, Jim Banister, Virginia Garcia-Velez, Ali Strenger, Bob Copeland and Jaime Vargas.