

HEALTH SCIENCES
PLANNING OFFICE

PLANNING OFFICE SEMINAR

June 9, 1975

The HEALTH SCIENCES PLANNING OFFICE was created in 1969 to facilitate the coordination of efforts required for current and long range planning for the Health Sciences. It is accountable to Assistant Vice President Clinton N. Hewitt, Office of Physical Planning, and Vice President Lyle French, Health Sciences Affairs. The formal guidelines and goals for the HSPO are set forth in three Regents approved instruments; namely the Health Sciences Master Plan, the Health Sciences Mission Statement and the Health Sciences Ten Year Building Program.

The HSPO is presently located in a suite of offices on the fourth floor of Powell Hall. Paul J. Maupin, Health Sciences Planning Coordinator, has been directing planning efforts for the Health Sciences in this capacity since January, 1970. There are presently seven employees assigned to various functions on several projects assisting him in delivering planning efforts to the Health Sciences. (These efforts cover a broad spectrum ranging from assistance in the preparation of state legislative requests and federal grant applications at the onset of projects through completion of construction and occupancy of newly constructed and remodeled facilities. The HSPO personnel interface with users, architects, consultants, state and federal agencies, and diverse elements of the University in planning and developing Health Sciences projects. The following summary of HSPO personnel is intended to acquaint the reader with those individuals involved in planning efforts for the Health Sciences and to generally define their duties and responsibilities.

Paul J. Maupin, Health Sciences Planning Coordinator - Mr. Maupin acts as administrative aide to the Vice President for Health Sciences Affairs, Dr. Lyle French, and serves as a specialist for the Health Sciences functions relating to Physical Planning under the direction of Assistant Vice President

Clinton N. Hewitt. A large portion of his efforts are spent meeting with University personnel in planning and programming of newly constructed and remodeled facilities for the Health Sciences. He regularly confers with the architectural and consultant firms employed by the University. His assistance is frequently required in the preparation of legislative request documents and federal grant requests. Constant involvement with University personnel from research oriented departments provides him with an expertise in data related to Health Sciences growth trends, enrollment projections, etc. Mr. Maupin chairs and actively participates in numerous building and planning committees. He views his primary responsibilities as that of providing a service to the Health Sciences by moving toward the guidelines and goals set forth in the Health Sciences Master Plan and following projects through to completion and occupancy within budget limitations.

Robert Swanson, Architect - Mr. Swanson provides architectural services for all Health Sciences projects coordinated by the HSPO. He serves a vital function in the overall planning effort. His involvement is many times required from the onset of projects in providing information for legislative requests and grant applications. He meets with users, consultants, and various other University personnel in designing and programming facilities. The architectural drawings are reviewed and verified by Mr. Swanson to insure the user's requirements are met and that all mechanical and electrical services are correct; casework and equipment reviews are also his responsibility. During construction he verifies that construction work is being completed according to plans and specifications in meeting the user's requirements. When discrepancies are detected he informs the necessary

University personnel that modifications are required. During construction he also compiles a monthly quality control report.

Warren Forslund, Health Sciences Equipment Coordinator - Mr. Forslund is responsible for coordinating, scheduling and ordering of new equipment for all Health Sciences projects coordinated by the HSPO. He meets with various department heads and the architects in developing movable and fixed equipment lists indicating a detailed description of each item, price, room location, etc. Existing University owned equipment is also scheduled for moving through his efforts. His follow-up through any project includes programming delivery schedules of requisitioned items, receiving and storage of equipment prior to installation, and supervising installation and final approval of equipment. He also meets with vendors and various other University personnel related to purchasing such equipment.

Bob Klaus, Administrative Officer - Mr. Klaus is responsible for gathering and maintaining required financial and budget information relative to the Health Sciences Expansion and the HSPO budget. He frequently assists in the preparation of state legislative requests and federal grant applications by providing data and cost information. Movable equipment and architectural invoices are received, verified, and processed for payment by Mr. Klaus.

Gary Zaworski, Senior Architectural Draftsman - His primary responsibilities have been related to designing development notes, layout and scheduling of space for the Unit F grant application and scheduling and layouts for Unit B/C furnishings and telephones. He has also provides miscellaneous graphics as required.

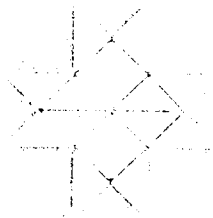
Thomas Kyle, Senior Architectural Draftsman - His primary responsibilities have been related to site plan updating for long range Health Sciences planning and preparation for compiling program requirements for the Basic Sciences remodeling project.

Ruth Mercer, Principal Secretary - Mrs. Mercer assists the Health Sciences Planning Coordinator in various facets of the Health Sciences Expansion program. She schedules planning meetings between users, architects, engineers, vendors, project superintendents, and various University personnel as required. She acts as receptionist; develops and maintains files for all Health Sciences projects; handles all incoming and outgoing mail; orders supplies; and all other secretarial duties. She attends meetings and transcribes notes for various planning meetings.

^{AND}
MARY WILSON *is Office Specialist*
Harvey Paltisck, Senior Clerk Typist - ~~He~~ ^{THB!} assists the Health Sciences Equipment Coordinator and ~~Administrative~~ Officer in establishing and maintaining files and records on movable and fixed equipment. ~~He~~ ^{THB!} frequently corresponds with vendors regarding invoicing and deliveries and performs other secretarial duties as required.

HEALTH SCIENCES
MISSION STATEMENT
AND
PROPOSED STRUCTURE
AND
GOVERNANCE

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES

100 UNIVERSITY AVENUE, SOUTHWEST CORNER, MINNEAPOLIS, MINN. 55455

FOREWORD

The Regents of the University of Minnesota are strongly committed to building improvements in both the quality and availability of health care. In pursuing these goals, the University commissioned several studies that prompted a Regents' decision to expand the scale and scope of the University's programs in the Health Sciences.

To accomplish the objectives of this comprehensive program most effectively it became clear that major administrative reorganization of the Health Sciences was necessary. In seeking guidance on restructuring the Health Sciences the Regents were fortunate in obtaining the advice and counsel of a distinguished panel of experts, and with the benefit of their advice a final proposal — the Mission for the Health Sciences — was formulated and adopted by the Board of Regents on July 10, 1970. This proposal, along with a proposal for the Structure and Governance of the Health Sciences, which was also approved by the Regents, laid down the guidelines under which the University of Minnesota looks ahead with confidence to meeting health care needs of the people of the State.

MALCOLM MOOS
President

STATEMENT ON THE MISSION OF THE HEALTH SCIENCES

The Board of Regents of the University of Minnesota strongly reaffirms its intention of developing programs and training professionals to deliver health care to all Minnesotans whatever their means or wherever they live. The Regents will undertake a careful and continuing scrutiny of philosophies, priorities and techniques which should be employed to assist in achieving an appropriate and equitable distribution of health care personnel throughout the State.

In order to speed these innovations in education, research, and health care delivery systems, the Regents have authorized a unified organization of the health sciences that will bring together in a single administrative structure programs in medicine, nursing, public health, dentistry, pharmacy, and the University hospitals. Veterinary medicine which has related interests will be joined closely to this administrative unit.

The Regents believe the primary mission of the disciplines organized within the Health Sciences will be to educate health care professionals for the needs of the State. Fundamental to this objective will be educational emphasis on patient care, the prevention of disease, and the maintenance of conditions of health. The units within the Health Sciences have had a long tradition of distinguished research aimed at understanding the causes, prevention, and treatment of disease. Clearly such research—so basic to the advancement of health care—should continue as one major mission of the Health Sciences. But the Regents believe it imperative that special and increased emphasis should be given to research and development of innovative systems for delivering optimum health care. These systems should serve all areas and all people in the State. Also, a way must be found to place more family doctors at the service of our people. A nation which can place men on the moon can develop the competence and necessary compassion to care for its sick.

In fulfilling these missions the Regents expect to sponsor cooperative efforts in Minnesota with professional groups, hospitals, educational institutions and community organizations and all agencies concerned with health care. The Regents will also continue to explore their regional and national responsibilities. The Regents recognize the University's responsibility to maintain and develop effective channels of communication with the public so that needs expressed in the community can generate effective response in the University. The Regents will continue to seek better understanding by taxpayers of the financial resources needed by the University if such effective response is to be realized.

The Regents also recognize the University's responsibility for maintaining and developing the competence of health professionals now in practice. They encourage expansion of present University programs and additionally the development of inventive and imaginative programs in continuing education for this purpose. They are also aware that new types of health care personnel may be needed to serve emerging systems of health care delivery, and to extend the effectiveness of present personnel. The Regents encourage efforts to educate, and put into practice such new classes of personnel as may be needed to optimize health care delivery.

For ninety years the University of Minnesota health sciences have been providing leadership in professional education and research. State-wide, nationally and world-wide Minnesota has won acclaim for outstanding achievements in health science education, and for outstanding quality in the delivery of health care. In undertaking major administrative reorganization of the health science units, the Regents proceed with confidence that Minnesota can continue to be a pace setter for the nation as we strengthen our commitment to better serve the health needs of our Minnesota citizens. We are justly proud of our accomplishments in the health sciences in the State, but the question is not how far we have come but how far we have to go.

GOVERNANCE AND STRUCTURE OF THE HEALTH SCIENCES

UNIVERSITY OF MINNESOTA

The University of Minnesota has served as the primary source of health professionals for the State of Minnesota for nearly ninety years in response to the needs and expectations of the people of the State. The Regents of the University have been mindful of these expectations and with the resources available to them have sought to encourage the development of faculties and facilities to train men and women in the several professions needed to maintain and deliver the best possible health care.

The expansion in the knowledge of the health sciences, the growth of the population of the State and changing patterns in the distribution of that population have posed new problems in the delivery of health care and the prevention of disease and the maintenance of health. The Regents of the University continue to recognize that ready access to health care is an expectation of all the citizens of the State and that the University has a primary responsibility not only for the training of the necessary manpower but also for the development of innovative efforts to meet changing circumstances. As the knowledge of the health sciences has broadened and expectations for adequate health care has widened, the demands on health professionals has intensified. Health care has always involved the cooperative efforts of the doctor, the nurse and the pharmacist. In their efforts to extend their capabilities to serve greater numbers, health professionals have found it necessary to integrate their efforts ever more closely. This trend has been reflected in more closely integrated, interdependent programs for students in the health profession.

In recognition of these trends the health sciences expansion at the University of Minnesota was planned on an integrated basis. During the planning phase coordination of these efforts was facilitated by a semi-formal organization, the Council of Health Science Deans and Directors. As these planning efforts approach realization, it seems necessary and desirable to formalize this arrangement and accordingly it is now proposed that a health sciences administrative structure be established which will serve as an overarching organizational unit for the several health sciences.

MISSION

The Health Sciences of the University of Minnesota should assume leadership in developing programs to meet the needs for health care throughout the state. A continuing mandate is to remain in the

closest contact with the people of the State to perceive their health needs in their own terms. There should be a continuing dialogue with the community, in order that the Health Sciences may outline possibilities, methods and practicability of meeting the health needs expressed by the public sector. These programs should be comprehensive and must maintain the high quality of scholarship on which the reputation of this University is based. They must include:

1. *Education of the trained professionals required to fulfill the health care needs.* The educational facilities and programs must provide the interdisciplinary training and experience essential for the provision of comprehensive health services throughout the State. It is emphasized that there should be a comprehensive approach to the patient, recognizing the potentialities of the health team concept. The programs must be organized so the student acquires the necessary skills, attitudes and principles of knowledge to enable him to give the best possible care.
2. *Research to advance the health sciences.* This in the broadest sense should include basic biomedical research, investigation of the normal functions of the human body and mechanisms of disease processes, factors contributing to prevention of disease and maintenance of health, studies of methods of organization and delivery of health care and health services in relation to community needs throughout the State, and studies of the process of communication and education through which the effectiveness of all of the health sciences may be increased.
3. *Providing health care and health services to the people of the State.* This function should be closely correlated with educational and research functions since each is supportive of the other. The University Hospitals and other health science clinic programs should provide the facilities and resources through which exemplary models of health care programs can be tested and the delivery of comprehensive health care services can be used as a teaching laboratory and demonstration model for all the health professions. To obtain the most effective delivery of health care requires that opportunity be widely available for the maintenance of the competence of the practicing health science professionals. Direct patient care is an essential method for maintaining the edu-

ational proficiency of the faculty and for establishment of appropriate educational relationships with community health professionals throughout the state.

In achieving the various segments of the foregoing mission the Regents will undertake to develop the resources commensurate to the commitment of the University Health Sciences to the people of the State of Minnesota.

HEALTH SCIENCES ADMINISTRATIVE STRUCTURE

Throughout its history the University of Minnesota has operated as a single institution with all academic units responsible to the President of the University and through him to the Board of Regents. The close working relationships which this unity has fostered, has strengthened the University and has been a major factor in its development as an institution of great stature among the universities of the world. The close interaction among the many disciplines has been a source of strength and has permitted this University to develop scholastic cohesiveness. Several units of the Health Sciences have strong ties to disciplines in other parts of the University, e.g., psychology, engineering, biology, etc. In a team approach to the delivery of health care such disciplines as education, anthropology, sociology, nutrition and economics will need to be involved. These relationships will be most durable and the Health Sciences will thrive best if they remain integral to the University rather than standing apart. For these reasons the Regents believe that the organization and governance of the Health Sciences should be sought within a framework which maintains the strength of the Health Sciences as an integral part of the University. As in the case of all major universities, it has become necessary for operational purposes that the President delegate responsibilities to Vice-Presidents in order to develop a proper functional framework for various operational and academic units. The Regents of the University of Minnesota have been charged with unusual responsibility for the development of the University by the people of the State. It is the Regents' responsibility to present the general needs of the University to the Legislature and to determine the distribution of the means provided to meet the objectives of the University. The effective exercise of the responsibility given to the Regents has been a major factor in bringing the University to its present eminence.

The unity of the University should not be given up lightly to achieve short term special advantages for any particular unit of the University. Indeed circumstances which at one point in time appear advantageous in this respect can, at another, be disadvantageous. Some arguments have been presented

that status for the Health Sciences essentially independent of the University as a whole will provide optimal circumstances under which the Health Sciences can fulfill their mission. The Regents believe, however, that both in the short and long term the Health Sciences will thrive best and most effectively accomplish their mission as units within the University.

For these reasons the Regents propose that the Health Sciences be headed for administrative purposes by a Vice President for Health Sciences. This Vice President shall have the responsibility for developing goals and operational plans in conformity with the missions of the Health Sciences and for developing inter-unit collaboration in fulfilling the missions of the Health Sciences. He will be the principal line officer for the Health Sciences to whom all Deans and Directors in these fields will be responsible. He will represent the Health Sciences and be the advisor to the President, Board of Regents and within the councils of the Central University Administration in matters pertaining to the missions and operations of all health sciences programs of the University wherever they are situated in the State. The Vice President for Health Sciences will report to the President who will, where appropriate, delegate operational aspects of the programs to other officers of the Central Administration.

The Vice President for Health Sciences in cooperation with the Deans and Directors of the Health Sciences units (Medicine, Dentistry, Nursing, Public Health, Pharmacy and the University Hospitals) shall have the responsibility for developing a coordinated resource request for all health sciences. The Regents and President, acting through University policies and procedures, will allocate resources of funds and space to this Vice President in response to his request. The Vice President, after consultation with appropriate University officers and with such advisory bodies to the Vice President as may be established, shall have the responsibility for allocation of these resources to the individual health science units. The Vice President for Health Sciences will delegate to the Deans and Directors in this area the responsibility for deployment of resources assigned to the respective units to meet the objectives of the units consistent with University standards and policies.

The proposed organization of the Health Sciences will require dissolution of the now existing College of Medical Sciences. The present Schools of Public Health, Nursing, the Medical School and the University Hospitals will become constituent units of the new organizational structure and will be headed by Deans with the exception of the University Hospitals whose administrative officer will bear the title of Director. The College of Pharmacy and the Dental School will be joined in the Health Sciences organi-

national structure as units with those named above. It would be appropriate to designate these units in uniform style either as schools or colleges. The principal administrative officers of each of these units will be directly responsible to the Vice President.

The Regents recognize the multi-lateral relationships in which the College of Veterinary Medicine is involved. The affairs and activities of the College of Veterinary Medicine will be important to the Health Sciences and vice versa. It is proposed that the Dean of the College of Veterinary Medicine carry adjunct status in the Health Sciences to facilitate coordination and cooperation but that the status of the College otherwise remain as it is at present.

The location of the Departments of Mortuary Science and the History of Medicine, presently reporting directly to the Dean of the College of Medical Sciences, will need to be determined by the Vice President for Health Sciences.

It is assumed that the Vice President for the Health Sciences will establish a number of advisory groups for purposes of planning and coordination of the various areas of activity within the Health Sciences. Specifically, for administrative purposes, it is assumed that there will be created a Council of Deans and Directors who will serve the Vice President in a consultative capacity. The Council will advise the Vice President on programmatic matters and serve in a coordinative and review capacity with respect to the development of budgets to insure that educational, service and research needs are met in a manner which optimally serves the needs of the Health Sciences and the public. It is also assumed that the office of the Vice President will require the appointment of a number of assistant and associate officers responsible for major functions which involve more than one health sciences unit.

The External Visiting Committee in its report made the following statement about the responsibility of the Health Sciences:

"The Center has a continuing mandate to remain in the closest contact with the people of the State to perceive their health needs in their own terms — not necessarily as perceived by the professional. Indeed, the Center can make a major contribution by engaging in a continuing dialogue with community, Regents and legislators. A new pattern of professional-public interchange can be generated. The professional becomes the expert witness who outlines possibilities, methods, and practicability of meeting the health needs expressed by the public sector. The professional provides the data so that rational public policies can be adopted from among recognized alternatives. The choice of goals — the distribution of resources between health and other social purposes — remains with the Regents

and the public. This having been done, University administrators, faculty, and students will be able to interpret and implement the mission of the Health Sciences and will be able to work together toward a common goal."

The Regents, therefore, recommend the establishment of a committee advisory to the Vice President broadly representative of the professions related to the Health Sciences and including representation for the public. They propose that this committee be appointed by the President of the University from nominations submitted by the Vice President with the advice and counsel of the Health Sciences Deans and Directors. It would be appropriate for the Advisory Committee to concern itself in the role described by the External Visiting Committee.

BASIC HEALTH SCIENCES

The Regents are mindful of the concerns expressed by the health science units outside the Medical School that their needs have not been fully met by the basic health sciences, presently constituted of the departments of Anatomy, Biochemistry, Microbiology, Pathology, Pharmacology and Physiology. They are also aware of the long and important relationship between the basic sciences and the Medical School which has strongly influenced the developments in clinical medicine. It is not the wish of the Regents to disturb this close relationship but to seek arrangements which will provide for closer liaison with the other health science units which will insure that their needs are more fully realized and met.

The Regents propose that the basic health sciences remain integral to the Medical School. A coordinator for the basic sciences with an academic appointment appropriate to his discipline should be designated to serve as a staff officer to the Vice President to define over-all basic science needs for all units of the Health Sciences. The coordinator shall have the specific responsibility for seeing to it that the basic science programs effectively serve the programs of all health science units. He and appropriate members of the basic science faculty might properly hold faculty status in units other than the Medical School.

The Regents are particularly concerned that the needs of the health science units outside the Medical School be well served and accordingly propose that a review of the effectiveness of the arrangements proposed be carried out after a suitable trial period.

ALLIED HEALTH PROFESSIONS

There is need to encourage development of new programs in the allied health sciences in order to meet the requirements for the delivery of health care throughout Minnesota. Each health science unit

which now trains allied health personnel will continue presently established programs in their existing locations. As programs for new types of allied health personnel are developed, each curriculum should be organized within the collegiate unit and department which relates most closely to the role which such allied health personnel will serve in delivery of health care.

In each of the units in the Health Sciences which trains allied health personnel an administrative officer, drawn from the faculty, shall be assigned the responsibility for coordinating allied health training programs, providing a central source of leadership, promoting the development of new training programs as needed and acting as staff advisor to the Dean on policy related to allied health personnel within the unit. This administrative officer shall act as Chairman of a Council of Allied Health Sciences Professions which shall be composed of a representative from each of the allied health training programs located in that unit (Dentistry, Medicine, Public Health, etc.). These Councils are assigned the responsibility for development of appropriate coordination between programs within the respective units and among the several health sciences units.

A coordinator of all these programs shall be located in the office of the Vice President of Health Sciences.

The Regents recognize that patterns of delivery of health care and health services may well change markedly in the future requiring the development of new professionals who do not fit the present structure of the health science disciplines. These new professionals may well bridge the existing disciplines and may, in fact, involve disciplines outside those in the proposed Health Sciences organizational structure. The Regents propose, therefore, that the structure proposed above be subject to review and possible modification after a suitable interval.

PUBLIC HEALTH

The School of Public Health has had a long standing tradition of concern for the prevention of disease and maintenance of conditions desirable for the promotion of community health. Given the stipulated mission for the Health Sciences the Regents believe that the public health unit can play an important role in developing broad innovative patterns for delivery of health care and health services involving professionals from within and without the Health Sciences. This unit can provide educational programs which will develop public understanding of the resources available to meet community needs and facilitate communication of public expectations to the Health Sciences.

UNIVERSITY HOSPITALS

The University Hospitals play a key role in offering service to the people of Minnesota while serving as the principal clinical laboratory for the Health Sciences. The Regents believe that the University Hospitals can serve all the health science units most effectively as a distinct unit in the Health Sciences organizational structure. The Director of the Hospitals should be a member of the Health Sciences Council with status equivalent to that of the Deans of the other health science units. The Regents recognize that policy for and administration of such a complex as the University Hospitals involves participation by many groups having interests varying both in degree and emphasis. Such special groups will wish to be able to influence the administration and operations of University Hospitals. In particular the relationships of the clinical departments of the Medical School and their counterparts in the other health science units (e.g., Nursing, Pharmacy, Dentistry, ambulatory care programs, Public Health) will have special concerns. It is recommended, therefore, that the heads of the clinical departments of the Medical School and their counterparts in other health science units should be appointed chiefs of the clinical services and related services of the Hospital. This group could form a Clinical Council advisory to the Director of the University Hospitals. Representation on the Council might also include representatives from the staff at large and an ex-officio representative of the Vice President for the Health Sciences. Such a Clinical Council would be large and it would be appropriate, therefore, for the Council to elect from its numbers an appropriately representative executive committee including an ex-officio representative of the Vice President. The Council and its Executive Committee should be chaired by the elected Chief of Staff of the University Hospitals. The Clinical Council should have as its concern the quality and adequacy of the professional programs within the University Hospitals and the responsibility for participating in policy making. The Deans and Directors of all the health science units will have a major concern for the activities of the University Hospitals as they relate to the instructional and research activities of their collegiate units.

AFFILIATION—HOSPITALS, COMMUNITY AGENCIES AND SERVICES

The Medical School has developed undergraduate and graduate teaching programs in affiliated hospitals over a period of many years. These programs are a major source of strength in medical education and will become increasingly important in education in the other health sciences. A large number of full-time as well as part-time faculty are located in these hospitals. Initially the program involved Hennepin

Tennys General Hospital, St. Paul Ramsey County Hospital and Veterans Administration Hospital. More recently a number of private hospitals have been included in the teaching program. The educational programs may involve multiple departments or may relate to a single department. Formal affiliation agreements have been developed to guide the relationship between the hospital and medical school.

Other health science units have begun to develop relationships with the affiliated hospitals but as yet these programs do not involve large numbers of students. In the future these relationships may be expected to expand.

The actual training of health science professionals is carried out by the individual departments at the University and coordinated by the Deans of the Schools and Colleges directly responsible for curricular content and implementation. With the expansion of the number of professionals to be trained and the need to incorporate the affiliated hospitals into such a training effort, it is important that some uniformity of departmental effort and goals be maintained in order to develop properly those teaching efforts necessary to accomplish this goal. The involvement of individual departments in other relevant academic units in coordinated educational efforts will be essential if uniformity of quality is to be maintained.

A coordinator in the office of the Vice President for Health Sciences should be appointed and serve to coordinate programs involving more than one health science unit and to develop new programs. He would also be responsible for development of relations with non-hospital health delivery systems and with community groups. The Regents foresee that such affiliate relationships may provide opportunities for health science education programs which may vary in kind and emphasis.

As the complexity and size of the Health Sciences develops it may become desirable to establish separate clinical campuses. This would require an administrative structure in the office of the Vice President which would facilitate programmatic relationships. Such developments would be preceded by adequate consultation with the faculties and administrators of the various units within the Health Sciences.

GRADUATE SCHOOL RELATIONSHIPS

The External Committee recommended that the present requirements with respect to the graduate status of "Residents" should be modified. The Regents support the recommendation that "Residents" should not automatically be required to register as

graduate students but rather that the option should be determined according to individual choice and subject to departmental or collegiate policy. Alternate methods for registration of residents as students in the appropriate Health Sciences school should be developed. The Regents believe that the basic direction and control of the clinical program of residents associated with programs in the individual health sciences units should be a shared responsibility of the Vice President for Health Sciences, the particular unit and the appropriate department.

These conditions to which the External Committee referred apparently have been a problem primarily for the Medical School but it is the Regents' intent that the modifications to be effected should be applicable in other health science units where appropriate.

Residency and graduate programs in the health sciences will impose major demands on the resources of the University and the health sciences. It seems appropriate therefore that the Vice President for Health Sciences should have some administrative responsibility in cooperation with the Deans of the health sciences units for determining the relative effort devoted to such programs. However, the admission of candidates to residency programs and the number of such residents should continue to be the responsibility of the departments and specialties according to their individual programmatic needs relative to their education and research objectives. The Vice President for Health Sciences will have the responsibility for reviewing the recommendations of the departments with the objective of insuring balance and will be responsible for the distribution of available state resources according to over-all program needs and balance. The Vice President, the Deans and the Health Sciences Departmental Heads should share with the Dean of the Graduate School the responsibility for the quality of graduate programs and the standards of admissions.

CONTINUING EDUCATION

The Regents recognize the responsibility of the University for assisting practicing health care professionals to maintain their capability through continuing education. The trend toward periodic recertification of health care professionals gives this University activity special importance. The Vice President for Health Sciences and his staff will be expected to assist and coordinate the activities of each of the health science units. The direct responsibility for the continuing educational programs will rest with the individual health sciences units. The Vice President's office will provide appropriate liaison with the General Extension Division.

HEALTH SCIENCES TEN YEAR BUILDING PROGRAM

UNIVERSITY OF MINNESOTA TWIN CITIES CAMPUS

THE MASTER CAMPUS PLAN

The University of Minnesota Health Sciences Expansion provides facilities for the consolidated units of the Health Sciences: School of Medicine, University Hospitals, School of Dentistry, School of Public Health, School of Nursing, and the College of Pharmacy.

The complex of new and remodeled existing buildings comprising the Health Sciences facilities is the architects' response to the University's goal of physical and curricular integration of the Health Sciences units with each other and the rest of the Minneapolis campus of the University. This Health Sciences Master Plan was accepted and approved by the Regents of the University in 1967.

The problem as defined by this goal was to develop a high density building system on a tight urban site with strong relationships to major existing facilities. This system needed to respond to the initial phase of expansion as well as to the continuing need for growth and change inherent in Health Sciences units.

The architects' initial effort was to develop a master plan which provided for short and long term expansion and responded to the integrated relationships called for in the program. This master plan serves as a framework for growth by establishing the major paths of circulation knitting together new and existing buildings. A centralized receiving unit (Unit E) is the focus of a separate service circulation network connecting existing buildings and new construction two floors below grade. The centralized receiving with material distribution tunnels to Health Sciences areas will replace eighteen widely dispersed receiving areas. The master plan also provides for an eventual major pedestrian spine with branches to existing buildings and new construction to the 2,000 car parking ramp providing the capability of moving to all parts of the Health Sciences without being exposed to the frequently severe weather.

The general criteria which established the basic planning framework are as follows:

1. Because of the great investment from public and private sources in existing facilities, the plan must conserve and enhance the desirable characteristics of the present Health Sciences Center.

2. The plan must be adequate in scale to serve all contemplated programs of the Health Sciences Center -- programs that include substantial enrollment increases in all areas.
3. The plan must facilitate and, in fact, encourage interaction among persons in all Health Sciences programs.
4. The plan must provide maximum flexibility for adaptation to anticipated but unspecified changes in programs in the wake of social and scientific progress.
5. The plan must be compatible with other aspects of University development and enhance the involvement of the Health Sciences with the rest of the University and the community.
6. The plan must provide opportunity for development beyond any programs now contemplated.

FIRST PHASE - HEALTH SCIENCES DEVELOPMENT

The first phase development of the Health Sciences includes sizable new and remodeled areas. Major blocks of space to be remodeled include the existing Dental School facilities, the existing Outpatient Clinics, the existing Department of Radiology, and a substantial part of Powell Hall. The master plan is comprised of Units A, B/C, K/E, and F.

Unit A - The School of Dentistry occupies two-thirds of the building. The remainder is being used by the Medical School, Basic Sciences, and the School of Public Health. General use space includes auditoriums, classrooms, seminar rooms, student and staff dining areas, as well as Basic Sciences teaching labs.

Unit K/E - Unit E, as previously mentioned, constitutes the centralized receiving unit for the Health Sciences. Above Unit E, Unit K houses a Cardiovascular Research Center. Construction of the unit was completed in the fall of 1974.

Unit B/C - Unit B/C is primarily a Medical School facility and will include auditorium and general classrooms, a Learning Resources Center, outpatient clinics and seminar rooms, faculty offices and teaching faculty research and support space. Unit B/C is designed as a continuation of the recently completed Unit A, both physically and functionally.

The Unit B/C program consists of two parts. One part (52.98%) will be completely finished space. The other part will be shell, or unfinished space at present. The finished space will include auditorium and general classrooms, a Learning Resources Center, outpatient clinics and seminar rooms, faculty offices and teaching faculty research and support space.

Unit B/C is designed to integrate the education of medical students with patient care through more effective use of outpatient clinics as well as providing the usual teaching and office facilities. A total of 228 examining rooms is planned for the new outpatient area. As part of this proposal a total of 156 examining rooms are scheduled to be completed. Also included in the clinic modules are seminar rooms to allow increased interaction for faculty, student and patient. It has been recognized that the patient, as well as the students and faculty, must be easily and comfortably accommodated within the clinic complex to provide the type of interaction needed for both effective teaching and effective health care for the patient.

Unit D - This subterranean facility south of Masonic Hospital shall house the Radiation Therapy replacement facility.

Basic Sciences - The planned increase of the entering medical and dental classes, as well as significant increases in number of students in associated health programs require expansion of the existing facilities. Since Basic Sciences acts as a foundation for all subsequent Health Sciences programs, this expansion must start in the last part of 1975. The expansion areas are to be remodeled spaces in Owre Hall, Jackson-Owre, and Millard vacated by the School of Dentistry, and space in Mayo on the second level vacated by Hospital Outpatient Clinics. Existing Microbiology labs in Mayo Tower will be vacated for use by the School of Nursing.

Unit E - The base levels of this building would house large shared classrooms. The tower would be the College of Pharmacy and the School of Nursing.

Bio-Medical Library - No expansion for the Bio-Medical Library is being considered for the 1977 Health Sciences program.

Ambulatory Care - This element consists of a facility planned to accommodate outpatients coming from long distance for diagnostic work which might require a stay of more than one day, and visitors. Location for this facility will be determined at a later date.

Continuing Education - The Continuing Education program will place major emphasis on keeping practicing Health Sciences specialists abreast of the latest trends in the Health Sciences field. The extent of the 1977 program will consist of moving the existing offices into a larger remodeled area of Powell Hall.

Mayo Garage - The new Health Sciences parking ramp (2,000 car capacity) located at Oak Street and Delaware was finished this spring. Mayo Garage will be devoted to outpatient parking as well as a portion of the new parking ramp. Part of the Mayo Garage may be developed for animal quarters until Building B/C is completed.

Administrative and Related Space - Space has been provided in existing facilities for the Administrative Offices of the Health Sciences, Medical School, and numerous other service activities such as: bookstores, building services, Minnesota Medical Foundation, and Student Affairs offices.

Allied Health - New programs include: Biomedical Data Processing, Bio-Engineering Research and Training, Information Retrieval, Laboratory and Hospital Automation, Medical Technicians, Inhalation Therapy, Mortuary Sciences, etc. These facilities will be located in remodeled areas of the Mayo Building.

On-Call Quarters - Present quarters located in Powell Hall will remain.

Outpatient Clinics - Major emphasis on outpatient care will require phasing out of existing facilities and construction of new facilities. These will be located in Unit B/C of the new complex, and will be served by the public 'street' one level below grade which will have direct connections to Mayo Garage, the new parking ramp east of Oak Street, and eventually to a public transit stop at Washington Avenue when it is tunnelled. Existing outpatient facilities in Variety Club Heart Hospital will remain.

School of Nursing - Consolidation of administrative and seminar facilities for the School of Nursing will be accomplished in the initial expansion program. Present space occupied by the School of Nursing in Powell Hall will be vacated for other uses. The new location and future expansion space for the School of Nursing will be in Unit F or the Mayo Tower.

School of Public Health - The School of Public Health will be consolidated in new facilities at a later stage of development. In the interim period, a major part of Public Health teaching and administration will be located in remodeled areas in Powell Hall. Labs, including those in the existing space in Mayo Tower, will be located in the new Unit A. This space will be vacated when new facilities are available and will be used for School of Dentistry expansion.

Scientific Apparatus Shop - Space for this facility for design and fabrication of apparatus required for scientific research will be determined at a later date.

General Purpose Classrooms - This program consists of teaching spaces utilized by Health Sciences, including Mayo 100 and Mayo 125. Major blocks of this space will be located in the Unit A base to relate directly to Basic Sciences, Dentistry, and Public Health.

SECOND PHASE - HEALTH SCIENCES DEVELOPMENT

Foreseeable expansion of the Health Sciences beyond that originally programmed for 1977 and extending through 1985 includes new facilities for the School of Public Health and a new hospital to replace beds now located in the Mayo Building. Space vacated by beds and other hospital functions in Mayo will be remodeled and used for expansion of clinical teaching and research, student study space, faculty and administrative offices.

Allied Health - New programs include: Biomedical Data Processing, Bio-Engineering Research and Training, Information Retrieval, Laboratory and Hospital Automation, Medical Technicians, Inhalation Therapy, Mortuary Sciences, etc. These facilities will be located in remodeled areas of the Mayo Building.

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School of Public Health - The School of Public Health will be consolidated in new facilities at a later stage of development. In the interim period, a major part of Public Health teaching and administration will be located in remodeled areas in Powell Hall. Labs, including those in the existing space in Mayo Tower, will be located in the new Unit A. This space will be vacated when new facilities are available and will be used for School of Dentistry expansion.

Scientific Apparatus Shop - Space for this facility for design and fabrication of apparatus required for scientific research will be determined at a later date.

General Purpose Classrooms - This program consists of teaching spaces utilized by Health Sciences, including Mayo 100 and Mayo 125. Major blocks of this space will be located in the Unit A base to relate directly to Basic Sciences, Dentistry, and Public Health.

SECOND PHASE - HEALTH SCIENCES DEVELOPMENT

Foreseeable expansion of the Health Sciences beyond that originally programmed for 1977 and extending through 1985 includes new facilities for the School of Public Health and a new hospital to replace beds now located in the Mayo Building. Space vacated by beds and other hospital functions in Mayo will be remodeled and used for expansion of clinical teaching and research, student study space, faculty and administrative offices.

A summary of new construction includes:

Unit G - The base levels of this building would house large shared classrooms and teaching labs for the School of Public Health, which were in the first phase located in the base levels of Unit A. Tower floors of Unit G would house the remainder of the School of Public Health. First phase Public Health space in Powell Hall would be vacated to allow for the removal of the building to make room for the new hospital. We should emphasize this site location, as the new hospital is not a firm decision.

Unit H - This structure ties the old and new parts of the Health Sciences Center together. At ground level it would contain the hospital entry concourse and allied public facilities, allowing public access to the new hospital from the Delaware and Union entry court. The level above the entry concourse includes expansion for the surgery suite.

Unit J - This building accommodates new hospital facilities for the Center. Hospital functions now located in Mayo Building will move into this complex. Teaching and research facilities may also be included.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
Physical Planning
Box 75 Powell Hall
4103 Powell Hall
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(612) 373-8981

*Unit F
Funding*

November 11, 1975

TO: Eric Watkins
FROM: *[Signature]* Maupin
SUBJECT: 1976 Progress Report Draft

Attached please find the Health Sciences portion of the 1976 Progress Report in draft form which you requested in your letter of October 27, 1975.

If you should have any further questions, please feel free to call.

PJM:rm

Attachment

Health Sciences -- Planning for the Health Sciences, first initiated on a concerted basis in 1966, continues. The Health Sciences Planning Committee meets on a regular basis to review all decisions and actions which relate to the continuing planning program. Because of the magnitude and nature of the Health Sciences program, the Health Sciences Planning Office was created in 1969 and is accountable to the Physical Planning Office and the Vice President for Health Sciences in planning activities. The role of the Health Sciences Planning Office covers a broad spectrum of activities ranging from assistance in the preparation of state legislative requests and federal grant applications at the onset of projects through completion of construction and occupancy of newly constructed and remodeled physical facilities.

Based upon the 1969 Legislative endorsement of the University's plan to increase health manpower education, planning has continued for the physical facilities which will accommodate this expansion program. Five major new units are involved in the program, together with remodeling of existing areas to accommodate Basic Sciences departments, the School of Public Health, the Medical School, and University Hospitals:

Unit A includes the School of Dentistry and some space for the Basic Sciences, the Medical School, and the School of Public Health. This facility has been completed and occupied.

Unit B/C will provide space for the Medical School clinical program, the Hospital Outpatient Department, and other supporting areas. A Federal grant; State appropriation, and private donations will finance this project. Excavation began in December, 1975; completion and occupancy are expected in September, 1977.

Unit K/E, the new Cardio-Vascular Research Center and the receiving and storage facility for the Health Sciences Complex, has been completed and occupied.

Unit F, which will be occupied by the College of Pharmacy and the School of Nursing received an approval of funding from NIH this past year. Two Federal grants, proposed State appropriations, and private donations will finance this project. Excavation currently is scheduled to begin in May, 1976. Completion and occupancy are expected in December, 1978.

The Basic Sciences Remodeling (Jackson/Owre/Millard/Lyons project) received NIH approval for funding this past year. This project will be financed with Federal grant, proposed State appropriations, and private donations.

Health Sciences Unit B/C: Funding has been established, construction begun on the excavation phase, and steel has been purchased for this 15-story structure which will serve primarily the Medical School and Hospital outpatient facilities. Completion and occupancy are scheduled for September, 1977.

Health Sciences Unit F: This building, which will be occupied by the College of Pharmacy and the School of Nursing, received NIH approval of funding. Completion and occupancy are scheduled for December, 1978.

Basic Sciences Remodeling: The planning phase has been completed and the design work by consultants will be initiated shortly. The remodeling of the Jackson/Owre/Millard/Lyons complex relates closely to the increase in health manpower education.

Health Sciences Parking Ramp: This 2,000 car parking ramp was completed in the spring of 1975.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES PLANNING OFFICE

The office was created in 1969 to facilitate the coordination of efforts required for current and long range planning for the University's Health Sciences. The office is accountable to Vice President Lyle French, Health Sciences Affairs, and Assistant Vice President Clinton N. Hewitt, Office of Physical Planning. The Office of Physical Planning is represented in the Health Sciences by this office. For the past ¹⁰~~eight~~ years this division of Physical Planning has been directed by Paul J. Maupin, Health Sciences Planning Coordinator. The primary function of this office is to coordinate the physical planning and design efforts for the construction of new facilities and major remodeling projects within the Health Sciences Master Plan.

The Master Plan was developed by the Architects Collaborative, (TAC), a Cambridge, Massachusetts architectural firm. The Health Sciences Architects and Engineers, a local firm, is currently the primary architectural firm on the recent Health Sciences projects. H.S.A.E and TAC are working together on the remaining phases of the project Unit B/C. ^{& UNITE IN ADDITION} *THIS OFFICE CONSULTS WITH NUMEROUS OTHER CONSULTANTS BASED UPON THE PARTICULAR EXPERTISE REQUIRED.*

Because of the multi-functional nature of health facilities and the specialized needs of each department, the planning process is immensely complicated. In addition to satisfying facility and department program requirements, caution must be taken to insure that H.E.W. guidelines for health care facilities are followed and that building code regulations (federal, state and city) for life and safety, provisions for the handicapped, and energy conservation measures are incorporated in the design of each facility. A health sciences project typically includes teaching, research laboratory, patient-care, and shared facilities, making it necessary to analyze each program from several different

perspectives with each calling for the input and expertise of in-house personnel and outside consultants. The HSPO provides a forum in which facility and departmental requirements can be evaluated, and assist the architects in defining and translating these requirements into architectural language.

Each health sciences project is followed from conception through all phases and levels of project development ^{to occupancy} by HSPO personnel. ~~Seven~~ ^{Five} full-time staff members have assisted the Health Sciences Planning Coordinator this past year in fulfilling the aforementioned responsibilities through communications with the architects, consultants, contractors, various government agencies, vendors and numerous other University departments.

The HSPO architectural staff members are involved in all phases of project development and assist the Health Sciences Planning Coordinator in a multitude of ways. They assemble pertinent information for grant preparation, program development, design development and various other activities. The staff attend meetings with health sciences department representatives, architects, consultants, and other University departments in these planning efforts. Contract documents and specifications are reviewed, and shop drawings, change orders and construction progress are monitored by the staff on a continuing basis to insure that facility and department program requirements are being met and in compliance with H.E.W. guidelines and building code regulations. The review and oversight responsibility of these individuals is very time-consuming; however, it has proven to be invaluable to the protection of program intent for each project.

Another major function the HSPO provides to health sciences departments is the purchase of scientific equipment. ~~The Health Sciences Equipment Coordinator~~ ^{ASSY. H.S. Coordinator} ~~assumes~~ ^{Each project manager}

resp. For his project's Group I Equip ^{to any} ~~meet~~ ^{meets} with department representatives to determine equipment requirements and

what special services will be required for installation and operation of certain equipment items. Departmental equipment lists are prepared, specifications are developed whenever necessary, equipment items are categorized into bid packages and prepared with special handling measures to reduce confusion for the University's Purchasing Department and prospective bidders. Detailed delivery schedules are developed to coincide with proposed completion and occupancy dates. The system of procedures to deliver this service function ^{was} ~~has~~ been refined by the Health Sciences Equipment Coordinator and the secretarial support staff, ^{during the cost of unit A & B/C,} so that the monumental task of purchasing several million dollars) worth of equipment can be handled with relative ease by a minimal number of HSPO personnel and the University's Purchasing Department. (^{Learn in} ~~The number of support staff required to carry out the procedures involved in equipment purchasing~~) fluctuates; ~~never, one full-time secretary and one part-time employee is sufficient the majority of the time.~~

The HSPO secretarial staff members serve a wide range of functions in assisting the other HSPO personnel.

The principal secretary assists the Health Sciences Planning Coordinator and the architectural staff with their correspondence and handling of incoming mail, maintains detailed project files, coordinates the scheduling of a heavy load of meeting schedules, and various other activities as they are demanded. In addition to these duties, the principal secretary is responsible for monitoring all of the financial activity related to the health sciences projects. Architect invoices on all health sciences projects are processed for payment by the HSPO. Detailed files are maintained on building and non-building costs, budget summaries and cash flow schedules are prepared periodically for review by individuals interested in the financial status of the various projects. Monitoring of the building reports is also done and

corrections or other information is submitted to the business office when necessary. ^{Prin Sec + Secretary} ~~The Equipment Coordinator's secretary assists him in compiling equipment lists, maintaining files, and various other activities involved in equipment purchasing, meets with vendors and assists in the coordinating of move-in efforts. An additional support staff member is required to cover the work overload generated by various activities of the HSPO.~~

In addition to the aforementioned brief descriptions of tasks performed by various HSPO personnel, it is important to note that a considerable amount) of time is devoted to assistance in preparation of grant requests, state building requests, ^{Committee meetings,} and many unscheduled tasks often performed in order to satisfy requests from Health Sciences Administration and faculty. ^{as well as the office of long planning} It is also important to note that the HSPO assists the architects in various feasibility studies and provides the major portion of information to the architects in the development of Health Sciences projects. The following provides a brief summary and background on the development of the projects with which the HSPO personnel have been involved in varying degrees in the process of planning.

UNIT A
UNIT K/R
UNIT B/C

This 15-story structure located directly south of and adjoining Unit A will provide 570,960 gross square feet of space for University Hospitals out-patient clinics, Medical School research department spaces and other health sciences shared facilities. Approval of federal funds in July, 1974, was the initial endorsement to construct this facility with 52% finished space (Phase I) and the remaining 48% shell space (Phase II) to be completed at a later date.

Unit B/C Phase I is nearing completion. Several departments have moved to their new facilities. There is a major effort being made by the HSPO and Construction and Engineering to get the balance of work items completed

HSPO personnel have worked closely with various Hospital and Medical School representatives, the architects, cost and schedule consultants, construction supervision staff and vendors. Weekly construction meetings have been held to provide a base of communication among the contractors, construction supervision staff, architects, schedule consultants and HSPO personnel. Biweekly progress meetings have been conducted to discuss major issues that arise and to encourage prompt decision-making in the best interest of the project. Proposed program-related modifications and change orders have been reviewed on a regular basis at these biweekly meetings. Several hundred additional meetings have been held with various department representatives and the architects to confirm the special requirements to be incorporated into individual department programs, to review proposed modifications and show drawings for accuracy and compliance with departmental needs, H.E.W. guidelines and building code requirements.

It should be noted that the same procedures take place on all the phases currently in process or in the design/development stages. We are currently to Phase Eight of Building B/C either in the construction stage or the design/development stage.

A considerable amount of time and effort went into the exploration of the materials transport system for Unit B/C. The contract was awarded to Mosler Telelift Company in December, 1976. The turnover of the system to the Hospital was scheduled for November, 1978.

The HSPO Equipment Coordinator has devoted a major portion of his efforts this past year to the purchase of \$1.6 million in Unit B/C Equipment. Specifications were developed and bids have been received on 98% of the equipment. 98% of the equipment has been ordered with 90% of the equipment received. As the space becomes available, the Coordinator and his staff oversee the installation of the equipment and coordinates the move in of the department.

Other phases in proces on Unit B/C are, Phase II which completes the Hospital Medical Records and the Department of Ophthalmology. Phase III which provides a food service facility and Civil Service employee lounge and locker area. Phase IV provides departmental office and research space on the 8th floor. Phase V will construct EEG and Blood Bank facilitys on floor 5 and Genetics, Virology and Immunology laboratory and office space on floor 7. Phase VI will construct Lipid Research facilities on a portion of the 6th floor. Phase VII will construct Health Services Research facilities on the 15th Floor. Finally, Phase VIII will construct research facilities for Animal Research for the department of Surgery.

The HSPO has developed a detailed procedure for maintaining current building and non-building records on all Phases of Unit B/C as well as all Health Sciences projects that we have responsibility for.

DIEHL HALL RENOVATION

This portion of the Unit B/C project is presently on "hold" pending a logical completion schedule for certain areas in Unit B/C that will most affect those areas of Diehl Hall scheduled for renovation. Planning

efforts will resume as soon as the schedule indicates it is advisable to proceed.

UNIT F

This structure will consist of eleven floors of space located directly north and adjoining Unit A with three levels below grade. This \$22.9 million structure will house the College of Pharmacy and the School of Nursing. The connecting links below ground will provide access to all shared resources of the health sciences such as classrooms, library, basic science laboratory and student areas.

Federal funds and State Legislative appropriations are supporting this project of 103,480 assignable square feet, with Nursing receiving 35,375 NASF; Pharmacy 58,384 NASF; Nursing/Pharmacy shared space 7,056 NASF; and Health Sciences shared space 2,665 NASF.

The construction method will include four contract phases: demolition, early contract excavation (ECX), early contract steel (ECS), and the Unit F construction contract. The bids for Unit F construction were received and awarded in November, 1978 with scheduled completion July, 1980.

BASIC SCIENCES REMODELING

This \$7.8 million project calls for the major renovation of 81,000 square feet of space located in the Jackson/Owre/Millard/Lyon Complex on the Twin Cities Health Sciences Campus. Federal funds and State Legislative appropriations are supporting this major remodeling of 61,000 square feet of

vacated Denistry space and 20,000 square feet of anitquated department space. The gross square foot is 117,000 square feet.

The project was divided into two phases due to time constraints: the first phase being the construction of two mechanical towers on the south side of the Complex and the second phase being the renovation of the assignable square feet. The mechanical towers, that house the air-conditioning equipment for the complex, have been completed and Phase II has been awarded. The construction schedule was set for 18 months, however, there have been) lengthy delays. HSPO personnel has been monitoring the construction and coordinating the departmental moves necessary during the construction period. The HSPO will also be responsible for the Group II equipment budget and the purchase of 10 to 14 new environmental rooms, depending on departmental program development.

CREMATORY PROJECT

The design/development phase of the project is completed. The HSPO and Engineering & Construction are working together in an effort to complete accurate specifications. The project was to be advertised for bids in September, 1978, however, this has been delayed pending the outcome of the specifications written and site problems.

SURGICAL PATHOLOGY RENOVATION

This 2,235 square foot project provided three new laboratories, a faculty office, and several ancillary spaces in the Jackson Hall first floor area for Surgical Pathology. The project is essentially complete. HSPO has monitored the construction and coordinated the Group II equipment delivery and installation.

FEASIBILITY STUDIES

TAC and HSPO personnel have combined their efforts to conduct several feasibility studies this past year. The Unit K Feasibility Study which evaluates the feasibility of locating Pediatric Nursing Units, Surgical Intensive Care and Poast-Anesthesia-Recovery in proposed upper floors of Unit K was completed in December. The Pharmacy-Nursing Study lends itself to exploring alternatives other than Unit F for the housing the College of Pharmacy and the School of Nursing. This study was completed and the findings of this study were reported to the 1977 Legislature for consideration. They reviewed the report and approved and funded Unit F. The findings of another study related to future construction of a replacement hospital (Unit J) has also been completed.

GOALS

Many future goals for the HSPO are implicit in the descriptions of projects now in progress. It is our hope to see successful completion of the construction projects now underway and significant progress on other projects now in the active planning stages.

The HEALTH SCIENCES PLANNING OFFICE was created in 1969 to facilitate the coordination of efforts required for current and long range planning for the Health Sciences. It is accountable to Assistant Vice President Clinton N. Hewitt, Office of Physical Planning and Vice President Lyle French, Health Sciences Affairs. The formal guidelines and goals for the HSPO are set forth in three Regents approved instruments; namely the Health Sciences Master Plan, the Health Sciences Mission Statement and the Health Sciences Ten Year Building Program.

The HSPO is presently located in a suite of offices on the ^{FIFTH FLOOR} ~~fourth floor~~ of ~~POWELL HALL~~ ^{BOTANY BLDG}. Paul J. Maupin, Health Sciences Planning Coordinator, has been directing planning efforts for the Health Sciences in this capacity since January, 1970. There are presently ⁵ ~~eight~~ employees assigned to various functions on several projects assisting him in delivering planning efforts to the Health Sciences. These efforts cover a broad spectrum ranging from assistance in the preparation of state legislative requests and federal grant applications at the onset of projects through completion of construction and occupancy of newly constructed and remodeled facilities. The HSPO personnel interface with users, architects, consultants, state and federal agencies, and diverse elements of the University in planning and developing Health Sciences projects. The following summary of HSPO personnel is intended to acquaint the reader with those individuals involved in planning efforts for the Health Sciences and to generally define their duties and responsibilities.

Paul J. Maupin, Health Sciences Planning Coordinator - Mr. Maupin acts as administrative aide to the Vice President for Health Sciences Affairs, Dr. Lyle French, and serves as a specialist for the Health Sciences functions relating to Physical Planning under the direction of Assistant Vice President

Clinton N. Hewitt. A large portion of his efforts are spent meeting with University personnel in planning and programming of newly constructed and remodeled facilities for the Health Sciences. He regularly confers with the architectural and consultants firms employed by the University. His assistance is frequently required in the preparation of legislative request documents and federal grant request. Constant involvement with University personnel from research oriented departments provides him with an expertise in data related to Health Sciences growth trends enrollment projections, etc. Mr. Maupin chairs and actively participates in numerous building and planning committees. He views his primary responsibilities as that of providing a service to the Health Sciences by moving toward the guidelines and goals set forth in the Health Sciences Master Plan and following projects through to completion and occupancy within budget limitations.

Robert Swanson, Asst. to the Health Sciences Planning Coordinator - Mr. Swanson provides architectural services for all Health Sciences projects coordinated by the H.S.P.O. He services a vital function in the overall planning effort. His involvement is many times required from the onset of projects in providing information for legislative requests and grant applications. He meets with users, consultants, and various other University personnel in designing and programming facilities. The architectural drawings are reviewed and verified by Mr. Swanson to insure the user's requirements are met and that all mechanical and electrical services are correct; casework and equipment reviews are also his responsibility. During construction he verifies that construction work is being completed according to plans and specifications in meeting the user's requirements. When discrepancies are detected he informs the necessary University personnel that modifications are required. During construction he also compiles a monthly quality control report.

Warren Forslund, Health Sciences Equipment Coordinator - Mr. Forslund is responsible for coordinating, scheduling and ordering of new equipment for all Health Sciences projects coordinated by the HSPO. He meets with various department heads and architects in developing movable and fixed equipment lists indicating a detailed description of each item, price room location, etc. Existing University owned equipment is also scheduled for moving through his efforts. His follow-up through any project includes programming delivery schedules of requisitioned items, receiving and storage of equipment prior to installation, and supervising installation and final approval of equipment. He also meets with vendors and various other University personnel related to purchasing such equipment.

~~Gary Zaworski - Asst. Health Sciences Planning Coordinator - His primary responsibilities have been related to design/development, layout and scheduling of space for the Unit F grant application and scheduling and layouts for Unit B/C furnishings and telephones. He is currently involved in the early stages of Unit F and Construction Documents that have been reviewed for Unit F. He also provides graphics as necessary.~~

Tom Kyle, Asst. Health Sciences Planning Coordinator - His primary responsibilities have been related to site plan updating for long range Health Sciences Planning and preparation for compiling program requirements for the Basic Sciences remodeling project. He is currently involved in several Health Sciences remodeling projects.

^{WASTrom}
Joycene M. Maroney, Principal Secretary - Ms. Maroney assists the Health Sciences Planning Coordinator in various facets of the Health Sciences Expansion program. She schedules planning meetings with users, architects, engineers, vendors, project superintendents, and various University personnel as required. ~~She acts as~~

receptionist; develops and maintains files for all Health Sciences projects; handles all incoming and outgoing mail; *Writes report, Jo. Reason for the HSP's Budget*
~~orders supplies and does all other secretarial duties.~~

MONITORING funds + Expenses.

She also maintains the accounting systems set up on all Health Sciences projects and ~~submits monthly reports or~~ as requested. ~~In addition, she maintains the HSEO budget.~~

MARY Achart,
~~Mary Waugh, Senior Office Specialist and Mary Grothjan, Senior Clerk Typist~~

~~They assist the Health Sciences Equipment Coordinator in establishing and maintaining files and records on movable and fixed equipment. They frequently correspond with vendors regarding invoicing and deliveries and perform other secretarial duties as required.~~ *Mary acts as receptionist, maintains various office equip, does typing & other assigned duties as requested.*

receptionist; develops and maintains files for all Health Sciences projects; handles all incoming and outgoing mail; orders supplies and does all other secretarial duties. She also maintains the accounting systems set up on all Health Sciences projects and submits monthly reports or as requested. In addition, she maintains the HSPO budget.

Mary Waugh, Senior Office Specialist and Mary Grothjan, Senior Clerk Typist -

They assist the Health Sciences Equipment Coordinator in establishing and maintaining files and records on movable and fixed equipment. They frequently correspond with vendors regarding invoicing and deliveries and perform other secretarial duties as required.

HEALTH SCIENCES PLANNING OFFICE

SYSTEM OF ACCOUNTING PROCEDURES FOR RECORDING FINANCIAL ACTIVITIES OF

MAJOR HEALTH SCIENCES CONSTRUCTION PROJECTS

The mission and purpose of the accounting procedures developed for recording financial activities of major construction projects in the Health Sciences is two-fold. The system first serves the purpose of monitoring the various accounts assigned to each project to insure that other University reportings are accurate. It serves the purpose of identifying reporting errors within a relatively short period of time according to University standards; errors could not go on undetected longer than a two month period. The University's primary way of reporting financial activity on major construction projects in the past has typically been the University Business Office's computer print-outs commonly known as building reports. This monthly document has long been the exclusive document used for providing financial information to those concerned with the financial aspects of construction projects. Up to this time, this document has not been carefully monitored for mistakes. It is more accurate to say that this document has been accepted as the "final word" in reporting of financial activity on construction projects. Since, this document is the product of a computer, it is only as good as the information fed into it by many persons throughout the University system. It is human to make mistakes, and certainly the people responsible for providing information to the computer are not exempt from their human condition. This system, applied to all the current major construction projects has revealed that the building reports are not the "final word" in financial reporting; errors were discovered on every construction project's building report. It revealed errors such as keypunch errors, clerical errors, and documents lost in processing. The second purpose of the accounting system is to accurately report the financial activities of the various projects in a "language" that could be understood by laymen in the business of accounting. Laymen have simply not been able to translate the monthly building reports into a language they could understand. The final result of the system provides a monthly report in easy to understand terms and reflects the progress of a project on the basis of its final established budget. All of the information is presented in the monthly financial statements to make the comparisons that are so vital to project management. It also provides more current information than is available from the Business Office's building reports.

It is important to understand that the building reports have been the only document available that pulls together all of the information on the financial activity of construction projects. It is a useful instrument to use as a guideline in maintaining the system established for this office. It should be used consistently to cross-check the records in this office and to insure that errors made in processing are corrected on the building report. It should be pointed out that the building reports always arrive at least two weeks after the end of the previous month, and do not always reflect financial activity that has been initiated in the last half of the month. In addition, they report balances of authorizations, in many instances, as much as six months old. Authorizations are regularly billed twice a year for the amount of charges accumulated during the previous six month period. The building report balances for authorizations are based on these twice yearly billings. Authorization balances utilized on the monthly financial reports published by this office reflect current balances taken from a monthly authorization print-out reflecting up-to-date balances of authorizations. Understandably, then, the monthly financial reports of this office are more current and accurate than the building reports, and provide invaluable information for project management.

The system has been devised to provide separate files of financial documents for each project. These files are set-up for each source of funding, each requisition, each authorization, and a file for journal vouchers and miscellaneous documents. They contain all of the material that documents their current balances. In the case of requisitions, the file will contain the original document (type 06 requisition) that either encumbers funds or buys goods and services. Copies of each invoice or pay request paid against these committed funds will also be found in the file. In the case of authorizations, the file will contain the type 08 authorization set-up document and copies of each billing made against the authorization. Requisition and authorization files all contain a face sheet or ledger sheet which indicates at a glance the amount of funds committed, the amount of charges made against the funds, and the balance of the remaining funds. Each source of funding also has a separate file and face sheet indicating the amount of funds committed to fund the project. It should be noted that the funding files do not reflect current balances of each source of funding; they simply note the total amount of funds and their source that are committed to fund a project.

A notebook containing copies of all face sheets for sources of funding, requisitions, authorizations and copies of all journal vouchers has been established for each project. These notebooks represent current information on the status of each project commitment. The notebook is set-up in such a fashion that it is easy to identify any project commitment. It is convenient to review and provides an overall project financial picture. It should be encouraged to have personnel use these notebooks; they were established for their use and convenience. However, it would be advisable that these notebooks not be removed from 4103 Powell Hall without first notifying the secretary.

The monthly financial reports are developed by utilizing the information from the files. It is a process of identifying each financial account and comparing it to its respective line item on the project's final budget. In many instances, this means that several financial accounts would be involved in the reporting of one line item. Every existing financial document must be accounted for in the monthly financial report. This is a tedious and time-consuming effort for the larger projects, but the end result is well worth the effort.

Any breakdown in the system will be the result of failure to record charges and calculating the monthly financial reports. The success of the system will require continuous maintenance; i.e., securing copies of documents, recording, monitoring, and identifying accounts for reporting on the financial statements. This system can work marvelously as long as it is maintained and valued for its importance. As is the case in all things, you reap what you sew.

GENERAL INFORMATION:

REQUISITIONS - TYPE 06: Requisitions can be used for two purposes. The primary use of requisitions is to secure goods and services. The requisition commits the amount of funds required to secure the purchase. Invoices are charged and paid against these committed funds. When the committed funds have been depleted, it is necessary to initiate a supplemental requisition for charges in excess of the funds initially committed. The secondary use of requisitions is to encumber funds; i.e., commit and hold funds or protect and save. In the event a requisition is initiated and processed to encumber funds, it must be remembered that the requisition must be reduced by the same amount of a purchase or an authorization set-up, or it may be reduced to zero and be closed. It is extremely important to advise the Business Office as soon as any amount of the encumbered funds are to be used, whether it be by authorization, another requisition, journal voucher, etc. Failure to do so will result in duplicate commitment of funds, and will be reflected as deficit spending.

AUTHORIZATIONS - TYPE 08: Authorizations are set-up or established to commit funds for a specific purpose. This could range all the way from purchase of goods and services to making arrangements for Physical Plant to perform some specific task. Unlike requisitions, authorizations can be overdrawn. Overdrafts are automatically funded by the last item of funding identified on the set-up document. Authorizations are billed twice yearly for charges accumulated during the previous six month period. A computer print-out is circulated monthly that reflects current balances on open authorizations.

JOURNAL VOUCHERS - TYPE 11: Journal vouchers provide a means of transferring expenses from one budget to another. Journal vouchers are commonly believed to be used to transfer funds; this is not true. Only a Type 02 - transfer of funds can move funding, and this document should never be initiated by the Health Sciences Planning Office. Journal vouchers allow one budget to reimburse another for expenses. This is its only purpose. Journal vouchers automatically commit and expend funds at the time of processing; there is never a balance associated with journal vouchers.

The HEALTH SCIENCES PLANNING OFFICE was created in 1969 to facilitate the coordination of efforts required for current and long range planning for the Health Sciences. It is accountable to Assistant Vice President Clinton N. Hewitt, Office of Physical Planning and Vice President Lyle French, Health Sciences Affairs. The formal guidelines and goals for the HSPO are set forth in three Regents approved instruments; namely the Health Sciences Master Plan, the Health Sciences Mission Statement and the Health Sciences Ten Year Building Program.

The HSPO is presently located in a suite of offices on the fourth floor of Powell Hall. Paul J. Maupin, Health Sciences Planning Coordinator, has been directing planning efforts for the Health Sciences in this capacity since January, 1970. There are presently eight employees assigned to various functions on several projects assisting him in delivering planning efforts to the Health Sciences. These efforts cover a broad spectrum ranging from assistance in the preparation of state legislative requests and federal grant applications at the onset of projects through completion of construction and occupancy of newly constructed and remodeled facilities. The HSPO personnel interface with users, architects, consultants, state and federal agencies, and diverse elements of the University in planning and developing Health Sciences projects. The following summary of HSPO personnel is intended to acquaint the reader with those individuals involved in planning efforts for the Health Sciences and to generally define their duties and responsibilities.

Paul J. Maupin, Health Sciences Planning Coordinator - Mr. Maupin acts as administrative aide to the Vice President for Health Sciences Affairs, Dr. Lyle French, and serves as a specialist for the Health Sciences functions relating to Physical Planning under the direction of Assistant Vice President

Clinton N. Hewitt. A large portion of his efforts are spent meeting with University personnel in planning and programming of newly constructed and remodeled facilities for the Health Sciences. He regularly confers with the architectural and consultants firms employed by the University. His assistance is frequently required in the preparation of legislative request documents and federal grant request. Constant involvement with University personnel from research oriented departments provides him with an expertise in data related to Health Sciences growth trends enrollment projections, etc. Mr. Maupin chairs and actively participates in numerous building and planning committees. He views his primary responsibilities as that of providing a service to the Health Sciences by moving toward the guidelines and goals set forth in the Health Sciences Master Plan and following projects through to completion and occupancy within budget limitations.

Robert Swanson, Asst. to the Health Sciences Planning Coordinator - Mr. Swanson provides architectural services for all Health Sciences projects coordinated by the H.S.P.O. He services a vital function in the overall planning effort. His involvement is many times required from the onset of projects in providing information for legislative requests and grant applications. He meets with users, consultants, and various other University personnel in designing and programming facilities. The architectural drawings are reviewed and verified by Mr. Swanson to insure the user's requirements are met and that all mechanical and electrical services are correct; casework and equipment reviews are also his responsibility. During construction he verifies that construction work is being completed according to plans and specifications in meeting the user's requirements. When discrepancies are detected he informs the necessary University personnel that modifications are required. During construction he also compiles a monthly quality control report.

Warren Forslund, Health Sciences Equipment Coordinator - Mr. Forslund is responsible for coordinating, scheduling and ordering of new equipment for all Health Sciences projects coordinated by the HSP0. He meets with various department heads and architects in developing movable and fixed equipment lists indicating a detailed description of each item, price room location, etc. Existing University owned equipment is also scheduled for moving through his efforts. His follow-up through any project includes programming delivery schedules of requisitioned items, receiving and storage of equipment prior to installation, and supervising installation and final approval of equipment. He also meets with vendors and various other University personnel related to purchasing such equipment.

Gary Zaworski - Asst. Health Sciences Planning Coordinator - His primary responsibilities have been related to design/development, layout and scheduling of space for the Unit F grant application and scheduling and layouts for Unit B/C furnishings and telephones. He is currently involved in the early stages of Unit F and Construction Documents that have been reviewed for Unit F. He also provides graphics as necessary.

Tom Kyle, Asst. Health Sciences Planning Coordinator - His primary responsibilities have been related to site plan updating for long range Health Sciences Planning and preparation for compiling program requirements for the Basic Sciences remodeling project. He is currently involved in several Health Sciences remodeling projects.

Joycene M. Maroney, Principal Secretary - Ms. Maroney assists the Health Sciences Planning Coordinator in various facets of the Health Sciences Expansion program. She schedules planning meetings with users, architects, engineers, vendors, project superintendents, and various University personnel as required. She acts as



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TWIN CITIES

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November 29, 1978

TO: Vice-President Clinton Hewitt
FROM: Paul J. Maupin *Paul*
SUBJECT: Physical Planning "Advance"

This memo is in response to Gary Summerville's memo of November 17, 1978 concerning the reorganization of the Physical Planning and Physical Plant operations.

I am sending along four reports which pertain directly to the Health Sciences Planning Office. The first gives a brief history of the department and describes each person currently employed in this department along with the responsibilities of their position. The second gives a more indepth history of the department and lays out specifically what we do in this department along with a brief description of the projects we are currently involved in. The third document is a statement of the Policies and Procedures for Change Orders which gives a good picture of how our department interrelates with other University departments. The fourth document explains the procedures we use in the monitoring of financial activity for the Health Sciences Projects and why it is necessary to do so.

With respect to any possible change in relationship to the Department of Construction and Engineering after the reorganization, I don't see that there will be any significant change in the interaction between the departments at all.

The term "Duplication of Effort" is often used with reference to Engineering and Construction and our office. I feel that a more accurate statement would be that in some areas there is an overlapping of responsibility. This, however, has proven to be necessary to keep the projects moving and in meeting the needs of the various department utilizing the new facilities.

My one major concern at this point would be the fact that this office is funded with "soft money". I strongly feel that the Health Sciences Planning Office should be put on the "hard money" line item budget.

PJM:jm



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February 9, 1979

FEB 12 Rec'd
UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

TO: Paul Maupin
FROM: Barb Quade *Barb*
RE: Update/Progress on Planning Report

As I am sure you are aware, each year the University submits a Progress Report on Planning to the Legislature. The attached items deal with Health Sciences; therefore, it would be appreciated if you would update them and add any others you feel are relevant. I would like to have your comments by February 19.

Thanks.

BQ/pl

Attachment

Health Sciences -- Planning for the Health Sciences, first initiated on a concerted basis in 1966, continues. The Office of Physical Planning's Health Science Planning Office handles a broad spectrum of activities ranging from assistance in the preparation of state legislative requests and federal grant applications at the onset of projects to overseeing the completion of construction and the occupancy of newly constructed and remodeled facilities.

Based upon the 1969 Legislative support of the University's plan to increase health manpower education, planning has continued for the physical facilities which will accommodate the Health Sciences program expansion. The major new units involved in this program expansion, together with remodeling of existing areas to accommodate Basic Sciences departments, the School of Public Health, the Medical School, and University Hospitals, are Unit A, which houses the School of Dentistry and provides some space for the Basic Sciences, Medical School, and School of Public Health; Unit B/C, which will provide space for the Medical School clinical program, the Hospital Outpatient Department, and other supporting areas; Unit K/E, the new Cardio-Vascular Research Center and the Receiving and Storage Facility for the Health Sciences Complex, to which an addition is planned to house hospital functions; and Unit F, which will be occupied by the College of Pharmacy and the School of Nursing.

HEALTH SCIENCES UNIT B/C: Interior finishing for certain areas is nearing completion for this fifteen-story structure which will serve primarily the Medical School and Hospital Outpatient facilities. Construction activity on the fifth floor link which connects Unit B/C to the Mayo Complex is presently in progress, and shell space areas have been developed for the Department of Ophthalmology and University Hospital departments with construc-

tion to begin in the near future.

HEALTH SCIENCES UNIT F: Demolition of existing buildings on the site has been completed, and excavation is presently under way. Steel erection will begin in late June, 1978. Estimated occupancy for Pharmacy and Nursing is September, 1980. Federal funds approved in July, 1975 and a 1977 State legislative appropriation will provide funds for this facility.

BASIC SCIENCES REMODELING: Major remodeling of vacated and antiquated space in the Jackson-Owre-Millard-Lyon Complex is being financed by NIH funds and State legislative appropriations. The first phase of this project, construction of two mechanical towers containing fans for future air-conditioning, is essentially completed. The second phase, interior finishing and mechanical systems, is presently under way.



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February 19, 1979

TO: Barb Quade
FROM: Paul J. Maurer *Paul*
SUBJECT: Health Sciences Projects Update

In response to your memo dated February 9, 1979 regarding an update to the Legislature on the various Health Sciences Projects, we submit the following:

HEALTH SCIENCES UNIT B/C: The original contract which designed and constructed this 15 floor structure and some interior shell space has been completed with users occupying thier assigned space on February 24 and 25, 1979.

Through the efforts of the University of Minnesota Hospitals and the Lions Club, funds have been provided to complete the Eye Clinic for the Department of Ophthalmology and some Hospital areas such as Medical Records. The remaining interior shell space will be completed by private funds. A major fund drive is currently underway.

HEALTH SCIENCES UNIT F: This structure which will house the School of Nursing and the College of Pharmacy is well underway. Currently the steel decking is going up. We expect this project to be complete on schedule in the Fall of 1980.

BASIC SCIENCES REMODELING: The remodeling project for the Jackson/Owre/ Millard/Lyon Complex is expected to be completed by mid-June of 1979. The 1st phase of the project constructed two mechanical towers. The second phase nearing completion remodeling the interior finishings and mechanical system. Various areas of the project are complete and are occupied by the user.

cc: Cherie Perlmutter
Clint Hewitt

PJM:jm



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Assistant Vice President

Paul Maurine

Physical Planning
340 Morrill Hall
100 Church Street S E
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March 22, 1979

TO: Reorganization Participants

FROM: Clint Hewitt *Clint Hewitt*

The following outline is a management 'exercise' that I would like for you to take as a follow-up to the sessions we have had on reorganization.

- I. List your perception of the mission, goals, and objectives of your unit. As a guideline "mission" means the purpose of the unit and the rationale for existence. Goals provide specificity to the mission indicating the types of activities undertaken. Objectives relate to goals but illustrate the operating dimensions for the immediate future.
- II. Prioritize your objectives rating them in three ways: 1) utmost importance, 2) high importance, and 3) important.
- III. Identify the percentage of time that your staff spends in pursuit of each of these objectives according to work assignments (tasks). Be as specific as possible in listing typical and daily tasks.
- IV. Describe the results you expect from staff input in each category of tasks.
- V. What has been the success of your staff in meeting objectives?

The reports from each unit will be collected into a single document for a review by the group with respect to consistency, redundancy, or conflict. It is hoped that from such an exercise we will be able to clarify and organize a reasonable set of goals and objectives for the office. Your careful participation in this exercise is important if we are going to reap any benefits from the time we are committing to review the efforts of the Office of Physical Planning. It is important that we examine the hard facts about how we do business - a cost-benefit analysis of our efforts will have to be undertaken.

I will clarify the intent of this exercise in a follow-up session.

CNH/hcd

cc: Gary Summerville



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March 30, 1979

TO: Paul Maupin

FROM: Warren Forslund *Warren*

SUBJECT: Health Sciences Planning Office's mission

In listing requested "perceptions" for Clint Hewitt's March 22, 1979 letter, I have followed his format.

Under "mission" in part I the "purpose" of our unit, HSPO, as it relates to movable equipment is to provide expertise and services to the user in (1) the identification of required equipment and its mechanical and electrical requirements for each room within their portion of the complex, (2) the development of furnishings and equipment budgets, (3) the development of specifications and bid documents for all equipment and services, (4) the bid evaluation and award process, (5) the receiving and installing process, and (6) the final acceptance, and invoice payment process, and total budget reconciliation process. For other activities which should be included in "purpose" list see page 3 of my March 12, 1979 letter to you.

Continuing under "mission" the "rationale for our existence" involves self interest and consequent subjectivity, and therefore objectivity is highly suspect. My March 12th letter has eight pages of observations and questions that bear on the subject. It is difficult to make a "cost benefit analysis of our efforts" without detailing, for each item, the effort put forth to research out a specification that would get the user the piece of equipment he needs and not be forced into a compromise situation similar to our vernitron washer and sterilizer experience in Unit B/C, and Tinney cold room experience in Unit A. We have written specs on roughly \$8,000,000 worth of equipment, and we have gotten equipment that the user has been satisfied with. If this were not so, there would be letters in your file or Clint Hewitt's file delineating dissatisfaction in great detail similar to the ones now in your file on Vernitron equipment. This has not happened easily because we have had threats of law suits by potential suppliers (Haldeman-Homme, Forest Jackson who went to the Regents and Bredemus Hardware for examples). It has taken

astute observations, carefully worded specifications, and backbone to stand up for what you think is right, notwithstanding the politics of the situation.

If you have speced something incorrectly, how do you add up all the costs to the user on loss of lab time, loss of grant monies, loss do to unwarranted future repairs as in the case of the Vernitron equipment?

If you have speced something correctly, how can you show a cost benefit? My March 12th letter points out \$423,000 worth of savings or potential savings made by this office where we were able to change specifications (again because of astute observations and backbone to stand up for what you think is right) already put forth by the architect or others at the University.

For some other observations, I will take statements from my March 12th letter. On ask a user:

"I believed that consultation with the School and Department representatives, such as Dr. Holland to determine their satisfaction with the process, would be very useful at this time in making an evaluation of this project."

On need for mechanical background in machinery and equipment which pertains not only to the architect but also to University personnel such as Hospital personnel now involved in Unit K/E-H:

"Problem areas with equipment listed above and many areas not listed betrays the architect's lack of a fundamental knowledge in the basic principles of machine design and basic understanding of the environments that the machine is required to maintain in such equipment as laminar flow hoods, cold rooms, sterilizers, washers, etc."

On need for expertise on labor problems:

"This office has written specs to cover installation labor problems. The most significant problem concerned Den-Tal-Ez and their disputes with the plumbing and electrical unions on the installation of dental chairs. Plumbing inadequacies were corrected, and the labor dispute resolved with no additional cost to the University."

On costs of services:

"Total savings or potential savings to the University on 6 specific items:

\$100,000
150,000
75,000
30,000
18,000
<u>50,000</u>
\$423,000

This office's total expenses since 1972 has been roughly \$340,000.

With these figures in mind, our services for the total movable equipment efforts for Unit A and Unit B have cost the University nothing. Is it unreasonable to expect that in the future similar savings through our analysis process could be made."

On proven record:

"This office has a proven record. Compare it with TAC'S record on Unit A."

For "goals" and "objectivities" under Part I see attached listing of activities dated November 20, 1978 for Unit F. This same listing would apply to other Health Sciences projects.

"Prioritizing objectives" and "identifying time percentages" under Parts II and III is not feasible because each portion of the job has to be done in a sequential pattern.

Some side comments that might have some bearing on review for "consistency, redundancy, or conflict". It has to do with duplication of effort. I am reminded of the K/E Materials Management Department and their attempt to take over the entire purchasing effort with buyers, etc., including the portion performed by the Purchasing Department. Robert James confronted this effort on their part for autonomy and was able to argue successfully with the V.P.'s and possibly Regents to quash this effort. I believe Materials Management could have hired competent buyers, etc., to do the job so that was not the reason for its being quashed. It seems it dilutes the Purchasing Department's effort (reduction of staff, expertise, and confusion of authority, who will abdicate next, etc.), and presents the vendors with dual purchasing departments and associated problems. Other departments would wish to become autonomons and further complications and a type of anarchy would evolve.

The Health Sciences Planning Office was established to lighten the load of Planning, Engineering, and Construction because of the Health Sciences specialized needs and tremendous building program. I believe Hospital's involvement in Units K/E-H and J are in the same category as Materials Management's attempted involvement in purchasing, and that the same arguments Purchasing used could be used against the Hospital's involvement in planning and movable equipment.

A few words on "conflict" in a bit different way: healthy conflict. I think it can be quite well established that if this office is not doing its job properly the work, verbally and in letter form, gets out to the appropriate people. If, on the other hand, the Hospital or another department is handling the complete planning effort, and there is incompetency with its attending mistakes, there would be great potential (it's the human way) for cover-up. I am reminded of the Hospital review of the move spec I had developed. There were certain aspects of it that Mr. Dickler was not in agreement with. In arguing for my point of view, he said "If you can't do it our way, we will do it." In a review with Bob James, my view happened

to prevail. I think when there are conflicting views, and these views have to be integrated, you get a much more sophisticated answer because two or more life experiences and professional trainings of more or less blind people see much more of the elephant than just the trunk or just his leg.

March 30, 1979

To; Paul Maupin
From: Tom Kyle *Tom*
Subject: Assessment of responsibilities
Health Sciences Planning Office

This is an outline of my Mission, Goals, and Objectives; and a priority assignment, including a description of my successes as I see them.

MISSION

- a) coordinate the physical planning and design efforts for the construction of new facilities and renovation of existing structures within the Health Sciences Master Plan.
- b) represent the interests of the Health Sciences Planning Office during construction or remodeling phases by assisting and monitoring construction schedules, initiating construction modifications, assisting construction superintendants, daily inspecting of construction sites and coordinating efforts of representatives of physical plant and physical planning assigned on each project.
- c) carry this mission through from the early planning stages to construction, when possible, and into final occupancy.

GOALS

- a) satisfy facility and department program requirements within scope of Master Plan
- b) advise departments, consultants and administration to insure compliance with H.E.W. guidelines, state/federal/city building code requirements and regulations; and assist in the interpretation of same.
- c) assist in budget preparation and monitor expenditures to insure adherence to budget and available funds.
- d) assist in the interpretation and execution of contracts associated with mission.
- e) insure that all projects reflect intent of mission and Master Plan in both present and future time frames.

OBJECTIVES

- a) provide a forum for evaluation of facility and departmental requirements and interface between departments and architects/consultants.
- b) assist in preparation of grants and legislative requests and review requests. provide written information and evaluation for proposals.
- c) review documents at every phase of development and coordinate review and approval process with departments and other pertinent agencies/offices.
- d) assist in the preparation of equitable budget calculations and pull various cost assumptions into one overall project budget for approval and funding assignment.
- e) act as a clearinghouse for all problems emanating from departments and consultants and contractors.
- f) compile equipment and furnishings needs with departments; this involves teaching, research, clinical, special, and general office equipment and furnishings. specifications must be written and purchase and installation agreements executed.
- g) attend and monitor all construction progress meetings to insure schedules are met and to exercise responsibilities related to modifications to contracts. exercise over-sight responsibility and quality control to protect program intent and the best interest of the University as it relates to modification to contracts.
- h) develop departmental occupancy schedules and building activation schedules to meet actual conditions during and after construction; supervise departmental moves and coordinate interdependent activities through final occupancy.
- i) exercise persuasive communication in regard to all phases of development approval or disapproval and execution of planning efforts to preserve intent of the mission.

I am satisfied that these items are in some rudimentary priority as they are listed if one takes into account that they are all dependant on one another to have meaning. My perceived success at the tasks assigned is generally good. I've had reasonable success although in any renovation project it is difficult to assess the scope of a project due to the many unknown factors and unforeseen conditions. I can only judge from the final project and how its occupants sense my success; and I have received a good number of modest compliments for my candor and ability to pursue issues to purposeful ends.



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April 2, 1979

TO: Paul Maupin
FROM: Robert Swanson *RS*
SUBJECT: Mr. Hewitt's March 22, 1979 Memorandum
"Departmental Mission, Goals and Objectives"

I believe the sole mission given the Health Sciences Planning Office is to assist the Health Sciences Community in the development and construction of new and/or remodeled physical facilities that will provide for the academic, research and patient care needs of the residence of Minnesota, through the development of first rate multi-functional facilities at a reasonable cost.

The primary goal of the Health Sciences Planning Office is to provide a "service function" to the Health Sciences Community. This service function can best be described by outlining the following list of services generally provided on any given Health Sciences project.

1. Assist any given Health Sciences component with the preparation of grant application, that may result in the construction and or upgrading of existing facilities to better the research, teaching or patient care delivery within the Health Sciences.
2. Assist any given Health Sciences component with the preparation of a functional space program, which will insure that the following criteria is included.
 - a. An organized traffic flow
 - b. Maximize the space utilization
 - c. Maximize the working environment
 - d. Provide for energy conservation
 - e. Fall within the current code requirements in regard to life safety and the handicapped
 - f. Provide an esthetic value without compromising the functional aspects of the space program.
3. Schedule, conduct and supervise all architect/occupant planning and development meetings to insure that the architects and occupants account for the following in the overall design (listed by priority):

Mission, Goals and Objectives
April 2, 1979
Page Two

- a. The overall design meets the requirements of the "functional space program" and the projected budget.
 - b. Handicapped access and utilization is maintained.
 - c. Life safety code is applied.
 - d. Energy conservation measures are applied.
 - e. The overall design maximizes the working environment.
 - f. Access to the area is maintained for any given support function, such as animal delivery, patient supplies, janitorial, etc.
 - g. Traffic flow between functions and/or adjoining structures is maintained.
 - h. Esthetic value of the design.
4. Assist the Deans & Directors, and the Health Science Master Planning Committee revise the Health Sciences Master Plan document, which should account for the following:
- a. Ten years of physical facilities development
 - b. Indicate any priority shift in the space needs outlined in original programs which may have been brought on by funding, personnel changes, developments which may alter the state of the art or enrollment increases or decreases.
5. We provide the occupant with the means whereby movable equipment can be bid, purchased, delivered and installed with the least possible disruption to their daily operation or functional routine.
6. We maintain a complete financial record on each project, which at anytime will give an accurate accounting of all expenditures against a given project budget.

In addition to the service functions listed above, I believe each of the Assistant Health Sciences Planning Coordinators also provide the following services which directly apply to the given construction project.

A. Building construction:

1. Primary goals
 - a. To monitor the development and construction of a given project to insure that the occupants program requirements are satisfactorily met.
 - b. To monitor and review, with the assistance of the various University departments, the preparation and eventual construction or implementation of the following elements.
 1. Graphics - Lee Meyer
 2. Furnishings -
 3. Movable Equipment - Warren Forslund
 4. Telephones - Robert Mackey
 5. Media Resources - Bill Wik

Mission, Goals & Objectives

April 2, 1979

Page three

2. Major Objectives

- a. To assist the following outside organizations and University of Minnesota departments with drawing interpretation, general questions or possible building modification requests to any given programmed space located within the Health Sciences Complex.
 1. University of Minnesota Interiors
 2. University of Minnesota Engineering & Construction
 3. University of Minnesota Physical Planning
 4. University of Minnesota Physical Plant
 5. University of Minnesota Health Sciences Vice Presidents Office
 6. University of Minnesota Environmental Health and Safety Office
 7. University of Minnesota Hospitals - Occupants and Administration
 8. University of Minnesota Medical School Deans Office and Departmental Representatives
 9. University of Minnesota Construction Superintendents
 10. Health Sciences Architects and Engineers
 11. Contractors via the University of Minnesota construction coordinators
- b. To perform site visits at regular intervals to check the progress of the building construction as it relates to all programmed space.
- c. The checking and/or review of all shop drawings pertaining to programmed space. This includes casework, fixed equipment, movable equipment, etc.
- d. Site visits to check the structure as it relates to modification requests, field changes and etc. which affect programmed space.
- e. To attend any meeting dealing with questions regarding the design intent of a given programmed area.
- f. To perform all general Health Sciences Planning Offices duties concerning a given construction project.
- g. To monitor all meetings scheduled that develop the overall building graphics. Upon completion of the contract documents the Health Sciences Planning Office will review and approve the documents with the assistance of the particular department representatives.

Mission, Goals & Objectives

April 3, 1979

Page four

- h. To monitor all movable equipment and furnishings meetings requiring interpretation of the contract documents.
- i. To review the final "User Equipment Forms" for content, possible building systems and layout changes, which may affect the contract documents.



UNIVERSITY OF MINNESOTA
TWIN CITIES

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March 29, 1979

TO: Paul Maupin
FROM: Gary Zaworksi
SUBJECT: Goal, Mission and Objectives

Optimum results depend on thorough planning, responsive feedback from conception through its delivery. It requires organized coordinated interaction and cooperation among all parties - owner, designers and contractors.

The purpose is to assure maximum value within established cost parameters. Maximum value is a complex concept involving initial cost, life cycle cost and ultimate satisfaction of the functional needs.

EACH PROJECT'S OVERALL OBJECTIVES ARE:

I. FUNCTIONAL

- A. Facility to be designed and constructed to suit the present projected needs.
- B. Program space and support space and facility systems must be efficiently related to satisfy both current and future needs.

II. BUDGET:

- A. Project must be justifiable in terms of expected benefits and affordable in terms of available funding.
- B. Exercise creative cost management, including cost control of both the overall budget and the preliminary allocations to the various functional building systems.
- C. Advise the architect and engineers on practical consequences of their decisions and design options.
- D. Verify cost and techniques.

III. QUALITY:

- A. The facility should have a useful life.
- B. Reasonable quality that should be consistent with images and standards set by the University.

IV. OPERATIONAL:

- A. Analysis of the projected energy utilization, staffing requirements, maintenance costs, all are drastically affected by what is designed and what is constructed.

V. AESTHETIC:

- A. The project must be aesthetically suitable, presenting an appropriate image.

VI. SCHEDULE:

- A. Project must be ready when needed.
- B. Planning and coordination can optimize man and material efforts during the pre-construction and construction phases reducing project costs and time.

SUMMARY OF SERVICES PROVIDED BY THIS OFFICE FOR EACH PROJECT:

I. Programming and Planning:

- A. Functional requirements
- B. Communication requirements
- C. Mechanical requirements
- D. Electrical requirements
- E. Space net and gross area tabulations
- F. Group I equipment needs
- G. Group II equipment/furniture needs

II. Design:

- A. Advise on site conditions, appropriate material alternates, construction feasibility of various systems and the probable design and cost implications.
- B. Advise the architects and engineers on practical consequences of their decisions and design options.

Goals, Missions and Objectives

March 29, 1979

Page three

- C. Provide alternates
- D. Perform detailed analyses
- E. Review plans and specifications for completeness and construction feasibility
- F. Verify cost and techniques
- G. Perform all services with awareness to assure maximum value

III. Project Management

- A. Define direction and scope of administrative team
- B. Define responsibilities of each member
- C. Establish methods of communication and documentation for all meetings and decisions.

IV. Project

- A. Establish priorities
- B. Establish procedures for implementing priorities
- C. Develop master plan and schedule
- D. Establish financial status

V. Group I and II equipment furnishings

- A. Develop a comprehensive listing of all equipment and furnishing required for the facility new and existing
- B. Establish a budget
- C. Identify consultants, contractors, sub-contractors and vendors
- D. Analyze building system for functional needs
- E. Assist in negotiation with architects, engineers and special consultants

VI. Construction

- A. Review and adjust schedule
- B. Exercise quality control

VII. Occupancy

- A. Expedite and coordinate delivery and installation of all equipment and furnishings
- B. Schedule and coordinate user occupancy.

Experience indicates that when users are carefully prepared for the task, they are capable of projecting beginning designs based on their own understanding of their needs and aspirations. Experience also indicates that when users do this, the professional planner's role is extended, not reduced. It is he who must then turn tentative impulses into full blown solutions, environmental purposes and integrate all design input into a single cohesive proposal.

We are a professional planning group with expertise in architectural and health planning areas and sensitivity to the problems of each. We are able to pursue the University interest objectivity, combined with thorough understanding of the construction process.

Our services provide the University with the control needed to successfully complete a project with optimum results.

The method outlines maximum utilization and eliminates the expensive hierarchy of overhead and profit markup associated with traditional methodology. This approach has benefited the University with substantial savings in time and money if utilized. This office has demonstrated that expertise in providing these services.

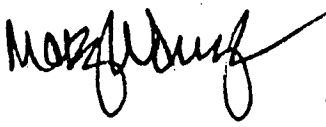


UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
Physical Planning
4103 Powell Hall, Box 75
500 Essex Street S.E.
Minneapolis, Minnesota 55455
(612) 373-8981

April 2, 1979

TO: Paul Maupin

FROM: Mary Waugh 

SUBJECT:

Communication between any two parties is often difficult. We tend to hear what we think we hear, that being what makes the most sense personally. This often is not what is meant.

The Health Sciences projects are no exception to this. Medical and building technology each require complicated and exacting knowledge, and each profession produces highly specialized personnel. With this comes strong wills sometimes oblivious to more than their immediate concerns. With each immediate concern in these projects being dependent on the other, the Health Sciences Planning Office acts as the intermediary, the communicator, the anticipator of and respondent to problems. It is a nebulous catch all of sorts, not easy to define, but a necessary function.

Within this framework, I have worked mostly with Warren and Mary on movable equipment needs, working through to purchase and installation. Each department has a set budget which we keep on furnishings and equipment. Within that budget, we determine what is needed and what is feasible. We then compile bid documents by type of equipment; by categorizing types of equipment and ordering for all departments, we cut unit, thereby overall, cost and minimize multiple purchase orders and related activities. We can keep an overall view of the equipment facet of the project, ascertaining the equipment will meet the users' needs and work within the building's systems.

I work mainly with the University Departmental Representatives, Purchasing and Vendors from early writing of specifications to final installation and payment. This requires coordination of bid packages, deliveries and installation; keeping all parties involved informed of problems, schedules and specific needs; and keeping budgets updated throughout.

The Health Sciences Planning Office coordinates all facets and successfully, I feel, keeps the Health Sciences projects in proper perspective. It is a visible point of reference for University personnel and private companies, to assist in planning and follow through of Health Sciences Projects.



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March 12, 1979

TO: Paul Maupin
FROM: Warren Forslund *Warren*
SUBJECT: Interior Design and Planning Services for
Unit K/E and H Expansion Proposal by Ellerbe

We have been this route before on Unit A. This proposal, which consists of Phase/Task sections I, II, III and IV only for a compensation fee of \$136,000, is almost identical with TAC's contract for Unit A. That contract was for \$168,000 for a building 4 or 5 times in size and much more complex so far as equipment (dental Clinics, dental labs, medical school labs and teaching labs, and auditoriums with their complex TV and audio visual equipment). For the furnishings portion of the contract we received a furnishings layout for all new furnishings. Also, it may be of interest that Dan Fox, the writer of the proposal, was with TAC directing the Interior Design effort on Unit A.

The "Equipment Listings by Room" were very inaccurate in their descriptions and quantities. We still have these lists. I had come on the job shortly before we started to receive these lists. I believed that consultation with the School and Department representatives, such as Dr. Holland to determine their satisfaction with the process, would be very useful at this time in making an evaluation of this project.

The \$136,000 includes:

- No office equipment, no stethoscopes or items of that nature.
- No departmental budgets to develop realistic bid quantities.
- No bid lists in final form to go out for bids.

No bid evaluation assist sheets.
No keeping departments within budgets.
No gathering together of items by successful bidders and writing requisitions.
No receiving, no installing, no getting OK's for payments and making payments of invoices.
No reconciling the entire movable equipment budget.
No making up a HEW type report that covers all bids, requisitions, P.O.'s, item descriptions, quantities and price extensions for each department.

Phase/Task sections I, II, III, and IV covered by the \$136,000 proposal represents according to the proposed 88% of the total Movable Equipment (this includes furnishings) effort and Phase V, not covered by the proposal, represents 12% of the total effort.

This office estimates that the effort covered by this proposal (sections I, II, III and IV) covers only 30% of the total effort required (would have to stretch the imagination a bit to get it up to 40%).

Note their computer capabilities (which are highly questionable because of our experience on Unit A and our very extensive research into using various types of computers for the Unit B/C effort) are of use only in the 30% area and not the 70% area of bidding, bid evaluation, requisition writing, receiving, etc.

Also, see attached Unit "F" movable equipment report on necessary activities to accomplish the total effort. This was developed from our Unit A and Unit B/C efforts; I think the 30%-70% breakdown becomes quite evident.

The 88%-12% breakdown given on page 1 of their proposal (instead of the much more realistic 30%-70% breakdown) betrays the architect's incompetence and lack of experience with a job of this nature.

If the 30%-70% or 40%-60% breakdown is correct, the total effort will cost the University

$$\frac{\$136,000}{.30} = \$453,333 \quad \text{if the } \$136,000 \text{ represents 30\% of the total effort}$$

or

$$\frac{\$136,000}{.40} = \$340,000 \quad \text{if the } \$136,000 \text{ represents 40\% of the total effort}$$

If B/C-I is 5 times the scope of K/E-H, then the Planning Office should have received between:

$$5 \times \$453,333 = \$2,265,000$$

and

$$5 \times \$340,000 = \$1,700,000$$

for its total effort on Unit B/C-I.

If B/C-I is 3 times the scope of K/E-H, then the Planning Office should have received between:

3 x \$453,333 = \$1,359,000
and 3 x \$340,000 = \$1,020,000

for its total effort on Unit B/C-I.

The Planning Office received \$185,000 for its total effort on equipment and Interior Design's total effort on furnishings which also included:

1. Complete furnishings and communication layouts by HSPPO.
2. The total review of all hardware for B/C-I including locating barrier doors for security while at the same time meeting fire and safety code and handicap requirements. This office's lock evaluations (first one Ruswin/Corbin lock was rejected and then a second brand new Ruswin/Corbin lock was rejected with the supplier threatening to go to Warren Spannus, the Attorney General and later threatening a law suit when not accepted as low bidder) conservatively saved the University \$150,000.
3. Layout and structural design of six cold rooms with entirely new principle for mounting bench tops and shelving leaving the floor completely unobstructed for easy cleanup of biohazard and radioactive spills. It also allows for completely changing benches, shelves and mechanical electrical services as changing lab experiments demand.
4. Radically revised fencing for dog runs necessitated by cramped layout, curbs, gutters at rear, three foot wide isles and gate requirements front and rear. The fence configuration has completely eliminated framing at the floor level for very easy cleaning.
5. Two different Moving Specs.
6. Electro Painting Spec.
7. A \$650,000 x-ray spec developed with Tom Stone which is now a guideline for the industry.
8. Safety and Security spec for TV monitoring, area sensing, etc., of the Cashier and Pharmacy areas.
9. Participated in 3 radical lock design revisions so as to be able to conform with codes, the handicapped and hospital requirements.
10. There are many other areas such as biohazard hood and sterile hood consultations, lock consultations for both JOML and Unit F, plastic laminate and lab top consultations for JOML and Unit F, etc., with the architect.

To put this office's burden on the University somewhat in perspective, I will mention only six areas in which this office has effected savings of \$423,000 which more than covers this office's total expenses since it has been in operation:

1. Unit A: This area involved 270 inoperative junction boxes, on which shop drawings had been approved by the architect, and plumbing associated with the junction boxes that furnished services to approximately 400 dental chairs. The junction boxes were completely welded shut on the bottom side with 1/8" steel and no provision made for drain, suction, air and water piping and electrical conduit to come through. Also, the junction box cover was attached with 8 painted screws to match painted cover. This would have required approximately 8 to 10 minutes to remove and another 8 to 10 minutes to replace. The paint finish of both the screws and cover would have been ruined.

All shut-off valves were located under the floor so that in an emergency or during routine maintenance service, personnel would have had to disturb possibly several patients in the midst of a procedure (surgical, bridge fitting, etc.) on the floor below in attempting to locate the shut-off valve from their step ladders. We had the contract drawings changed so that the plumbing (water, air, suction, and drain piping) and electrical conduit enter the junction box in such a manner that it could accept the junction box equipment of three different dental chair manufacturers. This office changed the design of the junction box so that the cover could be lifted from its seated position without removing any screws. We located a small valve that could be used on water and air within the junction box so that in an emergency anyone in the department could remove the cover in one second and turn off the appropriate valve in another two or three seconds. We also eliminated entirely huge vacuum valves that cost \$50 to \$75 apiece that were completely superfluous to the job. This gives a little idea about questions that one asks oneself in evaluating mechanical and electrical service to the equipment and writing up specs for movable equipment.

Price tag = \$100,000

270 x 375 = \$100,000

2. Unit B/C-I: Without this office's evaluation and rejections on locks, the University would have been saddled with locks which would have been completely (or almost so) inoperative within a year or so. This is borne out by Mayo Nutrition. The individual departments would have had to pick up the recurring or replacement costs in the future.

Price tag = \$150,000

1500 x 100 = \$150,000

3. Unit F: Without this office's evaluations and rejections on locks, the University would have again been saddled with locks which would have been shortly inoperative. This is borne out by JOML.

Price tag = \$75,000

4. Unit JOML: This office rejected the Russwin/Corbin lock, but through arguments put forth by the lock manufacturer, the University accepted. These locks are now failing and will cost the University \$30,000 if they are not removed and replaced with acceptable locks.

Price tag = \$30,000

5. Unit B/C-II: This office argued for change from Performance Spec to Total Design Spec on one Cold Room (and was accepted). Bids came in \$18,000 lower for Total Design contract than the \$40,000 plus estimate from a National Company for a Performance Spec Cold Room of same size and makeup.

Price tag = \$18,000

6. Unit B/C-I: This office recommended same change from Performance Spec to Total Design Spec on 6 Cold Rooms (but was not accepted).

Price tag = \$50,000

Total savings or potential savings to the University on 6 specific items:

\$100,000
150,000
75,000
30,000
18,000
<u>50,000</u>
\$423,000

This office's total expenses since 1972 has been roughly \$340,000.

With these figures in mind, our services for the total movable equipment efforts for Unit A and Unit B have cost the University nothing. Is it unreasonable to expect that in the future similar savings through our analysis process could be made. / If so, our handling of the complete Movable Equipment package, including furniture with design direction from University Interior Design and Graphics, for K/E and H would cost the University nothing.

Our services have cost nothing for Movable Equipment. I will have to let you judge this office's expertise in machine design, environments to be maintained, etc.

The architect has not had, to my knowledge, mechanical background in machinery and equipment working on problems that basically involve machine design principles.

The architects in Health Sciences Architects & Engineers and TAC, to my knowledge, have never come up with an analysis for rejecting any company's door hardware even though they had severe design deficiencies. This office was responsible for analyzing and writing up rejection reports time after time, even after tests at the Federal Government level showing successful completion of 2,000,000 cycles on the Ruswin/Corbin lock (this occurred both for JOML and Unit F).

The architects, HSA&E and TAC, have continued to push for a performance spec on Cold Rooms even though it could be demonstrated that a unit with all components specified would come in at 1/2 to 2/3 the cost. They have used the argument that the user has these severe requirements to cover up an inability to design or hire a consultant and do the job at their standard percentage fee. This same comment applies to the crematory facility for JOML-B. (See Bruce Johnson's [HSA&E] letter dated 2/22/79 to Paul Maupin).

The architects, HSA&E, have failed in analyzing the company's literature sufficiently to know which are standard features and which are options and have neglected in writing the spec to include the necessary options to make the equipment work. See Tom Kyle's (HSPO) letter dated March 9, 1979 to Bruce Johnson (HSA&E).

The architects, HSA&E, have failed to thoroughly study features (even after being advised by this office on faults and strong points of competitors' equipment) in writing a spec to guard against the contractors' acceptance of the cheapest equipment available. The biohazard and sterile hoods for Unit F are a good example. Now the University is being threatened by a law suit by Haldemann-Homme.

The architect, or his consultant, never came up with a solution for the difficult lock problems in Unit B/C brought on by changes in code, handicap requirements and hospital requirements for its exam room, waiting room, and toilet doors. This office was responsible for solutions.

There seems to be an aversion to doing some research into the literature, taking a lock apart and doing a basic engineering investigation, discussion with suppliers to get as many faults and good points as possible exposed of the items intended to spec and alternates.

If they don't design equipment, cold rooms, crematories (see Bruce's letter mentioned above), how can they evaluate a lock or other piece of equipment and in turn write a spec that will get the user a piece of equipment that will perform satisfactorily? The Construction Superintendent, on the Mayo Nutrition lock failures, decried the fact that the University doesn't have somebody to evaluate locks and equipment like this office does and did for the Ruswin/Corbin Locks. Construction and Engineering used our lock evaluation report in the Mayo Nutrition lock failure hassle.

Problem areas with equipment listed above and many areas not listed betrays the architect's lack of a fundamental knowledge in the basic principles of machine design and basic understanding of the environments that the machine is required to maintain in such equipment as laminar flow hoods, cold rooms, sterilizers, washers, etc.

This office has done many investigations into equipment requirements of user.

This office has in problem areas, such as Ophthalmology equipment (\$81,000 worth of slit lamps bid by Hoag-Streit, Zeiss and Nikon), made investigations to which suppliers (such as Benson Optical) would not commit themselves in writing on the justifiable advantage of one company's product over another.

This office has written specs that have adequately detailed the piece of equipment required so as to eliminate ambiguities when it came to justify award to non-low bidder and has had very few problems (none unresolved satisfactorily) on what the supplier was supposed to furnish and what the department representatives thought he was getting.

This office has written specs to cover installation labor problems. The most significant problem concerned Den-Tal-Ez and their disputes with the plumbing and electrical unions on the installation of dental chairs. Plumbing inadequacies were corrected, and the labor dispute resolved with no additional cost to the University.

This office assisted the Dental school with suggestions to overcome in design deficiencies in the newly developed Den-Tal-Ez dental chairs. The architect offered no suggestions. Someone could say that that was not part of their contract. I think an appropriate answer would be "Why do we need that type of contract?", the same type this proposal is offering.

Our experience with both Unit A and Unit B/C is that equipment lists keep evolving as the department becomes more familiar with its requirements, budgets, direction, grant possibilities, new equipment coming on the market, personnel projections, etc. In some instances 3 or 4 complete list changes have occurred. In some departments, at least 50% or more of the equipment specified has changed. At bid time, many new (to the user) possibilities present themselves in the form of alternates to the item specified. If necessary, we go out for bids with the new item specified.

On the budget sheets we allowed the department to go 10% over budget because of likely price savings on mass purchasing. The spec was written so that quantities could be increased or decreased up to 25%.

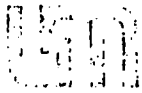
In regard to the evolving equipment sheets, does the architect charge for changes or does he absorb the cost? It could get sticky.

It also might be argued that if the Building Specification effort and the Movable Equipment effort be kept under the same roof, so to speak, so that the architect, mechanical engineer and electrical engineer

would be readily available for conference. I believe that a review of both Unit A and Unit B/C inter-office coordination would not bear that out. Who is to guarantee better results from Ellerbe? There would be no checks and balances as performed by this office. It would be too easy to hide things.

After a problem has become an accomplished fact, the University could sue the architect. I believe a reasonable answer to that would be "show me the list where the University has sued and won on errors and omissions (and there are plenty) committed by the architect on Health Sciences Projects".

This office has a proven record. Compare it with TAC's record on Unit A. Dan Fox was part of the Unit A effort. This office, according to the figures presented at the beginning of this report, will do the job at 30% to 50% of the price quoted in Ellerbe's proposal.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
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November 20, 1978

Time Schedule and Activity Delineation Report for Unit F Movable Equipment Processing by Activity.

Prepared by Warren Forslund

1. Develop the Movable Equip Lists with the user for (1) use by the architect as an aid in room layouts of furnishings and equipment and in determining electrical and mechanical services, and (2) use by this office for developing budgets and purchasing equipment.
2. Develop the Movable Equipment Budget that includes equipment, furnishings, overhead expenses and other special expenses.
3. Correct the room numbers on the Movable Equipment Lists to correspond to those on the Final Contract Documents.
4. Make up an Equipment Card for each item of equipment on the Movable Equipment Lists. Assign an U of M equipment number to the item and enter it along with the equipment name and a very exact equipment description, and
Assemble an Equipment Card Catalog from Xeroxed copies of all Equipment Cards.
5. Complete the Movable Equipment Lists by entering the assigned U of M equipment numbers for each item wherever it appears on the equipment list. Also, if necessary, correct the equipment name, equipment description, unit cost and total cost. The Equipment Card will contain the full equipment description.
6. Assemble an Equipment Catalog of catalog cuts of each item. Mark the identifying U of M equipment numbers on each catalog cut. This catalog will be used for reference during Activity #7 and #16 and other times.
7. Department representatives review the Movable Equipment List adding or cutting wherever necessary to meet a firm budget figure.
8. Transfer equipment quantity and location info from the Movable Equipment Lists to the Equipment Cards.

136,000
36%

70%
Items 9 through 27

9. Make up the Departmental Equipment Budget Sheets for each department from the Equipment Cards set aside in the temporary Equipment Card file for that department (see Activity "4" and "8"). List the equipment numerically by U of M equipment number also giving equipment name, brief (6 to 8 words maximum) equipment description, total quantity for the department, and estimated unit and total prices. Columns should also be provided for low bid price (to be filled in after receipts of bids) and accepted bid price (to be filled in during bid evaluation and final selection by the department representative).

To determine if the quantity and estimated price information has been entered correctly, compare the departments equipment cost on the Movable Equipment List with the total equipment cost on the Departmental Equipment Budget Sheet.

10. Make up Equipment Bid Lists from the Equipment Card file for each category of equipment (office, lab, hospital, etc.). Use the Special Bid Form and list equipment numerically by U of M equipment number, also giving the equipment name, a very exact equipment description, and total quantity for the entire package.
11. Review and revise the Bid Condition and Specification Document. The document should be considerably reduced in length because it has a tendency to scare the bidders. The signature location on the Bid Form (see section "D") should, if possible, become part of the U of M Request for Quotations Form #10. On Unit A great difficulty was encountered in getting this signed. the 90 day period for evaluation required in Section A2 of the Bid Form should definitely be retained!
12. The purchasing department sends out Bid Lists (with the Bid Conditions and Specifications Document attached) to lists of suppliers furnished both by our office (all companies whose equipment was specified on the equipment lists) and by the purchasing department (all companies listed on their referral lists for each category of equipment).
13. The purchasing department receives, opens and numbers bids. Each category of equipment is received at a separate bid opening and usually on separate days to spread the work load.
14. Assemble the Bid Comparison Sheets. After receiving opened bids from the purchasing department, this office assembles all the #1 pages of a category on which bids have been received and xeroxes this assemblage for ease in comparing bids, thus eliminating having to write down prices and much other information on a large bid comparison sheet. This process is repeated for pages 2, 3, etc.
15. Enter the low bid price on the Departmental Budget Sheet and total to give the department representative some budget guidelines to aid him in his selection of equipment.
16. The department representative evaluates the bids and makes the equipment selections. In this, he is aided by the Bid Comparison Sheets and the Departmental Budget Sheet and must stay within the departments assigned budget or turn over additional funds from his department to the Movable Equipment account to cover additional costs above budget. On an item selected which is not a low bid, a very factual justification must be given on why the lower bid on an alternate or alternates is/are not acceptable. In some instances, he may wish to rebid an item because of information turned up in the bidding process, because items specified are no longer produced, or because there has been a change in program.

17. Make up a Successful Bidder's List for each category of equipment from the selections made by the department representative using the original Bid List, for each item enter the successful bidder's name and I.D. number, the quantity ordered by each department with the department's I.D. number, total quantity, unit cost, and total cost.
18. Write Requisitions from the Successful Bidder's List for successful bidders in each category. These are then delivered to purchasing along with (1) the proper justifications on non-low bid items, (2) the bid comparison sheets, and (3) the original bids assembled in loose leaf notebook form. These are carefully scrutinized by the buyer for proper procedures on our part. After the buyers approval, Purchase Orders are made up with cover sheets referring to the Conditions and Specifications Document and other critical areas.
19. With Requisitions
Send out Delivery Schedules to all vendors with item number, equipment number, floor/room number, department number, and delivery date for each piece of equipment on the vendor's purchase order. Also included are individual red bordered press-a-ply labels for each piece of equipment showing equipment number, floor/room number, and department number. The vendor is required to place this label on the outside of each carton for ease of identification when received at the building.
20. Rebidding. This includes sending out new bid lists with items again grouped in categories, receiving bids, evaluating bids and selecting equipment and again staying within budget.
21. Make up HEW lists for each department giving the requisition number, purchase order number, equipment number, equipment description and unit and total costs as shown on the purchase order. Assemble these in book form and submit to the HSPO. The HSPO will add the furniture list, moving costs, overhead costs and other pertinent costs and submit the total report to the HEW Chicago Office.
22. Receive equipment. The equipment is received, segregated and stored by department. Its receipt is noted on both the HEW lists and the requisition. The delivery papers are kept with the requisition.

Note: If the equipment arrives at the building for storage or delivery to the department without proper identification, it would cause untold confusion in trying to track down its ownership and room location.
23. Pay 90% of Invoice amount on all equipment received without apparent damage and after verification of its receipt on delivery papers and the requisitions.
24. Deliver equipment to the department upon completion of a floor or other determining date. At this time, the vendors are informed to come in and uncrate, place and hook up their equipment. If the vendor is not to be so involved this should be noted on the Bid Document.
25. Pay remaining 10% of Invoice amount on equipment after the department representative has signed a statement on the invoice or the HEW list that the equipment has been received, checked out and is OK to pay.

26. Making final corrections to the HEW lists and resubmit to the HSPO. The HSPO will make additional final corrections and resubmit the total report to the HEW Chicago Office.
27. Close the Movable Equipment Account at the Business Office. To to this without undo problems a good, completely independent accounting system must be set up and kept up to date. It will also help unravel conundrums as the project goes on.



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TWIN CITIES

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April 23, 1979

TO: Clint Hewitt
FROM: Paul J. Maupin *Paul*
SUBJECT: Health Sciences Planning Office
Mission, Goals and Objectives

The Health Sciences Planning Office mission is to assist the University and the Health Sciences Community in an active systematic coordination of the contributions of all those whose efforts are required for a capital physical facilities project to succeed.

The primary goal of this office is to provide a service function to the Health Sciences Community. This service is best described by the following:

- Promote efficiency and eliminate duplication of facilities avoiding low utilization of expensive services and equipment.
- Encourage the growth of services and facilities where need exists, refusing to permit funds to go for unnecessary and duplicate facilities.
- Assist with preparation of the budget. Maintain detailed accounting records in order to provide financial information. Monitor expenditures to insure adherence to the budget.
- Review contract documents at every phase of development and coordinate review and approval of plans, shop drawings and change orders.
- Monitor the development and construction of a given project to insure that the occupants program requirements are satisfactorily met.

Objectives:

We are a professional planning group with expertise in architectural and health planning areas and sensitivity to the problems of each.

April 23, 1979
Health Sciences Planning Office
Mission, Goals and Objectives
Page Two

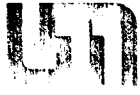
We are able to pursue the University interest objectivity, combined with thorough understanding of the construction process.

Experience indicates that when users are carefully prepared for the task, they are capable of projecting beginning designs based on their own understanding of their needs and aspirations. Experience also indicates that when users do this, the professional planner's role is extended, not reduced. It is he who must then turn tentative impulses into full blown solutions, environmental purposes and integrate all design input into a single cohesive proposal.

Our services provide the University with the control needed to successfully complete a project with optimum results.

Our approach has benefited the University with substantial savings in time and money. This office has demonstrated this expertise on past projects.

PJM:jm



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TWIN CITIES

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July 23, 1979

TO: Paul Maupin

FROM: Tom Kyle *Tom Kyle*

SUBJECT: Health Sciences Planning Office participation in Unit "J"

The primary function of this office will be to coordinate the physical planning and design effort for the construction of Health Sciences Unit J, a "University Hospitals Renewal Project", and to review and monitor the construction and construction processes associated with the unit. This effort will include all project phases through operational occupancy and involve oversight responsibility at each phase.

The accurate assembly of program requirements, schematic (conceptual) design, design development, contract documents, construction, equipment purchase and occupancy is an immensely complicated planning process that has been developed and refined by this office over nearly ten years of service to the Health Sciences at the University.

Our participation on Unit J will be essentially the same as it has been on preceding Health Sciences projects from Unit A through Unit F. We will employ the expertise of our staff, lessons of these past projects and our overall familiarity with the Health Sciences as planning and coordinating tools. In addition, to satisfying facility and department program requirements

caution will be taken to insure that building code regulations, federal, state and local - for life safety, provisions for the handicapped, and energy conservation measures are followed. Our staff will analyze each program from several perspectives and provide a forum in which facility and departmental requirements can be evaluated and assist the Architects in defining and translating those requirements into architectural language. We will conduct and attend all planning meetings with Health Sciences department representatives, architects, consultants, vendors and other University divisions or departments. We will interface or act as the focal point for information transmittance and any other processes between groups or departments. This will be done to provide an accurate record of the planning and to insure appropriate dissemination of information and accurate evaluation of information. This office will be responsive to requests from individuals or departments and will assist in gaining approvals from various agencies. The review and over-sight responsibility of our staff is very time consuming. However, it has proven to be invaluable to the protection of program intent and in the best interest of the University.

We will maintain detailed project files and coordinate the scheduling of all necessary meetings. We have three conference rooms available for the heavy load of meetings required.

Our staff presently consists of eight experienced and trained professionals listed below:

Mr. Paul J. Maupin, Health Sciences Planning Coordinator
Mr. Robert Swanson, Assistant Coordinator
Mr. Tom Kyle, Assistant Coordinator
Mr. Gary Zaworski, Assistant Coordinator
Mr. Warren Forslund, Equipment Coordinator
Ms. Joycene Maroney, Principal Secretary

To Paul Maupin
Project J Report
Page Three

Ms. Mary Waugh, Sr. Office Specialist
Ms. Mary Grothjan, Secretary

We see no need to increase the basic staff to meet the duties and schedules related to Unit J planning. However, we will at peak times increase our staff via temporary agencies. This will allow us to meet critical deadlines, do background work and permit the best use of our uniquely experienced personnel. The responsibilities in our office will be divided into three basic areas of expertise so as to maximize talent to task efficiency. Simply, the areas are: design, equipment and budget.

Mr. Maupin, will of course, have overall responsibility and assign portions of work to his staff. The assistant coordinators will attend to development, design and execution of contract. The secretary/accountant will maintain project files and budget information based on input from coordinators and consultants. The equipment coordinator will be assisted by the office specialist and the secretary. Obviously, the duties will overlap and it requires full interaction and dependence on the entire staff at each phase for project completion.

Our efforts on Unit J will commence with the receipt of the functional programs from the Hospital departments and administration at the time of the selection of an architectural firm. Our staff would begin assisting in the following sequence of events:

Brief Summary of Events:

A. Functional Space Program

1. Preparation Assistance
2. Information Gathering
3. Review and approval with hospital representatives

B. Schematic (conceptual) Design Phase

1. Interface between components
2. Interpret program
3. Assist in space assignment
4. Coordinate activities
5. Preliminary budget preparation
6. Oversight responsibility
7. Presentation of documents
8. Review and approval

C. Design Development Phase

1. Conduct meetings with consultants, etc.
2. Insure code compliance
3. Interface with components
4. Insure program intent
5. Insure compatability with other untis
6. Assist in layout and design
7. Provide forum ofr evaluation
8. Coordinate review (U/M)
9. Compile equipment requirements
10. Budget review
11. Act as clearing house for problems
12. Interpret plans and specs
13. Review and comment - use persuasive communication to preserve intent
14. Assist in approval of preliminary phase

D. Contract Document Phase

1. Conduct review meetings with departments
2. Insure code compliance
3. Obtain final department layout approvals
4. Equipment & furnishings approval
5. Coordinate interior design department
6. Coordinate graphics design department
7. Coordinate telephone, etc. services
8. Coordinate final U/M review
9. Interpret plans and specifications
10. Finalize equipment lists
11. Review and comment - persuasive communication
12. Review and approve budget - final estimate
13. Obtain all approvals to advertize for bids to contract
14. Assist in award of contract

To Paul Maupin
Project J Reprot
Page Five

This summary describes some of the activities involved in the non-construction phases of the project, the planning and development phase. After award of the construction contracts we will monitor progress and expenditures as we have on other Health Sciences projects. Our staff will make weekly and occasionally daily site inspections to insure program requirements and schedules are adhered to. We will maintain an extensive project file of construction progress and expenditures against budget. We will monitor cash flow and assist in analysis of cash flow schedules. We will monitor and assist in the modification process and approval and when appropriate we will prepare preliminary program modifications and identify funding. We will be responsible for payment and approval of all architectural and engineering fees associated with the entire project, including fees associated with modifications. We will monitor the contingency budget and evaluate and report on its use.

Our accounting procedures and responsibilities are extensive on projects with the magnitude and scope of Unit J. Project funds and activities will be identified in two categories with independent budgets. Those categories are Group I construction budget and Group II equipment budget. The Health Sciences Planning Office will monitor building reports, set up and maintain complete files of all the financial activity on the project. We will prepare financial status report and contingency reports periodically or on request. We will prepare the estimated project costs and assist in the preparation of a final budget.

The other major responsibility of this office in the Unit J project

as mentioned before in the brief summary of activities is management of planning development and execution of Group II equipment and specialty item requirements.

In outlining our services and work scope for Unit J, Group II equipment and furnishings and Group I specialty items, the expertise that has been developed by this office over the years since 1970 has formed the basis of our policies, procedures and insights into the particular needs of the Health Sciences community.

We would interface with others in the Health Sciences; the user, the U/M Physical Planning Office, Interior Design, Graphics, Engineering and Construction, Building Officials, Environmental Health & Safety, Health Sciences Physical Plant and Environmental Services, Budgets and Records, Purchasing, State and Federal Agencies, Architects, Engineers and Contractors and sub-contractors.

Our responsibilities would govern the following area in addition to the movable equipment activities:

1. Door hardware, which involves security, life safety and code compliance
2. Metal and plastic laminate casework
3. Countertops
4. Mechanical and electrical services to equipment
5. Telephone, communication and AV layouts
6. Certain Group I equipment items such as Biohazard, sterile and fume hoods and glass, cage and rack washers, sterilizers and dryers, etc.

7. Environmental rooms
8. Other unidentified speciality items as required.

The movable equipment activities includes furnishings coordination, procurement and installation with design direction from University Interior Design and Graphics. The furnisghs and equipment would involve all areas which include patient rooms, offices teaching spaces, labs, high visibility waiting areas, etc. Relation of equipment to the function and activities of the space concerned would be monitored closely in User/Architect/HSPO meetings.

All activities listed would be included in a fee assessed the movable equipment budget. This fee would 7.5% of the cost of the total movable equipment budget. Our current work force could handle the project except for occasional services such as a draftsman for furniture layout, SOS people for typing bid lists, the evaluation process and typing requisitions and one or two people for the servicing and installation of equipment.

The following is a brief summary of the sequence of events and responsibilities:

- A. Develop preliminary movable equipment lists for each department (layouts of furnishings and equipment, develop budgets)
- B. Develop overall movable equipment budget (includes equipment, furnisghs, graphics, blidns and drapes, carpet, telephone, moving housekeeping, other special areas and shared overhead and contingency costs. Signature all expenditures, monitor all authorizations, etc.)
- C. Assemble an equipment catalog

D. Develop final movable equipment list

Review the movable equipment lists with the department representatives

E. Develop departmental equipment budget sheets

F. Develop bid lists

Review and revise the bid conditions and specifications document as necessary.

G. Bid and Award Process

1. The purchasing department sends out bid lists

2. Assemble the bid comparison sheets

3. The department representative evaluates the bids and make the equipment selections.

4. Make up a successful bidders list

5. Write requisitions

6. With requisitions send out delivery schedules showing equipment number, floor/room number and department number

7. Rebidding

H. Receiving and Installation Process

1. Receive equipment

2. Pay 90% of invoice amount

3. Deliver equipment to the department

(at this time, the vendors are informed to come in and uncrate, place and hook up their equipment.)

I. Acceptance and payment process

Pay remaining 10% of invoice

J. Close out movable equipment account

At the conclusion or substantial completion of the project or various

To Paul Maupin
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phases of the project, this office will coordinate all activities associated with moving of departments and building activation. We will assist in the final approval of construction and assist in the preparation of the final project audit and report.

The fee for our services will be 1% of the Construction Cost of the project plus 7.5 % of the movable equipment budget.

ROUTE SLIP

10/16/79 Paul

W. FORSLUND X _____

R. SWANSON _____

T. KYLE _____

G. ZAWORSKI _____

J. MARONEY _____

~~M. WAUGH~~ Please let me ha.
your comments - by Oct.
1979 - Thanks Paul

UNIVERSITY HOSPITALS RENEWAL PROJECT

ORGANIZATION FOR
DESIGN AND CONSTRUCTION

INTRODUCTION

The University Hospitals Renewal Project represents the resolution of functional and space problems now encountered by Inpatient and Support Service Activities through a single construction and remodeling project. While some preliminary analysis and planning have been completed, the exact magnitude of new construction, remodeling and project cost will be finalized in the process of programming and schematic design. The firm of Robert Douglass Associates, Inc. has been selected as the Programming Consultant, the joint-venture of Ellerbe Architects-Engineers-Planners and Helmuth, Obata & Kassabaum has been selected as Architect-Engineers (A/E). The process leading to the selection of the Construction Management Consultant (CM) is currently in progress.

Four criteria have been established to guide the Programming and A/E Consultants in developing design documents for this project:

1. Present facilities in Masonic Memorial Hospital, Boynton Health Services (5th floor), Variety Club Health Hospital, Children's Rehabilitation Center, Paul Dwan Cardiovascular Center (Receiving Center), and Phillips-Wangensteen Building (clinics), will continue to be utilized.
2. Hospital portions of the Mayo Complex are unacceptable for the development of contemporary Nursing Station and certain other patient care facilities. Therefore, new construction will be utilized for these services and vacated facilities will be remodeled for low-technology and other support functions.
3. All facilities will be developed to assure maximum flexibility in the future.
4. Construction and remodeling will be limited to financing limits of revenue bonding, approximately \$170-180,000,000 total project cost.

Site considerations have been determined as follows:

New construction will occur on the present Powell Hall site which is bounded by Essex Street (North), Harvard Street (East), River Road (South), and the Paul Dwan Variety Club Cardiovascular Research Center - Unit K/E (West). Consideration will also be given to utilizing the capacity of Unit K/E for

additional floors, starting with the fourth floor, to increase the available square footage/floor. Remodeling will be primarily restricted to the Mayo Complex.

The scope of the project, while not finalized, is envisioned to include the following components:

Tentative New Construction Components

- Adult and Pediatric beds in Mayo Complex (approximately 500)
- Operating Room and Post Anesthesia Recovery
- Central Sterile Processing
- Labor/Delivery
- Cystoscopy
- Diagnostic Radiology
- Physical Medicine and Rehabilitation Treatment
- Other support, public, circulation, and mechanical space

Tentative Mayo Complex Remodeling Components

- Laboratory Medicine and Pathology
- Social Service
- Nutrition
- Pharmacy
- Kidney Dialysis
- Biomedical Engineering
- General Support Departments *2 Dept's*
- Majority of administrative and departmental offices
- On-call rooms
- Payroll/Personnel
- Management Engineering
- Other

At this time the project schedule is contemplated as follows:

Architect, Program and Construction Management Selection	Fall/1979
Completion of Schematic Development	Summer/1980
Regents Review and Approval	Summer/1980
External Review	Fall/1980

On construction...

New Construction Start

1982

New Construction Completion

1985/86

Remodeling Completion

1988/89

ORGANIZATION

The University is planning to construct the University Hospitals Renewal Project, the largest and most complex project ever constructed at the University, under Construction Management. In doing so, the University seeks to achieve several goals:

- . Completion within the budget
- . Orderly progress
- . Timely completion
- . Minimize need for additional staff
- . Optimum coordination of University groups
- . Consistant quality with Health Sciences facilities
- . Legal insulation from claims 3
- . Adequate project control

Achieving these goals in the context of Construction Management will require a carefully structured team effort. The many University offices and groups must interact effectively with the professional consultants in a planned and orderly way. The Construction Manager to be selected will have demonstrated skills and experience in hospital construction and will function centrally in the team effort.

The team concept implies a high level of communication, interaction, and (give and take) on the part of all responsible entities. The traditional adversary role between the design team and the construction team must be completely revamped to a structure in which the valued contributions of each party is put to optimum use. In such a team effort the owner's involvement is substantial. He is more involved in the design process than in traditional construction strategies.

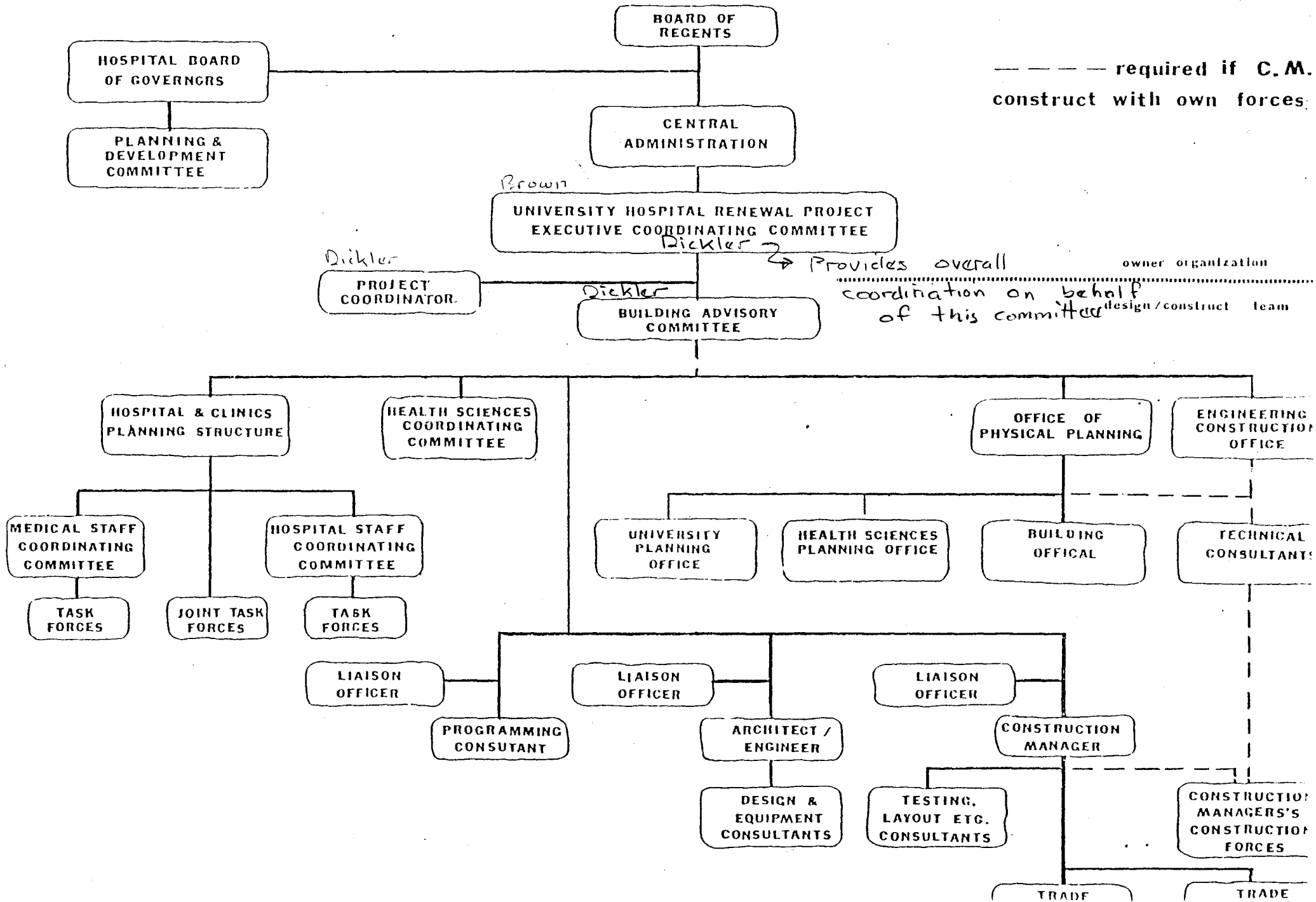
For this reason the planning and construction process for the University Hospitals Renewal Project requires the ability to expedite decision-making, assign accountability, and gain inputs from many segments of the University. The project, because of its scope and importance, impacts virtually all management levels in the University, Health Sciences, and Hospital as well as the Board of Regents and University Hospitals Board of Governors. Clear identification of each level's responsibility is,

therefore, imperative if decisions are to be made effectively and in accordance with predetermined planning and construction schedules.

The intent of this document is to identify a structure which meets these requirements.

Chart A defines the owner organization in terms of responsibility and authority. Following Chart A is a brief description of each owner entity outlining its composition and responsibilities. Chart B defines the owner organization in terms of formal communication and major decisions. Chart C defines major and secondary working relationships. Chart D, the Responsibility Matrix, defines the level of involvement in specific issues and tasks for both University staff and consultants. The balance of this report outlines the responsibilities of the consultants and indicates the criteria and method for selecting the Construction Manager.

CHART A PROJECT ORGANIZATION



DESCRIPTION OF RESPONSIBLE ENTITIES
OUTLINED ON ORGANIZATION CHARTS

OWNER ORGANIZATION

BOARD OF REGENTS

Composition: Appointed State agency

- Responsibilities:
- Ultimate project authority
 - Ultimate budget responsibility
 - Project scope and program
 - Schematic design approval.

CENTRAL ADMINISTRATION

Composition: Officers of the University

- Responsibilities:
- Make recommendations to Board of Regents
 - Final decision making authority within the University system.

HOSPITAL BOARD OF GOVERNORS

Composition: Appointed by Board of Regents

- Responsibilities:
- Approval of functional program
 - Approval of budget
 - Recommend approved budget and program to Board of Regents.

PLANNING AND DEVELOPMENT COMMITTEE

Composition: Selected members of the Hospital Board of Governors and University Administration.

Reports To: Hospital Board of Governors

- Responsibilities:
- Long range Hospital and Clinics planning.
 - Advise Hospital Board of Governors in functional program approval and budget approval.

UNIVERSITY HOSPITAL RENEWAL PROJECT EXECUTIVE COORDINATING COMMITTEE

Description: The Renewal Project Executive Coordinating Committee is appointed by, and responsible to, the President for overall coordination of all internal and external Renewal Project activities and decisions. It will meet at least monthly and receive reports from the Renewal Project Building Committee, Project Director, Public Relations Consultant, and other parties as necessary and appropriate. Membership on the Coordinating Committee will be ex-officio and the chairman of the Committee will be the University Vice President for Finance.

Coordinator 20

Composition: University Vice President for Finance - Chairman (Donald Brown)
University Vice President for Health Sciences (Lyle French)
University Vice President for Institutional Relations (Stanley Kegl)
Chairman, University Hospital Board of Governors (Albert Hanse)
General Director, University Hospitals & Clinics (John H. Westerman)
Chief of Staff, University Hospitals & Clinics (Paul Quie)
Coordinator? Project Director Senior Associate Director of Hospital & Health Care Administration (Robert Dickl)

- Responsibilities:
- Provide overall coordination for the Renewal Project.
 - Function as the Renewal Project "owner" on planning, design, and construction of the facility.
 - Review and approve design at design milestones.
 - Make decisions regarding budget, function, quality.
 - Approve and coordinate public relations and communication efforts.
 - Obtain necessary approvals, after appropriate internal review, from external agencies.
 - Develop and, after appropriate approvals, implement financing strategies.
 - Review on-going activities of Building Committee and other parties and task forces and resolve issues and questions referred by these groups.

- Act on recommendations of the Building Advisory Committee.
- Identify issues for resolution; determine process for resolution.
- Refer issues to Central Administration when necessary.

PROJECT COORDINATOR

Description:

The Project Coordinator position will provide overall coordination for the Renewal Project on behalf of the Executive Coordinating Committee. The Project Coordinator will be designated by the General Director of University Hospitals with the concurrence of the Executive Coordinating Committee.

Composition:

Senior Associate Director of Hospital & Health Care Administration (Robert Dickler)

Responsibilities:

- To act as staff for the Executive Coordinating Committee in all internal and external Renewal Project activities.
- To act as chairman of ~~(Renewal Project)~~ Building Advisory Committee and to communicate the conclusions of that Committee to the Executive Coordinating Committee.
- To identify issues requiring Coordinating Committee review and action and to propose mechanisms for issue resolution.
- To coordinate activities of all University, Health Sciences and Hospital individuals and groups with the Planning, Design and Construction Management Consultants.
- To supervise and monitor the work of the Planning Representative in performing detailed coordination activities.

DESIGN/CONSTRUCT TEAM

BUILDING ADVISORY COMMITTEE

Composition: - Sr. Associate Director of
Hospital & Health Care Administration: Robert Dickler *Chairman*
- Assistant VP Health Sciences: Cherie Perlmutter
- Assistant VP for Physical Planning: Clinton Hewitt
- Health Sciences Planning Coordinator: Paul Maupin
- Associate Director of Physical Plant: Paul Kopietz

Responsibilities:- Act as action level decision making entity for owner, referring issues to hospital Executive Committee as necessary.

- - Conduct detailed preliminary review and approval of design documents at design milestones.
- - Oversee functioning of the design/construct team.
- Insure interface with appropriate public agencies and private groups.

AD HOC SUBCOMMITTEES

Composition: To be defined.

- Responsibilities: To be established for specific tasks and reviews as needed.
 - Report action and make recommendations to Building Advisory Committee.
 - Act in communication and cooperation of the Building Advisory Committee.
 - Detailed interface with professional consultants.

Who chairs?

UNIVERSITY HOSPITALS AND CLINICS PLANNING STRUCTURE

- Composition:
- Medical Staff Coordination Committee Chairperson
 - Hospital Staff Coordination Committee Chairperson
 - Hospital Planning Office Representatives

Description: The University Hospitals & Clinics Planning Structure will be composed of a Medical Staff Coordinating Committee and a Hospital Staff Coordinating Committee. These committees will be responsible for the development of programmatic statements, planning criteria, and design comment during the initial phase of the project. Regular meetings of the Committees and their Task Forces will occur through schematic plan development, at which time the Committees will meet as required for consultation and issue resolution. Activities of the Committees and their separate and joint Task Forces will be coordinated through periodic meeting of the chairpersons and representatives from the Hospital Planning Office. Both Committees and all Task Forces will receive staff support from the Hospital Planning Office and appropriate external consultants. The Committees will be appointed by the General Director and Task Forces by the respective chairpersons. (of Univ of Hosp?)

- Responsibilities:
- Coordinate medical staff and hospital staff coordinating Committees and their Task Forces.

HEALTH SCIENCES COORDINATING COMMITTEE

Composition: To be appointed.

Description: The Health Sciences Coordinating Committee will provide input during initial planning and design regarding the present and anticipated activities of academic units in the Hospital clinical facilities. The Coordinating Committee and chairperson will be appointed by the Deans and Directors and will be provided staff assistance by the Hospital Planning Office. The Coordinating Committee will meet regularly through the programming period and will be available for consultation subsequent to that phase of activity.

OFFICE OF PHYSICAL PLANNING

Composition: Existing office under the direction of Clinton Hewitt.

Responsibilities: This office is the central administrative entity for planning and administering all contracts in the context of the University as a whole. Several of the groups playing important roles in this project currently function under the direction of this office and will continue to do so. Reporting and decisions involving these groups will occur through the Office of Physical Planning. Specific responsibilities include:

- Contract administration for all consultants.
- Supervision of groups currently reporting to it.
- Relating this project to overall University planning.
- Relations with public agencies and community groups.

DEPARTMENT OF ENGINEERING AND CONSTRUCTION

Composition: Existing office under direction of Paul Kopietz.

Responsibility: Beginning with concept design, and continuing through the completion of shop drawing review and approval, this office will assign a full time Mechanical Engineer, full time Electrical Engineer, and half time Civil Engineer. These parties will function as part of the design team paying special attention to the maintenance of University standards. The lending of their practical knowledge and experience regarding methods and materials in the UOM environmental and to the selection of equipment and materials which lend themselves to ease of maintenance over the life of the building. They will attend design coordination meetings, probably maintaining this level of involvement for a period of two years or more. During design and construction, the Director of this office will provide liaison with the CM, meeting with him weekly, periodically walking the job. This office will inspect any work constructed by the CM's own forces. It may be necessary to supplement the staff with outside consultants to meet these responsibilities.

ENVIRONMENTAL HEALTH AND SAFETY .

Composition: Existing office under direction of George S. Michaelson (Actg.)

Reports to: Vice President for Student Affairs

Responsibilities: This group may be called upon as a resource by the design team for consultation regarding specific issues and code compliance.

MEDICAL STAFF COORDINATING COMMITTEE

Composition: Roby Thompson, Co-Chairman
Bob Goltz, Co-Chairman
John Najarian
Thomas Ferris
William Krivit
Eugene Gedgudas
Paul Winchell
Barbara Tebbitt
Donna Ahlgren (staff)

Tentative Task Forces

	<u>Chairman</u>	<u>Staff</u>
Psychiatry	Dr. Hausman	D. Ahlgren
Labor & Delivery	Dr. Williams	C. Forsman
Operating Rooms	Dr. Thompson	G. Kujawa
Pediatrics	Dr. Clawson	D. Ahlgren

(Note: Departmental Task Forces for PM&R, Labs, Diagnostic Radiology, and Therapeutic Radiology are now organized and functioning.)

Reports to: University Hospitals & Clinics Planning Structure.

Responsibilities:

- Provide input regarding issues, concerns and planning process.
- Appoint task forces and ad hoc groups to develop recommendations for programs and facility needs, and suggest resolutions to identified issues.
- Review and approve recommendations to the Building Committee for major policy and priority issues.
- Coordinate activities with Medical Staff/Hospital Staff counterpart. Appoint joint task forces as required.

HOSPITAL STAFF COORDINATING COMMITTEE

Composition: Don Van Hulzen - Chairman

Dick Pierson
Merle McGrath
Al Dees
Greg Hart
Johnelle Foley
Ed Howell
Barb Peickert
Elisabeth White
Donna Ahlgren (staff)

Tentative Task Forces

	<u>Chairman</u>	<u>Staff</u>
Information Systems	Al Dees	Lee Larson
Communication Systems	M. McGrath	Lee Larson
Transport Systems	E. Howell	Lee Larson
Employees Services	E. White	K. Ewing-Juul
Family/Visitor Services	J. Foley	K. Ewing-Juul

Tentative Joint Medical & Hospital Staff Coordinating Committee Task Forces

	<u>Chairman</u>	<u>Staff</u>
Interior Design	J. Foley	Karen Ewing-Juul
Bed Module	Dr. P. Winchell	Donna Ahlgren
Intensive Care Units	Dr. S. Chou	Cindy Forsman
Bed Assignments	Bed Allocation Committee as then constituted.	Donna Ahlgren

Reports to: University Hospital & Clinics Planning Structure

Responsibilities:

- Provide input regarding issues, concerns and planning process.
- Appoint task forces and ad hoc groups to develop recommendations for programs and facility needs, and resolution of identified issues.
- Review and approve recommendations developed by groups, planning staff and individual departments.
- Make recommendations to the Building Committee for major policy and priority issues.
- Coordinate activities with Medical Staff/Hospital Staff counterpart. Appoint joint task forces as required.

PLANNING REPRESENTATIVE

Composition: Appointed by the Project Coordinator - Donna Ahlgren

Reports to: Project Coordinator

Responsibilities: The Planning Representative will perform the following functions in close cooperation with the appropriate liaison officer:

- Coordinate planning efforts for designated Hospital and Medical School departments.
- Serve as resource and provide information that will be of assistance in the planning effort, e.g., articles, codes, standards plans for other facilities.
- Interpret requirements of planning effort to hospital department heads and administration.
- Participate in development of programming and planning methods for data collection, recording and quantifying functional and space needs.
- Participate in criteria development for mechanical, electrical systems, and space utilization program design and staffing.
- Participate in development of environmental criteria for new and remodeled facilities.
- Communicate departmental needs to architectural team and inform departments of informational needs of architects.
- Participate in committees and task forces related to planning process.
- Develop agendas, prepare minutes and function as assistant to committee chairman as required.
- Serve as a representative of the ^{Hospital} planning office in decision-making process.
- Prepare written and verbal reports for architects, administrators and departmental staff.
- Manage and supervise consultants under separate contract to hospital departments.
- Assist Office of Physical Planning in developing contracts for authorization of services.

- Evaluate work completed and recommend appropriate payment levels.
- Identify and communicate issues requiring resolution; assure that issues are addressed in appropriate decision process.
- Analyze, seek clarification and prepare departmental reports in proper format for architect's utilization.
- Participate in planning staff meetings; communicate information to other staff members and provide input to other staff members for problem resolution.
- Function as a project leader for designated inter-departmental programs, e.g., transport and communication systems, office design, nursing station design, technical services.
- Establish appropriate work groups.
- Develop issues and information for group discussion.
- Facilitate accomplishment of systems development, coordinate decision-making through appropriate process.
- Prepare periodic summary reports of departmental progress and issues being considered.
- Assume responsibility for special projects, as assigned.

UNIVERSITY PLANNING OFFICE

Composition: Existing office under the direction of Laszlo Fulop.
Reports to: Office of Physical Planning.
Responsibility: University long and short range planning including land use, transportation and circulation.

HEALTH SCIENCE PLANNING OFFICE

Composition: Existing office under the direction of Paul Maupin.
Reports to: Office of Physical Planning.
Responsibility: This office will act as an advisory and consultative body to the Building Advisory Committee. The Director of this office, as a member of the Committee, will be in a position to respond directly, where possible, or to
o recommend more extensive involvement of his office in response to specific issues. The primary objective of such consultation is to provide responsiveness from the point of view of the entire Health Sciences Complex.
o The office's primary responsibility will be to evaluate the impact of decisions on existing and planned Health Sciences' installations.

BUILDING OFFICIAL OFFICE

Composition: Existing office directorship to be filled. (Ron Holden Acting)
Reports to: Office of Physical Planning.
Responsibility: The Building Official's major responsibility will be to consult with the design team regarding code compliance, to perform code inspections on an on-going basis, and a final code inspection to issue certificate of occupancy.

TECHNICAL COORDINATOR

Composition: Al Eilers

Reports to: Office of Physical Planning.

Responsibility: This person will handle many of the detail tasks delegated to him by the liaison officers for programming, architectural engineering design, and construction. As such, he will provide the day to day contact for these professionals reporting all decisions and actions to the appropriate liaison staff person who retains responsibility to the Building Advisory Committee.

Working jointly with the Planning Representative, the Technical Coordinator will:

- Serve as resource and provide information that will be of assistance in the planning effort, e.g., articles, codes, standards plans for other facilities.
- Participate in criteria development for mechanical, electrical systems, and space utilization program design and staffing.
- Participate in development of environmental criteria for new and remodeled facilities.
- Communicate departmental needs to programming and architectural consultant's architectural team and inform departments of information needs of architect's programming and architectural consultants.
- - Participate in Committees and Task Forces related to planning process.
- - Develop agendas, prepare minutes and function as assistant to committee chairman as required.
- Serve as a representative of the Hospital Planning Office in decision making process.
- Analyze, seek clarification and prepare departmental reports in proper format for architect's utilization.

OUTSIDE TECHNICAL CONSULTANTS

- Composition: This is a contingency entity on the organizational chart to be structured as needed.
- Reports to: Office of Physical Planning and/or Department of Engineering and Construction.
- Responsibility: May include an inspection service to inspect work constructed by the CM's own forces, cost consultation to assist in the resolution of budget disputes or schedule consultation to assist in resolution of scheduling disputes.

LIAISON OFFICERS

- Composition:
- Liaison staff to Programming Consultant: Robert Dickler
 - Liaison staff to Architect/Engineer: Clinton Hewitt
 - Liaison staff to Construction Manager: Paul Kopietz
- Description: A member of the Building Advisory Committee will act as Liaison Staff to each of the three professional members of the Design/Construct Team. Detailed tasks may be delegated.
- Responsibilities:
- Monitor the work of their respective consultants.
 - Provide day to day contact.
 - Provide decision making where possible.
 - Identify problems and bring to the attention of the Building Advisory Committee.
 - Assist in coordinating and resolving conflicts among consultants.
 - Participate, through attendance or keeping informed, in all meetings between consultants and University staff.

CHART B

FORMAL COMMUNICATIONS & DECISIONS AFFECTING-

program
budget
quality
schedule

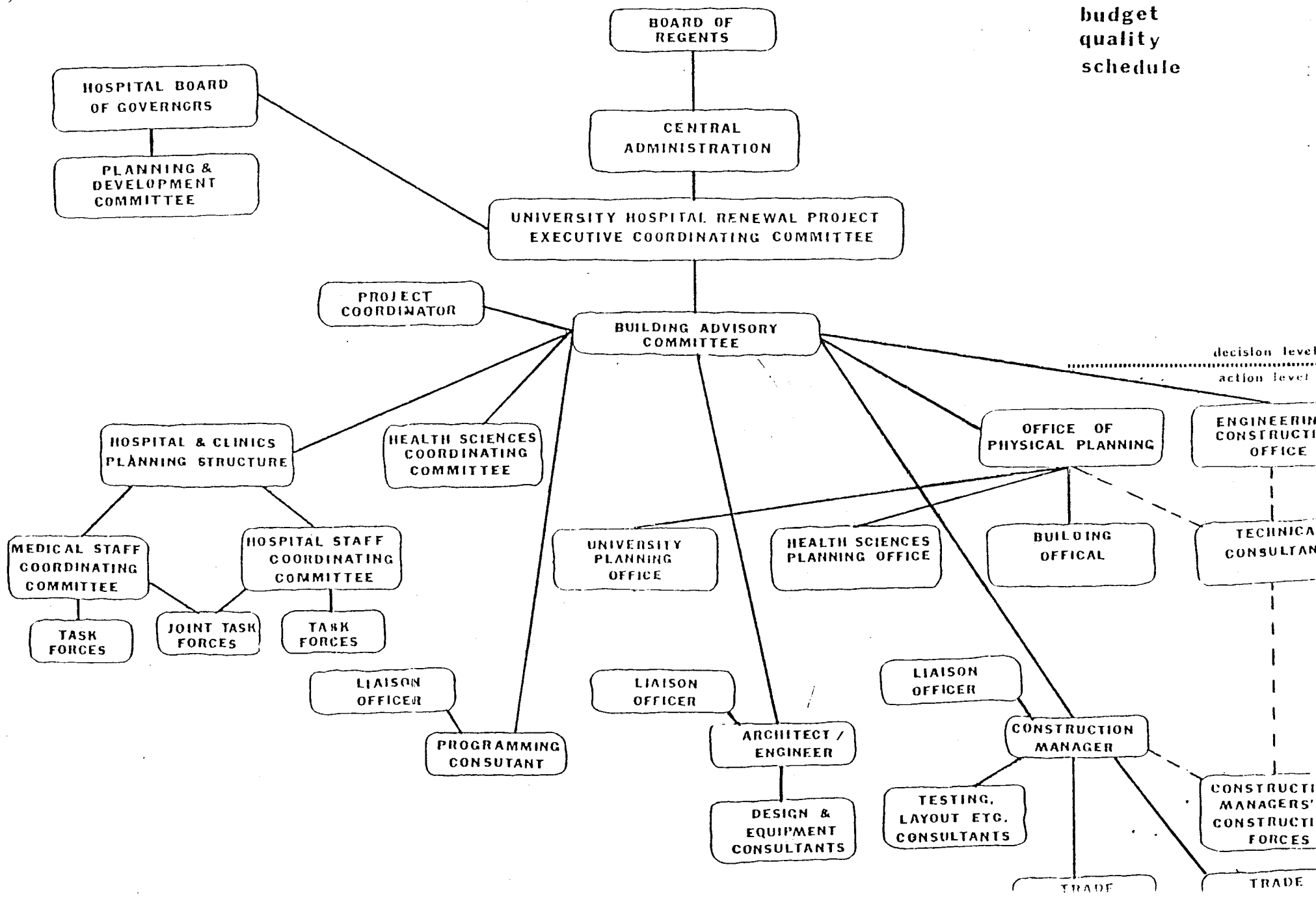


CHART C

WORKING RELATIONSHIPS

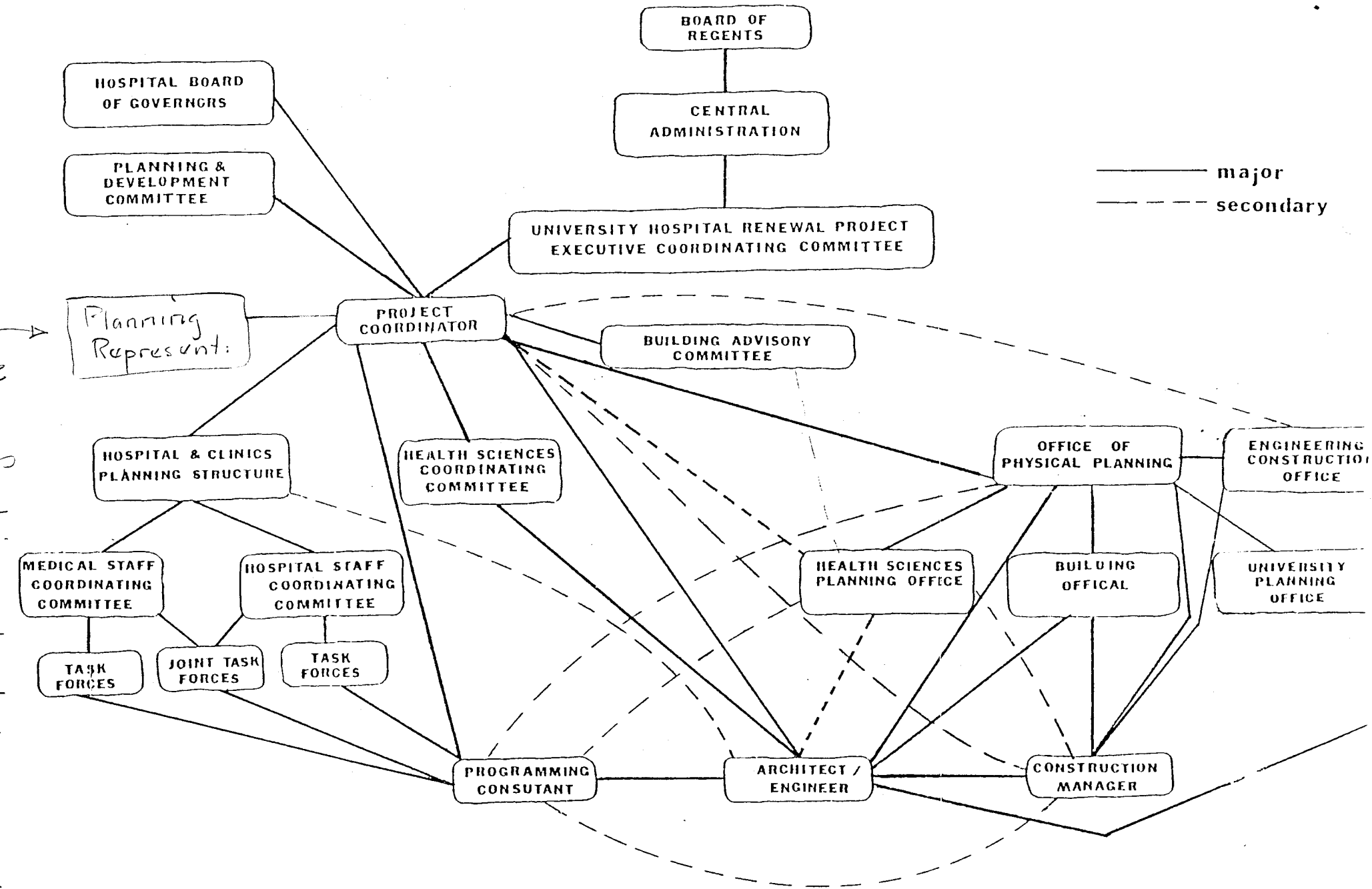


CHART D -- RESPONSIBILITY MATRIX

INVOLVEMENT: 1 = Minor, 2 = Major, 3 = Sole

ITEM	EXEC COMM	BLDG COMM	HOSP PLAN	H. S. COORD	PHYS PLAN	ENGR CONST	H. S. PLAN	PROGRAM CONSUL	A/E	C.M.
<u>CONCEPTUAL PLANNING</u>										
Establish Team Responsibilities		2						2	2	2
Establish Communication Procedures		1						1	1	2
Develop Owner's Program			2		1			2	1	1
Establish Owner's Budget	2							1	1	1
Analyze Program vs. Budget		1						1	1	2
Adjust: Program vs. Budget		2	1		1			2	1	1
Develop Environmental Program					1				2	1
Conduct Site Evaluation					2	2			2	1
Coordinate with Governmental Agencies	2				1					
Prepare Functional and Flow Diagrams			1					2	1	
Study Spatial Relationships			1					2	1	
Develop Conceptual Estimate					1	1			1	2
Evaluate Budget vs. Estimate		2			1			1	1	2
Study Financial Feasibility	3									
Conduct Financing Studies	3									
Develop Preliminary Master Schedule		1			1	1			1	2
Conceptual Planning Report								2	2	2
OWNER'S REVIEW & APPROVAL	2	2	1	1	1	1	1			
<u>SCHEMATIC DESIGN</u>										
Refine Program (Program-Budget-Estimate)		2	1		1			1	2	2
Prepare Detailed Design Schedule		1			1			1	1	2
Recommend Basic Materials & Systems					1	1		1	2	2
Prepare Schematic Drawings									3	
Prepare Outline Specifications					1	1			2	1
Retain Special Consultants		1							2	
Conduct Environmental Study					1				2	
Prepare Alternate Schemes			1		1				2	1
Analyze Alternate Schemes		2			1				1	2
Conduct Economic Energy Study						1			2	1
Establish Reporting & Accounting Proced.										3
Conduct Value Engineering						1			2	2
Develop Phased Construction Schedule					1	1			1	2

ITEM	EXEC COMM	BLDG COMM	HOSP PLAN	H. S. COORD	PLAN	ENGR CONST	H. S. PLAN	PROG CONSUL	A/E	C.M.
SCHEMATIC DESIGN (cont.)										
Identify Long Lead Items						1			1	2
Develop Bid Package Format						1			1	2
Initiate Preliminary Govt. Agency Review					2				1	
Code Review					2				1	
Certificate of Need			2	1	1					
Update Conceptual Estimate										3
Update Master Schedule										3
Update Project Budget	1	2			1				1	2
Analyze Budget vs. Estimate		2			1			1	1	2
Schematic Design Report								1	2	2
OWNER'S REVIEW & APPROVAL	2	2	1	1	1	1	1			
DESIGN DEVELOPMENT										
Refine Program		2	1		1				2	1
Update Design Schedule		1			1				1	2
Evaluate Architectural Comp. & Sys. Alt.			1		1	1			2	2
Evaluate Structural Systems						1			2	2
Evaluate Mechanical & Electrical Systems			1			2	1		2	2
Finalize Selection of Components & Systems		1			1				2	2
Conduct Value Engineering						1			1	2
Refine Outline Specifications					1	1			2	1
Complete Design Development Drawings									3	
Code Review					3					
Establish General Conditions					1	1			1	2
Prepare Preliminary Construction Estimate										3
Prepare Preliminary Construction Schedule										3
Coordinate with Govt. Agencies & Utilities	2				1				1	1
Evaluate Labor & Trade Contractor Market									1	2
Prepare Trade Contractor Bid Lists						1			1	2
Review Trade Contractor Bid Lists		2			1	1			2	2
Update Master Schedule										3
Analyze Estimate (Program vs Budget vs Estim.)		2	1		1				2	2
Refine Project Budget	1	2			1				1	2
Prepare Long-Lead Purchase & Phased Const Doc									2	1
Assurance of Project Financing	3									
Design Development Report									2	2
OWNER'S REVIEW & APPROVAL	2	2	1	1	1	1	1			

↳ Review Specifications and Design Development Drawings
 (Some current procedure as in CONTRACT DOCUMENTS)

ITEM	EXEC COMM	BLDG COMM	HOSP PLAN	H.S. COORD	PHYS PLAN	ENGR CONST	H.S. PLAN	PROG CONSUL	A/E	C.M.
<u>CONTRACT DOCUMENTS</u>										
Update Design Schedule		1			1				1	2
Procure Partial Building Permit						3				
Implement Phased Construction		1							1	2
Establish On-Site Staff						1			1	2
Bid and Purchase Long-Lead Items		1			2				1	2
Prepare Contract Plans & Specifications									3	3
Finalize Construction Estimates										3
Finalize Project Budget		2			1	1			1	2
Finalize Owner Occupancy Schedule		1	2						1	2
Prepare Cash Flow Schedule										3
Prequalify Trade Contractors		1				1			1	2
Review Contract Plans & Specifications		1	1		1	1	1		2	2
Finalize Trade Contractor Bid Lists		1							1	2
Final Governmental Agency Review & Approval		3								
Code Review					3					
Final Insurance Co. Review					3					
Update Construction Schedule										3
Procure Final Building Permit						3				
Bid Market Analysis										3
Contract Document Report									2	2
OWNER'S REVIEW & APPROVAL	2	2	1	1	1	1	1			
<u>BIDDING AND AWARD</u>										
Advertise for Trade Contractor Bids		1							1	2
Conduct Trade Contractor Pre-Bid Conference			1		1	1			1	2
Receive Tabulate & Analyze Trade Contr.'s Bids			1		1	1				2
Update Construction & Master Schedule										3
OWNER'S REVIEW & APPROVAL OF TRADE CONTRACTS					3					
Issue Notice to Proceed					3					
Develop Detailed Construction Schedule										3
Conduct Pre-Award Conferences					1	1	1		1	2
Award Trade Contracts	2	1								1
<u>CONSTRUCTION</u>										
Mobilization for Construction										3
Verify & Monitor Insurance Requirements					2				1	1
Approve Trade Contractor Progress Payments					1					2
Maintain Shop Drawing & Sample Control						2			2	2

<u>ITEM</u>	<u>EXEC COMM</u>	<u>BLDG COMM</u>	<u>HOSP PLAN</u>	<u>H. S. COORD</u>	<u>PHYS PLAN</u>	<u>ENGR CONST</u>	<u>H. S. PLAN</u>	<u>PROG CONSUL</u>	<u>A/E</u>	<u>C.M.</u>
CONSTRUCTION (cont.)										
Provide Project Cost Control										3
Conduct Job Meetings						1			1	2
Evaluate Progress & Update Const Sched.										3
Change Orders: Owner to CM	1	2	1		1	1			1	2
Change Orders: Trade Contractors		2			1	1				2
Inspect & Monitor Trade Contractors' Work						2*			1	2
Inspect for Conformance to Design						2*			1	2
Interpret Plans & Specifications					1	1			2	1
Administer Safety Program										3
Administer Security Program										3
Administer Quality Control Program						2*			1	2
Coordinate Owner Occupancy Schedule									1	2
Conduct Final Inspection		1	2		1	1			1	2
Prepare Punch List									2	2
Certify Substantial Completion						2			2	2
Code Inspections					3					
Inspect for Certificate of Occupancy					3					
Start-Up & Recommended Maintenance						2			1	2
As-Built Drawings									2	2
Submit Operation Manuals & Warranties									2	2
Perform Final Accounting					1	1				2
OWNER'S REVIEW & APPROVAL	2	2	1	1	1	1	1			
POST CONSTRUCTION										
Perform Guarantee Requirements									1	2

* For work constructed by the C.M.

PROGRAMMING CONSULTANT

Composition: Robert Douglass Associates, Inc.

- Responsibilities:
- Review and advise Hospital management and professional staff regarding the adequacy and appropriateness of functional programs, and relationships and space requirements of user groups.
 - Identify areas requiring additional or revised information and provide assistance in collecting information.
 - Validate reasonableness and viability of departmental programs.
 - Assist in defining space requirements for functional programs.
 - Assist in developing optimal functional relationships, i.e., locations for departments, in either new or renovated facilities.
 - Identify needs for new information and assist in developing data collection materials.
 - Identify and validate most efficient and effective utilization of vacated Mayo space.
 - Assist Hospital staff in finalizing functional program documents to assure compliance with normally accepted guidelines and standards, and to assure all information is adequate for implementation of design activities.
 - Provide workable, efficient format for communicating information.
 - Provide methodologies to retrieve information and analyze data in varying contexts.
 - Assist in development of a budget estimate for the project, based upon the completed functional programs.
 - Participate in development of schematic designs as a consultant to the Planning Staff and in a cooperative role with the Architects.
 - Assist in providing schematic layout criteria.
 - Evaluate operational/program impact and appro-

priateness of various schematic alternatives.

- Participate in development of Certificate of Need application by developing and providing requested data and identifying issues to be addressed.
- Provide consultation to Task Forces and Committees as required.

ARCHITECT/ENGINEER

Composition: Joint Venture of Ellerbe Architects-Engineers-Planners and Helmuth, Obata & Kassabaum.

- Responsibilities:
- Coordination and analysis of program information.
 - Site development planning.
 - On-site utility studies.
 - Architectural design and documentations.
 - Structural design and documentation.
 - Mechanical design and documentation.
 - Electrical design and documentation.
 - Civil design and documentation.
 - Interior design and documentation.
 - Materials research and specifications.
 - Code compliance analysis.
 - Presentations of schematic documents, design/development documents, and contract documents.
 - Preparation of bidding documents.
 - Preparation of addenda.
 - Analysis of alternates and substitutions.
 - Construction field observation.
 - Review of change orders.
 - Shop drawing review.
 - Preparation of renderings.
 - Model construction.
 - Energy studies.
 - Environmental monitoring.
 - Graphics design.
 - Fine arts and crafts services.
 - Special furnishings design.
 - Demolition services.
 - Mock-up services.
 - Special disciplines consultation.
 - Selection and coordination of special consultants.

CONSTRUCTION MANAGER

Composition: Professional firm

- Responsibilities:
- Overview management plan.
 - Communications
 - Cost management
 - Design and construction phase planning, scheduling and control.
 - o - Change order control.
 - Value engineering
 - o - Design consultation on construction means and methods.
 - Development of building systems alternates
 - Market analysis for materials and bidders.
 - Site analysis for construction operations
 - Identification of bid packages.
 - Review of documents for jurisdictional clarity
 - Cash flow analysis
 - Establish guaranteed maximum for each bid package.
 - Advertising and distribution of construction documents for bidding.
 - Receive, review and analyze bids.
 - Recommend award.
 - Work with contractors to develop detailed construction schedule.
 - Provide resident project management.
 - Provide job site construction staff.
 - Provide general conditions items.
 - Establish and maintain reporting system to owner.
 - Inspect the work of contractors.
 - Assure EE&O compliance
 - Assure OSHA compliance.
 - Take primary responsibility for all construction activities.

CRITERIA FOR CONSTRUCTION MANAGEMENT SELECTION

The following criteria are listed in order of importance for this project:

1. Hospital Experience:

The specific experience in the management of hospital construction is perhaps the most important criteria. Hospitals are subject to a higher level of technological advance than most construction projects. This means greater opportunities for change during the design and construction phases. A manager with specific experience is better able to maintain control of the project. Hospital planning employs a language of its own. A Construction Manager familiar with this language can better communicate with the health care professionals who use the hospital and the planning professionals establishing its parameters. Once again, this yields a higher level of control. Hospital construction almost always involves disruptions of services vital to health care. Once again, specific experience yields greater understanding in planning and implementing these necessary disruptions of vital services.

2. Reputation:

The firm's reputation should be carefully checked by contact with previous clients and previous design firms regarding performance, as well as the firm's ability to function as a team player.

3. Reputation and Experience of Specific Personnel Assigned to This Project:

The Construction Manager should be required to commit specific persons in the key management roles and submit their resumes as a part of his proposal. It is imperative that not only the CM firm have experience with similar projects and a viable track record, but that the Project Manager and his staff have similar experience. The Construction Manager should be required to present an organizational plan including an autonomous local office providing complete and immediate local control and decision making authority. This local office must be organized to function during the design as well as construction phases.

4. Expertise in Mechanical and Electrical Design and Construction:

To perform required value management, the Construction Manager must have substantial in-house mechanical and electrical expertise. Such expertise is a major differentiation between a General Contractor and a fully qualified Construction Manager.

5. Financial Strength:

The Construction Manager will require significant financial strength and bonding capacity to offer the guarantees required by the University.

6. Knowledge of the Local Market:

The Construction Manager will be charged with structuring the project into bid packages to generate maximum competition for each package.

A knowledge of and good working relationships with local subcontractors and vendors is important to success.

7. Management Systems:

The Construction Manager should be prepared to demonstrate his use of up-to-date management systems and techniques, especially in the areas of cost control and scheduling. A common weakness in General Contractors/Construction Managers is the inability to develop accurate conceptual estimates from programmatic concepts or schematic design.

This ability will be essential to establishing and maintaining a meaningful total project budget where the only guarantees are on individual bid packages as they are bid.

8. Workload:

The Construction Manager's current workload should allow devotion of major resources to a project of this magnitude. The depth of his organization obviously is related to this consideration.

9. Ability to Implement Effective Labor Relations Program Possibly Involving National Labor Agreements.

10. Specific Experience Working With a Programming Specialist:
The Construction Manager for the University Hospitals Renewal Project will be asked to participate in evaluating program concepts from a cost point of view. An effective Construction Manager will help the programmer and architect/engineer function as an effective team by providing the highest level of communication between all responsible parties.
11. Knowledge and Experience in Dealing With Federal, State and Local Regulations, especially OSHA, EEO, environmental and energy control.
12. Knowledge and Ability to Implement the Most Effective Overall Insurance Program for the Project interfaced with the existing University insurance and policy.
13. The Construction Manager's Ability to Perform Work With His Own Forces.

REQUEST FOR PROPOSAL

The University has asked a large number of local and national Construction Management firms to express interest in being selected as Construction Manager for this project. Those expressing interest will forward to the Office of Physical Planning brochure materials, evidence of financial strength, and client and designer references. The Selection Committee will select 4-6 firms from those expressing interest to prepare detailed proposals. The enclosed Outline of Issues will be expanded to a formal Request For Proposal providing the Construction Manager with sufficient information about the project to respond. Immediately following Construction Manager interviews, a Construction Management firm will be selected and fee negotiations proceed.

CONSTRUCTION MANAGER REQUEST FOR PROPOSAL

OUTLINE OF ISSUES

FIRM DATA

1. PRESENT ORGANIZATION

If offeror is a joint venture, supply requested information in each involved firm.

a. Firm.

- (1) Name, address, telephone, person to contact?
- (2) Name of parent company (if any)?

b. Types of Services.

- (1) Construction management?
- (2) Project management?
- (3) General construction contracting? What building types?
- (4) Specialty construction contracting?
- (5) Design-build?
- (6) Architect-Engineer?
- (7) Combination, explain?
- (8) Other, explain?

c. Legal Form.

- (1) Individual, partnership, corporation, joint venture, or other?
- (2) Date and location of establishment or incorporation under present name?
- (3) Former names, locations, and dates (if any)?
- (4) Names, titles, and addresses of firm owner, partners, or officers?
- (5) States and categories in which firm is legally qualified to do business?

d. Branch Offices.

For each branch give:

- (1) City, state, and telephone number?
- (2) Number and type of personnel?
- (3) Person in charge?
- (4) Capability of performing independently of main office?

e. Operational Areas.

List geographic areas of the United States in which firm conducts business and value of construction work put-in-place during the past five years in each area?

f. Size.

- (1) Present number and type of employees in home office, and in field offices (construction sites)?
- (2) Number and type of employees during each of the past five years?
- (3) Average annual receipts for the preceding three fiscal years?

g. Facilities.

- (1) Office space, equipment, and computers?
- (2) Field facilities and equipment?

2. PERSONNEL

a. General.

- (1) Policies?
- (2) Recruitment, orientation, training, and development?
- (3) Employee benefits and privileges?
- (4) Employee relations?
- (5) Employee average length of service?

b. Employee Qualifications.

Describe design oriented capabilities of personnel of your firm or joint venture, or consultants in the following areas:

- (1) Job Cost Control,
- (2) Architectural Engineering,
- (3) Civil Engineering,
- (4) Construction Superintendence,
- (5) Contract Law,
- (6) Electrical Engineering,
- (7) Estimating (architectural, civil, mechanical, electrical),
- (8) Construction Inspection,
- (9) Labor Relations,
- (10) Mechanical Engineering,
- (11) Safety,
- (12) Structural Engineering,

b. Employee Qualifications (cont.)

- (13) Testing Facilities,
- (14) Value Management,
- (15) Management,
- (16) Construction Management Control Systems,
- (17) Computer Technology, and
- (18) Other.

c. Competence.

In what technical disciplines do you consider your staff to be exceptionally strong? Why? What are the names and specialties of the particular experts?

d. Design Contact.

Have your key employees been in personal contact with the designers or your construction projects during the programming and design? Extent and depth of the contacts?

e. Continuity.

- (1) What is your capability to sustain loss of key personnel without adverse effect on a project or the firm?
- (2) How do you minimize personnel shifts in projects?
- (3) Recent history of key personnel turnover with dates, names of personnel and projects, and causes for changes.

3. CONSTRUCTION MANAGEMENT

a. Organization.

- (1) Team, departmental, combination, permanent, temporary?
- (2) Leadership and decision making?
- (3) Top management involvement?
- (4) Personnel recruitment, within firm or from outside?
- (5) Number of personnel normally assigned to project during design, during construction, relationship to construction cost?

b. Planning.

- (1) Initial
- (2) Followup

c. Design Related Operations.

- (1) Extent?
- (2) Personnel involvement?
- (3) Working procedures, coordination, followup, and cooperation with Contractors, A-E, and Owner?
- (4) Inputting construction know-how?
- (5) Market analysis?
- (6) Interfacing construction contracts?
- (7) Bid packaging and solicitation?
- (8) Long range procurement?

d. Construction Related Operations.

- (1) Extent?
- (2) Personnel involvement, full, part-time?
- (3) Working procedures, coordination, followup, checking, and cooperation with Contractors, A-E, and Owner?
- (4) Superintendence?
- (5) Inspection?
- (6) Technical support and consultants?
- (7) Administration?
- (8) Handling change orders, shop drawings, materials approvals, samples, as-built drawings, and claims?
- (9) Labor relations?
- (10) Construction facilities, equipment, materials, and manpower?

e. Overlap of Design and Construction.

Describe your experience in managing phased construction activities, with particular emphasis on its special problems and their resolution.

f. Responsibility and Liability.

Discuss your review of the extent of your responsibility and liability as a Construction Manager under the proposed contract.

b. Planning.

- (1) Initial
- (2) Followup

c. Design Related Operations.

- (1) Extent?
- (2) Personnel involvement?
- (3) Working procedures, coordination, followup, and cooperation with Contractors, A-E, and Owner?
- (4) Inputting construction know-how?
- (5) Market analysis?
- (6) Interfacing construction contracts?
- (7) Bid packaging and solicitation?
- (8) Long range procurement?

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- (4) Superintendence?
- (5) Inspection?
- (6) Technical support and consultants?
- (7) Administration?
- (8) Handling change orders, shop drawings, materials approvals, samples, as-built drawings, and claims?
- (9) Labor relations?
- (10) Construction facilities, equipment, materials, and manpower?

e. Overlap of Design and Construction.

Describe your experience in managing phased construction activities, with particular emphasis on its special problems and their resolution.

f. Responsibility and Liability.

Discuss your review of the extent of your responsibility and liability as a Construction Manager under the proposed contract.

g. Associations.

With respect to joint ventures or associations with other firms, please describe in detail previous associations on construction projects in sufficient detail to demonstrate your ability to effectively work with and manage a combination of firms. Indicate who the firms were if they are different from the ones proposed for this project.

h. Improvements.

What changes have been instituted in the last 5 years to improve your operations? Why were they needed? Have they been successful?

4. CONSTRUCTION MANAGEMENT CONTROL SYSTEM

Describe your firm's competence in the implementation and maintenance of management systems and in the application of systematic cost control methods. Give answers to the following:

- a. Do you use computer generated schedules for construction management?
- b. Do you require separate contractors to prepare their own schedules? Explain.
- c. What is your experience in scheduling A-E activities?
- d. What is your method of estimating construction requirements in pre-construction planning?
- e. To what level of detail should a construction schedule be defined?
- f. Which method of diagramming schedules do you normally employ, activity-on-arrow or precedence diagramming method? Explain.
- g. Do you use cost-on-activities as a basis for control and/or payment?
- h. To what extent do you rely upon the capabilities of your sub-contractors to provide estimating know-how?
- i. Do you employ computer accounting systems in your work?
- j. How do you use your computer systems to forecast work-in-place, manpower requirements, productivity, cash flow, and budget overruns?
- k. What relationships do your narrative reporting systems have to your automated systems?

5. INNOVATION

Discuss your familiarity, involvement, and application of any of the following techniques or systems:

- a. Project Management,
- b. Conceptual Estimating,
- c. Life Cycle Costing,
- d. Specifications System,
- e. Building Systems and
- f. Value Management.

6. WORKLOAD

- a. Present Projects. List (giving names of projects, locations, owners, estimated construction costs) work your firm is responsible for, percent of design completion and construction completion, and firms associated with (if any).
- b. Capacity. Describe in today's construction dollar the volume of work which your firm can handle at this time with a) your present force and b) with readily available augmentation (i.e., give number and types of additional personnel required).
- c. Long Term Record. List in today's construction dollars, the volume of work your firm has handled for each of the past 5 years. Discuss reasons for any major fluctuations.

7. LOCAL KNOWLEDGE

Show recent knowledge and experience with local construction conditions in the proposed project area.

8. SOCIO-ECONOMIC

- Describe your experience with:
- a. Energy Conservation,
 - b. Environmental Control,
 - c. Equal Employment Opportunity,
 - d. Small Business Utilization,
 - e. Utilization of Minority Businesses,
 - f. Employment of the Handicapped and
 - g. Other?

9. FINANCIAL STATEMENT

Attach statement of financial condition including regular dated statement or balance sheet.

10. REPUTATION

Give name, address, telephone number, and person to contact for any of the following references you wish contacted concerning your firm's ability:

- a. Owners,
- b. Bonding Companies,
- c. Financial Institutions,
- d. Public Officials,
- e. Architect-Engineers,
- f. General Contractors,
- g. Major Subcontractors, and
- h. Major suppliers.

PROJECT DATA

General Note: Base your written answers to the following searching questions on the actual experience of your firm or joint venture during the last five years. The replies should be detailed and informative, and cover all the facets of the questions.

11. PROJECT EXPERIENCE - GENERAL.

Describe your experience on completed construction projects giving the following information on each project reported:

- a. Project name and location,
- b. Project description,
- c. Construction cost,
- d. Design start and completion dates,
- e. Construction start and completion dates,
- f. Actual work you performed,
- g. Owner's name, address, telephone number, and person to contact, and
- h. Architect-Engineer's name, address, telephone number, and person to contact.

12. PROJECT EXPERIENCE - SPECIFIC

For one or more of the above completed construction projects (maximum of three) which you consider similar to or equivalent to the proposed project, provide the following additional information:

- a. Discuss any original or unique thinking or judgement exercised by your staff during the design development or construction,
- b. Number and subject of addendum issued during bidding, why they were needed,
- c. Number and subject of change orders issued during construction, why they were needed, and how they effected the construction progress,
- d. The total construction award amount compared to the final prebid estimate,
- e. Completed construction cost compared to the initial construction award amount and to the construction estimate when design was initiated,
- f. The initial schedule in months for design and for construction compared to the actual time spent,
- g. Extent of your involvement in project problems during both design and construction including any design or construction omissions, errors, other deficiencies, or changed conditions,
- h. Discuss your relationships with the owner, the Architect-Engineer and the construction contractors (prime or sub),
- i. Describe any post-construction problems in start-up, operation, or maintenance,
- j. If you were doing the project again, would you do anything different? Why?

13. ON-SITE PROJECT ORGANIZATION

Please outline your organizational strategy for this project indicating total number of Twin Cities based personnel to be assigned during each phase of the design and construction process.

- a. Provide organization charts for each phase showing numbers of personnel and disciplines.
- b. Provide names and resumes of specific key project personnel you will assign to this project.

14. PRICE GUARANTEES

The University is contemplating the Construction Manager to provide guaranteed maximum prices for each bid package based upon substantially complete contract documents for that package (approximately two months in advance of bid openings). Please state your reaction to this requirement as it may effect the cost of your services and your ability to function effectively as an owner's agent in the design and construction.

15. FEES

Please express the range of fee you would expect for performing Construction Management services on this project. Please detail this estimate as follows:

- a. Fee range without price guarantees,
- b. Fee range with price guarantees,
- c. Reimbursables budget based on organization described in item #13.

16. GENERAL CONDITIONS

How would your firm propose to perform or contract for General Conditions items?



UNIVERSITY OF MINNESOTA
TWIN CITIES

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Physical Planning
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Minneapolis, Minnesota 55455
(612) 373-8981

October 25, 1979

TO: Paul J. Maupin
FROM: Warren G. Forslund *Warren*
SUBJECT: Comments on "University Hospital's
Renewal Project Organization for
Design and Construction"

1. This document makes no reference to the area of movable equipment nor refers to any document or effort in this area. Defining for the A/E effort, purchasing, receiving and installing movable equipment seems to be an absolute must for a project this size.
2. Is the movable equipment budget included in the \$170-180,000,000 total project cost?
3. Is the site consideration now a closed subject?
4. If the University (Hospital specifically) is seeking a guaranteed price through a Construction Manager, it may be doing so because of its lack of construction experience and therefore its unwillingness to take on responsibility.

In Part 3 of the "Criteria for Construction Management Selection" section, the document asks for the "Reputation and Experience of Specific Personnel Assigned to This Project". Does the same apply to Hospital Planning personnel or are they leaning too heavily on the outside Construction Manager, Architectural/Engineer, and Programmer?

Seeking this complete security can hamstring unmercifully and lead to mediocrity.

It would seem that the Health Sciences Planning Office has demonstrated its expertise and professionalism quite well in the past and has accepted the responsibility for bringing its projects in on budget and has been successful in this. It seems the University hierarchy should consider the Health Sciences Planning Office's deeper involvement in light of the above.

Under the section "Department of Engineering and Construction" its involvement with one full time Mechanical Engineer, one full time Electrical Engineer, and one-half time Civil Engineer is spelled out. No one is involved from Physical Planning or Engineering and Construction in the planning aspects especially as they relate to unique Health Sciences problems.

If a comparison of end products in the Health Sciences were to be made, I believe the Duluth Medical School, in which this office had little input, would compare rather unfavorably with Unit A, Unit B/C, Unit F and JOML that were under the jurisdiction of this office.

5. With guaranteed max on individual packages, who pockets the difference? Also, can estimates be so designed so as to enhance the chances of pocketing savings? If a very essential package comes in high, can it be accepted and the average made up on another package with lesser overall impact?
6. If the University has a 2 to 1 ratio of power in awarding contracts, how can they hold the Construction Manager to guaranteed price?
7. If the Construction Manager has a 2 to 1 ratio of power in awarding contracts, how can the University have any influence in the area of change orders, product acceptance, shop drawing acceptance, etc.?
8. In the Criteria for Construction Manager, it states "Hospitals are subject to a higher level of technological advance than most construction projects. This means greater opportunities for change during the design and construction phases". Yet, under the guaranteed max, it would seem reasonable that the Construction Manager would have complete control over change orders, and that his pocket book thinking would rule.

One answer might involve the University controlling the contingency fund. Then who decides whether a Change Order was due to program change or Construction Manager error and omission for which he would be responsible?

9. In the area of sterilizers, building equipment, etc., what input does owner have in selection of equipment offered either by the Construction Manager if he is doing the work or the local sub-contractor? It seems the University has had undo problems in this area (sterilizers and cage washers in Unit B/C) in the past when left to the architects' discretion.

In the area of movable equipment with sometimes far greater complexity for both Unit A and B/C, this office was able to purchase equipment that was satisfactory to the user and in no instance ever became a major problem. This was done within the University's guide lines.

10. The Document says nothing about who approves equipment, shop drawings, materials, etc. Is this the responsibility of the Construction Manager or Architectural/Engineer? Again, will the University stand as an outsider, or will there be an input mechanism provided?
11. The Document says nothing on how charges will be calculated if the Construction Manager performs work with his own forces. The guaranteed max would point in one direction, and management only would point in a ??? direction.
12. Knowledge of Local Market (local subs) is a requirement, yet Construction Managers from the National Scene are being considered.
13. Brown and his University Hospital Project Executive Coordination Committee should have direct access to Architectural, Engineering and Construction people. His only access with these people, according to the organizational layout, is through a non-professional in the field of construction, as it deals with plans, specifications, contracts, and actual construction.

There are also comments on the attached document.