UNIVERSITY OF MINNESOTA

HEALTH SCIENCES

Prepared for
Education Division of House Appropriations Committee

April 27, 1977

C O N T E N T S

PLANNING FOR NURSING/PHARMACY BUILDING

In the latter part of the 1960's, extensive planning was done to increase the enrollments of health professionals and to alter the curricula to produce a health professional more appropriate to the needs of the State for delivery of health care. In the process, the efforts of the University were directed to the achievement of an environment where education, service and research can be conducted in an integrated manner that will have an impact on the delivery of care and the promotion of health.

The following priorities were determined to complement the basic programs:

Educational programs which will enable delegation of functions once reserved for more highly trained professionals, e.g., dentist delegation to a more skilled dental assistant, physician to nurse practitioner, pharmacist, etc.

Development of new health care delivery models.

Research in health care services.

Increased opportunities for interdisciplinary health education with the objective of further unification of health disciplines through the development of common courses.

Determination of manpower needs and education of health professionals in cooperation with other health agencies and educational systems.

Development of methods to improve distribution of health professionals.

Continuing education emphasizing "education as a continuum" and making health sciences resources more conveniently available to practicing professionals.

Development of consumer and patient educational programs designed to emphasize preventive health measures, health maintenance and patient awareness of the health system.

Timely development of facilities expansion to house the increased enrollment has largely been dependent on fluctuations of federal funding. The entire plan, including the concept, the amount of space, the resources to be shared, documentation of need, the enrollment increases, the study of alternatives and availability of resources have been reviewed and endorsed by legislative committees, federal officials and site review teams.

Successful competition for federal funds and state legislature appropriations providing matching funds have permitted construction of new and remodeling of old facilities for the Schools of Dentistry and Medicine classrooms shared by all health sciences schools and out-patient clinics also used by all health sciences schools. According to the plan, the School of Nursing was originally scheduled to occupy the out-patient clinic area vacated when new clinic facilities were completed. The College of Pharmacy and the School of Public Health were scheduled for new construction.

In 1969 and 1970, a total of $1,669,400 was appropriated by the State for land acquisition and design development for a College of Pharmacy facility. In 1971 and 1972, a College of Pharmacy Federal grant proposal was approved by HEW but not funded due to the limited funding available nationally.

In 1974, the proposal was funded: one million dollars of the requested six million dollars to construct a sixteen million dollar project. The University did not accept the award.

In 1975 federal funds were made available for schools of nursing.

A review of the projects still in the planning stages in the master plan indicated that a modification of the master plan could be achieved by providing new construction in a combined facility for Pharmacy and Nursing, eliminating new construction for the School of Public Health by reassigning the vacated out-patient area to that School.

The decision to combine the School of Nursing and the College of Pharmacy into one facility provided several advantages:

Increased the competitive strength of the proposal for federal funds.

Eliminated the need for additional new space for the School of Public Health and provided a more timely accommodation for that School's current needs.

Reduced the amount of space planned for the College of Pharmacy in accord with changing trends in the curriculum as the educational programs for Pharmacy students require less emphasis on drug compounding and manufacturing and more emphasis on a drug knowledge base to serve a greater clinical role.

Provides the School of Nursing with space that is more functionally appropriate to its curriculum and its emphasis on the expanded role of nurses.

The proposal for a combined facility resulted in a federal priority ranking that provided the federal funding commitments to the University in the amount of $8,265,368 or 25% of the total health professions education funds that were available nationally for nursing and pharmacy construction in 1975.

In 1976, the University sought $11,014,170 from the Legislature to construct Unit F (to house Nursing and Pharmacy). The University had already received $1.7-million in State funds and had an allocation of approximately $8.3-million available in Federal matching funds.

The Legislature did not approve the request; however, it did appropriate $300,000 to produce plans for remodeling existing and future structures for the two programs. The University was required to report its findings to the Legislature by February 1, 1977.

The report has been submitted and, in accordance with the legislative mandate, all possible alternative locations for Pharmacy and Nursing were re-examined. Cost estimates provided by outside consultants permitted a more careful analysis of any significant cost advantages that might outweigh the desirability of housing Nursing and/or Pharmacy in a single new facility in the Health Sciences Center. Three alternatives were selected.

Briefly, the three options would require a combination of remodeling and construction.

Implementation of any of the three options will ultimately require new planning or new construction for the School of Public Health, as

originally planned.

Following the close of the 1976 legislative session, the University sought and received an extension of the commitment for Federal funds until May 15, 1977, for Unit F. The project cost of the combined new facility is estimated at $21,230,600 excluding $1,669,400 in State funds which have already been expended for land acquisition and design development.

The University's Board of Regents, at its meeting on February 11, 1977, passed a resolution stating the Regents' belief that Unit F is the best alternative both in cost and educational considerations. (Resolution is attached.)

Basic to the health science planning has been the objective of combining activities of the many health disciplines. Health professionals will practice together more effectively if they are educated together, and if a common goal is improvement of the health care delivery system.

Working and learning in health teams can form the base for further study of health delivery questions, including the numbers and kinds of health personnel needed to deliver efficient, effective health care in a variety of settings and the organization, delivery and evaluation of those health services.

The intent of an interrelated Health Sciences is to speed these innovations.

Specific emphasis for the College of Pharmacy relates to the increased clinical role of the pharmacist. Their work will concentrate on in-patient and out-patient experiences where the clinical pharmacist will interact with physicians, dentists, other health professionals and patients to obtain meaningful drug histories, identify previous adverse reactions, guard against drug interaction, plan drug therapy, monitor patient response and counsel patients on expected drug reaction and alert them to possible adverse reactions. Clinical pharmacists are also providing an increasingly

important service in nursing homes and extended care facilities where the geriatric population and the chronically ill are dependent upon a broad variety of drugs. Today's drugs, their potency and interactions demand that a knowledgeable health professional monitor the increasing complexities in their use.

The Federal construction funds for the College of Pharmacy are contingent upon an enrollment increase of fifty students. Considerable discussion of the pharmacy manpower need in the State occurred during the 1976 session, and some opposition to increased numbers of pharmacists was expressed. To some extent, it was not clearly understood that the intent of the College of Pharmacy was to emphasize the training of clinically prepared (professional doctor of) pharmacy graduates. The College is not required to accept the first increased class size until two years following the completion of the new facility, and the increase can be phased in. It would then be 1985 or 1986 before the first graduates would complete the clinical pharmacy curriculum.

The expanded roles of nursing include the adult and geriatric practitioner program, the pediatric practitioner and the midwifery program. As the only graduate program in the Upper Midwest, a major emphasis of the School of Nursing is to prepare master's level educators for the many baccalaureate and associate degree nursing programs throughout the State and region.

These educational programs together with other areas of emphasis described above provide this health science center with unique capabilities to address the important health delivery questions, i.e. what mix of health professionals can appropriately deliver quality health care in various settings under different circumstances at the least cost.

The University of Minnesota's Health Sciences Center is fortunate

to have one of nineteen schools of public health in the country integrated into the Center and strongly related to the Minnesota State Health Department. The expertise and interest of health planners, biometricians, and epidemiologists in that setting provide strong components for health services research.

National interest and regional need for researching these important delivery questions with the same scientific integrity that is the foundation of basic medical research have combined to increase the emphasis on the growth of schools of public health and their role in the academic health professions community.

Providing the School of Nursing and the College of Pharmacy with a combined new facility not only strengthens those programs as planned, but permits the expansion of the School of Public Health by integrating it into the mainstream of the academic units, where faculty research interaction with be strongest.

Facilities Report for

School of Nursing
and
College of Pharmacy

prepared in response to 1976 Laws of Minnesota in which $300,000 was appropriated "...for the purpose of producing plans for remodeling existing and future structures for nursing and pharmacy programs."

-Task Force appointed

-Consultant architects and engineers retained

TAC & H.S.A.E. of Minnesota selected

17 composite options selected for detailed study (on page 13 of report)

3 recommended and accepted (on page 9 of report)

The three are made up by variations of same 3 parcels of space

underground expansion of Unit A;
vacated clinics;
modification of plans for space in Unit B/C

All three are better than existing conditions and succeed in bringing the Nursing and Pharmacy programs into the Health Sciences buildings.

All three have major drawbacks:

1. Cost is in same range of new construction.
2. None are approved for the federal funds.
3. Each splits pharmacy into two locations.
4. All leave a net space deficiency for the total health science program (primarily for Public Health).
5. No savings to state for operations and maintenance since the only remodeled space is currently clinic space maintained by University Hospitals through patient revenues.
6. All have completion dates later than Unit F.

Because of drawbacks, Regents after review, passed resolution urging reconsideration of Unit F.

As noted on Page 19 of the report, an extension of the grant commitments totaling $8,265,368 has been granted to May 15, 1976.

Selected Alternatives

The approach taken in the selection of alternatives to Unit F was to examine every possible and logical combination of space that would meet the square foot requirements of the Nursing and Pharmacy programs.

Seventeen combinations (shown on page 13 of report) were identified and cost estimates were prepared. It was apparent that there was not a sufficient cost advantage, one option vs. another, to use cost as the major criteria for selection of the best alternative.

None of the 17 and none of the 3 finally selected alternatives to Unit F (shown on page 9) meet all of the specifications of the program planning that has been used in developing the health sciences. The three selected are those that "best meet" those specifications.

Alternatives

Option #10. Pharmacy programs would be located on the seventh floor of Unit B/C and in the Plaza area of Unit A. Nursing programs would go into the vacated clinics area in Mayo Hospital. The project cost is estimated at $21,146,648.

Option #12. Pharmacy programs would be located on the seventh floor of Unit B/C and in the Plaza area of Unit A. Nursing programs would go into the vacated clinic area with new space constructed by enclosing the clinic courtyard. The project cost is estimated at $25,684,368.

Option #16. Pharmacy programs would be located in the vacated clinic area with new space constructed by enclosing the clinic courtyard and on the seventh floor of Unit B/C. Nursing programs would be located in new underground construction in the Unit A Plaza. The project cost is estimated at $24,715,933.

COMPOSITE OPTION #			LOCATION	NET SQ. FT.	NEW SQ. FT.	ESTIMATED COST	PROJECT START	FINISH	SPACE REQUIRING RELOCATION	EST. NSF TO COMPLETE HEALTH SCIENCE PROGRAM
#10	Pharmacy	-	Unit B/C Fl.7 & Unit A. Plaza	70,700	51,000	$15,204,120	Jul.'78	Jul.'79		
	Nursing	-	Vacated Clinics	37,860		5,942,528	Jan.'79	Jul.'80		
				108,560		$21,146,648				101,263
#12	Pharmacy	-	Unit B/C Fl.7 & Unit A Plaza	70,700	51,000	$15,204,120	Jul.'78 Jul.'78	Jul.'79 Jul.'80		
	Nursing	-	Vacated Clinics & in-filled court	40,750	15,500	10,480,248	Apr.'79 Jan.'79	Oct.'80 Jan.'81		
				111,450		$25,684,368				85,763
#14	Pharmacy	-	Vacated Clinics & in-filled court	65,695	15,500	$14,920,508	Nov.'79 Jan.'79	May.'81 May.'81	16,325	
	Nursing	-	Unit A Plaza	43,200	43,000	10,832,035	Jul.'78	Jul.'80		
				108,895		$25,752,543				93,763
#15	Pharmacy	-	Vacated Clinics and in-fill court	65,700	20,750	$14,848,940	Apr.'79 Jan.'79	Oct.'80 Jan.'81	8,000	
	Nursing	-	Unit A Plaza	43,200	43,000	$10,832,035	Jul.'78	Jul.'80		
				108,900		$25,680,975				88,513
#16	Pharmacy	-	Vacated Clinics & in-filled court & Unit B/C Fl.7	69,100	15,500	$13,883,898	Apr.'79 Jan.'79 Jul.'78	Oct.'80 Jan.'81 Jul.'79	900	
	Nursing	-	Unit A Plaza	43,200	43,000	10,832,035	Jul.'78	Jul.'80		
				112,300		$24,715,933				93,763

Increased Maintenance Costs for
Pharmacy and Nursing Facilities

UNIT F	186,500 g.s.f.	$464,086
Option 10	183,650 g.s.f.	458,265
Option 12	188,680 g.s.f.	472,413
Option 16	197,200 g.s.f.	473,524

Note: Gross square feet is used in this instance for consistency with Plant Services annual budget requests. The formula used for all space is as follows.

.0470	administration
.6668	fuel and utilities
.4477	custodial
.6175	maintenance
.1488	supplies and expense
.1171	security
2.0449/	per gross square foot

Add-on amounts include:

	.1800	air-conditioning
or	.2500	air-conditioning if laboratory space
	.2390	if health science space

All three options require some new construction. Existing space for potential remodeling on all options is, with the exception of the adytum space in Option 10, hospital clinic space which is not currently covered by State Appropriations. Therefore, with that noted exception, all space in all options represents an increased o/m request.

UNIT F SUMMARY 1977

FUNDING:	Total Project	$22,900,000
	Funds available: * 1969 State Appropriations	318,000
	* 1971 State Appropriations	1,351,400
	** 1975 HEW Nursing funds	3,976,557
	** 1975 HEW Pharmacy funds	4,288,811
	Funds needed	12,965,232

* Expended funds--land acquisition and design development
** Available under HEW extension until May 15, 1977

CONSTRUCTION SCHEDULE: November, 1977 Start
March, 1980 Completion

		Current	Unit F
SPACE:	Nursing	18,199 nasf	35,375 nasf
	Pharmacy	44,781	58,384
	Nursing/Pharmacy shared space		7,056
	Health Sciences shared space		2,665
			103,480

DETAIL OF THIS REQUEST: Funds are requested for constructing and equipping Unit F. This structure will consist of eleven floors of space located directly north of and adjoining Unit A. Three levels are below grade. The building will house the College of Pharmacy and the School of Nursing. The connecting links below ground will provide accessibility to all shared resources of the Health Sciences such as classrooms, library, basic science laboratories and student areas.

The building will have an assignable net square footage of 103,480.

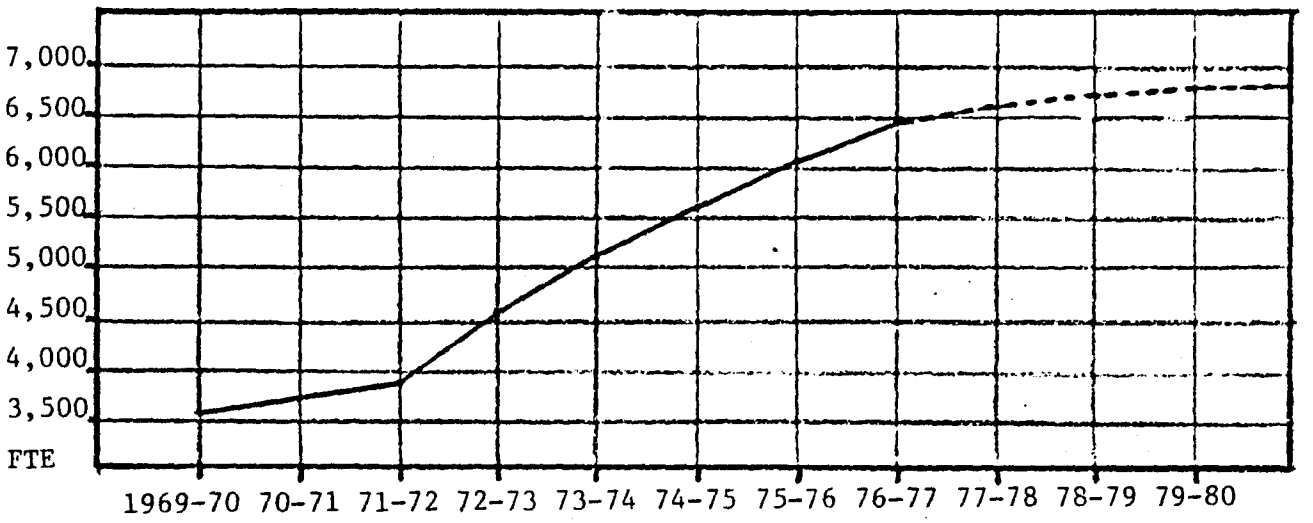
BASIS FOR REQUEST: The concept of the Health Sciences Master Plan that was developed for the expansion of health professions educations programs was based on the need to integrate the collegiate units and to provide maximum use of facilities and other resources through joint use planning.

The decision to consolidate the School of Nursing and the College of Pharmacy strengthened the University's competitive position in seeking federal funds for the project.

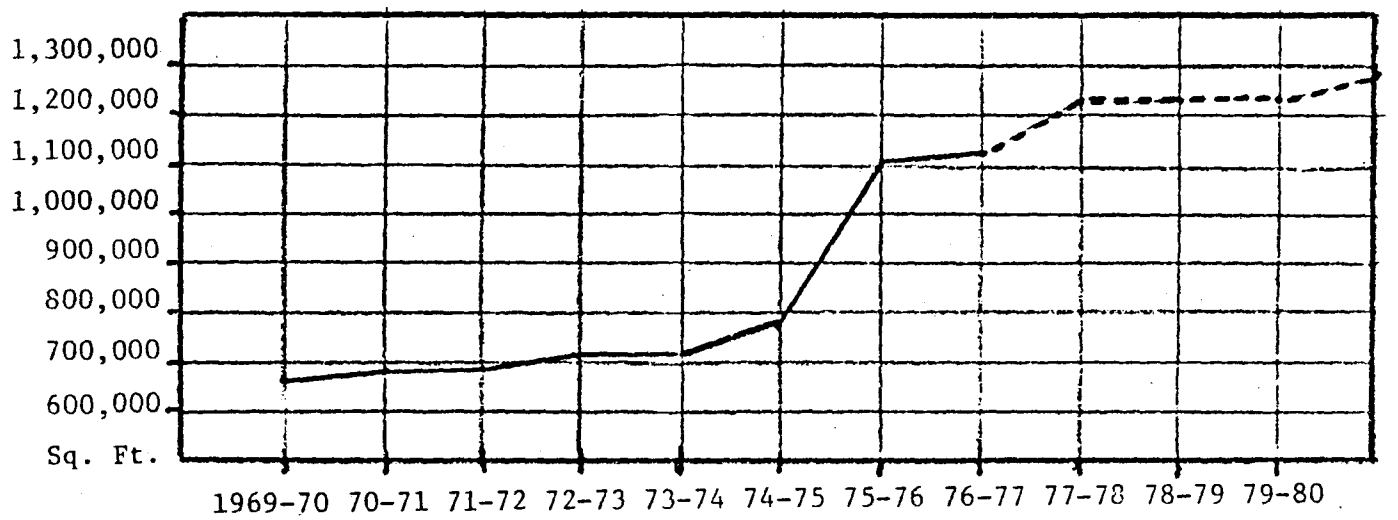
The College of Pharmacy's present facility, Appleby Hall, is a renovated School of Mines building, located several blocks from the Health Sciences. All available stock-room, classroom and corridor areas have been converted to faculty offices and laboratories. Interim facilities are being provided in an apartment building on the Unit F site.

The School of Nursing is housed in Powell Hall, an early 1900 dormitory facility. Remodeling efforts over the years have not rendered the building appropriate for current academic programs. Interim faculty office space has been provided in dormitory space.

STUDENT ENROLLMENT



ACADEMIC SPACE



SQUARE FEET PER STUDENT*

U N I V E R S I T Y O F M I N N E S O T A

H E A L T H S C I E N C E S

*Compare with .242 sq. ft./student national average.

Summary--Classroom and Class Laboratory Utilization
Health Sciences
Academic Year 1975-1976

A study of the Fall Quarter 1975 classroom and class laboratory utilization was reported in January 1976. In order to provide a complete picture of the use of instructional space for a full year, data for the Winter and Spring Quarters have been added to the Fall Quarter data in the same format.

Over the three-quarter period, the 55 classrooms were used an average of 31 hours per week, 26 hours for scheduled instructional use between the hours of 8 a.m. and 5 p.m.; 3 hours per week for regularly scheduled evening and weekend courses; two hours per week of single reservation use.

Class laboratory use for the full academic year averaged 18 hours/week for the 63 rooms reported in the Fall Quarter study.

In comparing the Fall Quarter with the full academic year, only one significant change is noted; namely, the increase in class laboratories for scheduled use. The curricula of several health science units are designed to guide the student into an increased number of class laboratory settings as the academic year progresses. For example, a skills laboratory in nursing receives limited use in the Fall Quarter, but is fully scheduled in the Winter Quarter, dropping off again in the Spring Quarter when the curriculum includes off-campus clinical experiences.

As noted in the Fall Quarter summary, the "scheduled" use of class laboratories does not account for the hours used for independent practice, demonstration, experimentation and preparation required in most health science laboratory courses.

In analyzing the Health Sciences schedule, it is apparent that far more "informal" or "arranged" instruction occurs in health professions education than is apparent in other collegiate units.

Classrooms in locations remote from the hub of student activity such as those in Powell and Appleby and those in JOM which have not been modernized and do not have audiovisual capacity tend to have lower utilization. Two large classrooms in Mayo which were poorly designed as long narrow rooms accommodating 178 students each, are also not in high demand by the faculty although they are scheduled about 20 hours each, probably because of the location.

The location, size and availability of audio-visual equipment appear to be the most significant factors affecting classroom utilization.

Summary of Vacated Space and Reassignment

Health Sciences Vacated Space	Building	Currently Assigned	Program Reassignment	
10,483	Powell	University Hospitals	5,022	Medical School, P.H. and H.S. in dorms.
15,513	Powell	Nursing	5,509	Area Health Educa. Center/Epilepsy/ Drug Abuse
25,996			3,500	Interdisciplinary Student Activity
			2,081	Health Sci. Support
			1,369	Classrooms
			8,515	Accommodate rental programs in Med/PH
			25,996	
18,349	Mayo	University Hospitals	21,016	Public Health
2,667	Mayo	Medical School		
21,016				
9,466	Diehl	Medical School	9,466	Learning Resources/ Tunnel
7,711	Dormitory		7,711	Return for Housing Assignment
	2,689	Nursing		
	1,133	Public Health		
	1,808	Medical School		
	2,081	Health Sci.		
5,509	Rented	Area Health Ed. Center and Epilepsy, Drug Abuse	14,024	Rental no longer required
12,540	Rented	Public Health		
15,102	Rented	Medical School		
33,151				
3,500	Fenwick	H.S. Student Activities	3,500	Demolish
35,590	Appleby	Pharmacy	35,590	Return for non-health sciences asgmt.
8,264	Fenwick	Pharmacy	8,264	Demolish (Unit F site)
927	Millard	Pharmacy	927	Return to Basic Sci.
48,281			48,281	

REGENTS STATEMENT ON NURSING AND PHARMACY FACILITIES NEED

The Regents of the University of Minnesota reaffirm their previous conclusion, first stated in 1966, that Health Sciences facilities--including Nursing and Pharmacy--should be expanded and improved in order to accomplish these interrelated objectives:

1. Serve increased enrollments that have already materialized;
2. Improve inadequate facilities;
3. Promote physical arrangements that encourage educational interaction among all Health Science units as well as other University units; and
4. Assume flexibility in adapting to future changes in Health Sciences education.

It is the Regents' judgment that the three major remodeling and construction alternatives to the construction of a single combined Nursing/Pharmacy facility (Unit F) specified in the "Facilities Report for School of Nursing and College of Pharmacy" represent a distinct improvement over the existing Nursing and Pharmacy facilities. Accordingly, these alternatives are transmitted to the Legislature in response to its 1976 request that the University produce "plans for remodeling existing and future structures for Pharmacy and Nursing programs."

The Regents, however, wish to reaffirm strongly their earlier judgment that the construction of a single Nursing and Pharmacy building (Unit F) is still the best alternative, both in terms of cost and educational considerations, to meet the facilities need of the Nursing and Pharmacy programs consistent with the Regents' 1966 statement of policy for the Health Sciences. In the Regents' view, this judgment is further reinforced by two considerations: the availability until May 15, 1977, of $8.3-million in Federal matching funds to assist in the construction of Unit F, and the fact that the alternatives of remodeling with some new expansion of Unit A could be as expensive (while not as desirable) as the construction of a single central facility for both Nursing and Pharmacy. As a consequence, the Regents respectfully ask the

Governor and the Legislature to consider appropriating the necessary State matching funds for the construction of the Unit F facility.

FACT SHEET

NURSING/PHARMACY FACILITIES
University of Minnesota

The University of Minnesota has been granted an extension of an $8.3-million federal construction gran commitment for a Nursing/Pharmacy building.

The University of Minnesota must obtain $12.9-million matching State dollars by May 15, 1977.

The project, called Health Sciences Unit F, is completely designed and ready for immediate constructio The land and the architectural fees have been paid by $1.7-million in state funds previously appropriated for this project.

The purpose of the project is four-fold:

--To educate health professionals to meet the health care needs of the State.
--To educate physicians, pharmacists, nurses, dentists and other health professionals together so that they will more effectively practice together.
--To provide for maximum use of expensive resources by providing shared library, laboratories and classrooms.
--To replace inadequate and obsolete facilities now housing the College of Pharmacy and the School of Nursing.

The federal grant commitment allocated to the University of Minnesota represented 30% of the total dollars available nationally for all nursing and pharmacy schools.

The University of Minnesota first requested the matching state funds, then $11-million, from the 1976 legislature. It is our belief that the poor condition of present facilities was recognized by that legislature. The legislative decision was to appropriate $300,000 to the University to explore alternatives to a new building. Three possible schemes were designed which are a marked improvement over existing conditions. Each of the three requires some new construction and some remodeling since there is not sufficient existing space to accommodate both Nursing and Pharmacy. The cost of the three selected alternatives is equal to or greater than a single new building. Installation of modern laboratory technology in very old buildings is particularly difficult. Compliance with energy and building codes also contributes to the high cost of rennovation.

The three alternatives have four important disadvantages:

--Each requires at least three separate program locations.
--None is approved for the federal funds.
--All require using space planned for the School of Public Health.
--None results in significant saving to the State for ongoing operations and maintenance.

Following a review of the alternatives, the University of Minnesota Board of Regents adopted a resolution urging reconsideration of Unit F as the best alternative, both in terms of cost and educational considerations.

Federal funds are contingent upon increased enrollments in Nursing and Pharmacy. The increase in the Nursing School graduate program is viewed as minimal to meet the needs of nursing schools in this State that require masters prepared faculty. The increase in Pharmacy enrollment has been less well accepted. At this time there is no firm evidence that suggests there are too many or too few pharmacists. The changing health care delivery system is an important variable in any prediction of need. The College will not be required to increase enrollments until 1981, with projected graduation in 1986. If, during the intervening years, undisputed evidence of an over-supply of pharmacists exists, it will be possible to have the requirement waived by Congressional action.

Endorsements for the project have been sent to Governor Perpich from:

Minnesota Medical Association
Minnesota Dental Association
Minnesota Pharmaceutical Association
Minnesota AFL-CIO
Minnesota Nurses Association
Statewide Health Coordinating Council (formerly Comprehensive Health Planning)
University Board of Regents
University Hospitals Board of Governors

Required reviews have been conducted by: The Metropolitan Health Board; State Planning Agency; DHEW Regional Office Facilities Engineering and Construction; National Advisory Council; National Peer Review Panel; City Planning, Minneapolis; Minnesota Historical Society; Regional Environmental Review; and the Minnesota State Building Code Division.

Thank you for your interest. For additional information, please call or write:

Dean L. C. Weaver (373-2186)
College of Pharmacy
University of Minnesota
Minneapolis, MN 55455

or

Dean I. Ramey (373-3462)
School of Nursing
University of Minnesota
Minneapolis, MN 55455

PEIC also Construction Planning

UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
Physical Planning
Box 75 Powell Hall
4103 Powell Hall
Minneapolis, Minnesota 55455
(612) 373-8981

June 24, 1977

TO: Paul Kopietz

FROM: Paul Maupin

SUBJECT: Unit F

The purpose of this letter is for your information and future reference; the attached material represents the status of Unit F upcoming design activity, responsibility, and time schedule.

Our current schedule indicates we intend to initiate the demolition procedures on the apartments (Unit F site) on September 1, 1977.

All occupants of the Marlan apartment (312 Harvard Street S.E.) have moved, and utility services have been cut off. The Wilshire apartment (520 Washington Avenue) will be vacated on or before August 31; we will be advised as to when we can secure and prepare it for demolition. The Fenwick apartment (318 Harvard Street S.E.) is being used for academic purposes, we also will be advised as to when we can secure and prepare it for demolition.

To summarize the Unit F development to this date, it has been in the areas of program, code, and finances. This office in the next few weeks will be contacting you and your staff to develop the Unit F project. Please feel free to exchange your thoughts for they are necessary for a totally successful project.

Sincerely,

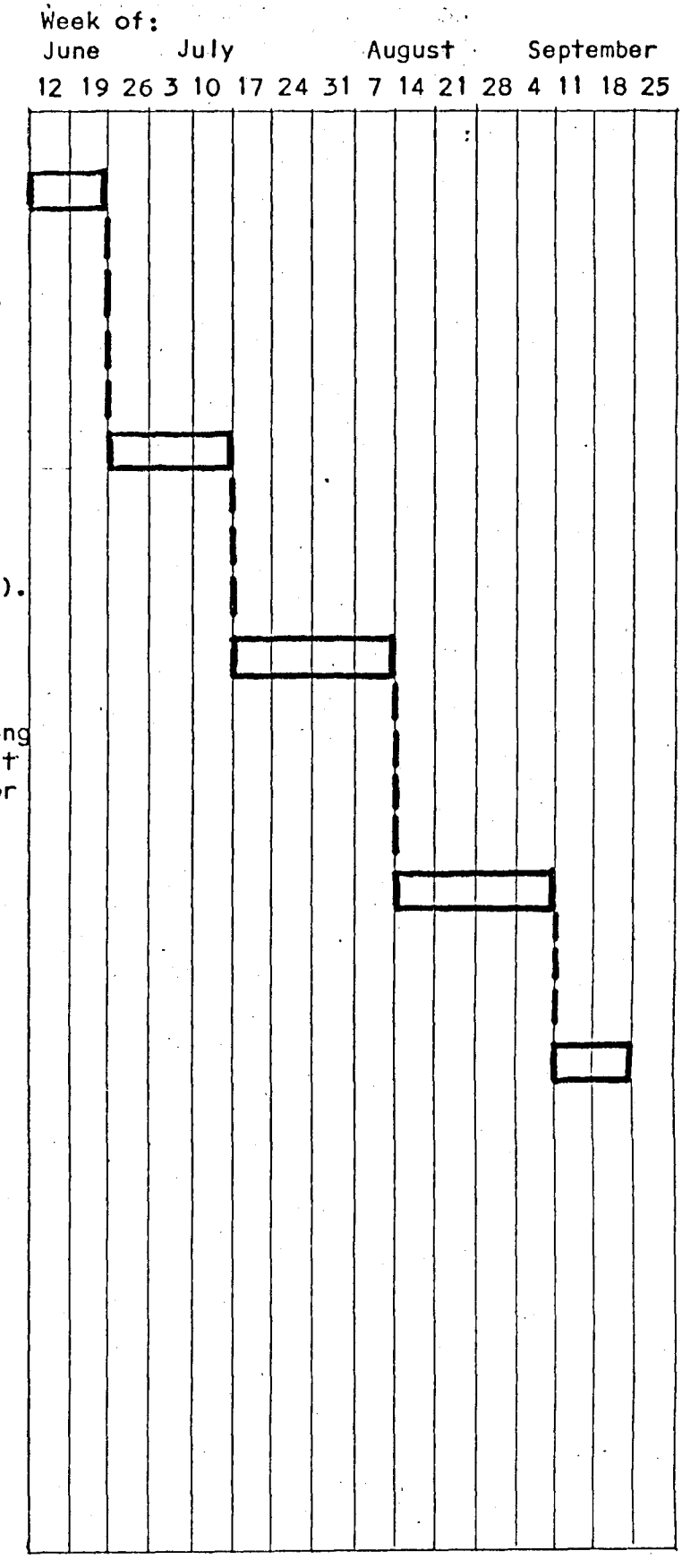
Paul J. Maupin
Health Sciences Planning Coordinator

PJM:clc

cc: Bill Bowen
Gene Kogl
Gus Scheffler

PHARMACY/NURSING
UNIT F REDESIGN

UNIT F PLANNING SCHEDULE - PRELIMINARY DOCUMENT PHASE



Review of project budget and assignment of space. Approval of building configuration (the start of early contract document preparation for excavation (ECX) and structure (ECS) is scheduled for June). Review status of detail plans and program requirements and identify areas which need further definition.

Completion of detailed programming. Correlate design development plans with equipment lists. Confirm final room area, configuration and plan arrangement. Review preliminary interior finish schedules and casework details (drawers, doors, services).

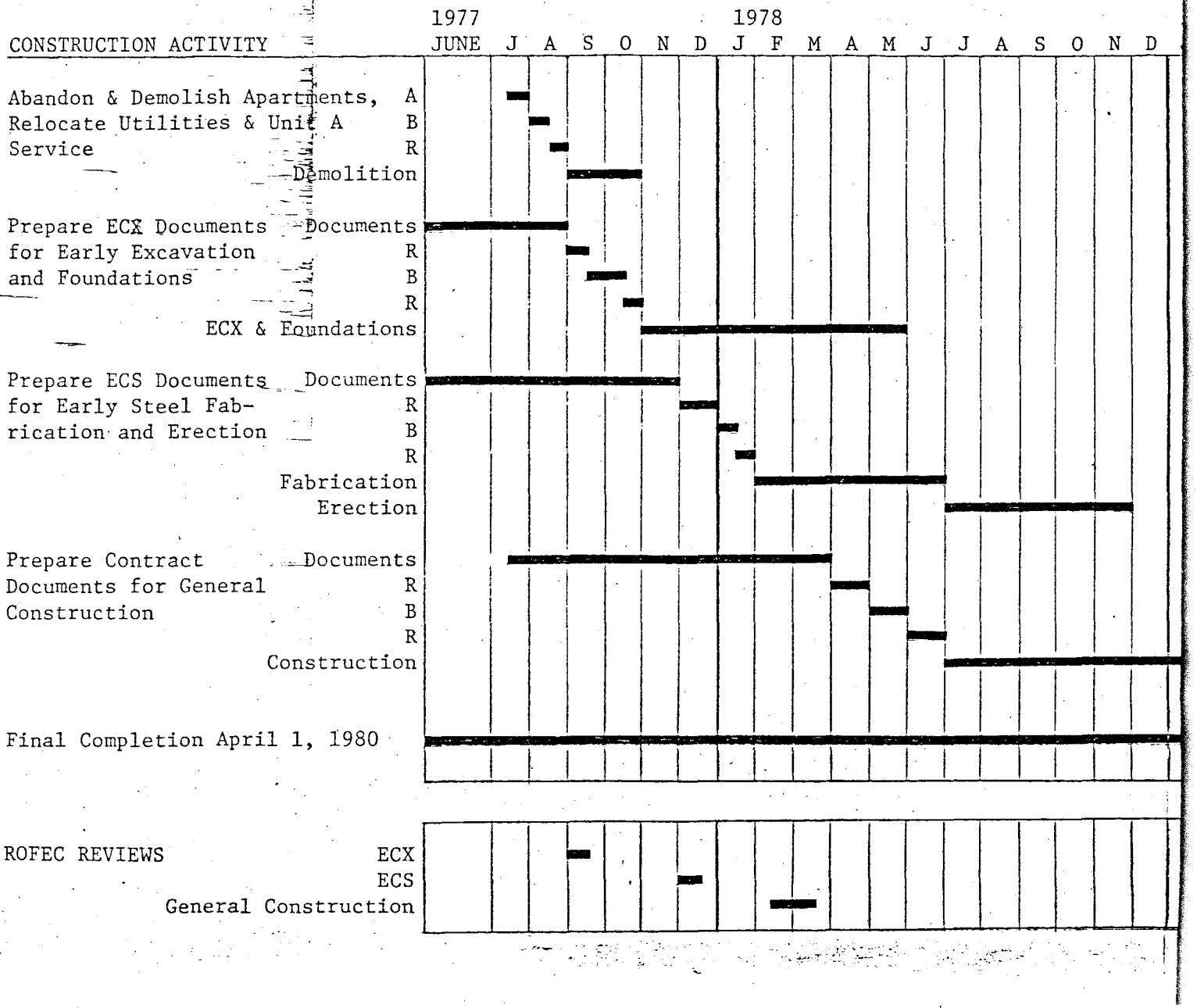
Preliminary approval of schematic floor plans, detailed equipment plans, interior partition and finish schedules. Continue development of casework details and building services (the start of the general contract document preparation phase is scheduled for 1 August 1977).

Complete development of casework details and schedules. Preliminary review of documents, including drawings, equipment lists, reports, specifications and schedules.

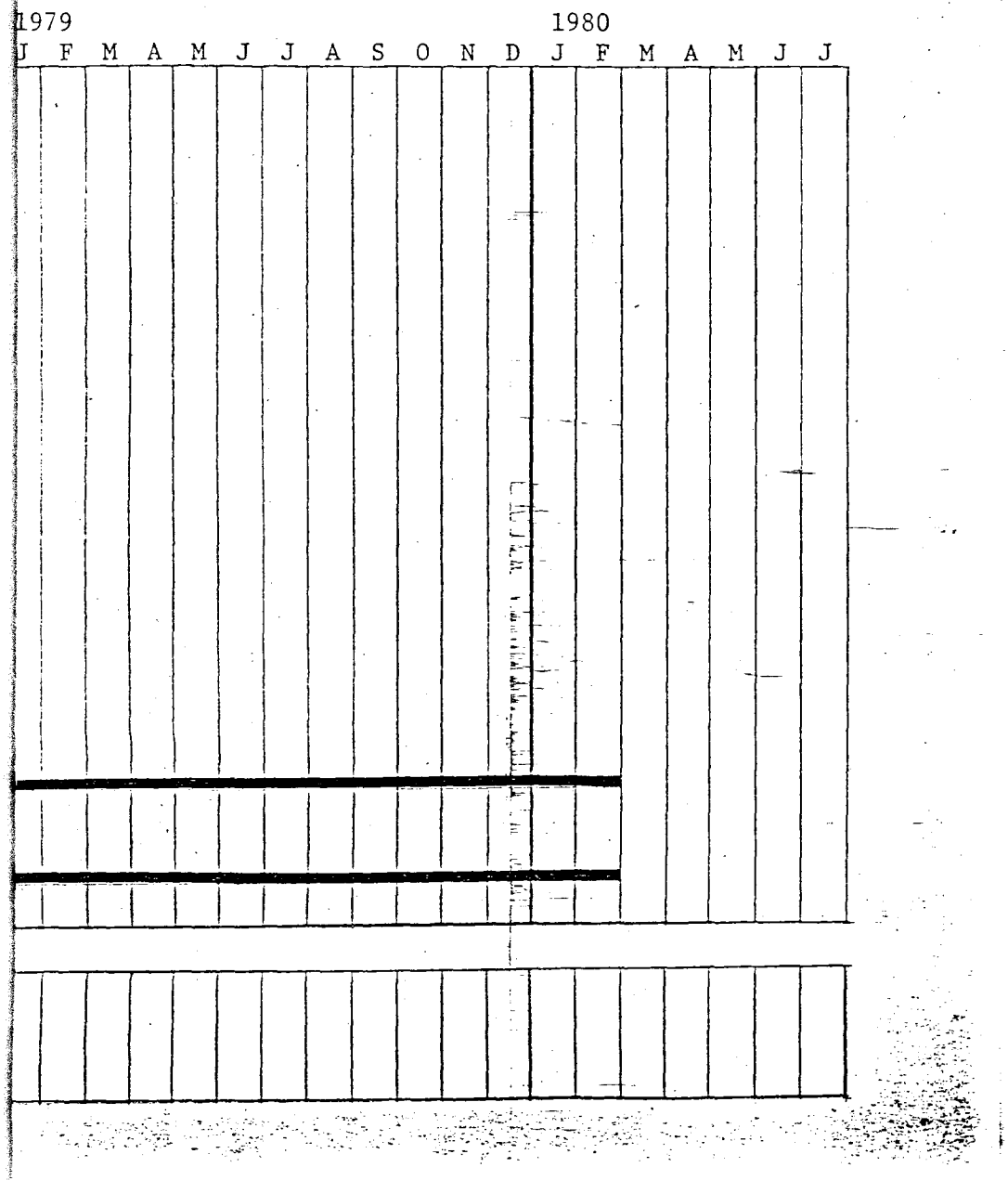
Final review and approval of Preliminary Document Phase work.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION - UNIT F
JUNE 1, 1977

PROPOSED SCHEDULE OF CONSTRUCTION ACTIVITY



LEGEND
A = Abandonment
B = Bid
R = Review



Office of the Assistant Vice President

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Planning
240 Morrill Hall
100 Church Street S.E.
Minneapolis, Minnesota 55455

May 25, 1977

TO: Vern Carlson

FROM: Clint Hewitt

This is to confirm that we intend to initiate the demolition procedures on the apartments to accommodate construction of Unit "F" on September 1, 1977. Therefore, it is absolutely imperative that all occupants of the apartment buildings move before this date.

I would recommend that you allow yourself a couple of weeks of flexibility in notifying the occupants of the apartments of their last day of occupancy.

CNH:DG

cc: Paul Kopietz
Gene Kogl
Paul Maupin
Vern Ausen

UNIVERSITY OF MINNESOTA
TWIN CITIES

College of Pharmacy
318 Harvard Street S.E.
Minneapolis, Minnesota 55414

19 July 1977

MEMORANDUM

TO: UNIT F REDESIGN PARTICIPANTS

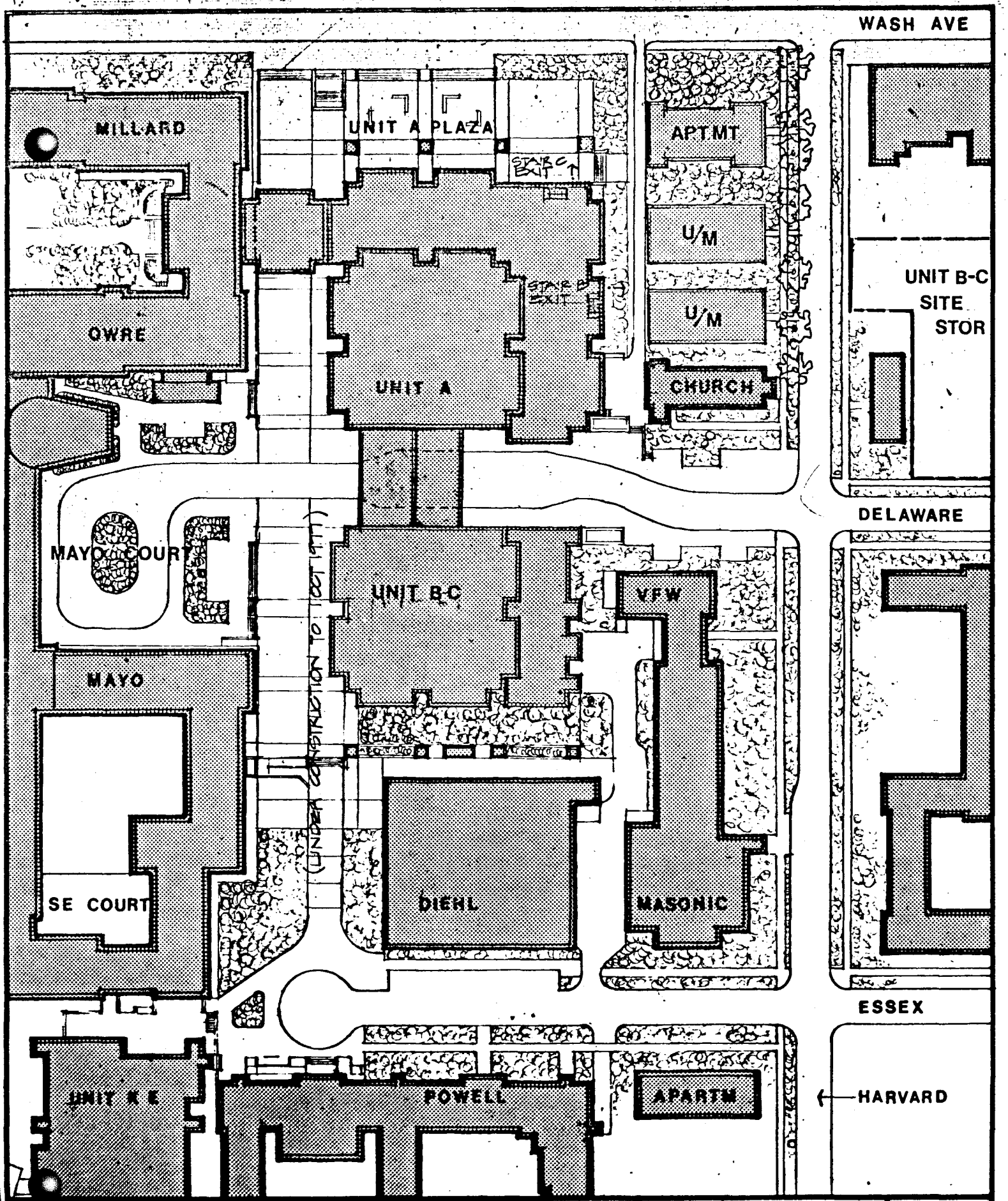
FROM: DEAN WEAVER AND DR. JOHNSON

Joe Pacello will replace Dr. Johnson as the Pharmacy Unit F coordinator effective July 20. An accelerated schedule for finalization of plans, letting of bids, etc. will require the full-time efforts of the coordinator for the next two to three months. Mr. Pacello, who is an attorney as well as a pharmacist, brings considerable expertise to the project.

/ls

Unit 7 - Phasing Study

PHASING STUDY



UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION

THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS & THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F

BEJ

SCALE 1" = 100'-0"

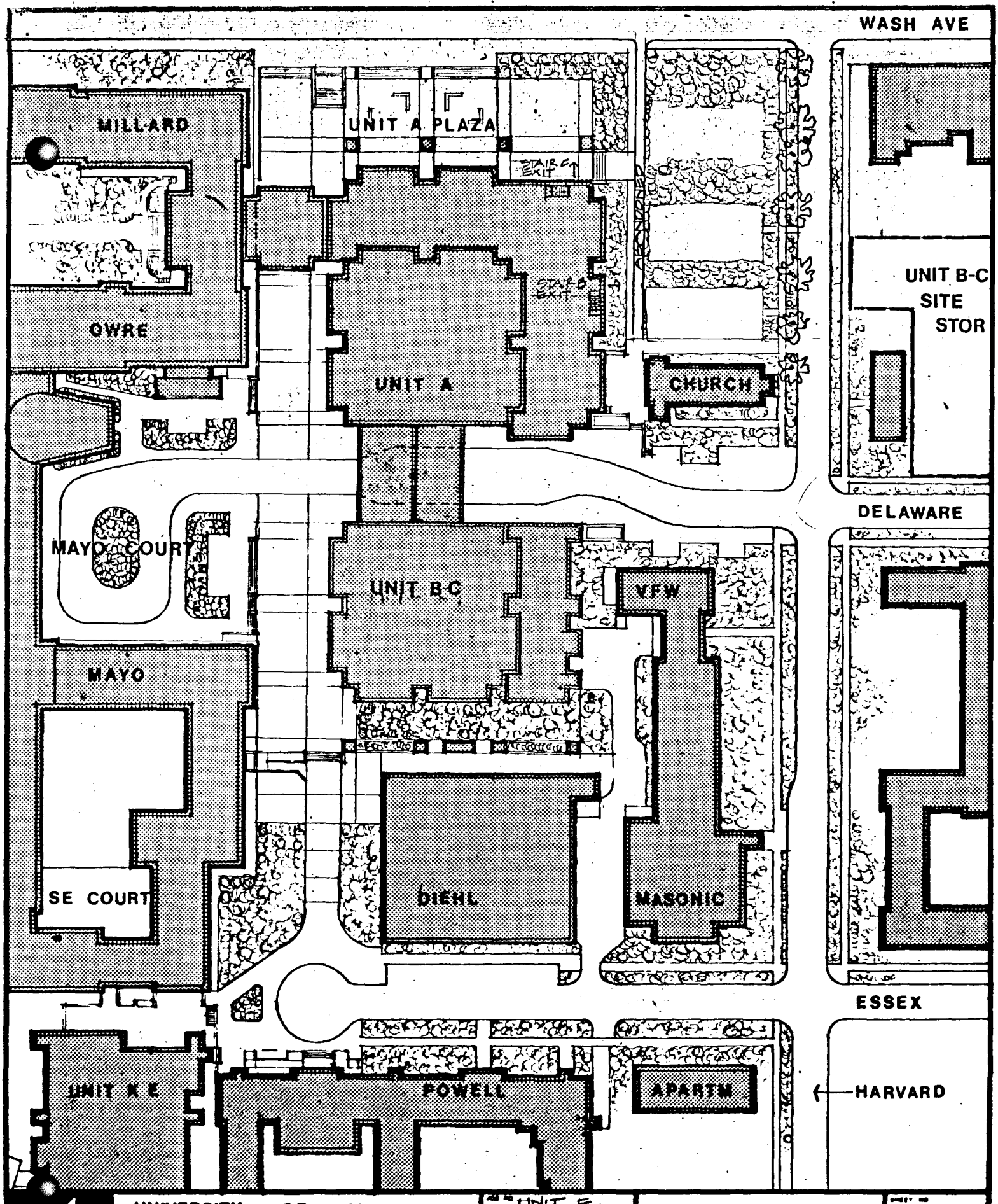
DATE 29 JUL 1977

PHASING STUDY

EXISTING SITE CONDITIONS

DATE: JULY 1977

1



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

JOB NO. UNIT F
DRAWN BSJ
CHECK
SCALE 1" = 100'-0"
DATE 29 JUL 1977

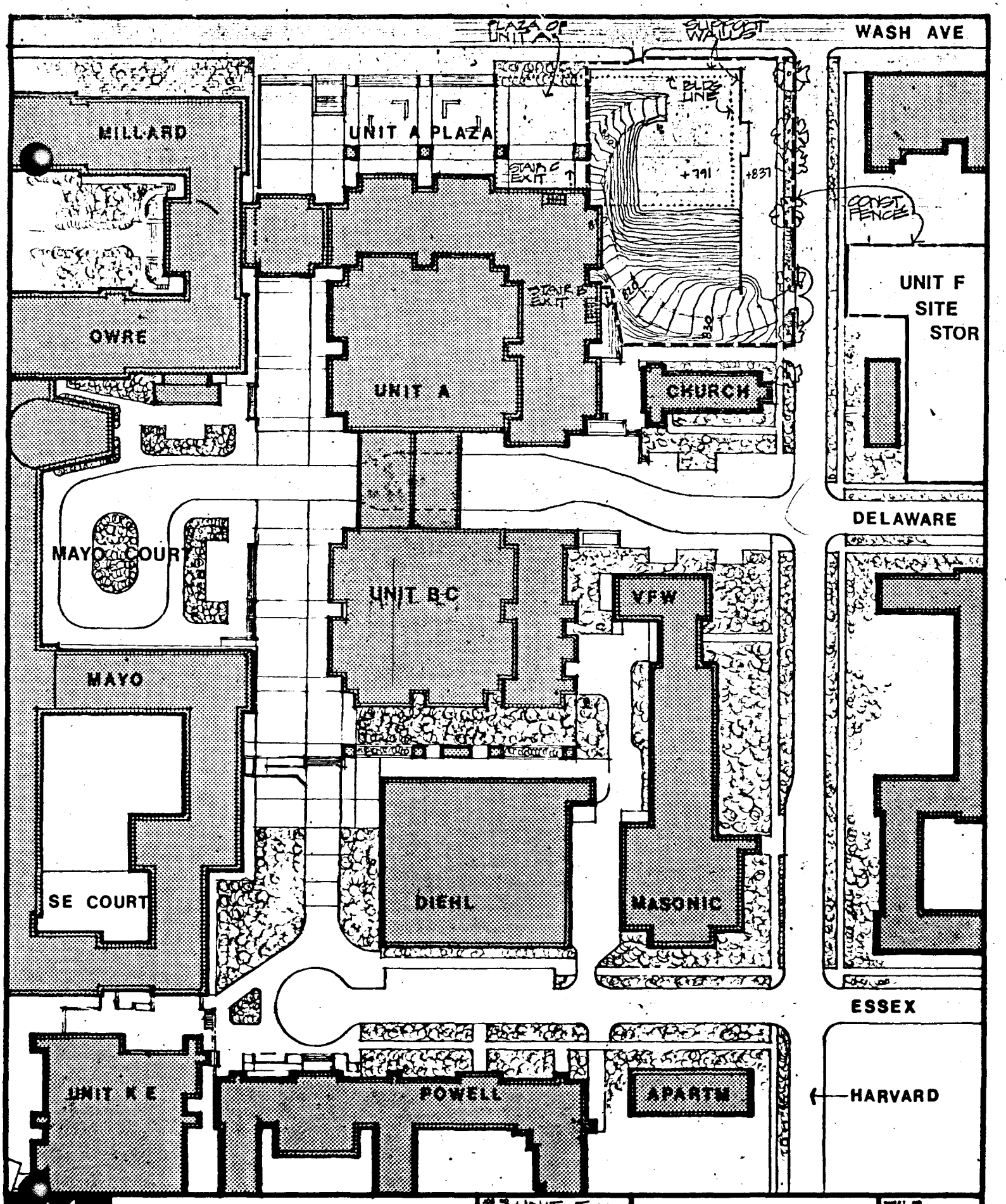
PHASING STUDY

EXISTING SITE CONDITIONS

DATE: NOV 1977

SHEET NO. 2

CHARRETTE 1883



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F

DRAWN BEJ

CHECK

SCALE 1" = 100'-0"

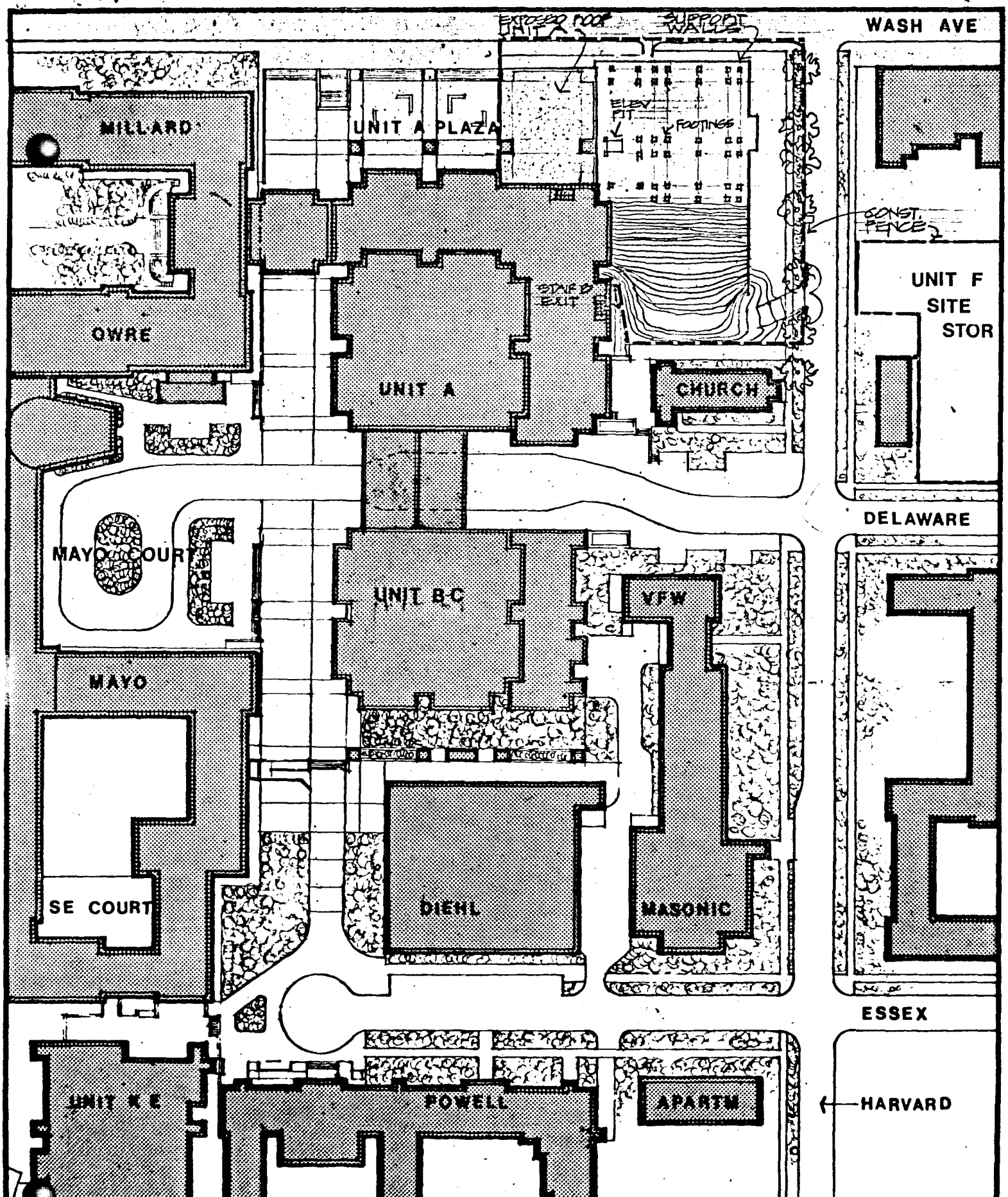
DATE 29 JUL 1977

PHASING STUDY

ECK CONTRACT
FINISHED SITE CONDITIO
DATE: APRIL 1978

SHEET NO. 3

CHARRETTE 1883



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F

PHASING STUDY

4

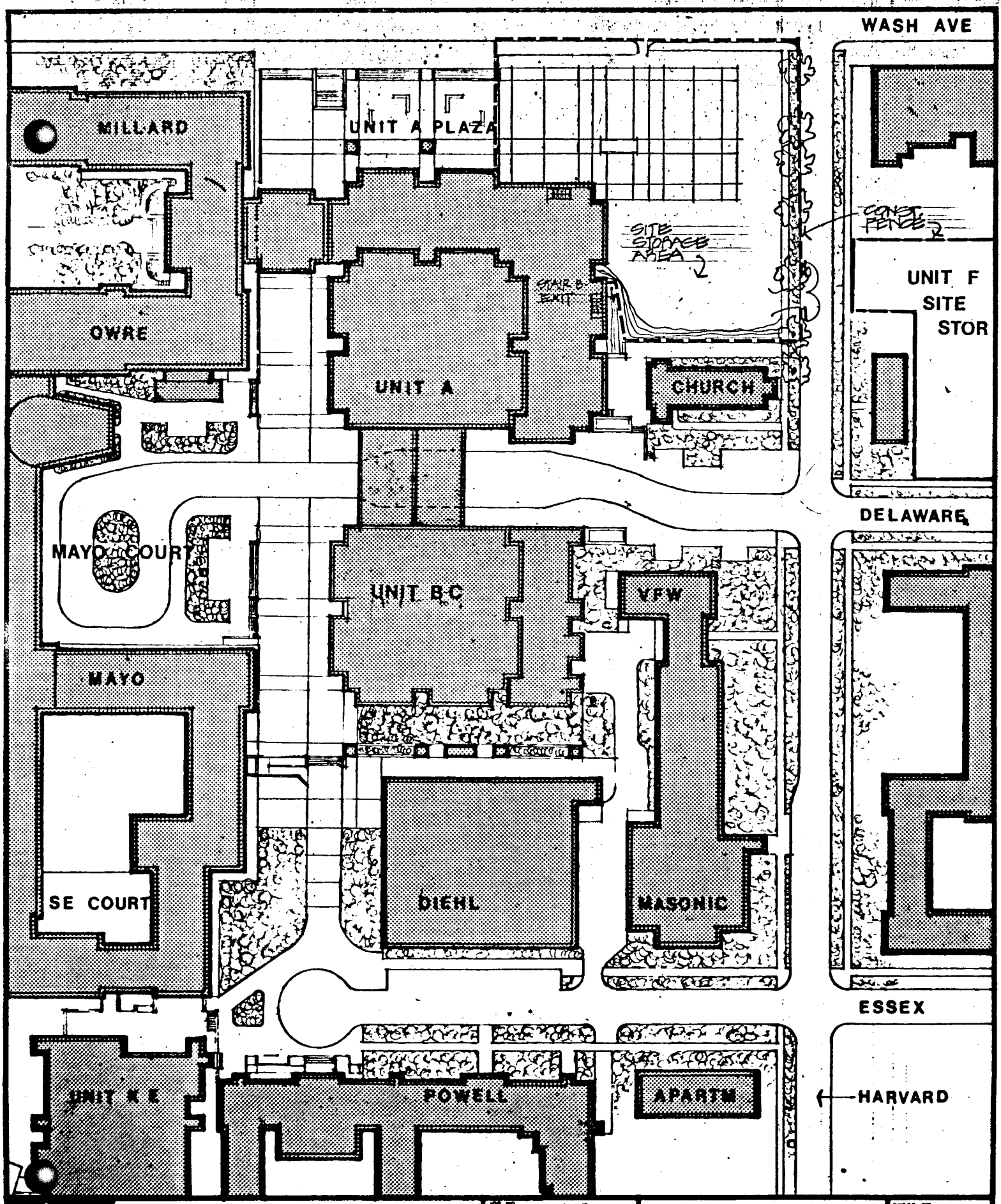
PRIME CONTRACT FOOTINGS COMPLETE

DATE: July 1978

1" = 100'-0"

29 JUL 1977

CHARRETTE 1883



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F

BEJ

1" = 100'-0"

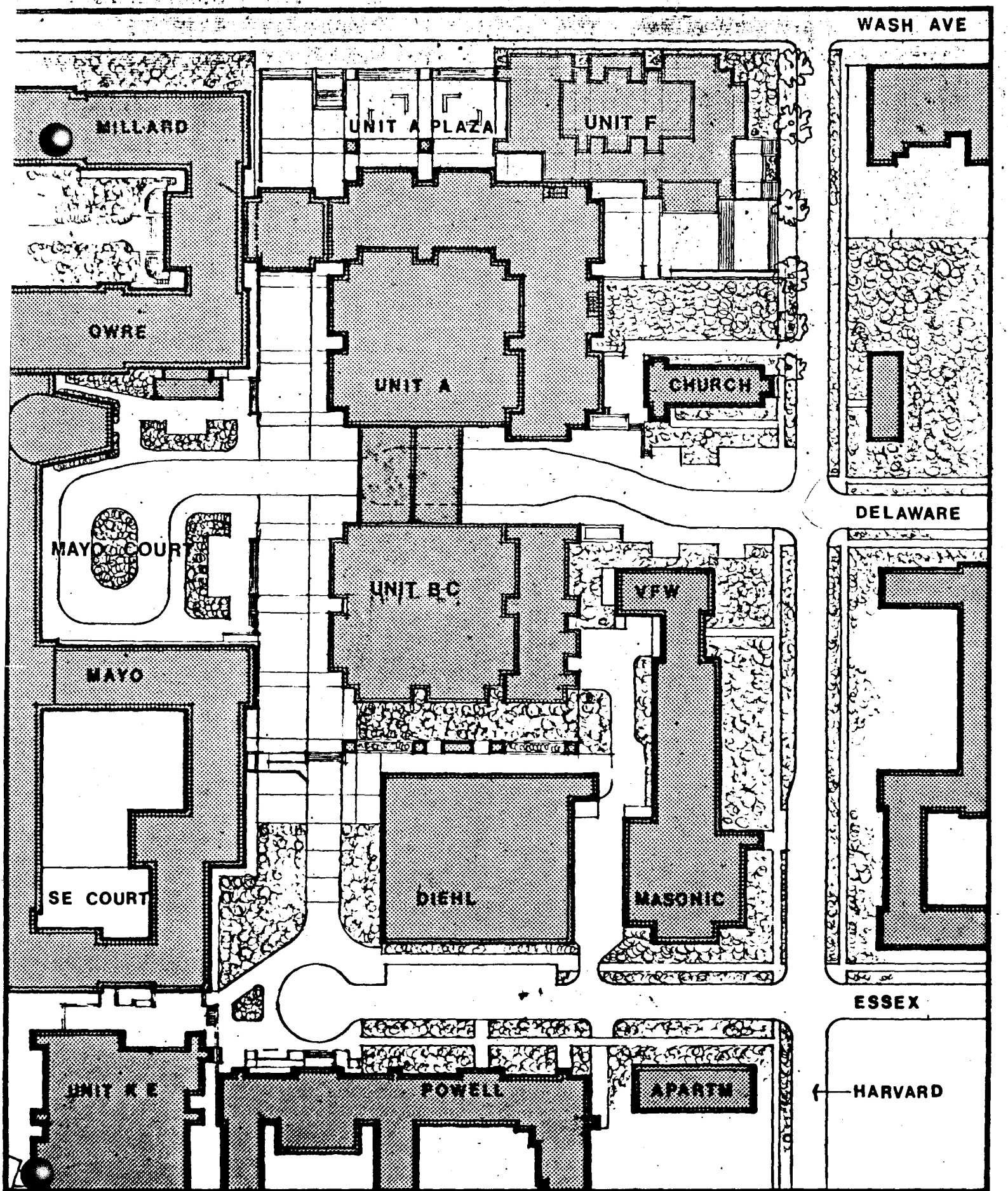
29 JUL 1977

PHASING STUDY

PRIME CONTRACT STEEL ERECTION COMPLETE

DATE: NOV 1978

5



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F

BEJ

SCALE 1" = 100'-0"

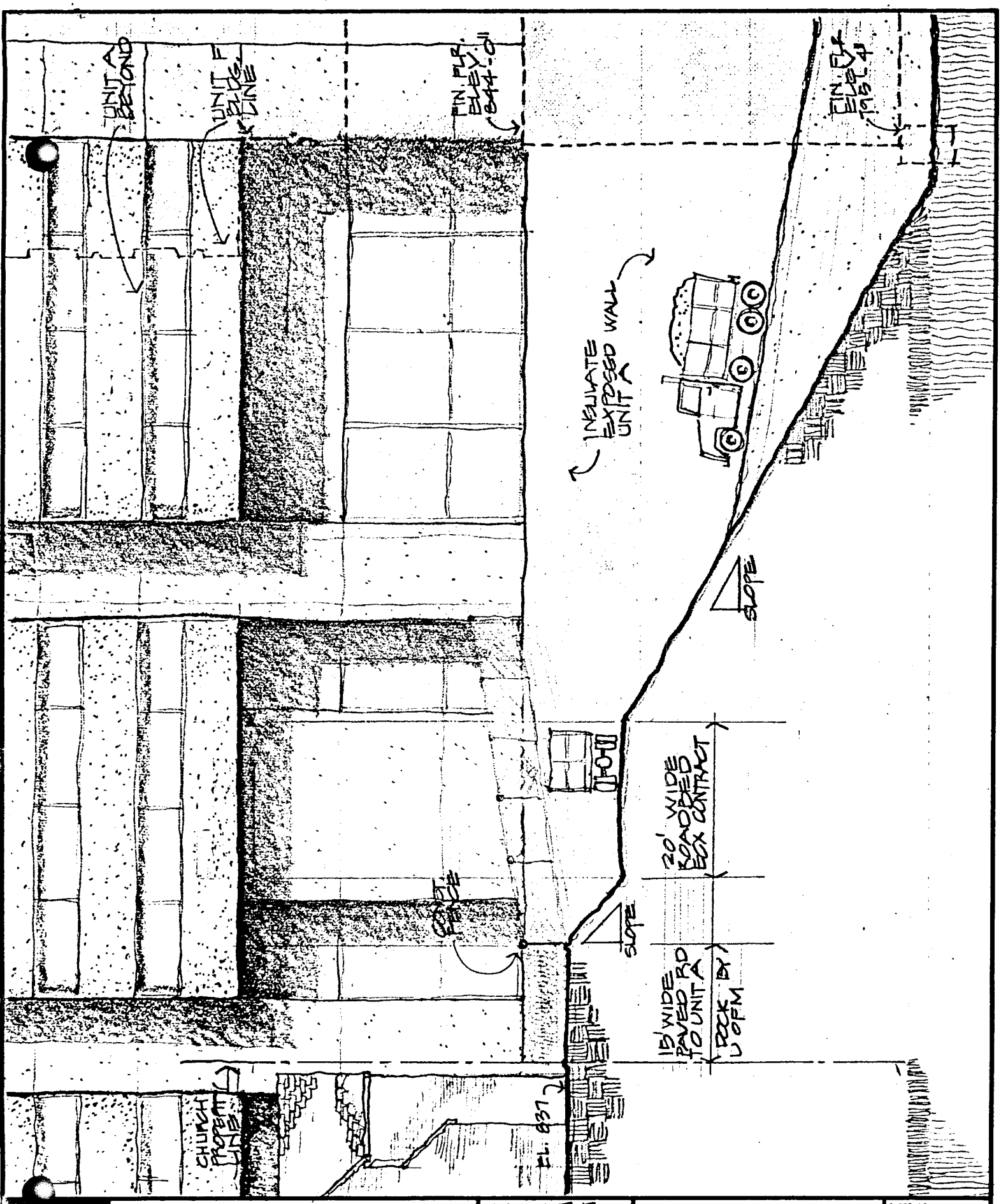
DATE 29 JUL 1977

PHASING STUDY

FINISHED SITE CONDITIONS

DATE: Jan 1980

6



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

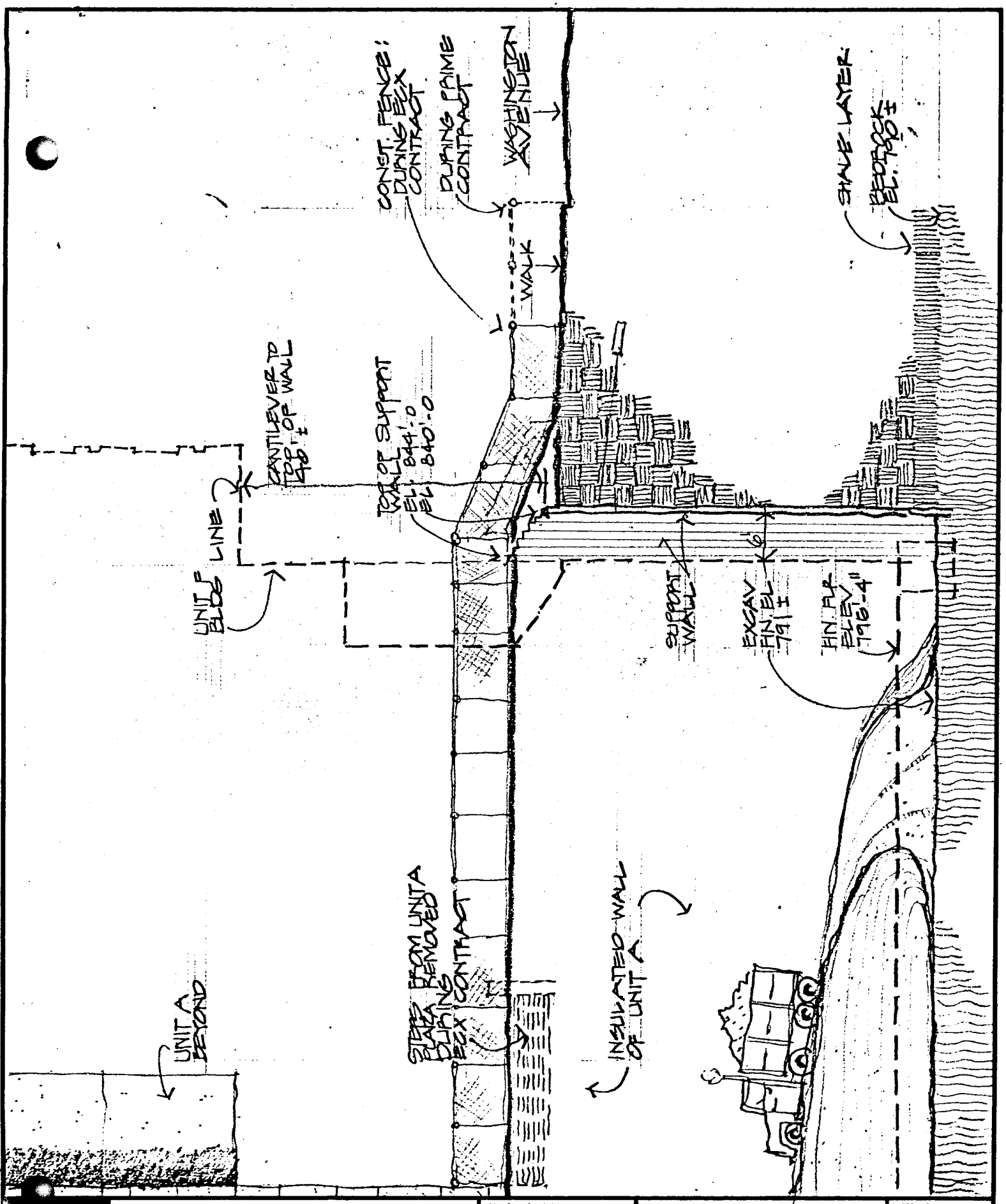
THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

THE CERNY ASSOCIATES INC — MINNEAPOLIS MINNESOTA
HAMMEL GREEN & ABRAHAMSON INC — ST. PAUL MINNESOTA
SETTER LEACH & LINDSTROM INC — MINNEAPOLIS MINNESOTA

JOB NO	UNIT F
DRAWN	BFE
CHECK	
SCALE	1/16" = 1'-0"
DATE	29 JUL 1977

SECTION THRU SITE SOUTH

SHEET NO 7



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

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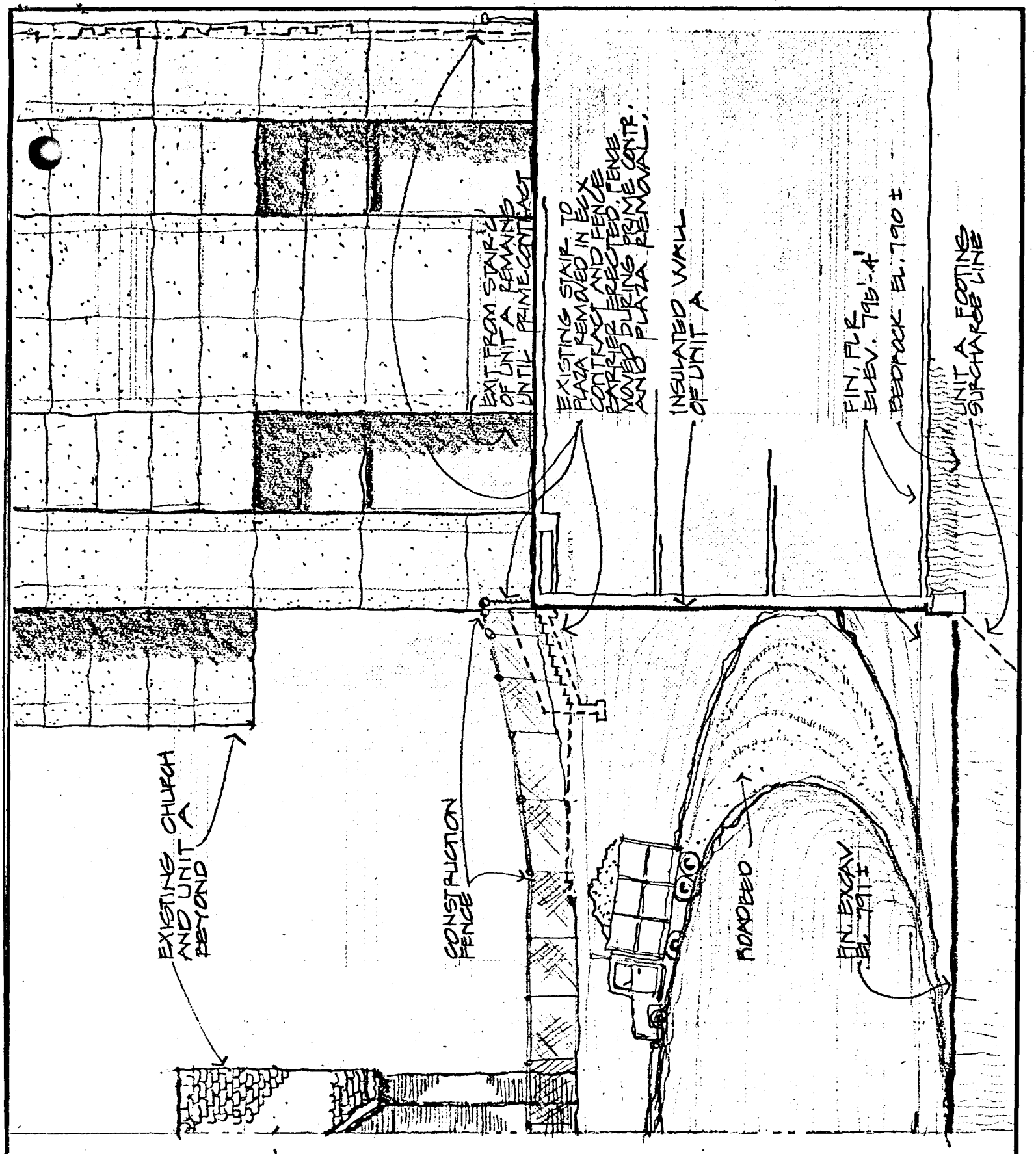
HAMMEL GREEN & ABRAHAMSON INC — ST. PAUL MINNESOTA
SETTER LEACH & LINDSTROM INC — MINNEAPOLIS MINNESOTA

JOB NO	UNIT P
DRAWN	BEJ
CHECK	
SCALE	1/16" = 1'-0"
DATE	29 JUL 1977

SECTION THRU SITE NORTH

SHEET NO 6



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

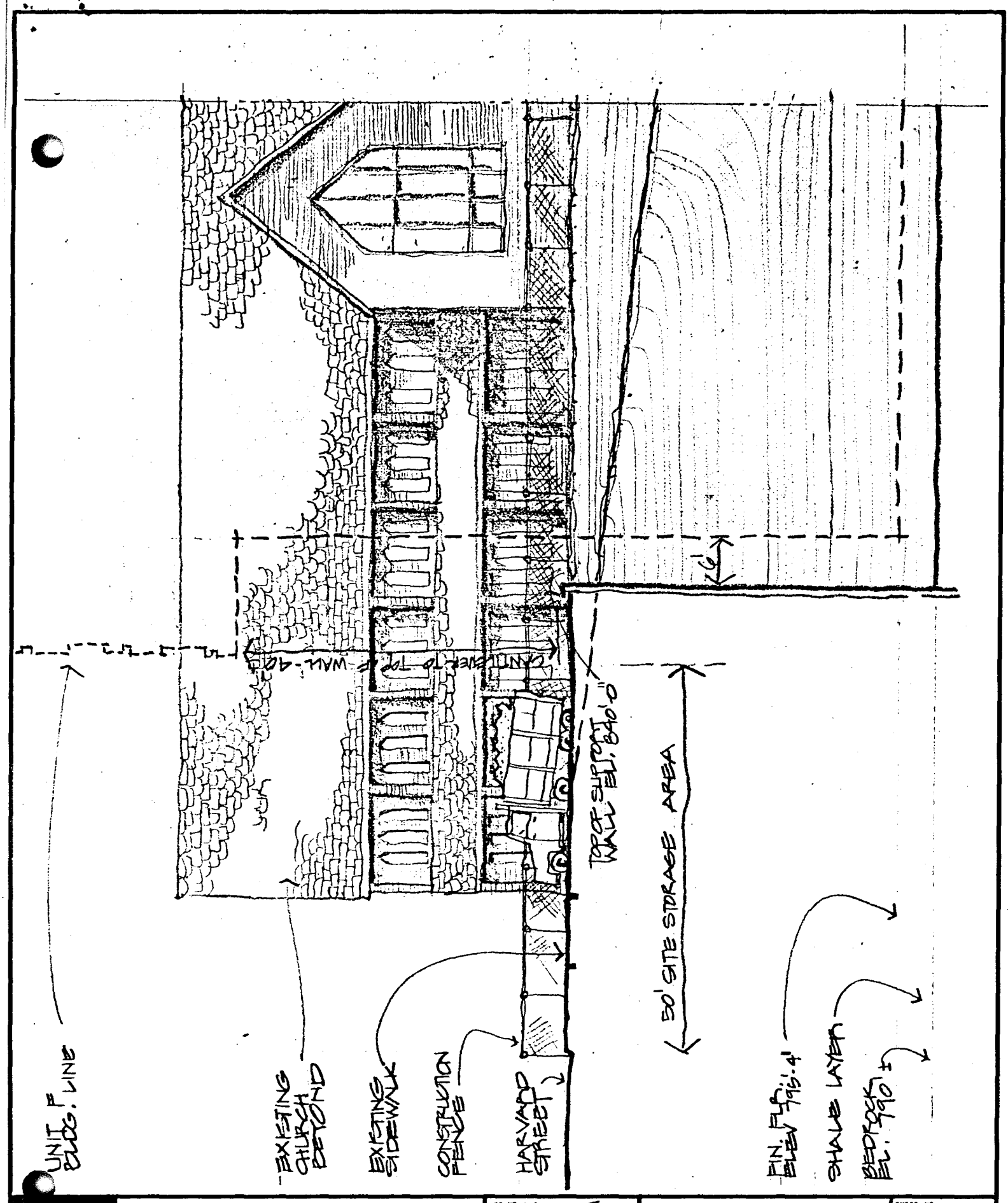
THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

THE CERNY ASSOCIATES INC — MINNEAPOLIS MINNESOTA
HAMMEL GREEN & ABRAHAMSON INC — ST PAUL MINNESOTA
SETTER LEACH & LINDSTROM INC — MINNEAPOLIS MINNESOTA

JOB NO	UNIT P
DRAWN	BEJ
CHECK	
SCALE	1/10" = 1'-0"
DATE	29 JUL 1977

SECTION THRU SITE WEST

SHEET NO 9



UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION

THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. & THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

THE CERNY ASSOCIATES INC — MINNEAPOLIS MINNESOTA
HAMMEL GREEN & ABRAHAMSON INC — ST PAUL MINNESOTA
SETTER LEACH & LINDSTROM INC — MINNEAPOLIS MINNESOTA

JOB NO	UNIT F
DRAWN	BEJ
CHECK	
SCALE	1/16" = 1'-0"
DATE	29 JUL 1977

SECTION THRU SITE EAST

SHEET NO 10

Office of the Assistant Vice President

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Planning
340 Morrill Hall
100 Church Street S.E.
Minneapolis, Minnesota 55455

August 16, 1977

TO: Gene Kogl
Paul Maupin

FROM: Clint Hewitt

Unfortunately, I did not have an opportunity to discuss with you the construction management proposal from Dan Brennen and Herb Enzmann before I left for my brief vacation. I recall during our last discussion that the following items were going to be investigated to facilitate a decision on this issue.

1. An inquiry would be made of the Chicago office of HEW to determine whether the selection of a construction manager must be determined on the basis of the solicitation of public bids.

2. A definite response would be made of CPMI on the question of providing a guaranteed maximum fee if they are given a construction management contract. Also, further clarification would be made of their proposal to determine if the fee could be reduced substantially.

3. A discussion would be held with the architects to ascertain their reaction to our contracting with a construction management firm.

4. The Pharmacy/Nursing Building construction budget would be reevaluated to reflect the payment of the additional fees for the construction management firm.

As you know, I am not opposed to the idea of employing a construction management team; in fact, I am convinced that, for the right project and at the appropriate time, it would be the way to go. I do believe, however, that plans for Unit F (or Pharmacy/Nursing) has proceeded beyond the point for the most ideal involvement of the construction management firm and, therefore, it would require some type of modification of CPMI's proposal at this time for consideration of this project.

I was not able to get in touch with Dan Brennen before I left and I have asked Lee LeMay to return his call. He will probably contact you on this matter.

CNH:DG

cc: Lee LeMay

Unit 7 - Costs

Office of the Assistant Vice President

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Planning
340 Morrill Hall
Minneapolis, Minnesota 55455

November 2, 1977

TO: Paul Kopietz
Paul Maupin

FROM: Clint Hewitt

Please provide me with the background material that served as a basis for your estimate as identified in the non-building costs component of the budget for the Pharmacy/Nursing building. As you know, a question arose during the Pharmacy/Nursing meeting on Tuesday regarding the scope of responsibility of CPMI for building costs. The background data that you used in developing your estimate could be reviewed by Mr. Enzmann and the consultants as part of their input in achieving the total project cost. If you need clarification of this request, please give me a call.

CNH/sf

November 15, 1977

UNIT F BUDGET - Preliminary Work Draft

I.	Construction	$ 16,437,884	CPMI estimate
II.	Non-Building Costs		
	A. Sitework		
	1. Water service	15,700	
	2. Walks, steps, curbs	28,400	
	3. Landscaping	900	
	4. Remove exist. utilities	6,500	
	5. Sign, guardrails, etc.	5,000	
	6. Temp. drives, walks	2,000	
	7. Testing & balancing	31,500	
	8. Electric service	53,200	
		143,200	
	B. SAC Charge	33,200	standard amount charged
	C. A/E Fees		
	1. Base fee @ 6.2%	1,019,149	
	2. Extra services	50,000	per Pharmacy/Nursing contract (subject to approval)
	3. Reimbursables	50,000	
		1,119,149	
	D. Construction Management		
	1. Lump sum fee	180,000	
	2. Reimbursables	20,000	per CPMI contract (subject to approval)
	3. Constr. supervision		
		200,000	
	E. Constr. sup. @ 1.25%	205,474	
	F. Consultants		
	1. Cost	0	
	G. Misc. expenses	71,000	expenses to date & anticipated future expenses
	H. Site survey	10,000	

I.	Misc. Engineering	30,000	determined by TAC & HSAE
J.	Material testing	25,000	
K.	Contingencies @3%	493,196	standard percentage charged
L.	Building activation	25,000	
M.	Control Center wiring	50,000	proportionate share of existing facility in Unit A
N.	Permits @ .2%	32,875	standard percentage charged
O.	H.S.P.O.@ 1.25%	205,474	standard percentage charged
P.	Movable equipment	2,149,208	funding by Grant
Q.	Land Acquisition (including purchase of apts & Grace Lutheran Church utility hook-up)	1,021,400	actual cost
TOTAL		$ 22,252,000	

November 3, 1977

PRELIMINARY WORKING DRAFT

UNIT F
MOVABLE EQUIPMENT BUDGET SUMMARY

Nursing Share of Total Budget	$ 730,730	34%
Pharmacy Share of Total Budget	1,074,604	50%
Health Sciences Shared Facilities Share of Total Budget	343,873	16%
Total Unit F Budget	$2,149,208	100%

Nursing Share of Total Budget	$ 730,730
Less Cost of Overhead 6.0% of 661,970 Part of Item 10 below	39,720
Less Share in Contingency 4.4% of 661,970 Part of Item 11 below	29,040
Nursing Equipment Budget	$ 661,970

Pharmacy Share of Total Budget	$1,074,604
Less Cost of Overhead 6.0% of 973,370 Part of Item 10 below	58,404
Less Share in Contingency 4.4% of 973,370 Part of Item 11 below	42,830
Pharmacy Equipment Budget	$ 973,370

1.	Nursing Equipment Budget	$ 661,970	30.8%
2.	Pharmacy Equipment Budget	973,370	45.3%
3.	Shared Seminar/Classrooms Equipment Budget	60,000	2.8%
4.	Building Commons (Includes high visibility, furnishings, faculty lounge, display and shelving	50,000	2.3%
5.	Blinds and draperies	23,868	1.1%
6.	Graphics	40,000	1.9%
7.	Telephones	30,000	1.4%
8.	Moving	70,000	3.3%
9.	Housekeeping	15,000	0.7%
10.	Shared Overhead	130,000	6.0%
11.	Contingency	95,000	4.4%
TOTAL BUDGET		$2,149,208	100.0%

Office of the Dean

UNIVERSITY OF MINNESOTA
TWIN CITIES

School of Nursing
3313 Powell Hall
Minneapolis, Minnesota 55455

Unit F Advisory

MEMORANDUM

TO: Mrs. Cherie Perlmutter
Mr. Clint Hewitt

FROM: Irene G. Ramey Irene G. Ramey

DATE: 11/4/77

RE: Problems with the architects designing Unit F

I am very distressed with the many problems we have been and are continuing to encounter with the architects who are working on Unit F. They have not functioned to provide a service. Instead, they dictate. Their dictations are in conflict with our programmatic needs and it has been only as a result of excessive pressure on our part that we have prevailed in most instances up to date. Their inflexibility and unwillingness to listen to us has led to much frustration and to many wasted hours in discussions with them.

The latest major problem to emerge is the sudden redesign of the stairwell in front of the elevators. The model was presented at the Advisory Committee Meeting on November 1st as a fait accompli, a decision which had been made by administration. I had no input into this. When Herman Zinter mentioned it to Judith Plawecki two weeks ago he mentioned it as a possibility and that we might lose some space. She protested strongly because the space is designed for programmatic purposes and is vital to the tightly designed teaching floor. Herman Zinter could not provide any acceptable alternative space for the space usurped on the fourth floor for this stairwell. The space offered was in a re-design of faculty offices two floors away and would not be usable for the original programmatic intent.

In addition to my protests about losing additional space again, I have several other serious concerns about the design itself:

1. The design of the windows, with the angle at the top to the fifth floor, is a repetition of the architectural mistakes in remodeling Coffman Memorial Union. I realize that most of you are Northerners who think more about heating in the winter than about cooling in the summer. Hot air rises and in the stairwell which would be open from the second floor to the fifth floor, the sun beaming in at the top two floors would raise the temperature in the stairwell to unbearable temperatures. It would be impossible to cool in the summertime, and to heat in the wintertime.

2. The architects were talking about using the space around the stairs on the second floor for such functions as students selling buttons, etc. What if a fire broke out there? The smoke and heat could quickly overcome dozens of people on the stairs. The point is that there is a lot of valuable floor space lost in this stairwell, space we would love to have.

3. The suspended stairs do not provide any protection to prevent people from falling, jumping, or being pushed overboard. If this happens at the fifth level, they fall to an instant death on the second floor. On conventional stairs they would fall only to the next landing.

There are other complaints that I have about the architects. They are always attempting to force us to economize to the "bare bones" but yet when I called to their attention, 1 1/2 years ago, that considerable economies could be effected in plumbing if they stacked the restrooms on the various floors on top of each other, they did nothing, and have not, to date, altered the plans.

I have nothing against cantilevers per se, but the design of cantilevered bays adds to the costs and makes designing the interior much more difficult. Furthermore, the space between them is wasted. A doorway to the courtyard is an extra expense since little traffic will be coming from that direction. Furthermore, the doorway is in the area designated for future expansion.

I have a question about the usage of space preempted from us in our Data Processing Room on the fifth floor. Why is such mechanical space needed in our area, and only on that floor?

I cannot begin to describe, in a few words, the extreme frustration that I experienced for two years in getting the Faculty Office floor designed. Herman Zinter insisted on designs in which a faculty member would have to walk through another faculty member's office to get to his own office. I protested this arrangement from the beginning. Even after I myself drew a floor plan, he still could not accept it until two months ago when I emphatically told him that his proposals were unacceptable and that after two years of haggling over it, my patience was at an end. He then, finally, produced an acceptable adaption of my plan.

An incalculable amount of time has been wasted in meetings over the two years because of the inefficient system used in the process. The faculty and I have prepared lists, lists, and more lists, and have stated over and over again in meetings what our programmatic needs are in this building. Time and time again the requested materials have been completely ignored by the architects and decisions made at meetings have not been reflected in subsequent drawings.

It has become increasingly apparent that they are intent on designing things the way they want to rather than on meeting our programmatic needs. In my opinion, they are incompetent, inefficient, inflexible, and extremely wasteful of our time and money.

Unit F - Building Codes

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-3833

8 November 1977

Mr. Eugene Kogl
Physical Planning
University of Minnesota
321 Morrill Hall
Minneapolis, Minnesota 55455

Regarding: Unit F - Pharmacy and Nursing Facility
University of Minnesota Health Sciences Expansion

Dear Mr. Kogl:

The purpose of this letter is to confirm our understanding regarding the Uniform Building Code (UBC) edition which is to be used for the above referenced project. We understand that we should use the 1976 UBC in lieu of the 1973 UBC which is the governing edition under the current 1976 State Building Code. We further understand that the amendments to the 1976 UBC which may be adopted by the State will be applied to the project subject to review by the University and your office at the time of their adoption.

It is our understanding that the above direction is based upon the expectation that the 1976 UBC, with State amendments, will be adopted by the State before Unit F is bid in the late summer of 1978.

We would appreciate confirmation of the above stated understandings for record purposes.

Sincerely yours,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

Duane E. Blanchard
sbk

cc: Clinton Hewitt
Paul Maupin
John Patterson
John Scott

Office of the Assistant Vice President

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Planning
340 Morrill Hall
100 Church Street S.E.
Minneapolis, Minnesota 55455

November 16, 1977

Health Sciences Architects and Engineers
University Park Plaza
Suite 704, 2829 University Ave. S.E.
Minneapolis, MN 55414

RE: Health Sciences Expansion - Pharmacy Nursing Facility

ATTN: Duane Blanchard

Dear Mr. Blanchard:

In reply to your letter of November 8, 1977 regarding which code to use for designing the above project we wish to confirm the position that you have taken. The code in effect at the time of the start of construction is the one that applies. A hearing is scheduled for November 28 with the intent of adopting the 1976 version of the U.B.C. It is assumed that official action to effect the adoption will follow shortly.

The modifications to be considered for the 1976 U.B.C. are published in the State Register and reprints will be available at the hearing. Among other provisions in the document Section 2312(a) of the U.B.C. is modified to Zone "0", No Damage Area. Therefore there would be no increase in seismic loading from that now being used.

I trust that this answers your questions regarding design assumptions based on code, but if you have any further questions please let me know.

Very truly yours,

E. A. Kogl

CC: C. Hewitt
P. Kopietz
G. Scheffler
P. Maupin

EAK/ljm

UNIVERSITY OF MINNESOTA
TWIN CITIES

Boynton Health Service
410 Church Street S.E.
Minneapolis, Minnesota 55455

November 22, 1977

Memorandum

To: Eugene Kogl, University Building Code Official, 321 Morrill Hall

From: G.L. Scheffler, Assistant Director, Department of Environmental Health and Safety, Boynton Health Service

Subject: Review of Design Development Plans and Specifications for Health Sciences, Unit F

The review of the plans and specifications develop the following changes, recommendations and comments.

General

1. Fire extinguisher cabinets must be provided in corridors in number and location so that the maximum travel distance from any location in an office or class room or from the corridor door of a chemical laboratory does not exceed 75 ft. (OSHA 1910.157(b)(vii)(2)(i).

2. No permanently mounted ash trays are to be provided or are ash urns or other portable ash trays to be located in corridor or elevator lobbies.

3. All stairway doors and all room to corridor doors must be provided with wire glass vision panels.

4. All draperies, cubical curtains and carpet must be permanently flame retardant according to University standards.

5. Upholstered furniture using foam plastics should be provided with a protective interliner of Dupont Vonar and the basic design of such items must meet University standards as to openings between the seat, arms and back.

6. Cold rooms with low exhaust rates must be provided with electrical systems suitable for hazardous locations if flammable liquids are to be used or stored in such rooms. Because of the inconvenience of such electrical systems, the installation

of special fume hoods for handling procedures involving flammables is recommended.

7. Refrigerators and refrigerator/freezers must be of explosion proof or laboratory safe design.

8. All wet chemistry laboratories must be maintained at a slight negative pressure to the adjoining corridor.

9. Flammable liquid storage and transfer rooms must be provided with ducted supply and exhaust. All doors must have panic hardware and closers.

10. Radioisotope fume hood exhaust ducts must be provided with a filter enclosure of University design installed in a readily accessible location immediately above the hood, but filters need not be installed.

11. Radioisotope fume hoods must be a deck that provides a front lip and a lip around cup sinks so that spills will be retained and that should over flow occur it will go into the cup sinks.

12. When more than one fume hood is located in a single room, only one hood shall be provided with a flammable liquid storage cabinet. University standards limit the total quantity of flammable liquids in a room provided with under hood storage to 10 gallons and one cabinet is adequate.

13. Where flammable liquids and acids are to be stored in the same under hood cabinet, they must be in separate liquid tight compartments.

14. Perchloric acid fume hoods must be provided with separate exhaust ducts that are provided with wash down devices. No other hoods can be connected to perchloric acid hood exhaust ducts. Long duct runs make complete wash down difficult and should be avoided. Because wash water drains into the hood behind the baffel, under-hood ventilated storage cabinets for flammable liquids are not desirable in perchloric acid hoods.

15. Deluge safety showers must have on-off valves, not self-closing and electrical outlet should not be located under or near shower as in Room 8-118.

16. All laboratories and solvent rooms must have at least one light fixture on emergency circuit.

17. Additional duplex outlets are needed near desks in offices to prevent octupus outlet use.

Floor 1

1. Room 1-115 is to be used as a flammable liquid transfer room and will require ventilation rates of over 20 air changes per hour during transfer operations. The floor in the transfer area must be conductive and bonded to the door to allow equalization of status changes. Since normal ventilation rates of 6 air changes, per hour are satisfactory during periods of non-use it is suggested a two-speed fan connected to the light switch be used to provide necessary higher ventilation rates during use.

2. The CO_2 extinguishing system in Room 1-115 and in other flammable liquid storage rooms should be provided with alarm warnings as set forth in NFPA No. 12.

3. Curbs should be removed from Room 1-115, grill and drain are enough.

4. All power tools to be located in Room 1-111 and 1-112 must meet the requirements of OSHA standards Subpart O.

5. Restroom facilities in Room 1-94 and 1-106 must meet requirements for the physically handicappped (UBC Sec. 1711(b)).

6. Safety stations should be provided in Room 1-116.

Floor 2

1. The elevator lobby must be physically separated from the rest of the building (UBC section 1807(i)).

2. The main stairway must be enclosed at this level (UBC Section 1706(a) and Section 3308).

Floor 3

1. The elevator lobby must be physically separated from the rest of the building (UBC Sec. 1807(i)).

2. The capacity of Room 3-130-131 requires two exits to corridor with door swing in direction of exit (UBC Table 33A and Section 3303(b)).

3. The products of combustion detector in the elevator lobby must be programmed to send the elevator cars to the second floor landing when they are on fire mode and this detector is alarmed.

4. Door to Room 3-108A must swing into Room 108. No curb to be used on this entrance.

Floor 5

1. The elevator lobby must be physically separated from the rest of the building (UBC Sec. 1807(i)).

Floor 8

1. The canopy hood used for ventilation of the apparatus rack in Room 8-124 should be replaced with an enclosure type hood otherwise capture of any toxic or flammable vapors will not be achieved.

2. The verticle laminar flow cabinet in Room 8-135 will be used for chemical procedures and must be exhausted separately to the outside with a connected continuous exhaust duct. This will require that the cabinet be a Class II Type B unit.

3. Room 8-111 should be redesigned to eliminate crowded condition presented by the three fume hoods.

4. The safety station in Room 8-110 should be relocated near to the fume hood.

5. Both doors from Room 8-106 must swing into corridor.

Floor 9

1. The corridor doors from Room 9-103 must swing in the direction of exit (UBC Section 3303(b)).

2. The location of the fume hoods in Room 9-104 and 9-105 could trap persons in office Rooms 9-107 and 9-108 if a fire or explosion occurred in the hood, they should be relocated or offices should be relocated. It could also be argued that the present office locations do not meet code if Room 9-106 and 9-107 are not considered one room (UBC Section 3302(e)).

3. The same requirements apply to Rooms 9-112 to 9-117 etc.

4. The air supply louver located directly in front of the fume hood in Room 9-155 should be moved to insure proper operation of the fume hood.

5. A second remote emergency exit is required from Room 9-155 and Room 9-156 and Room 9-156 requires a safety station.

6. If flammable anesthetics are to be used in Room 9-141, the electrical system design, the floor design and other requirements to prevent shock and static electric discharges as set forth in NFPA No. 56A must be met.

7. The explosion venting, static electricity controls and ventilation for Room 9-148, Room 9-142 and Room 9-121 should be in accordance with the requirements and recommendations set forth in NFPA No. 63, 69, 70 77 and 86A. It would seem desirable to locate these operations on the roof to insure adequate explosion relief.

8. If flammable or combustible liquids are to be processed in Room 9-147, a fume hood enclosure must be provided or the entire room considered a hazardous location electrically and additional ventilation provided to insure adequate dillution of any escaping vapors.

9. The laminar flow safety cabinet in Room 9-129 must be a Class II Type B cabinet connected to an independent exhaust in the same manner as cabinet in Room 8-135.

10. The safety station is Room 9-110 should be relocated nearer to the fume hood.

11. The air lock entrance, No. 87, must have a 7-foot space between doors (SBC 5502(f)4).

Mechanical Equipment Rooms

1. Safety station required near deionizer unit.

Finally, this Department concurs with Physical Plant that the waste handling should be restudied to allow waste pick-up from this location and several others in the complex rather than transporting the waste internally to Unit K/E.

GLS:pjc

cc. Paul Maupin
Clinton Hewitt

Additional Comment

The two speed fan control micro switch should perhaps be located at a lower level than the two-third closed sash position since this is where by-pass becomes operative and high capture velocity may still be required. This switch is an energy conservation device and I still doubt that laboratory personnel will lower the sash when leaving the laboratory as required to make the device effective. Connecting the high speed fan to the room light switch would be more effective I believe.

P. Maupin G Scott Scott
D Kogl CP D Ramey
Herb CH P Sodigan
LC Weaver D Blanchard J Patten

PHARMACY/NURSING BUILDING ADVISORY COMMITTEE November 29, 1977

-Review of November 15, 1977 meeting notes

-Planning Issues

-Fire Management	-	Status Report; Deadline P. Kopeitz absent - Report being complete
-Communications	-	Status Report; Deadline " "
-Landscape	-	Design; Budget; Deadline - ? about trash
-Handicapped	-	Status Report; Action required* Report required
12/13 -Vibration	-	Proposals received
-Interiors/Graphics	-	Input; Deadline

-D.D. Review

-University Review Comments - Eng & Const - [Gus Schafer] (other by w/e 12/2)

-Movable Equipment - Generic catelog update; Deadline
- Complete Movable Equipment Listing/Room; Deadline

-Project Costs/Schedule

-Schedule Monitoring Report	-	Items behind schedule; Action required
	-	Items to be added
-Construction Cost Estimate	-	
-Non-Building Costs	-	Detailed Estimates required
-Budget Reconciliation	-	Magnitude; Alternates; Procedure; Final Budget 12-13-77
-Project Cost Reduction Items (Const. & Non-Const)	-	To be developed; To be taken; Becomes alternate

-ROFEC

-Cost Data/Federal Match

-Other

-Trash Collection System

Next Meeting: December 13, 1977, 9:00 a.m., Room 238A Morrill

UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
Physical Planning
Box 75 Powell Hall
4103 Powell Hall
Minneapolis, Minnesota 55455
(612) 373-8981

January 19, 1978

Mr. Herbert K. Enzmann
Cost, Planning and Management International
4045 Merle Hay Road
Des Moines, Iowa 50310

I am enclosing the following documents in accordance with the January 10, 1978, Pharmacy/Nursing Building Advisory Committee for your review and preparation for the January 24, 1978, Advisory Committee Meeting:

A. College of Pharmacy
Deduct alternate list

B. School of Nursing
Deduct alternate list

C. Unit F Pharmacy/Nursing
budget breakdown
(preliminary draft)

Yours truly,

Paul J. Maupin
Health Sciences Planning Coordinator

PJM: mg
cc: Clint Hewitt
Cherie Perlmutter
Paul Kopietz
Eugene Kogl

1/16/78

UNIT F
PHARMACY/NURSING

BUDGET BREAKDOWN
PRELIMINARY DRAFT

Prepared by the
Health Sciences Planning Office

FUNDING SHEET

1975 HEW Pharmacy Grant	$ 4,288,811
1975 HEW Nursing Grant	3,976,557
1977 State Appropriation	12,965,232
	$ 21,230,600

BUDGET BREAKDOWN

10.00	CONSTRUCTION	$ 16,532,000	
20.00	NON-CONST. COSTS: SITE		
.01	Demolition	0	
.02	Water Service	~~0~~	$15,700.00
.03	Walks, Steps, Curbs	~~19,300~~	$29,300.00
.04	Landscaping	20,000	
.05	Remove Existing Utilities	0	
.06	Sign, Guardrails, etc.	5,000	
.07	Temporary Drives, Walks	2,000	
.08	Testing & Balancing	31,500	
.09	Electric Service	50,800	
		$ 128,600	
30.00	NON-BUILDING COSTS: FEES		
.01	A/E Base Fee @ 6.2%	1,024,984	
.02	A/E Extra Services	50,000	
.03	A/E Reimbursables	50,000	
.04	CM Lump Sum Fee	190,000	
.05	CM Reimbursables	10,000	
.06	Vibration Consultant	7,000	
		$ 1,331,984	
40.00	NON-BUILDING: MISC.		
.01	Temp Heat & Power	90,000	
.02	SAC Charges @ .2%	33,064	
.03	Constr. Sup. @ 1.25%	206,650	
.04	Misc. Expense	71,000	
.05	Site Survey	0	
.06	Misc. Engineering	30,000	
.07	Materials Testing	25,000	
.08	Building Activation	25,000	
.09	Control Center Wiring	50,000	
.10	Building Permits @ .2%	33,064	
.11	H.S.P.O. Sal. & Exp. @ 1.25%	206,650	
.12	Contingencies @ 3%	495,960	
		$ 1,266,388	
50.00	MOVABLE EQUIP/FURN	$ 1,971,628	
	TOTAL	$ 21,230,600	

MOVABLE EQUIPMENT AND FURNISHINGS

50.00		NURSING	PHARMACY	SHARED	TOTAL	%
.01 .03 .05	Equipment	$ 213,143.60	$ 540,835.80	$ 15,368.60	$ 769,348.00	39.0
.02 .04 .05	Furnishings	300,240.00	330,960.00	54,880.00*	686,080.00	34.8
.06	Building Commons Furnishings	17,000.00	28,500.00	4,500.00	50,000.00	2.5
.07	Blinds and Draperies	28,356.00	47,538.00	7,506.00	83,400.00	4.2
.08	Graphics	10,200.00	17,100.00	2,700.00	30,000.00	1.5
.09	Telephones	6,800.00	11,400.00	1,800.00	20,000.00	1.0
.10	Moving	23,800.00	39,900.00	6,300.00	70,000.00	3.6
.11	Housekeeping	5,100.00	8,550.00	1,350.00	15,000.00	.8
.12	H.S.P.O. and Interior Design Salaries & Expenses	42,500.00	71,250.00	11,250.00	125,000.00	6.4
.13	Contingency	20,559.12	34,466.76	67,774.12	122,800.00	6.2
TOTAL		$ 667,698.72 (34%)	$ 1,130,500.56 (57%)	$ 173,428.72 (9%)	$ 1,971,628.00	100.0

* Includes $10,000 for art work.

SCHOOL OF NURSING

Deduct Alternate List

1. Eliminate wet bench & related cabinetry in center of 9-152 C-603 & C-500 & C-702.

2. Use air instead of nitrogen.

3. #54 Nurse call system in health assessment area on 4th floor.

4. Change dutch door to regular door in 4-129.

5. #53 - Omit Nursing Clinical Vacuum & Air in 4-101 - but question cost of only $5,000.
   (Mock outlets must be retained)

6. Reduce quality of folding partitions in 2-104, 4-119, 4-120, 4-107, 4-108, 4-102 & 103, 4-122, 4-123, 4-128.

7. Eliminate camera mounts in 2-104 (two), 2-106 (one)
   Eliminate ceiling camera housing in 2-104 (one), 2-109 (two)
   but stub in the services.

8. Eliminate built-in sphygomonometers (eliminate a total of 12) 4-102 (2), 4-108 (2), 4-109, 4-110, 4-111, 4-112, 4-113, 4-114, 4-115, 4-116.
   (will use those we currently have)

9. Re-examine lighting in 4-101 and consider removing valance lighting.

10. Change from rheostat lighting with incandescent to all fluorescent with multiple switches in conference rooms, classrooms, and in 2nd floor research areas.

11. Investigate merit of reducing size of viewing windows in second floor research area between 2-105 and 106
    2-104 and 105
    2-104 and 112
    2-112 and 109
    also 4-121 and 4-122

12. Remove plumbing from tub and commode in 4-103.

13. Eliminate carpeting & replace with tile floor -
    2-104, 2-107
    4-117, 4-118, 4-119, 4-120, 4-121, 4-122, 4-123, 4-124, 4-125, 4-126, 4-127, 4-128, 4-130, 4-131, 5-134, 5-138, 5-139, 5-160, 5-158, 5-159, 6-187, 6-188, 6-189.

SCHOOL OF NURSING

Add-On List

1. Paging system on floors 4, 6 and 7.

2. Fixed videotape monitors and recorder in each classroom and conference room

   or

   Closed circuit television with central control panel.

3. Carpeting in all School of Nursing areas except laboratory on 9th Floor.

4. Extra money for movable equipment.

SHARED FACILITIES

Deduct Alternate List

1. Eliminate folding partition in 7-102 or reduce quality.

2. Reduce number of new lockers (and utilize those we presently have).

3. Eliminate carpeting in locker area.

Add-on List

1. Escalators

COLLEGE OF PHARMACY

DEDUCT ALTERNATE LIST

A. DEDUCTS FROM GROUP I LIST

1. 4 X 72" perchloric fume hoods in rooms 3-103 and 3-112

   a. stub in services for 4 x 72" class A

2. 60" fume hoods, type A:

   a. eliminate 2 in 9-119
   b. stub in services for 1 X 60" type A
   c. put in 1 radioisotope fume hood

3. redesign: eliminate 1 X 60" fume hood in 8-111

4. 1 X 36" perchloric fume hood (item #12)

5. Change 72" fume hood in 9-101 to class A

6. Laminar floow hood in 9-129

7. Electric still

8. 25% of all metal desks (casework attached)

9. query: countertop material listed is not correct (Price reduction?)

10. 10% of all metal base cabinets (casework for lab benches)

11. metal knee space cabinets

    a. structural design o.k.?

12. plastic laminate shelving (#55)

13. rolling metal shelf (on track)

14. metal cabinets and metal wall cabinets (#64 and #65)

15. tool cabinets

16. strainless steel wall cabinets (#68)

17. Cold Room, 9-111 (salvage one on 3rd floor Appleby)

18. Environmental room

19. Sterilizer (#76)

20. DeIonized water system (deduct alternate discussed by committee)

21. salvage 2 X 48" fume hoods from faculty offices to be placed in faculty offices.

22. salvage 2 X 72" fume hoods from radioisotopes in Appleby, for placement in rooms 3-103 and 3-112 in Unit F.

23. salvage some casework and additional fume hoods from Appleby

(Items 21, 22, and 23 above are dependent on future use of Appleby Hall)

* Please note that (#) listing after an item does not refer to the number of units, but to Group I item lists prepared December 29, 1977 by Health Sciences Planning Office.

B. The following are deduct alternates, if taken, they would be purchased with Group II funds.

1. Cold Rooms (Item #70)

   a. Room 8-116 (14' X 18'-6")
   b. Room 8-127 (8' X 14')
   c. Room 9-122 (12' X 11')

2. Environmental Rooms (Item #71)

   a. Room 8-128 (6'-2" X 5')
   b. Room 8-129 (6'-2" X 5')
   c. Room 9-144 (10' X 8'-6")
   d. Room 9-145 (10' X 8'-6")

3. Planting Benches (Item #32)

   a. 18 ea.

4. Necropsy Table (Item #41)

5. Drying Rack (Item #46)

   a. 125 ea.

6. Metal Shelving (Item #56)

   a. 88 SF

7. Stainless Steel Shelving (Item #57)

   a. 273 SF

8. Stainless Steel Shelf (Item #58)

   a. 18 LF

9. Plastic Laminate Shelf (Item #59)

   a. 12 LF

10. Metal Lockers (Item #63)

    a. 2 ea.

11. Plastic Laminate Wall Cabinets (Item #66)

    a. 7 ea.

12. Laminar Floow Hoods (Item #15)

    a. Room 2-114 (L133-48") 2 ea.

Unit F - Codes

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-3833

19 January 1978

Mr. Paul J. Maupin
Health Sciences Planning Coordinator
University of Minnesota
4104 Powell Hall
Minneapolis, MN 55455

Regarding: Unit F - Pharmacy and Nursing Facility
ROFEC Building Code Clarifications

Dear Mr. Maupin:

There are two building code items which the University may wish to review with ROFEC for their official concurrence. The two items are as follows: acceptance of the Minnesota State Building Code, and acceptance of the earthquake design criteria established by the State of Minnesota.

The design of Unit F is based upon the code requirements of the State Building Code (SBC) which includes the Uniform Building Code (UBC) by reference. The University Building Official has given us direction to use the 1976 Edition of the UBC as outlined in his letter to us dated November 16, 1977. My letter to you dated October 25, 1977 (copy to Mr. Kogl) indicated that the ROFEC guidelines state that the design must comply with the standards of the National Building Code or such State and local codes and ordinances with respect to structural design, construction, and fire safety provided the more restrictive shall prevail. We indicated that it was our understanding that the SBC with the UBC was comparable to the National Building Code and, therefore, comparison of the two codes should not be required to determine which is the more restrictive. We have been proceeding with the design of Unit F on this basis.

The ROFEC guidelines regarding Earthquakes states that the standard specified in the Uniform Building Code shall apply unless more restrictive State and local codes exist. The State of Minnesota has always amended the UBC such that Minnesota is in Zone "0", No Damage Area. The University Building Official's letter to us dated November 16, 1977 has indicated that the building design should be based upon the design criteria of Zone "0". The UBC puts Minnesota in Zone 1, which, if applied, would impose a significant cost burden on the project. There would also be project design schedule implications if we were to modify the design criteria to Zone 1. Please advise us immediately if there is any reason why we should not continue to design the building on the basis of Zone "0".

Please review these two items and determine what action the University should take to insure that there is no potential conflict between the design standards being used and the requirements of ROFEC.

Sincerely yours,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

Duane E. Blanchard

Duane E. Blanchard
vsw

cc: Clinton Hewitt
Eugene Kogl

MINIMUM STANDARDS OF CONSTRUCTION AND EQUIPMENT

General

The structural design, construction, and fire safety provisions of all facilities under the Health Professions Educational Assistance Program must comply with the standards of the National Building Code[1] or such State and local codes and ordinances with respect to structural design, construction, and fire safety *provided the more restrictive shall prevail.*

Teaching and research laboratories must be designed to avoid hazards to the occupants, and to eliminate interference with other teaching and research processes within or adjacent to the space.

Mechanical

All installations of fuel-burning equipment, steam, heating, air conditioning and ventilation, plumbing and other piping systems, and boilers must comply with such standards published in:

Handbook of Fundamentals: American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHREA).[2]

National Standard Plumbing Code and codes relating to pressure vessels (boilers): American Society of Mechanical Engineers (ASME).[3]

TECHNICAL REFERENCE SOURCES

Copies of codes and standards may be secured from the originating organizations. The item number below corresponds to the reference number in the text.

1. American Insurance Association, Engineering and Safety Department
   85 John Street, New York NY 10038
   120 South LaSalle Street, Chicago IL 60603
   465 California Street, San Francisco CA 94104

2. American Society of Heating, Refrigerating and Air Conditioning Engineers
   United Engineer Center
   345 East 47th Street, New York NY 10017

3. American Society of Mechanical Engineers
   United Engineer Center
   345 East 47th Street, New York NY 10017

4. National Fire Protection Association, International
   60 Batterymarch Street, Boston MA 02110

5. National Council on Radiation Protection and Measurements
   Box 4867, Washington DC 20008

6. International Conference of Building Officials
   50 South Los Robles, Pasadena CA 91101

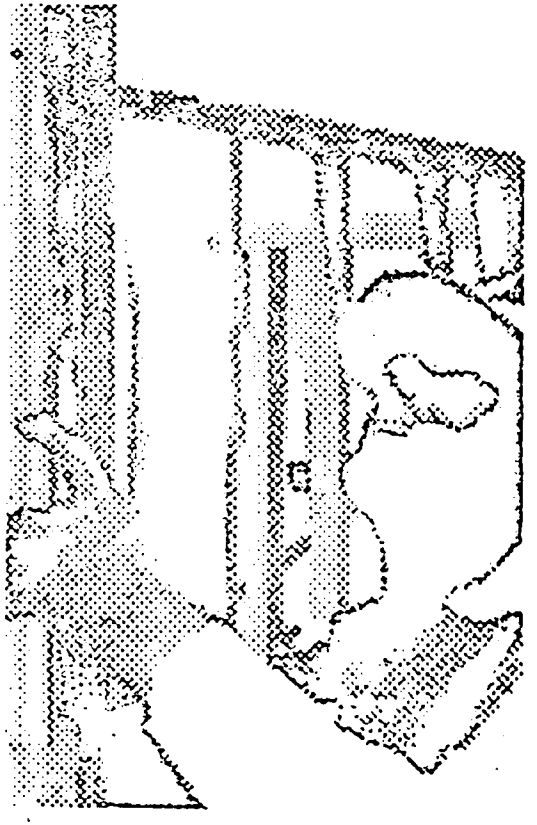
U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
National Institutes of Health
Bureau of Health Manpower Education
Division of Physician and Health Professions Education
Bethesda, Maryland 20014
September 1972
DHEW Publication Number (NIH) 73-373

Health Professions Educational Facilities Construction

PROGRAM GUIDE AND INSTRUCTIONS

PART III

Guidelines for Minimum Standards of Construction



INTRODUCTION

The Secretary of Health, Education, and Welfare is required to establish minimum standards of construction and equipment in connection with all projects approved for Federal construction assistance under the Health Professions Educational Assistance Program, as required in Section 721(c)4 of the Public Health Service Act, as amended.

Such minimum standards of construction and equipment are required with respect to all teaching facilities, teaching hospitals and outpatient facilities approved for construction under Part B of Title VII of the Act and the regulations issued thereunder (42-CFR-57, APPENDIX A). The minimum standards are outlined herein for the information and guidance of applications.

Teaching hospitals and outpatient facilities are also required to comply with such provisions as may be specified in the current "General Standards of Construction and Equipment for Hospital and Medical Facilities."

Fire and Safety

The most severe usage to which any portion of the building may be subjected shall govern the fire-resistive design criteria. Remodeled structures should be upgraded, in total, unless it is feasible to isolate the improved portion of the building with firewalls and firedoors.

Life Safety Code Number 101: National Fire Protection Association, International.[4]

Electrical and Emergency Electrical Service

All electrical installations and equipment must be in accordance with State and local codes and applicable sections of the National Electrical Code, National Fire Protection Association, International.[4]

Fire alarm systems and other emergency electrical service must conform and be located as specified.

Life Safety Code Number 101, National Fire Protection Association, International.[5]

Radiation Protection

All areas in which X-ray, gamma-ray, beta-ray producing and similar equipment is located must be adequately shielded for radiation in accordance with the recommendations contained in the National Council on Radiation Protection and Measurements[5] handbooks:

Report 33 - Medical X-ray and Gamma-ray Protection for Energies up to 10 MeV--Equipment Design and Use.

Report 34 - Medical X-ray and Gamma-ray Protection for Energies up to 10 MeV--Structural Shielding Design and Evaluation.

Report 35 - Dental X-ray Protection.

Report 36 - Radiation Protection in Veterinary Medicine.

Earthquakes

The standards specified in the Uniform Building Code[6] shall apply unless more restrictive State and local codes exist.

Zoning

State and local codes apply.

UNIVERSITY OF MINNESOTA UNIT F

PROPOSED ALTERNATES SUMMARY
30 January 1978

DEDUCT ALTERNATES

# 3	Omit One Passenger Elevator	$ 80,000
# 5	Use Low Pressure Chiller	$ 80,000
#29	Omit Heat Recovery System	$ 20,000
#39	Omit Wood Paneling	$ 2,000
#40	Omit Brick Pavers	$ 12,000
#41	Omit Interior Precast Concrete	$ 15,000
#43	Omit 3 Kitchenettes	$ 3,000
#47	Omit Greenhouse & Equipment	$ 35,000
	Subtotal	$247,000

Nursing Facilities Deduct Alternates	$ 31,000
Pharmacy Facilities Deduct Alternates	$158,000
Pharmacy Facilities Deduct Alternates (To Owner)	$150,000
Shared Facilities Deduct Alternates	$ 2,000
Total Deduct Alternates	$588,000

****

ADD ALTERNATES

Nursing Facilities	$120,000
Pharmacy Facilities	-0-
Shared Facilities	$220,000
Total Add Alternates	$340,000

UNIVERSITY OF MINNESOTA UNIT F

30 January 1978

PROPOSED ALTERNATES

A list of proposed alternates to construction of Unit F was prepared by the Schools of Nursing and Pharmacy and presented at the Building Advisory Committee meeting 24 January 1978.

CPMI and H.S.A.E. have investigated the costs and the practibilities of these items to be used as alternates. The resulting approximate costs and comments are listed on the following pages.

SUMMARY

Deduct Alternates

Nursing Facilities	31,000
Pharmacy Facilities (From Group I)	58,000
Pharmacy Facilities (From Group I to Group II)	150,000
Shared Facilities	2,000
Total Deduct Alternates	$341,000

Add Alternates

Nursing	120,000
Pharmacy	0-
Shared Facilities	220,000
Total Add Alternates	$340,000

SCHOOL OF NURSING

Deduct Alternates:	DEDUCT AMOUNTS
1. Eliminate wet bench and related cabinetry in center of 9-152. Equipment items C603, C500, C702 (from Equipment Group I).	5,700
2. Use compressed air instead of nitrogen. This would affect only five outlets and would result in little or no savings. Could be designed in for small savings in piping.	None
3. Eliminate #54 Nurse Call System in Health Assessment area on 4th floor. (12 stations @ $166 from electrical construction)	2,000
4. Change dutch door to regular door. This amounts to $100 or less and is not a suggested alternate.	None
5. #53 Omit nursing clinical vacuum and air in 4-101 (mock outlets to be retained). This is designed as a separate system and would deduct the following items: Piping 5,500 Vacuum pump and accessories 9,500 (From mechanical construction)	15,000
6. Reduce quality of folding partitions in 2-104, 4-119, 4-120, 4-107, 4-108, 4-102 and 103, 4-122, 4-123, 4-128. This would depend on what type of a folding partition would be acceptable. A savings of $5 per SF is possible. 1,000 SF @ $5 (From general construction - Specialities)	5,000
7. Eliminate camera mounts in 2-104 (two), 2-106 (one). Total of three camera mounts: 3 each @ $125 = $375 This is not a suggested amount to use for a deduct alternate by itself. Could be designed N.I.C. The ceiling camera housings in 2-104 and 2-109 are N.I.C.	None

SCHOOL OF NURSING

Deduct Alternates:	DEDUCT AMOUNTS
8. Eliminate built-in sphygomonometers in 4-102 (2), 4-108 (2) 4-109, 4-110, 4-111, 4-112, 4-113, 4-114, 4-115, 4-116 (total of twelve (12) 12 sphygomonometers @ $110 (From Equipment Group I)	1,300
9. Eliminate valance lighting in Room 4-101 Additional ceiling lighting would be needed resulting in very little or no reduction in costs	None
10. Change from rheostat lighting with incandescent to all fluorescent with multiple switches in conference rooms, classrooms and in 2nd floor research areas. If no additional fluorescent lighting is required, there is a possible reduction of approximately $2,000 (From electrical construction)	2,000
11. Reduce size of viewing windows in 2nd floor research area between 2-105 and 106, 2-104 and 105, 2-104 and 112, 2-112 and 109, 4-121 and 122. The windows are designed as 3'-0" x 4'-0". Depending on how much of a reduction would be acceptable. (Example 2'-8" x 3'-0") Possible saving $60 per opening. 5 each @ $60 = $300. This is not suggested as an alternate, but could be included in final design for a savings.	None
12. Remove plumbing from tub and commode in 4-103. Plumbing ruf-in 2 each @ $150 = $300. This is not suggested as an alternate, but could be included in the final design for a savings.	None
13. Eliminate carpeting and replace with floor tile. This would actually be an add alternate. All carpet is specified to be by owner and not included in the construction cost The floor area to be hardened where carpet is scheduled. V.A.T. would be additional cost.	None
NURSING TOTAL DEDUCT ALTERNATES	$31,000

SHARED FACILITIES

Deduct Alternates	DEDUCT AMOUNTS
1. Eliminate folding partition in T-102 or reduce quality. Eliminate folding partition. Reduce quality 108 SF @ $5 = $540. Reduction in quality for this partition by itself is not suggested as an alternate, but could be combined with others in the building. This also could be included in the final design for a savings.	2,000
2. Reduce number of new lockers (and utilize those we presently have). Not knowing to what quantity of lockers referred to, a cost deduction can not be applied. The new double locker units cost approximately $65 each. A problem may also arise in matching or fitting old lockers in the spaces allocated.	None
3. Eliminate carpet in locker area. Again, all carpet to be by owner and does not apply to construction costs.	None
SHARED FACILITIES TOTAL DEDUCT ALTERNATES	$2,000

Office of the Assistant Vice President

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Planning
340 Morrill Hall
Minneapolis, Minnesota 55455

March 13, 1978

UNIT F

TO: Paul Kopietz

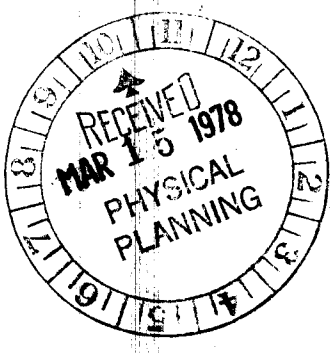
FROM: Clint Hewitt

At the Pharmacy/Nursing meeting on March 7, 1978, the architects made a special point of emphasizing that because of the lighting levels that Dave Kerkow intends to require for the Pharmacy/Nursing Building, the users should understand, very carefully, that it will not have the same lighting quality or aesthetics as Units A and B/C. They further suggested that we should schedule a meeting with the users to explain the lighting levels so they will not be surprised (or disappointed) when they occupy the building.

I assume that Dave's efforts evolve around our objectives to achieve energy conservation in building construction and informed the committee that we felt a responsibility to pursue energy conservation at all levels. I further stated that utilizing task lighting suddenly appears to be an efficient and appropriate design approach. Nevertheless, I suggest that we (Dave, Paul, Gene) get together to review this particular issue and determine the usefulness or necessity to meet with the users and discuss the lighting concept.

CNH/sf

cc: Gene Kogl
Paul Maupin



UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Planning
240 Morrill Hall
Minneapolis, Minnesota 55455

Office of the Associate Vice President

[illegible] 13, 19[illegible]

TO: [illegible]

FROM: [illegible]

As the Physical Planning meeting on [illegible], the attributes [illegible] a special point of emphasis was because of our lighting levels that have become known to require for the Pharmacy Nursing Building. The rooms should [illegible], very generally, [illegible] not have the same lighting quality or perception as [illegible]. They further [illegible] that we should proceed [illegible] meeting with [illegible] levels so they will not be affected (or diminished) when they occupy the building.

I assume that [illegible] efforts evolve around the objectives to achieve conservation in building construction and [illegible] the general [illegible] a reasonable [illegible] energy [illegible] as well [illegible]. I [illegible] used [illegible] task lighting [illegible] appears to be an [illegible] and appropriate design [illegible]. Nevertheless, I would like [illegible] Paul, (Gene) get together [illegible] review this particular issue and determine [illegible] guidelines or necessary [illegible] meet with the users and discuss the lighting concept.

CWH/as

cc: [illegible]
Paul [illegible]

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

March 16, 1978

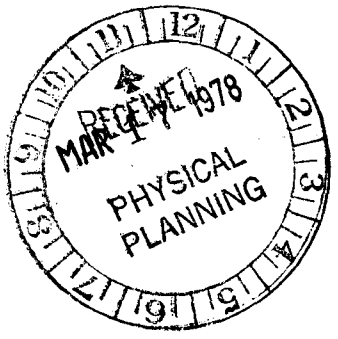
TO: Clinton Hewitt

FROM: Paul Maupin

SUBJECT: Unit F
Lighting Levels

This letter is in response to your March 13th memorandum to Paul Kopietz regarding the Unit F lighting levels.

Clint, this matter has already been taken care of by our normal process of working with the users and the architects. A meeting was held this last Monday with representatives from the architects, Pharmacy, Nursing and Interior Design, and with Dave Kerkow and myself in attendance. The meeting resulted in all lighting levels being resolved in accordance with the specifications outlined in the Unit F design development appendix. Please see attached copy.



PJM:rt

cc: Eugene Kogl
Paul Kopietz

Attachment

THE ARCHITECTS COLLABORATIVE, INC.
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

MEMO TO: Unit F File

MEMO BY: Bob Krueger/Gary Hall

DATE: 19 December 1977

SUBJECT: Unit F Lighting

Lighting design criteria and light levels for Unit F are outlined in this memo for review and approval by the University prior to the start of contract documents.

In general, the primary lighting system for task areas will be 1' x 4' recessed flourescent fixtures utilizing 2 or 3 lamps to attain the appropriate lighting levels. Flourescent lighting is used because of its efficiency, good general color acceptance and its ease of control. It is intended that the basic lamp used for the flourescent fixtures will be the 40 watt rapid start standard white lamp. The standard white lamp has been established as the standard lamp color by the University for most applications. Certain medical applications where critical evaluations of color occur may require other lamp colors such as deluxe cool white or other special lamps. These critical areas must be identified by the User to insure the proper lighting system design. The deluxe cool white lamp is approximately 1/3 less efficient than the standard white lamp and therefore should be applied only where actually required for the specific critical task.

Mercury vapor deluxe white lamps in recessed light fixtures will be used in addition to flourescent lighting at certain limited corridor and lobby applications.

Incandescent lamps in recessed light fixtures will be utilized for certain special applications relating to audio/visual presentation areas and other areas requiring a special lighting environment.

Lighting levels will be in accordance with the latest Illuminating Engineering Society (IES) recommendations as minimum average levels of illumination at identified task locations. Lighting systems will be designed in conformance with University Standards and the Minnesota Energy Code.

The following typical areas are identified with the proposed light levels (Foot candles - FC) for general information. Complete room by room proposed light level plans (Drawings E5 through E13) are included with the Design Development Documents for review by the Users.

Animal Rooms:	50 - 100 FC
Classrooms:	
Reading Tasks/ Pencil Writing	70 FC
Conference/Seminar:	
Reading Tasks/Pencil Writing	70 FC
Confering	30 FC
Note Taking for Audio/Visual	0 - 15 FC (variable)
Corridors: (1/2 level control = 10 FC)	20 FC
Examination Rooms:	
General	50 FC
Exam Table	100 FC
Utility Rooms:	
General	20 FC
Work Counter	50 FC
Laboratories:	
General	70 FC
Research/Student w/ Close Work Tasks	100 FC
Lobbies/Waiting:	
General	20 FC
Local/Reading	30 FC
Locker Rooms:	20 FC
Offices:	
General/Secretarial	70 FC
Private	70 FC
Pharmacy:	
Compounding/Dispensing	100 FC
Manufacturing	70 FC
Storage	30 FC
Toilets	30 FC
Stairways	20 FC

Room flourescent lighting systems will be provided with 2 level light switch control capability where required by the Minnesota Energy Code. Where incandescent lighting systems are required, switch control will be provided unless variable level dimmer control is programmed by the User. The cost for variable level dimmer installations meeting University criteria is approximately $800 per room and, therefore, the need and requirements should be carefully considered.

Review of Design Development reflected ceiling plans 20 through 28 will give additional details of the proposed lighting system for each space.

Unit F - Building Code

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-3833

22 March 1978

Mr. Melvin H. Fisher, Regional Engineer
Division of Regional Operations for
Facilities Engineering & Construction
Department of Health, Education, and Welfare
300 South Wacker Drive, 16th Floor
Chicago, Illinois 60606

Regarding: University of Minnesota
Health Sciences Expansion - Unit F
School of Pharmacy - HP 5C-063
School of Nursing - NU 5C-077

Gentlemen:

We are writing to affirm our position relative to structural design for earthquake for the Unit F Pharmacy-Nursing Facility. This is offered in response to inquiries by your office made in a telephone conversation between Mr. Henry Ray, Mr. Ross Webb and Mr. Kurt Rogness on 10 March 1978.

We wish to advise your office that the structural characteristics of the Unit F structure has been designed to resist the known seismic forces for this area, as determined by the Structural and Seismic Advisory Committee to the Building Code Division of the State of Minnesota, and adopted by the Building Code Division. Furthermore, there is no visible evidence of surface faults on the construction site and the regional tectonic maps indicate that the area within a half mile radius is free from known faults.

Under separate cover, we are forwarding to your office a copy of the Unit F Early Steel Fabrication Contract Documents which we plan to release to bidders the week of 27 March 1978.

Sincerely yours,

John Sahlman

John Sahlman, P.E., Principal
Johnston-Sahlman Co., Inc.
640 Sexton Building
Minneapolis, Minnesota 55415

Kurt Rogness

Kurt Rogness, Vice-President
Health Sciences Architects and
Engineers, Inc.
2829 University Avenue S.E.
Minneapolis, Minnesota 55414

cc: Sal Cannella
Henry Ray
C. Hewitt
P. Kopietz
E. Kogl
P. Maupin
C. Perlmutter

UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
Physical Planning Office
26 Folwell Hall
9 Pleasant Street S.E.
Minneapolis, Minnesota 55455

April 3, 1978

Mr. Melvin H. Fisher, Regional Engineer
Division of Regional Operations for
Facilities Engineering and Construction
Department of Health, Education and Welfare
300 South Wacker Drive
16th Floor
Chicago, Illinois 60606

Subject: Health Sciences Expansion, Unti F
University of Minnesota
School of Pharmacy HP5C-063
School of Nursing - NU5C-077

Dear Mr. Fisher:

I am enclosing for your information a copy of a letter and report sent to me by Mr. John E. Meyer, Chairman of the Structural and Seismic Advisory Committee for the State of Minnesota. I thought you might find this informative and useful for your records regarding the position of the State Building Code Office of Minnesota in terms of seismic classifications.

I certainly do appreciate your assistance in resolving our seismic question on Unit F. Thanks again.

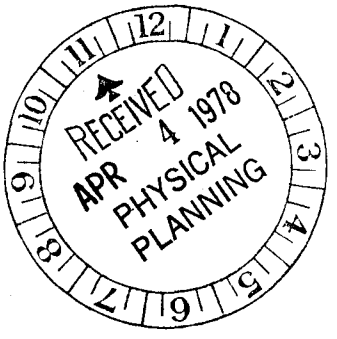
Very truly yours,

Paul E. Kopietz
Director of Engineering and Construction

PEK:mn

Enclosure

cc: Eugene A. Kogl



MEYER, BORGMAN AND JOHNSON, INC. CONSULTING STRUCTURAL ENGINEERS
810 PLYMOUTH BUILDING • MINNEAPOLIS, MINNESOTA 55402 • 338-0713

March 27, 1978

Mr. Paul Kopietz
Director of Engineering and Construction
Department of Plant Services
University of Minnesota
Minneapolis, Minnesota 55455

Dear Mr. Kopietz:

At your request I wish to furnish additional information concerning the Structural and Seismic Advisory Committee and its recommendation regarding the proper seismic building design zone for the State of Minnesota.

I have included a copy of the Committee's recommendation in this matter which was presented at the public hearing held during the week of November 28, 1977 for the purpose of receiving proposed changes to the State Building Code. The State Building Code Division and the State Attorney General's office are presently reviewing the results of this hearing. No opposition to retaining the Seismic Zone Zero classification for the State was presented at the hearing. It is my opinion that the State Building Code will continue to place Minnesota in Seismic Zone Zero.

The enclosed statement also gives information regarding the composition and the role of the Committee. At present the committee is composed of ten consulting structural engineers, five buildings inspection officials, five specialty building contractors and representatives of national structural materials organizations (structural steel, concrete, timber and masonry). In addition, Mr. Rudy Hogberg of the Minnesota Geological Survey and Mr. David Braslau, Consulting Environmentalist, have discussed the nature of seismic activity in Minnesota with the Committee.

I shall be glad to furnish further information in this matter if you should so desire.

Sincerely,

MEYER, BORGMAN AND JOHNSON, INC.

John E. Meyer

John E. Meyer, P.E.
Chairman, Structural and Seismic Advisory Committee

JEM:kk

Statement of the Structural and Seismic Advisory Committee regarding UBC 2312(a) - Seismic Zoning.

Presented at the Public Hearing for Proposed Adoption of Ammendments to the State Building Code - Week of November 28, 1977.

Summary

The Structural and Seismic Advisory Committee, from 1972 to the present, has studied and discussed the recommendations of the International Conference of Building Officials that the State of Minnesota be classed in Seismic Zone One.

It is the voted recommendation of this Committee that the State should remain in Seismic Zone Zero. The two major factors in reaching this decision were (a) the history of very low and non-damaging seismic activity in the State and (b) the costs which would be added to building construction if Seismic Zone One requirements were incorporated in the Minnesota State Building Code.

Introduction

The Structural and Seismic Advisory Committee is composed of structural engineers, architects, contractors, building materials representatives and staff engineers of the Building Code Division. This Committee, formed in 1972, meets about eight times a year, serves without compensation and is advisory in nature. Its purpose is to review proposed changes (excluding heating, ventilating, air conditioning, plumbing and electrical considerations) to the State Building Code Division for possible formal Code changes.

One original task of the Committee was to study the proper seismic risk zone for the State. The 1970 Edition of the Uniform Building Code (UBC) placed Minnesota in Seismic Zone One (minor damage zone). Prior to 1970 the State was in Zone Zero (no damage zone) according to the UBC, as were all or portions of 15 other states at that time. The Committee studied the advisability of following the UBC recommendations to place Minnesota in Seismic Zone One and voted (in 1972) to recommend to the Building Code Division that the State should continue in Zone Zero. This recommendation was followed and the State Building Code has placed Minnesota in Seismic Zone Zero from that time to the present.

Recent Developments

The 1976 Edition of the UBC continues to recommend that Minnesota (and all or portions of 12 other states formerly in Zone Zero) should be classed in Zone One.

Over a year ago the Committee began a re-evaluation study of its previous recommendations to place the State in Zone Zero. This re-study was felt necessary because of the occurrence of a slight earthquake in the Morris, Minnesota area on July 9, 1975. The subject was discussed at length at various meetings of the Committee. At the meeting of January 14, 1977, the Committee voted to

recommend to the State Building Code Division that the Building Code continue to keep the State in Seismic Zone Zero, and further, that a statement regarding that action be prepared for presentation at the Public Hearing to be held for the purpose of considering the adoption of the 1976 Edition of the UBC as the State Building Code. This prepared statement was approved by the Committee at its meeting of September 21, 1977.

Rationale

Principal reasons for this action are:

1. Correspondence between Committee members and the ICBO office informed the Committee that the changes in the 1970 UBC Code were based, primarily, on a paper by S. T. Algermissen. That paper contained no specific references as to earthquake probability in Minnesota. In addition, engineering literature emphasizes that earthquake predictability as an art or a science is virtually non-existent.

2. The history of earthquakes in Minnesota was studied. It was felt that the seven earthquakes which have occurred (from 1860 to present) were of low intensity and had caused no real structural damage and no injuries.

3. Changes in design and construction techniques which would be required were considered by the Committee. A study of various types of structures when designed using Zone One Criteria showed that:

   a. Large-area one story buildings which are relatively square in plan would be very slightly affected, if at all.

   b. One story concrete block buildings with major door openings, such as is typical for warehouse design would probably require vertical reinforcing steel in masonry walls or similar reinforcement to resist torsional stresses.

   c. One and two family wood frame residences would be virtually unaffected.

   d. Reinforced concrete frame buildings would require some additional reinforcing steel regardless of height. Buildings taller than three stories could have seismic criteria govern over present wind load criteria as regards lateral strength. Larger column sizes, more reinforcing steel, etc., would be required to accomplish stability. The construction cost for seismic design for a mid-rise concrete frame hospital building (5-10 stories), for example, could range from 0.5% to 0.75%.

   e. Many structural steel frame buildings which are four to five

stories in height and more would have seismic design criteria govern rather than wind load criteria.

f. It is probable that the great majority of all buildings of all types and sizes (except for one and two story wood frame structures) would require a seismic structural analysis in order to verify compliance with Zone One seismic requirements whether or not such an analysis would require additional construction materials.

Seismic Requirements of Neighboring States

A survey of seismic design requirements in neighboring states is as follows:

North Dakota: UBC places that state in Seismic Zone One. There is no state building code. Engineers who practice in North Dakota report that no municipalities require seismic design.

South Dakota: The same comments regarding North Dakota apply to South Dakota.

Wisconsin: The UBC places Wisconsin in Seismic Zone One. Wisconsin has its own state-wide building code. It is updated every year, is very detailed and is strictly enforced throughout the State. There is no seismic design requirement in that code.

Iowa: The UBC places Iowa in Seismic Zone One. All state-owned buildings must be designed for Seismic Zone One requirements. Many municipalities in Iowa have adopted the UBC. The City of Des Moines requires a modification of Seismic Zone One design as required in the 1976 Edition of the UBC. Dubuque and Davenport, however, have deleted seismic design requirements from their code (UBC 1973). Cedar Rapids will probably soon require Zone One seismic design requirements because of potential legal liability of the City in the event of an earthquake.

Appendix

The following documents were studied by the Committee during its investigation:

a. Seismicity of Minnesota: Harold M. Mooney, Professor of Geophysics, University of Minnesota.

b. Earthquake Prediction and Earthquake Hazards: Harold M. Mooney, Professor of Geophysics, University of Minnesota.

c. The Problem of Seismic Zoning: S. T. Algermissen, Director, Seismological Research Group, Environmental Research Laboratories, National Oceanic and Atmospheric Administration.

d. Earthquake Engineering Studies, The Foundation Study for the Prairie Island Nuclear Generating Plant: George D. Leal.

e. Lateral Force Design Requirements of the 1970 Edition, UBC: Vincent R. Bush.

John E Meyer

John E. Meyer, P.E., Chairman
810 Plymouth Building
Minneapolis, Minnesota 55402
338-0713

Hoskins Scott Taylor and Partners Inc.

60 Congress Street
Boston, Massachusetts
USA 02109

617 426 0600

Architects
Planners
Urban Designers

April 3, 1978

Mr. Paul Maupin
Health Sciences Planning Coordinator
University of Minnesota
4104 Powell Hall
Minneapolis, MN 55455

UNITF

Regarding: University of Minnesota Health Sciences Expansion
Pharmacy/Nursing Facility #77007

Dear Paul,

We are writing regarding the development of the site to the south of Unit F. Through the Pharmacy/Nursing Advisory Committee meetings, you are aware that we are proceeding with the design of this area based upon our discussions with Fran Trojanek and in conjunction with your report that the Unit A loading dock can now be eliminated.

With the construction of Unit B/C Phase I nearing completion, we would like to alert you and Fran to the need for careful coordination on your part between the site development presently being completed with that which is to be executed within the construction contract limits of Unit F.

We would be most happy to meet with you and Fran to resolve any interface issues affecting the site development of B/C or F.

Very truly yours,

HOSKINS SCOTT TAYLOR AND PARTNERS, INC.

JSM

John Scott

cc: Fran Trojanek
C. Hewitt
C. Perlmutter
E.A. Kogl
HSAE
TAC

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-3833

5 April 1978

Mr. Melvin H. Fisher, Regional Engineer
Division of Regional Operations for
Facilities Engineering & Construction
Department of Health, Education, and Welfare
300 South Wacker Drive, 16th Floor
Chicago, Illinois 60606

Regarding: University of Minnesota
Health Sciences Expansion - Unit F
School of Pharmacy - HP 5C-063
School of Nursing - NU 5C-077

Gentlemen:

The purpose of this letter and the attached letter from our structural consultants is to formally convey the conclusions of our analysis of structural resistance to seismic forces as defined by UBC Zone 1 criteria, and as we discussed by phone with Mr. Ross Webb on 29 March 1978. As requested in that telephone conversation, we have further explored tortional moments associated with unintentional eccentricities, and have found it to be within the limits established in UBC section 2312(e)5.

We assume that these findings answer the concerns voiced by your office relative to the HEW Guidelines for Minimum Standards of Construction. Should you have further questions regarding this matter, please feel free to contact us.

Very truly yours,

Kurt Rogness

Kurt Rogness
Vice-President
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

vsw

Encl: 1

cc: Henry Ray, Ross Webb, HEW; Clint Hewitt, Paul Kopietz, Gene Kogl, U/M; John Scott and John Patterson, Consultants.

Johnston-Sahlman, Inc. • CONSULTING ENGINEERS

640 Sexton Building • Minneapolis, Minnesota 55415 • Telephone: (612) 339-2764

JOHN W. SAHLMAN
JOHN D. PEARSON

April 3, 1978

Mr. Kurt Rogness, Vice President
Health Sciences Architects & Engineers, Inc.
2829 University Ave. S.E.
Minneapolis, Minnesota 55414

Re: University of Minnesota
Health Sciences Complex. Unit "F".

This letter relates to the meeting yesterday afternoon with you, Paul Andersen, myself and (by telephone) Mr. Roy M. Webb, Structural Consultant for HEW in Washington, D.C. The meeting was in response to a telephone conference on 10 March between you, Ross Webb and Henry Ray during which the architects were requested to provide structural data related to the performance of the building under seismic forces. These forces were to be as defined by UBC Zone 1 criteria.

Pursuant to that 10 March conversation, an analysis was prepared by Dr. Andersen in which wind and seismic forces acting on the building frame were compared. Based upon the study of what we considered to be the weakest frame in the building, wind resistance was reported to Mr. Webb as being more critical than seismic resistance. Seismic shear was only 62% of wind shear, while seismic moment was only 59% of wind moment. The period of vibration was found to be .51 seconds, which is less than the .8 second maximum which Mr. Webb required.

Mr. Webb was essentially satisfied with the data provided, however, he expressed concern related to horizontal torsional moment due to unintentional eccentricity which had not been explored in our study. Our analysis which was completed recently was made in accordance with UBC 1976-Sec. 2312 (e)5. It revealed that torsion which may develop accidentally will result in an increase in base shear of less than 5 percent.

This, we believe, will answer the concerns raised regarding seismic torsional resistance for the Unit "F" structure.

Yours very truly,

JOHNSTON-SAHLMAN, INC.

John Sahlman

John Sahlman
JS:vf

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-3833

April 14, 1978

Mr. Paul J. Maupin
Health Sciences Planning Office
4104 Powell Hall
University of Minnesota
Minneapolis, MN 55455

Regarding: Unit F Action Items

Dear Paul:

Please find attached a copy of my 6 March memo to you regarding action items prompted by the issuance of the Unit F Appendix. We have, for expedience, spliced into my memo your responses contained in your memo to us dated 12 March 1978. Further clarification on several points is needed.

Your response to item 1 and 2 indicates a lack of understanding of our concerns relative to communication systems for Unit F. The change to a plenum ceiling air return system has resulted in the need to contain communication wiring in conduits in lieu of cable trays. Thus, it is "advisable" to program all communication systems during the document preparation phase to minimize later costs by providing the necessary wireways as part of the electrical contract. Bill Wik's input, to date, has been limited to systems on Floor 2 plus some A-V and a nurse call on Floor 4. Our electrical engineers have spent time the past two weeks with Bill to further detail the very sketchy work completed earlier this year, but more programmatic work remains to be completed in our assessment.

An example, which would serve to illustrate what we are looking for, can be drawn from just the simple reliance on movable A-V equipment. If television receiver is brought into a classroom or conference room on a cart, where is it connected? What are the connections? (Power, closed circuit, antenna) If a television camera is used in a room, what is the power source? (24 volt or 120 volt) Is it connected by co-axial cable back to the Unit A media center? If a simple slide projector is used in a space, is there conduit provided to remote the slide advance and focus control? These are all inputs which Bill Wik can provide if we have a program.

The areas where further program input from your office is necessary are the following:

(Con't next page)

A. Telephone systems - Do we provide answering centers for faculty members not at their desks? How is it organized?

B. Conference room A-V - A number of "remote control conduits" are called for in the D.D. comments. What size is required? Is it a common need for all conference rooms? Will any T-V or other A-V device be used in the space and require conduits, junctions boxes, or outlets?

C. Pharmacy Teaching lab A-V and voice amplification - No television, remote control, or voice amplification provisions have been made for Pharmacy teaching labs. What is required? If cart mounted T-V is used, where will it be connected? Spaces to be considered are 2-117, 3-101, 3-110, and 3-114.

D. Drug Information Center communications equipment - We understand that this space will tie into a data bank in Diehl. What devices will be used? (CRT, microfice, high speed printer) What are the conduit or connection requirements?

E. Educational Development A-V and communication equipment - We assume that this area will eventually have a video recorder and playback unit. Should any conduit systems or connections be provided now?

F. Nursing's Large Group Lab A-V - No television capability or remote control conduits have been provided for this space. Should they be?

G. Animal Quarters Intercom - An intercom has been requested in the Unit B/C animal facility to make communication easier between handlers and researchers, etc. Should one be provided in the Unit F facility? Such a system is virtually impossible to add after construction is complete in such an area.

While not absolutely mandatory, we recommend that whenever possible, communication needs be anticipated and accounted for in our contract documents. We make this recommendation because we believe it to be simply in the best interest of the project.

Relative to item 3, a meeting was held between the Users, Drs. John Staba and Dan Miller of Pharmaceutics, and Gus Scheffler of Environmental Health and Safety to determine the best method of fume exhaust from the Chromatography and Extraction Labs. Basic agreement was reached, but further detail work is contingent on securing catolog cuts of the various equipment used in these labs from HSPO. With this information, we will proceed and involve a specialist from Environmental Health and Safety in the design of the fume control apparatus.

Relative to item 4, the policy letter regarding the use of injection anesthetics has not been filed with our office or ROFEC.

(Con't)

Relative to Item 5, an agreement on the approach to lighting was reached and we have subsequently made great progress.

Relative to Item 6, we are awaiting input from Paul Kopietz as to the method of bidding the fire management system. It is due 15 April according to the Advisory Committee meeting notes.

Relative to Item 7, we are in need of further information on the nitrogen tank, plus a review and acceptance of our design criteria for sizing the tank. The two items we need information from you on are (a) the preferred supplier or list of approved suppliers for the tank and (b) the anticipated volume of "liquid" nitrogen, if any, that would be drawn from the tank. Dr. Dan Miller has requested this capability and other researchers, such as Dr. Hamilton from Anatomy, have inquired into the availability of liquid nitrogen as provided in Unit F.

The tank has been sized at 2,000 gallons to respond to a useage factor for outlets of 5% over an 8-hour day, with no liquid nitrogen drawn off, and with the tank filled every 3 months. The drawing off of liquid nitrogen or a higher useage factor would result in a shorter period between refills. What is the preferred refill interval from the University's point of view?

Relative to Item 8, we have recommended the use of package ventilation units in D.D. and again affirmed that recommendation in our responses to the University review comments (Item B-4 of the Outline Spec by Merz and Hudalla) as part of Appendix L-10. The reasons listed are related to cost, mounting location and maintenance. We made our recommendation and plan to proceed on this basis unless we hear to the contrary from you or Paul Kopietz.

Relative to Item 9, there had been no communication on special environmental conditions in the Animal Facility prior to the comments from Dr. Manning on Design Development Documents. Contrary to Dr. Manning's D.D. comments, a request was made in our last meeting 11 April to provide a dialable temperature range from 65° - 80° F, with a consistent 50% relative humidity.

Relative to Item 10, there had been no communication with users regarding general laboratory environmental control standards prior to our recent meetings on the subject. Over the past months, several design standards relative to cooling have been considered. They are the following:

(a)	1972 Unit F: (Similar to Unit A)	Outdoor 95° F Indoor 75° F
(b)	1978 Unit F: (design development recommendation)	Outdoor 89° F Indoor 75° F
(c)	1978 Unit F (Engineering & Construction recommendation)	Outdoor 89° F Indoor 78° F

(Con't next page)

From the user meetings, we have reached some conclusions which we are adopting as criteria for the final design, unless we are directed to the contrary. Due to the fact that many pieces of equipment cannot tolerate temperatures above 75° F, we are designing the cooling system to the slightly higher standard outlined in Design Development.

The User should realize that, for every degree temperature rise above 89°, there will be a corresponding degree temperature rise in the building. Thus, while we are providing a slightly higher standard of cooling, there will be days when the temperature is in the mid to upper 90°'s that certain lab equipment will not function. We will, at these times, have to rely upon certain spaces which are designed to an even higher standard.

Certain spaces have been designed to a higher standard in conformance with User requirements. The following spaces will be designed to maintain a constant temperature of 75° F regardless of outdoor temperature conditions:

8-113 Instrument room
8-131 Micro-work room
8-132 Micro-work room
8-133 Constant temperature lab
8-135 Clean room
8-136 Transfer room
9-102 Instrument lab
9-124 Instrument lab

In addition to these spaces, other controlled environments will be provided in environmental control rooms. Detailed discussions have been held the past few weeks to precisely define the attributes of these rooms. Efforts will be made to standardize the specs for these rooms whenever possible and conform to specs and standards which the Planning Office and Engineering & Construction have developed. To do this, however, we need those specs and standards which you have prepared. Will you please supply this information to us?

Provision of the information requested from you in this memo and the affirmation by you of the design criteria herein identified is essential to our meaningful progress on the contract documents for Unit F. Your cooperation will be greatly appreciated.

Sincerely,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

Kurt

Kurt Rogness
Vice-President

vsw cc: Clint Hewitt, Cherie Perlmutter, Paul Kopietz, Dean Ramey, Dean Weaver, Gene Kogl, John Scott and John Patterson.

THE ARCHITECTS COLLABORATIVE, INC.
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

MEMO TO: Paul Maupin

MEMO BY: Kurt Rogness

SUBJECT: Action Items by University in Response to Unit F Appendix

DATE: 6 March 1978

The purpose of the Appendix was to supplement the basic Design Development Documents which form the basis for progress into the Contract Document Phase. There are a number of items which require University action which we would like to highlight. (All other items contained in the Appendix must, nevertheless, bear scrutiny.)

1. Please provide information on type and size of conduits needed for the communication systems.

2. Please provide necessary performance requirements for the nursing school intercom systems.

   - Items #1 & 2: This information has been provided by this office and Mr. Bill Wik of the University's Media Resources Department to the architects (Herman Zinter) in August and October, 1977, through user meetings. (See minutes of meeting and layout drawings that were provided by the University.)

3. A meeting should be set up by HSPO between Gus Scheffler, Dr. John Staba and Dr. Dan Miller and this office regarding fume exhaust for the chromatography and extraction labs, Floors 8 and 9.

   - Item #3: Mr. Gus Scheffler of the University's Environmental Health & Safety Department, along with other agencies, has established a standard that has to be complied with by both the users and the architects. This office will schedule a meeting with all parties concerned for clarification and understanding of all regulations and codes that apply.

4. Please provide a policy letter to ROFEC and to this office regarding the use of injection anesthetics in the animal O.R.

   - Item #4: In accordance with the Pharmacy/Nursing Advisory Committee's direction, this office is presently undertaking this task, and a letter will be forthcoming at a later date.

(Con't next page)

5. A meeting should be set up by HSPO to discuss task lighting concepts to be employed on Unit F. Users, Engineering and Construction, Interiors, HSPO and this office should be represented.

   - Item #5: This office scheduled a meeting for March 13, 1978, for all parties concerned in which Mr. Dave Kerkow of the University's Engineering & Construction Department defined the University's position on lighting with regard to the task concept and the energy code. In summary, a mutual design approach was agreed upon between the architects and the University.

6. Please advise us as to the University decision on the method of bidding the fire management system.

   - Item #6: The method of bidding fire management systems is still being discussed; therefore, a decision will be forthcoming in the near future.

7. Please advise us as to the University decision on whether to purchase or lease the nitrogen tank.

   - Item #7: The decision has been made to lease the nitrogen tanks by the Pharmacy Nursing Building Advisory Committee. (See meeting minutes.)

8. Please advise us as to the University decision on built-up versus packaged ventilation units for elevator machine room, basement machine room, penthouse machine room and stair pressurization unit.

   - Item #8: We believe this should be presented by the architects to the University stating the pro's and con's of both systems, along with probable cost information. This should be considered part of the normal professional services under base fee.

9. Please advise us as to any special environmental conditions (other than 75° F, 50% RH) for the Research Animal Facility. Drs. Manning and Miller should be consulted.

   - Item #9: Our records indicate this item has been discussed in detail with both the user and the architects during the design development phase meetings. However, if you require additional information, please schedule a meeting through our office using the normal procedure outlined below.

10. Please advise us as to User needs related to environmental control standards referred to in Item V. (p. 13) of our responses to the University Review. Is it necessary to be able to maintain a constant temperature/humidity environment year round for the ongoing scientific work on the 8th and 9th floors?

(Con't next page)

10. (Con't)

- Item #10: This item has been discussed in detail with both the user and the architects during the design development phase meetings between the University and the architectural firms involved. It should therefore be recorded in meeting notes. However, if you require additional information beyond what has been provided, please schedule the necessary meeting through our office at your convenience.

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

May 5, 1978

TO: Dean Irene Ramey
Dean Lawrence Weaver
Paul Sodergren
Joe Pacello
David Garloff
Paul Kopietz
Pete Merz
Bill Wik
Bob Mackey

FROM: Paul Maupin

SUBJECT: Unit F Action Items

It is my understanding that Gary Zaworski from our Health Sciences Planning Office has contacted you by phone some time ago requesting your input and direction in answering the issues addressed in Kurt Rogness's letter of April 14, 1978. A copy of Kurt's letter is attached for your information.

As of this date, we have not received your comments or direction, and we are unable to answer Kurt's letter. I am sure this delay has caused the architects to place certain design issues on "hold".

Obviously, we look forward to your response so that we may respond to Kurt in a unified University direction.

PJM:rt

Attachment

Office of the Dean

UNIVERSITY OF MINNESOTA
TWIN CITIES

School of Nursing
3313 Powell Hall
500 Essex Street S.E.
Minneapolis, Minnesota 55455
(612) 373-3462

TO: Paul Maupin, Coordinator
Health Sciences Planning Office

FROM: Irene G. Ramey, Dean
School of Nursing

DATE: May 9, 1978

SUBJ: Unit F Action Items

Regarding your memo of May 5th, 1978, we have in the past addressed, in great detail and length, all the issues pertaining to the School of Nursing listed in Kurt Rogness's letter of April 14, 1978 and his memo of March 6, 1978 with the exception of the paging system (detailed below). Given such, I am reluctant to reiterate these issues. I would appreciate it if your office would trace the whereabouts of the information we supplied the architects on these issues or secure an explanation as to its apparent disappearence.

Regarding the paging system, it is to be contained to floor 6 and a limited area of floor 7.

Floor 6

The microphone is to be located at the receptionist desk (room 188). Five speakers are to be disbursed throughout the floor in the hallways at the following locations:

1. The intersection of hallways 94 & 95.
2. The intersection of hallways 82, 85, & 95.
3. The intersection of hallways 78 & 79.
4. The intersection of hallways 73 & 74.
5. In hallway 70 centered between rooms 176 & 183.

Floor 7

One speaker located in hallway 89 center among rooms 126, 127, 130 & 131.

Before acceptance of the paging system, I would like to receive from the architects an estimate of the paging system and its installation and an estimate of associated architectural fees and reimbursables.

Continuing Education and Extension

UNIVERSITY OF MINNESOTA University Media Resources
319 15th Avenue S.E.
Minneapolis, Minnesota 55455

May 10, 1978

To: Paul Maupin
From: Bill Wik BW

Re: Comments on an April 14, 1978 HSAE letter.

I would be glad to make specific recommendations if I were aware of the program intended in regards to items B through G. However, since I am not aware, I can only make general comments at this time.

On B. - Conference room AV: Suggest consideration of remote control/projector sound conduit for rooms longer than 25'. This conduit would provide a single gang 45" up on the rear wall (with an adjacent ac power outlet) connected to a single gang 12" up, centered on the front wall (also with an adjacent ac power outlet). A conduit also would connect to a single gang 12" down on the front wall for a future movie speaker. Movie screen, speaker and clock should be positioned so as not to interfer with each other.

On G. - Animal Quarters Intercom: If IC is required we would need a separate conduit system. If paging only is required perhaps it could be done more easily through the fire management system. Recall a Gus Scheffler memo which indicated that he would prefer local paging be interrupted anyway when an actual fire alert was in progress. This approach for paging would allow this interruption to be accomodated.

UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
Physical Planning Office
26 Folwell Hall
9 Pleasant Street S.E.
Minneapolis, Minnesota 55455

May 12, 1978

TO: Paul J. Maupin

FROM: Paul E. Kopietz PEK

SUBJECT: HSA & E Letter of April 14, 1978 Concerning Unit F Action Items

I have response to two items in this regard. They are as follows:

1. I have thoroughly reviewed with Pete Merz Item No. 8 regarding the Package Units for certain rooms. We find their proposal acceptable to use package units in certain instances.

2. On the last page of the April 14th letter, the next to the last paragraph discusses Environmental Rooms. I would gather from this that you intend to have the HSA & E do these rooms. Based upon our experience in A, and the way we handled B/C, it would seem proper for the Environmental Rooms to be done in house. Why should HSA & E collect a fee for our Engineering?

PEK:mn

UNIVERSITY OF MINNESOTA
TWIN CITIES

College of Pharmacy
115 Appleby Hall
128 Pleasant Street S.E.
Minneapolis, Minnesota 55455

May 17, 1978

Mr. Paul J. Maupin
Director
Health Sciences Planning
4-104 Powell Hall
University of Minnesota

Re: "Unit F Action Items"

Dear Paul,

In view of the fact that no architect has indicated a need for a meeting with either faculty members or me within the last eight to ten weeks, it is with some surprise that I now find myself responding to "Unit F Action Items", outlined in a letter to you from Kurt Rogness. This letter suggests to me a lack of communications and a lack of continuity, as my responses contained herein will describe. Moreover, I might add, the last meeting I scheduled at the request of Kurt Rogness was cancelled because one of his people could not attend. With these factors in mind, I will proceed by section:

1) Paragraphs (2) and (3) "Items relative to communications systems for Unit F": I refer the architects to Mr. Bob Mackey for specifics. In general, it would appear from numerous indications, that Kurt is making a distorted mountain out of what is a small mole hill. It is my understanding that the architects have a working and "meaningful" knowledge of this building and its intended use. Our federal grant commitment states a building life of 40 years. Without a doubt, the art and method of teaching will change numerous times within that lifespan. Countless hours of faculty input have been given the architects as they attempt to function in an expert capacity. I do not see the need for this question to arise; the faculty has put forth years of effort in providing input for the architects to digest and come forth with a building that can change with time and need. If additional information still be required, I again refer the architects to Bob Mackey.

2) Item (A) "Telephone Systems": What is an "answering center" by architectural definition? We are planning a system in which a designated secretarial person will act in a receptionist capacity for faculty members not at their desks. (Example: the seventh floor Soc/Admin. pharmacy secretary so assigned will answer phones for all faculty in that unit, after three rings or other "system".)

3) Item (B) "Conference Room AV": See comments dated 5/10/78 from Mr. Bill Wik for these specifics.

   a) Remote control for projector required (Ref: Bill Wik)
   b) Electrical outlets: HSPO has information.

4) Item (C) "Pharmacy Teaching Lab": No remote control or voice amplification is required, as per design-development documentation. Adequate electrical outlets for movable AV equipment are required.

5) Item (D): "Conduit and connection requirements for the Drug Information Center": Requirements here are very simple: three phone lines plus standard 120 outlets. I am wondering if Kurt would care to elaborate on the reason for this question? It is our understanding that all equipment he lists can function on phone lines, and we do project a need for the lines and outlets as stated above.

6) Item (E) "Educational Development Area": We anticipate no need for "conduit systems and connections" in this area. Does not all equipment mentioned by Kurt plug into a simple 120 wall outlet? Does his engineer indicate a conduit necessary for a video recorder? If Kurt has some expert advice to offer in this regard, please have him do so; otherwise, there is no need for this question. This matter has been thoroughly discussed at user meetings. Kurt knows the answer.

7) Item (F) "Nursing Lab": Not applicable to pharmacy response.

8) Item (G) "Animal Quarters Intercom": An animal quarters intercom is not necessary in the Unit F facility. In contrast, Unit B/C has infectious disease animals, thus a legitimate intercom need we do not parallel.

   An intercom system is expensive, and we cannot justify it in the relatively small animal unit of this building. In addition, many facilities have learned that these systems are not well utilized and have a poor "longevity" following decontamination procedures. If absolutely necessary, a two-way radio system can be utilized. Dr. Ken Miller has been consulted, and he cannot document a need for an intercom in this area.

   If I might inquire, who made this intercom request? In checking with Dr. Manning, Dr. Miller, and Gary Zaworski, I can document no similar request. Is this an architectural initiative? (Or do we have B/C plans being utilized for Unit F?)

   (Query: can a two-way radio system be utilized effectively in an environment of structural steel?)

9) Paragraph between Item (G) and Item (3) "Communications": We have discussed at numerous meetings the anticipated and projected needs for Unit F, with architects present and presumably taking notes. For what are they asking in this paragraph?

10) Item (3) "Catalog Cuts": It is my understanding that HSPO has supplied catalog cuts to the architects as of 4/15.

11) Item (4) "Injection Anesthetics": I have written and filed a letter to HSPO and architects in this regard.

12) Item (7) "Nitrogen Tank":

(a) "Suppliers": If the architects do not have this information, they should contact Mr. Bob James, Purchasing Director for the University of Minnesota.

(b) Query: What does "Dr. Hamilton" have to do with the Unit F Nitrogen Tank? For that matter, who is Dr. Hamilton?

(c) It is my understanding that the anitcipated volume of nitrogen gas has been discussed thoroughly with the architects. I confirmed this in a phone call with Dr. Abdel-Monem, of the pharmacy faculty. Basing his estimate on chemistry department current use of nitrogen gas, he estimates that, with 50 graduate students in Unit F, we will need 5000-6000 gallons per year.

(d) With regard to the "preferred refill interval", I have no access to this information. The question should be properly directed to Mr. Bob James (above).

13) Item (8): I have no information on which to base an intelligent reply.

14) Item (9): WHO made the April 11 request with regard to temperature/humidity? I was not at this meeting and am not aware of such a request. As our general rule, all requirements for this facility are per Dr. Manning.

15) Item (10): Contrary to Kurt's statement, there has been communication with users regarding general lab environmental conditions. (I would like to remind Kurt that the Minnesota Energy Code does not apply to labs, in my understanding.) These spaces obviously have special conditions and special needs.

It is our understanding that Unit F is to be designed to meet programmatic needs. In the rooms listed (page 4, letter to Paul Maupin) we anticipate a constant temperature need of 65 degrees and humidity control. (Not the 75 degrees mentioned by Kurt.)

With regard to "general" lab spaces, surely the architects recognize and understand the fact that chemicals which are unstable when subjected to adverse heat and/or light conditions, will be used in these labs. Catalytic reactions, even explosions, present a very real and significant problem with which we expect the architects to deal in designing Unit F.

UNIVERSITY OF MINNESOTA
TWIN CITIES

Boynton Health Service
410 Church Street S.E.
Minneapolis, Minnesota 55455

May 18, 1978

Memorandum

To: Gary Zaworski, Health Science Planning Office, 4107 Powell Hall, East Bank Campus

From: G.L. Scheffler, Assistant Director, Department of Environmental Health and Safety, Boynton Health Service

Subject: Health Science Unit F

In answer to your question as to handicapped access to Unit F, it would be my opinion that the grade of the walk on the south side would have to allow handicapped access to the main building entrance. You might want to get an opinion from Les Szomor, Physical Planning, who is doing the majority of campus planning for handicapped access.

The answer to your inquiry about use of fire alarm sprinkler systems for other paging is that it can be used for any additional paging as long as the operation of the fire alarm automatically overrides and cuts-off any such other page once the alarm has been activated and until properly reset no other paging can take place.

GLS:teg

UNIVERSITY OF MINNESOTA
TWIN CITIES

Boynton Health Service
410 Church Street S.E.
Minneapolis, Minnesota 55455

May 18, 1978

Memorandum

To: Gary Zaworski, Health Science Planning Office, 4107 Powell Hall, East Bank Campus

From: G.L. Scheffler, Assistant Director, Department of Environmental Health and Safety, Boynton Health Service

Subject: Health Science Unit F

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GLS:teg

UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Learning Resources
544 Diehl Hall
Minneapolis, Minnesota 55455
(612) 376-4666

TO: Paul Maupin and Gary Zaworski
Health Sciences Planning Office

FROM: David Garloff, Ed.D. David

DATE: May 23, 1978

Dear Paul and Gary:

I have reviewed the memo from the architects concerning Unit F's plans. It has occurred to me that we have examined quite extensively the communications and learning resources needs in the past. If the plans were lost or discarded it will be rather discouraging to have to redesign and rethink the original system.

Given there will be no way of recouping the plans, I would suggest that we reconvene the interested parties and discuss presenting a new set of information to the architects. Let me know if this kind of a meeting will be held in the near future.

DG:lw

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

May 25, 1978

Mr. Kurt Rogness
Health Sciences Architects & Engineers
University Park Plaza - Suite 704
2829 University Avenue, S.E.
Minneapolis, Minnesota 55414

SUBJECT: Unit F Action Items

Dear Kurt:

The attached letters, along with the information provided in our meeting of April 24, 1978, should answer all of your questions and concerns stated in your letter of April 14, 1978.

We understand from Paul Kopietz that all questions regarding the method of bidding the fire management system have been resolved and answered. In Dean Ramey's attached letter, she requests a paging system; however, I fail to see the necessity for this request when we can utilize the fire management audio system.

If we can be of further assistance, do not hesitate to contact us.

Yours truly,

Paul J. Maupin
Health Sciences Planning Coordinator
Health Sciences Planning Office

cc: Clinton Hewitt
Cherie Perlmutter
Paul Kopietz
Eugene Kogl
Dean Irene Ramey
Dean Lawrence Weaver
John Scott
John Patterson

Attachments

UNIVERSITY OF MINNESOTA
TWIN CITIES

College of Pharmacy
115 Appleby Hall
128 Pleasant Street S.E.
Minneapolis, Minnesota 55455

MEMO

May 30, 1978

To: Paul Maupin
Gary Zaworski

From: Joe Pacello

Re: Unit F meeting: 5/25/78

During a review session including extensive representation from both the School of Nursing and the College of Pharmacy, the following issues were resolved and questions raised:

1) Pharmacy students will (by mutual agreement) utilize room 1-109, now designated as "Student Organizations." (Pharmacy student phone needs are covered in the College of Pharmacy Telephone plan already submitted). This Rm. (1-109) should be re-labeled: "Pharmacy Student Organizations" for clarity and future reference.

2) A strong request was made for pay phones and on-campus phone placement in a quiet, relatively private location. Locating them at the rather noisy entrances to the dressing rooms was not considered appropriate.

3) Request made and noted for clocks in student organization rooms. (placement=south wall)

4) Request made for trash receptacles in Student Lounge area:
   a) 10 large units programmed for placement by Int. Design
   b) Interior Design to check into potential of small units under lounge tables.

5) No need seen for bookcase in Student Conference Room, floor one. (= Delete)

6) Request that 2-double face clocks be suspended from ceiling in Student Lounge-Locker area (programmed by Int. Design) (instead of poorly visible wall mounted clocks)

7) Mail slots in Student Locker doors: Pharmacy indicated strong need for mail slots; nursing did not share this concern. Tenative Agreement: "Nursing would go along with the mail slots if the expense was not too high".

   This subject has become somewhat of a thorn in our sides by now: well over eight hours have been exhausted in discussing student lockers, in four separate meetings that I have attended.

   No definite price was readily available, thus I phoned Kurt Rogness

this afternoon (5/25) and requested that he provide us with information on which we can base and make an educated intelligent decision.

I have requested that such a determination be made, documented, and implemented, once...and for all. Mail distribution plans are the individual problems of the respective school, however, we cannot leave this (shared-space) issue dangling in uncertainty. Kurt advised me that a price quote would be soon forthcoming, thus we hopefully shall be able to proceed to a decision in the very near future.

8) Mail Distribution plan and general handout distribution plan: The alphabetical "pigeon hole" arrangement was described for each school. Once again, considerable disagreement as to policies and needs was apparent. It is my understanding that each school will work out its own policies in this regard. (see College of Pharmacy Mail Distribution Plan, submitted earlier)

9) In an "orientation overview" of the entire building, questions arose as to the status of 4 rooms. (These questions have not been resolved and need answers.)

a) Rm 5-161: The College of Pharmacy and Interior Design, educated and directed by HSPO, have been working under the belief that this room was space allocated for pharmacy. (Dean Weaver has been so consulted, Dr. McKennell has been so consulted, and Interior Design has been so instructed) Furniture has been budgeted from the College of Pharmacy Budget and the space has been included in the College of Pharmacy phone plan. (Did the School of Nursing budget furniture for this space?)

If this space is not be be utilized by the College of Pharmacy, or if it is, I now request full and adequate documentation and explanation to all parites concerned from Gary Zaworski, of the Health Sciences Planning Office. I think the College of Pharmacy, Dean Weaver, and Dr. McKennell deserve an appropriate explanation, and I would like it on paper if that is possible. (If there is to be any change from what they were told.) Is not a function of HSPO to educate those of us who are not trained in architecture and planning?

With regard to this area of "documentation", I would now request that this be given more serious effort whenever a decision is made, with results/implications outlined. It would appear that Gwen Shagrin (Int. Design) and I have both been badly misinformed as to the proper designation of Rm. 5-161. I think it desirable to avoid future problems of this nature. (example: a verbal committment of mail slots in locker doors is not appropriate...)

Other rooms of Questionable Designation:

b) Rooms 7-170, 7-171, and 7-172: At one time, it was my understanding that these rooms were programmed as pharmacy spaces. At the meeting today (5/25), they were described as shared spaces. Frankly, at that time, I could not recall; however, after reviewing drawings and consulting with one of the architects, I think these rooms are properly designated as pharmacy spaces. (contra. to HSPO instruction to Int. Design in budgeting and planning furniture) For reference, please see Nov, 1977

drawings. I am not aware of a room classification change since that date. I ask that this issue, as well as the one concerning Rm 5-161, be resolved at the earliest possible date.

10) Gwen Schagrin of Int. Design will provide all meeting participants with changes in her programming capacity. (In addition to this memo)

11) Paul Sodegren and I will commence meetings with Lee Meyers of Graphics on June 1st. Meetings with individual users will follow.

12. Additional student input is both desirable and necessary in this planning effort. Meetings will be scheduled following final exams.

cc: Paul Sodegren
June Plawecki
Fran Dunning
Judy Bell
Kathy Westra
Dean Weaver
Gratia Ouellette
Maureen McGrath
LuAnne Matke
Gwen Schagrin

UNIVERSITY OF MINNESOTA
TWIN CITIES

College of Pharmacy
115 Appleby Hall
128 Pleasant Street S.E.
Minneapolis, Minnesota 55455

May 30, 1978

To: Paul Maupin
Gary Zaworski
Kurt Rogness
Gwen Schagrin

From: Joe Pacello

Re: Mail Distribution Plan for Unit F

Pursuant to your request, Gratia Ouellette and I have worked out the preliminary details of a functional mail distrubtion plan for the College of Pharmacy in Unit F.

a. Central Delivery Point: All incoming mail should be delivered in bulk to the 5th floor College of Pharmacy Administration Area; to be placed in the Xeroxing room.

At this point a designated office person would sort the mail into the following distribution sites:

b. Peripheral Distribution Sites:

1) 9th floor research office
2) 8th floor research office
3) 7th floor Hospital/Clinical office
4) 7th floor Social Administrative Pharm. office
5) 5th floor Student Affairs office
6) 5th floor Educational Development office
7) 5th floor Continuing Education office
8) 5th floor Central Administration/Dean's office
9) 3rd floor DIC
10) 1st floor Student organizations office (1-109)
11) 1st floor central supply office

After sorting at the Central Delivery Point, a designated (Central Administration) person shall deliver each stack of mail to its respective peripheral distribution site. (see list, locations 1-11)

At each of the distribution sites, an office person shall distribute the mail to the faculty, staff, graduate students, and the Student Organizations office, to the respective undergraduate students. The site distribution scheme will undoubtedly vary from floor to floor, according to need. However, it is imperative that a site system be developed by the users at each location to best meet their needs.

c. Student Mail: With regard to the distribution of student mail and notices, two possibilities exist: 1) planned for first floor is a section of "alphabetical pigeonholes", adequate in size to accommodate a number of

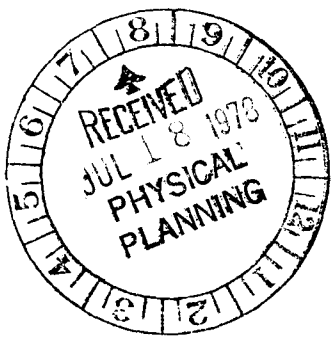
envelopes, notices, etc. One such row is planned for each pharmacy class. 2) It is our request (and hope) that each student locker will have a door with a mail slot. (The issue now is cost...inquiries are being made... this is not a priority with nursing students). If we are able to fund the locker door mail slots, each student may receive personal mail at his/her locker, provided the student organizations will provide the personnel for distribution. Student representatives have indicated this to be highly desirable and feasible. Thus, efforts are being made to implement a system of this nature - If we can finance it. Student mail would then be delivered to Rm 1-109 (the space designated for pharmacy student organizations) and then distributed to lockers. Notices of a large number + general nature would be distributed via the "alphabetical pigeonhole" system. If we are unable to fund the slotted locker doors, an alternative plant will be developed.

To most efficiently and effectively distribute the mail among numbered lockers shared with nursing students, a master list of all locker assisnments can be utilized easily. (By students and faculty if there is need) (Policies will have to be adopted accordingly).

cc: Gratia Ouellette
Les Collins
Dean Weaver
Dean Kabat
Dean DiGangi
Dr. Wertheimer
Dr. Portoghese
Dr. Staba
Dr. Rippie
Dr. McKennell
Dr. Angaran
LuAnne Matke
Maureen McGrath

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-3833



17 June 1978

Mr. Victor E. Scott
Federal Project Coordinator
Department of Physical Planning
University of Minnesota
18 Folwell Hall
Minneapolis, Minnesota 55455

Regarding: Early Contract Footings (P/N - ECF)
Minnesota-HP-5C-063 School of Pharmacy
Minnesota-NU-5C-077 School of Nurse Training
University of Minnesota Health Sciences
Minneapolis, Minnesota

Dear Mr. Scott:

This letter is to advise you that the Architect has sent to all known non-Federal interested parties complete sets of the Unit F - Pharmacy and Nursing Facility Early Contract Footings (P/N-ECF) drawings and specifications for their review approval and files.

We concur with the decision to award a contract to the low base bidder, Arkay Construction Company of Minneapolis, Minnesota.

We trust that the above statements are satisfactory for ROFEC. Please forward this information to ROFEC at your earliest convenience.

Sincerely,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

Duane E. Blanchard

Duane E. Blanchard
vsw

cc: Clinton Hewitt
Eugene Kogl
Paul Maupin
John Patterson

BID TAB; 30 JUNE 1978 - 2:00 P.M. CDT

THE ARCHITECTS COLLABORATIVE, INC.
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
EARLY CONTRACT FOOTINGS (P/N - ECF)
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

BIDDER:	BOND OR CHECK	ADDENDA NO.1,2,3 RECEIVED	CERT. OF E.O.	BASE BID AMOUNT	UNIT PRICE A EXCAVATION (PER CU.FT.)	UNIT PRICE B CONCRETE (PER CU.FT.)	NOTES
Arkay Construction Company 8401 Wayzata Boulevard Minneapolis, MN 55426	Yes	Yes	Yes	$ 78,500	$6.50	$1.75	
Carl Bolander & Sons Co. 2933 Pleasant Avenue Minneapolis, MN 55408	-	-	-	NO BID	-	-	
M.A. Mortenson & Co. 250 Freemont Ave. N. Minneapolis, MN 55405	Yes	Yes	Yes	$ 84,600	$6.50	(-)$1.35 (+)$11.25	
Shaw-Lundquist Associates 650 Sexton Building Minneapolis, MN 55415	Yes	1 & 2	Yes	$127,800	$7.00	$8.00	
Watson-Forsberg Company 252 South Plaza Building Minneapolis, MN 55416	Yes	Yes	Yes	$ 81,900	$6.50	$4.00	

Office of the Assistant Vice President

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Planning
340 Morrill Hall
100 Church Street S.E.
Minneapolis, Minnesota 55455

July 14, 1978

Mr. Duane Blanchard
Health Sciences Architects & Engineers
University Park Plaza, Suite 704
2829 University Avenue S.E.
Minneapolis, Minnesota 55414

Dear Duane:

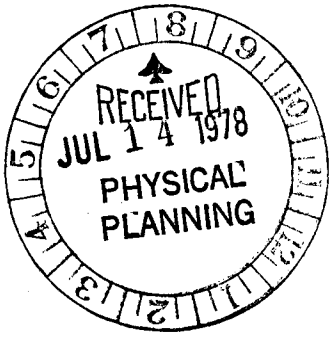
I am in receipt of a report submitted to the staff from the Armstrong Cork Company regarding an alternative to the ceiling system proposed for Unit F that would result in a fire-rated configuration at a cost considerably less than the estimate for the current system.

In light of the fact that we are experiencing cost difficulties in packaging the project and the suggested substantial savings, I would like your comments on incorporating this alternative into the plans for Unit F. If you feel a meeting is necessary with the staff to resolve any concerns or questions, please let me know. I am aware that we are approaching "D-Day" on this project and, therefore, would be willing to expedite actions to resolve any problems.

Sincerely,

Clinton N. Hewitt
Assistant Vice President
Physical Planning

CNH/sf



cc: Gene Kogl
Paul Kopietz
Paul Maupin
John Scott

DATE JUL 1 1 1978	
CH	
FILE	

Armstrong
CORK COMPANY

P. O. BOX 7290
4550 WEST 109TH STREET
SHAWNEE MISSION, KS 66211

July 2, 1978

Health Science Center Planning Office
University of Minnesota
Minneapolis, MN
Attn: Gary Zworsky

* Unit F - Suspension ceiling system - Cat # 3.25 to 4.25 per sq ft

Dear Gary:

The purpose of this letter is two-fold; first of all, it contains the evaluation I made of the existing ceiling system in the Health Science Center Units either built or under construction and how it performs against your criteria and expectations as the owners and; secondly, it contains the recommendations I have made to resolve any discrepancy between need and performance based on my observations and the advice of my research personnel.

To begin with, a restatement of the owner's needs in terms of the function of his ceiling system would be appropriate. The major needs are listed below:

1). Provide almost unlimited flexibility in partition rearrangement to the extent of providing the capability of rearranging an entire floor, corridors and all.
2). Provide an adequate lateral loading with the grid system to ensure sound partition attachment. 50 lbs/LF was the requirement here.
3). Provide the compatability to work within a 3'1"x3'1" module which has been used by the owner for the allocation of office and classroom space within the building.
4). Provide almost unlimited access into the plenum space for maintenance of the services located there.
5). Provide for a good deal of fixture placement flexibility.
6). Provide a one hour fire rating for the corridor ceilings.

This, I feel, is a fair assessment of the functions that the ceiling system should provide the owner. Now, in terms of how the current system performs against this need framework, I would like to make a number of observations. The existing system satisfies the flexibility in rearrangement requirement when dealing with Class A installations and it also works within the 3'1" module as indeed it should as it was the system designed into the project originally. It also provides a lateral loading capability of the required 50 lbs/LF. Access is the same as with any ley-in ceiling system, almost 100% except in those areas where the upward requirement of its access encounters an obstruction limiting access. The major areas where the system fails to meet the owner's needs are in the area of fixture placement and in providing a one hour fire rating. In the existing system, fixture placement is restricted to a service strip that occurs every 6'2". This greatly hampers classroom and office lay out by having the fixture dictate where furniture and tables can be positioned for adequate light. But perhaps the most severe draw back of the system is the fact that it cannot meet the new state codes requiring a one hour fire rating in all corridors.

My sources have advised me as to why the existing ceiling system cannot be rated. The first and most obvious reason is because the grid system is made of extruded aluminum. This metal is very susceptible to the effects of heat and in a fire situation it rapidly softens and drops the ceiling panels out of the grid which exposes the structure to the fire and presents a hazard to the occupants of the building. The second major reason why this system cannot be rated is because of the spring isolators used in conjunction with the suspension system. These are also susceptible to the

adverse effects of heat in that the spring coils rapidly soften and expand when heated which would cause the ceiling to drop and the components to fall from the grid.

Ther were three possible alternatives to solving the fire rating conflict. Those alternatives were:

1). Run the corridor partitions to the bottom of the deck creating a one hour seperation between the corridors and surrounding spaces.
2). Install a fire rated ceiling only in the corridors.
3). Install a fire rated system throughout the entire building.

Examination of the alternatives lead to these conclusions:

1). To run the corridor walls to the deck was not desireable from a number of view points. The major objections being that it eliminated the ability to relocate the corridors as future needs might dictate and that the cost of this approach would be astronomical as you must treat every penetration of a fire wall with fusible link fire dampers and there would be a huge number of penetrations.
2). To put a rated ceilingonly in the corridors would in effect be as limiting as running the walls up with regard to future relocation as now any move of the corridor walls would necessitate the relocation of the rated ceiling, in itself a clumsy and expensive procedure. Also there would have been the problems of interfacing two drastically different systems, removal of the spring isolators at specific points and the elimination of the service strip in the corridirs as the nature of the strip would prohibit it being used in such close proxirity to a non rated ceiling.
3). To put in a rated system throughout would probably be the least expensive and restrictive approach if a system could be developed that met all the necessary criteria.

Based on this final conclusion, I started to develop a system that would not only satisfy all the owner's needs but that would use as many standard components as possible and involve the least in terms of redesign of the project. These criteria lead to the elimination of exposed grid systems for two reasons; first, the 3'1" module dictated special size components which would lead to higher costs, if not initially because of the quantity involved then later when replacemnet becomes necessary and you are no longer dealing with large quantities. The second reason is that to use a system that there has been no specific fire test run on requires local code approval before it can be used. This process can be lengthy and there is no guarantee that the code official will approve the system.

The system that I recommend be used in this project is the Armstrong Accessible Tile System (ATS). I recommend that it be used throughout the building in its fire rated form and my reasons for this recommendation are as follows:

1). The lay out of the grid system satisfies the requirement for almost unlimited flexibility in partition rearrengement.
2). The ATS will provide a lateral loading of 60 lbs/LF which exceeds the 50 lb requirement.
3). With its 1' x1' module, ATS provides excellent partition attachment with 1' centers in one direction and 2' centers in the other. In addition, this small module more closely approximates the 3'1" module of the previous Units which means that the owner can keep his office and classroom lay outs without making a large number of changes and still maintain good visual and attachment qualities.
4). With the downard access of the ATS, you come very close to 100% accessibility
5). Fixtures can be placed at almost any location which makes the arrengement of spaces more flexible as the work areas need not be tied to a limited number of fixture locations.

6). ATS can provide the necessary one hour rating using standard components thus reducing costs and freeing up the spaces for future rearrangement.
7). Because of its installation procedure and its compliance with the criteria established for performance, ATS will need very little in the way of redesign of the project.
8). Finally, ATS can accomodate the service strip with only a minor modification to the edge of the panel and I might add that this is a modification that would have been necessary regardless of the type of ceiling system selected.

In closing, the Armstrong ATS will meet or exceed all the requirements of the building while reducing the overall cost of the ceiling system considerably. I hope that this information will be useful to you in the resolution of your ceiling problems and should you have any questions on any point please don't hesitate to contact me. I appreciate the opportunity to provide this information to you and look forward to working with you in the future.

Yours truly:

Tom Tate

Tom Tate
Armstrong Architectural Ceilings
3905 Zarthen Avenue South
St. Louis Park, MN 55416
612/335-3346

cc:D.Grady
L. Merphill

Armstrong
CORK COMPANY

July 5, 1978

P. O. BOX 7290
4550 WEST 109TH STREET
SHAWNEE MISSION, KS 66211

Health Science Center Planning Office
University of Minnesota
Minneapolis, MN
Attn: Gary Zworsky

Dear Gary:

This letter is being written per your request to provide you with an estimate of the cost to install our Accessible Tile System in a fire rated configuration in Unit F of the Health Science Center. This cost is an estimate and quoted based on the following factors:

1). Gross square footage of 198000 SF.
2). Fire rated components throughout.
3). Installation in the second half of 1979.
4). Main runners spaced as on the reflected ceiling plan sketches I provided you earlier; repeats as follows; 2' O.C., 2' O.C., 1' O.C., 1' O.C.
5). System suspended from 1½" channel.
6). Most expensive components figured in every case to ensure cost as shown was truly reflective of the possible final costs.

Please keep the above factors in mind as well as the fact that this is an estimate based on the information given and will most likely vary either up or down once the final design is completed and bids are let.

Under the situation described above, my contractors gave me a price range of from slightly under $2.00/SF to $2.20/SF. If all the "worst case" factors come bear, you should look for the higher cost.

I want to thank you for this opportunity to work with you on this project and hope that the information I have been able to provide you will prove useful in the resolution of the problems you are facing in this project. If you have any questions or need any additional information or assistance, please feel free to contact me.

Yours truly:

Tom Tate

Tom Tate
Armstrong Architectural Ceilings
3905 Barthen Avenue South
St. Louis Park, MN 55416
612/335-3346

cc:D.Grady

COST, PLANNING & MANAGEMENT INTERNATIONAL, INC.
2015 Grand Avenue □ Des Moines, Iowa 50312 U.S.A.
Telephone (515) 244-1166 □ Telex 478-463 □ Cable GREENCO

Unit F

~~Mr. Brown~~

24 July 1978

Mr. Clint Hewitt
Assistant Vice President
Physical Planning
340 Morrill Hall
University of Minnesota
Minneapolis, MN 55455

CRITERIA

That we gave Vendor.

Re: UOM "F"

Dear Mr. Hewitt,

It has been called to our attention that the Health Science Center Planning Office has suggested a possible alternate design in the primary ceiling system. Our understanding, from the beginning, has been that the specified system, which was used in the previously built units, was acceptable and desired by the University to be used in Unit F.

Any design changes of this magnitude could delay the awarding of contracts and start of construction by as much as two months or more. With building construction costs rising at 8% to 9% per annum, this delay alone could increase the cost of the Unit F project by $200,000 or more.

In reference to letters from the Armstrong Cork Co. to Gary Zworksy dated 02 and 05 July 1978, we make the following comments:

1. The total area of integrated ceilings is approximately 134,000 SF not 198,000 SF.

2. The spring isolators deleted by the Armstrong Co. are designed in the ceiling system to offset the difference in deflection of the long span structural members in case of inequalities of live loading on the floors above or below one another.

3. The Armstrong system does not include the linear air plenums which are included in the costs for the now specified system.

RECEIVED AUG 15 1978 PHYSICAL PLANNING

4. We don't believe the so called fire rated system is acceptable by code for the corridor rating without considerable additional costs for protection at all penetrations including the light fixtures.

5. There may be other costs involved not included in the Armstrong Company's stated price because of the limited information they used.

Only competitive bidding on equally designed and accepted systems could actually prove any cost differences.

It is our opinion that even with additional competition in the bidding for the integrated ceiling work, there could not be enough savings to anywhere near approach the additional costs of delay in award of construction contracts.

Sincerely,

COST, PLANNING AND MANAGEMENT INTERNATIONAL, INC.

Donald L. Hoover

Donald L. Hoover
Chief Cost Engineer

DLH:sp

UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
Physical Planning Office
26 Folwell Hall
9 Pleasant Street S.E.
Minneapolis, Minnesota 55455

July 28, 1978

Mr. Dan D. Brennen
Cost, Planning and Management International
2015 Grand Avenue
Des Moines, Iowa 50312

Subject: Unit F. Health Sciences
Project No. 297-77-0348

Dear Mr. Brennen:

As Herb has probably related to you, we plan to get together after I come back from vacation to review the schedule management aspects of the project. A key issue that must be resolved is the responsibility for the total job coordination. On B/C that responsibility was the General Contractors.

We had thought that perhaps the University should assume this role on B/C, but that was overruled. There was administrative direction that the General Contractor should have that responsibility. We are presently planning F the same way. I am sure you have some opinions on this, and it is an issue that should be resolved. It is important in my decision regarding the team that will be on the job representing the University.

Very truly yours,

Paul E. Kopietz
Director of Engineering and Construction

PEK:mn

cc: Clinton N. Hewitt
E. A. Kogl
Paul J. Maupin
Duane E. Blanchard

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-3833

14 August 1978

Mr. Paul J. Maupin
Health Sciences Planning Coordinator
University of Minnesota
4104 Powell Hall
Minneapolis, MN 55455

Regarding: Unit F - Pharmacy and Nursing Facility
Review Comments on Construction Documents

Dear Mr. Maupin:

We are in receipt fo the following University review comments:

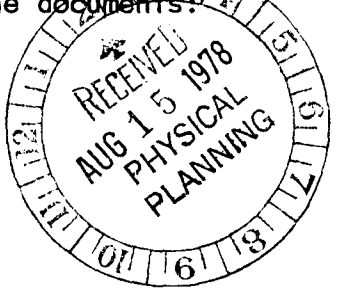
a. Mr. Nelson's Comments dated 31 July 1978 and received 4 August 1978.
b. Mr. Kerkow's Comments dated 2 August 1978 and received 7 August 1978.
c. HSPO Comments dated 3 August 1978 and received 8 August 1978.
d. Mr. Merz's Comments dated 3 August 1978 and received 9 August 1978.
e. ROFEC Comments dated 3 August 1978 and received 10 August 1978.
f. Ms. Schagrin dated 4 August 1978 and received 10 August 1978.

We understand that the above listed comments are the complete University review comments. Our evaluation of these comments suggests that we should be able to resolve these items so that the bid period can start on August 24th with a bid due date of September 28, 1978. This schedule is consistent with the review period schedule established at the Advisory Committee meeting on June 13th and as discussed at the meeting on July 26th. The proposed bid period dates were discussed with Mr. Hewitt on August 3rd as outlined in my letter to him with the same date.

We will incorporate the review comments into the documents as instructed or in accordance with the corrections identified, except where we believe the comment is not consistent with previous direction or the overall interests of the project and the University. A full accounting of each review comment will be provided to you as soon as possible after the project has been issued for bidding.

We believe the following review comments require further discussion before any change or modification should be made to the documents:

Con't on next page.



1. SECTION 08700 - FINISH HARDWARE

We do not believe it is appropriate to withdraw this section from the project bidding process and include it in the contract by cash allowance. The specifications were developed based upon the past project experiences and are consistent with the previous University decisions and directions. In addition, we retained the consulting services of the Sargent Lock Representative to insure that the quality standards of the Sargent Locks were coordinated with other acceptable manufacturers listed in the specifications.

2. SECTION 11600 - LABORATORY EQUIPMENT

We do not believe it is appropriate to withdraw the listed Laminar Flow Hoods or station from the contract and include them by allowance. The specifications are based upon information provided to us by the University. We are not aware of any additional control the University has by bidding these pieces of equipment under a separate contract bidding procedure.

3. SECTION 13610 - GREENHOUSE

The method of specifying the greenhouse is appropriate and consistent with the construction industry method of bidding this type of equipment. We have specified a custom engineered unit which is a restricted performance specification. It is further qualified by other provisions of the documents including the Mechanical Contract requirements. We do not believe it is appropriate to withdraw this item from the bidding documents.

4. SECTION 13713 - ENVIRONMENTAL ROOMS

We do not believe it is appropriate to withdraw this section from the project bidding process and include it in the contract by cash allowance. The contract documents have been developed based upon previous project experiences, University prepared specifications and research with manufacturers with substantial consultation with Warren Sherer Division of Kysor Industrial Corporation. It should be noted that Engineering and Construction has indicated that the previous HSAE specifications are acceptable subject ot the specific modifications which have been forwarded to us by them.

Our investigation indicates that wood framing is not required in the wall panels to adequately support the shelving provided in the contract. This feature would restrict the panel competition and increase costs.

5. ROOM 1-103 LOCKER ROOM

We do not believe it is appropriate to omit the plastic laminate enclosure for the lockers and the associated indirect lighting system. We believe the design for the locker room is an appropriate solution for such a

Con't on next page.

room and the suggested changes would result in a significant reduction in the character and quality of the space. The associated metal lockers are on the deduct alternate list. If this alternate is incorporated into the awarded contract, then some consideration might be given at that time for the changes suggested, but only if these changes are based upon an acceptable design alternative.

6. FLOOR 9 - ANIMAL QUARTERS

There appears to be a number of requested changes in the animal quarters which are not in accordance with previous design approval or direction. We believe these items must be reviewed together to properly resolve them.

7. MISCELLANEOUS ITEMS

There are a number of miscellaneous changes requested which we believe should be reviewed together for proper resolution. A separate meeting for Pharmacy Items and Nursing Items would seem appropriate.

We request that the Planning Office arrange for the appropriate meetings as soon as possible this week to bring the comments discussed in this letter to a satisfactory resolution. All items must be resolved this week to be included in the contract documents to be issued for bidding on August 24th. Any subsequent modification to the bidding documents will require an addendum to incorporate it into the contract documents.

Please contact me if you have questions or need a clarification of any of the comments included in this letter.

Sincerely yours,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

Duane E. Blanchard

Duane E. Blanchard
vsw

cc: Clinton Hewitt
Cherie Perlmutter
Paul Kopietz
Eugene Kogl
John Patterson
John Scott

August 16, 1978

TO: Clinton N. Hewitt

FROM: E. A. Kogl

SUBJECT: Health Science Expansion - Unit F

I have reviewed Duane Blanchard's memo of August 4, 1978 which is largely a restatement of what he said at a meeting with representatives of the Armstrong Company. The Armstrong people have not as yet responded to the issues raised and in the interest of keeping the job going it is probably advisable to drop consideration of the substitute ceiling system.

Duane's arguments are convincing for the structure they have designed, but for future work the high price we are paying for flexibility should be reexamined. As previously pointed out the ceiling system, the structural system and the metal work at exterior windows, among others, are far more expensive than required for a more conventional building.

I believe that Duane's letter reflects the inflexibility of the present group of architects in reexamining the needs for all of these systems throughout. Experience has shown that it is sometimes more difficult to rearrange partitions than in a conventional building.

It would seem that under these circumstances the University would benefit from a fresh approach by having some other firm design the K/E addition.

EAK/rll

COST, PLANNING & MANAGEMENT INTERNATIONAL, INC.
2015 Grand Avenue □ Des Moines, Iowa 50312 U.S.A.
Telephone (515) 244-1166 □ Telex 478-463 □ Cable GREENCO

FINAL COST MANAGEMENT REPORT

UNIVERSITY OF MINNESOTA
HEALTH SCIENCE UNIT "F"
MINNEAPOLIS, MINNESOTA

PREPARED BY

COST, PLANNING AND MANAGEMENT INTERNATIONAL, INC.
DES MOINES, IOWA

21 AUGUST 1978

TABLE OF CONTENTS

BASIC ASSUMPTIONS

The Final Cost Management Report is based on HSAE/TAC's review outline specifications and contract review document drawings received 17 July 1978.

This report is also based upon numerous meetings with the architects and the structural, mechanical and electrical engineers.

The generated information is based on The Orr System of Construction Cost Management and its data base.

MARKET CONDITIONS
MINNEAPOLIS, MINNESOTA

A survey of general, mechanical and electrical construction contractors during the first week of August 1978 found all contractors "busy" to "very busy". Our past experience and intimate knowledge of the construction industry shows that contractors tend to be quite secretive about information on how interested they may or may not be in bidding on projects, particularly near bid time.

Out of four general contractors, three of which submitted bids on the B/C Unit and one who was on the bid list, two reported yes they would bid on Unit F, one maybe and one would not. Of course, there well may be other contractors interested in Unit F which is a smaller project than B/C.

The mechanical and electrical contractors were even less willing to commit themselves, but none of them said, "No they would not bid".

A total of nine contractors were contacted with the following results:

- Two each mechanical and electrical "will bid" the project and three mechanical and electrical "maybe".
- One mechanical contractor "not sure" if they would bid or not, commented "The University is hard to work for. Some of the contractors say they won't bid them anymore". He later admitted "only bid time will show if they will or not".

It was also reported that the electricians just ended a six week strike accepting a ten month plus one more year contract calling for 7+% increase now and another equal amount in March 1979.

One mechanical contractor said the pipe insulators are still on strike, but not picketing the projects at present.

Although these labor negotiations normally do not affect a contractor's decision to submit bids or not, the wage increases will need to be included in their costs projections. The fact that most of the labor contracts have been signed for two years or more does help the contractors tie down these costs more accurately.

It is possible that Unit F is bidding now at a time attractive to contractors to produce work for their now busy labor force on into 1979 and 1980. CPMI is hopeful for favorable bids from the general, mechanical and electrical contractors. There is a possibility, in CPMI's opinion, bids could come in as much as $1-$1.5 million over the budget.

MARK-UP, ESCALATION AND CONTINGENCIES

A. MARK-UP

	General	Mechanical	Electrical
- General Conditions	7	10	10
- Sales Tax	4	4	4
- Overhead & Profit	6	10	10
- Escalation (Labor and Material)	4.8	4.7	5.4
TOTAL	21.24%	29.22%	30.08%

B. ESCALATION

The major General, Mechanical and Electrical construction is planned to begin 01 November 1978 and completed 29 August 1980. For the purpose of this report, the labor and material escalation was assumed to be 4.8% for general, 4.77% for mechanical and 5.4% for electrical construction.

C. CONTINGENCIES

All design and market contingencies shown on cost reports are now incorporated in the marked-up costs of labor and material.

CURRENT BUILDING CONSTRUCTION WAGE RATES
MINNEAPOLIS, MINNESOTA

CLASSIFICATION	HOURLY WAGE RATE INCLUDING FRINGES
Laborer	$10.20
Equipment Operator (Class I)	12.03
Cement Mason	11.74
Brick Mason	12.56
Structural Iron Worker	13.04
Carpenter	12.13
Roofer	11.82
Painter	11.37
Plumber	13.62
Electrician	13.97
Sheetmetal Worker	13.37
Plasterer	12.42

UNIVERSITY OF MINNESOTA UNIT F

SUMMARY OF FINAL CONSTRUCTION COSTS

				$ SF	%
-	Early Excavation Contract	$ 368,800			
-	Early Steel Contract	1,393,000			
-	Early Foundation Contract	78,500			
	Subtotal		$ 1,840,300		
-	General Construction	$7,524,346			
-	Equipment Group I	1,602,380			
	Subtotal General		$ 9,126,726		
-	Total General Construction		$10,967,026	55.96	65.91
-	Mechanical Construction		4,065,014	20.74	24.43
-	Electrical Construction		1,607,480	8.20	9.66
	TOTAL		$16,639,520	$84.90	100%

UNIVERSITY OF MINNESOTA UNIT F

SUMMARY
PROPOSED ALTERNATES

DEDUCT ALTERNATES:

1.	Use low pressure chiller	$ 80,000
2.	Omit heat recovery system	20,000
3.	Omit (1) passenger elevator	85,000
4.	Omit rolling metal shelves	8,500
5.	Omit pharmacy oven/dryer/sterilizer	4,500
6.	Omit nursing lab vacuum system	5,500
7.	Omit nurse call system	2,000
8.	Omit drying ovens - 15 units	12,000
9.	Omit laboratory fume hoods-pharmacy	32,200
10.	Omit laminar flow hood in Room 9-129	5,300
11.	Change lighting system in nursing areas	12,000
12.	Omit pharmacy environmental Room 9-111	17,000
13.	Omit nursing sphygmomanometers	1,300
14.	Omit folding partitions	12,000
15.	Omit interior brick pavers	12,000
16.	Omit selected plastic laminate casework	12,200
17.	Omit all student lockers on Floor 1	31,000
18.	Omit selected metal laboratory casework	58,700
19.	Omit interior precast concrete	15,000
20.	Omit sitework south of building	65,000
21.	Omit greenhouse, potting room and equipment	65,000
22.	Omit all casework and equipment from three graduate labs	135,000
23.	Omit pharmacy environmental Room 9-144	23,000
24.	Floor 6 nursing offices	25,300
25.	Floor 9 nursing research area	16,000

DEDUCT ALTERNATES (CON'T.)

26.	Floor 2 nursing research area	$ 32,500
27.	Floor 5 pharmacy educational development	12,000
	TOTAL DEDUCT ALTERNATES	$800,000

PROJECT RECAP

PROJECT UOM Unit F
LOCATION Minneapolis, Minnesota
BID DATE 8/8/78

PROJECT NO. 859
BLDG. TYPE College-Off & Labs
SFG 196,000

SYSTEM	SYSTEMS MEASURE	SYS. UNIT	Direct Cost $/SYS U.	Total Cost $/BLDSF	Total Cost With Mark-Up $ TOTAL
01 Sitework	60,500	SITSF	4.57	1.71	334,950
02 Foundations	196,000	BLDSF	2.04	2.28	447,300
03 Floor	196,000	BLDSF	13.16	14.98	2,935,266
04 Interior Column	8,550	COLLF	62.80	2.95	578,521
05 Roof	27,000	RFSF	13.99	2.20	431,276
06 Exterior Wall	91,500	WLSF	12.97	7.32	1,434,437
07 Exterior Glazing	19,600	OPGSF	24.42	2.96	580,239
08 Interior Wall	242,200	WLSF	4.13	6.18	1,211,481
09 Doors	15,000	DRSF	23.84	2.21	433,543
10 Specialties	196,000	BLDSF	2.11	2.56	501,953
11 Equipment	196,000	BLDSF	7.43	8.18	1,602,380
12 Conveyor	196,000	BLDSF	2.00	2.43	475,680
13 Plumbing	355	FIX	2401.82	5.62	1,101,788
14 Fire Protection	196,000	BLDSF	.99	1.28	251,268
15 HVAC	960	TON	2186.18	13.84	2,711,958
16 Electric		BLDSF			
17 Elec. w/AC	196,000	BLDSF	4.02	5.23	1,026,067
18 Special Elec.	196,000	BLDSF	2.28	2.97	581,413
TOTAL COSTS				84.90	16,639,520

CPMI
COST, PLANNING & MANAGEMENT INTERNATIONAL, INC.
A SUBSIDIARY OF GREEN INTERNATIONAL, INC.
4045 MERLE HAY ROAD DES MOINES IOWA 50310 515 276-2536

COST ANALYSIS

UNIVERSITY OF MINNESOTA UNIT F

COST MANAGEMENT REPORT COMPARISON

	50/60 5/31/78	Final 8/08/78	Difference
Early Excavation Contract	368,800	368,800	
Early Steel Contract	1,393,000	1,393,000	
Early Foundation	50,700	78,500	+ 27,800
General Construction	7,520,466	7,524;346	+ 3,800
Equipment Group I	1,519,309	1,602,380	+ 83,071
Mechanical Construction	4,082,552	4,065,014	- 17,538
Electrical Construction	1,597,173	1,607,480	+ 10,307
	$16,532,000	$16,639,520	+107,520

PROPOSED DEDUCTIVE ALTERNATES
DESCRIPTION SUMMARY

1. USE LOW-PRESSURE CHILLER SYSTEM — $ 80,000
   Use low-pressure chiller in lieu of high pressure chiller system designed and specified. This alternate will require additional design documents to be included in the bidding documents.

2. OMIT HEAT RECOVERY SYSTEM — $ 20,000

3. OMIT ONE (1) PASSENGER ELEVATOR — $ 85,000
   Omit passenger elevator No. 4, retain shaft and equipment space for future installation.

4. OMIT ROLLING METAL SHELVES — $ 8,500
   The omitted shelves are located in Pharmacy Rooms 3-108 and 9-143.

5. OMIT PHARMACY OVEN/DRYER/STERILIZER IN ROOM 1-117 — $ 4,500
   Omit equipment Item No. 1286 in the Glass Washing Room 1-117. Electrical service provisions to remain for future installation.

6. OMIT NURSING LAB VACUUM SYSTEM — $ 5,500
   Omit vacuum system and all associated piping. Provide clinical vacuum mock-up outlets.

7. OMIT NURSE CALL SYSTEM — $ 2,000
   Omit 12 stations at $166 per station in Health Assessment Area on 4th floor.

8. OMIT DRYING OVENS - 15 UNITS — $ 12,000
   Omit 15 of the 30 units included in the documents. The ovens are Fischer Model No. 349 and are generally located under fume hoods. The alternate will allow for future installation as specified in the basic documents.

9. OMIT LABORATORY FUME HOODS - PHARMACY — $ 32,200
   The following fume hoods will be deleted under this alternate:
   - 1 - 36" perchloric acid fume hood located in Room 8-124. — $ 4,400
   - 4 - 72" standard fume hoods located in Rooms 3-103 and 3-112. Note: Hoods originally perchloric acid. — $17,600
   - 1 - 60" fume hood located in Room 9-119. — $ 3,600
   - 2 - 48" fume hoods not specifically located. — $ 6,600

PROPOSED DEDUCTIVE ALTERNATES (CON'T.)

10. OMIT LAMINAR FLOW HOOD IN ROOM 9-129 — $ 5,300
Omit hood in Room 9-129. The services shall remain for future installation.

11. CHANGE LIGHTING SYSTEM IN NURSING AREAS — $ 12,000
Change the incandescent lighting with dimming to multiple level fluorescent lighting in all nursing conference rooms, classrooms and Floor 2 research area. This alternate will require additional design documents to be included in the bidding documents.

12. OMIT PHARMACY ENVIRONMENTAL ROOM 9-111 — $ 17,000
The Pharmacy School has indicated that the existing cold room in Room 350 Appleby Hall could be relocated to Unit F. The cost saving does not include the expense of relocating the existing cold room. All services shall remain for future installation.

13. OMIT NURSING SPHYGMOMANOMETERS — $ 1,300
Delete built-in sphygmomanometers in Rooms: 4-102 (2), 108 (2), 109, 110, 111, 112, 113, 114, 115 and 116.

14. OMIT FOLDING PARTITIONS — $ 12,000
Delete the following folding partitions: 2-102 (panel type) shared facilities; 4-122 and 123 (panel type), 4-108, 119 and 120 (fabric type) nursing program.

15. OMIT INTERIOR BRICK PAVERS — $ 12,000

16. OMIT SELECTED PLASTIC LAMINATE CASEWORK — $ 12,200
This alternate omits plastic laminate casework throughout the building. The program related amounts are as follows:

Nursing Program	$ 2,000
Pharmacy Program	$10,200
Shared Facilities	NONE

The casework omissions previously identified or selected are as follows:

a. Omit 3 Kitchenette casework units (Rooms 2-111, 5-114, 140)	$3,000
b. Delete pharmacy tool cabinets in Room 10-101	$2,000
c. Delete 20 desk units in Pharmacy Grad. Labs (Omission does not include 3 graduate labs)	$7,200

PROPOSED DEDUCTIVE ALTERNATES (CON'T.)

17. OMIT ALL STUDENT LOCKERS ON FLOOR 1 — $ 31,000
This alternate omits all pharmacy and nursing student lockers located in Rooms 1-103, 104 and 105. The center island locker enclosures which contains the room lighting shall remain for future installation of the lockers.

18. OMIT SELECTED METAL LABORATORY CASEWORK — $ 58,700
This alternate omits metal casework throughout the building. The program related amounts are as follows:

Nursing Program	$ 5,700
Pharmacy Program	$53,000

The casework omissions previously identified or selected are as follows:

a. Wet bench and related cabinetry in center of Nursing Room 9-152.	$ 5,700
b. Approximately 10% of all metal base cabinets throughout building excluding 3 graduate labs.	$32,000
c. All metal wall cabinets.	$10,500
d. All metal full height storage cabinets.	$10,500

19. OMIT INTERIOR PRECAST CONCRETE — $ 15,000

20. OMIT SITE WORK SOUTH OF BUILDING — $ 65,000
This alternate will omit all of the site work south of the building and west of the public sidewalk. The intent of this alternate will be to redesign the entire area based upon a specific budget amount after the alternate has been accepted.

21. OMIT GREENHOUSE, POTTING ROOM AND EQUIPMENT — $ 65,000
This alternate omits the greenhouse, link, potting room and associated equipment not previously deducted. Basic services shall remain for future installation.

22. OMIT CASEWORK FROM 3 GRADUATE LABS — $135,000
This alternate will delete all casework, fume hoods, emergency and other miscellaneous equipment included in the rooms. The services will be terminated above the ceiling or below the floor for future installation. Rooms 8-109, 117 and 125 were selected for cost evaluation. Pharmacy has indicated that these rooms may be finished using casework and equipment from Appleby Hall. The cost saving does not include the expense of re-using existing casework and equipment.

PROPOSED DEDUCTIVE ALTERNATES (CON'T.)

23. OMIT PHARMACY ENVIRONMENTAL ROOM 9-144 — $ 23,000
Room 9-144 was substituted for Room 8-130 since this room is now combined with Rooms 8-128 and 129 forming a 3-compartment environmental room to maximize the individual rooms. All services shall remain for future installation. This item was reviewed with HSPO and Pharmacy on July 10, 1978.

24. FLOOR 6 NURSING OFFICES — $ 25,300
Omit the interior partitions, doors and frames associated with 18 nursing offices located between Grids S2-S6 and E22-E27. The space will be finished as a large open area for faculty work stations. In the future the area can be divided into separate offices as planned or some other arrangement.

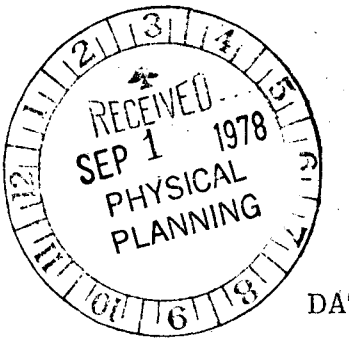
25. FLOOR 9 NURSING RESEARCH AREA — $ 16,000
Omit the interior partitions, doors, frames, remaining casework, fume hood and miscellaneous equipment in the nursing research area on Floor 9. The space will be finished as an open area which can be finished as planned in the future.

26. FLOOR 2 NURSING RESEARCH AREA — $ 32,500
Omit the interior partitions, doors, frames, environmental room, toilet, folding partition and miscellaneous equipment in the nursing research area on Floor 2. The space will be finished as an open area which can be finished as planned in the future.

27. FLOOR 5 PHARMACY EDUCATIONAL DEVELOPMENT — $ 12,000
Omit the interior partitions, doors and frames associated with this program area. The space is to be finished as open planning area which can be finished as planned in the future.

TOTAL DEDUCTIVE ALTERNATE AMOUNT $800,000

CPMI



Unit F

PROJECT: UOM "F" DATE: 24 August 1978

SUMMARIZED MINUTES 22 AUGUST 1978 MEETING @ UOM

1.0 PRESENT:

Gene Kogl	UOM
Paul Kopietz	UOM
Paul Maupin	UOM
Dan Brennan	CPMI

2.0 DISCUSSION

.1 The scheduling effort for "A" and "B/C" were discussed at length with the objective of incorporating the learning experiences of those projects into Unit "F". The approach on B/C included a very detailed preliminary schedule only slightly modified after award of contracts.

.2 The scheduling manager on B/C did gain the respect of the contractors based on his understanding of the construction processes. This is essential to the success of any effort.

.3 The University required the general contractor chair scheduled meetings, rather than the scheduling manager, in an attempt to support the general contractor's role as "prime coordinator", even though this role was never fully accepted. It is not known whether better results would have been obtained by allowing the scheduling manager to have full responsibility for the scheduling effort. Such an approach, however, was not supported by the contract documents.

.4 The main item with the B/C schedule was the electrical contractor's unwillingness to change his resource planning to accommodate changes in scheduling determined necessary by general and mechanical contractors.

.5 Another major problem was the split responsibility for design for the material transport system, causing delay to procurement and installation of that system.

.6 We discussed CPMI's approach to scheduling and reviewed the preliminary schedule. The following points were clarified:

- The preliminary schedule is in summary form intentionally. This will cause the contractor to participate in thinking through the ultimate contract schedule rather than merely adopting the preliminary schedule.

- Milestones will be contractual, but the dates assigned in the preliminary schedule are subject to modification. This will be clarified at the prebid conference.

- Owner initiated MOD's will be controlled through Paul Maupin's office.

- CPMI requested a single coordinator within the design organization for shop drawings and for MOD's.

- The general contractor will have responsibility for day to day coordination of the job; the scheduling manager responsible for incorporating contractor initiated changes, progress information, etc., into the schedule. The scheduling manager will also have responsibilities for evaluating contractors' supplied information.

.7 Various job meetings were discussed. Progress meetings attended by the owner's team and the architect/engineer are held bi-weekly. CPMI need not attend all of these meetings, but will attend such meetings for general background information should they be scheduled in such a way attendance can be concurrent with CPMI's major responsibilities. On B/C, the scheduling manager would provide these meetings with immediate evaluations of the impact of proposed changes on the schedule. Dan pointed out review of such impact is important to supplying the group with accurate information and that schedule impact should be reviewed with contractor personnel before final determination.

Construction meetings are held weekly. The group agreed these should be chaired by the general contractor and progress would be reviewed using CPMI's Field Observation Report. Progress information for schedule updating and disbursement management will be performed once a month at one of the construction meetings. A second meeting will be held to review each update. CPMI will be required at these meetings. At the progress meeting, we agreed, CPMI would gather its information, for an opportunity to review the month's progress, then meet again with the contractors to perform any necessary replanning. This will assure update reports that reflect the current strategy.

3.0 DECISIONS

.1 The University will request HSAE to assign a single

CPMI

coordinator for shop drawings and a single coordinator for MOD's.

.2 CPMI will attend two meetings per month. One to gather update information at a meeting and another to review monthly udpates and process monthly billings.

.3 The general contractor will have prime responsibility for day to day coordination; the scheduling manager for overall long range planning and scheduling.

COST, PLANNING & MANAGEMENT INTERNATIONAL, INC.

Dan D. Brennan
Vice President

DDB:pa

cc: Enzmann
Goodwin
Hewitt
Kogl
Kopietz
Maupin

September 21, 1978

TO: Clinton Hewitt
FROM: E.A. Kogl
SUBJECT: CPMI Effectiveness on Unit "Z"

In reply to your request the following review of effectiveness of CPMI is submitted.

The quality of estimating of the CPMI organization will be determined when we receive bids for the Pharmacy/Nursing Building on September 28. We will probably have plenty of opportunity to review their effectiveness in that area after the prices are in.

A greater concern to me is that somewhere the main reason for employing them as a University consultant has been lost. It was intended that CPMI would be in constant contact with the Planning Office so that design decisions affecting cost would have owner input. Instead the consultant has had close contact with the architect and the user sees only the results of their decisions. This is certainly not what I had in mind when proposing the system.

As intended the owner would have had complete control over cost-quality decisions. In actuality we were made aware of the decisions after fact or at least at an inopportune time to influence the results. In exchange we have relieved the architect of responsibility for accuracy of the pre-bid estimate.

The concept of owner input to the design of a project and control of costs through the services of a consultant is valid. In this instance it was thought that the consultant would discuss more of the day to day decisions with the University, so that the cost/quality decision could at least be reviewed by the user. Experience indicates that in the future, s should we use this system, that a representative of the University should be selected to maintain a continual contact with the consultant. That individual should be readily available so that many decisions now considered routine can be examined.

cc. Paul Maupin

EAK/slh

October 18, 1978

FINAL

PROJECT COST BREAKDOWN

UNIT F

I.	FUNDS AVAILABLE			$21,230,600
II.	LAND ACQUISITION			
III.	BUILDING COST			$17,094,300
	A. General		9,461,725	
	B. Mechanical		4,268,400	
	C. Electrical		1,523,875	
	D. Previous Contracts Awarded		1,840,300	
IV.	NON-BUILDING COST			4,136,300
	A. Sitework		69,264	
	1. Landscaping	31,734		
	2. Utilities	37,530		
	+B. FURNISHINGS AND EQUIPMENT		1,419,221	
	C. CONSULTANTS' FEES		1,390,951	
***	D. MISCELLANEOUS		1,256,864	
	1. Contingencies @ 3%	512,829		
	2. Construction Supervision @ 1.25%	213,678		
	3. Soil Borings	- 0 -		
	4. Materials Testing	25,000		
	5. University Eng. Services	30,000		
	6. Building Activation	135,000		
	7. SAC Charge	33,000		
	8. Building Permit .02%	34,188		
	9. H.S.P.O.	106,650		
	10. Incidentals	166,519		
V.	TOTAL PROJECT COST			21,230,600

*** Miscellaneous is a composite of 20.00 Non-Construction Costs and 40.00 Non-Building Costs less Sitework.

UNIT F FINAL

October 18, 1978

PROJECT COST SUMMARY
BASED ON ACTUAL BIDS LESS ACTUAL DEDUCTIVE ALTERNATES

10.00	CONSTRUCTION COSTS:		$17,094,300 ***
20.00	NON-CONSTRUCTION COSTS: (Site)		134,783
.01	Demolition	-0-	
.02	Water Service	-0-	
.03	Walks, Steps, Curbs	1,569	
.04	Landscaping	31,734	
.05	Remove Existing Utilities	-0-	
.06	Sign, Guardrails, Etc.	3,950	
.07	Temporary Drives, Walks	-0-	
.08	Testing and Balancing	60,000	
.09	Electric Service	37,530	
30.00	NON-BUILDING COSTS: (Fees)		1,390,951
.01	A/E Base Fee @ 6.2%	1,083,944	
.02	A/E Extra Services	50,000	
.03	A/E Reimbursables	50,000	
.04	CM Lump Sum Fee	190,000	
.05	CM Reimbursables	10,000	
.06	Vibration Consultant	7,000	
40.00	NON-BUILDING COSTS: (Misc.)		
.01	Temp Heat and Power	90,000	1,191,345
.02	SAC Charges	33,000	
.03	Construction Supervision @ 1.25%	213,678	
.04	Misc. Expense	71,000	
.05	Site Survey	-0-	
.06	Misc. Engineering	30,000	
.07	Materials Testing	25,000	
.08	Building Activation	25,000	
.09	Control Center Wiring	50,000	
.10	Building Permits @.2%	34,188	
.11	HSPO Sal. and Exp.	106,650	
.12	Contingencies @ 3%	512,829	
50.00	MOVABLE EQUIP/FURN. COSTS:		1,419,221
	TOTAL PROJECT COST (Budgeted)		$21,230,600
	TOTAL PROJECT FUNDS AVAILABLE		$21,230,600

*** Actual Bids less actual deductive alternates taken
See Exhibit A pages 1 and 2

I. CONSTRUCTION COSTS:

A. Prime Contracts:

1. General Construction
Kraus Anderson
Minneapolis, Minn.

Base Bid			$9,846,000
Less: Deductive Alternates			
G-3	Omit Elevator	114,300	
G-4	Omit Rolling Metal Shelves	8,000	
G-5	Omit Oven/Dryer/Sterilizer	7,000	
G-8	Omit Drying Ovens	43,000	
G-9	Omit Certain Lab. Fume Hoods	17,000	
G-10	Omit Select Laminar Flow Hood	3,300	
G-12	Omit Pharmacy Environmental Room	18,600	
✓ G-16	Omit Selected Plastic Lam. Casework	9,927	
G-17	Omit All Student Lockers 1st floor	65,000	
G-18	Omit Select Metal Casework	31,731	
G-20	Omit Site Work	54,342	
G-21	Omit Greenhouse, Potting Rm, Equip.	12,075	
Total Deductive Alternates			384,275
Contract Award			$9,461,725

B. Mechanical Contract
Axel Newman Heating & Plumbing
St. Paul, Minnesota

Base Bid			$4,360,000
Less: Deductive Alternates			
M-1	Use Low Pressure Chiller System	64,000	
M-2	Omit Heat Recovery Unit	6,500	
M-9	Omit Fume Hoods - Pharmacy	3,000	
M-12	Omit Environmental Room - Pharm	500	
M-16	Omit Plastic Laminate Casework	400	
M-18	Omit Certain Lab Metal Casework	1,200	
M-21	Omit Greenhouse, Potting Room, Equip.	16,000	
Total Deductive Alternates			91,600
Contract Award			$4,268,400

C. Electrical Contract
Electric Repair & Construction
Minneapolis, Minn.

Base Bid	$1,534,000

Less Deductive Alterantes:			
E-1	Use Low Pressure Chiller System	+ 1,100	
E-2	Omit Heat Recovery System	- 150	
E-3	Omit Elevator Elec. Work	- 125	
E-5	Omit Pharm. Oven/Dryer/Sterilizer	- 50	
E-9	Omit Lab. Fume Hood - Pharm.	- 400	
E-16	Omit Select Plastic Lam. Casework	- 1,950	
E-18	Omit Select Metal Lab. Casework	- 550	
E-20	Omit Site work	- 5,100	
E-21	Omit Greenhouse, Potting rm, equip.	- 2,900	
Total Deductive Alternates			10,125
Contract Award			$ 1,423,875
Total Contracts Previously Awarded:			
ECX - Early Excavation		368,800	
ECF - Foundation Contract		78,500	
ECS - Structural Steel Contract		1,393,000	
Total Contracts			1,840,300
TOTAL CONSTRUCTION CONTRACTS			$17,094,300

HS Unit F

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-3833

23 October 1978

Mr. Victor E. Scott
Federal Project Coordinator
Department of Physical Planning
University of Minnesota
18 Folwell Hall
Minneapolis, Minnesota 55455

Re: Minnesota-HP-5C-063 School of Pharmacy
Minnesota-NU-5C-077 School of Nurse Training
University of Minnesota Health Sciences
Minneapolis, Minnesota

Dear Mr. Scott:

This letter is to advise you that the Architect has sent to all known non-Federal interested parties complete sets of the Unit F - Pharmacy and Nursing Facility drawings and specifictaions for their review approval and files.

We concur with the decision to award a contract to each of the low base bidders as follows:

General - Kraus-Anderson of Minneapolis, Inc.
Mechanical - Axel Newman Plumbing and Heating Co.
Electrical - Electric Repair and Construction Co. Inc.

We trust that the above statements are satisfactory for ROFEC. Please forward this information to ROFEC at your earliest convenience.

Sincerely,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

Duane E. Blanchard

Duane E. Blanchard

DEB:sed

cc: Eugene Kogl
Paul Maupin
John Patterson

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH RESOURCES ADMINISTRATION
HYATTSVILLE, MARYLAND 20782

October 25, 1978

BUREAU OF HEALTH MANPOWER

Ms. Cherie Perlmutter
Assistant Vice President for Health Sciences
University of Minnesota
432 Morrill Hall
Minneapolis, Minnesota 55455

Dear Cherie:

As you are aware, while I am on leave from Columbia University, Dr. Bettina Yaffe, Assistant Vice President for Health Sciences at the University of Pennsylvania, and I are undertaking a study of planning in Academic Health Centers. This study is an attempt to extend the work already underway by the AAHC into the areas of process. Its purpose is to describe the process of planning and decision making at a few institutions. It is hoped that this sharing of experiences will be helpful to others with similar developmental or operational problems.

As we discussed on the phone, I would like to visit your campus the 8th and 9th of November for a two day period. I expect to arrive the evening of the 7th so that both full days will be available. At this time I would like to meet with each of the professional school deans (Medicine, Dentistry, Nursing, Pharmacy, Allied Health and Public Health) as well as the administrator of the principal teaching hospital and the Vice President for Health Sciences. These interviews should take between 45 and 60 minutes each. There may be a few additional people who will be identified during the interviews with whom I would also like to meet.

The AAHC office is aware of this study and we have been cooperating with Dr. Crispell so that we can avoid overlap and unprofitable use of your time.

I appreciate your help in arranging interviews which make it possible to carry out this study.

Cordially,

Stephen Wotman, D.D.S.

FILE

UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
Physical Planning Office
26 Folwell Hall
9 Pleasant Street S.E.
Minneapolis, Minnesota 55455

October 31, 1978

Mrs. Anastasia P. Buchanan
Chief, Construction Assistance
Grants Section
Nursing Education Branch
Division of Nursing HRA, BHM
Room 3-50 Center Building
3700 East-West Highway
Hyattsville, Maryland 20782

RE: University of Minnesota
Health Science Complex
Unit "F"
School of Nursing NU-05C-077
School of Pharmacy HP-05C-063
Minneapolis, Minnesota

Dear Mrs. Buchanan:

Pursuant to the instructions outlined by Mr. Robert Ensign's letter of July 31, 1978, this office is forwarding herewith the following information necessary for grant award.

1. Two copies of Construction Project Cost Report Form PHS-6008-2.

2. Certified copies of bids received for the final Phase IV construction work for the building.

3. Copies of ROFEC'S approval letters of concurrence in awarding of construction contracts for demolition of existing apartment buildings, early contract excavation, early contract steel and early contract footings.

If there is any additional information you may require for the issuance of the grant award, please notify this office.

Very truly yours,

V. E. Scott
Federal Projects Coordinator

VES/gsc

cc: Cherie R. Perlmutter
Paul M. Maupin
Paul E. Kopietz

university of minnesota

memo

to Paul Mattery

from Jack Hoff

Copies of documents sent to Pharmacy

- [ ] For your information
- [ ] For your approval
- [ ] Approved
- [ ] For your attention
- [ ] Note and file
- [ ] Note and return
- [ ] Note and forward
- [ ] Please advise
- [ ] Please comment
- [ ] Please reply
- [ ] Please handle
- [ ] Send copy
- [ ] Please see me

Date _____ 19 ____

S92046

UNIT F SITE COSTS

	Kensington Apts.	Staging Area	Total costs
Acquisition	$ 785,586.68	$ 176,744.14	$ 962,330.82
Relocation of Tenants	1,980.65	1,350.00	3,330.65
Appraisals	7,100.00	2,500.00	9,600.00
Alley Vacation Fee	205.00		205.00
Hearings	4,961.84	2,505.00	7,466.84
Demolition	31,976.00	8,000.00*	39,976.00
Total	$ 831,810.17	$ 191,099.14	$1,022,909.31

*Estimated

Vernon L. Ausen
Real Estate Coordinator
October 30, 1978

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE

CONSTRUCTION PROJECT COST REPORT

GRANT NUMBERS	NAME OF INSTITUTION
05C 000077-01 NUC05	University of Minnesota
05C 000063-01 PEC05	ADDRESS Minneapolis, Minnesota 55455

ITEMS OF COST	TOTAL COSTS	TOTAL COSTS, BY PROGRAM, IN WHICH PARTICIPATION IS REQUESTED (Do Not Show Prorated Costs)			
		Pharmacy H P. 41	Nursing N U 43		
	A	B	C	D	E
Construction Contracts General	9,461,725	9,461,725	9,461,725		
Other Separate Contracts (Itemize) Mechanical	4,268,400	4,268,400	4,268,400		
Electrical	1,523,875	1,523,875	1,523,875		
Excavation	368,800	368,800	368,800		
Footings	78,500	78,500	78,500		
Structural Steel	1,393,000	1,393,000	1,393,000		
Site Work	124,783	93,049	93,049		
Temporary Power & Heat	90,000	90,000	90,000		
Central Utility Plant	265,182	265,182	265,182		
Off Site Work	-0-	-0-	-0-		
Subtotal (Contract Cost)	17,574,265	17,542,531	17,542,531		
Building Acquisition Cost	1,021,400	-0-	-0-		
Land Acquisition Cost					
Architectural Fees	1,316,199	1,183,944	1,183,944		
Consulting Fees	207,000	207,000	207,000		
Engr., HSPO, U Planning Construction Supervision and Inspection	350,348	350,348	350,348		
Materials Test Surveys - Testing and Soil Borings	95,000	95,000	95,000		
SUBTOTAL	20,564,212	19,378,823	19,378,823		

(Continue on Reverse Side)

FORM APPROVED:
O.M.B. No. 68-R 1317

ITEMS OF COST	TOTAL COSTS	TOTAL COSTS, BY PROGRAM, IN WHICH PARTICIPATION IS REQUESTED (Do Not Show Prorated Costs)			
		Pharmacy HP 41	Nursing NU 43		
	A	B	C	D	E
19. Owner Insurances & Bonding	23,306	23,306	23,306		
20. Miscl. Costs (Permits, Advertising, Printing, etc.)	105,188	105,188	105,188		
21. Other Project Specialized Costs (Itemize)					
22. Building Activation	25,000	25,000	25,000		
23. Sewer Availability Charge	33,000	33,000	33,000		
24.					
25.					
26. SUBTOTAL	20,750,706	19,565,317	19,565,317		
27. Movable Equipment	1,717,335	893,014	532,373		
28. SUBTOTAL	22,468,041	20,458,331	20,097,690		
29. Contingency	428,393	409,166	401,954		
30. TOTAL PROJECT COST	22,896,434	20,867,497	20,499,644		

SUMMARY OF FUNDS AVAILABLE FROM ALL SOURCES FOR COMPLETION OF PROJECT

SOURCE OF FUNDS	FUNDS AVAILABLE
1. NIH Grant(s)	
2. Grant(s) HP #05C 000063-01 PE&05	4,288,411
2. Grant(s) NU #05C 000077-01 NUC05	3,967,557
3. Federally-assisted Loans (List separately and identify)	
4. Applicant's Funds (List sources) State Legislature Appropriations	
5. 1969, 1971, & 1976	14,640,466
6.	
TOTAL FUNDS AVAILABLE	22,896,434

A complete tabulation of all bids received is attached, and permission is hereby requested to make an award of contract to the lowest acceptable bidder.

SIGNATURE OF AUTHORIZED INSTITUTION REPRESENTATIVE

TITLE Associate Vice President Business Administration

DATE 10-31-78

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES COMPLEX
UNIT "F"
SCHOOL OF NURSING NU-05C-077
SCHOOL OF PHARMACY HP-05C-063
MINNEAPOLIS, MINNESOTA

I. Construction Cost of Phase IV Building

A. Total of Net Prime Contracts Accepted: 15,254,300.00

GENERAL CONTRACT

Kraus Anderson of Minneapolis
525 South Eighth Street
Minneapolis, MN 55404

Base Bid:	9,846,000.00
Alternate Bids Accepted	
Alternate G-3 Deduct	114,300.00
Alternate G-4 Deduct	8,000.00
Alternate G-5 Deduct	7,000.00
Alternate G-8 Deduct	43,000.00
Alternate G-9 Deduct	17,000.00
Alternate G-10 Deduct	3,300.00
Alternate G-12 Deduct	18,600.00
Alternate G-16 Deduct	9,927.00
Alternate G-17 Deduct	65,000.00
Alternate G-18 Deduct	31,731.00
Alternate G-20 Deduct	54,342.00
Alternate G-21 Deduct	12,075.00
Net Bid:	9,461,725.00

MECHANICAL CONTRACT

Axel Newman Heating & Plumbing
1608 Como Avenue West
St. Paul, MN 55108

Base Bid:	4,360,000.00
Alternate Bids Accepted	
Alternate M-1 Deduct	64,000.00
Alternate M-2 Deduct	6,500.00
Alternate M-9 Deduct	3,000.00

Alternate M-12 Deduct	500.00
Alternate M-16 Deduct	400.00
Alternate M-18 Deduct	1,200.00
Alternate M-21 Deduct	16,000.00
Net Bid:	4,268,400.00

ELECTRICAL CONTRACT

Electric Repair and Construction
4024 Washington Avenue North
Minneapolis, MN 55412

Base Bid:	1,534,000.00

Alternate Bids Accepted

Alternate E-1 Add	1,100.00
Alternate E-2 Deduct	150.00
Alternate E-3 Deduct	125.00
Alternate E-5 Deduct	50.00
Alternate E-9 Deduct	400.00
Alternate E-16 Deduct	1,950.00
Alternate E-18 Deduct	550.00
Alternate E-20 Deduct	5,100.00
Alternate E-21 Deduct	2,900.00
Net Bid:	1,523,875.00

BID TAB: -28 SEPTEMBER 1978 - 2:00 P.M. CDT

THE ARCHITECTS COLLABORATIVE, INC.
HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

BIDDERS ELECTRICAL CONTRACT SHEET 1 of 3	BOND OR CHECK	CERT. OF E.O.	ADDENDA RECEIVED 1 THRU 5	BASE BID AMOUNT	DEDUCT ALTERNATES				
					E-1 ADD.RELATED ELEC.WORK FOR CHILLER	E-2 OMIT HEAT RECOVERY ELEC.WORK	E-3 OMIT PASS. ELEVATOR ELEC.WORK	E-5 OMIT EQUIP. ITEM L286 ELEC. WORK	E-7 OMIT NURSE CALL SYSTEM
Batzli Electric Co. 704 University Ave. St. Paul, MN 55104	YES	YES	YES	1,759,400	+480	85	180	56	1,250
Elec. Repair & Const. 1024 Washington Ave N. Minneapolis, MN 55412	YES	YES	Acknowl. Not Included	1,534,000	+1,100	150	125	50	900
Kvalsten Elec. Co. 1010 Currie Avenue Minneapolis, MN 55403	YES	YES	YES	1,683,000	+430	121	235	79	1,486
Sterling Electric 2817 Lyndale Ave. Minneapolis, MN 55408	YES	YES	YES	1,599,000	+950	375	575	75	1,675

STATE OF MINNESOTA SS
COUNTY OF HENNEPIN

Before me, Lou V. Smith, A notary Public in and for the County of Hennepin and the State of Minnesota, personally came Robert D. James, being duly sworn according to law, deposes and says that this sheet is a true and correct copy of the bidders and the bids which were received at 2:00 p.m., September 28, 1978, and opened and read aloud, and have been carefully cross-checked and verified with the actual original bids submitted.

Subscribed and sworn to before me this
23rd day of October, 1978.

Lou V. Smith

LOU V. SMITH
NOTARY PUBLIC - MINNESOTA
HENNEPIN COUNTY
My Commission Expires July 9, 1980

REGENTS OF THE UNIVERSITY OF MINNESOTA

Robert D. James

Robert D. James
Director of Purchasing and Stores

D TAB: 28 SEPTEMBER 1978 - 2:00 P.M. CDT

E ARCHITECTS COLLABORATIVE, INC.
ALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

DDERS ECTRICAL CONTRACT EET 2 of 3	DEDUCT ALTERNATES							
	E-9 OMIT FUME HOOD RELATED ELEC.WORK	E-11 MODIFY CERTAIN LIGHT.SYS.	E-12 OMIT E.C.R.9-111 ELEC.WORK	E-16 OMIT CERTAIN PLAS.LAM.CSW ELEC.WORK	E-18 OMIT CERTAIN MET.LAB.CSWK ELEC.WORK	E-20 OMIT SOUTH EXTERIOR LIGHTING	E-21 OMIT RELATED GREENHOUSE ELEC.WORK	E-22 OMIT CERTAIN ELEC.WORK 4 GRAD.LAB.
tzli Electric Co. 4 University Ave. . Paul, MN 55104	710	5,000	+104	3,009	360	4,697	3,875	9,736
ec. Repair & Const. 24 Washington Ave.N. nneapolis, MN 55412	400	1,800	No Change	1,950	550	5,100	2,900	6,900
alsten Elec. Co. 10 Currie Avenue nneapolis, MN 55403	1,057	5,511	No Change	1,834	353	4,572	4,507	10,791
erling Electric 17 Lyndale Ave. nneapolis, MN 55408	650	4,550	200	2,600	320	4,300	4,500	5,900

) TAB: 28 SEPTEMBER 1978 - 2:00 P.M. CDT

E ARCHITECTS COLLABORATIVE, INC.
ALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

DDERS ECTRICAL CONTRACT EET 3 of 3	DEDUCT ALTERNATES							
	E-24 OMIT ELEC.WORK FL.6 SUITE	E-25 OMIT ELEC.WORK FL.9 SUITE	E-26 OMIT ELEC.WORK FL.2 SUITE	E-27 OMIT ELEC.WORK FL.5 SUITE	E-23 (NOT REQ'D ON BID PROPOSAL)			
tzll Electric Co. 4 University Ave. . Paul, MN 55104	4,400	2,892	6,483	5,150	+171			
ect. Repair & Const. 24 Washington Av N. nneapolis, MN 55412	3,032	2,000	7,800	2,000				
alsten Elec. Co. 10 Currie Avenue nneapolis, MN 55403	5,188	3,038	9,023	5,419				
erling Electric 17 Lyndale Ave. nneapolis, MN 55408	3,100	900	5,550	3,200				

ELECTRIC REPAIR & CONSTRUCTION CO., INC.

612-
522-6511

ESTABLISHED IN 1935

4024 WASHINGTON AVENUE NORTH MINNEAPOLIS, MN. 55412

October 10, 1978

Mr. Robert James - Purchasing Agent
% University of Minnesota
2610 University Avenue
St. Paul, Minnesota 55114

Subject: Unit "F" of the Health Sciences Expansion
Pharmacy and Nursing Facility
Minneapolis, Minnesota

Attention: Mr. Robert James

Dear Mr. James;

This letter is written to confirm our receipt of Addendas # 1, 2, 3, 4, and 5, for the above project before the bid date of September 28, 1978.

Respectfully submitted;

ELECTRIC REPAIR & CONSTRUCTION CO., INC.

Jim Bethke

JB/ds

BID TAB: 28 SEPTEMBER 1978 - 2:00 P.M. CDT

THE ARCHITECTS COLLABORATIVE, INC.
HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

BIDDERS MECHANICAL CONTRACT SHEET 1 of 3	BOND OR CHECK	CERT. OF E.O.	ADDENDA RECEIVED 1 THRU 5	BASE BID AMOUNT	DEDUCT ALTERNATES				
					M-1 SUBSTITUTE LOW PRES. CHILLER SYS.	M-2 OMIT HEAT RECOVERY PROVISIONS	M-6 OMIT NURSING LAB.VAC.SYS.	M-9 OMIT FUME HOOD MECH. WORK	M-12 OMIT E.C.R.9-1 MECH.WOR
H. Conrad Mfg. 509 First Ave. N.E. Minneapolis, MN 55413	Yes	Yes	Yes	5,086,867	41,000	7,600	2,000	4,133	1.100
Egan & Sons Co. 7100 Medicine Lake Rd. Minneapolis, MN 55427	Yes	Yes	Yes	4,424,000	92,100	7,295	1,950	8,615	1,100
Harris Mechanical 2300 Territorial Road. St. Paul, MN 55114				NO BID					
Lamb Plumbing & Heating 1010 Currie Avenue Minneapolis, MN 55103	Yes	Yes	Yes	4,483,900	21,500	6,835	3,100	8,150	885
Midwest Mechanical 340 Taft Street Minneapolis, MN 55413				NO BID					
Axel Newman Htg & Plumb 1608 Como Ave. W. St. Paul, MN 55108	Yes	Yes	Yes	4,360,000	64,000	6,500	1,250	3,000	500

STATE OF MINNESOTA SS
COUNTY OF HENNEPIN

Before me, Lou V. Smith, A notary Public in and for the County of Hennepin and the State of Minnesota, personally came Robert D. James, being duly sworn according to law, deposes and says that this sheet is a true and correct copy of the bidders and the bids which were received at 2:00 p.m., September 28, 1978, and opened and read aloud, and have been carefully cross-checked and verified with the actual original bids submitted.

Subscribed and sworn to before me this
23rd day of October, 1978.

Lou V. Smith

LOU V. SMITH
NOTARY PUBLIC - MINNESOTA
HENNEPIN COUNTY
My Commission Expires July 3, 1980

REGENTS OF THE UNIVERSITY OF MINNESOTA

Robert D. James

Robert D. James
Director of Purchasing and Stores

BID TAB: 28 SEPTEMBER 1978 - 2:00 P.M. CDT

THE ARCHITECTS COLLABORATIVE, INC.
HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

BIDDERS MECHANICAL CONTRACT SHEET 2 of 3	DEDUCT ALTERNATES							
	M-16 OMIT CERTAIN PLAS.LAM.CSWK MECH.WORK	M-18 OMIT CERTAIN MET.LAB.CSWK MECH WORK.	M-21 OMIT RELATED GREENHOUSE MECH.WORK	M-22 OMIT CERTAIN MECH.WORK 4 GRAD.LAB.	M-23 OMIT E.C.R.9-144 MECH.WORK	M-24 OMIT MECH.WORK FL.6 SUITE	M-25 OMIT MECH.WORK FL.9 SUITE	M-26 OMIT MECH.WORK FL.2 SUITE
H. Conrad Manufacturing 509 First Ave. N.E. Minneapolis, MN 55413	8,100	1,100	18,278	10,000	320	1,360	2,346	1,850
Egan & Sons Co. 7100 Medicine Lake Road Minneapolis, MN 55427	800	3,150	18,800	25,050	1,080	NO BID ✓	4,000	1,250
Harris Mechanical 2300 Territorial Road St. Paul, MN 55114								
Lamb Plumbing & Heating 1010 Currie Avenue Minneapolis, MN 55103	1,435	850	21,800	23,000	275	1,325	3,250	1,600
Midwest Mechanical 340 Taft Street Minneapolis, MN 55413								
Axel Newman Htg & Plumbing 1608 Como Ave. W. St. Paul, MN 55108	400	1,200	16,000	38,000	350	1,400	3,000	2,500

BID TAB: 28 SEPTEMBER 1978 - 2:00 P.M. CDT

THE ARCHITECTS COLLABORATIVE, INC.
HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

BIDDERS MECHANICAL CONTRACT SHEET 3 of 3	DEDUCT ALTERNATES							
	M-27 OMIT MECH.WORK FL.5 SUITE	M-20 (NOT REQ'D ON BID PROPOSAL)						
H. Conrad Mfg. 509 First Ave. N.E. Minneapolis, MN 55413	210							
Egan & Sons Co. 7100 Medicine Lake Rd. Minneapolis, MN 55427	NO BID ✓							
Harris Mechanical 2300 Territorial Road St. Paul, MN 55114								
Lamb Plumbing & Heating 1010 Currie Avenue Minneapolis, MN 55103	200	-6500						
Midwest Mechanical 340 Taft Street Minneapolis, MN 55413								
Axel Newman Htg & Plumb 1608 Como Ave. W. St. Paul, MN 55108	200							

BID TAB: 28 SEPTEMBER 1978 - 2:00 P.M. CDT

THE ARCHITECTS COLLABORATIVE, INC.
HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

BIDDERS GENERAL CONTRACT SHEET 1 of 4	BOND OR CHECK	CERT. OF E.O.	ADDENDA RECEIVED 1 THRU 5	BASE BID AMOUNT	DEDUCT ALTERNATES				
					G-3 OMIT 1 PASSENGER ELEVATOR	G-4 OMIT ROLLING MET SHELVES	G-5 OMIT EQUIPMENT ITEM L286	G-8 OMIT 17 DRYING OVENS ITEM L291	G-9 OMIT CERTAIN FUME HOODS
Knutson Construction 17 Washington Ave. N. Minneapolis, MN 55401	YES	YES	YES	9,860,000	110,000	8,000	2,200	21,000	16,000
Kraus, Anderson of Mpls 525 South Eighth St. Minneapolis, MN 55404	YES	YES	YES	9,846,000	114,300	8,000	7,000	43,000	17,000
M.A. Mortenson & Co. 250 Fremont Ave. N. Minneapolis, MN 55405	YES	YES	YES	9,852,000	117,000	8,000	2,400	22,000	17,000
Shaw-Lundquist & Assoc. 650 Sexton Building Minneapolis, MN 55415				NO BID					
Sheehy Construction Co. P.O. Box 43570 St. Paul, MN 55164	YES	YES	YES	9,873,300	112,000	8,000	2,000	22,000	17,000

STATE OF MINNESOTA SS
COUNTY OF HENNEPIN

~~Before me, Lou V. Smith, A notary Public in and for the County of Hennepin and the state of Minnesota,~~ personally came Robert D. James, being duly sworn according to law, deposes and says that this sheet is a true and correct copy of the bidders and the bids which were received at 2:00 p.m., September 28, 1978, ~~and opened and read aloud, and have been carefully cross-checked and verified with the actual original~~ bids submitted.

Subscribed and sworn to before me this
23rd day of October, 1978.

Lou V. Smith

LOU V. SMITH
NOTARY PUBLIC - MINNESOTA
HENNEPIN COUNTY
My Commission Expires July 9, 1980

REGENTS OF THE UNIVERSITY OF MINNESOTA

Robert D. James

Robert D. James
Director of Purchasing and Stores

ID TAB: 28 SEPTEMBER 1978 - 2:00 P.M. CDT

HE ARCHITECTS COLLABORATIVE, INC.
EALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

IDDERS ENERAL CONTRACT HEET 2 of 4	DEDUCT ALTERNATES							
	G-10 OMIT LAMINAR FLOW HOOD (9-129)	G-12 OMIT E.C.R. 9-111.	G-13 OMIT EQUIPMENT ITEMS M427	G-14 OMIT CERTAIN FOLD. PTNS.	G-15 OMIT INTERIOR BRICK PAVERS	G-16 OMIT CERTAIN PLAS. LAM. CSWK.	G-17 OMIT STUDENT LOCKERS	G-18 OMIT CERTAIN MET. LAB. CSWK.
Knutson Construction 17 Washington Ave. N. Minneapolis, MN 55401	4,700	18,000	4,100	11,500	22,000	9,800	75,000	31,000
Kraus, Anderson of Mpls 525 South Eighth Street Minneapolis, MN 55404	3,300	18,600	1,540	12,374	17,228	9,927	65,000	31,731
M.A. Mortenson & Co. 250 Fremont Ave. N. Minneapolis, MN 55405	3,300	18,000	NO BID	4,500	24,000	9,500	NO BID	32,000
Shaw-Lundquist & Assoc. 550 Sexton Building Minneapolis, MN 55415								
Sheehy Construction Co. P.O. Box 43570 St. Paul, MN 55164	4,000	17,000	NO BID	12,000	24,000	10,000	62,000	32,000

D TAB: 28 SEPTEMBER 1978 - 2:00 P.M. CDT.

E ARCHITECTS COLLABORATIVE, INC.
ALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NO.S MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

DDERS NERAL CONTRACT EET 3 of 4	DEDUCT ALTERNATES							
	G-19 OMIT INTERIOR P.C.PANELS	G-20 OMIT SOUTH SITE WORK	G-21 OMIT GREENHOUSE AND EQUIP.	G-22 OMIT CSWK & EQ. 4 GRAD.LAB.	G-23 OMIT E.C.R. 9-144	G-24 OMIT CERTAIN FL. 6 OFFICES	G-25 OMIT FL.9 SUITE OF ROOMS	G-26 OMIT FL. 2 SUITE OF ROOMS
utson Construction Washington Ave. N. nneapolis, MN 55401	5,300	39,500	35,000	79,000	24,500	19,000	17,500	7,000
aus, Anderson of Mpls 5 South Eighth Street nneapolis, MN 55404	9,308	54,342	12,075	79,669	20,188	29,756	17,891	5,950
A. Mortenson & Co. 0 Fremont Ave. N. nneapolis, MN 55405	6,500	56,000	41,000	83,000	19,000	23,000	19,000	6,500
aw-Lundquist & Assoc. 0 Sexton Building nneapolis, MN 55415								
eehy Construction Co. O. Box 43570 . Paul, MN 55164	+4,000	NO BID	33,000	80,000	19,000	23,000	19,000	11,000

TAC: 28 SEPTEMBER 1978 - 2:00 P.M. CDT.

ARCHITECTS COLLABORATIVE, INC.
LTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT F - PHARMACY AND NURSING FACILITY
PRIME CONSTRUCTION CONTRACTS
UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION
PROJECT NOS. MINN. BHRD-HP-5C-063 & BHRD-NU-5C-077

DDERS NERAL CONTRACT EET 4 of 4	DEDUCT AND MATERIAL ALTERNATES							
	G-27 OMIT FL.5 SUITE OF ROOMS		A SUBSTITUTE CORBIN LOCKS	B SUBSTITUTE RUSSWIN LOCKS	C SUBSTITUTE RECESSED CSWK.PULLS	D SUBSTITUTE PLAS.LAM. COUNTER TOPS	E E.C.R. BY ASSOCIATED ENVIRON.SYS.	
utson Construction Washington Ave. N. nneapolis, MN 55401	6,200		+128,000	NO BID	+25,500	-47,000	-20,000	
aus-Anderson of Mpls. 5 South Eighth St. nneapolis, MN 55404	6,234		NO BID	NO BID	+22,950	-49,000	NO BID	
A. Mortenson & Co. 0 Fremont Ave. N. nneapolis, MN 55405	7,500		NO BID	NO BID	+23,000	-50,000	-26,000	
aw-Lundquist & Assoc. 0 Sexton Building nneapolis, MN 55415								
echy Construction Co. O. Box 43570 . Paul, MN 55164	8,000		NO BID	NO BID	+24,000	-50,000	NO BID	

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

August 2, 1978

Our Reference: University of Minnesota
Health Sciences Complex - Unit "F"
-School of Pharmacy - HP 5C-063
-School of Nursing - NU 5C-077

RECEIVED
AUG 7 1978
UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

Subject: Concurrence to Award Contracts
Phase III Construction - Early Contract Footings

Mr. Paul J. Maupin
Health Sciences Planning Coordinator
University of Minnesota
4104 Powell Hall
Minneapolis, Minnesota 55455

Dear Mr. Maupin:

Subject bidding documentation received by our Mr. Henry C. Ray, Architect, during meeting in your offices on July 26, 1978, has been reviewed, permitting ROFEC-HEW concurrence, herewith, to proceed with the award of construction contracts, above-referenced, as delineated below, all in accord with the approved drawings and specifications for this phase of work, as follows:

Foundation Wall and Column Footings

Bid proposal, on Bid Form dated June 30, 1978:

Apparant low bidder:

Arkay Construction Company
8401 Wayzata Blvd., Minneapolis, Minnesota 55426
Julius M. Rivkin, President

Base Bid - (Item #8 in proposal) - - - - - - - - - - - - - - -	$ 78,500.00
*Elected alternates -	-none-
Total Contract Amount- -	$ 78,500.00

*Item #9 and item #10 in bid proposal, giving Unit Price A and Unit Price B for work which may become necessary above or below the scheduled depth of the excavation, or for in-place concrete not shown on drawings, are not items included in this concurrence. Such work is subject to issuance of change orders, if necessary, during the work. To extend the viability of these unit costs beyond their 30 day time limit (expiration is on July 30, 1978), the Owner-Applicant may wish to include these unit prices in his executed Agreement with this bidder, for possible future reference).

Currence by ROFEC to award contracts is based upon the prescribed procedures in paragraph 9.7 (page 47) of the "Technical Handbook for Facilities Engineering and Construction Manual 2.1 - - - Federally Assisted Construction (revision dated May, 1975). Notice of Grant Award will be forthcoming from Program Central Office, BHM, Hyattsville, Maryland, attn. Mr. John Westcott, Grants Manager.

Immediately following execution of contracts, please forward one copy to this office, attention of Mr. Richard A. Polinski, Chief, Facilities Management/Field Operations Division, in accord with paragraph 9.7.1 of abovementioned "Technical Handbook . . .", plus copies of each "Notice to Proceed" as issued by Applicant to the contractor, showing starting date of the contract, and including all data such as the contract performance and payment bonds, insurance certificates, and a complete set of corrected drawings and specifications as issued for bidding (if not previously submitted).

Date of executed contract shall be within the viability period of the submitted bid proposal.

Sincerely yours,

Sal A. Cannella

Sal A. Cannella, R. A.
Chief, Design & Engineering
Division of Regional Operations
for Facilities Engineering
and Construction

Henry C Ray

By: Henry C. Ray, A.I.A., P. E.
Hospital Architect

cc: Mrs. Ann P. Buchanan, Chief - Div. of Nursing
Hyattsville, Maryland

Elizabeth Haglund, Director - Bureau of HRD-HRA
Hyattsville, Maryland

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGION V
300 SOUTH WACKER DR. ST.
CHICAGO, ILLINOIS 60606

OFFICE OF
THE REGIONAL DIRECTOR

May 11, 1978

RECEIVED
MAY 15 1978
UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

Our Reference: University of Minnesota
Health Sciences Complex - Unit "F"
-School of Pharmacy - HP 5C-063
-School of Nursing - HU 5C-077

Subject: Concurrence to Award
Early Bid - Structural Steel

Mr. Paul J. Maupin
Health Sciences Planning Coordinator
University of Minnesota
4104 Powell Hall
Minneapolis, Minnesota 55455

Dear Mr. Maupin:

We acknowledge receipt of documentation in connection with bid opening on April 27, 1978 for referenced project, cited work, received in this office on May 8, 1978, hand-delivered by Mr. Vic Scott and Mr. Paul Kopietz of the University of Minnesota. Also received was Addenda #2, dated April 20, 1978, on same day. The documentation was in accord with para. 9.7 thru to 9.11, chapter IX, of the "Technical Handbook for Facilities Engineering and Construction Manual, Federally-Assisted Construction . . . 2.1 . . . Information on Design and Construction Related Activities, Office of Facilities Engineering & Construction."

Our review of this material permits this office to concur in the awarding of a contract for the Furnishing and Fabrication of Structural Steel and Metal Deck, delivered to the Job Site, in accordance with the contract documents for Phase II, referenced project, as follows:

As submitted in Bid Proposed Form dated April 27, 1978, and recorded on certified bid tabulation of same date - the apparent low bidder, for Base Bid and elected alternates is:

Paper, Calmenson & Co.
Post Office Box 3432, St. Paul, Minnesota, 55165
Vernon K. Huso, Vice President

Base Bid _____ $ 1,393,000.00

Quotation requested for
Unit Price #1
(per ton per mo.) _____ $ 19.00
(for storage of fabricated steel if unable to deliver to job site on date of schedule).

As soon as construction contracts are executed, in accord with para. 9.12, page 49, Chapter IX, of above "Handbook", (revision dated May, 1975), forward one original signed copy of the construction contract(s), plus copies of the "Notice to Proceed" as issued to Contractor(s), showing date of start of contract, and the contract performance and payment bonds (caution that description of Work to be performed is same as in bid proposal and public advertisement), and all insurance certificates.

Also, Addendum #2, noted above, has been reviewed. We interpose no objections to its contents, and approve it, herewith.

Sincerely yours,

Sal A. Cannella

Sal A. Cannella, R. A.
Chief, Design & Engineering
Division of Regional Operations
For Facilities Engineering
and Construction

Henry C Ray

By: Henry C. Ray, A.I.A., P. E.
Hospital Architect

cc: Ann P. Buchanan, Director
Division of Nursing

Unit F - H.S.C.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGION V
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606

OFFICE OF
THE REGIONAL DIRECTOR

November 30, 1977

Our Reference: Minnesota - HP-5C-063 (School of Pharmacy)
- HU-5C-077 (School of Nursing)
Unit "F" - Health Sciences Complex
University of Minnesota
Minneapolis, Minnesota

Mr. Paul J. Maupin
Health Sciences Planning Coordinator
University of Minnesota
4104 Powell Hall
Minneapolis, Minnesota 55455

Dear Mr. Maupin:

Submittal of the bid award documentation for Phase I - "Excavating", referenced project, has been reviewed during meeting on November 22, 1977 in Chicago ROFEC Office.

Personnel present during this meeting were:

Paul Kopietz - Chief Engineer, University of Minnesota
Victor E. Scott - Federal Projects Coordinator
Henry C. Ray, A.I.A., P.E. - ROFEC, HEW.

This will confirm verbal concurrence to award contract, as issued to Mr. Kopietz and Mr. Scott during this meeting, as permitted by our review of the submitted documentation above, in accord with prescribed procedure in paragraph 9.7, page 47 of the"Technical Handbook for Facilities Engineering and Construction, Manual 8.1----Federally Assisted Construction", revised May, 1975, as follows:

Phase I Work - "Excavation"

Apparent low bidder:
Carl Bolander and Sons Company
2933 Pleasant Avenue, South
Minneapolis, Minn. 55408
Mr. S. F. Shepard, Vice-Pres. signed bid.

Base Bid	$368,800.00
Elected alternates	-0-
Concurrence, total contract amount	$368,800.00

Addendum #1, dated October 20, 1977, issued to the contract documents and receipt of which is acknowledged by bidder upon the bid, submitted with above documentation, has been reviewed, and is herewith approved with no further comments.

Immediately following the execution of contracts, submit to this office attention: R. A. Polinski, Chief, Facilities Management/Field Operations, ROFEC, HEW, in accord with paragraph 9.7.1, page 47, chapter 9, above-mentioned OFEPM-HEW Handbook, copies of the contract, plus copies of the "Notice to Proceed" as issued by the Applicant (or his designate) showing starting date of the contract, and including the contract and performance and payment bonds, insurance certificates, and complete set of corrected drawings and specifications for subject work, as used for bidding (if not previously submitted).

Note: Date of executed contracts shall be within the viability time-frame of the applicable bid.

Sincerely yours,

Sal A. Cannella

Sal A. Cannella, R. A.
Chief, Design and Engineering
Division of Regional Operations
for Facilities Engineering and
Construction

Henry C Ray

By: Henry C. Ray, A.I.A., P.E.
Architect

HS/Unit F
Budget

UNIVERSITY OF MINNESOTA
Office of the Vice President for Health Sciences Affairs
432 Morrill Hall
Minneapolis, Minnesota 55455

November 14, 1978

Mr. Robert Ensign
Construction Assistance Grants
Center Building
3700 East-West Highway
Hyattsville, MD 20782

Mr. James Durham
Bureau of Health Manpower
Office of Program Operations
Room 9-50, Center Building
3700 East-West Highway
Hyattsville, MD 20782

Gentlemen:

In response to your request for information regarding the functioning of Unit F upon completion of the construction project now in the process of bid award, the following points are relevant.

- The proportion of fixed equipment and movable equipment has been changed from the very early estimates. Additional items have been added to the fixed equipment category. The Group I equipment, while included in the general construction bid, is estimated to be $1,498,914, an increase of the original grant estimate of $824,030.
- The alternate deduction which were selected by the Building Advisory Committee for inclusion were chosen specifically
  1) to insure that the deletion of any item would not jeopardize the functioning of the program or the building,
  2) that the specific item, could easily be added to the facility; either by
     a) repurchase before January 26, 1979 within the 120 day "buy-back" provision of the general contract, or
     b) even at a later date by direct purchase, or
     c) by use of some existing items to insure program function.

The careful selection of the bid deductions enables the University of Minnesota to be assured and to assure you that the building, upon completion will be a totally functioning project.

We trust this information will provide the necessary assurances to DHEW to permit the grant award to be issued.

Sincerely,

Clinton N. Hewitt
Assistant Vice President
Physical Planning and
Unit F Advisory Committee

cc Dean Ramey
Dean Weaver
V.P French
V.P. Brown
Members of Unit F Adv. Comm.

UNIVERSITY OF MINNESOTA
TWIN CITIES

Interior Design and Graphics
Office of Physical Planning
530 Johnston Hall
101 Pleasant Street S.E.
Minneapolis, Minnesota 55455
(612) 373-2030

February 12, 1981

TO: Gratia Oullette/Dean Larry Weaver

FROM: Gwen Schagrin GS

SUBJECT: 5th Floor Pharmacy, Educational Development

In the past week there have been several direct requests to us for items for the Educational Development area which were not originally budgeted or ever discussed in relation to Unit F planning:

- Lockable case for test master key forms
- Racks for test forms
- Dark room "in use" light for exterior of room
- Window covering for glass in doors of conference room for videotaping light control

We are concerned that Educational Development, as well as other areas in the College of Pharmacy, may have unending "wish lists." This is a matter of concern in terms of the budget, as all originally planned items for the building are not yet purchased and we do not have final budget and expenditure reconciliation.

At this point it appears that the graphics budget may not have excess funds and that there may be some slight latitude in the furnishings budget. We recommend that a small number of critical emergency items, without which departments absolutely cannot normally function, could possibly come out of Unit F funds, subject to approval by Health Sciences Planning Office, Interior Design and the Dean of Pharmacy. The purchase of other items should be departmentally funded at this time, and we will assist in their specification as needed. All requests should be channeled through a coordinator from the College of Pharmacy. (in writing)

cc: William Bowen
Paul Maupin

GS/jmm

HSAE

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC
UNIVERSITY PARK PLAZA SUITE 704 2829 UNIVERSITY AVENUE S.E. MINNEAPOLIS, MINNESOTA 55414 (612) 378-0393

1 October 1981

Mr. Paul J. Maupin
Health Sciences Coordinator
Box 726, Mayo
University of Minnesota Hospital
Minneapolis, Minnesota 55455

Re: Unit F - Pharmacy and Nursing Facility
Final Invoice - Basic Services

Dear Mr. Maupin:

Enclosed is our final invoice for the Unit F Basic Services described in the Owner and Architect Agreement dated 23 September 1977. The project construction phase has extended a year longer than anticipated in our agreement and therefore we believe we have fully met our obligations and responsibilities as described under the Construction Phase of Article I - Professional Services.

We are, of course, readily available to respond to any problem or need associated with the construction of the building. We believe such time should now be reimbursed on an hourly basis as indicated in the Construction Phase section of Article I. Such time will be recorded separately for reimbursement as provided under Article V of our agreement. Compensation for change order modification work will continue to be based upon the provisions described under Article III of the agreement.

We assume that all future requests for architectural and engineering services associated with Unit F should come through the Planning Office and we will attempt to reinforce this procedure when requests come from other University sources. Please contact me if you have any questions or comments regarding this letter.

Sincerely yours,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

Duane E. Blanchard

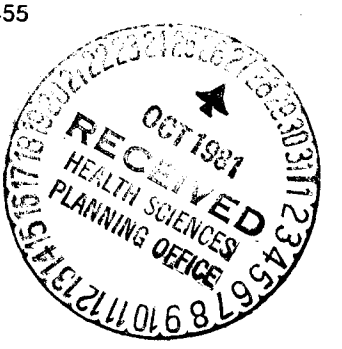
Duane E. Blanchard

DEB:la

cc: John Patterson

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Plant Operations
200 Shops Building
319 15th Avenue S.E.
Minneapolis, Minnesota 55455



October 23, 1981

TO: Thomas Kyle
Health Sciences Planning Office

FROM: Tuncay M. Aydinalp, P.E.
Construction and Contracts
Physical Plant

RE: Unit F Construction
Project No. 297-77-0348

We have reviewed your letter of August 17, 1981 regarding problems and/or deficiencies you apparently noted during a walk-through of the referenced project.

Our comments and responses are attached. For simplicity, we have used the same numbering system and format of your August 17th letter.

The data represent the most current status regarding the items as we know them. The Architect-Engineer, The Contractor, and members of our Staff and othershave directly or indirectly contributed to the responses and comments.

We trust that the attached information provides you with a satisfactory update regarding the correction work. If we have overlooked or misunderstood anything, please let us know as we shall be happy to discuss the items with you.

TMA:rh
Encl:
cc:

Clint Hewitt	Physical Planning
Paul Maupin	Health Sciences Planning Office
Dick Hendricks	Physical Plant
Gwen Schagrin	Interiors
Duane Blanchard	Health Sciences Architects
Jack Geretz	Construction & Engineering
Oliver Hughes	Physical Plant
James Hastert	Physical Plant
W.E. Soderberg	Physical Plant

CORRECTION ITEMS ON UNIT F NOTED BY THOMAS KYLE, HEALTH SCIENCES PLANNING OFFICE,

IN LETTER DATED AUGUST 17, 1981

1. Environmental Rooms

ECR 2-107 has been in "conditional" use for several months. The Sherer Company technician is on the job preparing for and conducting tests on the other units. As of October 20, a second room had passed the tests with tests continuing on other rooms.

We have the assurances of Mr. Paul Kopietz, Kraus-Anderson Company, Executive V.P., that work will continue until units are operational. If all goes well, units could be ready by November 15.

2. Ninth Floor Drinking Fountains

Pressure is apparently satisfactory with booster pump in operation. Contractor has purged lines to rid water of bad taste.

3. Elevator Lobby Doors Paint

"Top" Door Frame one coat of prior!

Contractor painted satisfactorily and doors and frames were acceptable prior to occupancy. Item apparently relates to user activities.

4. Janitor's Closet Plushness

Is not within our responsibility area.

5. 9-112 Door Closing

Closer speed adjusted.

6. 9-114F Steam Pipe to Cage Washer Leaks and Insulation "Lacking"

Contractor has corrected.

7. Faulty 9th Floor Timers

Contractor replaced all faulty timers on September 4, 1981.

8. 9-114 A Disinfectant Spray Hose Nozzle Missing

Contractor has it on order.

9. 9-114A Missing Shower Head

New head installed on September 4, 1981.

10. 9-114 A Cadaver Cooler and O.R. Table

Not in contract. - HSPO responding

11. Just one flow indicator lights on fume hoods working in Unit F Complex

Corrections in progress (Balancing and work on VAV boxes).

12. 9-156 Cold water tap leaks

Contractor has corrected.

13. 9-143 Water tap leaks

Contractor has corrected.

14. 9-144 B Tack board missing

Not in contract.

15. Roof leaks in cantilever areas

No indications of leaks at this time. Will check again as necessary.

16. Ninth Floor Custodial Work poor

Is not within our responsibility area.

17. 9-127 Stained and missing Ceiling Tile

Physical Plant will correct except area near ECR where General Contractor will correct. — When?

18. 9-125 A Stained and missing ceiling tile

Same as in Item 17.

19. Static pressure gauges not installed on all hoods

Gauges required on absolute-filter fume hoods only.

20. 9-170 Pipes make banging noise

This is difficult to eliminate because it is an inherent characteristic of steam piping.

21. 9th Floor Humidity too high

Is not within our responsibility area, operational function.

22. Instructions on cold room operations

Will be done. — When

23. 9-165 A Writing on window sill

Contractor has removed. — Check

24. 9-106 Mount Chalkboard

Not in contract.

25. Women's room stall doors won't lock or stay shut

Locks approved by Architect not suitable. Contractor to propose changes for this hardware problem. We have asked for quote on better locks from the Contractor.

26. 8-121 Mount Shelving, Floors 7, 8, 9

Not in contract.

27. 8-125 West wall fixture drips

Contractor has corrected.

28. 8-125 Gas valve in hood won't shut off.

Contractor has corrected.

29. 8-125 Waste line in center island leaks.

Contractor has corrected.

30. 8-125 Cold water tap produces warm or hot water.

Need to run water longer.

31. 8-125 Room air needs balancing.

Is not within our responsibility area, operational function.

32. 8-131Hood sash doesn't operate, stuck counterweights.

Contractor will correct.

33. 8-170 Coat rack falling off wall.

True. It has apparently been relocated by someone other than contractor.

34. Locks on laboratory doors can be picked.

Architect is investigating acceptable correction methods.

35. 8-168 Lab needs negative pressure air balance.

Mechanical Data have investigated and indicate that system meets design parameters.

36. 8-167 Steam cock leaks in fume hood.

Contractor has ordered replacement.

37. Coffee and food cart on 8th floor.

Is not within our responsibility area.

38. Stalls in lavatories won't lock, etc.

Locks approved by Architect not suitable. Contractor to propose changes for this hardware problem.

39. 8-150 Stained ceiling tiles.

Physical plant will replace.

40. 8-184 Room temperature too cold.

Is not within our responsibility area, operational function.

41. 8-147 Cold room-water tap leak.

Appears satisfactory in latest inspection. check

42. 8-148 Weather stripping and ventiliation adjustments near steam sterilizer.

User has indicated that there is no complaint and no need for modifications. check

43. 8-152 Partial equipment installation in closet.

Not in contract.

44. 8-182 Door won't close.

Contractor has adjusted closer speed.

45. 8-191 Door won't close.

Contractor has adjusted closer speed.

46. 8-185 Hoods not capturing, room smelly, flow indicators not working.

Mechanical data, balancing contractor, has checked and adjusted.

47. 8-185 Steam cocks in hood drip.

Contractor has ardered replacement parts.

48. 7-102 Door won't open.

Contractor has corrected.

49. 7-100 No room number plate.

Not in contract.

50. 7-109 Door won't close.

Contractor has corrected.

51. 7-109 Coat rack not behind door.

True, but installation per contract documents.

52. 7-119 Clock missing.

Not in contract.

53. 7-115 Movable partitions modifications - Kyle Asks Interiors to Investigate.

Not in our responsibility area.

54. 7-125 Room too cold.

Is not within our responsibility area; operational function.

55. 7-195 Door won't close

Contractor has corrected.

56. 7-191 Ceiling tile Missing.

Physical Plant will correct.

57. 7-166 Door won't close.

Contractor has corrected.

58. 7-168 Observation window poorly installed, etc.

Contractor has corrected, except for paint touch-up.

59. 7-173 Missing room number plaque.

Not in contract.

60. 7-172 Damaged number plate.

Not our responsibility

61. 7-176 Corridor, stained ceiling tiles.

Physical Plant will correct.

62. Remove temporary signage on 7th floor.

Not in our responsibility area.

63. 7-104 Door won't close.

Contractor has corrected.

64. 7-192A Door won't close.

Worked satisfactorily at time of Oliver W. Hughes review.

65. 7-194A Door won't close.

This is same door as in item 63.

66. 7-195 Paint on door frame messy.

Contractor will caulk and touch-up.

67. 7-173 Legs on tables installed wrong.

Not in our responsibility area.

68. 7-191 Door won't close.

Contractor has adjusted closer.

69. 7-193 Door won't close.

Contractor has adjusted closer.

70. Janitors closet has goofy sign on door.

Not in our responsibility area.

71. Sixth floor Women's room needs paint around door.

Painting was satisfactory at time Occupants moved in. Check

72. 6-138 Sound attenuation tape has fallen off.

Contractor will replace.

73. Sixth floor corridor paint poor.

Paint work satisfactory at time of occupancy. Damage possibly by moving operations. Color selection was by Architect. Check

74. Sixth floor mice infestation.

Not in our responsibility area.

75. Sixth floor too cool.

Not in our responsibility area, operational function.

76. Sound attenuation tape peeling off many doors.

Contractor will replace.

77. 5-130 Kitchen unit dead.

Circuit breaker "off" in panel, Physical Plant operation.

78. Touch up paint on double doors. Need security plate over latching mechanism.

Paint work satisfactory at time of occupancy. For security plate over latching mechanism, Contractor proposing changes for this hardware problem.

79. Fire shutters in atrium.

Done by Physical Plant.

80. 3-160 Oil door at entrance.

Not within our responsibility area, operational function.

81. 3-160 Lights out.

Not within our responsibility area, operational function.

82. 3-160 Cabinets on north wall crooked, doors uneven.

Contractor has corrected.

83. 3-150 Four casework doors won't close.

Contractor has corrected.

84. 3-140 Door to corridor won't close.

Contractor has corrected.

85. 3-138 Clean marker off door lights.

Corrected.

86. 2-156 Door won't close.

Contractor has corrected.

87. 1-104 Need signage in men's locker room.

Not in our responsibility area.

88. 1-125 Pyrotech system in volatile storage room needs charging.

Contractor has corrected.

89. Green House Summary

Install Hardware and core in entrance gate.

Not in our responsibility area, Physical Plant operations.

Roof leaks at connection to pre-cast (floor flooded).

Contractor has repaired.

Filters in radiation installed incorrectly.

Contractor has corrected.

Relocate steam line behind soil box.

Contractor will correct.

Additional General Comments.

A. Partitions in 4th floor classrooms are acoustically unsatisfactory.

Spot checks suggest that they function. Perhaps there are some specific areas.

B. Shutters between third floor elevator lobby and staircase are non-functional.

Done by Physical Plant.

C. Locks on the toilet stalls are inadequate.

Locks approved by Architect not suitable. Contractor to propose changes for this hardware problem. We have asked for quote on better locks from Contractor.

D. Sinks in fourth floor tools laboratory (4-120) may have reversed connections (hot water from cold water tap).

Faucets installed and inspection of room in general took place before completion. Three sets of faucets corrected, work on fourth in progress.

E. Lavatory stall partitions are not stable.

Ceiling-mounted stall partitions and appurtenant hardware approved by Architect. We have asked for quote on floor-mount extenders from Contractor to use in the event that lock improvements do not improve stability condition.

APR 26 1982 ~~1980~~

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Plant Operations
200 Shops Building
319 15th Avenue S.E.
Minneapolis, Minnesota 55455

April 22, 1982

TO: Paul J. Maupin

FROM: Tuncay M. Aydinalp

RE: Unit F - Health Sciences
Project No. 297-77-0348

I refer to your memos of March 18, 1982 and April 20, 1982 regarding the above referenced project. In the former you asked for an "accelerated schedule for the completion of unfinished work in Unit F". In the latter, you ask for a "dependable completion schedule along with a reliable forecast of remaining expenditures for the project".

Your concerns appear to be the return of unused project monies so that departments can proceed with additional equipment purchases. In this regard you make mention of the building shakedown fund which currently has $89,000.00.

As you know, Unit F work is not yet complete. There are items relating to 1)heating system problems, 2) cold air infiltration, 3)environmental rooms, 4) greenhouse operations, 5) precast panel repairs and 6) miscellaneous corrections. Your office should be current on the status of the major issues either through receiving copies of our relevant memos that we have provided or by the participation of your Staff members at project meetings.

At this point, the primary problems on the project involve the heating system and cold air infiltration. On February 10, 1982, we met with H.S.A.E. representatives and informed them about the problems we had encountered on Unit F during this past winter and asked for a report on related design items. Tom Kyle from your Staff was a participant at the meeting. We received H.S.A.E.'s letter-report of March 26 and sent it on to the affected Contractors for comments and responses on April 6, 1982. Mr. Paul E. Kopietz of Kraus - Anderson Construction Company has informed us that they are currently reviewing their files for information. We have not had a response from Axel Newman Company as yet. We expect to have a joint meeting with all the involved parties on or before May 7 to resolve the issues.

Until we have this matter taken care of, there are no definitive means of establishing the scope of the modifications required; of determining the responsible parties, and; of estimating costs. To lesser extents, there are items that we are working on in the other categories of work noted above. The result is that there are no feasible ways to give reliable costs and schedules at this time.

We appreciate your concerns about equipment funding and your wish to finalize the account on the "shakedown" budget as soon as possible. However, I trust that you can understand the need to set aside funds to take care of items which inevitably appear in the early occupancy periods of a building.

Our Staff indicate that a reasonable minimun shakedown period on a project of the scope and magnitude of Unit F is about two years. With Nursing going into the building in February of 1981 and Pharmacy following months later, we are not at the 1-year mark for the whole building as yet. In this regard, Mr. Vic Scott, who has extensive experience analyzing budget items on University projects, has stated that our Staff's estimates are in line with past experiences.

The amount of funds that will be legitimately necessary for the building shakedown phase of the project is still indeterminate. It is entirely within the realm of possibility that the heating system corrections alone, should they be extensive, could involve major expenditures. We will be happy to inform you of funding needs as soon as we arrive at a clear definition of needs and responsibilities.

Regardless of the foregoing, there is one possible way to transfer the shakedown funds into the equipment purchase budget immediately if that is essential. Provided an authorized party such as Mr. Clinton N. Hewitt guarantees that funds for building 'shakedown' will be made available to us as required, we will be happy to transfer the funds at any time. In the absence of such guarantees, logic, past experience, and prudence dictate that there should not be any change in the current authorization status.

At this point, it is also necessary to call attention to your April 20 memo comment that there have been at least two telephone requests in the past few weeks by your office for us to provide information regarding this matter. I have asked Jack Geretz and A. Walter Johnson whether they had received any calls from your office and they indicated that they had not. I have not had any such contacts either. Thus, we are unable to determine with whom the conversations were and what they involved.

To be sure, we are aware that Vic Scott has had telephone conversations with your office regarding Unit F budget items. We also know that Mr. Scott has conveyed our Staff's view that there should not be any adjustments to the shakedown budget at this time. Perhaps the phone calls referred to earlier were to Mr. Scott, with whom we work closely. Even so, Vic does not recall any specific requests for work schedules and estimated costs.

I trust that the foregoing clarifies the current status of the Unit F project. If we can provide you with any additional information, we shall be happy to do so. If you should have any questions, please call.

TMA:rh

cc: Clinton N. Hewitt
Victor E. Scott
Warren E. Soderberg