

Dentistry

UNIVERSITY OF *Minnesota*

SCHOOL OF DENTISTRY • 136 OWRE HALL • MINNEAPOLIS, MINNESOTA 55455

Office of the Dean

November 17, 1969

Mr. C. T. Smith
Coordinator, Health Sciences Planning
B310 Mayo
University of Minnesota
Minneapolis, Minnesota

Dear Tom:

I do apologize for not getting to you more definite information on dental schools to visit in the United States and Canada. My remark about checking with us just before calls are made was inappropriate. Sorry.

Visits to schools will still be of some use but will be made at least a year late. TAC's attitude on this last year was to me impossible to understand. As I see the planning continuing, I am grateful for your coordinating hand. But I am becoming more amazed that TAC was selected as the main architectural firm. Their lack of manpower, experience, and apparent talent are frightening in view of the magnitude and importance of the project. Certainly there are many imaginative firms with considerably more experience and staff. But we can't change the firm now. Yet I am concerned about their ability to design the basic ingredients of the building let alone the innovative essentials. Many months ago I suggested general and special consultants, but the suggestion seemed to be turned aside as an affront to the architects. They need considerable help. I'll bet the local firms could make a contribution if given a chance.

It's good that consultants are working on the project, but I wonder what they will actually accomplish for Unit A. I feel certain that a separate records consultant will be needed promptly to help us with our plans on a records system.

Now to the visits. I have checked with some faculty -- preferred to have done more. I still will make some long distance calls when I get home to verify whether certain facilities are useful for us to visit. This would only be helpful for your final arrangements.

West Coast

University of British Columbia at Vancouver
Quite a new facility. Will call a faculty member whom I know very well.



HEALTH SCIENCES CENTER

University of California at San Francisco

Would not require a direct visit by us but if someone is going there could get the information on building in a confined area.

University of the Pacific at San Francisco

Dr. Jensen and I have visited the new school but do understand some additional installations in educational resources and clinic design could be useful.

UCLA at Los Angeles

New school. Some have thought the facility not too innovative but expect some value could come from visit.

South Institute at La Jolla

Modular research laboratories.

Also, we would be interested in visiting or at least receiving information from another person's visit of special educational resources facilities.

Midwest

University of Michigan at Ann Arbor

New school. Know faculty well.

Loyola of Chicago

New school. Some good clinical facilities.

Ohio State

New addition I understand with some very innovative clinical facilities.

University of Nebraska

Apparently just a fair job with a new school. I know the dean well. Maybe could get some ideas but last on list of Midwest schools.

Texas at Houston

I have been there recently. Only useful for educational resources. If someone else is going down there, should check on the new television installation.

East Coast

University of Toronto

Sterilization system and distribution of clinical instruments.

Dental School at London, Ontario

Would have to check this out. Told it is a new school with innovative aspects.

University of Maryland at Baltimore

University of Georgia
Emory University

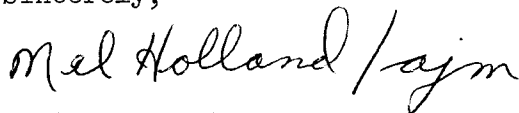
University of Connecticut

Under construction but could be helpful in discussing with people there research facilities, animal quarters, materials handling, system and clinical facilities.

Also, I would think it useful for us to gain information directly or indirectly on records systems, research facilities, materials handling systems, hospitals with dental facilities, educational resources and communication systems.

I would agree that the first part of December would be the best time for our people to make visits. This letter will be typed after I have gone to Puerto Rico. My secretary, Annette, will sign the letter.

Sincerely,



Mellor R. Holland
Assistant Dean

MRH:ajm

Mr. Smith
Smith

Research Planning Committee
Minutes of meeting on 12/2/69

In attendance: Drs. Anderson, Folke, Meyer, Shapiro, Singer, & Wilkes

Design: Two major factors of importance in design, modularity and flexibility, could not be intelligently discussed because of the lack of information about cost. It was generally agreed, however, that the ability to move walls and services has merit. Copies of all research floor plans were distributed to committee members, who were asked to critically review the present drawings of all floors (16-19) so that revisions could be made at the next meeting. Number, size, and location of all labs, offices, and support rooms, and access to these areas, should be considered.

Standards for utilities: The committee recommends the following:

- 1) deionized water from a single large deionizer unit should be supplied by tap to each major laboratory on floors 16-18. Distilled water can then be made as required by the individual investigator;
- 2) air and gas should be supplied to all major laboratories on floors 16-18, the germ free facilities on floor 19, and in all fume hoods, but vacuum is not needed;
- 3) 220 volt power should either be installed in all major laboratories or be readily accessible.

Fume hoods: All should be standard 5'-6"X30" unless otherwise specified.

Glassware washing equipment: Sharing should be a cooperative effort among individual investigators on any particular floor.

Animal quarters: Drs. Meyer and Wilkes were charged with the responsibility of modifying appropriately the Anderson design of the animal facilities. Suggestions for improvement included:
1) subdividing the germ free laboratory so the space could be effectively used for other animals prior to its eventual projected use; 2) adding a diet preparation space; 3) considering exercise space; and 4) subdividing the monkey and dog rooms.

We need clarification of which elevator would be used for animals and freight and which floors would be serviced.

Ventilation, temperature control, light control, and possibly humidity control (depending on cost) are needed in animal rooms.

Type of construction materials (tile, etc.) must be discussed with the architects, again considering cost.

The Anderson to Kubicek letter of November 14 was endorsed. If the space for quarantine, receiving, etc. needed by the Animal Hospital group is collected by taxation, space on the 19th floor used by Animal Hospital personnel (lockers, storage, cold room, cage washer, etc.) should be included in our assessment.

page 2, 12/2/69

Data processing: A centralized computer facility on floor 17 should be available for use by all dental researchers. Cables to individual laboratories on other floors can be installed as needs develop.

Intercom: Research areas should be included in any school-wide communication system, but again we need advice on systems available and cost. A telephone-linked system might be acceptable.

Next meeting: Tuesday, December 16 at 10 a.m. in Owre 439.



*H. J. F. P.
D. B. M.*

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ERNEST L. BIRDSALL
TREASURER

5 December 1969

Dr. Moller Holland
School of Dentistry
University of Minnesota
Minneapolis, Minnesota

RE: University of Minnesota Health Sciences Expansion

Dear Mal,

We are presently doing large scale plans of typical laboratories for all research disciplines using the information contained in the equipment lists and space description forms. I expect to present these sketches for discussion with the research staff during the week of December 15.

The enclosed memorandum lists a number of specific questions which might be looked into before our next meeting with the research group. We will also have additional questions which can best be asked at this meeting when you will have the large scale plans to refer to.

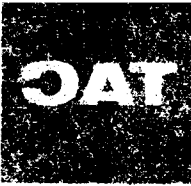
Sincerely,

THE ARCHITECTS COLLABORATIVE Inc.

D.B. Mowha

cc: Mr. C.T. Smith
Mr. R. Turner

DBM/kb



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LESLIE HARRIS
COLLETT KENNEDY

2 December 1982

Dr. Melior Holland
School of Dentistry
University of Minnesota
Minneapolis, Minnesota

RE: University of Minnesota Health Sciences Expansion

Dear Mel,

We are presently doing large scale plans for dental laboratories for all research disciplines using the information contained in the attachment lists and space allocation forms. I expect to present these sketches for discussion with the research staff during the week of December 15.

The enclosed memorandum lists a number of specific questions which might be looked into before our next meeting with the research group. We will also have additional questions which can best be asked at this meeting when you will have the large scale plans to refer to.

Sincerely,

THE ARCHITECTS COLLABORATIVE INC.

[Signature]
E. B. Havens

cc: Mr. C.T. Smith
Mr. R. Turner

WBM:lp

THE ARCHITECTS COLLABORATIVE Inc.

MEMORANDUM

TO: SCHOOL OF DENTISTRY
FROM: DON MAWHA
DATE: 4 DECEMBER 1969
SUBJECT: DENTISTRY RESEARCH QUESTIONS

In order to facilitate design development of the research areas for the School of Dentistry, the following items require clarification.

1. The method of supplying distilled water. Whether central to the building, central to the floor or individual has yet to be determined. In order to establish the design criteria the estimated quantity required by each user needs to be tabulated by the following categories:
 - a. Deionized
 - b. Distilled
 - (1) absolute purity
 - (2) ultra purity
 - (3) high purity
 - (4) low purity

Perhaps the Dentistry Research Committee could undertake this survey.

2. MICROBIOLOGY

- a. Laboratories A18-111 and A18-115 are of insufficient area to contain all Group I and II equipment required. The following items were relocated to the Instrument Lab A18-105.
 - (1) Freeze dryer
 - (2) Dry ice machine
 - (3) Refrigerator/freezer - 2
 - (4) Centrifuge - Sorvall
- b. The Electron Microscope Suite, in order to achieve better plan relationships, is being redesigned. Since the photo rooms enlarge and print for all the E.M. rooms, could a single photo room serve this purpose. More detailed data is required about the electron microscopes.

3. BIOCHEMISTRY

- a. According to the space description forms perchloric acid will be used in some of the Laboratories, A18-144, 147, 149, 150, 151, 152. Which particular labs of this group need to be supplied with Perchloric Fume Hoods?

4. BASIC CLINICAL RESEARCH TRAINING

- a. There is no list of Group II equipment for Laboratory/Office A18-104 in the equipment inventory. Please verify that no Group II equipment is required in this room.
- b. The Group II equipment lists for laboratories A18-108, A18-118 and A18-121 do not describe existing or interim purchase equipment in detail. More data is required to facilitate room layouts. In all these laboratories animal experiments and surgery will occur. These laboratories are presently located on the exterior of the floor and are to be equipped with overhead minor O.R. lights. In light of this function, is this location really optimum? Does the type of animal surgery justify the use of such a sophisticated light?
- c. A small glasswashing facility is to be provided in laboratory A17-141. Is this to be used by all BCRT labs on floor 17? Apparently animals will be brought into this lab. Is this function compatible with glasswashing?
- d. The Group II equipment for the Shielded Laboratory A17-142 includes a large (8' x 8') Faraday cage. Would this area be more flexible if the cage were omitted and the entire room shielded?
- e. In order to plan A17-148 as an area with the two distinct functions of graduate study and laboratory we need the list of Group II equipment required for the laboratory function.
- f. In order to plan A16-159 we will need a tentative Group II equipment list.

5. ORAL BIOLOGY

- a. A suggested layout for the Tissue Culture Suite A17-130, 131, 132, 133 has been prepared by the department. We would appreciate a copy of this sketch in order to restudy the proposed planning.
- b. Are the facilities of the Storage Room A17-114 for glasswashing and ice supply to be used by other laboratories besides A17-111 and A17-116? Will the Balance Room be used by other labs than these adjacent labs?
- c. Descriptive data, such as manufacturers' name and model number is required for the following items in Laboratory A17-116.
 - (1) Technicon @ \$1,650
 - (2) Cryostat and Microtome
 - (3) Refrigerators - 2
 - (4) Deep freeze
 - (5) Refrigerators - 2 @ \$300
- d. Laboratory A17-121 has become a photo as well as an instrument lab. If printing and enlarging for the E.M. rooms is a function of this room could similar equipment now listed for the E.M. Dark Rooms A17-129 and 126 be omitted from those rooms, thereby reducing this area?
- e. More data is needed about the electron microscopes for rooms A17-125 and A17-128.

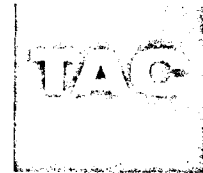
6. PHYSIOLOGY

- a. A description of the proposed computer equipment in A17-150 is needed before the area can be planned.
- b. A detailed description of the existing or interim purchase Group II equipment is needed for A17-151 and A17-157. In these laboratories animal experiments and surgery will occur. These labs are presently located on the exterior of the floor and are to be equipped with overhead minor O.R. lights. In view of this function, is this location really optimum? Does the type of animal surgery justify the use of such a sophisticated light?
- c. More detailed data is required of the existing or interim purchase Group II equipment for A17-152, A17-153, A17-155, A17-158.
- d. Is the Group II equipment list for A17-156 complete?

7. SPEECH PATHOLOGY

- a. Group II equipment for rooms A16-101, 102, 103, 104, 105 has been combined into one list. Before the rooms can be planned the list needs to be separated on a room by room basis.

THE ARCHITECTS COLLABORATIVE



HS Exp. Dentistry

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ERNEST L. BIRDSALL
COMPTROLLER

30 December 1969

Dr. Mellor Holland
School of Dentistry
University of Minnesota
Minneapolis, Minnesota

Re: Minnesota Health Sciences Expansion
TAC Job No. 68013

Dear Mel,

I am enclosing four drawings with accompanying net area tabulations showing how an operatory size of 10' x 10' clear can be accommodated within the present plan for Unit A. These drawings also show the effect on floors 6, 7 and 8 of introducing an additional elevator bank on the north side and a separate shaft for the animal-service elevator on the south side. One of the stairs has been moved and the location of one of the six cantilevers at the perimeter has been shifted but otherwise the basic configuration of the floors remains the same.

An obvious effect of adding elevator shafts is the reduction of available net area on these floors. The tabulations show that on the average for three different schemes, the total net area for multipurpose clinics is reduced by about 3,000 S.F.

Some readjustment will most likely have to be made in the perimeter areas to make up this deficiency. Although there are some fairly obvious ways this could be done we have not attempted to make such adjustments on the present drawings for the following reasons:

1. The decision on location of a materials handling shaft in Unit A will affect available net area per floor and may have other effects on the internal planning of these floors.
2. A decision to centralize sterilization will require allocation of net areas somewhere in the program which may or may not reduce the amount of space needed for materials processing and dispensing on each floor.
3. A readjustment of multipurpose clinic areas must also take into consideration other clinical divisions which are presently shown in the schematic drawings in excess of their programmed net area. (Oral diagnosis is now almost 2000 S.F. over program, cleft palate about 500 S.F. over).

Hopefully we will be getting some answers to the first two questions very soon from our consultants. Meanwhile, the enclosed drawings may be useful in identifying other questions which still need to be resolved.

Some specific comments on the enclosed drawings follow:

Floor 6: This plan does not attempt to deal with some of the more general problems which have to be resolved on this floor. We are continuing to study the overall planning on this floor and expect to have alternative schemes to present very soon. For the present, this simply shows that the 10 x 10 operatory can be accommodated within the general framework.

Floor 7 and 8

Scheme A: This scheme accommodates 96 of the larger operatories without encroaching appreciably on supporting areas. It represents the least change from the July schematics and is in fact more similar to the schematic plan than our more recent schemes which showed an aisle or corridor on all four sides of the operatory clusters. All three schemes for floors 7 and 8 show a wider perimeter corridor which is probably a good idea in any case.

Scheme B: This scheme accommodates more operatories at the expense of some supporting areas. Four of the twelve operatories thus gained would have a structural column in one corner.

Scheme C: This scheme also adds 12 operatories but is probably less effective than scheme B since the added operatories are rather remote from supporting areas. However, if trays and supplies are to be distributed to the operatories on a scheduled basis this may not be a critical problem. This scheme also cuts quite heavily into conference and seminar space although some of this can be regained if space is added at the perimeter.

Location of the Reading Room on the 8th floor would preclude the use of this scheme.

Perhaps we can discuss these plans sometime during our trip next week.

Sincerely,

THE ARCHITECTS COLLABORATIVE, INC.



Don B. Mawha

DBM/bb

Enclosures

cc: C. T. Smith
Bob Turner
Marlin Huisinga

THE ARCHITECTS COLLABORATIVE INC.



Authenticity

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H. MORSE PAYNE, JR.
ERNEST L. BIRDSALL
TREASURER

15 May 1970

Dr. Dwight Anderson
Laboratoire de Biophysique
Institut de Biologie Moleculaire
Universite de Geneve
24 Quai de l'Ecole de Medecin
1211 Geneve 4, SUISSE

Dear Dr. Anderson,

Enclosed is the Design Development Plan and area tabulations for floor 18. We are sending these items to you at the request of Dr. Holland for your review.

We were disappointed, as I am sure you were, that the Design Development Phase was not complete before you left for Geneva. We missed not having your assistance and consultation in the development of the Dental Research Area. Dr. Schachtele and Dr. Hickman were most helpful and cooperative in developing floor 18. We believe the present plan has solved most of the areas which were not solved when you left.

I would like to take this opportunity to review the major areas of consideration in the planning of Floor 18 and how they were resolved.

I. Programmed Area

The enclosed area tabulation forms indicate that the total assignable net area for floor 18 remained very close to the original program and schematic plans. It should be noted that corridor A18-91, which is essentially a Microbiology Departmental Corridor, is not included in net area. With the open plan, this corridor will be very useable to Microbiology and your department will be able to take advantage of this 525 square feet of area.

II. Planning

The major planning changes which have occurred since our last review with you are as follows:

- A. Animal Elevator moved to the east 12'-4".
- B. The Passenger Elevators and Lobby were modified slightly.
- C. Microbiology and Biochemistry locations were reversed.
- D. The entire Microbiology Department, including the Electron Microscope Suite are located on the north half of the floor and isolated from all animal traffic.

Mr. Dwight Anderson
15 May 1970
Page Two

III. Electron Microscope Suite

The E.M. Suite was consolidated into one area. The enclosed plan was carefully reviewed with Dr. Hickman and approved by him. We have met and reviewed our E.M. planning efforts with Dr. Fawcett of Harvard University. We have contacted Dr. Humberto Fernandez-Moran and will be meeting with him in Chicago in the near future with a University representative to review our plans with him. After our meeting with Dr. Fernandez-Moran we should be in a position to make a final recommendation as to the detail planning of this area and the isolation techniques we will be employing in the design.

IV. Equipment

The equipment plans and detail layout have not been completed as yet. The 1/8" scale plans have located some of the major equipment so as to indicate basic design intent and the room scale. All of the major rooms will be designed in detail at 1/4" scale and reviewed with the department heads before the room layouts will be considered finalized.

We hope that the above information and enclosed items will assist you in keeping abreast of the planning efforts which have been continuing since your absence. If you have any question or would like some additional information, please contact us directly or through your staff.

Sincerely yours,

THE ARCHITECTS COLLABORATIVE, Inc.

Duane E. Blanchard

DEB/bb

Enclosure

cc: Dr. Holland
Mr. C. Thomas Smith ✓

*for Leach Assoc.
H.S. Exp.
Dental*

Office of the Dean

October 2, 1969

Mr. Thomas Smith
Associate Director
B310 University Hospital
Minneapolis, Minnesota

Received By
Assoc. Director's Office
OCT 3 1969
UNIVERSITY HOSPITALS

Dear Tom:

This is a brief report on your request for a typical daily clinic load which we project for the new dental facilities. These figures would be just for Unit A and would not include the hospital dental facilities in Unit C.

In the materials submitted for the grant application, we projected 10,500 patients and 190,850 visits for 1974-75. These figures would be for 90 percent during the regular academic year and 10 percent for the summer. Now, it is very possible that our summer load will increase over what we have projected. Figuring approximately 145 clinic days during the academic year, I estimate that we will have approximately 1,175 patient visits in a typical day. Some days will, in my judgment, be greater than this and other days less.

It would not be possible for me to refine this number any more. It would be likely, in certain instances, that the 1,175 figure may not be the number of people since some patients may visit more than one clinic in a given day. For the purposes of determining the elevator needs and capacity, I would not want the figure to be decreased. *

It should be pointed out that very often patients come with friends or family who are not going to be patients for that day, so there needs to be some allowance for these people. What that number is I don't know -- 25 percent more? I don't think this would be too high.

Again I point out that the above figures are estimates but are based on the best judgment of our clinical people.

Sincerely,

Mellor
Mellor R. Holland
Assistant Dean

* Tom -

The common situation would be that patients who would visit more than one clinic would do so on different days. Thus it would be wise to use the 1175 figure. So there should be added a number who would come with the patient as family or friends.



HEALTH SCIENCES CENTER

MRH:ajm



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGION VI
FEDERAL BUILDING
601 EAST 12TH STREET
KANSAS CITY, MISSOURI 64106

PUBLIC HEALTH SERVICE
HEALTH SERVICES AND
MENTAL HEALTH ADMINISTRATION

May 21, 1970

Mr. C. Thomas Smith, Jr.
Associate Director, and Coordinator
of Health Sciences Planning
Box 605
University of Minnesota Hospitals
412 Union Avenue, S. E.
Minneapolis, Minnesota 55455

Re: Health Sciences Expansion, Unit A
University of Minnesota
Minneapolis, Minnesota - 4021
(Proposed P.L. 88-129 Project)

Dear Mr. Smith:

Reference is made to the joint conference at the University on April 15, 1970 and to succeeding telephone discussions since that time regarding the referenced project.

1. The application for this proposed project has been approved but to date funds have not been awarded to establish it as an active project for construction. At the request of Mr. Smith, this office asked for certain information from Mr. Lawrence Gray of N.I.H., Washington, D.C., by telephone and received the following information:
 - a. Contractual agreements which the University may arrange for work on this project prior to the award of funds and established date as a project by Washington, are not eligible for Federal participation. However, if work for early contracts is developed in compliance with Federal standards through coordination with the Regional Office and awards of these contracts are delayed until after advice of award, Federal participation may be considered. Such early contracts now being considered are: (1) demolition and site

clearance; (2) steel fabrication and foundation construction; and (3) expansion of power plant.

- b. The Regional Office will advise N.I.H. of alterations affecting the program brought about by changes in developing working drawings, alternate proposals as may be considered, and in case of over-bids when placed on the market.
2. The following tentative schedule in the development of this project (Unit A) was presented at the conference on April 15, 1970:
 - a. Started development of foundation and footing drawings--February, 1970.
 - b. Complete design development--May 15, 1970.
 - c. Early contracts for demolition and excavation taken--September, 1970.
 - d. Early contracts to pour footings--October, 1970.
 - e. Order structural steel--November, 1970.
 - f. Anticipated cost for awarding early contracts--\$650,000.
 - g. Anticipated cost for fabrication and erection of structural steel--April, 1971 (\$2.45 million).
 - h. Contract documents completed for bids--April, 1971.
 - i. General construction contract award--June 1, 1971.
 - j. Proposed joint review of second stage submittal and review in Regional Office (Architectural and Mechanical and Electrical)--June 15, 1970.
 3. A revised program analysis of space will not be required for second stage review provided there are no reductions or major changes in the plans from that approved with the application and schematic plans submitted to Washington.

- ✓ 4. Documentation must be submitted in regard to consultant fees paid by the Sponsor in considering their eligibility for Federal participation. Consultant services by faculty staff members will not be considered eligible for Federal participation.
5. The Sponsor has been advised by N.I.H. that September 1, 1970 is the approximate time he may be advised of the funds which are to be awarded this project. A telephone discussion with the Washington office on approximately April 22, 1970 reaffirmed this advice.
6. The Architects Collaborative, Inc. has advised the University that approximately one million dollars in savings may be realized if early contracts can be awarded and thus six months in delays can be saved in total project construction time. This was figured on savings over a projected three months' escalation at 1½% for an estimated \$31 million involved in this project (3% escalation in costs is figured).
7. The total complex in Health Sciences Expansion had initially been estimated at \$90 million. Now due to escalation this complex is estimated to have risen to \$118-120 million for construction. Remodeling of existing structures in the expansion program is estimated to be completed by 1975.
8. The following comments are in reference to previous interpretations for occupancy classifications of the various floor levels in Unit A:

Level 1. No comment.

Level 2. (Below grade.) The auditoria must be provided second means of egress through the appropriately protected service corridors at Level 1 and exitways. The auditoria will be required to be protected by automatically controlled sprinkler system. The teaching area may be designed on the open planning concept as noted in Sect. 9-2 of the Life Safety Code. The teaching area is to be posted by appropriate sprinkler protection. The concourse which extends through the building at this level must be protected by appropriate cut-offs at 300 feet intervals.

Level 3. The assembly area will be provided appropriate exit-ways. This teaching level will utilize the open planning concept in accord with the Life Safety Code.

Level 4. This comprises a total of 29,600 square feet. In the open planning concept described in N.F.P.A. Life Safety Code, Art. 9-2121 states that 30,000 square feet is the maximum undivided space allowed and the smoke partitions are required at 300 feet intervals (building width).

Level 5. This is similar to the fourth level and the requirements for that level apply. This floor has a tiered classroom which will be considered as an assembly area with respect to standards established by the Life Safety Code.

Level 6. (36,000 square feet.) This level has office-type occupancy. One smoke partition will be required to subdivide this level into two sections.

Levels 7, 8 and 9. These are similar to the 6th level and the same requirements apply.

Level 10. (Mechanical equipment.) There will be gas-fired equipment and appropriate protection will be provided in compliance with PHS and N.F.P.A. Standards.

Upper Levels (through 19). 12,000 square feet or less will be laid out in one of the three following arrangements: (1) offices; (2) research laboratories; or (3) combination of offices and research laboratories. Those laboratories determined to have more than normal status in hazardous conditions should be protected in fire-resistive construction. This office will recommend that those floors with only laboratories or combination of laboratories and offices be provided a smoke partition which will subdivide the floors into two sections.

9. On May 12, 1970 this office contacted Mr. Richard Stevens, Technical Advisor for the National Fire Protection Association in Boston, concerning required distance between rows of auditorium seating in conventional layout. He has advised us that 12" is the minimum space permitted regardless of the number

of seats which must be crossed before reaching an aisle. The folding tablet arms must in the case of emergency be considered as part of the obstruction to passage and must maintain the 12" space when they are in the "up" position.

On April 20, 1970 this office received a summary of the joint conference (April 15, 1970) held at Powell Hall. One item within this memorandum stated that if the final project is reduced in scope, a definite reduction in Federal participation will result. This is not necessarily correct in that the Washington office must make the determination of action.

The item of evaluating open planning has been explained in the foregoing material.

This office also acknowledges receipt of Mr. Cavin's letter of April 20, 1970 and concurs with the points stated.

On May 19, 1970 this office received a memorandum from Mr. Thomas P. Lawless, Jr., in answer to the University's request submitted through the Regional Office on April 20, 1970 for initiating "early" contracts to save funds due to escalating construction costs. A copy of Mr. Lawless' memorandum is attached.

Please confirm the date desired for the review of the second stage submittal to be held in the Regional Office (June 15 or 16, 1970).

This office will appreciate your advising those people involved of the above matters.

On May 18, 1970 this office advised the Chicago Regional Office of the forthcoming June review of second stage documents but that office does not expect to have a representative present at that meeting.

If you have any questions do not hesitate to contact this office.

Sincerely yours,



STANLEY E. KRUMBIEGEL, M.D.
Regional Program Director
Health Facilities Planning and
Construction Service

Att.
RHS:hb

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH

Date: May 15, 1970

Reply to
Attn of: GMS, DERF

BUREAU OF HEALTH PROFESSIONS EDUCATION
AND MANPOWER TRAINING

Subject: University of Minnesota, Project No. 1-C05-CF-04021-01

To: Program Director, Health Facilities Planning
and Construction Service, Region VI
THROUGH: Director, DERF

1. This is in reply to Mr. Swank's memorandum of April 20, 1970 and Mr. Champion's letter of April 10, 1970 which requested participation in contracts that may be signed before a grant award is made for subject project.
2. The grantee should be advised that the Health Professions Educational Facilities Program does not participate in construction work completed, materials purchased or services rendered prior to grant award with the exception of A&E fees. Therefore, if contracts are signed prior to grant award, your office would be requested to make a determination of percentage of completion and the grant amount would be reduced accordingly.
3. Based on present information this project will not be considered for funding until early fiscal 1971 and the likelihood of its being funded at that time can not be predicted. However, we remain hopeful and on this basis ask that you encourage the applicant to continue with the development of the project.



Thomas P. Lawless, Jr.
Chief, Grants Management Staff
Division of Educational
and Research Facilities

RECEIVED

MAY 19 1970

PUBLIC HEALTH SERVICE
HOSPITAL FACILITIES
REGION VI, K. C.

**HEALTH SCIENCES EXPANSION
UNIVERSITY OF MINNESOTA
Minneapolis, Minnesota - 55455
(Proposed 88-129 Project)**

DATE: April 15, 1970.

PURPOSE: Discussion of project.

PARTICIPANTS: Brooks Cavin, HSAE; Ken Schwarz and Roland Kluver, TAC;
Al Kemper, University of Minnesota Plant Services.

COMMENTS: A conference was held at the campus with the purpose of discussing code involvements by classified occupancy and explanations involving some of the Federal regulations in developing plans and specifications.

It was understood that following this meeting clarifying correspondence would be submitted to document the points covered.

**ROGER N. SWANK
Architect
Health Facilities Planning and
Construction Service**

cc: C. Thomas Smith, Jr. ✓

MEMORANDUM FOR THE DIRECTOR
OF THE FEDERAL BUREAU OF INVESTIGATION
RE: [REDACTED]

DATE: [REDACTED]

TO: [REDACTED]

FROM: [REDACTED]

SUBJECT: [REDACTED]

[REDACTED]

ROBERT H. [REDACTED]
[REDACTED]
[REDACTED]

cc: [REDACTED]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

REGION VI

FEDERAL BUILDING
601 EAST 12TH STREET
KANSAS CITY, MISSOURI 64106

Date: May 15, 1970

Reply to

Attn of: GMS, DerF

Subject: University of Minnesota, Project No. 1-C05-CF-04021-01

To: Program Director, Health Facilities Planning
and Construction Service, Region VI
THROUGH: Director, DERF

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2. The grantee should be advised that the Health Professions Educational Facilities Program does not participate in construction work completed, materials purchased or services rendered prior to grant award with the exception of A&E fees. Therefore, if contracts are signed prior to grant award, your office would be requested to make a determination of percentage of completion and the grant amount would be reduced accordingly.
3. Based on present information this project will not be considered for funding until early fiscal 1971 and the likelihood of its being funded at that time can not be predicted. However, we remain hopeful and on this basis ask that you encourage the applicant to continue with the development of the project.

Thomas P. Lawless, Jr.
Chief, Grants Management Staff
Division of Educational
and Research Facilities

Rec/d 5/19/70

~~Grant file~~
Dant file

Office of the Dean
July 8, 1970

Mr. C. T. Smith
Associate Director
University Hospital
B310 Mayo

Dear Tom:

I am sorry for the delay in sending you a brief statement on dentistry's space allocation differences between July 1, 1969 and June, 1970. It has been a bit difficult to respond since I just don't know what figures to use. I have the copy of the tabulation given out by Ken Taylor at the June 10 meeting (copy enclosed) and the one given to me today by Ken Taylor from Don Mawha (copy enclosed). The latter one is dated May 15, 1970 (II) as the design development date but Ken thinks perhaps these are the latest figures. The main differences between the two lists are:

1. Student-Staff facilities are 18,831 in the June 8 tabulation (I) and 16,585 in the May 15 tabulation (II) (presumably the latest figures).
2. Dental equipment shop and storage space is 1341 in the June 8, 1970 tabulation (I) and 1635 in the May 15, 1970 tabulation (I).

I tried to call Don Mawha to determine which list to use but he is on vacation. Do you know? The statement below is based on the May 15, 1970 tabulation (II). The total is 202,348 n.s.f. which is less than approved by the Design and Coordinating Committee last week. I'm confused.

Statement:

The total net area for the School of Dentistry in the July 1, 1969 schematics was 200,060 ft.² as compared to a total of 202,348 ft.² at the completion of design development May 15, 1970. The difference of 2288 ft.² was primarily due to the assigning of 1635 ft.² for a dental equipment shop and storage room as net area in the May 15, 1970 tabulation. In the July 1, 1969 schematics the dental shop-storage area was tentatively provided in a health sciences supply, storage, and receiving area and not charged to the dental program at that time.



July 8, 1970

The remaining 653 ft.² difference came primarily as a result of a number of relatively modest variations in space allocations between schematics and design development for the various laboratories, clinics, and other facilities in the dental program. These were created by design changes in the refinement of the plans and not by program changes. The increases in space for the preclinical laboratories on the fourth floor and the multipurpose laboratories on the fifth floor were caused by the need to increase the space per student in these teaching laboratories and to enlarge the support rooms. The reduction in the space for animal facilities was partially due to an effort to compensate for the larger allocation for the dental shop-storage area than was originally programmed.

Now, Tom, in case you find it better to use the June 8, 1970 tabulation (I) showing the 203,046 ft.² approved by the Design and Coordinating Committee the following paragraphs could be used:

The total net area for the School of Dentistry in the July 1, 1969 schematics was 200,060 ft.² as compared to a total of 203,046 ft.² at the completion of design development June 8, 1970. The difference of 2986 ft.² was primarily due to 1826 ft.² addition to student-staff facilities for student-staff toilets originally charged as gross area and the assignment of 1341 ft.² for a dental shop and storage room as net area in the June 8, 1970 tabulation. In the July 1, 1969 schematics, the dental shop-storage area was tentatively provided in a health sciences supply, storage, and receiving area not charged to the dental program at that time.

There are modest differences in all of the schematic and design development space allocations for the various laboratories, clinics, and other facilities in the dental program. These were created by design changes in the refinement of the plans and not by program changes. The increases in space for the preclinical laboratories on the fourth floor and the multipurpose laboratories on the fifth floor were caused by the need to increase the space per student in these teaching laboratories and to enlarge the support rooms.

I trust the above isn't too confusing. I tried to respond on the basis of the tabulation which would accompany your letter. I will be glad to discuss the above with you if needed.

Sincerely,

mel

Mellor R. Holland, Chairman
School of Dentistry
Building Committee

MRH:mjt

Tom -

As a result of placing the call to Don Mauba, Chip Hurburner called me this morning and later Roland Klener called before he returned to Cambridge. Neither Chip or Roland knew which tabulation was the correct or latest one but both tried to be helpful. My call to Don was to discuss the tabulations but for some other questions of great importance
mel

September 24, 1970

TO: Mr. Hale Champion, Vice President for Finance, Planning and Operations

FROM: C. Thomas Smith, Associate Director and Coordinator of H. S. Planning

SUBJECT: BACKGROUND INFORMATION, UNIT A, HEALTH SCIENCES EXPANSION

The construction of Unit "A" is divided into four components, i.e., demolition, excavation and footings, steel fabrication and erection and general construction. Only demolition does not involve federal funds and therefore is not being held as are the other stages pending notification of federal fund allocation. Demolition began last week and will be completed by the end of September.

The so-called early contracts for excavation and steel fabrication are necessary in order to keep the cost of this project within the allocated budget and in order to enable completion of the building for use by the fall classes of 1973. Inability to issue these two contracts within the next two months will in all probability require a request to the Legislature for additional monies to cover costs which will escalate over the delay. I have asked TAC and the cost consultant to provide us with a precise estimate of the impact of delay and will forward that to you as soon as I receive it. Contract documents for excavation and footings are ready for bidding but will be held pending federal notification as per your request. Steel contract bidding documents will be ready for issuance in mid-to-late November.

Despite the reports which we have received about the federal inability to issue funds in excess of a quarter of the previous years allocation before the Congressional appropriation, we have received a press release announcing that nearly \$75 million was recently awarded for health manpower construction. NIH staff informed us that this came out of the current fiscal year's budget under a special exception. Therefore only \$50 million remains and we need one-half of it.

We were told by NIH staff that we are still very much in the running for funds this year. However, it is evidently Dr. Bruce's plan not to release any additional funds until Congress passes the appropriation bill or at least until after the next Council meeting in late November. Dr. Marvin Dunn (NIH staff) reported that Minnesota's Congressional delegation is working in our behalf and calling them frequently for status reports.

HEALTH SCIENCES CENTER

His response to them is to suggest that they work for adequate appropriations if they believe in this program.

Comments from NIH staff about funding possibilities for Unit B/C were discouraging. The earliest possible is November 1972, one year later than our present schedule. The cost impact of this delay will be at least \$5 million. In light of this we must re-evaluate our plans to proceed in developing B/C plans with borrowed money before July, 1971.

cc: Dr. French

TAC**THE ARCHITECTS COLLABORATIVE**

1 October 1970

Mr. C. Thomas Smith, Jr.
 Associate Director of Hospitals &
 Health Sciences Planning Coordinator
 University Hospitals
 University of Minnesota
 Minneapolis, Minnesota 55455

Re: University of Minnesota
 Health Sciences Expansion

Dear Tom:

We are writing at this time to confirm our revised schedule for Unit A Construction Documents. After consultation with our associates, it appears that the date for finish of working drawings for Unit A will be 17 May 1971. We also wish to confirm to you that the Construction Documents for Foundations and Excavations are now completed and await final approval by the Department of Building and Plant Services and the regional office of NIH. Structural Steel Documents will be completed on 15 November 1970.

These revised completion dates reflect delays of one to one and one half months over the most recently established targets. The reason for these delays are several fold. One, the transition of major effort from Cambridge to St. Paul contributed to a certain loss of momentum although we attempted to anticipate and minimize this loss by having the core of the working drawing team working in Cambridge for an extended period in order to become familiar with the program and the concept of design. Two, we have also been delayed by the late approvals of certain of the user areas. This may have been due in part to our inadequate emphasis on the urgency of these approvals or possibly to our not explaining to the users just what level of approval we would be needing at each particular phase. In any event this has been a continuing problem for us.

Regarding user approvals we are attaching herewith an extensive schedule of outstanding items and have attempted to point out the nature of the approval needed, the group that needs to initiate action, and the date that action is needed. If you would be good enough to add to this list items that you know also to be outstanding, we should be able to keep a running record of where we are. We will also attempt to keep you fully informed when approvals are made and likewise, when the expected dates are not met by one party or another.

It should be pointed out that although the Construction Documents for Unit A are presently delayed the critical restraining process may in fact be the NIH funding of the project. We are working with Ted Jage in order to develop the construction logic based upon the start of Excavation. This in turn will determine the point in time when the site will be ready to receive steel which in turn will determine when a general contractor can begin his work. General contractor start is also obviously determined by the completion of Unit A Construction

JEAN B. FLETCHER
 1945 ——— 1965
 NORMAN FLETCHER
 WALTER GROPIUS
 1945 ——— 1969
 JOHN C. HARKNESS
 SARAH P. HARKNESS
 LOUIS A. McMILLEN

RICHARD BROOKER
 ALEX CVIJANOVIĆ
 HERBERT GALLAGHER
 WILLIAM J. GEDDIS
 ROLAND KLUVER
 PETER W. MORTON
 H. MORSE PAYNE, JR.

ERNEST L. BIRDSALL
 COMPTROLLER

Mr. C. Thomas Smith, Jr.

-2-

1 October 1970

Documents and until we have the logic complete we will not know which event is critical. We will report to you on this as soon as this material is received.

Based upon the current knowledge of NIH attitude the schedule for B/C should realistically be revised as well. Although we are holding to our application date of November 1 we believe that completion of Design Development is more likely placed at 1 February 1971 rather than the earlier projected times. An even later date could be established if it is in the interests of the planning groups to take more time in order to be more confident in the design solutions. Ken Taylor is in the process of establishing a revised schedule for Units B/C and E and will present them shortly for your review and approval.

Very truly yours,

THE ARCHITECTS COLLABORATIVE, Inc.



Roland Kluver

RK:MR

CC:Mr. William B. Berget
Mr. Hugh G. S. Peacock

Enclosure

19 November 1970
HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

UNIT A COMPANY
HSAC 1604.16
1302.3
Plant Sewer file

UNIT A - HEALTH SCIENCES EXPANSION
UNIVERSITY OF MINNESOTA

REQUESTS FOR DEVIATIONS FROM "STANDARD REQUIREMENTS FOR UNIVERSITY OF MINNESOTA
CONSTRUCTION"

1. Ref. Sec. 0.03 (c) (1)

We request that plans in progress be reviewed for consideration of a variance from the requirements of this section for the number of custodial rooms.

2. Ref. Sec. 0.03 (h) (g)

We request that our system of interior partitions involving the use of gypsum wallboard be reviewed for consideration of a variance from the requirements of this section.

3. Ref. Sec. 0.03 (j) (3), (4) & (5)

We request a variance from the requirements of these sections in the following instances:

- a) Flush metal toilet stall partitions
- b) Plaster or gypsum wallboard partitions with an epoxy coating finish
- c) Location of urinals adjacent to toilet stalls

4. Ref. Sec. 0.03 (k) (1)

We request a variance from the requirements of this section in the use of plaster and gypsum wallboard for corridor partitions.

5. Ref. Sec. 0.03 (x)

We request a variance from the requirements of this section to allow the use of public telephone stations and shelves designed by the Architect.

6. Ref. Sec. 16.01 (a)

We request that plans be reviewed to identify all rooms requiring coat and hat racks.

7. Ref. Sec. 21.02 (b)

We request approval of minimum roof slope of 1/6" per foot in lieu of the minimum slope requirements of this section.

8. Ref. Sec. 21.02 (d)

We request a variance from the requirements of this section to allow the use of "All-Weather-Crete" to achieve required roof slopes with a level structural roof deck.

9. Ref. Sec. 21-02 (o)

We request a variance from the requirements of this section to allow the use of overflow relief drains at certain interior areas of the roof where the use of scuppers is impossible.

10. Ref. Sec. 25.01 (a)
We request approval of smooth putty coat plaster finish in lieu of the requirements of this section.
11. Ref. Sec. 29.01 (c)
We request approval of steel studded rubber tile, 3/16" thick as flooring in the animal elevator (Elevator #11) in lieu of the requirements of this section.
12. Ref. Sec. 29.01 (d)
We request approval of 4" high resilient wall base in lieu of the requirements of this section.
13. Ref. Sec. 34.01 (b)
We request approval of epoxy (Spray-Glaze) coating in some areas as an addition to the paint type requirements of this section.
14. Ref. Sec. 40.01
We request a review of plans in progress for consideration of variances to the requirements of this section in the following instances:
 - Subsection (B) - Fume hoods located adjacent to exit door in accordance with user requirements.
 - Subsection (C) - One exit door only in some small research labs containing fume hoods.
 - Subsection (D) - Some laboratories containing fume hoods are not equipped with emergency shower and eye-wash fountain.
15. Ref. Sec. 49.01 (a), (b)
We request the approval of Haughton Motors and motor generators as a variance to the requirements of these sections inasmuch as Haughton does not manufacture their own equipment of this type.
16. Ref. Sec. 49.03 (c)
We request a variance from the requirements of this section to allow the omission of windows from the machine rooms.
17. Ref. Sec. 49.03 (d)
We request the omission of hoods and pads in all elevators except #10, which is designed as a back-up service elevator. Note that the animal elevator (#11) is designed as the service elevator and has a rigidized stainless steel wainscot.
18. Ref. Sec. 49.04 (a)
We request that safety barricades be the responsibility of the General Contractor.

19. Ref. Sec. 49.05 (a)

We request a variance from the requirements of this section to allow the use of steel studded 3/16" thick rubber tile floor in the cab of the animal elevator (#11).

20. Ref. Sec. 49.05 (a)

We request a variance from the requirements of this section to allow the use of removable plastic laminate wainscots in Elevators #1 through #10 and #12.

21. Ref. Sec. 49.08 (a)

We request a variance from the requirements of this section to allow the use of a hydraulic type for elevator No. 12. This is necessary because of restricted overhead dimensions and hoistway size.

22. Ref. Sec. 50.02 (b)

We ask that a variance from the requirements of this section be granted for the use of 4 wire 277/480 Volt 3 phase system with a 4 wire 120/208 Volt subsystem in order to handle properly the voltage drop in a building of this size and because of economical first cost.

23. Ref. Sec. 50.02 (h) (1)

We request a variance from the requirements of this section to allow the use of 1/2" EMT conduit for 2 or 3 wire switch legs and for special cases involving difficult entry such as through ceiling runners or inside casework.

24. Ref. Sec. 50.02 (h) (1)

We request a variance from the requirements of this section to allow the use of flexible conduit such as Greenfield and Sealtight in difficult spaces in casework and for motor and other "floating" equipment connections.

25. Ref. Sec. 50.02 (j) (b)

We request a variance from the requirements of this section to allow a color other than brown for switches and receptacles.

26. Ref. Sec. 50.03 (d) (2)

We request a variance from the requirements of this section to allow the use of a synchronous wired, master control system for clocks which will alleviate time consuming manual reset operation.

27. Ref. Sec. 50.03 (a) (2)

We ask that the requirements of this section be changed to indicate that the Electrical Contractor shall be required to furnish and install all wiring and controls for the operation of mechanical equipment. We recommend this change because our experience has indicated that (a) initial cost will be lower, (b) motor wiring is a major item in electrical construction which should logically be accomplished by a prime contractor, (c) better coordination and installation will result, and (d) the work is shown fully on electrical plans prepared by electrical engineers.

28. Ref. Sec. 60.12

We request a variance from the requirements of this section to allow toilet paper holders, soap dispensers, etc. to be furnished and installed by the General Contractor.

29. Ref. Sec. 60.14 (a)

We request a variance from the requirements of this section to allow fume hoods with trim in place to be furnished and installed by others than the mechanical contractor.

30. Ref. Sec. 70.02 (a) (16)

We request that the requirements of this section be modified to allow 4" clearance under fin tube enclosures.

31. Ref. Sec. 70.04 (m)

We request that the use of instantaneous type water heaters be allowed.

32. Ref. Sec. 70.08 (a) (b) (k)

We request a variance from the requirements of these sections to allow the use of:

- (1) Copper tubing in radiation element
- (2) Fin tube with 1BR rating
- (3) Fin tube radiation enclosures other than the sloping top and horizontal air deflecting grille type.
- (4) Fin tube radiation with outdoor reset requiring no dampers.

33. Ref. Std. Dwg. No. 9137

We request approval to specify B&G type Rolairtrol in supply water pipe and to locate booster pump on outlet side of air separator.

34. Ref. Sec. 77.01

We request that the requirements of this section be modified to allow the temperature control cabinet to be furnished by others than the Mechanical Contractor and that the main temperature control cable may be located elsewhere than in a tunnel.

35. Ref. Sec. 77.03 (a)

We request that the requirements of this section be modified to allow the use of plastic control air tubing in conduit and to allow the use of plastic tubing in control cabinets.

36. Ref. Sec. 80.01 (d) (10)

We request a variance from the requirements of this section to accept the location of fume hood discharge 85 feet away from outdoor air inlet.

37. Ref. Sec. 80.02 (b)

We request that the requirements of this section be modified to allow the use of fan housing constructed of double wall sheet metal with insulation sandwich or of concrete block insulated on interior and with Flexicore roof construction.

38. Ref. Sec. 80.03 (a) (18)
We request a variance from the requirements of this section to allow the use of Tuttle and Bailey "Q" station type air balance on supply ductwork.
39. Ref. Sec. 80.03 (b) (1)
We request a variance from the requirements of this section to allow the use of linear and square type ceiling diffusers.
40. Ref. Sec. 80.03 (c) (1) (2) and Std. Dwg. 9146
We request a variance from the requirements of these standards to allow the use of commercially available fire dampers meeting N.F.P.A. 90A and with U.L. listing.
41. Ref. Sec. 80.03 (c) (4)
We request that the requirements of this section be modified to allow the use of glass panel access doors on fire dampers for visual observation if indicators are not feasible to install on fire dampers.
42. Ref. Sec. 80.04 (b)
We request that the requirements of this section be modified to allow pre-heat coils of the steam distributing type with length in excess of 38" by not over 84".
43. Ref. Sec. 80.06 (b)
We request a variance from the requirements of this section to allow the use of air foil type inlet fume hoods with face velocities of 75 fpm for general hoods, 100 fpm for perchloric acid hoods and 150 fpm for radio active hoods.
44. Ref. Sec. 80.06 (c)
We request that the requirements of this section be modified to allow the use of vertical glass panels on fume hoods.
45. Ref. Sec. 80.06 (k) (2)
We request a variance from the requirements of this section to allow the use of a common fan serving more than one fume hood in the same laboratory.
46. Ref. Sec. 83.01 (a)
We request a variance from the requirements of this section to allow the use of Foamglas Armaflex or Fiberglas with vapor barrier, both with a flame spread classification of not more than 25 and a smoke developed rating not to exceed 50.
47. Ref. Sec. 60.03 (a) (2) and (d) (1)
We request a variance from the requirements of these sections to allow the use of soldered fittings on Type "L" copper water lines.

UNIVERSITY OF *Minnesota*

SCHOOL OF DENTISTRY • 136 OWRE HALL • MINNEAPOLIS, MINNESOTA 55455

Office of the Dean

February 10, 1971

#13

Mr. C. T. Smith
B310 Mayo Hospital
University of Minnesota

Dear Tom:

This is a follow-up to our conversation February 5 regarding the distilled water system in Unit A. The information material you sent was given to Burton Shapiro and Leon Singer of our faculty who serve on the Health Science Research Committee. Burt had several other members of our research faculty read the material. Please see the enclosed copy of a letter to me from Dr. Shapiro.

Apparently, most of the faculty thought that Scheme II was workable. However Dr. Singer raised some special concerns. (1) A number of inconsistencies in reporting the size of tanks. (2) A de-ionized water system would be better regulated and less likely to be depleted as compared to distilled water. (3) There is better maintenance with de-ionized water for central use over distilled water.

Don Veara has raised the point that a central system invites the possibility for contamination which then could shut down the whole system. Monitoring a common system apparently is somewhat difficult and keeping out contaminants is a problem. My understanding is that the hospital central system is now contaminated with pseudomonas and rendered useless. Of course, there are other central systems in the University working out satisfactorily.

The decision on the distilled water (a de-ionized water) system is an important one. Cost is a big factor here as the two schemes are compared. It would seem wise to me that the question be put to the Health Sciences Research Committee so there could be the benefit of discussion between the users and the design people (like Paul Lang and Len Lindquist).

Please send this information to Mr. Maupin if appropriate.

Sincerely,

Mellor

Mellor R. Holland
Assistant Dean for
Institutional and Student Affairs

MRH:lm
Enclosure



February 5, 1971

Dr. Mellor Holland
School of Dentistry

Dear Mel:

The letter from C. Thomas Smith concerning recommendations regarding distilled water for Unit A with Leon Singer's comments were shown to several faculty on the 4th and 5th floors.

Each of the individuals felt that the recommendations in this memo were satisfactory. There were of course several inconsistencies in the memo and these have been pointed out to you by Dr. Singer.

Although all the individuals consulted felt that the plan for water in the new building is adequate I would suggest that if there are irreconcilable differences among faculty perhaps the appropriate body for making a decision would be the Health Sciences Research Committee.

Sincerely,



Burton L. Shapiro, D.D.S., Ph.D.
Professor and Chairman
Division of Oral Biology

BLS:ms

Office of the Dean

March 4, 1971

Mr. Paul Maupin
Health Sciences Planning Coordinator
4106 Powell Hall

Dear Mr. Maupin:

As a follow-up to our recent discussion, I am sending this written statement on planning items for Unit A which, in my judgment, need attention.

1. Opportunity for our faculty to review working drawings.
- OK 2. Special attention to casework for dentistry's teaching laboratories and clinics. Recently, our Preclinical Laboratories Committee had a series of work sessions on the casework for the preclinical laboratories. They agreed unanimously that the suspended casework will not be acceptable for several reasons but primarily because maximum drawer space is required. Work sessions between the architects and our preclinical and clinical representatives are needed now.
- ? 3. Resolve the issue of records transfer, pneumatic tube system, and vertical lift for instruments. These are must items. As indicated previously we are willing to sacrifice some other items but not these.
- TAC 5%
HSA 45%
4. Advising us on the existing planning organization, particularly the architectural organization. We had a productive working session with Mr. Mawha on January 12 and 14. Since then, we have had virtually no contact with TAC. How much involvement will TAC have in completion of the working drawings? So much time has been spent "educating" Mr. Mawha. He has so much knowledge. Will this be capitalized on during the detailed planning and drawing? We have had virtually no contact with the present HSA&E architects. As far as we know, their experience with dental facilities is almost non-existent. Believe communication between TAC and HSA&E needs improving.
5. Believe a final schematic plan would be useful. Would avoid confusion and mistakes.
- yes. 6. Need to establish a follow-up plan on classrooms and audio-visual for Unit A. Do you wish to have the Health Sciences Classroom and Learning Resources Committee involved? Or do you wish to appoint another group?
- yes. 7. Great need to examine the planning for television in Unit A. Believe new approach needed. Must move on this. Also, must move on determining sources of funds for TV and other AV equipment. This will be a major job.



- 8. Need to nail down more precisely Mr. Hart's role in the planning. I'm not sure what responsibility the H.S. Classroom and Learning Resources Committee has. I thought it would be greater. I believe that the communications planning for dentistry by Mr. Hart is at this point very superficial - yet there is not much time left. I believe he needs to initiate planning sessions with us - not the other way around. He has proved to be most cooperative and willing, however. At this point I think his role in TV planning should be restricted.
- 9. Need for a more systematic approach to the University's role in over-all Unit A planning. I know you concur on this. I think it very important to avoid oversights. Certain building systems need to be studied: (1) Materials handling including delivery of supplies and trash removal (2) People traffic patterns (3) Patient reception areas (4) Mail delivery and receiving.
- 10. The role of some of our faculty in interior design and building materials to be used. We, of course, are not interior decorators but do have some positive ideas about colors and materials that are conducive to patient care and clinical areas. It seemed to us that TAC has indicated that colored cabinets etc are good for clinics. We think not. More subdued wood tones are very much preferable. Color can be brought out in other ways. We do not want gaudy colors in the dental facility. That grows old quickly.

*Building
Committee Meeting →*

No take.

I trust the above is helpful. I believe they are items needing your consideration and action. As per your suggestion, I will proceed to arrange a meeting with a limited number of people on the TV issue. It's one of the most important and difficult items in the Unit A planning.

Sincerely,



Mellor R. Holland
 Chairman
 School of Dentistry
 Building Committee

MRH:mjt

Office of the Dean

April 30, 1971

Mr. Paul Maupin
Coordinator of Health Sciences Planning
4106 Powell Hall
University of Minnesota

Dear Mr. Maupin:

As a result of recent meetings with Paul Lang, Al Newcomer, and Don Mawha I would like to put in writing a request for some revisions in the plans for dentistry's facilities in Unit A and to call to your attention several areas that still need discussion and decision by the faculty and architects.

Requests

1. Enlarge multipurpose clinical cubicles from 10' to 10'2" inside dimension in an east-west direction. This means the inside aisles will be 48". This request has been discussed with the architects.
2. Enlarge the doors for entering the clinics. In many instances the doors are absolutely too small. Major attention should be given to this request. Scores of people will be in the clinics yet many of the doors as now planned won't allow two-way traffic. This request has been discussed with Mr. Mawha and Mr. Lang. I believe both agreed the doors needed to be enlarged. A minimum of a 48" width is needed.
3. Enlarge room A6-186 to include the corridor A6-71 south of the room.
4. Provide drawings of all the typical casework units in the clinics and pre-clinical laboratories so the faculty can get a better understanding of what has been designed. At this point we have just seen the outlines as the decisions were being made on the casework.
5. Provide the enclosed, controlled coat rooms on the clinical floors as we have requested numerous times and which TAC agreed to on the signed schematic plans dated June 10, 1970.
6. Provide recess of west wall of A9-117 so students obtaining materials from this technician's room aren't standing in the corridor.

Items Needing Discussion and Decision

1. Dental storage room A1-212. No substantive discussions have been held regarding the storage areas, mail system, and materials preparation function in this room.
2. The very essential and important air compressor and aspirator or vacuum systems in Unit A. These are critical to the clinical operation of our school.
3. Clarification on the patient entrance and lobby on Floor 3.

HEALTH SCIENCES CENTER



Mr. Paul Maupin

4. Final layout on the student lounge A4-122 and other lounge areas.
5. Analysis of number of lockers removed in plans when doors to mechanical shafts were included in the drawings. On the fourth floor it was our need to have about 330 lockers. We are now down to 301, thus providing growth of just one student.
6. All the seminar rooms for dentistry need discussion and decision. Very little work has been done on these in terms of location of chalkboards, tackboards, and the AV equipment and system.
7. Very special need to settle the location and design of the message centers for students, staff, and faculty. We have talked about this matter with the architects but final plans not settled.
8. Some of the casework in pediatric dentistry.
9. Location of some of the mechanical services in the surgery clinic on Floor 7 and the apparent need to enlarge the reception room A7-138. It just is too small now. The change will result in one less exam room so should be a saving in construction and equipment costs.
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12. Casework and final room layout for the clinical pathology lab A7-174. No casework discussions have been held on this lab.
13. Pneumatic tube system for cash and x-rays. Lateral transport of clinical records from x-ray to diagnosis on Floor 7.
14. Re-emphasizing the essentiality of the vertical lifts for records and instruments. We absolutely must have these systems when we move into the building.
15. Final arrangement of all the dental x-ray rooms to receive Dr. James Beck's approval, please.
16. Some detailed discussion on the data processing room A15-101 and several of the other rooms on Floor 15.

Mr. Paul Lang suggested that a number of these items be placed in writing. Also he agreed that meetings should be planned to finalize the items listed above. Such meetings are being requested through the planning office. It is apparent from the above list that much work is still needed. Likely some additional items will come out in our discussions. The dental faculty is prepared to work diligently on the planning. Your support and help are requested and needed.

Sincerely,



Mellor R. Holland
Chairman
School of Dentistry
Building Committee

cc: Mr. Paul Lang
Mr. Al Newcomer
Mr. Donald Mawha

Office of the Dean

May 6, 1971

Mr. Paul Maupin
Coordinator for Health
Sciences Planning
Powell Hall

Dear Mr. Maupin:

In view of the recent pressure to complete the detailed room designs and plans for some mechanical systems in Unit A, I thought it may be helpful to share with you some thoughts and concerns about this final push. This information may be of use to you in regard to the conclusion by HSA&E that a five week delay in completion of plans has occurred. I submit the following:

1. Why was the start of the casework planning for dentistry's clinical and preclinical facilities delayed until March 22, 1971? This work could have been started months before that. When the planning did start we were told it should be done in one week - an absolutely impossible task. The casework planning is still going on. Some rooms haven't even been looked at yet.
2. For at least two years, our faculty working on clinical facilities talked to Mr. Mawha about the importance of careful planning for two essential systems: (1) the vacuum system for aspiration in the clinics and laboratories (2) the compressor system to drive the hundreds of air turbines and for other needs. We stressed that central vacuum and compressor systems were required. These issues were raised many times. Mr. Mawha explained to Dr. Robert Jeronimus and his colleagues that these were engineering problems that would be worked out in time. Since no decisions had been made on the systems to our knowledge I raised the issues again recently. I urged that a meeting be held with engineers on the project. A meeting was held with our faculty and Mr. L. Lundquist of HSA&E, Mr. Veara, and Mr. Hendricks last Friday, April 30. It was apparent that only modest progress had been made on the design of these systems by HSA&E. Yet we were told that final decisions had to be made in one week. We further understood from Mr. Lundquist that it would be better if we checked out some of the details of these systems with engineers of dental manufacturing companies. We question that this is our responsibility. Nevertheless, since last Friday Dr. Robert Jeronimus has been on the long distance phone calling people at the University of Iowa and two manufacturing companies in Denver, Colorado and Rochester, New York. Earlier we passed on information to HSA&E that the Spencer Turbine Company of Connecticut was an excellent contact on central vacuum systems. To our knowledge that lead was not followed through on.



3. As you indicated in our recent discussion, there seemed to be a drop off in the pace of planning meetings the past two weeks. This is true. As you know, I asked about this and was advised that it would be well if I would generate the meetings. This I have done. Intensive sessions started yesterday and will be continued daily until May 14. We should be done with the present phase of the planning on that date. Is it our responsibility to generate planning meetings?
4. On many occasions since the clinical casework planning began in March I have found it necessary to detail out the missing links - identifying rooms that had received no attention. You will recall that in my letter of April 30 to you I itemized some of these omissions. I believe I have carried this evaluation out conscientiously and to help complete the planning. In several instances Mr. Mawha said his firm would detail the planning. Two specific items were the reading room on floor 9 and the autotutorial room on Floor 8. When the schematic plans were signed on June 10, 1970 these rooms were identified in red as needing definite layout. Nothing was done on this to my knowledge until the matter was pursued last month by us when Mr. Mawha was here. In checking with Mr. Lang yesterday, no definite plans have come from TAC. The same is true for the coat rooms off the clinical waiting rooms. These rooms were agreed to by TAC on the schematic plans signed June 10, 1970. Yet we have not been able to get satisfaction on this matter. We are asking for and expecting coat rooms that can be locked rather than some open coat areas with partial partitions.
5. Dr. Carl Bandt and his Systems Committee have in my opinion done a superb job in working out details for our clinical systems. The report by Charles T. Main regarding these systems provided a reasonable start and a framework for further development. However, the report was far too conservative in its recommendations for dispensing and sterilizing room space. Its recommendations on the pace of issuing instruments kits was unrealistic. Dr. Bandt's committee worked extremely hard to improve the plans for the clinical systems. The recommendations of his committee were reflected in TAC'S schematic plans completed eleven months ago. In detailed work on the dispensing and sterilization rooms last month, further refinements were made as the casework was planned. It was determined that cart storage was inadequate. Some subsidiary cart storage was found necessary on floor 8. Mr. Mawha participated in these discussions. So when you mentioned the other day that TAC has issued a complaint that the dentistry faculty changed its plans for the instrument sterilization and distribution system we found this incredulous. Dr. Carl Bandt was dismayed and disappointed. He would be most willing to talk to you and the TAC people making the complaint. He asked me this question. Are the clinical facilities in Unit A being planned to satisfy our teaching and service needs or to satisfy a report by Charles T. Main? Surely there is some communication gap at TAC or some misunderstanding that could be cleared up.
6. Our faculty has often questioned the planning organization and the apparent communication problems between TAC and HSA&E. We are very concerned about the completeness of the planning. Just the other day some of the faculty commented that the architects and engineers do not seem to be consulting with dental manufacturing specialists and with people in other dental schools recently built or now under construction. The planning at times seems non-health science and often non-dental. It doesn't seem specific enough to our faculty.
7. The planning has been difficult so everyone is a bit weary now it would seem. I do think it unfortunate that we have not had some discussions with

Mr. Paul Maupin

upper eschelon people in HSA&E and TAC. I believe that some problems could have been avoided. There is still time to improve the communications. I am prepared to participate in a constructive way.

In stating the above seven items I realize this is a big project. The size of the project and limitations on extent of the architectural staff are likely important factors in delaying completion. Also extensive contacts have been necessary with so many of our faculty. Arranging planning sessions is sometimes difficult. Faculty are not always available. Then too I'm sure at times we have not been absolutely certain of which recommendation to make. You know we haven't done this before.

I want to include in this letter a very special compliment to Mr. Paul Lang and Mr. Al Newcomer of HSA&E for their patience and considerable help. They are doing a great job. They have been asked to take on an extremely difficult task. I would think it very hard to come on this project so late and without background in dental school planning background. Further, they apparently have not been given the benefit of the extensive information fed to TAC by our faculty. This disappoints and surprises us because Don Mawha worked so closely with our faculty and became so acquainted with dental systems. We are grateful for the good work Don Mawha has done on this project. Also, you have been such a great help. I only wish you could have been with us sooner.

You asked the other day that we give a special push now to complete the planning. We will do that. But I trust that you and the central planning office will understand that we have pushed on this project for a very long time and have tried to do a thorough job. I am personally extremely proud of the quality and quantity of the work done by our faculty on this building project.

Sincerely,



M. R. Holland, Chairman
School of Dentistry
Building Committee

MRH:mjt

cc: Dr. Carl Bandt
Dr. James Jensen
Dr. Robert Jeronimus
Dean Erwin Schaffer

12 MAY

THE ARCHITECTS COLLABORATIVE, INC.

MEETING NOTES

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION
TAC JOB NO. 68013
UNIT A

PRESENT: DR. MEL HOLLAND, DR. CARL BANT, DR. JIM JENSON,
DR. JOHN GEYER, DR. MIKE TILL, MR. LEROY
CHRISTIANSON, DR. JIM BACK AND OTHERS

DATE: 12 MAY 1971

BY: PAUL LANG

-
- ITEM 1: Fifth Floor Rooms to have telephone jacks as follows:
Faculty Lounges 137 & 138; Locker Rooms 134 and 141;
Student Lounge 122, Civil Service Lounge 104. Provide
loud speaker outlets as directed by Jack Hart in the
same rooms and in Locker Room 103.
- ITEM 2: Fourth Floor: Phone jacks in Rooms 126 and 125. Loud
speakers in same rooms. Bulletin board in Room 126.
- ITEM 3: Floor Seven: Pneumatic tube terminal points for cash
should be located and noted for future installation.
Vault for cash and valuable materials should be detailed.
The clinical administration area plan layout done by
Paul Lang.
- ITEM 4: Dental Storage Rooms: A1-212. Plan layout for this
room was developed with Mr. Ken Blake for receiving,
handling and issue of dental supplies. Offices for
supply room control would be desirable. The dental
school faculty expressed the hope to acquire the use
of building storage Room A1-53. The proposed use of
this room would allow mail sorting, office supply, and
gross xerox operations to be separate from the storage
space. The small room noted on the plan dated 5/13/71
for mail sorting could then be occupied by the dental
school dry powder packaging equipment. Consideration
and action is needed. This packaging equipment must be
well ventilated and designed with active air pressure
to permit dust dispersion and to assure healthful
working conditions. The packaging equipment presently
occupies Room 28A, Owre Hall, and creates contamination
and labor problems. It is noted that the present use
of Room D1-53 is storage for the floor washing machines
for the entire Unit A.

- ITEM 5: Seventh Floor: Space between x-ray Room 198 and dispensing Room 199; a door from corridor 74 to issue area was felt to be desirable at south wall.
- ITEM 6: Pero-endo Surgical Operating Rooms such as A7-193 were recommended to have wiring to all future installation of 50 KV/X-ray units as an immediate solution for cases requiring radiographic evaluation, the staff discussed use of portable x-ray machines. Question: Do we shield these rooms at the present time? They are not now shielded.
- ITEM 7: The arrangement for pneumatic tube systems for conveying exposed film to the central x-ray conditions lab was discussed. A workable system was proposed which would include: vertical tube system for Floors 6, 8, and 9 to dispensing room. A horizontal pneumatic tube system could be inexpensively provided for transfer of x-ray pictures to and from the central lab on Floor 7.
- ITEM 8: It was emphasized that x-ray film developing rooms must have photographic safe lights and light-proof doors.
- ITEM 9: Message boxes similar to Bombers series 570 double row recessed mail boxes of Sweet's Catalogue 10.21/BO in banks of 20 boxes (rough opening size 40 and 5/8 " by 34" by 4 3/4") was suggested for the following:
- a. two units and Men's Civil Service Lounge A4-126.
 - b. six units in Women's Civil Service Lounge A5-104.
 - c. eight units in Doctors part-time Faculty Lounge A5-137.
 - d. two units in Female Doctors part-time Faculty Lounge A5-138.
- ITEM 10: Fifteenth Floor: Health Ecology Seminar and Faculty Lounge: Solid partitions requested frequently by faculty with two communicating doors. The room will function jointly for larger groups but offer adequate sound isolation when occupied by a different group. Both rooms require casework to allow a group (small) catering service; i.e. sink, counter, locking dish storage. It is requested that an undercounter refrigerator be installed in the faculty lounge. No projection screen is proposed in the faculty lounge.
- ITEM 11: Fifteenth Floor Deans Conference Room A15-122: This room should have wood paneling, plush carpet and built in quality casework. The built-in cabinet should contain a TV monitor, trophy case, glass door, book shelves and some storage space. Lights in all three rooms should be capable of dimming and speakers should be installed.

- ITEM 12: Laundry Room A5-131. This room had been considered for issue of lab gowns to students and the size and location were both detrimental to continuation of the school's present policy of laundering privately owned gowns. It was proposed that the school would undertake the policy to provide and issue institutionally owned gowns and require use of name tags. The laundry room would then become a storage and sorting center for soiled and clean gowns. Gowns would be supplied to approximately nine lockable steel lockers in each student locker room where they would be separated into groups of 5 and possibly be stacked in an individual plastic bag. It had been previously thought that a message center could be provided at this central location. In final review however, it was felt that the mail slots in the individual lockers would be equally functional and less expensive.
- ITEM 13: In addition to the locker mail slots the school proposes to provide approximately 600 4"x5" mail slots opposite the student elevators on the seventh floor. These boxes will be used for official school communiques and for issue of clinical appointment notices. The boxes will be loaded from the back side by clinical administration personnel.
- ITEM 14: The clinical administration area of the seventh floor will house the clinical auditing department, appointments programming personnel and necessary key punch equipment. An additional office space for supervisory personnel or patient financial counseling is also proposed. A room for the dental school telephone center is also proposed.
- ITEM 15: Dental Assistant and Hygienists students were proposed to receive their mail and communiques from a bank of 450 4"x5" lockers in their student lounge A5-122. The boxes would be serviced by the departments secretarial staff from their work area.
- ITEM 16: Sixth Floor: Waiting room space for Pedodontic and Orthodontic Clinics should have a controlled coat room and the remainder of the room to be subtly divided to group waiting parents near pedodontics and away from the orthodontic patients. The Pedodontic Waiting Room should allow younger brothers and sisters to play on low chalkboards, magnetic boards, and small furniture. A shelf should be provided to Women's Toilet No 96 to facilitate baby care. The northeast corner is a recommended location.

- ITEM 17: Various methods of presenting educational media within the Pedodontic Patient Education Room A6-110 have been discussed by Don Mawha and Drs. Till and Messer. I recall a proposed layout which they submitted for consideration. No special plan development for this room has been received.
- ITEM 18: Seventh Floor Waiting Room Area should be tastefully detailed with the specialty subject de-emphasized. Display cases may be installed in the north wall as furniture arrangement permits. Free standing display units would be applicable.
- ITEM 19: An enlargement of the Oral Surgery Reception Room has been proposed and introduced in this planning. The smaller room will become a discussion room approximately 8' x 10'.
- ITEM 20: The reception room for Periodontic Surgery Clinic as located on the north side of the patient access corridor has its public contact desk oriented to the west; it is not visible to the patient travelling east. It has been requested that the room be relocated to the east end of the clinic's waiting room to oversee waiting and the approach corridor. The wall along the corridor which forms the south wall of the reception room could remain to form an enclosed portion of the waiting room north of the column.
- ITEM 21: Orthosurgery and Periodontics have requested use of sliding glass doors at reception counter in lieu of the rolling metal grill originally proposed. The staff of each clinic have also requested that a communication window be provided between the reception room and the clinical corridor within the clinic.
- ITEM 22: Eighth floor waiting room is requested also to contain a controlled coat room. Few, if any, display or bulletin cases were felt necessary. Ninth floor waiting room is requested to be similar. The proposed color coding system relating areas to directory color identification was noted to be desirable.
- ITEM 23: Each of the dental research floors were requested to have floor directories convenient to the elevator banks.

- ITEM 24: Continuing Dental Education Department Waiting Room and Conference Room were proposed to be available to the various professional groups for meetings and seminars. Groups up to 60 dentists may attend meetings where catered meals would be served. The west wall of Conference Room A8-165 is proposed to receive about 16 lineal feet of counter and wall storage space. A sink, an under counter refrigerator, projector storage, and literature racks above the storage were proposed.
- ITEM 25: Conference Room A8-165 was proposed to have a raised platform to accomodate panel discussion groups. Projection screen, chalkboard, TV monitors, lecturn and lights for room darkening were requested.
- ITEM 26: The Continuing Dental Education Waiting Room was felt to need coat hanging facilities for up to 60 delegates. Space was requested to be located behind sliding doors.

At a meeting with the Reading Room Committee of the Dental School on Friday, 14 May, the following items were noted:

- Item 27: Auto tutorial stackroom A8-153 should contain a work bench with wiremold to allow cassette rewinding, etc. The bench should be coordinated with Group 2 shelf equipment to occupy the balance of the room.
- Item 28: A storage space accessible from the Control Desk should be provided to contain equipment similar to units installed in carrels. The control desk attendant will use these units to demonstrate proper use and operation of built-in equipment. A similar unit is to be provided in Diehl Hall.
- Item 29: Auto-tutorial room should have subdued lighting with dimming features. The committee was not in favor of the glass wall. They recalled previous meetings where narrow 4' wide glass panels in the room's west wall were proposed. Objectionable feature of the fully glazed wall included:
- a. noise transmission
 - b. distraction of outside traffic
 - c. loss of wall area for display units
 - d. maintenance and cost of large drapes.

- Item 30: A group projection room of 6' x 8' dimensions was felt to be quite small. They would prefer four larger spaces in lieu of the five smaller rooms. An ideal projection screen for these rooms was said to be Kodak's Ektalite.
- Item 31: Shelving while 10" deep in Room A8-153 was felt to be quite ample. About 1500 volumes of slide tray and tapes would be accomodated.
- Item 32: The committee felt that some glass in the Reading Room on the ninth floor west wall would be desirable. They indicated that glass in this area would be less objectionable than in the Autotutorial space.
- Item 33: The Reading Room Control Desk could be very similar to the desk in Autotutorial providing 42" high knee space for sit down operation and a preponderance of door cabinets.
- Item 34: The workroom should contain some shelf space and a length of work counter. A sink was felt to be essential.
- Item 35: The xerox room adjacent to the Library Workroom should be adequately soundproof and contain shelves and collating table.

Various rooms fully discussed during the past weeks which were thought to require additional facilities, subdivision or elaboration included the following:

- Item 36: Seventh Floor Clinical Administration Area is planned for 600 mail boxes for student clinical assignments, official messages and other data from this section. A key punch room must be fully sound isolated from adjacent phone room office and corridor. The auditor's and cash rooms must have provisions made for future installation of pneumatic tubes between each of the main waiting rooms on the clinic floors. The plan as shown has been developed by the school personnel and conditionally approved.
- Item 37: Fifteenth Floor Health Ecology Department Room 101/18 changes indicated on the plan were developed with school personnel and have been conditionally approved.

We have developed sketch plans for the following spaces:

Periodontic Surgery Reception Room Casework	
Oral Surgery Graduate Study Room	A7-165
Oral Surgery Conference Room	A7-166
Periosurgery Graduate Study Room	A7-215
Perio Student and Faculty Discussion	A7-214
Perio Conference Room	A7-200

30 APR

UNIVERSITY OF *Minnesota*

SCHOOL OF DENTISTRY • 136 OWRE HALL • MINNEAPOLIS, MINNESOTA 55455

Office of the Dean

April 30, 1971

Mr. Paul Maupin
 Coordinator of Health Sciences Planning
 4106 Powell Hall
 University of Minnesota

Dear Mr. Maupin:

As a result of recent meetings with Paul Lang, Al Newcomer, and Don Mawha I would like to put in writing a request for some revisions in the plans for dentistry's facilities in Unit A and to call to your attention several areas that still need discussion and decision by the faculty and architects.

A

Requests

- 1. Enlarge multipurpose clinical cubicles from 10' to 10'2" inside dimension in an east-west direction. This means the inside aisles will be 48". This request has been discussed with the architects.
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B

Items Needing Discussion and Decision

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- 3. Clarification on the patient entrance and lobby on Floor 3.

HEALTH SCIENCES CENTER

ATTN.		INIT.

0477

Mr. Paul Maupin

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Mr. Paul Lang suggested that a number of these items be placed in writing. Also he agreed that meetings should be planned to finalize the items listed above. Such meetings are being requested through the planning office. It is apparent from the above list that much work is still needed. Likely some additional items will come out in our discussions. The dental faculty is prepared to work diligently on the planning. Your support and help are requested and needed.

Sincerely,



Mellor R. Holland
Chairman
School of Dentistry
Building Committee

cc: Mr. Paul Lang
Mr. Al Newcomer
Mr. Donald Mawha

APRIL - 6, 1961
1

CHANGES & ADDITIONAL COST ITEMS - UNIT A.

FLOOR 4.

- 1) ADDITION OF HIGH WALL CABINETS ABOVE 7'-0" IN 6 PRECLINICAL LABS.
- 2) ADDITION OF INSTRUMENT DRAWER UNITS ABOVE STUDENT BENCH TOPS IN 6 LABS
- 3) ADDITION OF GAS AND OXYGEN OUTLETS ^{& SOLVENT TANK UNIT} IN TECHNICIANS LAB

FLOOR 5

- 1) ADDITION OF HIGH WALL CABINETS - 3 MULTIPURPOSE LABS
- 2) SAVINGS - ELIMINATION OF BUILT IN VIEWBOXES IN LAB-LECTURE SECTORS

FLOOR 6

- 1) ADDITIONAL CASEWORK IN PERIODONTICS DISPENSING RM.
- 2) ADDITIONAL DISPENSING WINDOW " "
- 3) ADDITION OF BUILT-IN SOLVENT AND CURING TANKS IN CLEFT PALATE PROS-ORTHO LABS.

FLOOR 7

- 1) ADDITION OF CASEWORK AND PASS WINDOW IN STORAGE ROOM 228.
- 2) ADDITIONAL PARTITIONING IN CLINIC ADMINISTRATION ROOM 240
- 3) RELOCATION OF SINKS IN SURGERY RECOVERY RM 153, 182.
- 4) ADDITIONAL CASEWORK IN SURGERY STERILIZATION RM 155, 156, 180, 181 (?)

FLOOR 7

- 5) ADDITIONAL KEY VIEWBOXES IN ORAL DIAGNOSIS OPERATORIES.
- 6) REVISED PLAN - DISPENSING RM. 199. MORE CASEWORK.

FLOOR 8

- 1) PARTITION CHANGES TO CREATE CART STORAGE AREAS OPPOSITE DISPENSING ROOMS.
- 2.) PARTITION CHANGES AND ADDITIONAL CASEWORK IN DISPENSING ROOMS 126 AND 124.
- 3) PARTITION CHANGES AND RELOCATION OF STERILIZERS IN ROOM 122 (SUBSTITUTION OF TWO GAS UNITS IN PLACE OF COMBINATION GAS-STEAM UNITS SHOULD SAVE SEVERAL THOUSAND DOLLARS).
- 4) ADDITIONAL CASEWORK AND SINKS IN STUDENT LABS RM 112, 162.
- 5) ADDITIONAL PARTITIONING IN AUTOTUTORIAL ROOM 151 TO CREATE GROUP INTERACTION ROOMS. POSSIBLE CHANGE IN PARTITIONING AROUND CONTROL AND STORAGE AREAS.

FLOOR 9

- 1) PARTITION CHANGES TO CREATE CART STORAGE AREAS ADJACENT TO DISPENSING ROOMS
- 2) PARTITION CHANGES AND ADDITIONAL CASEWORK IN DISPENSING ROOMS.

FLOOR 9

- 3) ADDITIONAL CASEWORK AND SINKS IN STUDENT LABS.
- 4) ADDITION OF CLINICAL LAB DEMONSTRATION AREA IN ROOM 157. REQUIRES ADDITIONAL CASEWORK, SINK W/ PLASTER TRAP, GAS & AIR OUTLETS.
- 5) RELOCATION OF DOOR AND CASEWORK IN TECHNICIAN'S LAB ON 117. ADDITIONAL CASEWORK AND SERVICES INVOLVED.

8 APRIL 1971

ORAL SURGERY.

6.5

PLAN ADOPTED

MEET TODAY RE: SERVICES.

HOLLAND

6.7

PEDODONTICS.

6.7/5 PEDODONTICS. OPERATORIES.

NEED CASEWORK SELECTIONS.

TILL

MESSER

March 17, 1971

Mr. Paul Maupin
Health Sciences Planning Coordinator
4106 Powell Hall

Dear Mr. Maupin:

In our work this afternoon with Mr. Al Newcomer and Mr. Paul Lang the lighting system in the ceiling came up for discussion. It was brought out that the grid system and the pre-determined positions of the ceiling lights resulted in irregular spacing of the ceiling lights in the rooms, inadequate lighting in certain rooms and severe limitations on the design of wall cabinets. This issue needs your review since some modifications in the system seem essential to permit proper use of the rooms.

To indicate the extent of the problem, I discovered that one of the rooms in the Oral Surgery suite had no ceiling light at all.

Sincerely,



Dr. Mellor Holland
School of Dentistry

MH:jlb



UNIVERSITY HOSPITALS • MINNEAPOLIS, MINNESOTA 55455

March 26, 1971

Mr. Paul Maupin
Coordinator of Health Science Planning
4103 Powell Hall
University of Minnesota

Dear Mr. Maupin:

This is to request that attention be given to the sterilization system in the dental research areas of Unit A. In special areas such as in Microbiology and Oral Biology, the autoclaves must be installed with reboilers and distilled water operation. Plant steam is not proper for autoclave sterilizing in some of the research areas.

I would appreciate your help in seeing that this request is carried out. Thank you.

Sincerely,



M.R. Holland, Chairman
School of Dentistry Building Committee

MH:jlb

cc: Al Newcomer
Paul Lang
Don Mawha



HEALTH SCIENCES CENTER

UNIVERSITY HOSPITALS • MINNEAPOLIS, MINNESOTA 55455

March 26, 1971

Mr. Paul Maupin
Coordinator of Health Sciences Planning
4103 Powell Hall
University of Minnesota

Dear Mr. Maupin:

This is to relay in writing two very important needs for the auditoria in Unit A.

1. As requested months ago by the Health Sciences Classroom and Learning Resources Committee, all the auditoria in Unit A must have TV monitors. Also, the large auditoria must have large screen TV projection.
2. Recent discussions regarding the auditorium in Unit C has made clear that recessed sinks must be installed in the auditoria in Unit A. This request did not come out in the early discussions but availability of sinks in the auditoria is necessary for general washing and when patients are to be examined.

Your help in being sure these requests are satisfied will be appreciated.
Thank you.

Sincerely,



M.R. Holland, Chairman
Health Sciences Classroom and Learning
Resources Committee

MH:jlb

cc: Jerrald Olsen
Robert Turner



HEALTH SCIENCES CENTER

JOHN

REPRODUCED COPY FOR THE FILE
103 23 71

THESE QUESTIONS CAME UP AT MEETINGS
IN MINNESOTA ON UNIT A. AL
NEWCOMER AND PAUL LANG SHOULD
HAVE MADE NOTE OF THESE POINTS BUT
I SUGGEST WE FOLLOW UP WITH HSAE
TO INSURE THAT ACTION IS TAKEN TO
RESOLVE THEM.

BON.

U. OF MINN.		
DATE: 4/29/71		
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H. J. S. A.	
LERCH	
MAIN	
FLYIN	
C. D. M.	

QUESTIONS ON UNIT "A"

1. ON FLOOR 11, TYPE S 294 STERILIZERS SHOULD BE HIGH VACUUM UNITS; BUT HIGH VACUUM IS NOT AVAILABLE IN THE SIZE INDICATED (20" x 20" x 38"). CAN ONE OR BOTH OF THESE UNITS BE 24" x 36" x 36" WHICH IS AVAILABLE AS A HIGH VACUUM UNIT?

2. STERILIZER S 290 IN ROOM A1-111 IS DESCRIBED AS AN ISOTHERMAL PASS THRU UNIT - WHICH IS NOT AVAILABLE. IF THIS NEEDS TO BE AN ISOTHERMAL UNIT IT WILL HAVE TO OPEN ON ONE SIDE ONLY. ALSO, AMSCO DOES NOT MAKE A 60" DEEP STERILIZER WITH SHELVES. THEY RECOMMEND USING A SHALLOWER CHAMBER OR PROVIDING A TRANSFER CART FOR WANKS.

EITHER TAC OR HSAE SHOULD RESOLVE THESE QUESTIONS WITH THE DEPARTMENTS CONCERNED.

3. CLINICAL DEMONSTRATION ROOM ON FLOOR 5 SHOULD HAVE SUPPLEMENTARY INCANDESCENT LIGHTS ON DIMMER.

4. HOW IS ROOM DARKENING TO BE PROVIDED IN CONFERENCE AND SEMINAR ROOMS? WILL THIS BE INCLUDED IN G.C.?

5. DR. HOLLAND WANTS DIMMER CONTROLLED SUPPLEMENTARY LIGHTING IN ALL CONFERENCE & SEMINAR ROOMS. VIEWBOXES SHOULD BE PROVIDED IN ALL SEMINAR AND CONFERENCE ROOMS.

6. SOMEONE SHOULD REVIEW PROVISIONS FOR LIGHTED DISPLAY (GRAPHIC AND 3 DIMENSIONAL) IN SUITABLE CORRIDOR AREAS FOR HIGH EXPOSURE TO STUDENTS & STAFF. ALSO SIMILAR DISPLAY AREAS IN DENTAL CLINICS AND PATIENT WAITING ROOMS. DENTISTRY ALSO WILL USE AV DEVICES IN WAITING ROOMS FOR PATIENT EDUCATION (DOES OUR FURNISHINGS PROPOSAL ACCOMMODATE THIS?)

7. DENTISTRY PHOTO-TV: REQUEST WE INVESTIGATE AN AIR FLOW VENTILATED RAISED FLOOR SYSTEM FOR THEIR CONTROL ROOM. AIR WOULD BE EXHAUSTED AT CEILING. WAHL AND WAHL IS THE DISTRIBUTOR IN MINNEAPOLIS. THIS WOULD REQUIRE THE FLOOR LEVEL TO BE RAISED 8-10" ABOVE THE SLAB. CEILING IN CONTROL ROOM CAN BE AT STANDARD HEIGHT WITH ADEQUATE AIR EXHAUST. HSAE ENGINEERS SHOULD MEET WITH LARRY CHRISTENSEN AND LARRY PROSSAR TO DETERMINE HEAT LOAD & POWER REQUIREMENTS FOR TV EQUIPMENT IN STUDIO AND CONTROL ROOM.

8. LECTURN FOR LAB-LECTURE ROOM SHOULD BE MOVABLE WITH JUNCTION BOX CONNECTION FOR THE FOLLOWING CONTROLS:

a) SOUND SYSTEM - GAIN, MICROPHONE, EARPHONES FOR INTERCOM WITH CONTROL ROOM.

b) REMOTE CONTROL OF CAROUSEL PROJECTOR - SELECTIVE.

c) SIGNAL TO PROJECTION RM - BUZZER OR LIGHT.

d) 16M FILM PROJECTOR - START, STOP, FORWARDS, REVERSE

e) ROOM LIGHT CONTROL - FLUORESCENT, INCANDESCENTS ON DIMMER

f) POSSIBLY REMOTE MIKE JACKS OR CEILING MOUNTED MIKES TO PICK UP QUESTIONS FROM STUDENTS.

IF POSSIBLE, THIS LECTURN SHOULD BE COMPATIBLE WITH SIMILAR UNITS IN SHARED CLASSROOM AND DEMONSTRATION ROOMS.

OPERATION

9. FIPSD SERVICES (AIR, GAS, VAC) IN CLINICS AND TEACHING LABS SHOULD HAVE A MASTER SHUT OFF FOR EACH ROOM OR ZONE. HAS HSAE BEEN ADVISED?

10. DR. HOLLAND OBJECTS TO USING ENTIRE WEST WALL OF THE STUDENT LOUNGE ON FLOOR 4 FOR VENDING MACHINES. HE WOULD PREFER ABOUT 12 FT' OF SPACE ALONG THE SOUTH WALL FOR 3-4 MACHINES (MILK, HOT DRINKS, COLD DRINKS, SNACKS OR ICE CREAM) PREFERABLY NEXT TO OTHER CLOSURE DEVICES.

BEYOND THIS AREA IN THE SOUTH EAST CORNER OF THE ROOM WOULD BE A BASE CABINET W/ FORMICA TOP, SINK AND UNDER COUNTER REFRIGERATOR.

THE WEST WALL SHOULD BE MOSTLY SOLID WITH SOME GLASS AROUND THE 2 ENTRANCES. ENTIRE NORTH WALL WILL BE GLASS AS SHOWN.

FURNISHING PLAN SHOULD ALLOW FOR SOME COAT STORAGE FOR VISITORS (5-10 LF) STUDENTS CAN USE LOCKERS, WHICH ARE NEARBY.

11. VENDING IN AENTAL HYGIENE AND ASSISTING LOUNGE ON FLOOR 5 SHOULD ALSO BE REDUCED TO 3-4 MACHINES (COFFEE & SNACKS) PRESENT LOCATION OR PUT PROVIDE BASE CABINET WITH SINK AND U.C. REEF AT SOUTH END OF WALL. WOOD CLOSURE IF POSSIBLE.

COAT STORAGE (BUILT-IN OR FURNISHING?) SHOULD BE PROVIDED IN THE ALCOVE NEXT TO THE TOILET.

CORRIDOR WALL SHOULD HAVE 12' SOLID PANEL IN CENTER, GLASS AT ENTRANCES.

18 MAY

HSA&E

MEMO TO - Unit A File
 MEMO BY - Paul A. Lang
 SUBJECT - Additional Plan Revision Requests From Dental School Faculty.
 (Meetings of May 5 Thru 14)
 DATE - 18 May 1971

H S A E	
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ARCH	
MECH	
ELEC	
STR'L	
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- CC PAUL HAUPIN

This list supplements those room and equipment changes itemized in the memo of May 10 Thru 14, 1971. The changes listed here were noted during conferences and included in department equipment packets. Others were kept separate and more conveniently available for itemization.

1. 6.19/5 Oral Pathology Clinical Lab A6-174 (D.D.)
 - a. Added second air and gas outlets in casework, North wall.
 - b. Added distilled water outlets at both sinks.
 - c. Added cement asbestos board lining to 48" double door, double drawer unit (FHB48C4) at North wall to allow storage of alcohol bottles.
 - d. Added ultra violet light in center of each leg of "L" shaped room. Switched to turn on when fluorescent lamps turn off.
 - e. Omitted gas and air outlets at bench on South wall.
 - f. Added wire mold along South wall cabinets.
 - g. Omitted door cabinet (FHB48C4) at West wall, and changed to knee space with two drawers. (FHD48A3)
2. 6.21 Speech Pathology. Audio Rooms A16-132 and 134 with Control Room A16-133:

The revised construction plan proposed by Cavanaugh and Copley was discussed briefly with Dr. Moller. The need for an elevated floor in the Control Room was reconfirmed. The faculty shares my concern about openings in the stud wall to allow cable passage from Control Room to Audio Room enclosures.

It was felt desirable to install several cable segments through the stud walls, so that sound cables could be connected at each side from floor access panels.

Control Room elevated floor should be similar to Audio Room floor construction.

3. 6.3/7 Multi-Purpose Clinics Demonstration Room A7-138 (D.D.)

- a. View boxes, previously detailed to be a double unit should be two separate units, located near the sinks.
- b. The junction box for dental chair and unit to be located at the wall, approximately 8'-0" from the casework wall.

This room is typical to rooms (D.D.) A6-135, 106 and 160, A8-132, 135 and A9-161.

4. 6.3/7 Periodontic Demonstration Room A7-212 (W.D.)

This room was originally programmed to be similar to Demonstration Rooms listed above, but is of a different size and configuration. The requirements for a Periodontic Surgical Room are specialized.

5. Floor 9 (W.D.) Clinical Demonstration Rooms were expanded to contain casework to allow complete processing facilities. Room #A9-157 will be devoted to the "Crown and Bridge" Group, and Room #A9-106 will be used for graduate student projects.

6. 6.3/8 Technician's Lab #A8-117 (D.D.) has been designed and planned to be a Technicians Lab and Issue Room. The later request has been to recess the door from corridor wall to provide a niche at the issue window. That change would reduce work space and require drawing changes. Reasons for the change include the congestion of cart traffic at dispensing rooms across the hall. No action has been taken.

7. 6.4 Oral Diagnostic Facilities were reviewed with Dr. Beck and felt to be satisfactory. A letter from Mr. Wollen, and the Environmental Health section of the University has been quite critical of Diagnostic Radiological installations. In many cases, it is recommended that X-Ray Control Boxes be located outside the room.

A basic disagreement seems to occur about X-Ray unit capacity. Dr. Beck spoke of maximums of 50 kva. Mr. Wollen refers to 65 to 90 kva ranges.

8. 6.6 Orthodontics, Laminographic X-Ray Room A9-180 (D.D.)

This room, as shown in plan revised December 22, 1970 was found to have questionable functional features. Placement of treatment chair on South wall would allow better observation and control. The film loading room counter was recommended to be enlarged, and the film pass box was eliminated. Power pack location was shifted to under-counter space.

9. 6.7/1 Pedodontics Demonstration Room #A6-108 (W.D.) to have casework and equipment similar to Treatment Room A6-113. Observation Room #109 should relate to both Room 108 and 110 similarly with one-way glass.

10. 6.7 Pedodontics Room A6-110 (W.D.) is regarded by the staff to be a Patient Education Room. The room arrangement has been shown by faculty in drawings furnished to The Architects Collaborative, Inc. We have no record of that information and have requested Dr. Till to re-draw his intentions.
11. Pedodontic Consultation Rooms #A6-104, 5, 6, and 7 had not previously been considered specifically. Drs. Till and Messer request that these rooms be reduced in size, providing 5 rooms in the same area. Each room should be simply furnished, but provided with a corridor light to indicate when it is "in use".
12. Pedodontic Faculty Discussion Room A6-118 should receive usual furniture, and projection screen. Room lights should be capable of dimming. Provide light in corridor to indicate room "in use".
13. The Pedodontic Clinic Director's Office should have conduit, box and blank cover for future computer connection. Locate at center of South wall.
14. 6.7 Pedodontic Conference Room A6-122 will receive adjustable wood library shelves. North wall to have 36" high x 12" deep locking glass-front book shelves for historic volumes. Install a projection screen above this cabinet.

Primary access to Room A6-122 from Reading Room A6-124. Control will be by a secretary assigned to the faculty member in office A6-123. Provide door from Room #A6-123 to A6-124 (swing door from office #123 into Lab #125).

15. 6.7 Graduate Student Room A6-205 to have steel wardrobe cabinets on East wall near door. Steel file cabinets along West wall to provide student paper storage.

Provide continuous 24" deep x 30" high study shelves along remainder of wall perimeter, (this could be typical 48" Graduate Student Carrels) for 7 study stations. Two fixed 10" wood shelves to be placed above study bench at 54" and 66" heights. Tack board surface below bottom shelf.

TAC

THE ARCHITECTS COLLABORATIVE INC.

19 May 1971

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

Re: University of Minnesota
Health Sciences Expansion
TAC Job No. 68013

JEAN B. FLETCHER
1945 ----- 1965
NORMAN FLETCHER
WALTER GROPIUS
1945 ----- 1969
JOHN C. HARKNESS
SARAH P. HARKNESS
LOUIS A. MCMILLEN

RICHARD BROOKER
ALEX CVIJANOVIĆ
HERBERT GALLAGHER
WILLIAM J. GEDDIS
ROLAND KLUVER
PETER W. MORTON
H. MORSE PAYNE, JR.
ERNEST L. BIRDSALL
TREASURER

Dear Paul:

As discussed with you last week, we are submitting herewith for your consideration the items of Remaining Planning and Development Effort for Unit A. We look forward to meeting with you, Mr. Peacock, Dr. Holland and others on Friday, 21 May 71 to resolve all of these items.

You will see that although some of the problems are matters of refinement which can be anticipated in any project of this magnitude, others constitute changes in approved drawings or lack of definition on the part of the user for the intended function.

The work involved in settling these issues is very substantial. We have already missed our intended target of 17 May 71 for completion of the working drawing documents. At the present moment we are unable to accurately predict completion, although we hope to be finished and ready to issue to the Department of Physical Planning and Development in the early part of June. This can only be possible if many of the items requested and outstanding are resolved in a fashion that does not cause substantial extra work for our architects and engineers. We are simply unable to accept further requests for revisions in these documents if we are to stay on schedule. Even a minor change at this stage requires many hours of work and verification to avoid error. Many documents including the specifications are affected by changes at this stage.

You will observe that the listing indicates our preliminary estimate of the time/cost consequences; it contains our recommendation; also a blank is shown for your decision and when made, we will together attempt to assess the total affect on the budget and the schedule. When we have an assessment of how these final and hopefully last requests affect the project cost and completion date, this office will inform Mr. Champion of the situation and the causes for it.

Yours very truly,

THE ARCHITECTS COLLABORATIVE, Inc.



Roland Kluver

UNIT A 300.2
2
Ben Costr. Corp.
2
39 Phone no
May 28.

THE CERNY ASSOCIATES INC.
HAMMEL GREEN & ABRAHAMSON INC.
SETTER LEACH & LINDSTROM INC.
BROOKS CAVIN, PROJECT DIRECTOR
102 HUBBARD BUILDING, 2675 UNIVERSITY AVENUE
SAINT PAUL, MINNESOTA 55114
612/646-8875

May 20, 1971

Mr. Paul Maupin
Health Sciences Planning Coordinator
University of Minnesota
4106 Powell Hall
Minneapolis, Minnesota

Regarding: Unit A
Health Sciences Expansion

Dear Mr. Maupin:

In the preparation of the specifications for Unit A it is necessary to consider the Unit F site and potential Unit F construction that might occur during the life of the Unit A construction contracts. The following lists some of the considerations and questions that have occurred to us.

- 1 - Will the Unit F site east of the alley adjacent to Unit A be acquired during the life of the Unit A contract? If so, will the buildings be demolished? As you know the availability of on-site storage space for Unit A is nil. It would be of great benefit to have the Unit F site. The parking problem for construction workers is a prime concern. The contractors have the strong potential problem of getting labor for Unit A when the workers could work on another job with on-site parking, thereby avoiding parking fees and/or long distances to walk. The contractors will probably account for this in their bids. If the site would be available we would wish to so state in the specifications.
- 2 - Will the construction of Unit F commence prior to the completion date of the construction contracts for Unit A? If so, we wish to specify that the Unit F contractor will "acquire" the north-east portion of the Unit A site, including the portion above Auditorium C. Definition of responsibilities is a necessary ingredient in the specifications, and we have a number of potential conflicts if Unit F has an early start.

Paul, these can be solved.

Page 2
Paul Maupin
May 20, 1971

Please advise us on the above as soon as possible.

Sincerely,

HEALTH SCIENCES ARCHITECTS & ENGINEERS


Jerrald B. Olson

cc: TAC

MEMO - July 7, 1971

For the past three months, the Architects and Engineers have been attempting to complete contract documents for Unit A in accordance with the Schedule of Unit A Target Dates dated 19 March 1971. Health Sciences Architects & Engineers have been on a crash program involving nearly 50 men on an overtime basis.

On 1 July it became apparent that the target date of 19 July for the beginning of the bid period could not be met and the following restraints against completion were listed:

- 1 - General Specifications - Late start on writing 31 technical specification sections due to late complete information on architectural drawings.
- 2 - Planning Changes - The magnitude of late planning changes summarized at the 1 June '71 meeting with Mr. Maupin and representatives of the Medical and Dental Schools was not readily discerned. It is now known that these changes involve many more hours of work to revise previously completed plan and detail drawings than was previously estimated.
- 3 - Coordination of Drawings - Planning changes in 2) above require coordination between architectural and mechanical and electrical drawings involving many hours of careful checking.
- 4 - Review Comments - Incorporation of comments on the final plan and specification review now being conducted by Physical Planning and Development personnel requires more time than previously estimated.
- 5 - Addenda - The possibility of incorporating required changes to plans and specifications by Addenda during the bid period was evaluated. The magnitude of these potential addendum items now identified would require almost a total recall and reissue of documents and a consequent extension of the bid period.

In light of the above evaluation we were forced to conclude that the documents could not be issued for bids on 19 July '71 in a form which would secure the best possible bids for the University. Accordingly, I called Roland Kluver on 2 July 1971 and informed him and on the same day I called Paul Maupin with the same information. I told both Roland and Paul that we would work over the holiday weekend and would have alternate target dates established by Tuesday, 6 July.

On 6 July I met with Paul Maupin and discussed with him the revised Schedule of Unit A Target Dates and a chart comparing previous dates with the revised dates both of which are attached with this memorandum. Following our review, we met with Hale Champion and outlined the revised time schedule. Mr. Champion concluded that we had no other choice but to accept the revised dates. He noted however, that the time from receipt of bids (20 October 1971) to the award of contracts (3 November 1971) is 14 calendar days which may be an exceedingly short period of time in which to evaluate bids and award by letters of intent. He stated that Physical Planning and Development would make every effort to accomplish the necessary work in this time. Mr. Champion instructed us to meet with Don McInnes as soon as possible to review with him the change in target dates. Such a meeting is scheduled for 4 pm 7 July 1971.

Hugh copy for *Dr. French* (1)

This morning I contacted Roland Kluver and informed him of the events summarized in this memorandum.

I have stated to Paul Maupin, Hale Champion and Roland Kluver that HSAE will make every effort to complete the remaining work in advance of the target dates; we realize that even a week saved can be of value to the University. We will keep everyone informed of progress toward this end.

HEALTH SCIENCES ARCHITECTS & ENGINEERS


William B. Berget

HEALTH SCIENCES ARCHITECTS & ENGINEERS
7 July 1971

REVISED SCHEDULE OF UNIT A TARGET DATES

- | | | |
|--|---------------|---------------|
| 1. Receive ECS Bids | - 31 March | 1971 |
| 2. Award ECS Contracts | - 7 April | 1971 |
| 3. Present Unit A Contract Documents and submit to U/M for Final Review | - 8 June Thru | 15 July 1971 |
| 4. Submit Unit A Contract Documents to ROFECA, Chicago | - 7 July | 1971 |
| 5. U/M Final Approval | - 26 July | 1971 |
| 6. ROFECA Approval | - 15 July | 1971 |
| 7. Begin Printing Documents | - 26 August | 1971 (Thurs.) |
| 8. Advertise for Bids | - 26 August | 1971 (Thurs.) |
| 9. Complete Printing Documents | - 30 August | 1971 (Mon.) |
| 10. Begin Unit A Bid Period | - 30 August | 1971 (Mon.) |
| 11. ECX Contractor Complete and off site - Begin erection of Structural Steel & Deck | - 2 August | 1971 (Mon.) |
| 12. Receive Bids Unit A (52 Calendar Days Bid Period) | - 20 October | 1971 (Wed.) |
| 13. Award Unit A Contracts | - 3 November | 1971 (Wed.) |
| 14. Begin Construction Unit A | - 8 November | 1971 (Mon.) |
| 15. Structural Steel & Deck Complete Thru Floor 10 | - 15 December | 1971 (Wed.) |
| 16. ECS Complete | - 7 February | 1972 (Mon.) |
| 17. Complete Unit A (21 Months, 21 Days Construction Period) | - 3 September | 1973 (Mon.) |

CPM BY
HODGES,
JASE,
SULLIVAN
& ALLER

REVISED TARGET DATES
6 JULY 71

TARGET DATES OF 19 MAR 71

REVISED TARGET DATES - UNIT A CONSTRUCTION DOCUMENTS - HSAE 7-6-71

19 JUL 71
26 JUL
2 AUG
9 AUG
16 AUG
23 AUG
30 AUG
6 SEP
13 SEP
20 SEP
27 SEP
4 OCT
11 OCT
18 OCT
25 OCT
1 NOV
8 NOV
15 NOV
22 OCT
29 OCT
6 DEC
13 DEC
20 DEC
27 DEC 71
3 JAN 72
3 SEP 73

COMPLETE CONTRACT DOCUMENTS

BID PERIOD 59 CAL. DAYS

BID PERIOD 52 CAL DAYS

BID TO AWARD 30 CAL DAYS

BID TO AWARD 14 CAL DAYS

22 MO 15 DAYS CONSTRUCTION PERIOD

21 MO 21 DAYS CONSTRUCTION PERIOD

15 DEC 71 GEN'L CONTRACTOR
TAKES OVER SITE MANAGEMENT

30 AUG 71
BEGIN BID
PERIOD

19 JUL 71
BEGIN BID
PERIOD

15 SEP 71
RECEIVE
BIDS

15 OCT 71
AWARD
CONTRACTS

20 OCT 71
RECEIVE
BIDS

18 OCT 71
BEGIN
CONSTRUCTION

3 NOV 71
AWARD
CONTRACTS

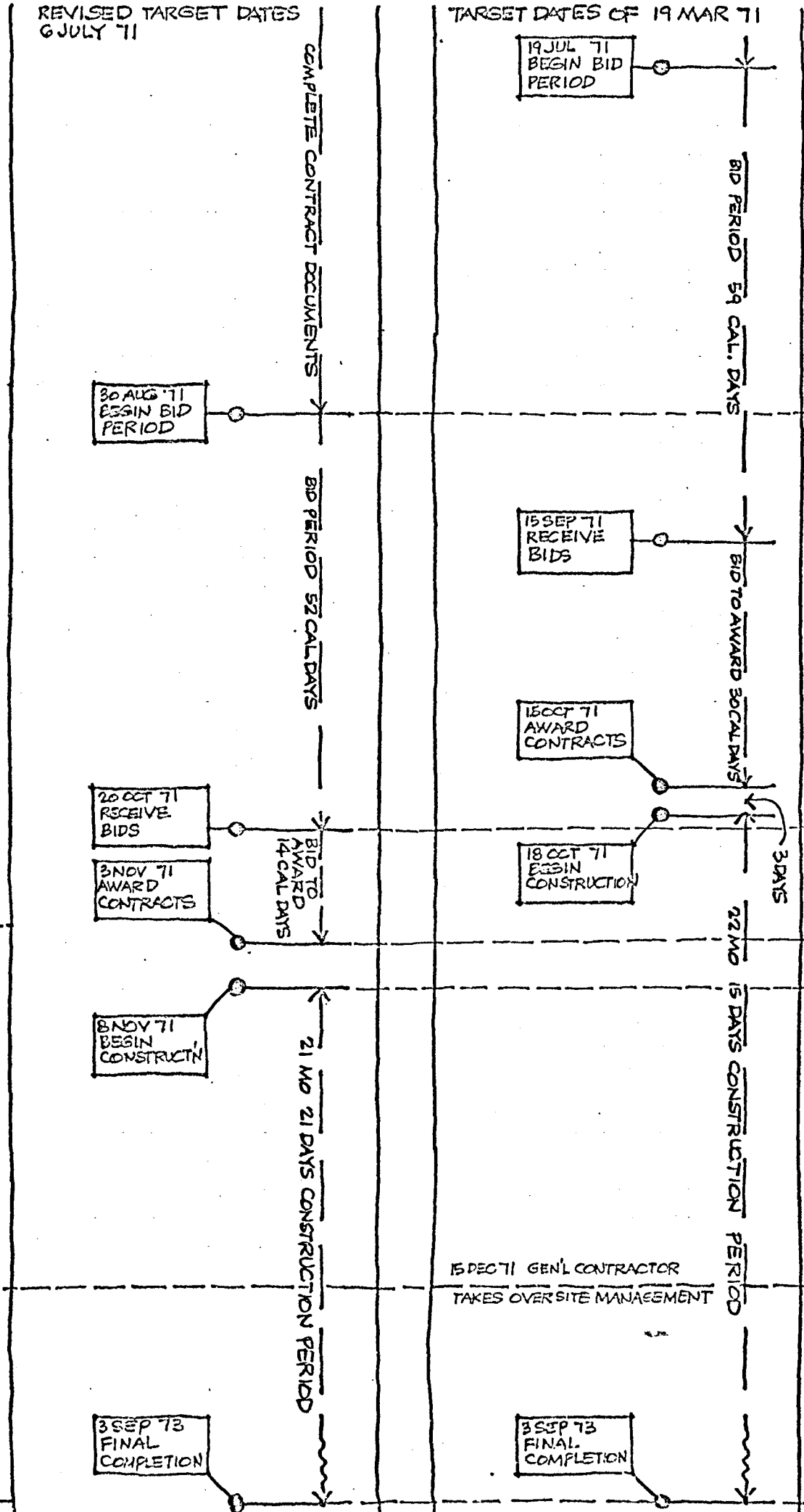
8 NOV 71
BEGIN
CONSTRUCT'N

3 SEP 73
FINAL
COMPLETION

3 SEP 73
FINAL
COMPLETION

AWARD
CONTRACTS
TARGET DATE
2/29/71

EST DATE
VAL ACCEPT
BUILDING
125/73



UNIVERSITY HOSPITALS • MINNEAPOLIS, MINNESOTA 55455

August 17, 1971

Dr. Mellor Holland
Chairman
School of Dentistry Building Committee
136 Owre Hall
Minneapolis Campus

Dear Dr. Holland:

We are responding to your letter dated August 11, 1971 regarding several detailed items and requests for additional meetings in reference to the special lighting requirements in the preclinical dental laboratories. In response to your question concerning bench lights the value judgement was made by the Health Science Planning Office not to include the bench lights in the general contract at this time. Obviously this is an item that could be added later. Mr. Olson indicated to this office if they were to respond to this dental request it would cost in the vicinity of an additional \$20,000. The subject of dental electrical requirements as discussed in previous correspondence, is one of the details that the faculty and TAC worked on together during the 1/4" scale equipment development stage. The Health Science Architects and Engineers have the responsibility for detailing and writing the specifications for these requests and discussing and correcting design development deficiencies with the faculty as the detailed drawings and specifications are developed.

With respect to the many other important items you discussed in your letter, the problem comes down to one major issue: money. We presently have slipped the bid letting on Unit A approximately 30 days. Because of escalation in costs this represents a loss to the occupants of Unit A in the availability of funds of approximately \$400,000. I completely agree with your concern regarding priorities and the trade-off concept, however, we simply do not have the time to go through the process. Any further delays will completely destroy any contingency funds that we presently have. Unit A will go out for bids on August 26, 1971. After receiving the bids, and if the general contract is under our estimate, then and only then will we be able to consider additional items or design refinement that will aid your faculty in their teaching mission.

On a more favorable note regarding communications, the contract documents to Con Com have been prepared and they should begin meeting with your faculty soon.



Mel I would be the first to admit that there are many items in Unit A that should be corrected if there were only more time and money available. The money for Unit A construction is extremely tight. I hope you realize that our estimate for general construction of Unit A if underestimated by only 3% would prohibit our letting of the general contract. Estimating a job of this magnitude this closely is extremely dangerous. If the bid were to exceed our available funds we would be forced to re-design and reduce building costs, which would likely take 3-4 months in time, and once again because of escalation, this would reduce the overall funds available. If this were to occur the result, not counting re-design costs, would reduce our funds in the magnitude of 1.2 to 1.6 million.

I hope this letter clarifies the situation we are in and explains why we cannot enter into the areas you described in your letter at this time.

Yours truly,



Paul J. Maupin
Health Sciences Planning Coordinator

PJM:jlb

cc: Hugh Peacock
Dean Schaffer

JERRY OLSON

REC'D	9-23-71
ARCH	
MECH	
ELEC	
STR'L	
TAC	
FILE	

UNIVERSITY HEALTH SERVICE • MINNEAPOLIS, MINNESOTA 55455

September 8, 1971

Memorandum

To: Mr. Eugene Kogl, Director, Engineering & Development

From: G. L. Scheffler, Safety Engineer

Subject: Health Sciences Expansion, Unit A

The review and the associated recommendations and comments were developed from the preliminary architectural plans, preliminary electrical plans and very partial set of mechanical plans for Unit A of the Health Sciences expansion. At this time no specifications were available. With receipt of more complete mechanical plans and specifications, further comments may be forthcoming--in addition to those listed below.

The review indicates that the following health and safety recommendations are in order for the healthful and safe use of this building.

1. It is recommended that the charging door to the trash chute at all levels be placed behind a "B" label door set in a two-hour fire resistant wall which separates it from the elevator and adjoining building area. This is a code requirement and is recommended to prevent the travel of smoke (from fires originating in the chute) from moving up other vertical shaftways throughout the building.
2. To meet University standards it is recommended that each laboratory be provided with an eye wash and with a deluge-type safety shower, with these two appliances located adjacent to each other so that simultaneous use is possible. With the installation of safety showers, fire blankets are not a requirement; and it is recommended that these be deleted in all locations throughout the building. The location of eye wash and safety showers should be in the laboratories proper; and it is recommended that the corridor installation on the first floor, by rooms 115 and 116, be relocated. It is recommended that both eye wash and safety showers be provided in each laboratory on the 11th floor.
3. It is recommended that all refrigerators and freezers placed in laboratory areas be of modified design. This modification should remove all sources of ignition from the interior storage cabinet and would include the removal of any electrical door switch, interior light and thermostatic control. Refrigerator and freezer combinations provided with fans are not acceptable for use in laboratories,

since the fan cannot be made explosion-proof. In refrigerators provided with defrost drains, the drains should be plugged so that any spills will not drain into the compressor area. It was noted that explosion-proof refrigerators are indicated for certain areas; however, unless there will be release of large quantities of flammable vapors into the laboratory proper, the extra expense of this type of refrigerator has not been deemed justified in other University laboratory locations.

4. It is recommended that all cold rooms in which flammable solvents will be stored or used be provided with explosion-proof lighting, electrical equipment, etc. Particular attention should be directed toward exposed heating elements and circulating fans.

5. It is recommended that in those cold rooms in which ultraviolet light is to be installed an interlocking electrical switch should be used, which will turn off the ultraviolet light when the cold room regular lighting is on. If this is not a satisfactory installation, then those rooms where the ultraviolet light must remain on should be provided with an illuminated exterior sign which clearly indicates, visually, that ultraviolet light is in use in the rooms.

6. It is strongly recommended that at least one volatile liquid storage room be provided on each floor in which there are laboratories. This is necessary for the proper storage of flammable liquids, both on the floor and in the individual laboratories. It was noted that such flammable liquid storage rooms are needed on the second floor, for the biochemistry and microbiological laboratories; on the third floor, for the pathology and pharmacology laboratories; for the laboratories on the 11th floor, 12th floor, 13th floor, 14th floor, 16th floor, 17th floor, and 18th floor. While these rooms do not need to be exceedingly large, they are essential to the fire life safety of the building occupants associated with the use of flammable liquids.

7. It is recommended that vision panels, preferably of 3 inch by 33 inch wire-glass, be provided in all interior entrance doors to the stairwells and in all doors located in main corridors which will not normally be held in an open position by means of magnetic holders and in doors leading from the larger laboratory and dental operatories.

8. Double doors placed in main corridors should have the individual door leaf swing in opposite directions, so that the swing of the door leaf on the right side of the corridor swings in the direction of egress from the area separated, toward the exit. This requirement should be met for all corridor doors, regardless of whether they are held open by magnetic holders or not.

9. All doors leading from the larger rooms on the 6th, 7th and 8th floors, such as doors 136A, 136B, 154A, 104A, 104B, etc., should be so hung that they will swing in the direction of egress from these areas into the corridor.

10. It is assumed that all requirements for the use of the building by the physically handicapped are being met; and this would include at least one lavatory and mirror in each toilet room at the proper height, the proper height of elevator controls in the elevator cabs, and the proper height of drinking fountains throughout the building. Regarding this latter height, it is suggested that all drinking

fountains be set at this specified height--since it is not inconvenient for regular use as well as for use by the physically handicapped.

11. It was noted that there are various locations in which canopy-type hoods are provided, such as in room 187 on the first floor. It is suggested that if such canopy-type hoods are being used for the removal of toxic vapors and dusts, they should be replaced with a type of ventilation which draws this material away from the user rather than vertically past the person's breathing zone. If the canopy-type hoods are used only for removal of heat, steam or non-toxic vapors, there is no need for redesign.

12. It is recommended, to meet University requirements for two means of egress from all laboratories, that a second means of egress (in many instances this can be a knockout panel rather than a full-sized door) be provided for the following: 12th floor; laboratory offices numbered 109, 111, 127, 130 and 145--16th floor; laboratories 146 and 148--18th floor; laboratories 150, 153, 157 and 160.

13. It is suggested that there is no need for fume hoods of the explosion-proof type, such as is indicated for room 134 on the 17th floor. All hoods can be standard fume hoods, and it is preferred that they have horizontal sliding sashes. If vertical sashes are used, any by-pass for the purpose of balancing air should be provided only at the last 10 inches of travel toward closure of the sash.

14. It is recommended that the walls of the carpenter shop located in the basement be extended to the floor above. This is a high hazard area and should be provided with good physical separation from the adjoining areas. It is also suggested that on the first floor rooms 111 through 116, rooms 146 through 149 and rooms 183 and 187 are high hazard areas and, again, the room walls should be extended to the floor above.

15. There was no indication on the plans that kitchen equipment on the first floor would have the exhaust hoods over grills and fryers provided with an automatic extinguishing system, but this is a code requirement and is recommended if not now being provided.

16. The set of plans provided to this Division was marked with the intended location and type of fire extinguisher. These were reviewed with the idea in mind of uniformity of fire extinguisher use and location with the rest of the campus, and the following suggestions are made. It was noted that all-purpose, ABC, extinguishers were designated for all areas of the building. At this time the University is placing such extinguishers just on those floors or in those areas housing laboratories. This Division has no objection to the use of this type of extinguisher throughout the entire complex; but we would like to point out that should there be a decision to replace this type of extinguisher with the usual 2½ gallon pressurized water, this should be done only in those areas which do not house laboratories. Where laboratories are present, all hose cabinets and corridor extinguisher cabinets should be provided with the 10 pound all-purpose extinguisher. The specific suggestions regarding extinguisher location are as follows:

Basement - Room 128, Carpenter Shop. Should be provided with a wall-mounted #1 extinguisher.

The #2 extinguisher located outside room 129A should be changed to a #1 extinguisher.

First Floor - Rooms 111 through 116. Should be provided with #2 extinguishers, wall-mounted near the corridor door. The #1 extinguishers indicated for the corridors outside these laboratories can be eliminated.

The extinguisher cabinet in room 196 should be moved outside, and the cabinet should be located in the elevator lobby or in the 75 corridor.

Room 187 should have a wall-mounted #1 extinguisher.

Room 53 should have the #3 extinguisher changed to a #1 extinguisher.

Room 50 should have a #3 extinguisher wall-mounted immediately outside the entrance door.

Room 51 should have the #1 extinguisher moved to a cabinet in the corridor near this room.

Rooms 205D and 159 should have the #3 extinguishers changed to #2; or five-pound CO₂ extinguishers should be placed in these locations, since a ten-pound extinguisher is normally too heavy for women to operate satisfactorily.

Second Floor - Rooms 150 and 151. Should each be provided with #1 extinguishers. Only one of two adjacent extinguisher cabinet in corridor 78 is needed, and one can be eliminated.

Rooms 152B 159D, 166B, 184B and 188B should each be provided with wall-mounted #2 extinguishers.

The extinguisher cabinet in the corridor by room 175 is not required.

Third Floor - Rooms 103, 104, 105, 106 and 107. Should be provided with a second #2 extinguisher to be wall-mounted in the laboratory, adjacent to the other corridor entrance door.

Eleventh Floor - All laboratories on the 11th floor should be provided with additional #2 extinguishers, wall-mounted in the laboratory adjacent to each main entrance to the corridor.

Twelfth Floor - A #2 extinguisher should be wall-mounted outside room 103.

Fourteenth Floor - All laboratories on this floor should have #2 extinguishers, wall-mounted within the laboratory adjacent to each laboratory entrance to the corridor.

Sixteenth Floor - A #2 extinguisher should be provided for room 120.

Room 119 should have a #2 extinguisher, wall-mounted adjacent to each corridor entrance door.

Seventeenth Floor - Rooms 140, 141, 151 and 154. Should be provided with #2 wall-mounted extinguishers, adjacent to each corridor door.

Mr. Eugene Kogl

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September 8, 1971

Eighteenth Floor - Two #1 extinguishers, spaced appropriately in corridor 91A and 91 B and corridor 93, should be provided. This installation should be similar to that indicated for the 17th floor.

Thank you for your review and attention to these suggestions and recommendations. If there are any questions, please contact the writer. As further detailed plans are made available, additional suggestions and recommendations may be forthcoming.

GLS:jn

First Addendum to conditions, specifications, related documents and drawings entitled:

UNIT A OF THE
HEALTH SCIENCES EXPANSION
UNIVERSITY OF MINNESOTA
PROJECT NO. MINN 4021 (129)

THE ARCHITECTS COLLABORATIVE, INC.

Cambridge, Massachusetts

HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.
113 Hubbard Building, 2675 University Avenue, Saint Paul, Minnesota
646-8875

The additions, revisions, omissions, corrections and clarifications contained herein shall be made to drawings and specifications for the project and shall be included in scope of work and proposals to be submitted. References made below to specifications and drawings shall be used as a general guide only. Bidders and Contractors shall determine for themselves the work affected by Addendum items.

RELATED DOCUMENTS - ALL CONTRACTS

1 - Advertisement for Bids: (A) Change bid closing date to read: October 20, 1971.

2 - Information for Bidders: (A) Article 20. In the last paragraph, sub-paragraph (a), change to read: (a) Casework under separate prime contract included under Section 1161: (1) List of proposed deviations prior to October 1, 1971, (2) Samples prior to October 6, 1971.

(B) Article 20. Add: All submittals pertaining to requests for acceptance shall be made to Health Sciences Architects and Engineers, 113 Hubbard Building, St. Paul, Minnesota, 55114.

CONDITIONS - ALL CONTRACTS

3 - Section C - General Conditions: (A) Article 1.72, Wage Rates. The attached Decision No. AM-2,377 contains the wage rates applicable to the Project (see Appendix).

SPECIFICATIONS - ALL CONTRACTS

4 - Section 0140 - Testing and Inspection: (A) Add Article 1.7, Certificates. Except for test reports provided and signed by approved independent testing laboratories, all certificates required by the specifications shall be signed by an authorized official of the firm providing the certificate and such signature shall be notarized.

SPECIFICATIONS - GENERAL CONTRACT

- 5 - Section 0330 - Cast-In-Place Concrete: (A) Article 2.3, Paragraph E. Delete sub-paragraphs 8 through 11.
- 6 - Section 0550 - Miscellaneous and Ornamental Metal: (A) Article 2.1. Add: FF. Steel floor deck at stair landings shall be Robertson 1-1/2" QL-UKX 18-20 galvanized, Inland-Ryerson 1-5/8" NF 18-20 galvanized or approved equal.
- 7 - Section 0580 - Special Formed Metal: (A) Article 1.1, Scope, Paragraph B. Add: 13. Junction boxes types 1, 2, 3, 8.
- 8 - Section 0640 - Custom Woodwork: (A) Article 2.13, Paragraph A. Delete Paragraph A and substitute therefore: A. At wood Type A, provide continuous length battens made up, in the shop, from 8'-0" lengths joined with a hardwood spline butt joint. Submit full sized sample of joint to Architect for approval. Battens will be cut to length in field and installed such that the joints at every other batten align. Offset the joints 4'-0" (vertically) at the alternating battens. Select wood at butted joints to match, as near as possible, grain and color.
- 9 - Section 0885 - Glass and Glazing: (A) Article 2.2, Paragraph A.2. Change to read: Frames Stylemark 620007 or frame with shelf, Stylemark 620009, complete assembly SACR-SS finish. Equivalent products of J. G. Braun Company, Engineered Products Company or approved equal are acceptable.
- (B) Article 2.2. Add: B. Equivalent Item M-602, Triple Mirror: Stylemark 620059, SACR-SS, the equivalent products of Engineered Products Company, J. G. Braun Company, or approved equal.
- 10 - Section 0990 - Painting: (A) Article 1.1, Paragraph D.2. Add: Z. Walls of floor plenums created by pedestal floors.
- 11 - Section 1118 - Darkroom Equipment: (A) Article 2.2, Paragraph A. Add: 15. Stainless steel film drop slots, chutes and receiving box at Room A7-117, detailed on equipment drawings shall be Kreonite Model KPT-20 or approved equal, 6" x 6" door, modified per details.
- 12 - Section 1132 - Audio-Visual Aids: (A) Article 1.2. Add: B. Schedule delivery of large rear projection screens carefully so that openings large enough for the screens are left for moving screens to auditoria. If schedule requires delivery of screens before auditoria spaces are ready to receive them for installation, provide all necessary protection of screens to avoid damage of any type before installation.
- 13 - Section 1140 - Food Service Equipment: Article 2.6, Paragraph K-88. Add: Provide 2-20 ampere, 120 volt grounding type duplex outlets as shown on plan; pre-wire to junction box and provide three (3) wire grounding cord, 6 feet long and cap; outlet plates shall be stainless steel.

14 - Section 1162 - Plastic Laminate Laboratory Casework: (A) Article 1.1, Paragraph B. Add: 12. Fixed and adjustable wall mounted plastic laminate faced shelving indicated on the Equipment Drawings and occurring in areas containing plastic laminate faced dental casework.

(B) Article 1.1, Paragraph B. Add: 13. Fixed and adjustable shelves fabricated of the countertop materials specified above and occurring in spaces containing plastic laminate laboratory casework.

(C) Article 1.1, Paragraph C. Add: 8. Fixed and adjustable wall mounted plastic laminate faced shelving including shelf standards and brackets indicated on the Equipment Drawings and occurring in areas containing metal laboratory casework: Section 1161.

(D) Article 2.2, Casework and Shelving. Add: G. Provide security panel above each locked drawer as well as between drawer space and cabinet behind doors wherever drawers occur above doors to be locked.

(E) Part 2. Add: 2.15 Perforated Hardboard. A. Perforated Hardboard: Masonite Weyerhaeuser, U. S. Plywood or approved equal 1/4" thick tempered hardboard with 9/32" holes on 1" centers each way.

15 - Section 1176 - X-Ray Equipment: (A) Article 2.2, Paragraph B.1. Add to equipment numbers: X-573A.

SPECIFICATIONS - CASEWORK CONTRACT

16 - Section 1161 - Metal Laboratory Casework: (A) Article 1.1, Paragraph B. Add: 19. Stainless steel rod assembly shown at detail 31/Q15.

(B) Article 1.2, Qualifications, Paragraph D.2. Change second sentence to read: Tests shall be conducted by a nationally recognized independent testing laboratory, or by a laboratory of the manufacturer that is equipped and qualified to perform the tests, at no cost to the Owner or Architect. The reports shall indicate the testing procedures or methods and certificates provided in accordance with Article 1.7 of Section 0140.

(C) Article 2.3, Paragraph F. In the second sentence, change "corrosive resistant" to read: type 304 stainless steel.

(D) Article 2.7, Hinged Solid Doors. Add: F. Provide security panels between drawer space and cabinet behind doors wherever drawers occur above doors to be locked.

(E) Article 2.16. Add: M. Casters: Bassick No. SB-4689-2 or approved equal, 4" diameter rubber tire swivel casters with side brake.

(F) Article 2.16. Add: N. Perforated Hardboard: Masonite, Weyerhaeuser, U. S. Plywood or approved equal, 1/4" thick tempered hardboard with 9/32" holes on 1" centers each way.

(G) Article 2.30, Paragraph A. In the last line delete the period (.) after the word steel.

(H) Article 2.31, Paragraph A.1. Change "#5362" to read: #1221.

(I) Part 2. Add: 2.32, Hardboard Countertop. A. Construct hardboard countertop as shown on drawings.

1. Hardboard: 1/4" tempered Masonite or equivalent product of Weyerhaeuser, U. S. Plywood or approved equal.

2. Wood Planks: 2" x 6" clear pine.

3. Metal Edge: 18 gauge galvanized steel.

(J) Part 2. Add: 2.33, Wall Mounted Shelving. A. Shelving shall be countertop materials specified above as indicated on the drawings.

B. Heavy duty hardware shall be Knappe and Vogt 85 double standard with 185 double boltless brackets, length as required for shelf widths indicated, or approved equal.

DRAWINGS - ARCHITECTURAL (A)

17 - Sheet A8: (A) Room A2-178, south wall is partition type P6.

18 - Sheet A15: (A) South wall of Room A6-112 and east wall of Room A6-102 are partition type P6.

(B) South and west walls of Room A6-165 are partition type P6.

19 - Sheets A15 and A16: (A) Cubicle curtain track (Equipment Item No. M-795) will be used in Room A6-112 (delete detail, detail mark 4/A47) and in Rooms A7-153 and A7-182. Fasten support tubes to runner screw tracks.

20 - Sheet A16: (A) North wall of Room A7-166 is partition type P6.

(B) East wall of Room A7-103 is partition type P6.

(C) North and south walls of Room A7-226 are partitions type P6.

(D) Delete P6 from east wall of Room A7-213.

(E) Detail 8. Change J. B. Contractual Status to read: Section 0580.

21 - Sheet A23: (A) Room A8-155 Conference: Change floor finish from V.A.T. to Carpet 1.

22 - Sheet A29: (A) East wall Room A15-111 is partition type P3.

23 - Sheet A43: (A) Detail 6/A43. Aluminum angle shown at service column shall be furnished under Section 1350.

24 - Sheet A86: (A) Detail 21/A86. Add: Steel deck for stair platform indicated on drawing A86 shall be Robertson 1-1/2" QL-UKX 18-20, Inland-Ryerson, 1-5/8" NF 18-20 or approved equal. Deck shall be galvanized. Deck shall be furnished under Section 0550 (Miscellaneous Metals).

DRAWINGS - EQUIPMENT (Q)

25 - Sheet Q1: (A) Equipment No. R-621A: Add Room No. A18-141.

(B) Equipment No. R-621: Delete Room No. A18-141.

26 - Sheets Q6 through Q12: (A) To accommodate Equipment Item R-621, suspended undercounter refrigerator, make the following changes to adjacent cabinet rows, to refrigerators or to laboratory fixtures and trim:

<u>Reference Dwg.</u>	<u>Room No.</u>	<u>Change From</u>	<u>Change To</u>
Q6	A11-143	HB48C4	HB36C4
Q7	A12-114	HB48C4	HB36C4
	A12-115B	HB36A3	HB24A1
	A12-115B (mech.)	L14-K-D1	L9-K-D1
	A12-115C	HB36A3	HB24A1
	A12-115C (mech.)	L14-K-H-D1	L9-K-H-D1
	A12-125	(2) HD36A2	(2) HD24A1
	A12-126	(4) LD24A1	(4) LD18A1
	A12-136	HD24A1	HD18A1
	A12-136	HB24B1	HB18B1
Q8	A13-104	HB48C4	HB36C4
	A13-105	HB48C4	HB36C4
	A13-108	HB48C4	HB36C4
	A13-110	HB48C4	HB36C4
	A13-134	HB48C4	HB36C4
Q10	A16-112	HB48A3	HB36A3
	A16-114	HP 5'-6"	HP 4'-6"
	A16-116	HB36C4	HB24C1
	A16-116	HD36A3	HD24A1
	A16-119	HB48D6	HB36D6
	A16-120	HB48B3	HB42B3
	A16-120	HB48D6	HB42D6
	A16-125	HD48A3	HD36A3
	A16-128	(2) HD36A3	(2) HD30A2
	A16-143	HB24E1	HB18E1
	A16-143	HB24C2	HB18C2
	A16-146	HB24C2	HB18C2
Q11	A17-118	LP 2'-6"	LP 2'-0"
	A17-118	LB24D2	LB18D2
	A17-123	HP24A2	HP18A2
	A17-123	HB24D8	HB18D8
	A17-130	(2) HD36A3	(2) HD30A2
	A17-148	HB36A3	HB30A2
	A17-148	HP 2'-6"	HP 2'-0"
	A17-151	(2) HB24D3	(2) HB18D3

<u>Reference Dwg.</u>	<u>Room No.</u>	<u>Change From</u>	<u>Change To</u>
Q12	A18-140 A18-141 A18-136	(2) HB24D1 R-621 HB13D1 and HD18A1	(2) HB18D1 R-621A (1) HB24D1

27 - Sheet Q7: (A) Detail 1/Q7. At Room A12-120, change note referring to "part of L210" to read: part of L211.

28 - Sheet Q15: (A) Detail 31/Q15. Stainless steel rod assembly shall be furnished under Section 1161.

29 - Sheet Q18: (A) Detail 46/Q18. Top of wood plank, hardboard and galvanized iron edge shall be furnished under Section 1161.

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STATE MINNESOTA	COUNTY HENNEPIN	DECISION NO. AM-7,377	PAGE 1
DESCRIPTION OF WORK: Building Construction, (excluding single family homes and garden type apartments up to and including 4 stories), heavy and highway construction.			

27-MINN-HEN-1-s EXPIRES 12/10/71 (1-2)

Building Construction	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
ASBESTOS WORKERS	\$8.05	.22	.35		.02	
BOILERMAKERS	7.80	.30	.85		.02	
BOILERMAKERS' HELPERS	7.55	.30	.85		.02	
BRICKLAYERS; Stonemasons	7.61	.305	.23	.53	.02	
CARPENTERS:						
Carpenters; Millwrights; Piledriver-men	7.13	.40	.15	.50	.02	
When working with material treated with toxic carbolineum or toxic creosote	7.38	.40	.15	.50	.02	
CEMENT MASONS	7.60	.30	.25			
ELECTRICIANS; Line Construction:						
Electricians; Linemen	8.00	4%	4%	7½%		
Equipment operators	8.00	4%	4%	7½%		
Groundmen	6.60	4%	4%	7½%		
ELEVATOR CONSTRUCTORS	7.23	.17	.185	27%+a		
ELEVATOR CONSTRUCTORS' HELPERS	70%JR	.17	.185	27%+a		
ELEVATOR CONSTRUCTORS' HELPERS (PROB.)	50%JR					
GLAZIERS	7.70	.15	.10	.13		
IRONWORKERS:						
Ornamental; Reinforcing; Structural	7.55	.40	.45		.02	
LABORERS:						
Carpenter tender; Common laborers;						
Earth dump men; Power buggy op.;						
Steel joist handlers (erection)	5.90	.35	.35	.40		
Reinforcing steel handlers	5.95	.35	.35	.40		
Concrete joint saw op.; laborer, demolition & wrecking (not incl. remodeling); Men handling cement 2 hours per day (bulk or sack, excl. mortar mixer)	6.00	.35	.35	.40		
Automatic tamper op.; Chipping hammer op.; Concrete vibrator op.;						
Gunite machine op.; Hot tar caulker & cookers; Jackhammermen; Laborers on swing stage single line scaffolds (not incl. "Patent" scaffolding); Mixers of mortar, cement or any other substitute material or composition; Paving buster	6.05	.35	.35	.40		
Drivers on heavy building excav.;						
Sheeting setters; Underground work	6.15	.35	.35	.40		
Pipelayers	6.20	.35	.35	.40		
Caisson work; Underpinning	6.25	.35	.35	.40		
Nozzlemen	6.30	.35	.35	.40		
Dynamite men; Power drillers for blasting purposes	6.605	.35	.35	.40		
LATHERS	7.45	.20			.01	

27-MINN-HEN-1-s (2-2) AM-7,377 Page 2

	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
MARBLE SETTERS	\$7.385	.305	.23	.53		
PAINTERS:						
Brush	7.50	.25	.25		.02	
Spray; Structural steel; Swing stage	8.00	.25	.25		.02	
PIPEFITTERS; Steamfitters	7.11	.33	.30	1.25	.02	
PLASTERERS	7.50	.20	.20		.01	
PLUMBERS	7.11	.33	.30	1.25	.02	
ROOFERS:						
Roofers	7.79	.24	.15			
Kettlemen	7.44	.24	.15			
SHEET METAL WORKERS	5.76	.24	.20			
SOFT FLOOR LAYERS	7.65b	c		d		
SPRINKLER FITTERS	8.44	.25	.40		.02	
TILE SETTERS	7.59	.22	.50			
TRUCK DRIVERS	6.20	.25	.25			
WELDERS- Receive rate prescribed for craft performing operation to which welding is incidental.						
PAID HOLIDAYS:						
A-New Year's Day; B-Memorial Day; C-Independence Day; D-Labor Day;						
E-Thanksgiving Day; F-Christmas Day.						
FOOTNOTES:						
a. Employer contributes 4% basic hourly rate for over 5 years' service, 2% basic hourly rate for over 6 months to 5 years' service as Vacation Pay Credit. Six Paid Holidays: A through F.						
b. Out-of-town contractors will pay the rate of \$8.40 per hour with no fringe benefits payments.						
c. Employer shall contribute \$25.00 per month for each employee into the H & W Fund.						
d. Employee with at least 1,700 hours' service during the current year and 1 year's service - 1 week's vacation with pay; 3 years' service - 2 weeks' vacation with pay; 15 years' service - 3 weeks' vacation with pay.						

27-MINN-HEN-2-3-s (1-1)

Site prep., excav. & incid. paving Heavy & Highway	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
CARPENTERS	\$6.68	.40	.15	.45	.02	
CEMENT MASONS	7.65	.30	.25			
PILEDRIVERMEN	6.68	.40	.15	.45	.02	

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NOTICES

BUILDING CONSTRUCTION	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
HELICOPTER OPERATORS (Hoisting material)	11.20	.15	.25			
TRUCK & CRAWLER CRANES with 200' of boom & over incl. JIB	8.80	.15	.25			
TRUCK & CRAWLER CRANES with 150' of boom incl. JIB up to 200' of boom	8.45	.15	.25			
TRAVELING TOWER CRANE	8.35	.15	.25			
MASTER MECHANIC	8.25	.15	.25			
DERRICK (GUY & STIFF LEG); Hoist engineer (2 drums or more); Locomotive op., master mechanic; Overhead crane op. (inside building perimeter); Truck & crawler cranes up to 150' of boom incl. JIB	8.00	.15	.25			
AIR COMPRESSOR OPERATOR, Pump op. &/or Conveyor., 2 or more machines; Hoist engineer (2 drums); Mechanic or welder; Pumpcrete or Complaco type machine op.	7.88	.15	.25			
FORK LIFT OPERATOR	7.88	.15	.25			
BOOM TRUCK OPERATOR; Concrete mixer op.; Drill rigs (heavy duty rotary or churn drill when used for caisson drilling or when drilling for elevator cylinder on building construction); Front end loader op.; Hoist engineer (1 drum); Power plant engineer (100 KWH & over); Straddle carrier op.; Tractor op. (over D-2); Well point pump op.	7.80	.15	.25			
CONCRETE BATCH PLANT OPERATOR; Granite op.; Tractor op. (D-2 or similar size & front end loader operator up to 2 cu. yd.)	7.53	.15	.25			
AIR COMPRESSOR OPERATOR, Pump &/or Conveyor op.; Fireman, Temporary heat; Brakerman; Pick up sweeper (combustion engine operated); Truck crane oiler	7.25	.15	.25			
MECHANIC SPACE HEATER (Temporary heat); Oiler or greaser	6.80	.15	.25			

UNSKILLED LABORERS; Drill runner helper; Landscape gardener; Sod layer & nurseryman; Powder monkey; Reinforced steel laborer; Reinforced steel setter (pavement); Salamander heater & blower tender; Carpenter tender; Winch handler (manual)	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
LABORER, WRECKLING & DEMOLITION; Bituminous batcherman (stationary plant); Bituminous shoveler; Blacksmith helper; Bottom man (sewer, water or gas trench); Bricklayer tender; Cement handler (bulk or bag); Cement coverman (batch trucks); Compaction equipment (hand operated); Concrete shoveler, tamper & puddler (paving); Concrete vibrator; Concrete batcherman (proportioning plant); Concrete longitudinal floatmen (manual bull float on paving); Conduit layers (w/o wiring); Chipping hammer; Curb setter (stone or precast concrete); Dump (wagon, truck, etc.); Dump man; Dump man (paver-batch truck, etc.); Formsetter (municipal type curb & sidewalk); Formsetter (pavement); Hydrant & valve setter; Joint filler (concrete pavement); Kettleman (bituminous or lead); Service connection maker (water or gas); Power buggy; Joint sawer; Squeegeman (bituminous brick or block); Stabilizing batcherman (stationary plant); Stonemason tender; Drill runner (heavy, incl. churn drill)	5.50	.35	.35	.20		
CHAINSAW MAN; Concrete mixer (1 bag); Jackhammer man & paying buster; Mortar mixer; Pipe handler (water, gas, cast iron); pipe derrickman (tripod, manual)	5.65	.35	.35			
BOTTOM MAN (sewer, water or gas trench - more than 8 ft. below starting level of manual work); Tunnel laborer (atmospheric pressure); Underground laborers; cofferdam work; Tunnel work; Underpinning work; Caisson work; Other work more than 8 ft. below starting level of manual work; Open ditch work	5.75	.35	.35			
BITUMINOUS TAMPER; Pipelayer (sewer, water, gas); Sand cushion & bed maker	5.80	.35	.35	.20		

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	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
CEMENT GUN OP. (1½ in. & over); Leadman	5.85	.35	.35	.20		
NOZZLEMEN (gunite)	5.90	.35	.35	.20		
BRICK OR BLOCK PAVING SETTER	5.93	.35	.35	.20		
BITUMINOUS RAKER, FLOATER & UTILITY MAN	5.95	.35	.35	.20		
OVERMAN; Tunnel man (air pressure); Tunnel mixer	6.18	.35	.35	.20		

	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
Site prep., excav. & incid. paving Heavy & Highway construction POWER EQUIPMENT OPERATORS						
DREDGE DECK HAND; Gravel screening plant (portable, not crushing or washing); Greaser truck & tractor; Leverman; Mechanic helper; Mechanic space heater (temporary heat); Oilers (power shovel, crane, dragline)	\$6.00	.15	.25			
TRACTOR, 50 H. P. OR LESS WITHOUT POWER TAKE-OFF	6.03	.15	.25			
BATCH PLANT (Concrete); Brakeman or switchman; Conveyor; Fireman; Tank car heater; Self-propelled vibrating pucker (pad type) (35 H.P. & over); Truck crane oiler	6.10	.15	.25			
AIR COMPRESSOR; Lead greaser on grease truck or grease rack (where no mechanic is employed)	6.25	.15	.25			
CONCRETE DISTRIBUTOR & SPREADER; Finishing machine; Longitudinal float; Joint machine; Spray op.; Concrete saw (multiple blade) (power operated); Fine grade op.; Form trench digger (power); Power actuated jacks; Pumps; Shouldering machine (power) (Apsco or similar type incl. self-propelled sand & chip spreader); Stamp chipper; Self-propelled chip spreader (Flaherty or similar); Curb machine	6.27	.15	.25			
BITUMINOUS SPREADER & BITUMINOUS FINISHING MACHINE (Helper) (Power)	6.35	.15	.25			
CONCRETE MIXER, ON JOB SITE 1½ & UNDER; Front end loader, up to & incl. 1 cu. yd.; Gunite op. gunall; Loader (Barber Greene or similar type); Power actuated augers; Boring machine; Rollers up to 8 tons; Tractor, D2, TD6 or similar H.P. w/power take-off	6.38	.15	.25			
GRADER OPERATOR (Motor Patrol)	6.45	.15	.25			
ASPHALT BITUMINOUS STABILIZER PLANT; Automatic road machine (CMI or similar); Backfiller; Bituminous spreader &						

POWER EQUIPMENT OPERATORS (CONT'D)	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
finishing machine (power); Boom truck (power operated boom); Concrete mixer on job site over 145; Crushing plant (gravel & stone); Gravel washing, crushing & screening plant; Dope machine (pipeline); Drill rigs; Heavy duty rotary chain or cable drills; Engineer in charge of plant requiring first class license; Fork lift; Staddle carrier; Fork lift or lumber stacker (for construction job site); Front end loader, over 1 cu. yd. up to 5 cu. yd.; Launcheron (tankerman or pilot license); Locomotives, all types; Mechanic or welder; Hoist engineer (power); Paving breaker or tamping machine (power driven) (Mighty Mite or similar type); Power actuated horizontal boring machines over 6" operators; Pick-up sweeper, 1 cu. yd. & over bumper type; Pipeline cropping, cleaning or bending machine; Power plant engineer, 100 K.W.H. & over; Papermill; Rollers 5 tons & over; Rubber tired tractor, machine attachs.; Sheep foot roller (self-propelled) (3 drum & over); Slip form (power driven) (paving); Tie chamber & ballast machine; Tractor, over 12, T16 or similar, H.P. with power take-off; Tractor, over 30 H.P. without power take-off; Tracing machine (water, water, gas); Turn pull (or similar type); Well point installation, dismantling or repair mechanics; Two or more pumps; Compressors; Welding machines	\$7.03	.15	.25			
SELF-PROPELLED TRAVELING SOIL STABILIZER	7.10	.15	.25			
DUAL TRACTION; Elevating grader; Pump-tract; Scraper truck cap. 32 cu. yd. & over	7.13	.15	.25			
CONCRETE; Concrete mixer, stationary plant over 345; Derrick (guy & stiff leg) (power) (skid or stationary); Bridge op. or engineer; Dredge op. (power) & on boom; Front end loader 5 cu. yd. & over; Grader or motor control, finishing, earth work & bituminous; Locomotive crane; Master						

POWER EQUIPMENT OPERATORS (CONT'D)	BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
		H & W	PENSIONS	VACATION	APP. TR.	OTHERS
mechanic; Mixer (paving) concrete paving, road; Hole op. incl. power supply; Mucking machine (incl. mucking operations) (Conway or similar); Power shovel and/or other equip. with shovel type controls, up to 3 cu. yds.; Refrigeration plant engineer; Tandem scraper; Tractor, boom type; Truck crane; Tugboat, 100 H.P. & over	\$7.25	.15	.25			
CRANE WITH OVER 135 BOOM, EXCL. JIB; Power shovel and/or other equip. with shovel type controls, 3 cu. yds. & over	7.51	.15	.25			

NOTICES

4 H

Heavy & highway construction
TRUCK DRIVERS

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BASIC HOURLY RATES	FRINGE BENEFITS PAYMENTS				
	H & W	PENSIONS	VACATION	APP. TR.	OTHERS
<u>GROUP I</u>					
DRIVER (hauling machinery for employer's own use, incl. operation of hand & power operated winches); Truck train; Mechanic; Welder; Tractor-trailer; Off-road truck	\$6.80	.25	.25		
<u>GROUP II</u>					
TRI-AXLE (incl. four axles); Dump; Dry batch hauler; Tank truck (gas, oil, road oil & water); Boom & "A" frame; Ready mix concrete; Slurry driver	6.50	.25	.25		
<u>GROUP III</u>					
BITUMINOUS DISTRIBUTOR DRIVER; Bituminous distributor (one man operation); Tandem axle	6.40	.25	.25		
<u>GROUP IV</u>					
BITUMINOUS DISTRIBUTOR SPRAY (rear-end roller); Dumpman; Greaser & truck service man; Tank truck helper (gas, oil, road oil & water); Teamster & stableman; Tractor op. (wheel type used for any purpose); Pilot car; Self-propelled packer; Slurry op.; Single axle	6.20	.25	.25		

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NOTICES

5-H

TO

HAMMEL GREEN AND ABRAHAMSON, INC.

MEMO TO: Jerry Olson
MEMO BY: M. Lee Dahlen
DATED: 23 September 1971
SUBJECT: HSA&E Unit A - Proposed revisions to completion times

The attached draft for an addendum, with revised dates, is based on assumptions and judgements as noted below. All dates are Mondays in 1973. Substantial completion date is defined in the specs, meaning ready for use and occupancy and it is assumed this is the start of the major "move-in" activity by the University.

Dates for the critical floors, through floor 10, are developed first, followed by dates for final completion of entire building.

For critical floors 1 through 10:

17 September - Start of Classes. Actual start may be a week later on the 24th, but early date assumed for cushion.

20 August - Latest substantial completion Phase 2, floors 6 through 10, allowing four weeks move in time. I believe a previous memo mentioned three weeks for move-in.

*6 August - Specified substantial completion of Phase 2. Allows two weeks for possible time extensions. This might relieve some pressures as a result of changes, or a short strike. It will not allow for prolonged delays, although the above "cushions" may help a bit more.

*2 July - Substantial completion of Phase 1. Allows five week "stagger-time" between phases, a floor per week. Previously, six weeks of stagger time was used but this means an earlier substantial completion date.

For less critical floors 11 and above:

31 December - Final completion and full occupancy of entire Project.

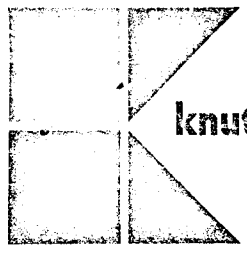
3 December - Earliest substantial completion of Phase 4 (last), allowing four weeks for final completion items and move-in.

*5 November - Specified substantial completion for Phase 4. Allows four weeks for possible time extensions.

*1 October - Specified substantial completion for Phase 3. Allows five weeks stagger time between Phase 3 and Phase 4. This is eight weeks of stagger-time between Phases 2 and 3.

I have one concern regarding L.D. only for Phase 2 substantial completion. After Phase 2 goes by (presumably complete on time) there may be a question of incentive for the contractors to complete the remainder of the work. If progress drags unmercifully, could only look to actual damages. The question is whether this would be a strong position since L.D. were used for part of the completion schedule, possibly implying the rest of the schedule is totally unimportant.

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UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

WEEKLY JOB MEETING

UNIT A - HEALTH SCIENCES EXPANSION

University of Minnesota

November 21, 1972

ATTENDANCE

- University of Minnesota: Ken Tidemann, Vern Greely, Wally Mellum, Richard Hendricks, Roy Person, Warren Forslund
- Health Sciences Architects & Engineers: Duane Blanchard
- KCC: Craig Moleski, Bob Hoffman, Ken Broman, Dick Phillips, Jeanne Andreiko
- Lamb Plumbing & Heating: Jim Gustafson
- Batzli Electric: Jim Batzli, Leo Thomes
- Westinghouse Elevator: Bob Riewe, Earl Romnes, Bob Magnuson, Herman Wergil
- Haldemann-Homme: Ted Merriam
- Insulation Sales: Quentin Bangtson, Harvey Lemke, W. Patterson
- Conrad Sheet Metal: Joe Jackson
- Wm. Poppenberger & Son: Woody Jensen, Jim Lang
- Hodges, Jage, Sullivan & Aller: Fred Hodges

CORRECTIONS OR ADDITIONS

Jim Batzli would like to add a statement under his comments that he requested a guardrail in manhole #2083. Ken Tidemann will have Wally Mellum check this on the drawings.

Ken Tidemann desired to add the phrase 'as per specifications' to a sentence in Paul Kopietz' comments on contract extension time and temporary heat as follows: He added that as per specifications the mechanical and electrical contractors will have 30 days after that for providing temporary heat.

KNUTSON SCHEDULE & COMMENTS

- 11/21 - Pour slab on metal deck, 21st floor. Pour all areas including elevator machine and core roofs on 22nd floor.
Form walls 1st floor W1/4 on S14 grid.
Form walls 1st floor S3.5/6 on E2 grid.
Pour stair landings and treads, stair 'C', basement, 1st & 2nd floors.
- 11/22 - Pour 1st floor E2/6 & S1/2.
Pour 1st floor E6.5/7.5 & S3/5.
Pour walls 1st floor W1/4 on S14 grid.
Pour wall 1st floor W1/4 on S21 grid.
Pour elevator machine room, 10th floor grids E2/3 & S10.75/13.25.
- 11/23 - THANKSGIVING!!
- 11/24 - The job will be open for all trades, but there is no schedule.

Masonry work on 10th floor air chambers and in basement air chambers as fans are set.

Precast work will be done on floors 3-10 on the north side and 15-21 on west. Temporary enclosure will be completed on 1st & 2nd floors, west side. Type #4 & 6 windows will be installed on floors 5-7.

Bob Hoffman stated the sub-contractors materials list will be submitted to the architects tomorrow. He also stated the shop drawings for metal ceilings will be submitted to Lamb today and to the architects Monday. In regard to temporary heat, he stated 1st & 2nd floors will be enclosed. Ken Tidemann asked how this enclosure will be done and Knutson replied with frames and poly.

INSULATION SALES SCHEDULE & COMMENTS

The fireproofer worked last Saturday and Sunday completing one coat on elevators 4-6. They started their second coat yesterday and got another heater to dry out their material. They should be done with this work Wednesday or Friday. Westinghouse asked if these shafts will be sealed and Knutson stated they must wait 7 days to do this. Ken Tidemann asked if the shafts will continue to be heated and Insulation Sales stated they are heating just for the application. Craig Moleski stated there will be heat.

Harvey Lemke stated the 1800' of grid with service panels is on the way and was shipped November 17. They have no schedule yet for putting this in. The architect asked if the mockup will be completed and Harvey replied it will be done including the correct tile pattern but not the color.

POPENBERGER SCHEDULE & COMMENTS

Lathing is being done in the chiller room ceiling in the basement and on the cafeteria ceiling on 1st. The pipe fitter is waiting for the spring hangers modification on the chiller room ceiling. Lamb stated no decision has been made on this yet, and Ken Tidemann will check this out. Ken Tidemann asked how many access panels will be installed and was told 20. Poppenberger stated they need this information as soon as possible and the architect will check with Ed Biggs and Len Lundquist.

LAMB SCHEDULE & COMMENTS

Work is being done in the basement and on floors 1-8, 10, 18, 19 & 21. They are also working in the shafts and running ground work on 1st floor west. Next week will be the same. Lamb stated they need guidance on core 23 from 10th floor up. They also asked if the temporary heat is going per specs.

CONRAD SCHEDULE & COMMENTS

Conrad is working in the basement and on floors 1, 5, 7, 8 & 10. Same next week. Under problems, Conrad would like to discuss 64x16 duct which cannot be put in on 5th in the northwest corner with Ed Biggs and Len Lundquist. Conrad needs bases for 93 fans on 19th & 20th floors. Conrad also asked what will be done on the damaged reheat coils and Lamb replied they had written a letter yesterday regarding this. Conrad stated that with regard to temporary heat they will use units 2-4 but need the block walls up. Knutson will begin this work shortly.

BATZLI SCHEDULE & COMMENTS

Conduit is being installed in the auditoriums, basement, on 10th and in the

walls. They will be installing tray on floors 1, 6 & 7 and transformers in cores 13 & 23. They will be running bus duct in the basement and on 10th. They will also be setting substitute gear in the motor control centers on 10 & 19. Under problems, Batzli must put up high voltage on the east wall on 10th. Knutson stated they will be running all the walls there soon. Batzli asked if the crane will be coming back on the west side of the building and Knutson replied that it would not, but they would be digging footings.

WESTINGHOUSE SCHEDULE & COMMENTS

Slings for elevators will be built on 1, 7 & 8. They will be completing pit work on elevators 4-10 and also aligning elevator machines. They will be setting blockouts for elevators 1-3 machine floor. Next week they will build elevator slings 4, 9 & 10 and installing secondary sheaves on cars 4-10. They will also do machine room work on cars 4-10 and entrance frames for cars 4-6 on floors 9, 11, 12, 13 & 14. Under problems, they need power for elevators 5 & 6 no later than December 11. Also, they need the elevator machine room on 21st enclosed to keep out snow. Ken Tidemann asked if there will be problems, and they will check. Batzli requested a meeting with Westinghouse to discuss power requirements.

UNIVERSITY COMMENTS

Ken Tidemann stated that he had gone on a tour through the first 10 floors and it seemed to him that Flour City was not keeping up with their schedule for window installation of 3 days per floor. He also asked why panels were not being installed on the lower north side below the under hang. Knutson stated they cannot go on the plaza at this time. Ken Tidemann asked about brackets for radiation supports and Knutson replied they are here. Knutson stated we would be receiving prints today for metal ceilings. Ken asked if the motors in motor control center #3 were being set to which Batzli replied this is now in process. Ken Tidemann asked if a decision had been made on how the hollow metal frames will be filled and Poppenberger stated they do not see where it says they do this work--Knutson will check. Ken also stated the mechanical people are getting oil on the floor from cutting and threading and this must be cleaned up. Also, the fireproofer is getting water on 2nd. Ken Tidemann stated that Gus Schaefer is concerned with the crane on Washington Avenue and would like a meeting with Craig Moleski later. Ken also requested that the fence be repaired and said he could push it down himself. Ken asked about the curtainwall on the second and third floors and Knutson replied it would be fabricated the second week of December. Ken asked about the possibility of Flour City attending the weekly meetings and Craig Moleski stated he would set up a special meeting with Flour City and the University. Ken asked about the enclosure of elevators 5 & 6 so they can be used. Poppenberger stated they cannot go further with their work until the fireproofer is complete and their material dry. Westinghouse said they have door frames complete on these through 8th floor, and could complete from 9-19 in 7 working days. Ken Tidemann requested a meeting with Knutson, Westinghouse and Poppenberger regarding the coordination problems in getting the elevators in working condition.

CPM

Fred Hodges asked for the precast schedule and Knutson stated they must

first install on cantilevers and then can put up the balance. Knutson will have a discussion with Palmer after this meeting. Fred Hodges asked about the window installation problem and Craig Moleski stated they will have a meeting with Flour City this afternoon to discuss this. They are now enclosing 1st and will begin 2nd soon. The architect requested information on window tests.

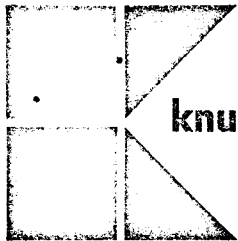
Fred Hodges asked about the fans for temporary heat and Conrad stated that Knutson must put up block walls first and then Conrad can get his work in within 10 days after the walls are up. Knutson stated they will start this work tomorrow and should finish the middle of next week. Knutson stated the masons will not be working Friday and work on the fan rooms cannot start until next week because of this.

Fred Hodges asked what would be done on the ceiling grid installation and Harvey Lemke stated they must warm this material up before installation. Bob Hoffman asked if Hayes and API were ready for ceiling installation and Lamb replied they were. With regard to the heat problem, because heat will be provided in the building in three weeks, Insulation Sales would like to wait until that time before beginning ceiling work. Harvey added that 25% of the ceiling would be delivered by December 1, and they will analyze the 1800' of ceiling they put up before installing more. Ken Tidemann again stated the University will not consider delays because of temporary heat problems. Insulation Sales stated they would put more men on the job to work on the ceiling once the building has been heated. Fred Hodges asked if 60° can be maintained and Conrad replied that it could be on 1st & 2nd. He added that he doesn't want to get his duct dirty and felt he may wait to turn on his fans until heating period 'B' in which the building will be enclosed and the University will have accepted the enclosure. Conrad added that he will gain nothing by heating the building. The University would like to know what type of enclosure is being used so they don't end up heating the outside. Fred Hodges stated there is no schedule for enclosing the building yet and Craig Moleski stated this should be ready January 15.

NO COMMENT

Hal Tidemann-Homme, University Physical Plant, University Superintendents,
Architect

Jeanne



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JAN 2 1973

**UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE**

UNIT A - HEALTH SCIENCES EXPANSION

University of Minnesota

December 27, 1972

ATTENDANCE

University of Minnesota: Ken Tidemann, Vern Greely, Wally Mellum,
Richard Hendricks, Roy Person, Warren Forslund

Health Sciences Architects & Engineers: Duane Blanchard

KCC: Bob Hoffman, Dick Phillips, Jeanne Andreiko

Lamb Plumbing & Heating: Jim Gustafson

Batzli Electric: Jim Batzli, Leo Thomes

Westinghouse Elevator: Earl Romnes, Bob Magnuson, Herman Wergil

API: Gordon Whitehead

Conrad Sheet Metal: Joe Jackson

Flour City: Darwin Brewer

Insulation Sales: Harvey Lemke, Gerald Anderson

Lake Street Industries: Keith Wrobel

Wm. Poppenberger & Son: Woody Jensen, Tyrone Berg, Jerry Garrette

Swanson & Youngdale: Roland Swanson

Hodges, Jage, Sullivan & Aller: Fred Hodges

UNIVERSITY COMMENTS

Ken Tidemann hoped that everyone had happy holidays. Ken also mentioned there is a new CPM readout and requested that comments regarding the CPM be made after the schedules have been read into the minutes.

ADDITION

The architect would like to add to last week's minutes that in regard to Modification #48-A which Conrad stated they had not received a final copy of, the University distributed this on October 26. Conrad is in receipt of this. Also, Joe Jackson had to leave the meeting last week to move his car.

KNUTSON SCHEDULE & COMMENTS

12/27 - Pour SOG, 1st floor grids EW/E2 & S19/25.

Pour footing, 1st floor grids S1/4 & W4/5.

12/28 - Pour SOG, 1st floor grids EW/E2 & S14/19.

Pour 10th floor slab air chambers.

12/29 - Pour SOG, 1st floor grids EW/E2 & S8/14.

Pour wall grids S9.5/12.5 & W4/5.

Precast work continues on the south side floors 10-21, and also masonry on 1st & 2nd floors north, toilet partition supports on 7th & 8th, and deck on 10th floor air plenums.

seventeen washington avenue north

minneapolis, minn. 55401/612-333-2111

It was also noted that decking will go in on 10th and that insulation will go in next week in areas that have been fireproofed. Bob Hoffman submitted the schedule of completion for fireproofing which is as follows: elevators 1-3, core 23, and 2nd floor will be completed January 3, 1973. Cores 11 & 13 will be complete January 10. Floors 13 and up will be fireproofed after enclosure and heat. Gerald Anderson of Insulation Sales added they are now working on elevators 1-3. Sandberg will be erecting steel on the Millard link, Bolander will be backfilling on the west side, and Spanjers will continue caulking.

POPPIENBERGER SCHEDULE & COMMENTS

They are presently lathing in the cafeteria on 1st and will be going to the basement the end of this week. They need fireproofing or insulation work done on elevator core walls for elevators 4-10 on floors 6-12 and asked for the status. Bob Hoffman replied fireproofing in elevators 4-6 is complete and 7-10 will be done after Westinghouse has installed their machinery in these elevator cores, at which time it will be done by hand. Poppenberger stated they may also need rings in the basement. Jim Batzli stated that type 'A' rings are in town.

FLOUR CITY SCHEDULE & COMMENTS

Units are complete on floors 5-7 except for the south side and on 4th except for the west side. 173 units are on the job, 138 of which are installed. 70% of the windows are glazed and 3rd will be complete Friday, then to 4. It should take 2 weeks to complete 4th floor. Ken Tidemann asked that Flour City stay for the CPM portion of the meeting.

INSULATION SALES (CEILINGS) SCHEDULE & COMMENTS

I-S will begin installing grid tomorrow morning on 1st floor in the south-east corner. Springs arrived today by plane and they already have 100,000 s.f. of grid material in the warehouse in town. Harvey Lemke requested that areas where they will begin be cleared. Poppenberger added that they will be behind Insulation Sales putting up steel studs and would like to know about any places where these are not to be done.

SWANSON YOUNGDALE SCHEDULE & COMMENTS

Bob Hoffman introduced Roland Swanson who read off S-Y's beginning schedule. They will start in the basement in switch gear rooms 95-99A and would like to continue. Roland asked that duct or piping in these rooms be installed and the junk be cleared out. The architect verified the ceiling color to be P13 in these areas and stated he would inform S-Y room by room of the colors until the schedule can be approved (possibly the end of next week). Dick Phillips stated duct should be covered in the basement before painting and Ken Tidemann asked that this be coordinated.

LAMB SCHEDULE & COMMENTS

Piping continues in the basement, shafts, and on floors 1-5, 8, 10 & 19. Next week, same. Under problems, Lamb would like 10th closed in. He also requested a general cleanup by contractors. Fireproofing scaffold on 10th

is not being used and Lamb would like this moved (because they don't have a use for it, either).

CONRAD SCHEDULE & COMMENTS

Ductwork will be installed on 8th, 9th, 1st & 2nd. Next week, same. Under problems, Conrad stated drywall material is piled under mains on upper floors. Conrad asked when elevators #2 & 3 would be in as they need to transport materials to upper floors. The architect added that only one other elevator will be installed in the near future, in addition to the one already in operation. Westinghouse stated that if all other loose ends are taken care of, they can have the second elevator in operation by January 15.

API SCHEDULE & COMMENTS

Since the roof on 10th had been discussed, the only request Mr. Whitehead had was to obtain a copy of the schedule for the painter.

BATZLI SCHEDULE & COMMENTS

They will be installing tray on 9th, conduit in the auditorium, basement, and floors 1, 2, 9 & 19, and ground bus in the basement and on 10th. They will be working the walls and ceiling on 1st and in the basement and pulling wire in the basement and for the primary. They are working on the motor control center on 19th and connecting motors in the basement. Under problems, Batzli would like the status of the insulation and vapor barrier to be done by Western Waterproofing in cores 11, 13 & 23--Bob Hoffman will check with them. Lamb asked if Knutson's letter stating Western Waterproofing will not be done until February 1, 1973, still holds and wondered when they could begin installing brackets. Bob Hoffman replied this work could commence after windows are installed but that February 1 still holds for 3rd & 4th floor radiation brackets.

WESTINGHOUSE SCHEDULE & COMMENTS

Westinghouse is doing shaft wiring on cars 5 & 6 and machine room wiring on cars 4-10. They will be setting frames on cars 4-10 on floors 16-18, and setting escalator trusses 3-6. Next week they will hang hatch doors on cars 5 & 6 on floors where drywall is installed and sills are grouted. Bob Hoffman added that Knutson will keep ahead of Westinghouse on grouting. Westinghouse will also be setting frames for cars 1-3, setting control panels on cars 1-3 and machine room wiring for cars 4-10. Ken Tidemann asked if there were any more problems which would hold up elevators 5 & 6 and Westinghouse and Knutson feel everything will be fine. Batzli mentioned that the elevators will be running on temporary power when they are installed.

UNIVERSITY ADDITIONAL COMMENTS

Ken Tidemann asked Batzli about the plaster rings for the lights in the ceiling and Jim replied that the type 'W' were not in yet as they were too large and being redesigned. Batzli expects to receive drawings soon. Ken Tidemann asked Insulation Sales if they would be deleting spring suspension in areas where the architect deemed it unnecessary, and Harvey

replied yes. Ken asked Joe Jackson if everything were OK with Mod. #48-A and he replied yes. API asked about diffuser boxes and was told the drawings have been approved. Knutson requested a delivery schedule on these from Harvey. In regard to a request last week, Ken asked Batzli about the bus interference with duct and steam lines on 10th and Jim stated he had received elevations for duct and the people are redrawing the bus layout. The University stated contractors must take up the responsibility of cleanup and there will be a meeting tomorrow at 10:00 a.m. at the University.

UNIVERSITY SUPERINTENDENTS COMMENTS

Vern Greely asked that Swanson Youngdale check with him before painting to make sure all patching work, etc., has been completed. Swanson Youngdale asked if they need to paint the fireproofing and the architect will get back to him by next Tuesday on this.

Wally Mellum stated that in the no. 1 switch gear room, mechanical sleeving needs to be sealed up. Wally requested that something be resolved on the type 'A' fixtures. Batzli stated 2,200 of these will be delivered in the middle of February, 1973, for installation through the first 4 floors. The University asked about permanent power and Batzli replied they should be pulling cables tomorrow.

ARCHITECTS COMMENTS

The architect asked about the status of the radiation mockup and Knutson replied this is installed on 6th floor west.

ADDITIONAL POPPENBERGER COMMENTS

The status of spring hangers was requested by Woody. Ken Tidemann stated these were approved by the University last Thursday or Friday. Knutson asked when plastering could begin, and Lamb replied next Monday.

CPM

Fred Hodges asked contractors if they had any questions on the new CPM schedule. He stated the building was to be enclosed on 5th by tomorrow, temporary or permanent, and asked what the delay was. Knutson stated this had been according to a letter which was now void and that the revised date for permanent enclosure was January 26, 1973. Bob Hoffman further stated that 3rd should be enclosed by this Friday, 5th is enclosed except for one frame, and 4th should be completed two weeks from this Friday. Fred stated this was still 4 weeks behind schedule and asked how frame delivery was doing. Flour City replied this is complete except for 11 & 11A which are being held up by the University and does not include spandrel glass which they need an OK for. Ken Tidemann asked why it was taking so much time for installation and Flour City stated it was because there is only one elevator. Ken asked if the elevator were being put to proper use and Dick Phillips replied it is being used 10 hours per day. Fred Hodges asked if Lamb was done with piping on 1st & 2nd and Lamb replied they are completed on 1 and are 75% done on 2, and are doing work in the shafts. Fred asked Insulation Sales about ceiling work which will begin tomorrow. He stated

that according to the CPM, Insulation Sales is 10 weeks behind and asked how many crews they will start with. Harvey Lemke stated they will begin with one crew to see how well things go as far as coordinating with other trades, and can then start on 2nd whenever it's ready for them. Poppenberger feels the delay of various trades is also putting them behind schedule. Bob Hoffman at this point stated that sub-contractors may want to study the CPM before having a discussion and Ken Tidemann asked contractors to determine the number of copies they would like (Batzli-1, Lamb-5, Knutson-8). These copies will go to contractors this week.

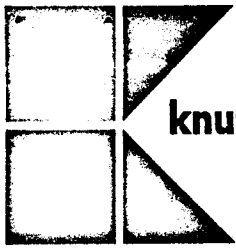
Bob Hoffman stated that on the new CPM some of the items were not given correct start dates, i.e., the ceiling hangers starting on 9/29. Bob thought the ceiling work was to begin the end of November according to a schedule submitted in September.

The above discussion continued with Knutson stating that they could foresee possible errors in some dates and sequencing. It was decided that Fred and Knutson will have a meeting this afternoon to go over possible schedule changes.

Fred did point out that the integrated ceilings, plaster, studs and dry-wall are the current critical work items. Mechanical and electrical items will be done concurrently with the aforementioned critical items.

The University requested that the 9th floor be done earlier than the currently scheduled 9/12 completion date for the purpose of scheduling equipment going in on that floor. The contractors stated they would take this under advisement.

Jeanne



knutson construction company

WEEKLY JOB MEETING

UNIT A - HEALTH SCIENCES EXPANSION

University of Minnesota

March 6, 1973

A Gen Const. Company

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UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

ATTENDANCE

University of Minnesota: Ken Tidemann, Ed Biggs, Gene Kogl, Roy Person,
Richard H. Hendricks, Warren G. Forslund, Vern Greely, Wally Mellum
HSAE: Duane Blanchard
KCC: Bob Hoffman, Ken Broman, Dick Phillips
Lamb Plumbing & Heating: Jim Gustafson
Batzli Electric: Jim Batzli, Leo Thomes
Westinghouse Electric: Herman J. Weigel
Haldemann-Homme: Ted Merriam
Wm. Poppenberger: Jim Lang, Wood Jensen, Tyrone Berg
Insulation Sales: Quentin Bangston, W.O. Patterson, Harvey Lemke
H. Conrad: Joe Jackson

CORRECTIONS

The Architect made mention at this point that he had received the job meeting minutes only yesterday (Monday, March 7th) and did not have a chance to read them. He asked why the job minutes were late, since other parties at the meeting said they also had received their's late. Knutson said they would check into it, and see that the minutes were sent earlier.

KNUTSON SCHEDULE & COMMENTS

This week Knutson will: pour slab E11/E17 & NS.5/S2, elev. 821.67' on Monday; pour risers in auditoriums "A" & "B" also on Monday; on Tuesday pour risers in Auditoriums "A" & "B"; Wednesday - pour risers auditoriums "A" & "B"; Thursday - pour risers in auditorium "C"; Friday - pour risers in auditorium "C" and pour slab E5/E9 and NS.5/S2, elev. 821.67', as ready, pour cols. 19th floor. Forming: wood blocking in auditorium "C", curbs for pre-cast west side 2nd floor, temporary enclosure on 15th floor above windows, hollow metal frames on floors 1 through 7, miscellaneous wood blocking. Masonry: Pre-cast on 2nd floor west side, block on 19th floor. Misc. Metals: louver supports on 10th floor, toilet partition supports, track supports, and louvers on 10th.

The University asked Knutson whether or not roofing would continue and Knutson replied that, yes, their subcontractor was working the 10th floor. Knutson stated that the following problems remain unresolved: Knutson has not received an answer from the Architect on the handrails at escalators and stair E. The Architect replied

that a letter was being prepared and that he was asking for welded connections. Knutson has not received information on installation of acoustical insulation at the air ducts. The Architect replied that information on this had been sent to the University and it was up to them to make a decision at this point. Knutson stated that they have not received the wood cove light shop drawings for the auditoriums and the Architect stated that these would be held up pending a modification. Knutson still needs the shop drawings for trash chutes from the Architect, also information on the cup sizes for the kitchen areas. Knutson asked for the removal of temporary power and the switch over to primary power so that certain cores in the building could be finished off. Batzli stated that he needed the 19th and 10th floor electrical equipment rooms before he could make this transfer. He stated that he still needed these rooms to be painted and doors installed. Vern Greely asked if these rooms had been cleaned. Ken Tidemann asked if the label problems had been resolved. The Architect replied that he had sent a letter to Knutson on the labeling problems and the Knutson subcontractor must accept some of the blame for the label problems that have arisen.

INSULATION SALES SCHEDULE & COMMENTS

Today the fireproofer has 12 men on the job and will be adding two more tomorrow. Fireproofing has been completed on the first floor west side, the corridor between grids EW and E-2. All stairwells and cores are now done to the 10th floor and they are working on 11th and 12th floor and will continue on up to the top. Insulation Sales is asking for cooperation in aligning materials on the upper floors so that they could move the scaffolding over them and mentioned that they will be covering and protecting materials that are stored on the floor. Ken Tidemann interjected that he wished all contractors to make note that the fireproofer has now decided to continue with fireproofing operations and that he has not received a schedule. Bob Hoffman of Knutson replied that he would submit one to the University. Conrad asked whether or not cores 17, 18 and 19 could be run up first and Insulation Sales replied that they planned to do the cores and floors at the same time but that they could do it another way. Quent stated that he would be checking with his foreman and with Conrad's men to see if running the cores up first could result in a better job. Wood Jensen stated that his position remained firm on not realigning his material that is stored on the upper floors and that he has taken care of covering his material. Ken Tidemann stated that he has seen areas where items were stocked in areas up to 20' square and that this type of stocking must be realigned.

Insulation Sales ceiling crewing for today is eight carpenters, three lathers and two sheet metal men. They are working on 6th and 7th floors, waiting to go back to work on the 3rd floor and doing catch up work and sheet metal work below three. They expect another load of ceiling material to arrive shortly. This will be grid material for floors 6 through 9 and also some on 11th. When asked, Insulation Sales stated they would like to bring this onto the job, but they thought there might be a problem and that they would be checking with Knutson's superintendent first. Conrad asked whether or not there were left and right hand connectors on the plenums in this shipment. Insulation Sales replied, yes, there should be.

POPENBERGER SCHEDULE & COMMENTS

This week Poppenberger, on first floor, will applying the finish coat in room #192. Second floor, rock lath and ceiling work will be done and also the room #151 ceiling work will be started. Poppenberger emphasized this and that other contractors should be sure that all their materials are installed in that ceiling. Batzli was asked whether or not he had the light frames and he stated that he would check. On third floor Poppenberger is waiting for door frames. On fourth floor one man is doing rock lathing. Sixth floor, stud work; seventh, core board installation; eighth, track and stud work, stairwell "A" coreboard is being installed on sixth floor and up. And on stair "C", gyp board is being started from the basement and will work up. Problems: Poppenberger mentioned, regarding first floor, that the modification concerning 131, 132 and 133 is still holding up work. The Architect replied that cost information has been received from all contractors and that there is only a question of about \$500.00 on the partition subcontractor's portion of the modification. Bob Hoffman replied that he would discuss this with the Architect after the meeting. Poppenberger is also being delayed in room A-1-178 area. Ken Bromam replied that a form which would solve one of the problems was to be received this week and also Batzli replied that a circuit breaker which was required in the room has been shipped at least two weeks ago from Chicago. He stated they would attempt to find out where it is located. Poppenberger mentioned they are also being delayed by the lights in the serving area. Batzli stated that he has checked with the factory and would discuss this with Poppenberger after the meeting. The University mentioned at this point that they were going to be having a meeting concerning the kitchen area this afternoon, and that possibly a hold would be placed on the kitchen area in the near future. On second floor Poppenberger is being held up on the ceilings in rooms 117 through 131 because sprinkler drops have not yet been installed. Poppenberger stated that the ceiling has been up for 1½ weeks and that nothing had been done. Jim Gustafson will check on this. Vern Greely mentioned that there was fireproofing patching which would be required before that ceiling could be installed. On the 2nd floor, rolling shutters are also holding up Poppenberger. Poppenberger is waiting for the door frames on 3rd floor. Knutson said they should arrive this week. Poppenberger asked about other frames and Knutson stated the 7th floor frames should arrive and that the 6th floor frames are here on the job at the present time. Poppenberger asked that the ceiling grid be installed at stair B on the 4th floor. The Architect interjected at this point that when the cost of the wide frames on 3rd floor was available that he expected Knutson to merely submit it to him and not wait to be asked for this. Poppenberger asked about what type of covering the plywood on the upper floors on the south wall of stair A would be getting. KCC stated that it would be vapor barrier, but the type has not yet been resolved.

WESTERN WATERPROOFING SCHEDULE & COMMENTS

Western Waterproofing is working spraying monotherm insulation on the 8th floor and should finish this today and then move on up the building. They are installing vapor barrier on 3rd, 4th and 5th floors and working in the shafts. Ken Tidemann asked whether or not rework of vapor barrier in the cores had been accomplished. Western

stated they would check with the University after the meeting to determine exactly what the problem was. Ken Tidemann asked whether or not the insulation would continue on up the building. Western replied, yes, as long as the walls do not freeze. Ken Tidemann reminded Knutson about the spec section concerning temporary heat for this project.

LAMB SCHEDULE & COMMENTS

Lamb schedule for this week was not received at the job meeting and will be attached at a later date. Problems: Lamb mentioned that the elevator situation is no better and they are not getting full use of an operator. Knutson stated that the amount of usage for the elevator and such was causing them to no longer care to provide an operator for eight hours a day when only one hour was going to be used. Knutson recommended that whoever wished to use the elevator should bring in their own operator. Ken Tidemann asked who would schedule this elevator. Knutson said that since it belongs to the University perhaps the University would like to schedule it. The Architect stated that perhaps the University could give the elevator to Lamb and let them operate it. Batzli interjected that he would like to work with Lamb on taking over this elevator. Lamb asked that the ceilings be installed on 3rd floor in an attempt to cut down on the amount of copper and glass line breakage that is occurring there. Lamb also mentioned that breakage is occurring the glass tees on floors 1 and 2 where they project from the walls. He stated that this will require him to ask Poppenberger to return and open up the wall so that a glass pipe can be repaired. Lamb asked whether or not the radiation brackets were being installed on the 5th floor and up. Knutson replied yes.

CONRAD SCHEDULE & COMMENTS

This week Conrad will be working in the basement, 1st, 2nd, 9th, and 11th floors. Next week will be working the basement, 1st, 2nd, 9th, 11th and 12th floors. Problems: Conrad mentioned that the drawings on the curb covers over the fume hood exhaust fans. At this point a short discussion ensued on whether or not this problem had been solved in the past and what exactly the problem was. Conrad stated that they had agreed sometime in the past to provide some counter flashing but that someone else was going to cut the holes. Ed Biggs stated that it would be very difficult to cut the holes while the curb covers were installed on the roof. Further discussion was to be continued after the meeting. Lamb, at this point, stated that the chart on the walls showed the 3rd floor ceilings were behind and asked why. Knutson replied because of the door frames which are due this week.

API SCHEDULE & COMMENTS

API will be doing pick up work in the basement, 1st and 2nd. They'll be installing insulation on the supply duct on 6th and 7th and hope to move to 8th floor by the end of this week. API feels they have no real problems at this time.

BATZLI SCHEDULE & COMMENTS - This week Batzli will be installing conduit in the ceilings and walls on the basement thru 5th floors. Batzli will also be working on the ceilings on 6th and 7th floors, on conduit and boxes in the auditorium, cable tray on 9th floor, feeder cable in the basement and lower floors. Batzli will be doing cable splicing and hopes to energize the primary switch gear unit substation #1. They will be doing branch circuit wiring on 1st and 2nd floors. Next week's schedule will be similar. Problems: Batzli mentioned that in order to provide power to the elevator they will need to know the location of the generator on 19th floor. Wally Millam stated that he does know the location of the panel and that he should know the location of the generator shortly.

WESTINGHOUSE SCHEDULE & COMMENTS

This week Westinghouse will be doing machine room wiring on cars 4 to 10, hatch wiring, hatch door work on car #10, facias and work on escalators 1 and 2. Next week their schedule will be essentially the same. Problems: Westinghouse asked when they could expect the 6th floor behind elevators to be enclosed. Knutson stated they would check on this.

HALDEMANN & HOMME COMMENTS

Ted Merriam stated he had no comments. Ken Tidemann asked how the drawings were coming along. Ted replied that he had distributed Phase I and II drawings and these were approximately 80% complete. He said a few remaining drawings will be resubmitted this week and then distributed. He expected these drawings to include modifications except for the most recent ones. Ted stated that Hamilton was manufacturing casework.

ARCHITECTS COMMENTS

The Architect stated that he had no more comments.

UNIVERSITY COMMENTS

Ken Tidemann asked Warren Forslund whether or not the junction box problem had been solved. Warren replied that he had given Lamb and the Architects heights, sizes, etc., on the junction boxes and hoped to get the temp plates to them tomorrow. Batzli stated that if he had to go into these junction boxes also, that he would like to get a copy of this. Ken Tidemann asked Warren to bring Batzli up to date on the junction boxes. Lamb replied then that they would start work on Mod. #197-U today. The University Physical Plant noted that core 18 in the basement is concrete to the ceiling and they wondered whether or not access panels might be required. University stated that he should discuss this with Ed or Wally since the University had gotten the unit price for additional access panels. The Architect said he doubted they were needed in this area but that the Physical was free to go ahead and do further checking on it. The University went through and reviewed last weeks minutes and came up with the following comments:

The University wished to know if the cove light drawings Knutson has been asking for had been received. Knutson stated they were waiting for a modification from the Architects. The U mentioned and asked whether or not the deflection problem on 18th floor was solved and Knutson replied yes. The U stated that they had a spandrel glass panel removed from the 4th floor. It was entirely filled with fireproofing much to their surprise. However, they have noticed that many of the spandrel panels are bowed and they wondered if this was from excess of fireproofing. Insulation Sales stated that perhaps it had frozen and expanded bending out the glass. They also mentioned that since there was no adhesion problem in order to keep this fireproofing in place that if it later thawed it would not hurt its fire resistant characteristics. The University asked the Architects if they had checked into the man-hole request for the west elevator pit. The Architect replied he had not had time to look at this yet. The U asked Western Waterproofing if they had started cleaning glass yet. Western replied they had cleaned two floors and were continuing work on this. The University asked whether or not the ceiling cross-T removal had let up somewhat from last week. Insulation Sales replied that the superintendents of the various trades had been working together. Ken Tidemann stated that after a tour of the building they had seen numerous bent tees and they ask all contractors to make sure their men do not damage the ceiling grid and mentioned that glass pipe should not be broken either. The University asked about the status of the Millard Link. KCC replied that they had gotten the drawings back this morning from the Architect on the precast and they expected to start work installing the precast in about two weeks. The University stated they would like to get a schedule which included the precast roofing and curtainwall installation for this area. KCC stated they heard there was new expansion joint detail coming through in this area. The Architect said, yes, this was being considered. University replied that an April penetration into Millard Hall may be too early for the University. The U asked if the fireproofers problems with the shafts had been solved and the answer was yes. University asked Conrad if the fireproofing was done in the cores where duct work is to go and the answer was yes. The University asked Poppenberger if he had the light frame situation solved and he replied he was still waiting for the light frames from Batzli. University asked about the status of the treadmill. Knutson said it had been shipped. The University asked Lamb whether or not they had received the casework drawings. Lamb replied they had received a routing slip at their office, but that Haldemann-Homme had delivered the drawings directly to the job. The U asked the Architects whether or not there was an answer on the modifications that the mechanical contractor had questions on. The Architect replied with the following explanation: Modification #125 affects only the general and electrical contractors. Modification #128 is being discussed by Lundquist and Lamb. Modification #147, a revised ocst has been received from Knutson today. Modification #128 affects only the general and the electrical, however, the general's costs are outstanding. Modification #171 affects only the casework, and this has been finished. Modification #185 affects general and electrical, and the general costs are still outstanding. The University asked whether or not the fireproofing of the beams on the west side of the 10th floor had been done to Batzli's satisfaction and Quent stated he would check whether or not this work had been done. The University asked whether or not the leaking roof in the machine room had been solved. Westinghouse replied that it appeared that the leaking roof had stopped as soon as the work on the drain was finished. However, Westinghouse still would like the doors on the machine rooms and also would

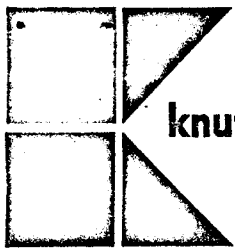
like the drywall for cars 1 and 3 on 2nd and 8th floor. Poppenberger replied they are waiting for the fireproofing on 8th floor. Quent replied that would be started tomorrow. Vern Greely stated that there is much patching of the fireproofing to be done before ceilings go in and that this must be accomplished. Ken Tidemann asked that all contractors notice that this week on the chart on the wall that we slipped further behind schedule. He expected contractors to correct this. He stated that the University would be having the 11th floor and up portion of the schedule redone and that he had been talking to several of the contractors about removing the weather time but not the punch list time. Batzli stated that removing the weather seemed okay to him and Haldemann-Homme said this would cause them no problems.

Westinghouse stated they must talk with their project manager. Ken Tidemann stated this would move the schedule about 25 days further into the future. The U has taken several tours of the building this week, and noticed the following problems: they feel the mechanical needs more men on 6th, 7th and 8th floors. More pipe insulators are required on the job. The University noted that the sprinkler drops were not being done as mentioned by Poppenberger. The University stated that exhaust and air duct supply is not getting done on 2nd floor. When asked by Conrad for the specific locations, Conrad was asked to check with Ed Biggs. The University stated that according to schedule the duct work is to be completed on 19th floor on June 13, 1973. They also mentioned that the rough-in duct work on 10th floor was to have been completed during January of '73. The University concludes from the tour that sheet metal and mechanical contractors are going to be in a bind in about 3 weeks on the upper floors. The U stated that electrically, according to the schedule, fixture installation should be going on at the present time, and as of yet there are no fixtures on the job. The University feels that more electricians are required for working on cores 11, 13 and 23. Also, more electricians working on the secondary distribution and on the ceiling fire alarm and lighting.

NEXT WEEK'S MEETING

It was decided, that since this week's meeting went so fast, to move the meeting next week back to the 10:30 a.m. starting time.

per Ken Broman



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WEEKLY JOB MEETING

UNIT A - HEALTH SCIENCES EXPANSION

University of Minnesota

March 20, 1973

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MAR 26 1973
UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

ATTENDANCE

University of Minnesota: Ken Tidemann, Vern Greely, Wally Mellum, Ed Biggs
Richard H. Hendricks, Roy W. Person, Warren Forslund
HSAE: Duane E. Blanchard
KCC: Bob Hoffman, Ken Broman
Lamb Plumbing and Heating: Jim Gustafson
Batzli Electric: Jim Batzli, Leo Thomes
Westinghouse Elevator: Earl Romnes, Herman Weigel

CORRECTIONS

In the very last sentence of last week's minutes it was stated that Fred Hodges was going to compress the punch list time to 30 days. Even though he may have said this, the University stated that the punch list time would not be compressed. On the second to the last sentence on page one of last week's minutes it is stated that the University finds the price acceptable. This should be deleted and merely state that the price was at the University and something official will come out on it in the future. On page two of last week's minutes, on line 13, where the sentence starts, "The Architect also stated there were some wood panels...", this should be changed to "wood ceiling panels". On page five at the end of the first paragraph, where it is stated that the Architect would like folding partition drawings A, B, C and D resubmitted, should read that A, C, and D were marked revise and resubmit in the past. Also on page 5, line 16, the Architect stated that his intent is better illustrated if the word "changes" is changed to "additions".

KNUTSON CONSTRUCTION SCHEDULE AND COMMENTS

On Wednesday of this week Knutson will be pouring second floor slab S2-4 and EW to W4 and the projection booth slab for auditorium C. On Thursday, perimeter of air chambers on 10th floor will be poured and classroom 173 on the west side, second floor, between grids S4-7 and EW to W4. On Friday Knutson will pour second floor slab EW to W4 and S7 - S12.5 and curbs on the plaza's west side. Masonry: Knutson will be putting block on the north end of first and second floor; installing block on 3rd floor, room 117; and block work on the 19th floor. Carpentry: Knutson will continue wood blocking in auditoriums A and C, scaffolding in auditorium A, installing isolation flooring in rooms 37 and 38 on the 19th floor, and setting the treadmill on first floor. Additional carpentry work will be setting the moving screens in the auditorium and drapery track on 3rd, 7th and 8th floors.

Knutson's subcontractor, Bolander, will be doing excavation work on the west side of second floor. The University asked at this point if the frost was out of the ground in that area, and Knutson replied they would have to check on this.

Knutson's subcontractor, Western Waterproofing, will be spraying vapor barrier on floors 6 - 10 and Mono-Therm insulation on 10th floor.

The roofing subcontractor will continue working on the 10th floor.

The curtainwall subcontractor will be installing caulking on the windows on 5th floor.

Knutson's subcontractor, Fogelberg, will be installing metal siding on the 21st floor.

Knutson's subcontractor, will be installing the radiation brackets on 5th and 6th floors.

Problems: Knutson mentioned they had not received word yet from the University or the Architects on the escalator connection method. Ken Tidemann stated that he had approved the price two weeks ago and could not understand where the modification was. Knutson stated that they had resubmitted the trash chute drawings today, and the Architect promised he would work on them immediately. Knutson stated they had not yet received an answer on the insulation of the air chambers. Ken Tidemann said he expected an answer soon. Knutson stated they had not yet received an answer on the cup sizes for the kitchen areas, and the Architect replied that the University and Aslesen's and the Architects were still working on this and that the Architects had now sent a letter to the University on what action is required to resolve this problem. Ken Tidemann stated he would check into this. Knutson stated that they had not received any further information on cutting of holes for fume hood vents. The Architect stated that his decision was as follows:

The Galbestos cover is by the General Contractor in accordance with Section 0760, article 3.10, paragraph A. The location and cutting of holes for the ducts is by the mechanical contractor in accordance with Section 0760, article 3.10, paragraph A. The duct requirements, under Division 15, call for fume hood duct work to extend to the roof as shown in detail on certain drawings. These drawings are detail 12 of A-73 and 13 of A-73. Other backup information is located in 0760, article 3.10, paragraph A, and Section 1580, article 2.3, paragraph A, item 8. Sheet A-35 also shows the roof plan. The Architect stated that based on all these sources there appears to be no contradiction.

The Architect and University stated at this time that it appeared that no modification was necessary to cover this work, and that it should be handled by Contractor coordination. Jim Gustafson stated that he would talk to his subcontractor this afternoon and that Knutson should not proceed on the fume hood covers. He would have an answer for them tomorrow. Knutson stated that they had not received any information on whether or not there was going to be a change on the expansion joint on Millard Hall. The Architect replied that this change will affect the flashing detail only and to date it has not really been resolved or changed. The Architect asked about how soon before

a decision would have to be made in order to prevent Knutson's work from proceeding? Bob Hoffman replied that if a change was to be made it must be done within a month. Knutson stated that the delay which occurred on the 19th floor by the lack of mechanical plumbing work there had ceased today since the mechanical contractor had received the wrong boxes last week but did receive the correct size yesterday and that now work appeared to be starting up there again.

This week Knutson's subcontractor for fireproofing will be installing fireproofing in the shafts 7, 8, 9 and 10 and fireproofing 14th and 15th floors. The latter should be complete on the 28th of March and then they will be moving to 16th and 17th floors. The fireproofing is also working in the first floor corridors and auditoriums. The University reiterated that the schedule the fireproofing had submitted is not acceptable and that the new monitor which is to come out next Monday will show even more negative slack. Bob Hoffman stated that he would like to wait until he had seen the revised schedule. Bob also mentioned that work is started on moving the fireproofing equipment off of 3rd floor.

Knutson's subcontractor for integrated ceilings presented their progress schedule to the University. Knutson reported that the ceiling people now had 8 carpenters, two lathers and two sheet metal men working today. Ceiling grid installation is being done on 3rd and 7th floors. 8th floor is not ready because no corewall is complete. The subcontractor stated that damage is still occurring to his grid work. The Architect asked if some sort of monitoring could be done in order to prevent this damage. Jim Gustafson repeated that if anyone caught his men doing this deliberately to inform him or his superintendents and that person would be removed from the job. Ken Tidemann asked that Vern Greely bring this damage up to the superintendent's meeting on Monday. The University also mentioned that if they see anyone deliberately damaging material that they will request that the contractors remove them from the job.

Knutson's lath and plastering subcontractor will be working this week in the basement taping the office area, on first floor doing miscellaneous pickup work, on second floor doing lathing on the ceiling in room 151 and all the remaining ceilings on that floor and also putty coating and miscellaneous browning. Third floor, Poppenberger was caught up last Friday and cannot do anymore work until more grid is installed. On 4th floor, putty coating; on 5th floor, rock lathing; on 7th floor, lathing the smoke wall and installing the first of $\frac{1}{2}$ " coreboard on walls. On 8th floor, Poppenberger will be starting coreboard on all cores if they are ready; on 9th floor, starting studs and track on all cores; at stair A, sheet rock starting in the basement; stair B, sheet rock starting on first floor; and 16th and 19th floors, installing corewalls on elevators 1, 2 and 3. Problems: Poppenberger mentioned that they are being held up in rooms 77, 77A, 78A, 78B and 79 on first floor because of the lack of plumbing and sheet metal work. Poppenberger would also like fireproofing done on 1st floor, cores 5, 6 and 7; the removal of temporary electric power at core 18 on floors 1-10, and the installation of electrical light frames in rooms 102 and 205. Jim Batzli stated that the latter required the "C" type frame and that their delivery still is at least two weeks away. Ken Tidemann asked that Jim Batzli send a letter that said that the owner

would like an immediate answer on a delivery date and why the frames were not being shipped immediately. Poppenberger also mentioned that they needed a modification for room 78. There was some discussion at this point and it was decided that KCC would contact Poppenberger and find out which modification he was talking about. Second floor, Poppenberger would like plaster frames for room 151. Batzli replied that these are the same type "C" as required above. Poppenberger would like the plaster frames for room 117B and Batzli replied that these should be here. Poppenberger asked that the temporary electrical panel and transformer hanging in the ceiling of core 10 in room 51 be removed and Batzli stated that the transformer should be removed within one week. The Architect interjected at this point that a problem has arisen in room A2-151 where the precast is at the face of the elevator. This precast now is in excess of 13 feet and should be stopped at nine feet. Vern Greely stated it must be cut off and the location of the precast is on grid E-2 at grid S-11 and S-13. The Architect stated that John Scott of TAC and Kurt Rodness of the Architects will be discussing this with Babcock this afternoon. Poppenberger stated that he needed the plumbing done on the stud walls on 5th floor and that on 6th floor they could start the studs but they thought it was useless because too many trades are not ready and too many studs would be knocked out of alignment and the beads damaged. On 7th floor, the mechanical and plumbing is holding up completion of corewalls. Jim Gustafson asked at this point for specifics also. Jim Gustafson stated that to his knowledge all rough-in on 5th floor was done. Jim also stated that all rough-in in the cores, plumbing and heating-wise, is done through the 10th floor. Also that the roof drains are done to 19th. Ken Tidemann asked Ed Biggs what he knew about this. Ed replied that the risers were 90% in, however, there were not many stub outs. Ed stated that the rain water leader was in to 19th floor. Jim Gustafson said he would check the stubs. Jim Gustafson asked if the studs were starting in the S.E. corner and Knutson replied, yes. Poppenberger stated there was a problem on stairs A and B on basement through 3rd floor where plumbing risers on the exterior wall were in the way of the sheet rock. Vern Greely and Ed Biggs stated that this had been a space problem and had since been resolved.

LAMB SCHEDULE AND COMMENTS

This week Lamb will be piping in the basement and 1st through 10th floors and on 12th, 18th, 19th and 21st and the cores. Next week will be the same. Ken Tidemann stated that he would like to know what does piping include and that he wanted something more specific from the mechanical contractor on his schedule. Jim Gustafson stated that this piping work included sewer work and also included running of the lines moving towards the west as the building became available. It also included replacing broken glass and doing stub out work. Additionally, Jim stated that they are finishing work on 6th, 7th, 8th and 9th floors. Jim asked whether or not the casework would start in two weeks. Ken Tidemann replied that he had received a report from the casework contractor. This report says that the casework will commence April 2nd. Casework contractor expects to rapidly progress to the 2nd floor by the middle of April. This work includes service ledges. Ken Tidemann noted that this was ten days before the late start shown on the CPM. Jim Gustafson asked if Knutson was ready for the case work start. Knutson replied, yes. Jim asked whether or not jurisdictional problems

had been settled. Ken Tidemann stated that he had letters from the casework contractor saying they were resolved. In answer to the question whether or not Knutson was ready, Knutson stated that painting and priming of walls and door frames on first floor had begun. Vern Greely mentioned that he could not see how the casework contractor could start on the 2nd of April and wondered if there would be any place to go after ten days of work on first floor. Vern asked that Knutson provide him with the start dates for browning operations on fifth floor, finishing dates for fourth floor completion, completion date for 2nd floor finishing and prime painting, and also the completion for finishing and prime painting on first floor. The Architect interjected at this point that he would like to receive the start and completion dates for auditorium ceilings that he asked for at last week's meeting from Knutson. Bob Hoffman replied that would depend on whether or not modification 192-A was approved which will be turned in to the Architects tomorrow. At this point a short discussion ensued as to whether these dates would be available from Knutson. The Architect stated that there were certain TV mounts that must be installed through the ceilings, and that since the University had not bought these ceiling mounts yet they would like to know the date by which they must buy and install in order to get them in before the ceiling is installed. Knutson stated in general that because of the delay with the cove lights it would take approximately one month from the time modification 192-A was approved until the ceiling could be installed in the first auditorium. KCC stated they would take a closer look at this schedule and give duration of work for auditorium ceilings. Lamb stated they would like the radiation brackets on floors 7, 8 and 9. Lamb stated that they are ready for Knutson to build the stall around the toilet on 5th floor. Lamb stated that they would like the ceilings and stud walls on 3rd floor in and since there appeared to be a delay by Knutson and subcontractors that they would be requesting an extension of time from the University for this area. Lamb asked why it took a year for the door frames to come? Knutson replied that the doors had been here for six months and then their size was changed. Knutson also stated that installation work was being done on the north half of 3rd floor and it should be completed next week.

CONRAD SCHEDULE AND COMMENTS

This week Conrad will be working in the basement and on 1, 2, 4, 5, 10, 11, 12, 13 and 19th floors. Problems: Conrad mentioned they had not seen the 3" collars for the diffusers on the job yet. Knutson replied that they were delivered here yesterday. Conrad also stated that the elevator was a problem. Conrad mentioned that fireproofing was needed on first floor, north and west sides, and on second floor, north and west sides. Conrad would also like fireproofing complete on the west side, floors 3, 4 and 5, and on cores 13-19. Ken Tidemann asked for more specific areas where fireproofing was desired. Jim Gustafson replied that why does the fireproofer stop at a certain point and not just continue and finish that certain area. Bob Hoffman mentioned that there were certain transite problems that had prevented the fireproofer from continuing on. Conrad mentioned that in the area west of Core 9 on first floor, that the ceiling grids were installed immediately after the fireproofing operations and left no time for insulation of ductwork or ductwork installation. Jim Gustafson asked that Conrad receive information on when persons are working in the area so that he can complete his work before that time. Ken Tidemann stated that there had been

certain discussions in the past and that in order to complete the phase on time, it is critical to finish out to grid E2 and he thought all trades were working towards this. Knutson mentioned that perhaps the mechanical work could have been done before the fireproofing and at this point there was a short discussion on who was delaying who. Jim Gustafson repeated that he was sending a letter to the University stating that he wants an extension for being delayed on third floor. Vern Greely mentioned that since the underground work was just being finished on the west side, perhaps certain operations could not have been done earlier in that area.

BATZLI SCHEDULE & COMMENTS

This week Batzli will be working on ceilings and walls on first through seventh, doing conduit work in the basement, auditorium and Core 19, tray work on 9th and 11th floors, installing feeders in the basement and on first, grounding work on cores 13 and 23, pulling wires on 1st and 2nd, temporary wiring conversion in the basement, 1st and 2nd, installing tubs in cores 23 through 8th floor, 11th through 5th floor, and 13 through 5th floor. Batzli stated that permanent power cam 19 was completed and high potted. Batzli stated that he would be ready in about two weeks to energize substations on 10th and 19th floors. Batzli stated that type A fixtures had left Mississippi last Friday and that there were two semi-loads. Ken Tidemann stated that the southeast corner of the first floor was where the casework contractor would be starting and that there were 30 rooms available down there and Batzli's men should start work in that area.

WESTINGHOUSE SCHEDULE & COMMENTS

Westinghouse will be installing cabs on cars 1, 2 and 3, hanging doors for car number 10, hatch and machine room wiring, working on the escalators, and changing over car number 11 and installing door frames. Next week Westinghouse will be installing hatch doors on cars 1, 2 and 3, hall lanterns and wiring on No. 7, escalator work and changing over car number 11. Problems: Westinghouse mentioned that they still need the sills grouted for cars 1, 2 and 3 which they asked Knutson to do last week. Westinghouse would also like certain piping and sheet metal mechanical work which was installed in the dumb waiter shafts removed, and also the ceiling grid that was run across underneath it. This occurs at 6th floor.

VERN GREELY'S COMMENTS

Vern Greely stated that he has asked Knutson to correct the elevator door protection today. The present method is peeling off at several floors and that Dick Phillips has been ordered to install paper in lieu of the film. Westinghouse stated that workmen were still sticking welding rods and screwdrivers into the doors in an attempt to get the elevator to stop at their floor. Jim Gustafson stated that he was working with Jim Batzli on getting an intercom and Jim Batzli stated that when it arrives, Westinghouse could probably install it within a day. Vern Greely mentioned that in order for the painting to be done that the rooms must be cleaned up and dust free and that all scrap must be removed. Knutson replied that they had 3 or 4 men working on

first floor accomplishing this. Vern Greely asked when the area where radiation brackets were installed to the precast would be insulated and vapor barrier installed since these items were removed when the brackets were installed. Bob Hoffman stated he would check the detail on this.

WALLY MELLUM COMMENTS

Wally stated that the temporary electrical is progressing awfully slow. Jim Batzli stated that he was working and trying to get permanent installed. Wally replied that the cores are really a problem. Ken Tidemann mentioned that there was going to be a meeting, probably tomorrow, between Mr. Kopietz of the University and Batzli.

WARREN FORSLUND'S COMMENTS

Warren mentioned that he would be discussing with Wally Mellum and Batzli the junction boxes. He stated they are still working on the junction boxes north of 6th floor and it is going slower than they had thought, and so they cannot give a time on when the information will be available. Warren has talked with Duane Blanchard on the wall boxes and the preliminary sketch has been given to Wally Mellum for cell penetration analysis. Warren is also working on the TV monitor supports.

PHYSICAL PLANT COMMENTS

Dick Hendricks stated that in room 346 of Millard Hall there is a lot of mechanical work which must be done after the penetration and they would like a schedule from Lamb on how this work will be accomplished. Ken Tidemann stated there was a question in the past on how security would be attained with the low wall and Dick Hendricks and Duane Blanchard will discuss this after the meeting. Vern Greely stated that Duane Blanchard and he would be getting with Wally Mellum to discuss the mod affecting the floor boxes and carpeting. Ken Tidemann asked about the carpet delivery and the Architect stated that it would be based on the University accepting the contract and that the low bidder had stated that he could have the stuff ready in 12 weeks. The Architect stated that he had been working with Knutson in the past on the carpeting and that the delivery date should be satisfactory if there are no delays.

UNIVERSITY REVIEW OF MINUTES

Ken Tidemann reviewed last week's minutes, and first off, asked whether the 19th floor mechanical work was now progressing and the answer was affirmative. Ken Tidemann mentioned that he has not yet received a Millard Link schedule from Knutson and Knutson replied they would get it to him. Ken asked whether or not the outstanding items from Insulation Sales had been received by the Architect and Bob Hoffman replied that it was being typed up and the Architect replied that he had received a letter from Knutson on the color variation. Ken asked whether or not the comment by Conrad that he stopped working on Core 18 had been resolved and Bob Hoffman said he thought this was done. Jim Gustafson mentioned that Conrad, in his schedule this week, was saying that there was a problem there. Ken Tideman asked about the miscellaneous

sleeving in the student lounge. Knutson replied they thought it was getting done. Ken asked about the rolling shutters and Knutson said these have been taken care of. Ken asked what was being done with moving of the fireproofers since this was going to be done two weeks ago. Bob Hoffman replied that they are starting to move the equipment outside and that the move would not actually take place until 14th and 15th floors are done and that it should result in fireproofing only shutting down for 2 or 3 days. Ken asked about the 50% of the work being able to be accomplished on third floor, and Knutson said this would resolve once the fireproofer had moved. Ken asked whether or not the 10th floor roof would still be finished this week. Knutson said they expected it would. Concerning the templates, Lamb stated they had received them yesterday. Ken asked about the revolving door heaters and the Architect replied it appears that Len Lundquist had proposed a method to resolve this problem to Lamb, and now it was up to Lamb to solve the problem. Ken asked whether or not Jim Batzli still had 8 men working on the cores and he replied, yes. Ken wondered if Jim had an answer on the 200-day comment by Fred Hodges and Jim Batzli said he would be getting together with Fred next Monday. Ken asked about the vapor barrier in the machine rooms and persons at the meeting believed it was not done yet. Westinghouse stated they still needed car 11 machine room fireproofed.

Ken Tidemann asked that the number of men for each contractor be entered into the minutes and also that the University still considers the following floors critical: 3rd, 7th, 8th, 9th and 6th. Ken mentioned that the CPM monitor should be out next Monday and perhaps it will be mailed up here earlier. Ken stated there appeared to be a lack of communication between the primes and that the offices of the contractors did not appear to be up with what the problems are and that there are sometimes changes of schedule in the middle of the week without telling other contractors. Vern Greely mentioned that the University should know about these changes also. Ken hoped that the new meeting format would get the prime contractors to talk to their subs. Westinghouse, at this point, stated that they felt the temporary elevator utilization is costing everyone a lot of money and that the elevators should be set up for passenger express service and stop only on every third floor. The University stated they had been talking with Knutson about the amount of personnel waiting at the elevators. Westinghouse thought this could be corrected by orienting the operators and only using intercom system for calling for freight pickups. Ken Tidemann closed the meeting by saying that he thought it was a better meeting than in the past, and that the contractors seemed more knowledgeable about what was going on at the job. He also mentioned that the subs can come, particularly if there is some bad problem which has arisen, but that in general, he does not want the subcontractors talking at the meetings.

CONTRACTOR MANPOWER

Knutson	- 60	Spanjers	- 3
Poppenberger	- 50	Flour City	- 2
Insulation Sales - Fireproofing	- 15	Rod Enclosure	- 4
Insulation Sales - Ceilings	- 12	Lamb - Fitters	- 35
	- 3	- Plumbers	- 70
Metal Siding	- 3	Conrad	- 37
Painting	- 3	Batzli	- 59
Bolander	- 7	Westinghouse	- 15



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

School of Dentistry
136 Owre Hall
Minneapolis, Minnesota 55455

March 26, 1973

Mr. Floyd T. Olson, Assistant Purchasing Agent
University of Minnesota
550 Administrative Services
2610 University Avenue
St. Paul, Minnesota 55114

Dear Mr. Olson:

Some 35 faculty members of the University of Minnesota School of Dentistry have been specifically evaluating, over the past five years, dental equipment for the new dental school facility. These evaluations have been made in our own school and at numerous dental equipment exhibits and 30 other dental schools. Formally organized faculty committees have been working since November, 1969 on evaluating and selecting equipment for their clinical areas in the Unit A building. A copy of the initial appointment and charge for one of the committees, the Multipurpose Operatory Committee, is enclosed for your reference.

This letter contains the selections by the School of Dentistry of dental operatory equipment for the Unit A Health Sciences building on the Minneapolis Campus. The operatory equipment includes the dental chairs, dental units, and dental lights described in the specification documents PROJECT NO. MINN 4021 (129) SPECIAL BID 616 dated December 27, 1972. The faculty of the School of Dentistry has conducted a thorough in-use investigation of this equipment prior and subsequent to the release of the above documents. As a result of these investigations and a study of the bid proposals from the manufacturers, the School of Dentistry has approved for purchase the equipment items described below. Where appropriate, modest design modifications and mechanical refinements from the bid proposals are so stated. The award of the various bids should be contingent on the manufacturer's compliance with the modifications and refinements described. During the evaluation period these changes were, for the most part, discussed with the manufacturers. Appropriate School of Dentistry faculty members must be permitted to finalize the details of the design modifications in personal discussions with representatives of the manufacturers.

1. Item Number 0121 - Side Lift Unit and Chair

The Den-Tal-Ez Manufacturing Company's bid on 247 chair-unit combinations is accepted as presented in their proposal except for the modifications as listed below. The equipment is selected because it meets the specifications as described in the bid documents. This equipment is clearly preferable over the other chair-unit combinations bid and evaluated because, in the faculty's considered judgment, it best meets the needs for 4-handed dentistry in performing restorative and prosthodontic dental procedures.

1. Item Number 0121 - Side Lift Unit and Chair - Continued

Specifically, the Multipurpose Operatory Committee listed the following advantages of the Den-Tal-Ez unit and chair over the other chair-unit combinations bid:

- a. Ease and efficacy of the operator's and assistant's access to the dental instrumentation because of the front position of the operator's instrument delivery system and the rear position for the assistant's instrument delivery system.
- b. For the wide range of restorative and prosthodontic procedures to be carried out in the multipurpose clinics on the eighth and ninth floors of Unit A the faculty clearly wants a simple, small, trayless, lightweight, and easily movable operator's instrument delivery head. An instrument tray is not wanted on the delivery head, because the faculty does not want the hand instruments on a tray located in front of the patient but wants them located on a cervical tray provided on the casework to the rear of the chair or on the assistant's cabinet. The Weber and Ritter units have relatively large tray type instrument delivery heads.
- c. The chair has an excellent low position. This low position permits greater accessibility to the oral cavity from the various operator's positions required in 4-handed dentistry for restorative and prosthodontic procedures. Of the other two low position chairs evaluated (Ritter and Weber), the faculty did not approve the type of instrument delivery head on the "low-position" Ritter Vega chair. Also, the support bracket for the instrument delivery head on the Vega chair was too unstable. The "low position" Weber chair did not have a unit attached for evaluation, and the Weber unit on the Weber Helios chair did not meet the faculty's requirements.
- d. The Den-Tal-Ez chair, because of its excellent low position, permits the operator to work in a sit down position while the patient is in an upright sitting position with the upper portion of the patient's torso in a vertical position and the plane of the patient's occlusion parallel to the floor. This position of the patient permits much better control of free flowing materials during the taking of impressions in restorative and prosthetic dentistry. This positioning of the chair is a firm requirement of the faculty.
- e. Satisfactory experience over four years using the A-DEC controls on a service cart. These controls will be similar on the side lift chair and unit requested here.
- f. The Den-Tal-Ez chair-unit combination is the most satisfactory combination studied from the standpoint of teaching 4-handed dentistry and utilizing the concepts and principles of team dentistry in a wide variety of restorative and prosthodontic procedures.

1. Item Number 0121 - Side Lift Unit and Chair - Continued

The mechanical refinements and modest design modifications required in the Den-Tal-Ez side lift unit and chair are the following:

- a. Round edges of the instrument delivery arms and similar supporting members.
- b. Limit degrees of travel of rear delivery instrument system so that it does not strike the chair.
- c. Install microswitch on support base of rear delivery instrument system to prevent downward and backward movement of the back of the chair when the rear instrument delivery is in a vulnerable position, i.e. to the rear of the back of the chair. This must be done.
- d. Improve the bearings at both hinge points on the lower support arms of the rear delivery instrument system.
- e. Upright arm of the rear instrument delivery system should be spring loaded.
- f. Short radius bends in the water and air lines must be avoided e.g. at exit point of umbilical cord on the vertical support post just below the horizontal arm. This could be solved by installing a cord strain relief.
- g. All hose barb connections must be secured with proper hose clamps.
- h. Color code the internal water and air lines with a method such as a colored teflon "spaghetti" tubing.
- i. The toggle valve handle pin works out causing valve failure. To correct, the mounting nuts must be positioned to cover the pin.
- j. Plastic caps should not be used to terminate water or air lines.
- k. Specific verification must take place relative to the exact location of the horizontal arm on the vertical support post so there is adequate space for the patient's legs. The four inch addition on one of the models recently evaluated seemed to be correct, but this must be verified.

The membership of the Multipurpose Operatory Committee making the above selection of equipment is as follows:

Robert D. Jeronimus, D.D.S., M.S., Chairman of the Committee
Associate Professor of Crown and Bridge

Donna A. Aker, G.D.H., B.A.
Assistant Professor and Director of Dental Hygiene

1. Item Number 0121 - Side Lift Unit and Chair - Continued

Anna T. Hampel, D.D.S., M.S.D.

Professor and Director of Admissions, Treatment Planning, and Comprehensive Care

James R. Jensen, D.D.S., M.S.D.

Assistant Dean for Academic Affairs, Professor and Chairman of Endodontics

Leslie V. Martens, D.D.S., M.P.H.

Associate Professor and Project Director of the Team Program

A. Theodore Morstad, D.D.S., M.S.

Professor and Chairman of Prosthodontics

Allan D. Petersen, D.D.S.

Associate Professor of Prosthodontics

Anthony V. Romano, D.D.S.

Associate Professor and Chairman of Operative Dentistry

Helen M. Tuchner, C.D.A., B.A.

Assistant Professor and Director of Dental Assisting

Douglas H. Yock, D.D.S., M.S.

Professor and Chairman of Crown and Bridge

Also participating in the above decisions were:

Heidi C. Pantke, D.M.D., M.P.H.

Assistant Professor and Director of the DAU Program

Anthony J. DiAngelis, D.M.D., M.P.H.

Instructor and Assistant Director of the TEAM Program

2. Item Number 0121A - Accessory Headrest

This piece of equipment must be from the Den-Tal-Ez Manufacturing Company so as to be compatible with the Den-Tal-Ez chair approved in Item Number 0121 above. Sixty-two headrests are required.

3. Item Number 0122 - Multipurpose Unit and Chair

The Ritter Company's bid for 19 unit-chair combinations is approved for purchase as described in their proposal except for the modest modifications listed below. This equipment is chosen because it best suits the multipurpose needs which are required, and the equipment meets the specifications listed in the bid documents. This unit-chair combination will be used in a number of different clinical environments: clinical demonstration rooms where television demonstrations will be given; the television studio, and the oral diagnostic and screening clinic.

3. Item Number 0122 - Multipurpose Unit and Chair - Continued

Some specific reasons for selecting the Ritter chair-unit combination for the above named multipurpose requirements are as follows:

- a. For television demonstrations, it often is advantageous to reposition easily the dental chair and chair base assembly. In some instances, the equipment needs to be moved quickly and to some distant point in the demonstration area. Therefore, these requirements necessitate an "air-glide" feature of the chair base assembly.
- b. Many of the chair-unit combinations will be used in the oral diagnostic and screening clinic. For the examination procedures, a tray assembly unit is necessary for convenient access to the diagnostic and service instruments. In this clinical area, the operator is usually working alone.
- c. For oral diagnostic screening procedures the instruments on the tray panel are used less frequently than in the restorative clinics. Therefore, the retractable hose system is preferred because it presents a less busy appearance of dental instruments for ease of mind of the patient. A cleaner instrument look is required.
- d. In the Ritter unit, the tray is easily removed and cleaned and the tray well is easily cleaned.
- e. In the Ritter unit, the tray and instrument delivery head and supporting bracket are easily positioned for right and left handed operators by moving from one side of the chair to the other. This is not true of the Weber chair-unit combination with the tray type assembly head.

The modest design modifications and mechanical refinements required are as follows:

- a. Improve the arrangement for changing the elevation of the instrument delivery arm.
- b. Light mount must be improved.
- c. Redesign the plastic sleeve on the handpiece hose so the handpiece hose can be retrieved more easily.
- d. Improve handpiece water metering valve adaptor to knob so set screws don't loosen so easily.
- e. Eliminate water flush patient-held cuspidor.
- f. The syringe has a weak casting where the hole is drilled for the valve lever hinge pin. A pin with a smaller diameter should correct the problem.
- g. Sling rest arms to be included on chairs.

3. Item Number 0122 - Multipurpose Unit and Chair - Continued

The primary faculty members making the above selection of the multipurpose chair-unit combination are the following:

Anna T. Hampel, D.D.S., M.S.D.

Professor and Director of Admissions, Treatment Planning, and Comprehensive Care.

Mellor R. Holland, D.D.S., M.S.D.

Professor and Associate Dean

Hubert H. Serr, D.D.S.

Professor of Crown and Bridge

4. Item Number 0123A - Orthodontic Unit and Chair

The Ritter Company's bid of 18 orthodontic chair-unit combinations is approved as in their proposal except for the modifications listed below. For the clinical procedures involved in the specialty of orthodontics, the Ritter chair-unit combination best serves these purposes. Specific reasons given by the faculty for selecting the Ritter chair-unit combination are as follows:

- a. The orthodontic clinic has Ritter chairs now to which will be added the Ritter unit head. The faculty wants to have all Ritter chair-unit combinations for standardized function and appearance.
- b. The student operator generally works without an assistant. Therefore, a tray type unit head in the thoracic position is required for convenience and ease of operation.
- c. While exposed tubes and cords for the service instruments may not be objectionable in clinics where they are used frequently, such as in the restorative clinics, the relatively infrequent use in orthodontics emphasizes the importance of retractable tubes and cords to give a clean appearance. This is a firm requirement of the orthodontic faculty.
- d. The instrument tray is easily removed and cleaned and the tray well is easily cleaned.
- e. As 15 to 20 percent of the students are left handed, the Ritter unit arrangement is a clear advantage since it can be easily moved from one side of the chair to the other to adapt for left or right handed operators. This convenience is not possible with the Weber unit since it is more cumbersome to make the change.
- f. The tray arm of the Ritter unit is more stable and better constructed than the tray arm on the Weber chair-unit combination which was bid and evaluated.
- g. The skirt around the bottom of the Weber chair is not attached in a positive way and would seem to be quite easily torn, punctured, or otherwise damaged.

4. Item Number 0123A - Orthodontic Unit and Chair - Continued

The modest design modifications (or verification) and mechanical refinements required for the Ritter orthodontic chair-unit combination are as follows:

- a. HVE line should be mounted on the vertical upright for carrying the tray. HVE will have provided funnel as well as suction tip. Hose will be at all times off the floor. This is to be the only non-retractable hose on the entire unit. Saliva ejector on HVE.
- b. Rear panel of tray to be blank except for those items cheaper to leave than remove, e.g. air pressure gauge.
- c. Inner workings for a second handpiece (high speed) will be pressed into the tray attachment.
- d. Cavitron handpiece also on retractable hosing with control on the floor.
- e. Low speed handpiece control by switch. No floor rheostat.
- f. Light mount must be improved.
- g. Improve the arrangement for changing the elevation of the instrument delivery arm.
- h. Redesign the plastic sleeve on the handpiece hose so the handpiece hose can be retrieved more easily.
- i. Sling rest arms to be included on chairs.
- j. Junction box will be in model storage cabinet out of sight. Umbilical to chair will be installed recessed in floor and hidden from view.

5. Item Number 0123B - Orthodontic Unit

The Ritter Company's bid proposal for 14 units is approved for purchase except for the modest design changes listed in Item Number 0123A above and the reference made below. The Ritter unit is the selection because it can most easily be adapted to the existing Ritter chairs in the orthodontic clinic. As per the bid documents, the existing orthodontic chairs must be reconditioned and modified to accept the new orthodontic operating units. The faculty in orthodontics wants to have all the chair-unit combinations the same for standardization of function and appearance. The orthodontic faculty prefers the Ritter unit over the Weber unit bid and evaluated for the reasons stated in 0123A above.

The orthodontic faculty who made the decisions on the above described equipment are the following:

Robert J. Isaacson, D.D.S., M.S.D., Ph.D.
Professor and Chairman of the Division of Orthodontics

5. Item Number 0123B - Orthodontic Unit - Continued

T. Michael Speidel, D.D.S., M.S.D.
Associate Professor of Orthodontics

Frank W. Worms, D.D.S., M.S.D.
Clinical Associate Professor of Orthodontics

6. Item Number 0124 - Periodontic Unit and Chair

The Ritter Company's bid of 30 periodontic chair-unit combinations is approved as per Ritter's proposal except for the modest modifications listed below. Of the two chair-unit combinations (Ritter and Weber), the Ritter combination best serves the clinical procedures involved in the specialty of periodontics for the following reasons:

- a. Retractable tubes and cords are necessary for cleanliness and appearance.
- b. The tray assembly and support bracket can easily be moved to either side of the chair to accommodate either right or left handed students. This is not true of the Weber combination chair-unit.
- c. The equipment has been on the market for a number of years and has an excellent service record. The retractable mechanism has been tested thoroughly in other dental schools over a long period of time.
- d. Specified hand-held cuspidor is both hygienic and economical.
- e. The tray is easily removed and cleaned and the tray well is easily cleaned.
- f. On the Weber chair, the skirt around the bottom is not attached in a positive way and would seem to be subject to puncturing, tearing, etc.
- g. With the right and left feature of the tray assembly, an optimal thoracic position of the tray assembly can be achieved.

The modest design modifications required by the periodontic faculty are the following:

- a. Eliminate water flush patient-held cuspidor.
- b. Single handpiece hanger on each side of unit.
- c. Dual high evacuation line. One for aspirating tip, one for the patient cup.
- d. Bracket for the aspirator tip and patient cups to be located on the vertical support of the unit.
- e. Light mount to unit must be improved.

6. Item Number 0124 - Periodontic Unit and Chair - Continued

- f. Three aspirating tips to be included with each unit (small, medium, large).
- g. Sling arms on chairs to be included.
- h. One unitrol rigidly mounted to each side of base. There have been some problems with this switch operating correctly. We suggest this be carefully evaluated by Ritter and improved.
- i. Foot control cord "clip" to be attached to chair base.
- j. Standard switches mounted on the backrest of the chair to be included with proper wiring but left unconnected. Must be capable of being connected easily at any future date.
- k. Correct problem of handpiece hose sliding back into the unit. Re-design of plastic sleeve should correct this.
- l. Correct water control button on foot control. Works loose too easily.
- m. Improve handpiece water metering valve adaptor to knob so set screws don't loosen so easily.
- n. The syringe has a weak casting where the hole is drilled for the valve lever hinge pin. A pin with a smaller diameter should correct this problem.

The full-time faculty members in the Division of Periodontology who made the above decisions on the equipment for periodontology are as follows:

Lars E. A. Folke, D.D.S., Ph.D.

Associate Professor and Chairman of the Division of Periodontology

James H. Butler, D.D.S., M.S.D.

Associate Professor of Periodontology

Albert F. Holthuis, D.D.S., M.S.D.

Assistant Professor of Periodontology

Joyce H. LeFebvre, D.D.S., M.S.D.

Assistant Professor of Periodontology

Bruce L. Pihlstrom, D.D.S., M.S.D.

Assistant Professor of Periodontology

Hussein A. Zaki, B.Ch.D., M.P.H., M.S.D.

Associate Professor of Periodontology

7. Item Number 0125 - Oral Surgery Pedestal Unit

No award can be given since Ritter was the only bid and its bid was only included in a total package bid. Some equipment items in the package were not acceptable to the faculty. Fabrication of this special item will have to come from another source.

8. Item Number 0126 - Oral Surgery Table

The Ritter Company's equipment is approved as per their bid proposal. No other manufacturer bid. Five chairs are required.

9. Item Number 0127 - Oral Surgery Chair

The Ritter Company's bid proposal is approved since it is the low bid and also meets the specifications in the bid documents. Thirteen chairs are required. The faculty making the above selections were:

Lars E. A. Folke, D.D.S., Ph.D.

Associate Professor and Chairman of the Division of Periodontology

Daniel E. Waite, D.D.S., M.S.D.

Professor and Chairman of the Division of Oral Surgery

Mellor R. Holland, D.D.S., M.S.D.

Associate Dean and Professor of Oral Surgery

10. Item Number 0128 - Pedodontic Unit

The Midwest Customaire II unit is approved because this unit manufactured by Midwest-American Company best meets the requirements established by the faculty in the Division of Pediatric Dentistry. As per the bid documents, 27 units are required. The reasons given by the pediatric dentistry faculty for this selection are as follows:

- a. Dependability of the unit based on extensive evaluation over a period of several months.
- b. During the evaluation, absolutely no mechanical difficulties were encountered. This has not been true with other units bid and evaluated.
- c. The smaller size of the Midwest unit is definitely preferred over the A-DEC model, e.g. 10½" x 12½" top versus 12" x 16" top. The Ritter model has a different concept and is much higher priced and not preferred by the pediatric dentistry faculty.
- d. The faculty prefers the method in the Midwest unit for elevating the unit to accommodate to different size operators and for treating patients sitting in an upright position.
- e. The faculty prefers the straight cord system in the Midwest unit.

11. Item Number 0129A - Pedodontic Chair

The Ritter Company's chair is approved as per their bid proposal and low bid for the 26 chairs needed. The reasons expressed by the pediatric dentistry faculty for selecting the Ritter chair over the Den-Tal-Ez chair which was also bid are the following:

- a. Both chairs have been evaluated thoroughly. The evaluation of the Ritter chair over a period of many months has demonstrated conclusively that it is extremely dependable. There have been no mechanical problems.
- b. The size of the Ritter chair accommodates the child patient more effectively. It is smaller than the Den-Tal-Ez pedodontic chair and thus is more suitable for the pedodontic patient. At the same time, the pedodontic faculty have tested the Ritter chair in accommodating large children and have found that most teenage children can be fitted comfortably in this chair. The preponderance of children treated in the pediatric dentistry clinic are small children. They slide around too easily in the Den-Tal-Ez pedodontic chair.
- c. The maneuverability of the headrest in the Ritter chair is an important factor. This permits tilting the headrest in several positions which greatly increases the ability of the operator to be in the appropriate position.
- d. The smaller size of the Ritter chair allows the operator to get closer to the child patient than for the Den-Tal-Ez chair.

12. Item Number 0129B - Pedodontic Chair with Air Glide Base

The Ritter chair is preferred as per the explanations in Item Number 0129A. Also this is the low bid. The air glide feature is required to permit easy mobility of the chair base for demonstration purposes. Two of these chairs are required.

The full-time faculty members in the Division of Pediatric Dentistry making the above decisions are as follows:

Michael J. Till, D.D.S., Ph.D.

Associate Professor and Chairman of the Division of Pediatric Dentistry

Jay T. Cline, D.D.S.

Instructor in Pediatric Dentistry

John H. Hinding, D.M.D.

Assistant Professor of Pediatric Dentistry

Odd B. Sveen, L.D.S., M.S., Ph.D.

Associate Professor of Pediatric Dentistry

Paul O. Walker, D.D.S., M.S.D.

Assistant Professor of Pediatric Dentistry

13. Item Number 0130 - X-ray Chair

The Ritter x-ray chair as proposed is approved because it meets our specifications described in the bid documents and was the only bid received for this piece of equipment.

The faculty members making the above selection were the following:

James O. Beck, D.D.S., M.S.D.

Associate Professor and Director of Oral Radiology

Ramesh K. Kuba, D.D.S., M.S.D.

Assistant Professor of Oral Radiology

14. Item Number 0131A - Dental Operating Light

The Ritter Company light is definitely preferred by consensus of the many faculty involved in evaluating the dental lights. In further evaluation, after the bid documents were released December 27, 1972, the faculty concluded that the 53 inch horizontal arm was not needed. Therefore, the standard 45½ inch horizontal arm is acceptable. Therefore, this bid item would be deleted, and the number of lights in Item Number 0131B described below would change from 100 lights to 347 lights required.

15. Item Number 0131B - Dental Operating Light with 45½" Arm

Virtually all of the 30 faculty members listed above as evaluating and selecting the dental chairs and dental units for different clinical purposes also evaluated the dental lights. The Ritter, Pelton-Crane, and Weber lights were installed on chairs in juxtaposition in the clinic and evaluated carefully by the faculty. It was the definite consensus of the faculty that the Ritter light was preferred. A total of 347 lights are required. The reasons for selecting the Ritter light are as follows:

- a. The replacement of bulbs is very simple. This is an important feature. Replacement of bulbs in the other two lights is much more time consuming and cumbersome.
- b. The light head on the Ritter light is very light weight which assists in ease of movement and staying in position.
- c. The Ritter light is a very cool operating light. This is an important feature.
- d. The Ritter light has a graduated control for light intensity permitting many different light intensities.
- e. It provides the feature of diminishing shadows caused by the operator's or assistant's hands or instruments. This is a very important feature. The Weber light is not good in this respect.

15. Item Number 0131B - Dental Operating Light with 45½ Arm - Continued

- f. The Ritter light does not require a protective shield. The protective shield on the Pelton-Crane light is a distinct disadvantage. It collects dust and debris. This is unsightly to the patient. A housekeeping problem is created. The shield needs to be removed for cleaning - too time consuming and bothersome. The shield finger marks very easily. These marks are easily seen by the patient and are unsightly and time consuming and difficult to remove.

16. Item Number 0131C - Dental Operating Light Ceiling Mounted

Should be awarded to the Ritter Company for the same reasons as described in the above Item Number 0131B.

It is our strong conviction that a thorough and careful evaluation has been made for the selection of the dental chairs, dental units, and dental lights for the dental clinics in Unit A. Over the past five years, some 35 faculty have been involved in these evaluations. Thirty of these 35 faculty members are full-time members of our faculty now and are listed above. In addition to the faculty members making evaluations, we sought advice from our staff people such as the dental assistants and from private practitioners not on our faculty. Mr. DeWayne L. Varnes, our very capable dental equipment mechanic, was instrumental in evaluating the technical aspects of the equipment. Mr. Warren G. Forslund, an engineer and coordinator for Health Sciences equipment selections, was also very helpful in analyzing the equipment from technical and engineering standpoints. These two men made excellent contributions to the evaluations.

In the bid documents dated December 27, 1972 reference was made in section 0107 MANUFACTURERS, item E, maintenance, that the suppliers shall submit with their bids, proposals for long-term service contracts. As we have interpreted the bid proposals, the companies responded as follows:

- a. The Den-Tal-Ez Company made no reference to this.
- b. The Ritter Company indicated its intention to recruit and train at their expense a highly qualified service technician and station him at our School of Dentistry for a full year at no expense to the University of Minnesota. No mention was made whether this was contingent on being awarded all or just part of the equipment contracts.
- c. The Weber Company specifically indicated that it was not submitting any long-term service proposal.
- d. No mention of a service proposal was made by Midwest-American or the John Marcus Dental Supply Company.

It may be well to discuss and settle this item with the two major suppliers: The Den-Tal-Ez Manufacturing Company and the Ritter Company.

We trust the above information is sufficient to substantiate our selections of the dental chairs, dental units, and dental lights for the Unit A Health Sciences Building. If we can be of further help, please let me know.

Sincerely,

Mellor R. Holland

Mellor R. Holland, Associate Dean
Chairman of the School of Dentistry
Building Committee

Enclosure

MRH:ajm

cc: Vice-President James F. Brinkerhoff
Mr. Warren G. Forslund
Vice-President Lyle A. French
Assistant Dean James R. Jensen
Mr. Paul J. Maupin
Assistant Vice-President Hugh G. Peacock
Dean Erwin M. Schaffer
Mr. Victor E. Scott
Mr. DeWayne L. Varnes

Faculty Members Representing Clinical Planning Groups:

Dr. James O. Beck - Oral Radiology
Dr. Lars E. A. Folke - Periodontology
Dr. Anna T. Hampel - Admissions, Treatment Planning and Comprehensive Care
Dr. Robert J. Isaacson - Orthodontics
Dr. Robert D. Jeronimus - Multipurpose Operatory Committee
Dr. Michael J. Till - Pediatric Dentistry
Dr. Daniel E. Waite - Oral Surgery

Office of the Dean

November 10, 1969

As described in the enclosed letter to the faculty, a critical time schedule has been established to complete the planning for our new dental facilities. To expedite this, we are forming several special committees to zero in on the final decisions and recommendations. Accordingly, I am asking that you serve on the Multipurpose Operator Committee. This is an important assignment. Unless I hear to the contrary, I am assuming you will serve.

Multipurpose Operator Committee

Committee

Robert Jeronimus, Chairman
Donna Aker
Carl Bandt
Kenneth Buechele
Richard Goodkind
Peter Haarala
Mellor Holland (Ex-officio)
James Jensen

Louise Messer (Ex-officio)
Frederick Noble
E. Severn Olsen (Ex-officio)
Michael Speidel (Ex-officio)
Helen Tuchner
John Wakely
Hugo Wolf

The charge to the Multipurpose Operator Committee is to develop final recommendations for the size, configuration, design, clustering, and equipping of the multipurpose clinical operatories on floors six, seven, and eight of the proposed dental facilities. The Committee should also give attention to the number, size, and design of the consultation and demonstration rooms adjacent to multipurpose operatories.

Thank you for accepting this assignment.

Sincerely,



Mellor R. Holland
Chairman, School of Dentistry
Building Committee

cc: Dean E. M. Schaffer
Mr. C. Thomas Smith



HEALTH SCIENCES CENTER

MRH:ajm



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

School of Dentistry
136 Owre Hall
Minneapolis, Minnesota 55455

March 26, 1973

Mr. Floyd T. Olson, Assistant Purchasing Agent
University of Minnesota
550 Administrative Services
2610 University Avenue
St. Paul, Minnesota 55114

Dear Mr. Olson:

Attached is a report of the Dental Operatory Equipment selected by our faculty for the dental clinics in the Unit A Health Sciences building on the Minneapolis Campus. Included are a statement describing the faculty's participation, the reasons for selecting the specific equipment, and the design modifications required for the equipment.

For your convenient reference, the following is a list of the dental chairs, dental units, and dental lights selected by the faculty for Unit A.

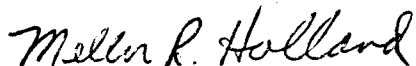
1. Item 0121 - Side Lift Unit and Chair
Den-Tal-Ez Manufacturing Company
2. Item 0121A - Accessory Headrest
Den-Tal-Ez Manufacturing Company
3. Item 0122 - Multipurpose Unit and Chair
Ritter Company
4. Item 0123A - Orthodontic Unit and Chair
Ritter Company
5. Item 0123B - Orthodontic Unit
Ritter Company
6. Item 0124 - Periodontic Unit and Chair
Ritter Company
7. Item 0125 - Oral Surgery Pedestal Unit

No bid can be awarded since the only bid received was from the Ritter Company as part of a total package bid. The total package bid was clearly unacceptable to the faculty since some equipment in the package wasn't selected by the faculty. Other arrangements for fabrication of the Oral Surgery Pedestal Unit will have to be made. This is feasible since it is a special item and not regularly manufactured.

8. Item 0126 - Oral Surgery Table
Ritter Company
9. Item 0127 - Oral Surgery Chair
Ritter Company
10. Item 0128 - Pedodontic Unit
Midwest American Company
11. Item 0129A - Pedodontic Chair
Ritter Company
12. Item 0129B - Pedodontic Chair with Air Glide
Ritter Company
13. Item 0130 - X-ray Chair
Ritter Company
14. Item 0131A - Dental Operating Light with 53 inch arm.
This item can be deleted since further evaluation revealed that the 45½ inch arm as described in Item 0131B is adequate rather than having the 53 inch arm.
15. Item 0131B - Dental Operating Light with 45½ inch arm.
Will require 347 lights instead of 100 lights since 0131A item is deleted. Faculty approved the light from the Ritter Company.
16. Item 0131C - Dental Operating Light Ceiling Mounted
Ritter Company

I trust that the information here and in the attached report is adequate. If I can be of further help, please let me know.

Sincerely,



Mellor R. Holland, Associate Dean
Chairman of the School of Dentistry
Building Committee

MRH:ajm

cc: Vice-President James F. Brinkerhoff
Mr. Warren G. Forslund
Vice-President Lyle A. French
Assistant Dean James R. Jensen
Mr. Paul J. Maupin
Assistant Vice-President Hugh G. Peacock
Dean Erwin M. Schaffer
Mr. Victor E. Scott



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

School of Dentistry
136 Owre Hall
Minneapolis, Minnesota 55455

A - Equipment 0

(24)

March 30, 1973

Mr. Paul Maupin
Health Sciences Planning Office
4104 Powell Hall
University of Minnesota

Dear Paul:

Enclosed are copies of the letters sent to Vice-President Brinkerhoff and Mr. Olson regarding the selection of dental operatory equipment for Unit A. I thought that you would like to have this information which explains the faculty involvement in the evaluation and selection of the equipment and the basis used for the selections. I believe that a fair and thorough evaluation has been made and the decisions are correct.

I do appreciate all that you have done in support of the entire Unit A project including the rather difficult job of budgeting and selecting equipment for the building.

Sincerely,

Mellor R. Holland
Associate Dean

MRH:ajm

Enclosures (3)



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

School of Dentistry
136 Owre Hall
Minneapolis, Minnesota 55455

March 27, 1973

Vice-President James F. Brinkerhoff
301 Morrill Hall
University of Minnesota
Minneapolis, Minnesota

Dear Vice-President Brinkerhoff:

Attached are two reports to Mr. Floyd T. Olson regarding the selection of the dental chairs, dental units, and dental lights for Unit A. I thought you would be interested in learning about the faculty involvement in the evaluation and selection of the equipment and the basis used for the selection.

Also, I thought it would be helpful for me to explain the reasons for the evaluations made after the bids were received. I believe these evaluations were consistent with the stipulations in the bid documents dated December 27, 1972.

"Section 0100: Special Conditions Dental Operatory Equipment -- 0106: Equipment Evaluation." One added step in the evaluation was necessary because of bids received from the Weber Company and the Ritter Company.

As described in the report to Mr. Olson, the faculty has been evaluating dental equipment for Unit A for the past five years. Operating concepts in dentistry are changing rapidly so it was necessary to zero in on the most advanced equipment designs which would best meet our needs. After considerable study, the decisions narrowed down to two designs for our adult clinics: one by the Den-Tal-Ez Manufacturing Company for our restorative clinics and another by the Ritter Company for orthodontic, periodontic, and diagnostic clinics. Prototypes of these designs were fabricated, but the equipment was not yet marketed. We had the two prototype chair-unit combinations shipped here and installed for special evaluation last summer. Our faculty spent several days with the manufacturers' representatives during the evaluation and made suggestions for design changes. Other dental schools were conducting similar evaluations with these two companies. The University of Washington eventually selected the Den-Tal-Ez equipment while McGill and Tufts selected the Ritter equipment.

After those evaluations, we were eager to move ahead with preparing the bid documents for this equipment.

In September, I was uneasy about the difficulty TAC was having in completing the computer listings of the equipment. It was at this time I suggested to Mr. Maupin that the dental chairs, dental units, and dental lights be pulled out of the computer listing and be included in separate bid documents. This plan was presented at the October 11, 1972 meeting of the Health Sciences Planning Committee.

March 27, 1973

Detailed specifications were prepared on the dental chairs, dental units, and dental lights and were released December 27, 1972. As you know, the bids were received January 26, 1973.

As per the bid documents, the initial plan for final evaluation of the equipment was to require the successful bidders of the major chair-unit combinations to install within 21 calendar days their chair-unit combinations and their lights. Then the faculty would have 21 more calendar days to carry out another evaluation of the equipment. This final evaluation after the bids were to be received was very essential because the equipment was still under refinement and the latest possible in-put from our faculty was necessary before the manufacturers went into production. We also had to check on the changes made by the manufacturers as a result of the evaluations we made last summer.

Two aspects of the bid proposals made it necessary to alter somewhat our plan for final evaluation of the equipment.

1. The Weber Manufacturing Company bid on several of the major items. They submitted a low bid on Item 0121 -- 247 chair-unit combinations for our restorative clinics on the eighth and ninth floors of Unit A. This Weber equipment was first introduced at a dental exhibit in December 1972. Our faculty had not even seen it, let alone evaluate it. The president and two other top officers of the Weber Company came to see me in early February. They discussed their equipment and showed pictures of it. Several of our faculty sat in on the meeting. The Weber Company made a strong plea that they be given a chance to have their equipment evaluated in our clinic.

While the faculty did not believe that the equipment was anything special from the description, I advised the Weber people that their request would be given careful thought. Our main concern was time, but we wanted to be fair and to make the proper decision for the University.

2. The Ritter Company submitted three separate proposals. The first proposal excluded certain items, but Proposals 2 and 3 were package bids. This plan would result in some definite dollar savings but would tie us down to certain equipment items which were unlikely to be acceptable to the faculty.

It was my decision that we should ask the Den-Tal-Ez, Ritter, and Weber Companies to install their equipment in juxtaposition in our clinic for a final evaluation of the Den-Tal-Ez and Ritter equipment and a first evaluation of the Weber equipment. This seemed to be the fairest way to approach this for the good of the University's reputation, in deference to the manufacturers, and to make the best decisions.

The companies were told to install the equipment as soon as possible. They cooperated well. The appropriate faculty were advised that a last round evaluation had to be done. Please see attached copy of the letter to one of the committees, the Multipurpose Operatory Committee. The target date for finishing the evaluation was March 9, the same day the evaluations were to be completed under the initial plan. A thorough evaluation was carried out by our faculty and technical people from the period February 22 - March 9, 1973.

March 27, 1973

The faculty were asked to submit their reports by March 14. Most of the reports came in by that date, but the last report was received March 19. The reports were analyzed last week and the information used to prepare the documents for Mr. Floyd Olson.

I want to believe that a careful and appropriate job of evaluation was done. We approached this realizing that the total cost of the dental chairs, dental units, and dental lights would be about \$1,100,000 and that our decisions were important and must be made on a sound basis. We have made our decisions and believe they are correct and will best serve our needs. The Weber equipment was given fair evaluation but definitely did not meet our requirements.

On behalf of the School of Dentistry, I want to thank you personally for the support you have given the Unit A project and for all the difficult work you have had to do in obtaining funds for the building generally and for the equipment specifically. Having been a member of the Health Science Planning Committee and Chairman of the School of Dentistry Building Committee since October, 1964 I am most eager to see this project through to a successful conclusion. It has been a difficult project, but in the final analysis should be worth the considerable effort required.

I would be most willing and would welcome an opportunity to discuss with you any aspect of the equipment selections or the building project in general.

Sincerely,



Mellor R. Holland, Associate Dean
Chairman of the School of Dentistry
Building Committee

MRH:ajm

cc: Vice-President Lyle A. French
Mr. Paul J. Maupin
Mr. Floyd T. Olson
Assistant Vice-President Hugh G. Peacock
Dean Erwin M. Schaffer



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

School of Dentistry
136 Owre Hall
Minneapolis, Minnesota 55455

February 27, 1973

TO: Multipurpose Operatory Committee

Robert Jeronimus, Chairman

Donna Aker

Lars Folke

Anna Hampel

James Jensen

Leslie Martens

Theodore Morstad

Anthony Romano

Helen Tuchner

Douglas Yock

FROM: M. R. Holland, Chairman

School of Dentistry Building Committee

SUBJECT: Evaluation of Units, Chairs, and Lights for Multipurpose Clinics in Unit A.

Now that the new Den-Tal-Ez, Ritter, and Weber units and chairs and the Pelton-Crane, Ritter, and Weber lights are installed in the third floor clinic, it is time to carry out a thorough evaluation of this equipment. I am asking that the Multipurpose Operatory Committee under Dr. Jeronimus' direction conduct an in-use study of the equipment. The analysis should include using the equipment by students and faculty for the treatment of patients. This study should be continued daily over the next two weeks to be concluded by Friday, March 9.

Please include in the study the following equipment and considerations.

1. Den-Tal-Ez side lift chair and unit on the third floor and in the DAU clinic. Please determine the optimal position for the dental service unit on the light post to give proper space for the patient's legs.
2. Evaluate the Pelton-Crane and Ritter lights on the Den-Tal-Ez chair. Make some differentiation on extent of the light arm for "back lighting" and the quality of the light. It would be appreciated if for a brief trial the Weber light could be tested on the Den-Tal-Ez chair for function and position.
3. Ritter chairs, unit, and light. Test both Ritter setups.
4. Weber chair, unit, and light and the single Weber chair with the new lift mechanism.

Please devote approximately equal test time for each setup. All the setups should be in function for each half-day through March 9. It will be necessary for the committee to prepare a list of advantages and disadvantages of each piece of equipment under study. This information would, of course, be useful to the committee in making its decisions. Also the information will be essential to have for substantiating our

decisions to the University's Purchasing Department and for explaining to any manufacturers should questions be raised. Please include in your evaluation the functional advantages and disadvantages for clinical treatment, the stability of the chairs, mechanical defects, design problems, and other items you deem appropriate. For the equipment you prefer, please prepare a list of design changes you recommend.

My understanding is that Dr. Jeronimus will be providing the Committee with a series of evaluation forms to help standardize the appraisal of the equipment.

Mr. Dewayne Varnes is being asked to make a thorough evaluation of the mechanical features of the equipment. He will prepare a list of the mechanical advantages and disadvantages and recommendations for design changes.

It will be appreciated if the Committee's report could be completed by Wednesday March 14. Please prepare this in typed form.

I know how hard your Committee has worked. You are in the last stretch now. You have done a great job and are to be congratulated. Actually the study you are doing now will be necessary for selecting the equipment, but it will also constitute the evaluation we would have had to do, in part, anyway as per the bidding documents.

Thank you again for your fine work. If I can be useful to you during the study, I am most willing to help.

A. Conroy. Univ. 2



UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
Physical Planning Office
26 Folwell Hall
Minneapolis, Minnesota 55455

July 18, 1973

RECEIVED

JUL 23 1973

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

Hamilton Industries
Two Rivers, Wisconsin 54241

Attention: Mr. R. P. Sullivan
Contract Administrative Manager

Subject: Unit "A" Health Sciences
University of Minnesota

Dear Mr. Sullivan:

This letter is in response to your letter of July 5, 1973 to Mr. Ken Tidemann. In that letter you have provided us with a manning table for the completion of the first five floors, or Phase I. By your own count, you indicate that the total man days for Phase I is 447 man days, or dividing by your present crew of 9 men, approximately 10 weeks. In addition to this, we agreed that you would monitor your progress at the end of the week of July 9th to further confirm your manning estimates. Your progress during that period indicated that your estimates were very accurate. Therefore, using your time of 10 weeks, this would put your completion of Phase I on approximately the 15th of September. This, of course, is totally unsatisfactory to the University. Therefore, we were completely amazed when Howard Haviland informed us that you had reviewed your progress for the week of July 9th and decided that it was not necessary to add any more men. This, of course, is completely contradictory to the evidence you have and the agreement that you made with us that you would take whatever steps necessary to meet the schedule.

I wish to point out another factor. When you approached the Health Sciences Architects & Engineers and the University on March 6, 1973, asking to use Commercial Installations, Inc. as your installer on this project instead of Haldeman & Homme, it was our understanding that this was, of course, to the benefit of the job. It was pointed out that they had performed satisfactorily for your company on many large projects and would work extremely well with other trades. One additional factor that was stated in that letter from Mr. Hills was, and I quote, "Commercial Installations will have a minimum of two full-time people in residence in the Minneapolis area during the entire course of the installation activity, and operate closely under the direction of our Hamilton installation department." This, of course, has not been done and is, in our estimation, part of the problem. Howard has freely admitted that the present crew is all that he can handle.

In view of the above, I guess it should not surprise you that the University is extremely disappointed in your performance to date. With this letter, we are asking Hamilton Manufacturing Company to accept their responsibility and honor past promises and take action to see that you fulfill your contractual obligations. The first step that we believe should be taken immediately is that

Page 2.
Hamilton Industries
7/18/73

another full-time supervisor should be brought in immediately as promised in your letter, and the size of the crew tripled. This, of course, would allow you to meet the Phase I schedule.

One other factor that I might point out is that while Phase I is the most essential to the project, Phase II work should be starting shortly to meet the September 15th completion date. Therefore, a tripling of the crew size, in our estimation, is a minimum step that you should take immediately and probably you may find that you need even more men.

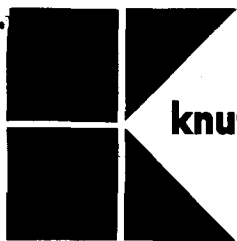
At the present time, the failure or success of the completion of the first phase work rests squarely on the shoulders of the Hamilton Manufacturing Company. If you meet your obligations, I am positive that all the other contractors are prepared to follow up and do the job on schedule. It is hoped that your next response to the University will be how soon the additional men will start on the project and what the name of the second installation supervisor will be.

Very truly yours,

Paul E. Kopietz
Asst. Director of Planning

PEK:mj

cc: Clint Hewitt
 Paul Maupin
Ken Tidemann
E. A. Kogl
Jack Homme - Haldeman & Homme
Duane Blanchard - Health Sciences Architects



knutson construction company

WEEKLY JOB MEETING

UNIT A -- HEALTH SCIENCE EXPANSION

University of Minnesota

June 26, 1973

CHARGE TO:		
REQ	PURCHASE ORDER	
FUND	DLFT	BUDGET
AUTHORIZED SIGNATURE		

ATTENDANCE

University of Minnesota: Ken Tidemann, Paul Kopietz, Paul Maupin, Gene Kogl, Richard Hendricks, M. O. Bergh, Vern Greely, W. Mellum, Ed Biggs,

HSAE: Duane Blanchard

KCC: Bob Hoffman, Ken Broman, Dick Phillips

Batzli Electric: Jim Batzli, Leo Thomas

Lamb Plumbing & Heating: Jim Gustafson

Westinghouse Elevator: Earl Romnes, Herman Weigel

Hamilton Industry: Bob Sullivan

Commercial Insulation: Harold W. Haviland

HUSA: Fred Hodges

CORRECTIONS

On page three in the middle of the first paragraph Ken Tidemann asked what Lamb meant when they said they were working right behind the case work contractor and what the case work contractor meant when they said they were finishing up case work operations. Jim Gustafson stated that there was a meeting on the following day and he thought that had covered what they meant by working behind the case work contractor. Harold of Commercial Insulation stated that his operations were a sequential operation and that he was intending to install in sequence. Later on in the same paragraph it was mentioned that Jim Batzli would require shut-down for certain electrical operations, this should be clarified that elevator shut-down would be required. Also, in the same paragraph where Duane Blanchard said that it was Jim Gustafson's problem to control the humidity, the architect clarified this to say that it was Lamb's contractual obligation to control the humidity. On page four in the latter part of the first paragraph where Jim Gustafson mentioned that elevator six does not go to the basement that this would not help the case worker that this was clarified to say that there was only one room of casework in the basement.

CONTRACTOR'S COMMENTS

Since the plaster tender's strike was in progress none of the prime contractors presented a schedule for work this week. Bob Hoffman stated that there was a meeting between the contractors and the union yesterday and that he understood there would be another meeting this afternoon, however, nothing had been resolved. Ken Tidemann asked that the University be kept informed.

UNIVERSITY'S COMMENTS

University asked Batzli how soon it could have lights on the first two floors of the building. Jim Batzli stated that some of the lights could be working within a week, however, there would be areas that would take longer. Ken also asked about the arrival of type A-1 and A-2 fixtures and Jim Batzli replied that these were in transit and that the basic type A fixture was at the jobsite. Ken understood that there was a strike possibility at Westinghouse, however, Jim Batzli replied that he understood that it had been settled on June 11.

Ken Tidemann stated that it did not appear that there was any plumbing progress being done above the 9th Floor and Jim Gustafson replied that his men were working up through 16th Floor. Ken stated that the toilet rough-ins above 10th Floor were not being accomplished and Jim Gustafson replied that he would like to finish the toilets off on the first five floors. Ken reminded Jim that he had asked for information on how available water would be throughout the building and he had not received an answer yet.

Ken asked what Lamb was going to do about the humidity control. Jim Gustafson replied that he would follow his contractual obligations and that he has two fans ready to turn on. Knutson replied that this would not control the humidity and would merely bring in air from outside the building at whatever humidity that was at. Jim Gustafson replied that he would like to meet with the University and the engineers to discuss this. Duane Blanchard asked Lamb why was a meeting necessary. Jim Gustafson replied that according to the mechanical specs he was only required to ventilate by exhaust fans. Duane Blanchard replied that humidity control was in the general conditions. Jim Gustafson said he needed the meeting in order to determine what he was supposed to do and how he was supposed to do it. The University agreed with the architects that they could not see any sense to the meeting and they desired to talk with Lamb after the current meeting. They said they had seen a letter from Lamb to Conrad, the sheetmetal subcontractor, saying that Lamb would start controlling humidity after the first of July if Conrad had not done so.

Ken Tidemann asked about the progress in elevator 11 shaft and Dick Phillips replied that fireproofing operations had started there and about three more days of fireproofing would be required. He stated that after that time the insulation could be installed in about a day and one-half and then after about one week the vapor barrier could be sprayed on. Knutson stated that they would delay the installation of the trash chute and enclosure until the University took the elevator out of service for installation of the fronts. Ken Tidemann asked how the removal of the temporary electrical was coming and Jim Batzli replied that he expected to have it all removed within two days after the strike is settled. Westinghouse reported that the man from Gilbert had arrived at the job but had since gone and would return after the strike. Ken asked about the shop drawing from Insulation Sales to the architect and the architect

replied that he had found it and that it had been waiting on receipt of some samples which were received yesterday. He also stated that he had returned it to Knutson. Ken asked about the partition closure gaskets and Knutson replied they have been sitting in Chicago since last Thursday. Ken asked about the status of the mail box modification and Knutson replied that they had signed that modification this morning. Ken asked about the vapor barrier at the link and Dick Phillips replied that it was essentially done. Ken asked about the 6th Floor dental xray room and Knutson replied that they had received a shop drawing from their subcontractor. Ken asked about lightning protection for the cooling tower and Jim Batzli replied that he had instructed his subcontractor to proceed, however, he was unsure of what the actual progress to date was. Ken Tidemann asked about the repair and return of damaged louvers and Knutson replied that they were keeping in touch, however, the louvers had not yet been returned. Ken asked whether or not a stucco sample had been selected last week and the architect replied that they had asked for more samples and that they were looking to other alternatives.

ARCHITECT'S COMMENTS

The architect stated that he had not received anything formal from Insulation Sales on the setup charges for two modifications which he had mentioned in previous meetings. The architect stated that the boiler data from American Sterilizer was also outstanding. The architect stated that he had observed some of the soil which was going into the planters on the plaza and that there appeared to be some roughage in it and he asked that Knutson and the University supervising engineer take a look at it. Ken Tidemann interjected that he wondered if Knutson had resolved anything on the paver brick. Knutson replied that a man from Wunder-Klein-Donohue would be at the jobsite at 2:00 this afternoon, however, they have not been able to get a factory man to be present.

VERN GREELY'S COMMENTS

Vern Greely stated that he had determined which areas would be covered with quarry tile and that he had discussed these with Ken Broman of Knutson. Vern asked whether or not John Hillan of Straughan Hardware had decided what to do on the double door stops and Ken Broman said he would check on this. At this point, Vern read into the minutes a portion of the general conditions for this contract, Section 0101, Item 1.14, paragraph 9 and 10. These sections cover the responsibilities of the various contractors when working over finished floors.

WALLY MELLUM'S COMMENTS

Wally Mellum hoped that Jim Batzli would get the ground fault protection problem resolved and Jim replied that he had gotten information from Houston and he would be meeting with General Electric and Wally this week.

MISCELLANEOUS COMMENTS

The architect stated that modification 170-U was still outstanding from mechanical costs since the 9th of January and that Hamilton does need this modification resolved. Westinghouse stated that elevator #1 is available for inspection.

PAUL KOPIETZ'S COMMENTS

Paul announced that the University has decided that it must assume the management of scheduling of work at the project in order to get the job done. They will be reviewing with the contractors what they found needed to be done in the various rooms and in what sequence it must be done. He stated that they were ready to assist contractors when they had problems. At present, Paul considers the two most critical problems to be the installation of the casework and the control of humidity in the building. Paul said he expects contractors to respond to the special requests made by the University in order to finish off floors one through five.

Gene Kogl continued and stated that the University will be asking contractors to expend addition funds, however, the University is hopeful that this will be the most economical for the contractors in the long run.

Dick Phillips asked whether or not the University was going to ask for large fluctuations in manpower and the University replied that they were not. They stated that they were aware that there must be a continuity in the level of manning of the job from day to day. Dick also stated that if rooms were to be finished off in the lower floors as ready and that if it was still desired to put in the floor tile in a continuous pattern, then the floor tile could not be layed until all rooms were ready. The University stated they were taking this under consideration. Dick stated that the painter has additional personnel ready to go to work on the lower floors. Mr. Sullivan of Hamilton Casework stated that he was worried over how damage would be assessed to floor tile to the various contractors when there were several trades working over the tile in that certain room. Ken Tidemann stated that this had not been looked into at the University, however, that they would be studying this problem.

Per Ken Broman

TAC*Dentistry file***THE ARCHITECTS COLLABORATIVE**

9 September 1970

Mr. C. Thomas Smith, Jr.
 Associate Director of Hospitals and
 Health Sciences Planning Coordinator
 University Hospitals
 Minneapolis, Minnesota 55455

Re: University of Minnesota
 Health Sciences Expansion

JEAN B. FLETCHER
 1945 ——— 1965
 NORMAN FLETCHER
 WALTER GROPIUS
 1945 ——— 1969
 JOHN C. HARKNESS
 SARAH P. HARKNESS
 LOUIS A. McMILLEN

RICHARD BROOKER
 ALEX CVIJANOVIĆ
 HERBERT GALLAGHER
 WILLIAM J. GEDDIS
 ROLAND KLUVER
 PETER W. MORTON
 H. MORSE PAYNE, JR.

ERNEST L. BIRDSALL
 COMPTROLLER

Dear Tom:

We are greatly concerned about the status of approvals in the Dentistry Area, particularly the dental operatories. Although much sincere effort has been expended by this office and Dr. Holland and others, we still do not have an approved design. The operatory committee appears to be not of one mind and the late arrival of Dr. Till has also had the effect of delaying approval of an operatory plan for pedodontics.

We may be at fault in some cases for not fully presenting the urgency of the decisions, but we have also been handicapped by absences of responsible individuals at critical times, including Dr. Holland. The situation has now reached crisis proportions and will probably result in substantial delays in working drawing progress for all of Unit A. This is most unfortunate because other programs besides dentistry are involved and we will have to revise the budget upwards or reduce the quality of the job to compensate for escalation.

We want the job to be the best that it can possibly be, and of course so do all of the participants from the University. We must find a way however to bring the people together, both with the ability to give consensus and with the authority to approve action at the same time.

At this point I fear that an unconcerned appearance regarding time schedule will greatly hurt our credibility with NIH. It may give the ultimate decision makers on funding a reason not to make an award if we appear not to be ready with tight planning. For just these reasons alone we should try to pull ourselves together on final approvals.

Regarding the dentistry groups as a major user, I personally do not know quite what to do. I am aware that I have pushed Mel very hard on occasions and do not want to do so again, but I feel he must be convinced of the urgency of this entire matter of timely approvals. It should be made clear that repetitive criticism of drawings along cannot generate good design. A careful, clear statement of criteria must always precede the drawing activity. If this is not done then design solutions tend to be aimless and serious errors are discovered late in the process. I believe our present difficulty is due to the failure to carefully and fully spell out program criteria for the operatories. We look to you to help us find a way to accelerate our progress with Dentistry.

Mr. C. Thomas Smith, Jr.

-2-

9 September 1970

We sincerely believe that the operatory layout shown on the Design Development drawings to be a superior design. It allows relatively free movement of faculty through an operatory cluster when such movement is required. It permits good supervision of either 4 or 8 students. It has a less regimented appearance than the rigidly lined up alternatives, and lastly, it is the most economical. Not only is the "pinwheel" design preferred by us, it was actually an early recommendation of Dr. Holland's operatory committee. We will of course make any changes that you direct us to, but at present we do not even have a direction as to what change to make or on what firm design criteria it is to be based.

As a minimum proposal to come to grips with the problem, we urge that Dr. Holland, Dean Schaefer, Hugh Peacock, yourself, Don Mawha and I meet just prior to or just after the next Design Coordinating Committee in order to focus the highest level attention on this concern.

Very truly yours,

THE ARCHITECTS COLLABORATIVE, Inc.

Roland

Roland Kluver

RK:MR

CC: Hugh Peacock
Bill Berget

Tom, I wrote this before talking to you on the operatory matter. By the time you receive the letter we will hopefully have a better direction.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
Physical Planning Office
26 Folwell Hall
Minneapolis, Minnesota 55455

*A Corresp.
Gen'l Constr. 2*

September 10, 1973

DM

Mr. John O. Goodwyne
President
Knutson Construction Company
17 Washington Avenue North
Minneapolis, Minnesota 55401

Re: Unit A - Health Sciences Expansion
University of Minnesota

Dear Mr. Goodwyne:

This is to acknowledge receipt of your letter dated August 10, 1973, concerning the construction delays on Unit A and the damages you have allegedly suffered on account of those delays.

Your letter is a somewhat confusing conglomeration of delay claims, including a number of examples of delays which you allege have caused you damage. Your presentation is rendered additionally confusing because of references to memos, letters and progress memos (not enclosed), citations to and quotations from the contract and lists of reasons why you feel the University is jointly responsible for your alleged damages.

We have had difficulty in compiling all the documents you have cited and investigating all the specific instances of delay of which you have complained. We are, therefore, unable to fully respond to your letter at the present time.

We will respond as soon as practical, but in the meantime I would like to point out the following:

- (1) In a project of this magnitude, deviations from the construction schedule are inevitable, and indeed foreseeable. In fact it is one of the principal functions of the general contractor to help the owner both avoid and minimize such delays.
- (2) In a project of this complexity and with so many parties involved, it is exceedingly difficult to pinpoint the sources of delays which do occur, and rarely is anyone totally without blame. We trust that you understand and accept this as a fact of life - particularly on a project of this scope and complexity.

Mr. John O. Goodwyne
September 10, 1973
Page Two

- (3) Speaking generally, I do not approve of nor accept your suggestion that you should accumulate and compile your alleged damages and reserve them until project completion. Wherever possible we should not hold problems and claims in abeyance. If we attempt to resolve them as we go along, we may be able to eliminate the problems or solve them. In this way we should be able to keep a more orderly contract administration, which is essential if we are to maintain the close cooperation needed to successfully complete the project.

Very truly yours,



Paul E. Kopietz
Assistant Director of Planning

PEK:mn

cc: E. A. Kogl
Oliver W. Hughes
Duane E. Blanchard
✓ Paul J. Maupin

September 28, 1973

RECEIVED

OCT 3 1973

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

Dean Hollan B. Holland
135 Core Hall
Winneapolis Campus

Dear Mel:

Yesterday I reviewed the lighting system being installed for the Orthodontic Clinic in Building A. When the opaque panels are in place, we will have about 40 foot candles of light at the point where patient care will be occurring. This is inadequate for quality patient care. In our present clinic, we have 125 foot candles at the same point and illumination is a problem to us now. It is imperative that whatever steps are necessary be undertaken to improve this situation.

In the floors currently in use in Building A the laboratories have about 125 foot candles. Would it be possible to achieve an equal level in the clinics?

I am writing this letter to you because I will be unable to attend the meeting scheduled for Tuesday, October 1, 1973, to discuss this subject. It is absolutely critical that I convey to you the seriousness of this existing situation. Imagine the eye coordination necessary to go from the dental unit light illumination to the 40 foot candles of room illumination.

I will of course be quite willing to demonstrate the facts I have cited above to those persons responsible for effecting a change. This is a functional problem that I am hopeful will receive prompt attention.

Sincerely,

Robert J. Isaacson, D.D.S., Ph.D.
Chairman, Division of Orthodontics

RJI/anc

cc: Paul E. Kopietz
Eng. Construction Div.
20 Powell Hall
Mpls. Campus

cc: Paul J. Hupin ✓
Planning Office
4101 Powell Hall
Mpls. Campus



UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
Physical Planning Office
26 Folwell Hall
Minneapolis, Minnesota 55455

October 8, 1973

*A Conresp.
Dent 2*

RECEIVED

OCT 10 1973

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

TO: Paul Maupin
FROM: Paul Kopietz *PK*
SUBJECT: Clinical Lighting Problems

This memo is for the purpose of clarifying our recent phone conversation relative to the lighting complaints in the clinical areas from Dr. Holland and his staff. We, of course, have a case where the staff feel they do not have sufficient light, and on the other hand the architects say they have provided adequate lighting. There certainly is an urgency in bringing this to a satisfactory solution. Some of the things I see that must be done are as follows:

1. We must know exactly what the architects had in mind, what criteria they were designing to, and what their instructions have been. It is my understanding that you have a rather substantial file on this whole problem because the question has been brought up several times. It is your intention to compile this data and supply it to this office so that we may review it to have a proper background to help in evaluating the problem.
2. I feel we should set up one of the clinical areas completely so that we really can fairly evaluate what must be done. The key to this, of course, is getting a dental chair and light here, and I understand you are seeing that this will be done. It is important that we involve all parties in this evaluation.
3. We think that by diverting Batzli to some more critical areas that we may slow down the work taking place in the clinical area in case there are some major changes that need to be made. However, I think we are looking more at such things as changing the lenses, putting reflectors above the light, or painting the space above the ceiling and adding some more fixtures. The one thing we want to be careful of is that Batzli does not get the impression that he has some reason for a legitimate delay.

PEK:MJ

cc: Dave Kerkow
Gene Kogl
Oliver Hughes
Dr. M. R. Holland



UNIVERSITY OF MINNESOTA
TWIN CITIES

School of Dentistry
136 Owre Hall
Minneapolis, Minnesota 55455

October 9, 1973

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

Dear Mr. Maupin:

The undersigned faculty members of the School of Dentistry attended the meeting on October 1, 1973 to discuss the lighting in the dental clinics of Unit A. Wishing to be of assistance and because of the very real and deep concern relating to the proper illumination of the dental clinical areas, we would like to state in writing for your consideration the following observations and concerns:

1. Proper illumination is an indispensable tool for a dentist. The nature of his work requires that he give close attention to meticulous detail. In addition, he must be able to distinguish subtle differences in color. This means that a dentist must have a high degree of visual acuity as well as the best possible illumination of his work area. This illumination must be of sufficient intensity and of a quality as close to natural daylight as possible.

Attempting to operate with inadequate illumination involves unnecessary expenditure of the practitioner's nervous energy. It has been estimated that more than 50 percent of the fatigue developed by dentists in the operator is not physiological but psychological --- a direct result of inability to see clearly. Inadequate illumination can slow the work and possibly result in eye impairment. Moreover, in the case of dental students, many of whom will be performing operations for the first time, improper illumination could contribute to poor treatment or possibly injury to a patient.

2. Various authorities have made recommendations concerning the intensity of illumination in a dental operator. As early as 1962 the Illuminating Engineering Society established the following minimum standards of illumination:
 - A. General room illumination of 70 footcandles was suggested as a minimum in 1962, but a later recommendation increased this to 100 footcandles.
 - B. In the oral cavity 1,000 footcandles.
 - C. At the instrument cabinets 150 footcandles. This refers to the work surfaces and trays for instruments and materials.

2. (Continued)

The Illuminating Engineering Research Institute also points out that these are the minimum recommended levels and must be maintained regardless of depreciation of lamps, maintained cleanliness of luminaries or room interior finishes. Actual lighting levels should range 50 to 100 percent higher than the levels specified when lamps and luminaries are new and clean or when the supply of voltage is higher than normal. Our experience is that the minimum levels established by the I.E.R.I. are not adequate or optimal for our needs.

3. One of the major contributors of eye fatigue in the dental operatory is the contrast between the intensity of illumination at the oral cavity and the surrounding area. It is necessary to provide sufficient illumination in the surrounding areas and in the patient's face so that there will not be too great a contrast as the dentist's vision shifts from the oral cavity to the instrument tray or cabinet and accordingly to other areas of the room. Illuminative experts have stated that to prevent eye fatigue overhead lighting should be sufficiently intense that the contrast between it and the beam in the mouth should not exceed 4:1 from the mouth to the instrument tray. Using this ratio the 1,000 footcandles illumination in the oral cavity would require 250 footcandles on the instrument tray. Most operating lights illuminate at 2,000 footcandles. This level of oral cavity illumination would require an even greater illumination on the instrument tray to maintain the 4:1 ratio.
4. On the basis of the foregoing statements we feel that insufficient attention has been devoted to illumination of the dental clinics in Unit A. For example, as recently as October 4 illumination measurements by Mr. David B. Kerkow showed that in certain clinics the level of general illumination was 50-65 footcandles. At the time these tests were conducted, only about 20 percent of the diffusion panels were in place. With the rest of the panels in place it would seem that the illumination would drop further. Tests conducted by members of the dental school staff in which compensation was made for the decreased illumination with all diffusion panels in place resulted in an estimate of approximately 40 footcandles of illumination. Either of these figures is well below the recommended minimum level of general illumination and far below the illumination levels needed on the working areas. Also, this level of illumination is well under the illumination levels of 100-150 footcandles in our existing clinics. We are also concerned about the very questionable quality of the illumination in the new dental clinics in Unit A because of our needs to have optimal light quality for detection of the patient's skin color and for selection of and matching certain dental materials.
5. It was suggested recently that increasing the illumination of the clinics might possibly be uncomfortable for patients. This should not be a problem as a level of 100-150 footcandles is not uncommon in most work situations and thus will not represent a difference from normal lighting. We have not found this to be a problem for our patients in our existing clinics with 100-150 footcandles or in private

5. (Continued)

offices with even better lighting levels. Furthermore, it should be noted that patients are in the dental office for very short periods of time whereas dental students and faculty will occupy the clinics for up to eight hours every day. It should be the latter persons who are given priority in the design of the illumination.

In view of the potential decrease in illuminating capacity between new lamps, luminaries, and diffusors and ones that have been in use, we cannot understand how the minimum levels of light recommended by the Illuminating Engineering Research Institute can be obtained in the clinic area unless new or more light sources are added. Our requirements are that the illumination levels exceed the minimum levels established by the Illuminating Engineering Research Institute. It would seem that a beginning level of above 200 footcandles would be needed in the clinics. ~~_____~~

We understand from the discussions at the October 1 meeting that over two years ago the School of Dentistry expressed its concern about the lighting in the Unit A dental clinics and almost a year ago requested in writing that the intensity of the lighting be increased. It was suggested at the October 1 meeting that no revisions should be made in the dental clinic illumination now because this would hold up the completion of Unit A. We are eager to move into the new facilities as soon as possible, but we believe it far more important to move into the building with the lighting level in the clinics at an optimal level. If changes aren't made now, this would mean that the clinics would have to be closed down later to make the needed improvements.

The faculty is not insensitive to the difficulties associated with a major construction project. We are grateful and with great anticipation look forward to the increased teaching, research, and service potentials made available by the new building. However, if we are to fulfill our responsibilities we must make known our concern of being placed in a clinical environment rendered only semi-functional because of inadequate lighting.

Sincerely,

Carl L. Bandt
Lars E. A. Folke
Ronald E. Geistfeld
Anna T. Hampel
A. Theodore Morstad

Allan D. Petersen
Anthony D. Romano
Harrie T. Shearer
Michael T. Till
Douglas H. Yock

PLEASE NOTE: The signatures of the above faculty appear on the following page.

cc: James F. Brinkerhoff
Lyle A. French
Mellor R. Holland
Paul E. Kopietz
Erwin M. Schaffer

Carl L. Bandt

Carl L. Bandt, Associate Professor and Director
Clinic Systems

Lars E. A. Folke
Lars E. A. Folke, Associate Professor and Chairman
Division of Periodontology

Ronald E. Geistfeld
Ronald E. Geistfeld, Assistant Professor
Division of Operative Dentistry

Anna T. Hampel DDS
Anna T. Hampel, Professor and Director
Admissions, Treatment Planning, and Comprehensive Care

A. Theodore Morstad
A. Theodore Morstad, Professor and Chairman
Division of Prosthodontics

Allan D. Petersen
Allan D. Petersen, Associate Professor
Division of Prosthodontics

Anthony D. Romano, DDS
Anthony D. Romano, Associate Professor and Chairman
Division of Operative Dentistry

Harrie T. Shearer
Harrie T. Shearer, Assistant Professor
Division of Oral Surgery

Michael T. Till
Michael T. Till, Associate Professor and Chairman
Division of Pediatric Dentistry

Douglas H. Yock
Douglas H. Yock, Professor and Chairman
Division of Crown and Bridge

cc: James F. Brinkerhoff
Lyle A. French
Mellor R. Holland
Paul E. Kopietz
Erwin M. Schaffer

Paul Maurer



UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
Physical Planning Office
26 Folwell Hall
Minneapolis, Minnesota 55455

A. Conroy
Gen'l Contr.
2

October 12, 1973

Mr. Robert E. Hoffman
Project Manager
Knutson Construction Company
Seventeen Washington Avenue North
Minneapolis, Minnesota 55401

Re: Unit A - Health Science Expansion

Dear Mr. Hoffman:

From the tone of your letter of October 5, 1973, it is evident that you are more intent upon constructing a delay claim against the University than upon constructing a building. Our response to your transparent threat of suit is as follows:

1. We did not, by our letter of September 10, intend to dismiss lightly the delays on this project as "insignificant matters" and "minor aggravations". Our intent, which you evidently didn't recognize, was to suggest that Knutson has been the source of a substantial proportion of the delays encountered. Several illustrations of Knutson's delays are as follows:

a. Section 1.32(b) of the General Conditions provides:

"The General Contractor shall be the Prime Coordinator for the Project and shall establish the general overall schedule for the progress of the Project, the sequence of completion and general use of the site, as approved by the Supervising Engineer . . . As Prime Contractor, the General Contractor

Mr. Robert E. Hoffman
October 12, 1973
Page 2

shall give adequate and timely notice of various work phases and operations which will affect the work of other Contractors or will require installations or other action by other Contractors."

Knutson has utterly failed in its role as Prime Coordinator. Your incessant stream of letters complaining of the actions and non-actions of other Contractors plainly demonstrates Knutson's failure to cope with its coordination responsibilities. Since Knutson is the "Prime Coordinator" on this project, these complaints can only be viewed as conclusive evidence of your failure to perform the coordination obligations you assumed. The very delays you complain of, therefore, are your own responsibility.

- b. Your attention is directed to §1.22 of the General Conditions - "Superintendence - Supervision By Contractor".

Knutson has failed to keep a full-time superintendent on the job during all working hours, and has even failed to keep the same superintendent on the job part-time. The lack of a full-time job superintendent has made effective, day-to-day communication between the University and Knutson difficult, inefficient and sometimes impossible. Routine Field Orders and other communications to Knutson have been delayed, refused, rejected, accepted and then countermanded or not even transmitted. This bottleneck in communications has caused inestimable delay and inconvenience to the University and to others.

- c. Knutson caused itself, other Contractors and the project considerable delay by its inefficient

Mr. Robert E. Hoffman
October 12, 1973
Page 3

and untimely performance of many aspects of its work. For example, Knutson caused delay by its tardy fireproofing of steel beams in the building, and Knutson caused delay by its late installation of pre-cast during the building enclosure. Both these items are corroborated by job meeting minutes, minutes of special meetings held to discuss these delays and correspondence among the parties. Both items impacted in other areas of the project and caused ancillary and downstream delay.

There are, of course, many other delays you have caused the project. It appears that this entire delay situation and its alleged causes will have to be examined and perhaps made the subject of a disputes procedure hearing.

2. You correctly state that you have on innumerable occasions, complained to the University of the work of the mechanical contractor, and we have repeatedly reminded you of the following contract provisions:

1.28 DAMAGES

Should the Owner, any separate contractor or subcontractor for the Health Sciences Complex, or other party suffer any damage to their work or property, or any other loss, as a result of the performance, acts, operations, omissions or delays of the Contractor or anyone employed by him, the Contractor agrees to settle with and reimburse the Owner, other contractors or subcontractors, or other party by agreement for said loss or damage if the person suffering said loss or damage will so settle.

This article does not exclude the Owner's right of recovery for delay under any other provisions of the Contract Documents.

Mr. Robert E. Hoffman
October 12, 1973
Page 4

Mutual Responsibility of Contractors.

If, through acts or neglect on the part of the Contractor or his subcontractors, any other contractor or any subcontractor or other party shall suffer loss or damage on the work, the Contractor agrees to settle with such other contractor or subcontractor or party by agreement or arbitration if such other contractor or subcontractor or party will so settle. If such other contractor or subcontractor or party shall assert any claim against the Owner or Architect on account of any delay or damage alleged to have been sustained, the Owner or Architect shall notify the Contractor, who shall indemnify and save harmless the Owner and Architect against any such claim.

We do not acknowledge and will not accept your continuing threats of delay claims against the University on account of the alleged acts of other Primes. We demand that you comply with your contract and (a) promptly assert whatever claims you may have against the Contractor or Contractors who supposedly caused you damage and (b) settle such claims by agreement or arbitration.

By separate letter to the mechanical contractor, demand is being made upon it to settle all disputes between it and Knutson and to hold the University harmless against Knutson's claims.

3. The University has, is and will continue to monitor the performance of the mechanical contractor to keep him in compliance with his contract with the University. However, it is Knutson's responsibility to ride herd on the mechanical to keep him abreast of progress requirements. If you continue to fail to do so, the University will pursue its right to recover from Knutson for both direct and consequential delay.

4. You have consistently failed and refused to delineate your alleged delay damages. Your inability to do so points out the self-serving character of your vague and generalized allegations and detracts from your credibility.

Mr. Robert E. Hoffman
October 12, 1973
Page 5

5. Your advice to your subcontractor, Insulation Sales, is well taken. We urge you to follow it.

6. On June 26, 1973, the University assumed Knutson's responsibility of management of scheduling project work because of Knutson's failure to properly perform the responsibility. Because of your evident dissatisfaction with the University's assumption of this responsibility and your transparent efforts to shift many of your other contract obligations onto the University, you will henceforth be expected to fully and strictly comply with and perform all of your original contractual obligations, including the above responsibility temporarily assumed by the University. Your failure to do so will be viewed as breach and treated accordingly.

Very truly yours,

Paul E. Kopietz
Assistant Director of Planning

PEK:pa

A Corresp - Univ. 2
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LAW OFFICE
BRIGGS AND MORGAN
PROFESSIONAL ASSOCIATION

2200 FIRST NATIONAL BANK BUILDING
SAINT PAUL, MINNESOTA 55101

227-8021
AREA CODE 612

CHARLES W. BRIGGS
J. NEIL MORTON
RICHARD E. KYLE
SAMUEL H. MORGAN
FRANK N. GRAHAM
COLE OEHLE
A. LAURENCE DAVIS
FRANK HAMMOND
LEONARD J. KEYES
B. G. HART
JOHN M. SULLIVAN
BERNARD P. FRIEL
BURT E. SWANSON
M. J. GALVIN, JR.
DAVID C. FORSBERG
JOHN J. MCNEELY
MCNEIL V. SEYMOUR, JR.
EDWARD C. STRINGER
TERENCE N. DOYLE
RICHARD H. KYLE
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THADDEUS S. FIGUS
DAVID L. MITCHELL
BONNIE L. BEREZOVSKY
STEVE A. BRAND

COUNSEL
ROBERT O. SULLIVAN
HAROLD J. KINNEY

November 29, 1973

RECEIVED
DEC 6 1973
UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

University of Minnesota
14th and University Ave. S.E.
Minneapolis, Minnesota 55455

Attention: Mr. Eugene A. Kogl, Director, Plant Services

Dear Mr. Kogl:

This will confirm our telephone conferences of November 26 and 28, 1973.

You have advised this office that the University of Minnesota has entered into a contract with the Knutson Construction Company for the construction of the Health Science Center Building.

This contract is being constructed in phases consisting of five floors each.

Phase A (consisting of the first five floors) is nearing completion and the University has occupied a portion of those floors.

Knutson Construction Company is continuing the work of constructing the other phases. Knutson Construction Company has contracts with or recognizes the basic building trades unions as the bargaining representatives of the various trades employed on this project.

The University of Minnesota has entered into an agreement with a local warehouseman and transfer company whereby vendors of equipment to be installed in Phase A are delivered to the warehouse. Thereafter, the materials are transported from the warehouse to the project and placed in their appropriate locations.

BRIGGS AND MORGAN

University of Minnesota
Mr. Eugene A. Kogl

2. November 29, 1973

It is our understanding that the basic trades have taken the position that such work, i.e., the moving of the equipment into the building, is properly their work since the building is still under construction.

We have reviewed the applicable provisions of the National Labor Relations Act, particularly Section 8(b)(4)(D). That Section provides that it is an unfair labor practice for a union "forcing or requiring any employer to assign particular work to employees in a particular labor organization or in a particular trade, craft, or class rather than to employees in another labor organization or in another trade, craft, or class, unless such employer is failing to conform to an order or certification of the Board determining the bargaining representative for employees performing such work".

Informal discussions with the National Labor Relations Board support our conclusion that the claims of the basic trades are an unfair labor practice.

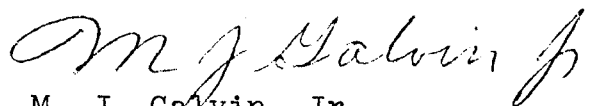
It is unlikely, however, that the activities of the union to date constitute the necessary acts which will permit the filing of a complaint with the National Labor Relations Board.

It is our recommendation that a preliminary conference be held with representatives of the Knutson Construction Company and the transfer company in order to discuss the steps to be taken if and when the building trades insist on this work being given to them.

It is my understanding that a similar dispute arose during the construction of the Federal Reserve Bank in Minneapolis.

Obviously, the matter may not be resolved amicably; but because of the size, scope and nature of the project, the University should be prepared to take the necessary steps to have the matter adjudicated as swiftly and as simply as possible.

Very truly yours,


M. J. Galvin, Jr.

MJG:mb

cc: Mr. R. Joel Tierney, University of Minnesota Attorney
Mr. B. C. Hart
Mr. Marvin T. Fabyanske
Mr. Douglas L. Skor

WEEKLY JOB MINUTES
UNIT A - HEALTH SCIENCE EXPANSION
February 5, 1974

ATTENDANCE

University of Minnesota: O.W. Hughes, Gene Kogl, Wally Mellum, Vern Greely, M.O. Bergh, Richard H. Hendricks, Warren Forslund, A. Walter Johnson
HSAE: Duane Blanchard
Knutson Construction Company: Bob Hoffman, Ed Helfrey
Lamb Plumbing & Heating: Jim Gustafson
Batzli Electric: Leo Thomes, R.O. Batzli
Westinghouse: R. Magnuson
Commercial Installation: H.W. Haviland

RECEIVED

FEB 14 1974

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

CORRECTIONS

Jim Gustafson noted that in the 13th line from the bottom of Lamb's comments, the word he should be changed to Wally, and that on page 4, Jim Gustafson noted that he thought there were some rooms ready for lathing. Duane Blanchard noted that on page 3, it was Minnesota Fencing not Standard Iron, that was painting the escalator handrail. Also, elevator 11 should be changed to elevator 12. On page 4, Duane Blanchard noted that Jim Swanson should be changed to Bob Swanson, also, Duane noted that there was a meeting scheduled in reference to the folding doors with Glenmar-Hutchinson, however, it was cancelled. On page 3, under Batzli's schedule & comments, it was clarified that the lenses Gene Kogl was speaking about were the P & P1 lenses for the illuminous ceilings on floors 6 through 9.

KNUTSON SCHEDULE & COMMENTS

This week Knutson will be pouring janitor sinks, will be working on masonry on the 19th floor, will be installing doors and hardware on the 14 & 15 floors, and will be installing hose cabinet doors. H & B will be installing metal ceilings on the 5th floor, Drake Marble will be installing paver tile on floors 2, 3, 4 & 5, Lake St. Industries will be finishing on the 9th floor, St. Paul Lino & Carpet Co. will be installing base and tile on floors 8 & 9, 11 & 12. Minnesota Fence will be painting the handrail for the escalator. Bob Hoffman noted that Combustion Equipment in reference to the trash compactor, will be on the job this Wednesday. Leo Thomes noted that there was power over to the trash compactor. Ollie Hughes asked Bob Hoffman if he had rescheduled the meeting with Glenmar-Hutchinson and Bob Hoffman replied that he had talked with Glenmar yesterday and they would be rescheduling this meeting with Duane Blanchard.

LAMB'S SCHEDULE AND COMMENTS

This week Lamb's plumbers will be piping walls and ceilings on the 16, 17, 18 & 19 floors, they will be installing knee valves on the 7th floor and finishing toilet rooms on the 13th floor. They will be roughing in toilets on the 18 & 19 floors. Jim Gustafson noted that the drinking fountain on the South side of the building had frozen and pipes broke. He noted that the doors at the East University of Minnesota loading dock had been left open for a long period. Dick Hendricks noted that he thought the drinking fountain by stair A, was a long way away for it to freeze up. Jim Gustafson noted that he would like to see Modifications changed into change orders. Jim Gustafson noted that the heating contractor will be working on reheats and chilled water and testing on the 19th floor. Bob Hoffman asked if Lamb had gone to a four day week and Jim Gustafson noted that the Union was making it mandatory. Gene Kogl noted that he did not see any real problem until the casework

comes. Jim Gustafson noted that Friday would be the day that the plumbers and the fitters would not be on the job. However, he noted that the office would be opened and emergency service available. Ollie Hughes noted that this would be in violation of the specifications. A. Walter asked if both the plumbers and the fitters were involved and Jim Gustafson noted that they were. Bob Hoffman noted that he felt that there should be some representation from Lamb whenever contractors were present and working since normal day to day problems do arise. Bob Hoffman asked the status of the 19th floor in reference to plastering. Jim Gustafson noted that there were some rooms ready. Ollie Hughes stated that there would have to be some coordination between Lamb's plumbers and Lamb's subcontractors so that the necessary rooms are finished and ready for lathing. Jim Gustafson asked if the engineers had determined the proper installation of the booms. Duane Blanchard noted that a decision had been made on the installation, however, they were still waiting for a decision on the proper height that the booms should be set at. He asked if there was a recommended height available and Vern Greely noted that there was no recommended height enclosed in the packing. This week, Conrad will be working on the 10, 16 & 17th floors and A.P.I. will be insulating supply and return ducts on the 10th floor, will be insulating supply diffuser plenums on the 15 & 16th floors and insulating walls of unit housings on the 19th floor.

BATZLI'S SCHEDULE AND COMMENTS

This week Batzli will be hanging fixtures in the front of elevator 11 on floors 4 through 9, 17 & 18, they will be roughing in walls and ceilings on floors 17 & 18, installing devices on floors 14 & 15, roughing in for x-ray on the 16th floor, they will be working in the 3rd floor entry on the unit heaters and lights, will be installing film illuminators on the 8th floor and wire mold on the 9th floor. They will be pulling wire on floors 16 & 18 and will be pulling and splicing wire on 15 & 16th floors and installing ^{the} contactor on panel PH5-14. Ollie Hughes asked when Batzli was expecting the circuit breakers for the sterilizers ^{that} on the 8th floor. Batzli noted that they were waiting for the bus connectors and thought they would be here this week. Gene Kogl noted for the record that the casework contractor (Hamilton) had not had a representative here for several weeks. Ollie Hughes noted that Withers had gone home for the holidays and had not been back since.

HAMILTON'S SCHEDULE & COMMENTS

This week Hamilton will be hanging wall cases on the 12th floor and cleaning on floors 8 & 9. Harold noted that on floors 8 & 9 the wire mold should be complete and the plumbing fixtures trimmed out before he will make a final clean of these labs. Harold asked if elevator 11 will be ready before the paver tile were installed in this corridor. Ollie Hughes noted that elevator 11 would not be ready before March 1st. Gene Kogl asked how the paver tile was going and Bob Hoffman noted that Drake Marble had increased their crew and now had three tile setters working on the job. He noted that they were concentrating on the Link areas between 3rd and 5th floors. Gene Kogl noted that by March 1st, all paver tile should be complete. Bob Hoffman noted that he felt paver tile by this date should be pretty well along.

WESTINGHOUSE'S SCHEDULE AND COMMENTS

This week Westinghouse will be working on car 11 and would have a State inspector here on the escalators this morning. Westinghouse noted that they were having problems with

people climbing on the handrail of the escalator. Ollie Hughes noted that this must be happening at night and that he had never seen anyone during the day walking on the escalator handrail. Duane Blanchard asked that the security be informed of this problem with the escalator and that they should be asked to pay extra attention to this area. Westinghouse asked the status of car 8. Ollie Hughes noted that there could possibly be some switching around, that is, Knutson Construction giving up one of their elevators that goes to the basement and taking over 8. Ollie noted that this would involve expediting Westinghouse's system. Bob Hoffman noted that this would be acceptable, however, he would prefer to keep car 10. He noted that he would like to talk to Bob Steffend before any final decision is made.

VERN GREELY'S COMMENTS

Vern noted that he would like to talk with Dick Hendricks after today's meeting, he noted that A11-104 & 105 should be viewed by Duane Blanchard. He noted that there was tremendous cracking occurring in the cement plaster walls. He noted that the cracking could be the result of floor deflection of loads. He noted that there were expansion joints provided in these walls and that Poppenberger had gone over these walls one time already. Vern noted that corridors A3-81 through 83, should be completed in reference to painting of doors and installing base. He asked Dick Hendricks to install University locks on A3-114 through 118 and Dick Hendricks noted that he would see to this. He noted that there was still an urgent need for Rooms A11-104 & 105, 115 through 121, 144 through 148, and A12-138 and A12-122. He noted that these rooms had now been tiled. Warren Forslund noted that in Room A12-138 there was a Modification coming out, therefore, the University was not planning to use this room for storage. Vern Greely asked that Knutson Construction look at the drinking fountain and telephone stair units. He especially noted the unit on the 3rd floor at stairway A. He noted that this unit at the drinking fountain side was pulling away from the wall and that this should be corrected. Vern noted that there was some ceiling damage due to the leak at the fountain at the stairway A - 3rd floor.

A. WALTER JOHNSON'S COMMENTS

A. Walter noted that he would conduct a final inspection tomorrow on floor 9 of the deionizers and the still. He noted that he was trying to get in touch with Lundquist to inform him of this inspection. Duane Blanchard noted that Lundquist would be in the office all day today. Dick Hendricks asked A. Walter where he wanted to meet for this inspection and A. Walter noted that he would start on the 10th floor.

WALLY MELLUM'S COMMENTS

Wally asked about the emergency circuitry for the elevators and Westinghouse noted that they were now installing this. Wally asked Westinghouse to notify him when this work was complete. Wally asked about the film illuminators short on floor 7 and Bob Hoffman noted that these had been ordered. Wally Mellum asked about the balance of the telephone covers and Batzli noted that they had sent a letter to Gene Kogl, however, it was quite possible that Gene had not received this letter yet. Batzli noted that this letter outlined some changes that General Electric was proposing. Gene Kogl noted that he had not received this letter yet and that after he had, he would review this with Batzli. Wally noted that he would like to get the primary gear switch rooms and substations completed. Gene Kogl noted that Hamilton had asked for wire mold installation and Wally Mellum noted that Batzli verbally had told him that it was now ordered. Batzli confirmed this.

OLLIE HUGHES' COMMENTS

Ollie asked about the completion of the kitchen area at the 5th floor Link and was uneasy about the cold situation. He asked that A. Walter and Vern Greely look into this problem. Ollie noted that he had asked that a representative from Westinghouse be present at the Monday morning foremen's meetings. Ollie noted that he had asked Knutson Construction for a one week notice on inspection of floors. He noted that for smaller areas, this would not be necessary. Also, he stated that this one week notice was independent of both mechanical and electrical. Ollie noted that a problem existed in reference to the scheduled meetings for demonstrations. He noted that people were chasing after each other and wasting quite a bit of time trying to determine where each other was. He suggested that all demonstrations that were scheduled, be arranged to start from the University of Minnesota office. Warren Forslund noted that he needed 11-104 & 105 and needed the rooms on the 12th floor. Ed Helfrey noted that in reference to 11-104 & 105, that these would not be ready until the problem of the wall crackage had been solved.

GENE KOGL'S COMMENTS

He suggested that Bob Hoffman and Dick Hendricks get together on the hardware problem and Dick Hendricks noted that Dr. Prince had talked to me about this.

THE ARCHITECTS COLLABORATIVE INC.

JEAN B. FLETCHER
1945 1965
WALTER GROPIUS
1945 1969
NORMAN FLETCHER
JOHN C. HARKNESS
SARAH P. HARKNESS
LOUIS A. McMILLEN

RICHARD BROOKER
ALEX CVIJANOVIĆ
HERBERT GALLAGHER
WILLIAM J. GEDDIS
ROLAND KLUVER
PETER W. MORTON
H. MORSE PAYNE
ERNEST L. BIRDSALL
TREASURER

ROBERT F. CRANE
HOWARD ELKUS
JOHN HAYES
JOSEPH HOSKINS

GAZI AHMED
KENDALL P. BATES
JAMES BURLAGE
SERGE CVIJANOVIĆ
ROYSTON DALEY
GREGORY DOWNES
ALLISON GOODWIN
THOMAS LARSON
RALPH MONTGOMERY
PERRY NEUBAUER
LEONARD NOTKIN
MICHAEL PRODANOU
WALTER ROSENFELD
RICHARD SABIN
DAVID SHEFFIELD
EDMUND SUMMERSBY
MALCOLM TICKNOR
ROBERT TURNER
ERNEST WRIGHT
LAURENCE ZUELKE

27 February 1974

Mr. Paul Maupin
Health Sciences Planning Coordinator
University of Minnesota
Box 1 Mayo
Minneapolis, Minnesota 55455

Re: University of Minnesota
Health Sciences Expansion

Dear Paul:

It was good to talk with you last week and learn that you are back on the mend. Your many friends at TAC wish you well and hope that you will have continued good health and take care of yourself. We are somewhat tardy in answering your letter of 15 January regarding new projects, but wish to take this occasion to answer in whole or in part some of your concerns.

I believe you and I talked just before the new year regarding information we had gotten out of Washington indicating that pressure was mounting on the Administration for allocation of funds for health manpower. Since that time we have had no further intelligence on the matter and you may in fact have more recent information. At the very least by this time I hope that you would have been able to get a copy of the revised applicants guide as we understand that they have made certain changes. (If you do obtain a copy, would you please forward or hold a copy for us since the only way that A/E's can obtain the guide is through their respective applicants.)

You mentioned phased construction for both BC and F and we are of course experienced in this methodology as we used it on A and KE and certain of our other health care projects. We encourage you to consider each unit independently to determine if such phasing is indicated as we have found that there are often associated costs of "fast tracking" that need to be considered.

27 February 1974

For instance Unit F could be ready for bidding as one package in a relatively short time since the contract documents are 90% complete. This of course is true if requests for changes are minimal. Unit BC on the other hand is only 28% complete and the reduction in its original scope must yet be defined in detail which will possibly necessitate a longer schedule.

We would like to defer discussion of the specific design team personnel until we understand your anticipated funding schedule, the scope of work for Unit BC in particular, and thus can relate both to the anticipated construction schedule. We can confirm that John Scott will remain in charge of the projects at our associate level and that I will continue as the principal in charge.

Again, we would like to discuss these issues with you at an early date when you find it convenient. I am hoping that by the time you read this John Scott will have had an opportunity to call you and set up some tentative times when you and I might get together. I know that I have not answered all of your questions but I do feel that they are somewhat complex and need to be worked out between us.

Yours very truly,

THE ARCHITECTS COLLABORATIVE, Inc.



Roland Kluver

RK:MR

P.S. John tells me that you can see us briefly next Friday, March 1. Jerry Olsen is already looking at some schedule considerations. We look forward to seeing you. R.

A Copy - General Contractor
7

health sciences architects & engineers

THE CERNY ASSOCIATES INC.
HAMMEL GREEN & ABRAHAMSON INC.
SETTER LEACH & LINDSTROM INC.

113 HUBBARD BUILDING, 2675 UNIVERSITY AVENUE
SAINT PAUL, MINNESOTA 55114

612/646-8875

14 March 1974

RECEIVED

MAR 19 1974

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

Mr. Robert E. Hoffman
Knutson Construction Co.
17 Washington Avenue North
Minneapolis, Minnesota 55401

Regarding: Unit A - Health Sciences Expansion
Section 1345 - Environmental Rooms

Dear Mr. Hoffman:

This letter is in response to your letter dated March 5, 1974 regarding the installation of the Environmental Rooms. We appreciate the complete and detailed response by you and your subcontractor to our letter dated February 12, 1974. We believe this type of thorough response will ultimately resolve all of the outstanding items.

Since many of the items are now resolved we will only discuss those items which are not resolved from our viewpoint. Our comments will therefore not be numbered in accordance with previous correspondence.

A. REVIEW ITEMS

4. We agree that the specifications do not give specific door and frame details, however, the initial shop drawings accepted by our office were Bally doors and frames and the factory visit by our personnel indicated that Bally would be the doors furnished.

Subsequent to this acceptance and visit, your request for substitution of TAFCO "panels" was accepted on 7 August 1973, however you never responded to our letter of 14 June 1973, Page 2 where we requested information on the doors.

Our firm belief is that the painted metal strip will not withstand normal use. Normal use of these rooms will encounter wheel cart traffic, lab shelving installation, etc. and any finite scratch in the metal frame will make it readily available for rust. We believe that your subcontractor is responsible to furnish the Owner with the identical door frame material that was shown us at the factory at no additional cost, because he did not specifically request a variance for this item.

Page 2

Mr. Robert E. Hoffman
14 March 1974

5. It appears that we are in general agreement on this item if the remaining sensor capillaries can be protected from damage by encasing them in a protective shield.
6. From TAFCO literature we had the understanding that Alumbrite was the finish that was being used on the hardware, including safety release --- quote from TAFCO literature mailed to us -- "Hardware shall be heavy duty plated (chrome plated available) with inside plunger type safety release."

B. TEST RESULTS

Before further comments on the test results, which will follow, we want to stress the importance that all testing by your personnel be completed with representatives of the architect/engineer and owner present. This is a must if the test results are to be accepted.

Further, your description of temperature tolerance is completely in error. As noted in our previous correspondence of 10 February 1974, the room refrigeration equipment and controls will not respond properly to the change in load conditions. Once the room temperature is established at the fixed temperature within the specified range, the controller shall react to all load conditions to maintain this fixed temperature of the room within a tolerance of $\pm .15^{\circ}\text{C}$. This was not accomplished during testing.

The temperature of the air entering the room must vary if you are to control the room at a constant temperature with a variance of $\pm .15^{\circ}\text{C}$.

From our observations the controller is not reacting to room variations i.e. when lights were turned on the room temperature went up 1°C from 4°C to 5°C . The controller must react to this load change by reducing the discharge air temperature to overcome this increase of light load and maintain room temperature at $4^{\circ}\text{C} + .15^{\circ}\text{C}$. The control of the room temperature is very critical and must be dealt with immediately instead of passing the issue. We are concerned about the accuracy of the controller but the room tolerances are clearly spelled out as $\pm .15^{\circ}\text{C}$ and this condition shall be adhered to if the rooms are to be acceptable.

Page 3

Mr. Robert E. Hoffman
14 March 1974

In other words all conditions of the tests must be 100% complete and accurate before the rooms are acceptable.

Uniformity seems to be improving as your technician makes more adjustments, however from your strip chart, as enclosed in 5 March 1974 correspondence the control point of 38 F was noted and the tolerance is specified at $\pm 1^{\circ}\text{C}$. This was not met as the uniformity temperature readings recorded 41 $^{\circ}\text{F}$, 42 $^{\circ}\text{F}$ and even up to 43 $^{\circ}\text{F}$. This indicates the uniformity was + 5 $^{\circ}\text{F}$ or + 2.8 $^{\circ}\text{C}$ above control point, which exceeds the tolerance of uniformity by 1.8 $^{\circ}\text{C}$.

All the above comments relate to the tabulated test results and no further individual comments on the test results will be discussed here.

C. CORRECTION AND CLARIFICATION ITEMS REQUIRED

1. We agree with Knutson -- low temperature alarms are specified and should be installed. Low temperature shut-down will be part of Modification 422-E.
2. We cannot accept this explanation from Tenney Engineering's deleting "control panel branch circuits" as scheduled on Sheet Q1 under controlled environmental rooms however, we agree with the electrical drawing E-8 and the branch circuit wiring as defined.

In response to the second paragraph, concern was brought forward regarding sufficient conduit size in basement floor slab to accommodate additional conductors between compressor and fan units for control and interlock. University personnel and our electrical engineers do not recall, or can we find correspondence about commitments of supplying increased control transformer V.A. capacity beyond magnetic starter and pilot light captive to the motor control centers. We call your attention to Section 0130 - 2.1 of the specifications regarding shop drawings, particularly the 8th and 9th paragraphs.

3. Will verify at further tests.
4. Discussed on Item B above.

Page 4

Mr. Robert E. Hoffman
14 March 1974

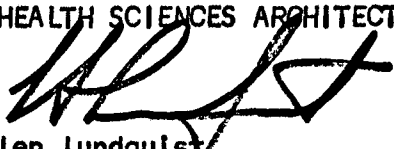
5. Tenney did not respond to comment. We are in full agreement as to as-built drawings furnished with instruction manuals, however, the field men representing the Architect/Engineer and Owner must be kept abreast of all changes that occur on the equipment so that check out and acceptance can be granted at time of testing. This can best be accomplished by providing finished drawings at time of installation.
6. As noted in our correspondence of 12 February 1974, we informed you as early as 14 April 1972 and subsequent shop drawings that location of condensing unit must be verified. Knutson is responsible for overall coordination of installation of equipment and must see to it that the condensing units are in an accessible location. An access door located in the ceiling of the Environmental Room is not a good solution. Maintenance from inside the box must be avoided. There is a solution to this problem by mounting the unit in the adjacent joist space and this must be resolved.
7. We do not understand the reluctance by Tenney to furnish this data. The Owner, as purchaser of this equipment has a right to know the capacity of equipment that is being supplied.

D. PROPOSED MODIFICATION CHANGES

These items clarified in Modification 422-E, sent under separate cover.

Very truly yours,

HEALTH SCIENCES ARCHITECTS & ENGINEERS



Len Lundquist

cc: Mr. Paul Maupin
Mr. Paul Kopietz
Mr. E. A. Kogl
Mr. Robert Hudalla
Mr. Oliver Hughes
Mr. A. Walter Johnson
Mr. Wally Mellum



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

June 4, 1974

Memorandum to: Paul Maupin
From: Robert Swanson
Re: Unit A - Design Deficiencies

Enclosed please find 5 copies of the Unit A Design Deficiencies as I see them. I do feel that Unit A is in general a very fine piece of architecture and engineering, but with improvement on the various items listed future projects could be better, and meet their projected costs without the user's financing so many changes that were desired during the Unit A design phase.

Also included is a section which includes some general item changes picked up by Ollie Hughes, Vern Greely, Wally Mellum and A. Walter Johnson.

I hope that some of the items listed can be incorporated into Unit B/C to help make all phases of that project proceed more smoothly.

The following items were given to me by the University's supervision staff:

1. The general contractor should be required to provide two full time superintendents on a project of this size, or one full time on-site job manager.
2. Some type of coordination between the pipe fitters and the plumbers should be arranged. It's strange that men from the same company don't get along. Granted that both units have their own union local.
3. The fireproofing specification should hold the fireproofing contractor responsible for clean-up if he can't stay ahead of the other construction trades.
4. Section 1-23 of the specifications should include a section which requires log's & pictures of all existing spaces to be revised. This would help in pinning down who is responsible for any damage in the above mentioned areas.

5. Temporary heating was a bad issue in Unit A. First you cannot have phase construction and use a temporary heating system. The mechanical space and equipment installation never keeps up with the general construction phases.
6. The electrical contractor should not be able to use the primary building power system during construction unless he is held responsible for all bulb and tube replacement and burned receptacle replacement prior to the University accepting a floor as complete.
7. The floor and ceiling tile overage should be increased by another 50% minimum.
8. General conditions should include a section regarding the contractors duty to buy and store items prior to the need at the job site.
9. No payment should be made to any contractor furnishing equipment to the job site without prior shop drawing approval.
10. The metal lexlon ceiling specified under section 0764 for interior use, should specify a heavier gauge material be used.
11. The installation of sterilizers, environmental rooms, toilet access, etc., should fall under the scope of work in the specifications for the primary installer. For example the above items should fall in the mechanical specification.
12. The architect approved samples should go also to the superintendents for examination prior to installation so that they will know just what materials they will be required to work with. Some installation problems could then be worked out in advance.
13. The general clean up of the building should be assigned to general contractor in the specifications. This will eliminate a lot of on-site clean-up problems.
14. An early contract for precast should be considered for future projects using this material. This erection could proceed with the steel structure and blend rather well.
15. Fire hose and existing cabinets should be painted red and have large clear markings.
16. All mechanical areas should be water proofed and curbs provided at all floor to floor openings to prevent water damage caused by leaks and pipe breakage.

17. Phased moves should be started from the top down to allow better movement of materials and men to unfinished spaces.
18. All roofing and flashing work should fall under one section in the specification.
19. There should be a University approval stamped on all shop drawings prior to final architects approval.
20. Have the specifications require mechanical, electrical, sheet metal contractors to provide floor sleeves and curbs at all floor to floor openings. Sleeves should be made of series 40 pipe not sheet metal pipe used in Unit A.
21. Composite drawings, specifications, and manuals should be required from the primary supplier of any systems used in a new building.
22. Contractors should be held responsible for the installation of items not shown on their own direct sets of drawings. They should be held responsible to perform cross referencing of their work with the other trades on the project.
23. Contractors should be held responsible for the coordination of equipment to be installed in the finished ceiling space. This type of coordination could eliminate a lot of problems in the field without the University's superintendent's getting involved.
24. There should be better coordination between the trades and the lath and plasterers regarding the location of ceiling access panels.

UNIT A - DESIGN AND PLAN DEFICIENCIES:

1. Due to a lack of in-house coordination between the architects and engineers, Unit A suffered many conflicts between the location of thermostats, telephones, chalk and tackboards, moveable and fixed equipment, etc.
2. The suspended style casework should be dropped from future projects, because of the waste of valuable storage space required in laboratory rooms. Also, this style of casework causes many cleaning problems and cannot be classified as a sterile system. Many of the users of this casework have indicated to me, that the open space below each cabinet will just be a collection point for junk.
3. The countertops supplied by Hamilton should be dropped from future projects also; many countertop sections have chipped edges and corners, and are warped when delivered to the job site. When the tops are installed most of them are not level nor do the section to section joints line up vertically.
4. In Unit A many times the electrical raceway wall junction boxes fall behind the casework backsplashes. This problem could be eliminated by allowing the casework installer $3/8''$ to $1/2''$ for leveling, thus giving the electrical contractor a constant finished floor to top of backsplash dimension to rough in his junction boxes.
5. On future University projects all casework and equipment (equipment requiring special service connections) should be indicated on the $1/8''$ working drawing plans and $1/4''$ elevations drawn of each wall to show the exact locations for telephones, thermostats, clocks, chalk and tack boards, casework and special services for fixed and moveable equipment. Unit K/E is an excellent example of the type of control the architect can have over the coordination of casework and equipment installations.
6. Unit A seems to have had a total lack of information regarding the correct special services to be furnished for the existing departmental equipment. Judging from my personal experience having to install the existing equipment into Unit A, the local architects lacked vital design information from TAC concerning the special equipment services required in Unit A. Sheet Q1 of the original equipment drawings is useless to the contractors in its present form because it never indicates service locations or mounting heights. A complete book filled with the equipment suppliers product information would have been more informational and could have been updated at any time during construction.

7. There seems to have been a breakdown in communication between the user, design notes and construction document preparation for Unit A. Many of the necessary functions required by the using departments were left out of the working drawings and had to be included into the project at the users expense. See the partial list below:
 - a. Separate suction system for oral surgery because of cross contamination with the laboratory vacuum system.
 - b. Model trimmers included into the project without the necessary plumbing:
 1. Plaster trap on sink drains.
 2. Trimmer drain into nearest sink.
 3. Water supply and shut-off valves to each unit.
 - c. No air outlets provided for miscellaneous dentistry equipment like sandblast units, vacuum presses, etc.
 - d. The casework located in the dental demonstration rooms on floors 6-9 were to have hydrocolloid adapters and vacuum breakers installed in them just as the main operatory units do.
 - e. The exhaust systems for the laminar flow hoods on floors 2 & 11 were omitted and had to be installed with user funds.
8. All of the x-ray rooms located in Unit A on floors 6-9 seem to have more than their share of problems. Below is a partial list of the more serious items:
 - a. The overall size of all x-ray rooms is too small. This is a serious problem when you find a room which contains the x-ray head, complete full size dental chair with the dental light and floor junction box included.
 - b. The x-ray control boxes should not be located in the entry way to the x-ray rooms. This causes cramped entry conditions plus a possible safety hazard to the Lab Tech running the unit.
 - c. The 115V power receptacles provided to the side of each x-ray chair is bad. This installation allows the dental chair power cord to lay in the main traffic pattern of the x-ray room. This outlet should be located on the wall located directly behind the dental chair head.
 - d. The wall mounted lighting used in the Unit A x-ray rooms is fine, except they should have coordinated this installation with the x-ray units provided. In many rooms the wall lights interfere directly with the x-ray units side to side movement.

- E. The lead shielded view windows for all x-ray rooms are located too high from the finished floor. The dental school indicated that over 50% of their staff will not be able to use the windows as installed.
- F. In the main dental x-ray facility on floor 7, the developing sinks are totally incorrect. The user had to order all new tanks at their cost in order to even use this facility.
- 9. The dental school has had constant complaints from students and faculty regarding the locking system used on the student benches located in the preclinical classrooms on floors 4 & 5. The combination locks never work properly and are a discontinued make. The locking bar located within the casework doesn't provide the security desired.
- 10. The dental school student labs (A8-112 & 162, A9-112 & 159) were designed without exhaust hoods located in the support rooms. These units had to be added later with the users funds.
- 11. The finger holes located in the curing tank countertop covers are dangerous to the user, with the finger hole located is so near the center hinge that smashed fingers will result.
- 12. On the sixth floor of Unit A in room A6-159 the casework hinged countertop portion located @ the walk thru will smash the thermostat as located.
- 13. On floors 7-9 the main operatory casework unit backs should have exposed fastening. The way they exist now if service is required the entire casework unit has to be disrupted and the x-ray view box, paper towel dispenser and cup dispenser removed.
- 14. In many of the dental school laboratory spaces, epoxy resin shelves were installed on brackets and have a piece of plug mold attached to the wall right at the shelf height. This installation cuts down the usable shelf depth by a minimum of 2 1/2". If that plug mold were located 1'-0" higher than the shelf many user problems could have been solved.
- 15. The dental school is very unhappy with the luminous ceiling lighting system used in the main clinic areas on floors 6-9. The dental school feels that the existing light levels in the above areas is 50% darker than desired.
- 16. The AMSCO surgery lights specified for use in the Oral Surgery and Perio-Endo surgery rooms on floor 7 are not operable in the space provided. The user had to buy replacement lights, design a mounting system, and install the new lights all at his direct expense.
- 17. The Weber x-ray control boxes specified for Unit A are not designed for a wall installation as existing in Unit A. This unit is designed for use on a shelf or countertop.

18. The electron microscope rooms in Unit A which will have existing scopes installed are in most cases too small. An example is floor 12 (Ob-Gyn department). The space provided for the power and water recycling units is much too small, the ventilation is poor, the associated services required are incorrect. Since this is an existing unit these types of problems should never occur.
19. In Autotutorial room A8-151 the study carrels designed for this space did not allow for the installation of the required power and communication services.
20. Almost all of the stainless steel shelves provided for Unit A have the 1/8" diameter drain holes located in areas that will drain directly on the floor or countertop and not into the nearest sink.
21. The floor designation signing located in the six main patient elevators on the southwest side of Unit A doesn't stay lit on any floor to allow the patients to read the printed information. I feel the printed information should be lit at all times and another way of indicating the nearest floor be added.
22. The northwest set of student facility elevators should have floor direction lights added in the corridor space. The existing installation with only the ash tray call buttons lighting is not sufficient.
23. The cold rooms in Unit A leave an awful lot to be desired. Below is a partial list of problems:
 - a. The floor joints give and will allow leakage.
 - b. A sheet vinyl flooring for each cold room should have been specified, to protect the metal from acids etc., which can be dropped on them.
 - c. There was no user check on the proper ultra-violet lights to use in microbiology's cold rooms. The units provided were useless.
 - d. Rooms don't hold the proper temperature after set-up.

RECEIVED

JUN 17 1974

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

HSAE

MEETING NOTES

MEMO BY - Len Lundquist, Jim Hastert, Wally Mellum
SUBJECT - Water overflow from 20th floor vacuum breakers - Unit A
DATE - June 10, 1974

1. OBSERVATIONS

- A. Domestic water pump Unit #1 regulator valve failed, causing high system pressure circuitry to activate. This causes Pump #1 to shut off and sound audio and visual alarms.
- B. During usage, the system will then back off from high system pressure and approach low pressure causing pump #3 unit to activate. Pump #3 starts and overshoots systems pressure of 165 psi (in this case as high as 220 psi) before settling back to 165 psi system pressure. Pump #1 is locked out as well as flow switches #1 and #2. This condition exists until high and low systems pressure circuitry are reset simultaneously by hand. (1 reset switch).
- C. Mechanic reset alarm systems to energize #1 pump; however #1 pump did not "automatically" start because of tripped thermal overload relay. Initial visual indication to mechanic showed pilot light on for #1 pump and its pump shaft turning. In reality, the pump shaft had been windmilling in the opposite pump rotation (caused by failure of regulator valve). Pilot light "on" only momentarily while pump #1 tried to start. With #1 pump not operating properly, the system then goes to low system pressure and #3 pump starts and repeats condition B. This same procedure was done two or three times before mechanic was aware of flooding problems on 19th Floor.
- D. The low pressure system setting (121#) is inadequate to keep the vacuum breaker completely seated. The fluctuating of pressures causes vacuum breaker ball to seat and reset. (Installation manual calls for 128# setting).
- E. Modifications to vacuum breaker floats, with indicator stems and guides added, were completed on 30 May 1974. Guides that were added came loose and on 6 June 1974 it was noted that stem was hung up on guide on one of the hot water system vacuum breakers preventing vacuum breaker from reseating.
- F. It should also be noted that the floor drains on 19th Floor, which receive water discharge from the vacuum breakers, were sealed closed with protective masking because of spray painting being done in the area.
- G. Because of pressure regulator valve failure on #1 unit, pump #1 rotating backward - the regulator valve did not operate as a check valve (which is normal condition when not energized) the high pressure from #3 pump caused high pressure on suction side of system which may be the cause of relief valves opening on water heaters in basement.

2. SUMMARY

- A. As noted in 1A and 1B and particularly 1C, the condition 1D was caused and water was discharged through the vacuum breaker overflow (s).
- B. Item 1F prevented the overflow water to be drained from premise.
- C. What contribution Item 1E had can only be determined by visual observations if necessary.

3. RECOMMENDATIONS

- A. Conditions in Item 1B. By Pump #3 causing overshoot in system pressure and indicating high system pressure alarm can be corrected by installing a time delay relay in circuit to eliminate "false" indication and alarm of high system pressure.
- B. Condition in Item 1C of pump operating backward can be corrected by installing indicator on regulator valves to note open or closed position.
- C. If the discharge from the vacuum breakers proves to be in excess of what the 3" waste in the 19th Floor slop receptor can handle we recommend that these lines drain directly to the roof.
- D. Indicator rods and guides should be installed for fail-safe operation. Rods should always remain in guide regardless of position and guide should remain in tact regardless of water pressure.

cc: Paul Maupin
Paul Kopietz
Eugene Kogl
Pete Merz
A. Walter Johnson
Oliver Hughes
Wally Mellum

health sciences architects & engineers

THE CERNY ASSOCIATES INC.
HAMMEL GREEN & ABRAHAMSON INC.
SETTER LEACH & LINDSTROM INC.

113 HUBBARD BUILDING, 2675 UNIVERSITY AVENUE
SAINT PAUL, MINNESOTA 55114

612/646-8875

12 June 1974

Mr. Gus Scheffler
Assistant Professor & Asst. Director
Environmental Health & Safety
University Health Service - Room 140
University of Minnesota
Minneapolis, Minnesota 55455

Regarding: Unit A - Health Sciences Expansion
Door Label Variance

Dear Mr. Scheffler:

Enclosed are the contractor's letters certifying that certain doors which cannot receive a physical label, due to dimensional limitations, were constructed in accordance to Label Standards. This variance was accepted by your office and the State of Minnesota Building Code Division per our letter to you dated 5 March 1973.

A copy of the manufacturer's letter, dated 29 May 1974, regarding "A" Label Doors was forwarded to the State. A copy of our forwarding letter is enclosed for your files.

A copy of all referenced letters will be held in our master files. Thank you very much for your assistance in resolving this matter.

Sincerely,

HEALTH SCIENCES ARCHITECTS & ENGINEERS


Duane E. Blanchard

cc: ✓ Paul Maupin
Paul Kopietz

25 April, 1974

STATE OF : Pennsylvania)
COUNTY OF: Lackawanna) S.S.

EUGENE J. PRESTINARI, being duly sworn, deposes and says,

I am Plant Manager of Superior Fireproof Door Company, located at 800 Providence Road, Scranton, Pennsylvania, and I am fully familiar with the construction procedures used in manufacturing hollow metal doors and frames.

I hereby certify that the following hollow metal doors have been manufactured in accordance with our approved Underwriter Laboratory Procedure R2519.

"A" LABEL CONSTRUCTED DOORS

OPENING NUMBERS: AB-95, AB-96, AB-99, A10-84 and A10-84A, AND AB-98

BWP
↑ SEE LETTER DATED 29 MAY 1974 BY MFR.

"B" and "C" LABEL CONSTRUCTED FLUSH DOORS

OPENING NUMBERS: A1-52A, A1-74A, A1-76, A1-192B, A3-90, A3-100A, A3-100B, A4-100B, A4-100A, A5-90, A5-99, A5-100A, A5-100B, A5-100C, A5-100D, A7-101A, A8-101, A9-101, A19-86

"C" LABEL CONSTRUCTED GLAZED DOORS

OPENING NUMBERS: A2-86, A3-88B, A4-94, A4-99, A6-101, A7-61, A8-71, A9-70, A11-99, A11-84, A12-87, A12-91, A12-95, A13-84, A13-86, A4-183, A4-99, A5-87, A5-93, A16-88, A16-93, A17-94, A18-86, A18-90, A17-86

The building is known as:

Unit "A" - Health Sciences Expansion
University of Minnesota
Minneapolis, Minnesota

The General Contractor is known as:

Knutson Construction Company
17 Washington Avenue
Minneapolis, Minnesota 55401

Sworn and Subscribed before me this

25 Day of APR 19 74

Francis J. Brogan, N.P.

SUPERIOR FIREPROOF DOOR COMPANY

Eugene J. Prestinari
Eugene J. Prestinari, Plant Manager

FRANCIS J. BROGAN, NOTARY PUBLIC
MY COMMISSION EXPIRES JULY 5, 1975
SCRANTON, LACKA. CO., PA.

29 May, 1974

STATE OF: PENNSYLVANIA)
COUNTY OF: LACKAWANNA) S.S.

EUGENE J. PRESTINARI, being duly sworn, deposes and says,

I am Plant Manager of Superior Fireproof Door Company, located at 800 Providence Road, Scranton, Pennsylvania, and I am fully familiar with the construction procedures used in manufacturing hollow metal doors and frames.

I hereby certify that the following hollow metal doors have been manufactured in accordance with our approved Underwriter Laboratory Procedure R2519.

"A" Label Constructed Doors

Opening Nos. AB-95, AB-96, AB-98, AB-99 (2)
A10-84 (2) and A10-84A (2)

The building is known as: Unit "A" - Health Sciences Expansion
University of Minnesota
Minneapolis, Minnesota

The General Contractor is known as: Knutson Construction Company
17 Washington Avenue
Minneapolis, Minnesota 55401

Sworn and Subscribed before me this

29 Day of May 19 74

Francis J. Brogan NP

FRANCIS J. BROGAN, NOTARY PUBLIC
MY COMMISSION EXPIRES JULY 5, 1975
SCRANTON, LACKA. CO., PA.

SUPERIOR FIREPROOF DOOR COMPANY

Eugene J. Prestinari
Eugene J. Prestinari, Plant Manager

health sciences architects & engineers

THE CERNY ASSOCIATES INC.
HAMMEL GREEN & ABRAHAMSON INC.
SETTER LEACH & LINDSTROM INC.

113 HUBBARD BUILDING, 2675 UNIVERSITY AVENUE
SAINT PAUL, MINNESOTA 55114

612/648-8875

9 October 1974

RECEIVED

OCT 16 1974

Mrs. Ruth B. Witrak
P.O. Box 218
Excelsior, Minnesota 55331

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

Regarding: Unit A - Health Sciences Expansion
Provisions for the Physical Handicapped
Addressee Letter Dated October 2, 1974

Dear Mrs. Witrak:

I am writing this letter to respond to the concerns stated in your letter regarding the handicap provisions incorporated into the Unit A Health Sciences Project. Your comments concerning the Women's Toilet Room on the Second Floor Concourse Level is correct. The stated dimensional restrictions do exist and they were the result of some difficult and demanding planning criteria. The severity of the restrictions were not noticed by our office and the University Supervision Staff until the toilet partitions were set and the room was essentially finished. The condition is regrettable and we hope some corrective measures can be taken to improve this condition. The building is not yet complete and all such problems we hope will be corrected eventually.

I wish to take this opportunity to review the extensive effort the University and the Architects have made trying to minimize architectural barriers for the disabled throughout this building and all Health Sciences buildings. The above subject condition is not representative of our concerns. The following is a list of specific design provisions for the disabled included in the building.

- A. Our review of all other public toilet facilities included in the building indicates that no other such restrictive condition exists. It should be noted that there is another Women's Public Toilet Room on Floor 2 adjacent to the Public Elevators which has a handicap toilet stall and is not dimensionally restrictive. The building as designed includes 58 handicap toilet stalls and has at least one for each sex on each of the twenty building floors. This is substantially greater than the state regulations concerning handicap toilets which reads as follows:

Page 2

Mrs. Ruth B. Witrak
Unit A

9 October 1974

"SFM 545 Toilet Rooms - Number Required.

Each building shall have at least one public toilet for each sex conveniently located on the main level and which conforms to all requirements of this Section. Other public toilet rooms within the building shall not be required to conform to SFM 547 (f) (including NOTES 1, 2, and 3) and SFM 548."

We believe the toilet room accessory provisions are substantially in compliance with the current 1974 regulations even though the building was designed in the years 1968 through 1971.

All paper towel dispensers were special ordered so that the towels are dispensed at a height less than 48" above the floor. All public men's toilet rooms have been provided with one handicap height urinal.

- B. Exterior ramps are provided to the Plaza Entrance Level at the Millard Link entrance and at the Delaware Street entrance.
- C. Power doors (Sliding type) are provided at the primary public entrance on Delaware Street.
- D. A new wheel chair ramp with safety strips was provided for the revised Millard Hall entrance.
- E. Millard Hall is accessible from the Floor 2 Concourse Level by an elevator.
- G. The Mayo Garage is made accessible for the handicapped by a ramp connection at floors one and two.
- H. All auditoriums and lecture rooms are accessible by wheel chair. All auditoriums have special wheel chair seating areas. The lecturn area in the major auditoriums is accessible by wheel chair.
- I. A special handicap pay telephone has been located on the Floor 2 Concourse Level.
- J. The fire alarm box at all stair towers is set at 48" in accordance with the handicap recommendations.
- K. All elevator call buttons are located at a height accessible from a wheel chair.
- L. All floors are accessible by an elevator.

Page 3

Mrs. Ruth B. Witrak
Unit A

9 October 1974

M. All elevators are provided with a second control panel positioned so that all control buttons are less than 48 inches above the floor. This was the first high rise building in this area, to the best of our knowledge, to make this provision.

N. The elevator threshold gap tolerance was held to the absolute minimum to minimize any handicap difficulty upon entering the car.

Design reviews were conducted during the years 1969 through 1971 with Mr. Bill Hopkins of the Minnesota Society for Crippled Children and Adults, Inc. The University and the Architects have been and continue to be concerned about architectural barriers. A representative of our office or The Architects Collaborative is prepared to meet with anyone to review the Health Sciences Projects for handicap evaluation and improvements.

I sincerely hope that this letter has contributed to your understanding of the Health Sciences Project and has indicated to you that the Architects and the University have been very concerned about architectural barriers and the necessity for providing facilities which are accessible by the disabled.

Please call me if you have any questions regarding this letter or the Health Sciences Project.

Sincerely,

HEALTH SCIENCES ARCHITECTS & ENGINEERS



Duane E. Blanchard

cc: Mr. Clinton Hewitt - U/M
→ Mr. Paul Maupin - U/M
Mr. Eugene Kogl - U/M
Mr. Ralph Rapson - U/M
Mr. John Scott - TAC
Mr. Richard Hammel - HSAE
Mr. Robert Cerny - HSAE
Mr. William Berget - HSAE

Copy of referenced letter attached

Cover
Bill Buehler
Dick Hammond ✓
Dave

H S A E	
REC'D	10/7/74
ARCH	11/11
MECH	11/11
ELEC	11/11
STR'L	11/11
TAC	11/11
FILE	A

P. O. Box 218
 Excelsior, Minn. 55331
 October 2, 1974

RECEIVED
 ST. PAUL
 OCT 8 1974
 HAMMEL GREEN AND ANDERSON INC
 ARCHITECTS ENGINEERS

Mr. Donald K. McInnes
 Assistant Vice President
 Physical Planning & Development
 University of Minnesota

Mr. Hugh G. W. Peacock
 Director of Physical Planning & Design
 University of Minnesota
 Minneapolis

Gentlemen:

Some years ago I worked on an "architectural barriers" survey conducted here in the State of Minnesota for the purpose of outlining for the legislature those building modifications which would minimize architectural barriers for disabled persons. It was my understanding that such modifications must now be met, if not in private buildings, certainly in all government buildings.

Therefore, I was appalled two weeks ago, while accompanying a quadriplegic to a 3-day seminar in the new Health Sciences Unit A, to find that the architects designing that beautiful new building had given only lip service to meeting the law's requirements.

I refer specifically to the women's restroom on the second floor. Imagine, if you can, attempting to get a wheelchair into and around the corners of the entry to that area. Having maneuvered that, we then discovered that the required wide toilet stall had indeed been installed--at the far end of an aisle not wide enough to accommodate a wheelchair. And had it been wide enough for the chair, one could not have turned it to get into the stall to obtain even a modicum of privacy. And this in a new Health Sciences building!

Frankly, I wonder at the expertise of your departments and certainly that of the architects who designed the building. I am sending a copy of this letter to Mr. Ralph Rapson with the suggestion that architecture students at the University be required to spend a few hours at the Kenny Institute or at the University Rehabilitation Hospital to see what the problems of the disabled are. Also, studying the Architectural Barriers Survey itself (copy probably available from the Minnesota Society for Crappled Children & Adults) might enable architects to look at every facet of a building through the eyes of a disabled person.

Yours very truly,

Ruth B. Witrak

Mrs. B. Witrak

cc: Mr. Ralph Rapson
 School of Architecture
 University of Minnesota

✓ Mr. Robert Cerny
 Cerny Associates
 1st National Concourse Bldg.
 Minneapolis

UNIVERSITY OF MINNESOTA
TWIN CITIES

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

October 9, 1974

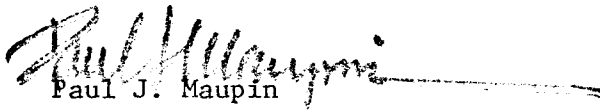
Mr. Duane Blanchard
Health Sciences Architects & Engineers
113 Hubbard Building
2675 University Avenue
St. Paul, Minnesota 55114

SUBJECT: Building A - Handicapped Access

Dear Duane:

We would appreciate your investigation and response to this office regarding the attached letter. We do feel that in light of the attached correspondence that it would certainly be worth your firm's time from a credibility standpoint to conduct an overall analysis of Unit A handicapped design features.

Yours truly,


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

PJM:rm

cc: Mr. Ralph Rapson
Mr. Robert Cerny
Mr. Clinton Hewitt
Mr. Bruce Hella
Mr. Gus Scheffler
Mr. Eugene Kogl

P. O. Box 218
Excelsior, Minn. 55331
October 2, 1974

RECEIVED

OCT 9 1974

**UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE**

DATE	OCT	4	1974
CH			
F. E.			

✓ Mr. Donald K. McInnes
Assistant Vice President
Physical Planning & Development
University of Minnesota

Mr. Hugh G. S. Peacock
Director of Physical Planning & Design
University of Minnesota
Minneapolis

Gentlemen:

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Therefore, I was appalled two weeks ago, while accompanying a quadriplegic to a 3-day seminar in the new Health Sciences Unit A, to find that the architects designing that beautiful new building had given only lip service to meeting the law's requirements.

I refer specifically to the women's restroom on the second floor. Imagine, if you can, attempting to get a wheelchair into and around the corners of the entry to that area. Having maneuvered that, we then discovered that the required wide toilet stall had indeed been installed--at the far end of an aisle not wide enough to accommodate a wheelchair. And had it been wide enough for the chair, one could not have turned it to get into the stall to obtain even a modicum of privacy. And this in a new Health Sciences building!

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Yours very truly,

Bessie B. Wittrak

Mrs. B. Wittrak

cc: Mr. Ralph Rapson
School of Architecture
University of Minnesota

Mr. Robert Cerny
Cerny Associates
1st National Concourse Bldg.
Minneapolis



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Assistant Vice President

Physical Planning
340 Morrill Hall
Minneapolis, Minnesota 55455

RECEIVED

OCT 22 1974

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

October 22, 1974

Mrs. Ruth B. Witrak
P.O. Box 218
Excelsior, Minnesota 55331

Dear Mrs. Witrak:

I hope that Mr. Blanchard's letter to you of October 9, 1974, was an acceptable response to the issues you raised about the accessibility of the Health Sciences, Unit A for the handicapped. The intent of my letter is to comment briefly on some of the steps the University has taken during the past three years to make the campus more accessible and convenient.

An Advisory Committee for Improved Access for the Physically Handicapped, consisting of Faculty, Staff and Students, was appointed in the Fall of 1971 and re-established in 1973. The primary charge was to examine, in comparatively broad terms, changes that will increase accessibility, convenience or comfort of facilities for the physically handicapped.

In 1973, the University requested and received an appropriation from the Legislature to permit the initiation of the first phase of an improvement program to make the older buildings (those not undergoing major remodeling or rehabilitation) on the Twin Cities Campus accessible to the handicapped.

Recognizing the enormous task necessary to eliminate all the architectural barriers on the Twin Cities Campus, we adopted a policy of upgrading, first, those buildings with the greatest student use and where we could maximize the dollars available. To identify specific needs, a survey of each building on the Twin Cities Campus was conducted. This survey is used by my office in making physical changes, as well as counselors

Mrs. Ruth B. Witrak
October 22, 1974
Page Two

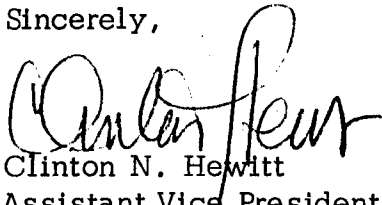
and agencies in assisting handicapped students. A map of the Minneapolis and St. Paul Campuses (see attached) showing accessible and unaccessible buildings, as well as listing offices and agencies that may be of help to handicapped persons has also been completed.

Since 1971, nine major ramps into buildings, eight minor ramps, numerous sidewalk curb cuts and bathroom modifications in many of the newly accessible buildings have been completed. In many cases, all floors of these buildings are accessible with the use of existing elevators.

Let me assure you that we review all major remodeling and new building projects to insure that the requirements for the handicapped are met. The University's Environmental Health and Safety Office also reviews the plans for new buildings and provides recommendations on meeting the handicapped requirements.

Thank you for your interest, and I would be happy to respond to any other questions.

Sincerely,



Clinton N. Hewitt
Assistant Vice President
Physical Planning

CNH/sf

cc: Vice President James Brinkerhoff
Mr. Bruce Hella
~~Mr. Paul Maupin~~
Mr. Ralph Rapson

RECEIVED

NOV 13 1974

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

P. O. Box 218
Excelsior, Minnesota 55331
November 8, 1974

HS	RE
REC'D	11-11-74
DB	ARCH
	MECH
	ELEC
	PLN
	I SCOTT
CC:	HAMMEL
	BERGET
	CERNY
	MAUPIN
FILE	A

Mr. Duane Blanchard
Health Sciences Architects & Engineers
2675 University Avenue
St. Paul, Minnesota 55114

Dear Mr. Blanchard:

I have been involved in moving these past several weeks and apologize for my delay in thanking you for your informative and courteous reply to my letter concerning facilities for the handicapped in the new Health Sciences Building at the University.

I appreciate your delineating the ways in which the architects have tried to overcome the architectural barriers in this particular building and must admit to my error in condemning the entire building. I do suggest, however, that there has to be a constant application of "empathetic creativity" to minimize these barriers. For example, why could not the toilet stall for the disabled be the first instead of the last in a line of stalls? And then could not access be through the side panel instead of the front to make it more easily accessible for wheelchairs? Another solution might be to have a separate individual restroom for wheelchair use only.

I envy you being in a position to make a positive contribution in this area.

Yours very truly,

Ruth Wittrak

Ruth B. Wittrak (Mrs. B.)

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HEALTH SCIENCES DEVELOPMENT PROGRAM
STATUS REPORT TO THE BOARD OF REGENTS
February 12, 1976

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UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

Health Sciences planning for expansion began formally in 1964 when, at request of the Regents, the Hill Family Foundation supported a study of health manpower needs in the Upper Midwest. Later that same year, the University President appointed a long-range health sciences planning committee which began a process resulting in major health sciences student enrollment expansion, curricular changes and the health sciences construction program now underway.

Program planning in response to changing demands in the health delivery system resulted in major enrollment increases for all academic units-- Medical School, School of Dentistry, College of Pharmacy, School of Nursing, and the School of Public Health--followed by planning of facilities to accommodate these larger numbers of students. The development plan which evolved was approved by the Regents of the University in 1967. During that Legislative Session, the development plan along with recommendations from manpower need studies was presented to the Legislature, which appropriated \$650,000 for land purchase and \$500,000 for preliminary physical planning.

Each year increases in student numbers have taken place since that time. These increases were made possible through increased operating support from the state and through federal capitation and other special federal funding programs. These enrollment increases have been accommodated through a combination of crowding in existing facilities and use of space in dormitories and noncampus rental space. Enrollment increases of 55% since 1968-1969 are as follows:

	1968-1969 Fall	1975-1976 Fall
Medicine	1,688	2,490
Dentistry	580	1,008
Public Health	243	477
Pharmacy	321	473
Nursing	330	520
Mortuary Science	97	89
TOTAL ENROLLMENT:	3,259	5,057

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The facilities development is proceeding as planned, although somewhat slower than originally projected because of delays in federal funding. Major elements of the plan include Building A, a 19-story building, funded through both federal and state sources. This building was occupied in early 1974 by the School of Dentistry (70% of space), the Medical School and the School of Public Health. Larger teaching areas are shared by all Health Sciences units.

Unit K/E was completed in early 1975. The lower portion of the building was funded by the state and represents a central receiving and distribution area for the entire Health Sciences. Upper floors of the five-floor building provide space for a Cardiovascular Research Center, with entire funding for the Center provided through the Variety Club and other private sources.

Unit B/C is a Medical School and hospital ambulatory care building and also houses patient support services. The building was funded through State, Federal and private sources. At the present time, excavation is complete and construction is scheduled to begin in the immediate future. While total space within the building is planned in detail, available funds at the present time limit completion under the current contract to 65.3% of the building, with the remaining portions to be completed as funding becomes available. No additional legislative request will be made for completion of this building.

Two major Health Sciences projects in the 1976 Legislative Capital Request include Unit F and remodeling of the Jackson-Owre-Millard (JOM) buildings. A portion of the JOM buildings (81,000 square feet of a total 220,000 square feet) is to be remodeled for use by basic sciences departments. While these departments are located within the Medical School, they provide basic sciences instruction for all units of the Health Sciences. The area to be remodeled is primarily space vacated by the School of Dentistry, after its move to Unit A. Terms of the federal funding commitment for JOM include the provision that total funds for remodeling of the building must be available by July, 1976. The cost estimate and anticipated sources of funds are as follows:

Jackson-Owre-Millard Remodeling

Cost

Remodeling	\$5,639,500	
Nonbuilding Costs	<u>1,859,988</u>	
Total		\$7,499,488

Funding

1973 Legislative Appropriation	\$ 200,000	
1975 HEW Grant Commitment	2,362,338	
1976 Legislative Building Request	<u>4,937,150</u>	
Total		\$7,499,488

The original Health Sciences development plan specifies Unit F to be occupied by the College of Pharmacy only and for the placement of the Nursing School in space to be vacated within the Mayo complex when Building B/C is occupied. That plan has been altered, based primarily on availability of federal funding. The change has been the elimination of a building originally planned for the School of Public Health, with the addition of Nursing as part of Building F. No federal funding has been or will likely be available for a Public Health building and federal funding has been granted for Nursing School expansion. Although total square footage has remained about the same, Public Health will expand within the existing Mayo building and the School of Nursing, rather than occupying space in Mayo, will be located in the new building with Pharmacy.

Unit F, as originally planned, will include some shared space to be used by all Health Sciences units. It will enable the College of Pharmacy, now occupying space in Appleby Hall, Millard Hall, Elliott Hall, and an apartment building,

to consolidate its functions within one building. This building will be located adjacent to other Health Sciences units, considered important to the objective of interdisciplinary training of health sciences students. Existing crowded conditions within the College of Pharmacy are reflected in that the Pharmacy full-year equivalent student numbers have increased 84% between 1970-1971 and the current year (1975-1976) estimate. Enrollment (head count) has increased from 321 in 1968 to 473 during the current year. Major curricula changes in the College of Pharmacy have also taken place, changing emphasis in the program from drug manufacturing to drug use, including the development of a strong clinical component and the clinically oriented Doctor of Pharmacy program.

The School of Nursing is now located in Powell Hall, originally designed as a dormitory, and in Frontier Hall, which serves primarily as a student dormitory. Nursing enrollment (head count) has also increased substantially, changing from 330 students in 1968 to 520 at the present time. Full-year equivalent student workload has increased from the 119 full-year equivalent students in 1970 to 247 full-year equivalent students (estimated) during the current year, an increase of 107%. Nursing space needs must also accommodate significant future increases in the nursing graduate program; nurses with graduate preparation are urgently needed in the State, primarily as faculty in schools of nursing. Currently, approximately 57% of faculty teaching in nursing schools throughout the State do not have a graduate degree. As the only graduate nursing program in the State and Region, the School is expected to provide these faculty. In addition, clinical specialists with graduate preparation as well as administrators of nursing service departments are needed in substantially larger numbers.

As with JOM remodeling, the Unit F federal grant commitment requires that total funding for the building be available by July, 1976. The cost and proposed sources of funding for Building F are as follows:

Building F

Cost

Construction	\$15,757,517	
Nonbuilding Costs	<u>5,191,421</u>	
Total:		\$20,948,938

Funding

1969 Legislative Appropriation	\$ 318,000	
1971 Legislative Appropriation	1,351,400	
1975 HEW Pharmacy Grant Commitment	4,288,811	
1975 HEW Nursing Grant Commitment	3,976,000	
1976 Legislative Building Request	<u>11,014,727</u>	
Total:		\$20,948,938