

HSAE

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

5 January 1979

JAN 9 Rec'd

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

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

RE: Unit B/C Phase III - Food Service Facility - Floor Two

Dear Mr. Maupin:

Reference is made to your letter of December 12, 1978 authorizing our office to proceed with the contract document phase of the subject project in accordance with Proceed Order no. 2. We do, however, wish to clarify our understanding of certain deviations from the Proceed Order, which have been discussed in various meetings during the schematic and design development phases of the project.

The Proceed Order defined the scope of the project to include a civil service locker room which was omitted during the design development phase. The original budgeted construction cost (excluding the food service equipment) was indicated as \$300,000.00. However, our most recent estimated cost dated November 14, 1978 was projected to be \$315,680.00. This cost, furthermore, did not allow provision for a civil service locker room.

A new project schedule was submitted for your review with our cover letter dated 14 December 1978, which indicated the beginning of construction document phase of 18 December 1978 and a construction completion of 19 December 1979. The Proceed Order indicated the construction work was to be substantially complete by 1 September 1979.

Although project deductive alternates have not been discussed in detail, we have developed possible choices and submit them for your consideration. We would appreciate your review and acceptance if you feel they are consistent with the program intent.

<u>Item Description</u>	<u>Estimated Deduct Amount</u>
A. Omit low dividing partitions in Dining Area.	\$ 3,700.00
B. Omit wood ceilings in Serving and Dining Areas and substitute plaster ceilings.	\$ 9,000.00
C. Omit neon feature lighting at Concourse Entrance.	\$ 1,500.00

Mr. Paul Maupin
5 January 1979
Page Two

<u>Item Description</u>	<u>Estimated Deduct Amount</u>
D. Omit quarry tile floor surface in Serving and Dining Areas and substitute vinyl asbestos tile.	\$ 5,300.00
E. Omit carpet floor surfaces in Dining Areas and substitute vinyl asbestos tile.	<u>\$ 2,300.00</u>
Total Estimated Deduct Amount:	<u>\$21,800.00</u>

We are continuing with the preparation of construction documents in accordance with our understanding of the project. Furthermore, we understand that the University's Food Service Consultant has reviewed and accepts the design development documents and concurs with their content as they relate to program, design, and equipment information. We have been informed, however, that Donald Herron, Environmental Health and Safety Officer, has certain concerns relating to the non-fixed furnishings in the Concourse Area. We request, therefore, an early transmission of these comments for our review.

We have attempted to relay as accurately as possible our understanding of the current project scope, estimated cost, and schedule. If you have further comment or wish to formally approve, ammend, or revise this correspondence, please notify us at your earliest convenience.

Sincerely,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.


Richard J. Carlson

RJC/kn

cc: Tom McCue
Bob Ledder
Jan Van Hemert



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

January 29, 1979

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

Subject: Unit B/C - Phase III
Food Service Facility

Dear Mr. Carlson:

In reference to your January 5, 1979 letter clarifying certain deviations from the Phase III Proceed Order, I would like to take this opportunity to address certain issues stated.

You are correct in your statements that the Health Sciences Planning Office deleted the civil service locker room, and yes, the estimated construction cost identified for the Phase III project has increased over the figure documented in the proceed order. However, I think you should realize that the estimated construction cost defined in the proceed order is prepared based on the 1971 design documents in conjunction with Impact's 1971 cost report escalated on a percentage basis to the current bidding climate. The Health Sciences Planning Office uses the above information as a guide, knowing full well your estimated construction costs will probably exceed the proceed order cost simply because you are developing your cost estimate from a revised program and updated design development documents. The future tenants of a given shell space area are fully aware that any change in design from the 1971 documents will probably result in a higher estimated construction cost prior to the architects involvement in a given project. We feel the tenants should have an opportunity to decide if deduct alternates are required based on their ability to cover the cost increases.

Therefore, in the future, please notify the Health Sciences Planning Office of your intent to include deduct alternates prior to including them into cost information documented to the tenants.

Very truly yours,

Robert Swanson

Robert Swanson
Asst. Health Sciences Planning Coordinator



UNIVERSITY OF MINNESOTA
TWIN CITIES

University Hospitals and Clinics
420 Delaware Street S.E.
Minneapolis, Minnesota 55455

MEMO

JAN 30 Rec'd

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

TO: Paul Maupin
FROM: Robert M. Dickler
SUBJECT: Unit B/C Food Service Facility
DATE: January 29, 1979

We recently became aware that the plans for the Food Service facility on the second floor of Unit B/C may incorporate elements which would present difficulties to University Hospitals and Clinics.

As you can see from the enclosed sketch, the proposed Food Service facility would extend "Paver Brick" out into the main corridors of the Unit B/C facility. As you will recall from our discussion several years ago, the Hospitals found such floor covering material unacceptable and it was removed from the main concourse area of the building for that reason. To reincorporate such materials in any of the public concourse areas would be a direct reversal of that decision and would present operational and other concerns to the Hospital and other users of the building.

6x6 Quarry tile with non-slip abrasive finish + 1/8" flush joints.

The second concern is the possibility of using part of the main concourse on the second floor of Unit B/C for a "sidewalk cafe." We have been advised on numerous occasions that the full width of that corridor is required to accommodate the volume of traffic which will use the buildings and pass from one building to another through the main concourse system. To intrude upon that area at this point of time seems inadvisable, especially with the prospect of Unit J being completed in the next decade and an additional amount of traffic being introduced into that main concourse area. An additional concern would be the appropriateness of having an eating facility in a corridor which is a link for inpatients and outpatients between the Mayo complex and Unit B/C.

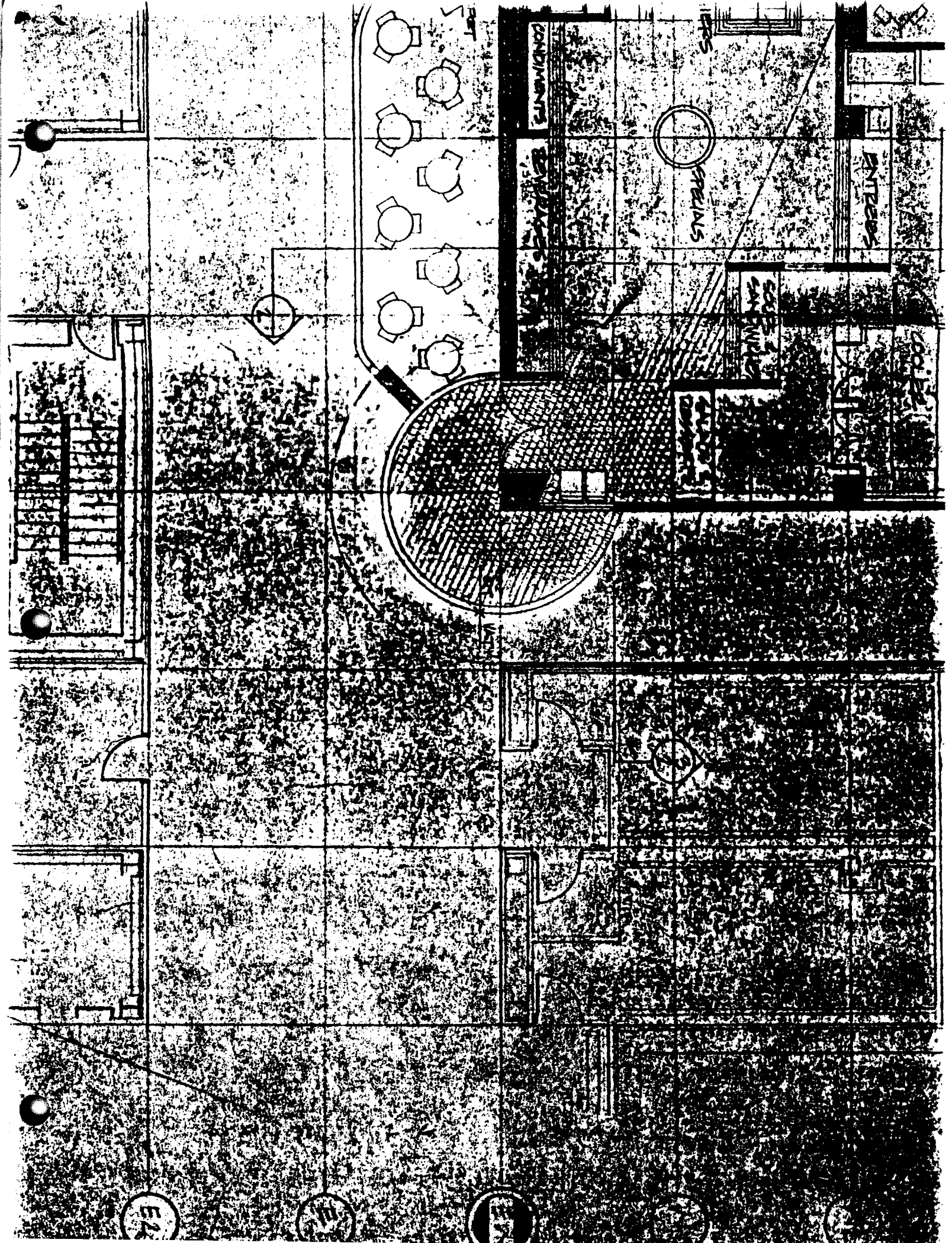
In light of these objections I will assume, unless I hear to the contrary, that you will take appropriate actions to eliminate these planned components from the Food Service facility development. We would be happy to participate in any discussions which you or University Food Services feel are appropriate in light of these concerns. Please feel free to contact me if you have any questions.

cc: John H. Westerman
Greg Hart
Greg Kujawa
Robert Ledder

SM

"J" will not connect to Unit B/C on level 2, but will use level 2nd.

Unit B/C is an outpatient structure, & the hospital is violating the cert. of need & likely occurring.





UNIVERSITY OF MINNESOTA
TWIN CITIES

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

January 31, 1979

TO: Robert M. Dickler
FROM: Paul J. Maupin *Paul*
SUBJECT: Unit B/C Phase III
Food Service Facility

This is in response to your memo dated January 29, 1979 regarding Unit B/C Food Service Facility.

We can understand how a lay person would misunderstand the current approved design development for food service. The floor finish in question consists of 6" by 6" quarry tiles with a non-slip abrasive surface with an eighth inch flush joints not "paver brick" as stated in your memo.

A sidewalk cafe is an excellent design refinement to the original approved Health Sciences Master Plan. We have reviewed this project with all necessary code officials and life safety people and with the State Fire Marshall. We have received their approval to proceed.

Regarding future traffic to Unit J, the second floor concourse will not continue to the proposed new hospital. The Health Science Master Plan indicates that Unit H at ground level will contain the hospital entry concourse and allied public facilities, allowing public access to our new proposed Hospital, Unit J.

However, in researching this information, we noticed two code items which were approved by the Hospital during design that perhaps you are not aware of, both being operational in nature.

Building B/C was constructed under a continuation of Building A business occupancy classification code. Therefore, as stated in your memo, if indeed in-patients and litters are utilizing the outpatient clinic services in building B/C, perhaps you are in violation of the building code and certificate of need. The original approved design for litter patient travel from Mayo to Masonic must be by way of Powell Hall not B/C.

Regarding the design of a service element, we believe the necessary people have been consulted in the design in the best interests of the University. Therefore, we shall continue unless we are otherwise directed by one of two University Vice-Presidents.

cc: John Westerman, Greg Hart, Greg Kujawa, Robert Ledder

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

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

MEMO TO: Unit B/C Phase III, Food Service
MEMO BY: Richard J. Carlson
SUBJECT: Contract Document Review Meeting
DATE: 12 March 1979
PRESENT: Paul Maupin, Patrick Manning, Robert Swanson and Dick Carlson

A meeting was held at the Health Sciences Planning Office on March 5 to review certain aspects of the extent, schedule and access provisions relating to the associated above ceiling work occurring on the First Floor.

All mechanical and electrical pipe penetrations through the Second Floor above will be protected by sleeves which extend 1-1/2" above the floor and include appropriate packing and sealant around the penetration. Floor drains mounted in the Second Floor above should contain provisions for protection against dripping into ceilings below.

University of Minnesota shops may delay installation of dog cages in B/C Room 1-372 Dog Room, and install cages in 1-396 only to allow the Phase III Contractor to complete his work in this area.

Either Corridor 1-51 or 1-55 should have complete User access at all times during this work duration. Dr. Manning indicated, furthermore, that it would be preferable that the Contractors complete work in the West Corridor 1-55 in the shortest time duration, since most User traffic is in this corridor. This work must be monitored and coordinated by University supervision during construction. It was determined that upon commencement of construction, the Contractor will have thirty (30) days to complete the work on the First Floor. The Architect will include the thirty (30) day provision in the specification.

Since the plaster dust generated by demolition and reconstruction may be pulled into the mechanical system, adequate filtration of the exhaust system must be provided. Corridor doors adjacent to the work must be taped and filters must be placed over the exhaust inlets.

Three (3) existing exit fixtures located in Corridor 1-55 and Room 1-46 will be relocated with the ceiling reconstruction as indicated on the attached drawing sheet dated February 2, 1979.

Unit B/C Phase III, Food Service
12 March 1979
Page Two

The Contractors storage area indicated to be on the First Floor of Mayo Garage will be omitted, since it may interfere with User operations. The Contractors storage area on the Second Floor of Mayo Garage may be moved to the area west of the entrance. HSP0 will review this and advise the Architects accordingly.

The Architect was reminded that the University may award additional contracts during the construction of Phase III. The specification, therefore, will include provision for allowing other contractors to utilize the Third Floor Plaza access and the construction elevator during the duration of the Phase III Project.

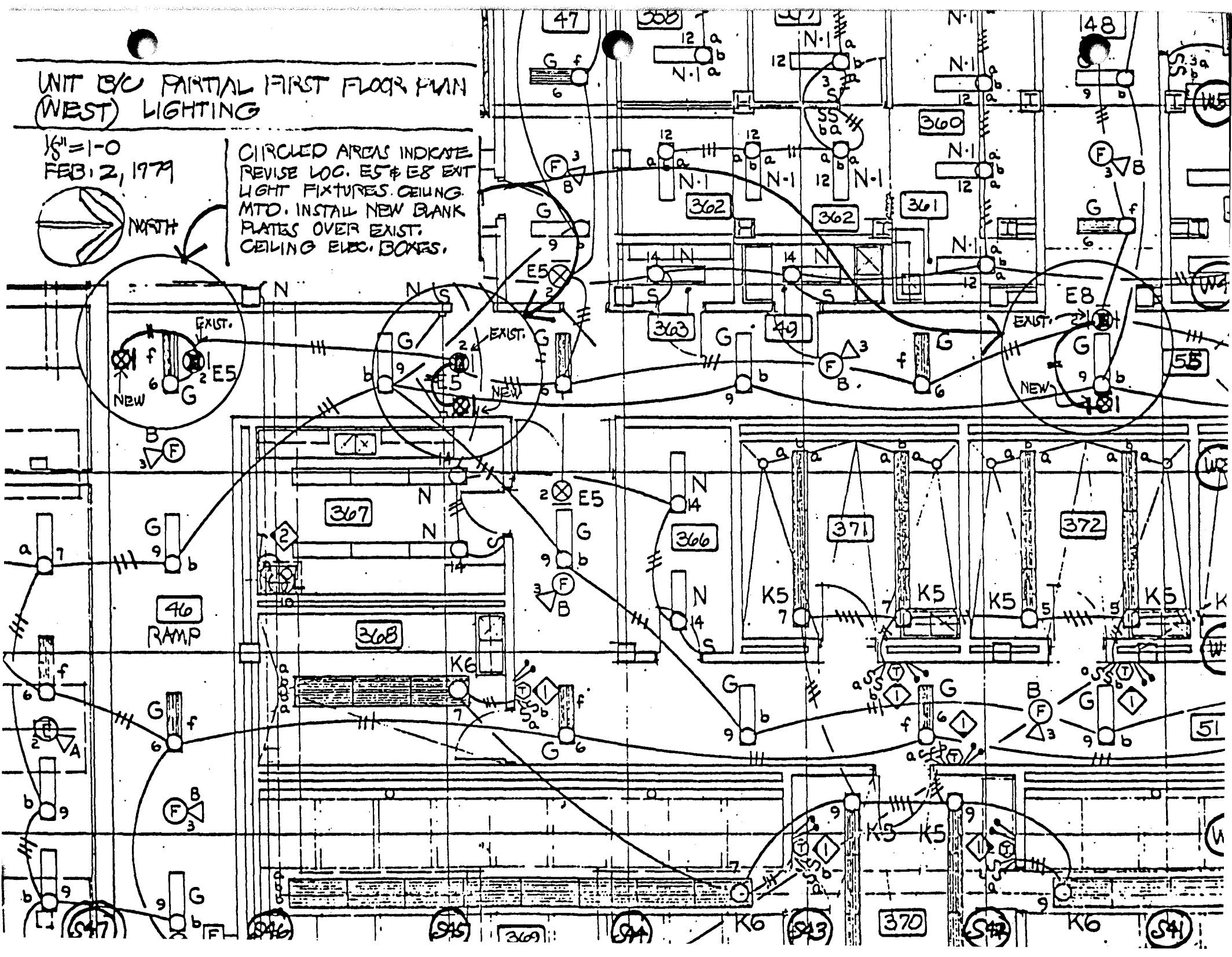
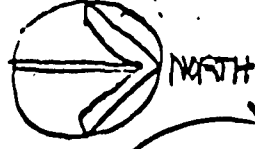
cc: Paul Maupin ✓
Paul Kopietz
Mike Pederson
Bill Poppert
Jim Butler

kn

UNIT B/C PARTIAL FIRST FLOOR PLAN (WEST) LIGHTING

1/8" = 1'-0"
FEB. 2, 1979

CIRCLED AREAS INDICATE REVISE LOC. E5 & E8 EXT LIGHT FIXTURES. CEILING MTD. INSTALL NEW BLANK PLATES OVER EXIST. CEILING Elec. BOXES.



File



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

March 28, 1979

TO: Mr. Tom McCue
University Food Services

FROM: Robert Swanson *RS*
Asst. Health Sciences
Planning Coordinator

SUBJECT: Unit B/C - Phase III
Food Service Facility
Second Floor West

Attached please find a copy of Mr. Kent Rees' March 22, 1979 memorandum, outlining his concerns relative to the food service equipment layout and function. Since these questions relate directly to the food service equipment design as prepared by your food service equipment consultant, I feel it would be appropriate that you and/or your food service consultant respond to items one through four as stated in Mr. Rees' memorandum.

As for the epoxy paint question, the Health Science Architects and Engineers have been asked to respond relative to the chemical makeup of the specified Pratt and Lambert "Palgard Epoxy Coating".

RS:mg

cc:File
Mr. Kent Rees
Mr. Keith Carlson
Mr. Richard Carlson



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

MAR 27 Reald
UNIV. OF MINN.
HEALTH SCIENCES
PLANNING OFFICE

March 22, 1979

Memorandum

To: Robert Swanson, Health Sciences Planning Office, 4102
Powell Hall, East Bank Campus

From: Kent A. Rees, Senior Environmental Health Specialist, and
Keith Carlson, Industrial Hygienist, Department of Environ-
mental Health and Safety

Subject: Preliminary Plan Review - Food Service Unit BC

The proposed food preparation and serving area which is to be constructed in Health Sciences Unit BC, second floor, has been reviewed. The basic layout appears to be satisfactory and the equipment, as installed, should meet all current codes. I would, however, like to raise the following questions and make the following recommendations:

1. At the mechanical dishwasher, there is one shelf for the storage of clean dishwasher racks. This shelf is approximately 3'4" long. From past experience, there has been a problem of storing dishwasher racks on the floor. With only one small shelf, I question the adequacy of the space provided.

2. Are all soaps and rinses to be automatically injected into the mechanical dishwasher? Also, I see no location where back-up supplies of detergent for the mechanical dishwasher will be stored within the vicinity of the dishwasher.

3. There appears to be only one portable rack for the storage of the clean pots and pans and other utensils which will be washed. This is located at the clean dish end of the mechanical dishwasher. At the dirty dish end, there appears to be no location for the accumulation of dirty pots and pans before they are washed. Are they going to be stored on portable racks within the walkway area, or are they to be accumulated in the scraping sinks located at the dirty dish end of the dishwasher?

Items 1 through 3 are brought to your attention due to what we have viewed as problems in other food establishments which have been recently constructed, i.e., inadequate space around the area of the mechanical dishwasher for the storage of soiled and clean pots and pans, etc. These areas have been a continuous source of recommendations for cleaning and sanitation. If possible, this area should be enlarged or redesigned so as to provide some working space.

March 22, 1979

4. A dry chemical fire extinguisher system will be used in the hood above the grills and fryolaters. The cylinders for this fire extinguisher equipment will need to be installed in a cabinet with smooth, washable walls.

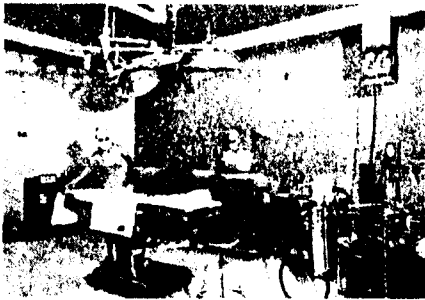
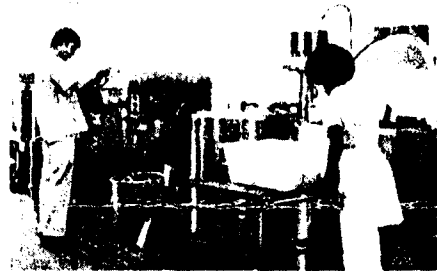
The specifications call for a glazed wall coating which shall be "a polyester epoxy or polyester-polyurethane system." The use of epoxy paints that are solvent-based causes the vast majority of complaints from adjacent areas when construction is in progress. The solvent (generally xylol) permeates into occupied areas, at which point personnel become concerned about the unknown odor; and if concentrations are high enough, headaches and nausea may occur. These symptoms have occurred in the past regarding other construction projects, including Unit BC and JOML.

Our department strongly recommends that only water-based epoxy coatings be used when the possibility of contamination of occupied areas exists. Enclosed is an advertisement for such a water-based epoxy, manufactured by Pittsburgh Paints.

If you have any questions or comments regarding this memorandum, please call 373-3167.

KAR&KC:skh

Enclosure



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...even in odor sensitive areas!

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We think that our *Pitt-Glaze* WATER BASED Acrylic-epoxies are the finest

products of this type on the market. To the best of our knowledge they have higher volume solids than any other... and give excellent hiding, and often one-coat coverage. Ours includes a patented vehicle process, too... some thing no one else has at this time.

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repeated washings and scrubbing, and have a U.S. Department of Agriculture acceptance*, and you have a combination that's outstanding for your needs.

Call your Pittsburgh Paints Sales Representative or write us for more details: PPG Industries, Inc., One Gateway Center, 3-W Pittsburgh, Pa. 15222.

*For use on structural, non-food contact surfaces in official establishments operating under the Food Safety and Quality Service of the Meat and Poultry Inspection program.

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Circle No. 412 on Data Card for more information

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

9 April 1979

APR 17 1979

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

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

RE: Unit B/C Phase III
Food Service Facility
Floor Two

Dear Mr. Maupin:

Reference is made to Robert Swanson's attached letter dated 22 March 1979 requesting resubmission of the Contract Documents prior to issuance for the bidding phase.

Thus far, we have received University of Minnesota Contract Document review comments from the following personnel:

<u>Review Comments</u>	<u>Date</u>
Kent A. Rees Environmental Health and Safety	29 December 1978
Donald Herron Environmental Health and Safety	23 February 1979
Ron Holden Building Inspector	26 February 1979
O. J. Nelson Physical Planning	28 February 1979
Robert Swanson Health Sciences Planning Office	6 March 1979
Tom McCue University Food Services	13 March 1979
Robert Swanson Health Sciences Planning Office	19 March 1979
Kent A. Rees Environmental Health and Safety	22 March 1979

Mr. Paul J. Maupin
9 April 1979
Page Two

In addition to these review comments, we attended a meeting with Dr. Patrick Manning at the Health Sciences Planning Office on 5 March 1979 to review the access provisions and above ceiling work on the First Floor. These comments were incorporated in my memorandum dated 12 March 1979.

We understand further comments are forthcoming from the University of Minnesota Engineering and Construction Division relating to the Mechanical and Electrical Documents.

We have incorporated revisions necessary to satisfy certain comments as they have been transmitted to our office. We will, however, upon receiving all review comments, resubmit the contract drawings to you as requested in Robert Swanson's letter within a reasonable time.

Sincerely,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.



Richard J. Carlson

RJC/kn

cc: John Patterson



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

March 22, 1979

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

Subject: Unit B/C - Phase III
Food Service Facility
Second Floor West

Dear Mr. Carlson:

Since several of the previous University contract document review comments relate to critical design elements "positive drainage to floor drains, smoke curtain details, Quarry tile flooring, etc.", the Health Science Planning Office requests that two complete sets of the final contract documents be submitted to this office for a final review prior to releasing this project for bids. If you have any questions regarding this directive, please feel free to contact me at your convenience.

Very truly yours,

Robert M. Swanson, Jr.

R. M. Swanson, Jr.
Assistant Health Sciences
Planning Coordinator

RMS:mg
File



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

May 23, 1979

UNIT B/C

FACTS AT A GLANCE

TOTAL PHASE I PROJECT COST (Basic Construction)	\$ 37.5 million
This amount represents the completion of construction of Unit B/C and includes 64% of programmed space which is currently occupied.	
Exterior Envelope Construction cost per square foot	\$ 26.00
Total amount of floor space in Unit B/C	577,000 square feet
Total floor space funded and programmed for occupancy	372,000 square feet
Percentage of funded floor space programmed for occupancy	64%
Total balance of floor space to be completed	205,000 square feet
Medical School Shell Space to be completed with private funds	88,838 gross sq. feet
Medical School net assignable square feet for departmental use	64,342 net sq. feet
Percentage of net assignable square feet to gross square feet. The 25% differential consists of corridors, elevator space, custodial, mechanical and rest room areas.	

GOVERNMENTAL APPROPRIATIONS FOR UNIT B/C CONSTRUCTION:

1. Minnesota State Legislature Appropriations

a. First appropriation 1969	\$ 1.0 million
b. Second appropriation 1971	1.1 million
c. Third appropriation 1973	<u>14.0 million</u>

Total \$16.1 million

2. Federal Appropriation - 1974 8.0 million

TOTAL GOVERNMENT SUPPORT \$24.1 million

PHASE I - BASIC CONSTRUCTION: \$37.5 million

1. Government Support \$24.1 million

2. University Resources & Gifts 13.4 million

Total \$37.5 million

PHASE II - COMPLETION OF SHELL SPACE: \$22.5 million

1. University Hospitals space \$11.3 million

2. Medical School Space 11.2 million

Total \$22.5 million

Finishing costs for Unit B/C are shared by the University Hospitals and the Medical School.

The patient care (clinic) areas will be funded under the auspices of the University Hospitals. The costs of constructing these clinics will be offset from clinic patients fees and individual costs.

The Medical School's share of \$11.2 million to complete their teaching and research space must be raised from the private sector in order to fulfill its continuing obligation to provide the finest quality of medical education and historically exceptional research programs.

Unit B/C is a sixteen story structure with thirteen floors above grade.

Unit B/C Facts at A Glance
Page Three

UNIVERSITY OUTPATIENT CLINICS - UNIT B/C:

Floor 9	Ophthalmology Clinic
Floor 8	Audiology Clinic ENT Clinic
Floor 4	Pediatric Clinic
Floor 3	Family Practice Clinic Neurology/Phyciatry Clinic
Floor 2	Medicine Clinic Nutrition Clinic
Floor 1	EKG Clinic Amblatory Surgery/PAR Treatment Proctology Clinic Radiology Clinic Obstetrics & Gynecology Clinic Orthopedic Clinic Surgery Clinic Urology Clinic



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

May 29, 1979

PHILLIPS-WANGENSTEEN BUILDING

UNIT B/C

FACTS AT A GLANCE

Phase I Project Cost (Basic Construction)	37.5 million
Phase I completed 64% of the programmed space available for development.	
Exterior Envelope Construction per square foot	\$26.00
Unit B/C total gross square feet including program and shell space	577,000
Unit B/C total gross square feet funded and programmed for occupancy in Phase I	372,000
Total gross square feet of shell space in Phase I	205,000
Medical School Shell Space to be completed (gross square feet)	87,218
Medical School net assignable square feet (72.5% of 87,218 gsf)	63,233
Hospital Shell space to be completed (gross square feet)	73,056
Hospital Net assignable square feet (72.5% of 73,056 gsf)	52,965
Health Sciences related functions shell space to be completed	45,047

GOVERNMENTAL APPROPRIATIONS FOR UNIT B/C CONSTRUCTION:

1. Minnesota State Legislature Appropriations	
a. First appropriation 1969	\$ 1.0 million
b. Second appropriation 1971	1.1 million
c. Third appropriation 1973	<u>14.0 million</u>
Total	\$16.1 million
2. Federal Appropriation - 1974	<u>8.0 million</u>
TOTAL GOVERNMENT SUPPORT	\$24.1 million
PHASE I - BASIC CONSTRUCTION:	<u>\$37.5 million</u>

1. Government Support	\$24.1 million
2. University Resources & Gifts	<u>13.4 million</u>
Total	\$37.5 million

PHASE II - COMPLETION OF SHELL SPACE: \$22.5 million

1. University Hospitals Space	\$11.3 million
2. Medical School Space	<u>11.2 million</u>
Total	\$22.5 million

Finishing costs for Unit B/C shell space will be shared by the University Hospitals and the Medical School.

The patient care (clinic) shell areas will be funded under the auspices of the University Hospitals. The costs of constructing these clinics will be offset from clinic fees and individual costs.

The Medical School's share of \$11.2 million to complete their teaching and research shell space must be raised from the private sector in order to fulfill its continuing obligation to provide the finest quality of medical education and historically exceptional research programs.

Unit B/C is a sixteen story structure with thirteen floors above grade.

Unit B/C Facts at a Glance
Page Three

PHILLIPS WANGENSTEEN BUILDING:

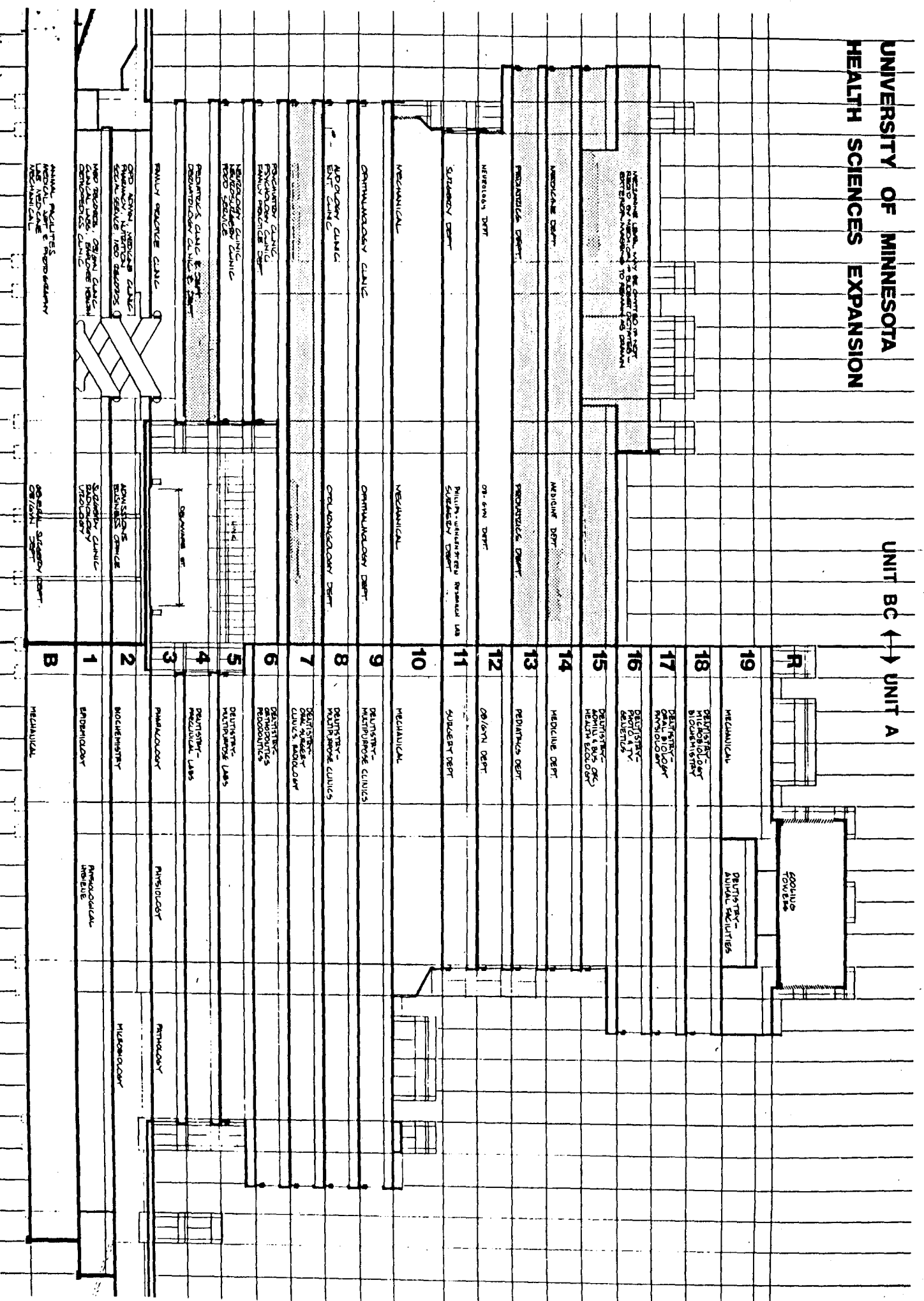
		<u>Occupied under Phase I</u>	<u>Phase I Shell Space</u>
Floor 15	Food Services		x
	Health Science Space		x
	Mechanical Equipment Room	x	
Floor 14	Department of Medicine		x
Floor 13	Department of Pediatrics		x
Floor 12	Department of Neurology	x	
	Department of Ob/Gyn Research	x	
Floor 11	Department of General Surgery	x	
	Owen/Wangensteen Labs	x	
Floor 10	Mechanical Equipment Room	x	
Floor 9	Ophthalmology Clinic	x	
	Department of Ophthalmology		x
Floor 8	Audiology Clinic	x	
	ENT Clinic	x	
	Department of Otolaryngology		x
Floor 7	Hospital Dental Clinic		x
Floor 6	Department of Family Practice	x	
	Psychiatry Clinic		x
	Psychology Clinic		x
	Health Sciences Space		x
Floor 5	Food Services		x
	Neurology Clinic		x
	Neurosurgery Clinic		x
	Health Science space		x
Floor 4	Department of Dermatology		x
	Department of Pediatrics		x
	Pediatric Clinic	x	
	Dermatology Clinic		x
	Health Science Space	x	

PHILLIPS WANGENSTEEN BUILDING:

		<u>Occupied Under Phase I</u>	<u>Phase I Shell Space</u>
Floor 3	Family Practice Clinic	x	
Floor 2	Food Service		x
	Medicine Clinic	x	
	Nutrition Clinic	x	
	Medical Records		x
	Pharmacy	x	
	OPD Administration		x
	Business Office		x
	Health Science space	x	
	Auditorium	x	
Floor 1	Medical Records		x
	EKG Clinic	x	
	Amblatory Surgery/PAR	x	
	Proctology Clinic	x	
	Radiology Clinic	x	
	Obstetrics & Gynecology Clinic	x	
	Orthopedic Clinic	x	
	Surgery Clinic	x	
	Urology Clinic	x	
	Animal Hospital	x	
	Laboratory Medicine	x	
Mezzanine	Microbiology Animal Research	x	
Basement	Medical Arts & Photography	x	
	Department of Laboratory Medicine	x	
	Mechanical Equipment Room	x	
	Department of General Surgery		x
	Department of Ob/Gyn		x
	Department of Medicine		x
	Animal Hospital		x

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

UNIT BC ← → UNIT A



HSAE

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

29 June 1979

JUL 2 Rec'd

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

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

RE: Unit B/C Phase III
Food Service
Floor Two

Dear Mr. Maupin:

We wish to report to you the present status of the subject project.

Our recent response to University contract document review comments was contained in our letter of May 17 and an update of the probable cost summary was transmitted in our letter of May 21. We assume the information was acceptable since, to our knowledge, both letters were received without suggestions of further revision or reductions in project scope. The neon feature lighting system, however, was omitted upon your request.

On June 13, Robert Swanson informed us that the project was to be issued for bid as soon as possible. The documents were printed and made available to bidders on June 21. The time for receiving of bids was agreed to be 2:00 P.M., July 17, 1979.

Currently, we have three prime contractors, Arkay Construction Co., Barr Nelson, Inc., and Cederstrand August Co., bidding the project. In addition, we are personally contacting other prospective bidders in an effort to stimulate more interest in the project.

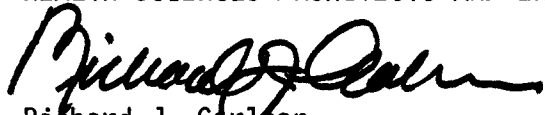
Recent reports to our office indicate that presently there seems to be a great deal of work in the metropolitan area which results in contractors being very selective in choosing work to bid. In addition, manpower shortages of certain skilled trades are apparent due to this large volume of work now being constructed.

Mr. Paul J. Maupin
29 June 1979
Page Two

Since bids are due July 17, we will plan to issue the last addendum approximately July 12. We would suggest that minor changes or User revisions, if any, be transmitted to our Office early in the week of July 9.

Sincerely,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.



Richard J. Carlson

RJC/kn

cc: John Patterson

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

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

SEP 27 1979

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

MEMO TO: Unit B/C Phase V
MEMO BY: Paul Finsness
SUBJECT: Code Review Meeting Held at HSPO this Date.
DATED: 25 September 1979
PRESENT: Robert Swanson, Greg Kujawa, John Patterson, Terry Duffy, Don Herron,
Richard Carlson, Paul Finsness

The preliminary design development plans for Floors 5, 7 and 15 were reviewed by the
aforementioned. The discussion resulted in the following comments:

Floor 5

- Swing the door at the east side of the Oncology reception into the corridor for exiting. Provide electric strikes for security and an exit sign as required.
- Provide a motorized rolling shutter at the EEG and Blood Donor Reception Counter.
- Swing the door separating Blood and Oncology to Oncology.
- Swing the doors in the Bridge at Unit A into Unit A. Study the swing of the doors at Unit C.

Floor 7

- Provide a one hour separation wall at labs with chemical fume hoods.
- Provide C label doors at one hour separation walls that do not occur along exit corridors.
- 2. Provide two ways of exit at hazardous labs. Use a knock-out panel or half-door in lieu of one full height door if the room plan does not permit otherwise. *9/27/79 - use full door in lieu of knock-out panel - standard code.*
- Provide "toilet type" exhaust at the CO₂ Room. Room to be negative pressure. *9/28/79 Gohar P well make this a full door*
- Below-door air leakage is adequate in lieu of door louvers at the O₂ Room of the Human Preservation Lab. *D.D. Planning B*
- Use minimal foam furniture in the Patient Consul area. Use nonflammable materials as this area is in the corridor.
- Don Herron and colleagues will review the activities of the Bio-Hazard labs for inclusion of them in the one hour separation requirement.

Unit B/C Phase V
25 September 1979
Page Two

Floor 7-Stage 1

Provide a corridor to the stair tower at the SW corner of Unit B/C.

Swing doors at shell space areas into the exit corridors.

Lock the door of the Oven Room that goes into the shell space.

Floor 15

Provide eyewash fountains as required, i.e., Virology Labs.

Exhaust CO₂ Room as on Floor 7.

The MTS can be located on the corridor if it is separated from the corridor with a rolling shutter and placed on the smoke detection system.

The corridor in the link to Unit A along the west wall will be completely finished - walls, floors, ceiling.

cc: Paul Maupin ✓
John Patterson ✓

kn



UNIVERSITY OF MINNESOTA
TWIN CITIES

Paul Maupin
Office of the Assistant Vice President

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

October 16, 1979

OCT 18 Rec'd

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

TO: Supervisors

FROM: Clinton N. Hewitt *Clinton N. Hewitt*

The following are questions that I would like you to respond to as part of the budget data you compiled last week.

1. What do you perceive your functions to be?
2. How are resources being divided among functions?
3. What improvements in efficiency have you accomplished in the past few years?
4. In your judgment where can you effect savings by increased efficiency?
5. If you can effect savings through increased efficiency where would you use these funds in your unit if permitted to do so?
6. If you must retrench, where would you recommend that this occur in your unit?
7. If a short term commitment of funds were made, are there longer term savings which could be achieved? Explain.

CNH/hd

DRAFT

October 23, 1979

TO: Clint Hewitt
FROM: Paul J. Maupin
SUBJECT: Budget data

In response to your request for information dated 10/16/79 concerning the budget information submitted to you by the Health Sciences Planning office, we submit the following information by item number:

1. The function of the Health Sciences Planning Office is to assist the Health Sciences vice presidents and deans in the planning, design and monitoring of all Health Sciences projects. It is vital due to the technical nature and potential human health hazards involved in these areas that this office be closely involved from conception through occupancy. In addition we have been involved in the monitoring of budgets on these projects as well as assisting in grant application and all other areas of services as related to the Health Sciences Community at the University.
2. Each project is assessed a percentage fee for salaries and expenses of the HSPO. ~~XX~~ These funds are used as needed for each fiscal year.
3. Professional staff with many years experience, as well as more complete records and quality control.
4. We are operating at a high level of efficiently with the staff and funds available.
5. Were funds to be made available, it would seem that the logical way of increasing efficiency would be to upgrade the salaries of staff to meet

their professional qualifications thereby creating an atmosphere of productivity within each individual.

6. It is not possible at this time to retrench or make any further cutback in the Planning office at this time without creating monetary losses to the Health Sciences Projects.
7. If short term funds were to be committed at this time, long term savings for the University and the Health Sciences Community could be effected by research into energy conservation, human health safety, etc as relates to the planning and design of the future projects or renovations of current structures.

UNIVERSITY OF MINNESOTA
ENGINEERING AND CONSTRUCTION DIVISION
MINNEAPOLIS, MINNESOTA 55455

CONTRACT PROCEDURES FOR THE
Health Sciences Expansion
Unit B/C Phase IV-C
Department of Otolaryngology
University of Minnesota, Minneapolis Campus
Project No. 144-79-0142

This memorandum has been prepared so that all parties involved in the project will have a full understanding of the procedures necessary as part of the construction. It is essential that each party involved review the requirements so that he can determine the extent of his responsibilities and authority in respect to the project.

The designated Architect/Engineer for this project is Health Sciences Architects and Engineers, Inc., 2829 University Avenue S.E., Minneapolis, MN.

The Assistant Vice President of the University Physical Planning Office has designated as his representative for the University on the project, as noted in the plans, specifications, contracts and elsewhere the following:

- Director of Engineering & Construction.....Paul Kopietz
- Assistant Supervising Engineer.....Jack Geretz
- Senior Construction Superintendent.....A. Walter Johnson
- Resident Construction Superintendent.....Tony Baron/*GOLDY DAHLEN*
- Mechanical Construction Superintendent.....Jim Hastert
- Electrical Construction Superintendent.....Wally Mellum

The University of Minnesota Purchasing Department has issued a "letter of intent" to each prime contractor. This letter gives the contractor the authority to proceed with the work until such time as a formal contract and related documents are issued (provided that the following necessary conditions have been met).

1. Supervision

The University of Minnesota has the primary responsibility for supervision and will have a Resident Construction Superintendent on the job to coordinate all phases of construction and work with the Architect/Engineer.

The Resident Construction Superintendent has the authority to make normal day-to-day decisions in the progress of the work. Any decisions affecting quality of work or change in price must be taken up with the University through the Assistant Supervising Engineer.

2. Submissions Required of Contractor(s)

A. Insurance

Submit in triplicate to Mr. Roger G. Erne, Room 18, Folwell Hall, University of Minnesota, Minneapolis, Minnesota, 55455, prior to the starting of any work, certificates of insurance in conformance with the General Conditions, Paragraph 11.

NO WORK WILL BE PERMITTED until such time as this submission is made and approved.

B. Contracts and Performance Bond

The University of Minnesota Purchasing Department will issue "Agreement" and "Contractor Bond" forms to each prime contractor. These are to be completed and returned within two weeks to the Purchasing Department, Room 550, Administrative Services Building, University of Minnesota, Minneapolis, Minnesota, 55455, to the attention of Mr. Robert D. James. Refer to the General Conditions, Paragraph 7.5 for information relative to the Bond.

C. Sub-Contractors

Submit a minimum of five copies of a complete list of all sub-contractors to the Architect/Engineer within 14 days after the "Notice to Proceed". The Architect/Engineer will forward his recommendation for concurrence to the Owner. Refer to the General Condition, Paragraph 5.2 and section 01300, Paragraph 2.4.

D. Materials

Submit a minimum of five copies of a complete materials list to the Architect/Engineer within 14 days after the "Notice to Proceed". The Architect/Engineer will forward his recommendation for concurrence to the Owner. The list must include the manufacturer, model or type and similar data. Refer to Section 01300, Paragraph 2.3.

E. Cost Breakdown

Submit a minimum of five copies of the cost breakdown to the Architect/Engineer at least two weeks prior to the first application for payment. The Architect/Engineer will forward his recommendations for concurrence to the Owner. This is to be submitted on the University's Business Form 197, which is the Partial Payment Request for construction contracts. Refer to the General Conditions, Paragraph 9.2.

F. Progress Schedule

Submit ten copies of a progress schedule to the Architect/Engineer within 15 days after "Notice to Proceed". The Architect/Engineer will forward his recommendations for concurrence to the Owner. Refer to Section 01200, Paragraph 4.3.

G. Design Mix (where applicable)

Two weeks prior to the placing of any concrete, the Contractor is to also submit two copies of the design mix to the Architect/Engineer for their review and approval. The Architect/Engineer will forward his recommendations for concurrence to the Owner.

3. Shop Drawings

The following procedures shall be followed in submittal, approval and distribution of shop drawings for this project.

The prime contractors shall submit blue-line prints or brochures in sufficient number to provide record copies for the University, the Architect, Consulting Engineers, plus the required copies for themselves and their suppliers or sub-contractors and in certain cases for the other prime contractors. A sepia transparency may be submitted in lieu of blue-line prints to be returned to the Contractor for his use and distribution, but copies for the University, the Architect, and Consulting Engineer shall be blue-line prints.

Architectural and Auditorium Seating Shop Drawings

Submission to Architect/Engineer in five (5) copies minimum (or sepia). Approved drawings shall be distributed as follows:

- Two (2) copies to Rog'Erne, University of Minnesota
- One (1) copy retained by Architect/Engineer
- Two (2) copies minimum (or sepia) returned to Contractor

Structural Shop Drawings

Submission to Architect/Engineer in six (6) copies minimum (or sepia).

- Two (2) copies to Rog'Erne, University of Minnesota
- One (1) copy retained by Architect/Engineer
- Two (2) copies minimum (or sepia) returned to Contractor
- One (1) copy retained by Structural Engineer

Mechanical, Electrical and Sound System and Vertical Transportation

Submission to Architect/Engineer in seven (7) copies minimum. The Contractor shall submit seven (7) copies marked "Preliminary" to the Architect/Engineer who will retain 5 copies and will send 2 reviewed copies to the University (Vic Scott) for review. University Engineers will review these two copies, mark any changes or comments; stamp the drawings "Reviewed", retain one copy for University files, and return the other preliminary copy to the Architect/Engineer. The Architect/Engineer will mark up his retained copies accordingly and distribute them as follows:

- One (1) copy to Engineer
- One (1) copy to Architect/Engineers' files
- Three(3) copies returned to Contractor

The Contractor shall then make any changes or adjustments called for by the University Engineers and shall resubmit a minimum of three (3) copies marked "Final" to the Architect/Engineer. The Architect/Engineer shall then submit two (2) copies marked "Final" to the University (Rog'Erne) for review, and shall retain the other for his files. The University Engineers will review

the final copies to assure that changes requested have been made. Both final copies submitted to the University shall be retained by the University unless some difficulty is discovered.

If the prime contractors wish to have more than two copies of approved brochure submissions, the number of copies submitted initially should be increased accordingly.

Shop drawings sent to the University shall be marked "Final" if they are not to be re-submitted by the Contractor, and "Preliminary" if re-submittal is required.

4. Change Orders

The Architect/Engineer will submit a minimum of five copies of the Change Order to the Assistant Supervising Engineer. Attach a copy of the University's Change Order Transmittal form to each copy of the Change Order, including all information requested on the University's transmittal form. Change Orders submitted without sufficient information will be returned to the Architect. Change Orders will not be considered unless they include the following information: Who (person) requested the change; the reason for the change; and a complete breakdown of the cost of the change. Complete information must be included for each of the five copies of the Change Order. Change Order Transmittal forms are available from the University upon request. See the General Conditions, Paragraph 12.

5. Partial Payment

Submit five copies of the monthly estimate for payment to the designated Resident Construction Superintendent at the project site. The Superintendent will check all estimates for correctness as to quantities completed and forward four copies to the Assistant Supervising Engineer. The University will review these, and, if correct, will issue a check for payment. Refer to Paragraph 9 of the General Conditions. This estimate for partial payment shall follow the standard form used by the University on all construction contracts. The forms will be provided by the University upon request.

6. Definition of Responsibilities

A. University of Minnesota - Materials, Cost and Quality Decisions

The plans and specifications, as originally prepared by the Architects and Engineers, along with all Addenda and Change Orders when officially processed, are the basis of the contract between the Owner, namely the University of Minnesota, and the Contractors and others concerned.

It should be emphasized that agreements made by the Architect, Mechanical Engineer, or other parties without the full knowledge and consent of the University representatives may not be recognized as valid at the time of final settlement of these contracts. All decisions regarding substitutions,

quality of work, or involving a cost change must be approved by the Architect/Engineer. Such questions should be submitted to the Assistant Supervising Engineer at the University through the office of the Architect/Engineer or directly if necessary for expediency.

If the Contractors or the Architect/Engineer proceed without the University approval on the assumption that it will be approved, they face the possibility of no payment for this work.

It is assumed that all departments of the University associated with this project have approved the plans and specifications which are the basis of the contract. Individuals finding it necessary to request changes shall make their desires known to the Resident Construction Superintendent for direction. Under no circumstances shall personnel of the University negotiate with the contractors or suppliers.

Contractors or suppliers seeking approval of materials or desiring information not available on the job shall get in touch with the office of the Architect/Engineer.

B. Architect/Engineer - Design, Structure Decisions and Interpretation of Documents

The Architect/Engineer is to approve all decisions regarding structural considerations or design features. Design features include items of size, appearance, capacity, function, durability, performance, etc., of the General, Mechanical or Electrical items. Prior to performing or modifying any phase of work regarding design or structure, approval of the Architect/Engineer is to be received. Questions must be directed to the University or to the Architect/Engineer.

As the job progresses, the departments involved will visit the site and often discuss possible problems or changes. This is natural, but the departments and Contractors are reminded that any agreements or changes made on the job will not be recognized as valid. All department requests for changes must be made in writing to ~~Mr. Paul E. Koptetz.~~

PAUL MAUPIN

7. Progress Meetings

The University of Minnesota will ^{CONTRACTOR} schedule a minimum of one progress meeting per month. All contractors are expected to have a representative attend these meetings. ~~The Architect/Engineer~~ will send a representative (who will keep the notes of the meeting). The Architect/Engineer will be responsible for having the minutes of the meeting typed and distributed.

8. Building Permits

The University of Minnesota Building Official has assigned Permit No. to this project. No other permits will be required for work on University owned property. (Proper permits must still be obtained from the City for work on their property such as sewer connections, street work, etc.). The permit will be posted in the Construction Superintendent's Office.

In addition to the permit described, the Electrical Contractor will be responsible for submitting a University of Minnesota Request for Electrical Inspection properly filled out and signed to the Office of Electrical Inspection prior to the installation of electric work or wiring. Forms for, and coordination of this requirement will be by the Electrical Construction Superintendent.

9. Electric Service Outages (where applicable)

The Contractor is urged to pay close attention to the guidelines in the specifications. In particular, please note the requirement for a two week notice prior to an outage.

As you may be aware, the University Primary Electric Distribution Services are a complex and far-reaching system. This system affects many other University buildings and facilities in addition to this project, and therefore, must be treated as a utility system.

Preparation of outage schedule by our division requires careful scheduling involving University Physical Plant forces, scheduling interruptions of power to various University buildings and facilities, providing temporary services to University buildings and facilities, and preparation of detailed switching procedures to assure a safe operation.

These represent some of the factors involved, and therefore necessitate the two-week notice requirement so that all of these arrangements can be carried out.

10. Equal Employment Opportunity

Equal Employment Opportunity is a contractual obligation for this project. All prime contractors, unless exempted by Paragraph 15 of the General Conditions, will submit to the Owner two (2) copies of an acceptable Affirmative Action Program in regard to Equal Employment Opportunity. The program is to be submitted upon request of the Office of Equal Opportunity and Affirmative Action at the University of Minnesota.

11. Wage Rates

The Contractor is required to post current wage rate schedules on all projects over \$2500.00. Posting shall be in a conspicuous location accessible to all employees. See Paragraph 16 of the General Conditions.



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

January 9, 1980

Mr. John Patterson
The Architects Collaborative, Inc.
46 Brattle Street
Cambridge, Mass. 02138

Subject: Phillips-Wangensteen Building
Unit B/C - Phase V - 2

Dear John:

In reviewing the Design Development Documents for Phase V, and in particular the 15th Floor Genetics and Virology divisions, I read where the tissue culture labs are designed with plastered ceilings, recessed fixtures and washable surfaces to insure a clean environment. This design approach should provide a proper finish.

However, all the laboratories on the 15th Floor are exposed to the outside wall creating a major design problem. The exterior window wall with its cracks and crevices, the fin radiation and the enclosures, the element of fire proofing material which is directly exposed to the laboratory atmosphere provides additional cracks and crevices and porous surface for contaminants to grow rapidly. The convection air currents off the radiation should do well as a means to disseminate contamination throughout the lab atmosphere.

I am sure you have designed a revision to the standard detail to the exterior wall to correct this basic laboratory design issue. We would appreciate receiving this information so that we may provide it as part of the Design Development Document.

Very truly yours,


Paul J. Maupin
Health Sciences Planning Coordinator

cc: Duane Blanchard

PJM;jm



UNIVERSITY OF MINNESOTA
TWIN CITIES

Department of Laboratory Medicine and Pathology
Medical School
Box 198 Mayo Memorial Building
420 Delaware Street S.E.
Minneapolis, Minnesota 55455
(612) 373-8623

JAN 14 recd
UNIV. OF MINN.
HEALTH SCIENCES
PLANNING OFFICE

January 10, 1980

To: Robert Swanson

From: Barbara Alter *BA* %Dr. Fritz Bach

Subject: Review of Final Design
Development Documents-Unit B/C-Phase V, Stage II

Attached please find a summary of review comments given to the Architect on January 8, 1980.

DESIGN DEVELOPMENT REVIEW COMMENTS
UNIT B/C - PHASE V-2
LABORATORY MEDICINE AND PATHOLOGY
DIVISION OF IMMUNOLOGY

The following comments were transmitted verbally to the Architect on 8 January 1980:

SHEET A6

- Room 152A: Move door west to center of north wall; move wardrobe panel to east side of door; add chalkboard at west side of door.
- Room 151: Change tackboard to chalkboard.
- Room 150B: See memo from Miriam Segall dated 29 November 1979 (attached).
- Rooms 157 & 158: See above memo and memo dated 26 November 1979 (also attached).
- Room 149: Add continuous tackboard below fixed shelves.

SHEET A8

- Room 137: Add adjustable shelves at west wall above counter.
- Move autoclave behind door in southeast corner of room.
- Storage shelving at north wall should be tall storage cabinets with hinged glass doors.
- Provide CW and DW faucets for each set of two pipette wells. Reduce wells to 6 pairs from 8.
- Add adjustable shelving above desk as continuation of shelves over sink on east wall. Build-in desk as low counter with fixed shelf with light above.

SHEET A10

- Room 152: Eliminate LB18G1.
- Room 154: Add G-A-V on low and high bench.
- Room 146: Add G-A-V on Coulter counter bench.
- Put drawers in right hand side of this counter.
- Room 140: Add 110 outlet on north, south and east walls. Add clock on north wall.

Room 140 (Continued):

Put undercounter refrigerator with small freezer under left side of high bench.

Extend adjustable shelves on east wall over cart space.

Room 139: Add 110 outlet at desk on east wall.

Room 145: Add continuous electric strip to left half of sink bench.

Room 141: See Miriam Segall's memo dated 29 November 1979 (attached). Explore alternative layouts.

Room 138: Add second 110V outlet to west wall. Sink should have 2 cold water taps and one distilled water tap.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Department of Laboratory Medicine and Pathology
Medical School
Box 198 Mayo Memorial Building
420 Delaware Street S.E.
Minneapolis, Minnesota 55455
(612) 373-8623

29 November 1979

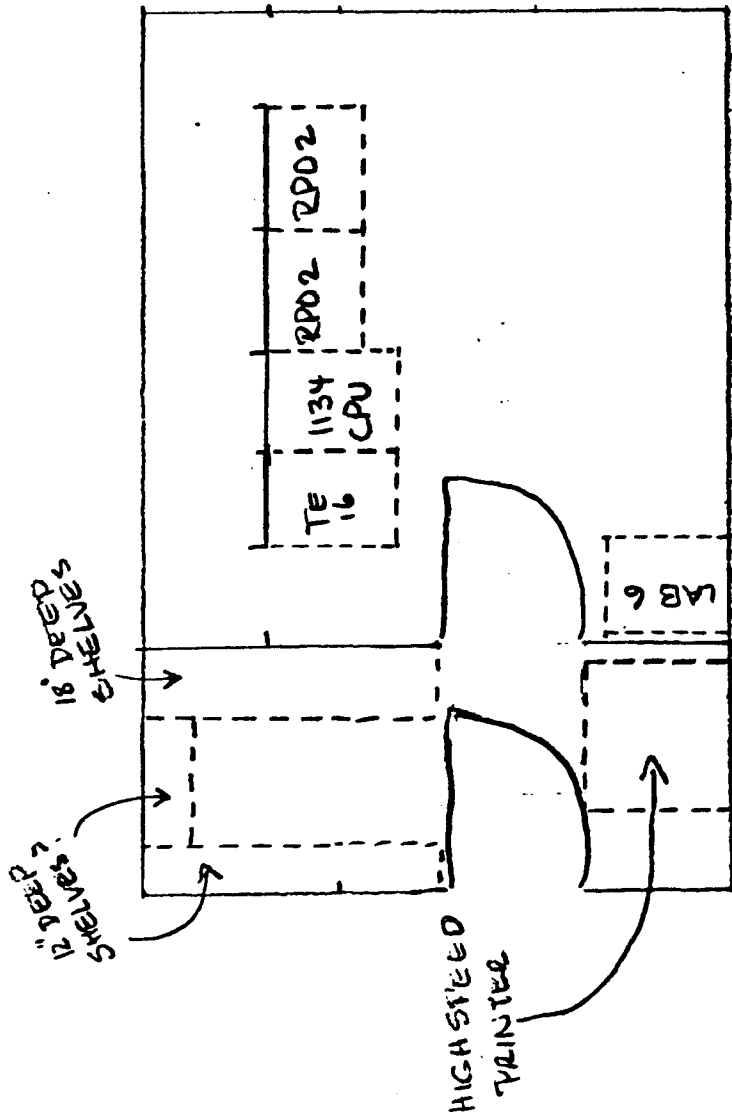
MEMO TO: John Patterson
FROM: Miriam Segall
RE: 7th floor B/C Stage II

For the two cubicles for fluorescent microscopy to be built in the Tissue Typing Lab, Room 141 according to my version : A table $4 \times 2\frac{1}{2}$ feet would hold the necessary equipment. $3 \times 3\frac{1}{2}$ would also be possible but the more rectangular version would be better because one could then put a set of drawers (preferably 2 shallow and 2 deeper, no file drawer) at one side. 2 adjustable shelves fairly high on wall behind microscope table, which should be 36" high. No need for task light, but switch for room light should be easily accessible when sitting at microscope. Bottom shelf should be 15" deep to accommodate a CRT, as in the Tissue Typing Lab, Room 145, and there should be similar accommodation for cable to the computer. At least 8 outlets.

In the small office on the window for computer personnel: The printer to stand at the north end of the counter is 28" wide and 31" deep. This is a standing unit and does not go on the countertop. The two CRTs, which do go on the countertop, are 24" wide x 21" deep and 20" wide x 30" deep, including allowance for electric cords and fans. According to my calculations this leaves virtually no space for a working desk for anyone. Could we put a table (not built-in) along the window?

In the cubicles for fluorescent microscopy: Do you think it might be necessary to put locks on those doors? Each will contain \$50,000-\$60,000 worth of equipment, most of it, of course, a bit large to cart away, but even so. . .?

TENTATIVE
COMPUTER ROOM
PLAN





UNIVERSITY OF MINNESOTA
TWIN CITIES

Department of Laboratory Medicine and Pathology
Medical School
Box 198 Mayo Memorial Building
420 Delaware Street S.E.
Minneapolis, Minnesota 55455
(612) 373-8623

26 November 1979

MEMO TO: John Patterson

FROM: Miriam Segall *MS.*

RE: Electrical Installation for computer room (room 157-158) - *PHY-II*

Health Computer Sciences suggests the following arrangements:

They have put into their computer room two electrical "tracks" running along the ceiling the length of the room; these are so installed that it is possible to tap into them anywhere. The computer room has a separate circuit breaker board, and the lines are separate all the way back to the main distribution panel. (I.e., no other equipment runs off them at any point.) They suggest the following should be accessible in the ceiling at either side of the room:

Two 115-V 30-A 3-phase lines

Two 115-V 30-A 1-phase lines

Four 115-V 20-A lines

"Some" 15-A lines

Potential for additional lines if required

This should cover all possible requirements for equipment that we are interested in.

There should be two 4-plug 15-A sockets on each wall.

This room should also have an air-conditioning system capable of handling 15,000-18,000 BTU/hr. No special dust filtration is required.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Engineering and Construction Division
~~Physical Plant Operations~~ Physical Plant Operations
26 Folwell Hall
9 Pleasant Street S.E.
Minneapolis, Minnesota 55455

January 11, 1980

TO: Paul Kopietz

FROM: Dave Kerkow 

RE: Check by Electrical Section (W.R. Coffin)
of Final Design Development Documents
University of Minnesota, Health Science Expansion
Minneapolis, Minnesota, Unit B/C - Phase V Stage II

We have reviewed the aforementioned documents and have the following comments to make:

SPECIFICATIONS

Will the special hoods be interlocked with the exhaust system so if exhaust system is inoperable, hood cannot be operated?

Floor 4: Where will independent bus duct system for EEG Suite originate?

EEG Rooms: Where will building clean ground system originate?

Explain type of control device which will be used for centralized control of corridor and lobby lighting.

#18 could the use of dry type transformers similar to square D energy saving watchdog transformers be justified on basis of conserving power?

DRAWINGS

General

No electrical drawings to review.

Will there be any special electrical requirements in terms of equipotential grounding or isolated power for any of these rooms?

Identify on the drawings and in the specifications which areas are under Stage I or Stage II.

Will lighting fixtures underneath shelves and cupboards be switched at the door or at each unit.

Will the freezers, refrigerators, or cold rooms be provided with alarms to indicate problems?

A-6 Will room 158 be considered a computer facility?

Paul Kopietz
January 11, 1980
Page Two:

A-7 Will room 108 be considered a computer facility?

A-10 Will room 141 be considered a computer facility?

A-11 How much emergency power will be needed in KW?

A-13 Will special radio interference type or filter type for the lighting fixtures be required on certain rooms such as Key #L310 Scintillation Counter?

A-15 Will the lighting fixtures require special lens or filters for the Scintillation Counter Key L311?

DK/BC/gsc



UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
Physical Planning
4103 Powell Hall, Box 75
500 Essex Street S.E.
Minneapolis, Minnesota 55455

(612) 373-8981

February 4, 1980

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

Subject: Phillips-Wangensteen Building
Unit B/C - Phase V Stage 2
Design Development Review Comments

Dear Mr. Carlson:

In addition to the review comments submitted on the Health Sciences Planning Office review set, I submit copies of memorandums received from the following individuals:

- Mr. Howard Heck - Civil Engineering Section
- Mr. David Herkow - Electrical Section
- Ms. Barb Alter - Immunology Department

I have not received the Oncology Clinic comments from Dr. Kennedy as yet, but Karen Ewing-Juul will continue to peruse this issue with Dr. Kennedy.

Sincerely,

Robert M. Swanson, Jr.

Robert M. Swanson, Jr.
Assistant Health Sciences
Planning Coordinator

RMS:mg

Enc.

cc: File ✓

TAC

THE ARCHITECTS COLLABORATIVE INC.

17 January 1980

JAN 21 Recd

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

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

Re: Design Development Cost Estimates
Unit B/C Phase V

Dear Paul,

As we agreed in our meeting last Thursday, we have reexamined our cost estimates for Phase V in recognition that the Hospital's budget for Stages I and 2 was established on the basis of our September estimates.

On Thursday afternoon, subsequent to that meeting, we received bids on Phase V - Stage I which, as you are aware, came in below the estimate we were carrying for that portion of the project. In light of these bids, we felt a reexamination of our estimates for the entire project was in order.

Our analysis of the bids received would indicate that all things being equal the market price of Stage I today would be in the neighborhood of \$820,000. We feel that a number of factors contributed to making these bids more favorable than our recent experience would have us anticipate:

1. With winter upon us, interior work has a greater appeal than normal.
2. Having eight bidders, more than we've ever had on a shell project, heightened competition considerably.
3. The fact that we had so many bidders could indicate a trend toward a tighter construction market in the Minneapolis area than we've had in the past few years and thus a more favorable supply versus demand position for the University.

In addition to these factors, the low bid did appear to reflect an additional savings due to the fact that Arkay Construction is already on the site.

PROBABLE CONSTRUCTION COST SUMMARY

January 17, 1980

I.	PHASE V-I (STAGE I) CONSTRUCTION COST		\$1,075,000
A.	IMMUNOLOGY		
	BID PRICE	\$	775,000
	<u>PREPURCHASE MATERIALS</u>		<u>300,000</u>
	PHASE V-I (STAGE I) CONSTRUCTION COST		\$1,075,000
II.	PHASE V-2 (STAGE 2) CONSTRUCTION COST		\$3,112,694
A.	FLOOR 5 EEG/BLOOK BANK WITH RECEPTION		
	GENERAL	\$	211,930
	MECHANICAL		61,600
	<u>ELECTRICAL</u>		<u>35,200</u>
	SUBTOTAL	\$	308,730
B.	FLOOR 7 IMMUNOLOGY/HUMAN ORGAN PRESERVATION		
	GENERAL	\$	334,400
	MECHANICAL		102,960
	<u>ELECTRICAL</u>		<u>52,800</u>
	SUBTOTAL	\$	490,160
C.	FLOOR 15 GENETICS/VIROLOGY		
	GENERAL	\$	589,204
	MECHANICAL		128,638
	<u>ELECTRICAL</u>		<u>54,630</u>
	SUBTOTAL	\$	772,472
D.	FLOORS 5, 7 & 15 ASSOCIATED SPACE		
	GENERAL	\$	98,094
	MECHANICAL		49,051
	<u>ELECTRICAL</u>		<u>16,342</u>
	SUBTOTAL	\$	163,487

E.	UNIT B PEDESTRIAN LINK	\$ 350,000
F.	MTS EXTENSION TO FLOOR 15	\$ 112,000
G.	PUBLIC ELEVATORS - NOS. 10, 11, 12	\$ 450,000

PHASE V-2 (STAGE 2) SUBTOTAL	\$2,646,849
PROGRAM/DESIGN CONTINGENCY @ 5%	132,342

SUBTOTAL	\$2,779,191
ESCALATION TO BID DATE @ 12%	333,503

PHASE V-2 (STAGE 2) CONSTRUCTION COST	\$3,112,694
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SUBTOTAL PHASE V-1 AND PHASE V-2	\$4,187,694
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III. PHASE V-3 (STAGE 3) CONSTRUCTION COST	\$ 912,306
--	------------

A. FLOOR 5 MEDICAL ONCOLOGY WITH RECEPTION
--

GENERAL	\$ 199,697
MECHANICAL	81,117
ELECTRICAL	44,956

SUBTOTAL	\$ 325,770
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B. VFW BRIDGE - PLAN A	\$ 450,000
PHASE V-3 (STAGE 3) SUBTOTAL	\$ 775,770
PROGRAM/DESIGN CONTINGENCY @ 5%	38,789

SUBTOTAL	\$ 814,559
ESCALATION @ 12"	97,747

PHASE V-3 (STAGE 3) CONSTRUCTION COST	\$ 912,306
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NOTE: THE VFW PLAN B BRIDGE HAS AN ESTIMATED COST OF \$234,000 INCLUDING CONTINGENCY AND ESCALATION.

V. TOTAL PHASE V ESTIMATED COST	\$5,100,000
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W. FORSLUND

INFO

R. SWANSON

INFO

T. KYLE

INFO

G. ZAWORSKI

INFO

J. MARONEY

NEW PROJECT
FILE

M. WAUGH

OF MINNESOTA

Department of Laboratory Medicine and Pathology
Medical School
Box 198 Mayo Memorial Building
420 Delaware Street S.E.
Minneapolis, Minnesota 55455
(612) 373-8623

FEB 11 Rec'd

February 5, 1980

HEALTH SCIENCES
PLANNING

N. L. Gault, Jr., M.D.
Dean, Medical School
Mayo Box 293

Dear Neal,

I would like to request that you provide the nidus for an organizational meeting to consider a proposal to the NCI regarding funding of a special animal care unit on the basement floor of B-C. The space under consideration is approximately 3-3,500 ft² assigned to Animal Resources. The specific proposal would be an interdepartmental facility to provide special environmental conditions for small animals, particularly mice, such that a "defined" environment would be provided.

It is obvious that many investigators have had to "make-do" with limitations of existing facilities and that many of their efforts would be facilitated and advanced by this special facility. There are several general and specific assumptions which Dr. Pat Manning and Mr. Paul Maupin have agreed are reasonable and essential to the success of this proposal including:

1. Investigators, while committing themselves to utilize this facility, would not have to forego the use of their existing facilities, yet they would obviously have to have a significant dependency upon the new facility to warrant the proposal.

2. The operational costs of the new facility would be appropriate to the costs borne by the facility contained therein. This would be justified by the special nature and purposes of the facility. It is important to avoid the negative attitudes which individuals have about the purportive excessive costs of central animal facility utilization. Regardless of the merits of their points-of-view, the costs of this facility would be built upon the services it provides to the designated participants.

3. This facility is not a substitute either for the Stone Laboratory animal facility nor for the development of the Diehl Hall (2nd floor) space which has been vacated by neurophysiology-neuropharmacology. (I have proposed and can justify that the latter be developed by indirect cost sharing.)

The persons who should be requested to participate should include:

Dr. Richard Simmonds
Dr. Charles McKhann
Dr. Fritz Bach

N. L. Gault, Jr., M.D.
February 5, 1980

Page 2 of 2

Dr. John Kersey
Dr. Lee Wattenberg
Dr. C. W. Song
Dr. Barry Handwerker
Myself

Dr. Pat Manning and Mr. Paul Maupin would of course be in attendance. Pat would co-ordinate putting together the proposal.

The question of matching funds cannot be readily addressed at present but hopefully can be generated by the interested parties through a variety of sources, perhaps including foundation matching. Perhaps other sources being considered for contiguous space development could be used for that purpose, at least in part.

Since the NCI deadline is June 1, it will be necessary to call us together within the next few weeks.

Thank you.

Sincerely,



David M. Brown, M.D.
Professor of Laboratory Medicine
and Pathology, and Pediatrics

DMB/md

cc: Dr. Pat Manning
Mr. Paul Maupin ✓



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

February 14, 1980

FEB 20 Rec'd
UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

TO: Jack Geretz
FROM: Gordon Dahlen
RE: B/C Phase V Stage I, Project No. 144-79-0524
Preconstruction Meeting held on February 12, 1980
Room 23 Folwell Hall at 1:30 p.m.

PRESENT:	A. Walter Johnson	University of Minnesota
	Wally Mellum	University of Minnesota
	Gordon Dahlen	University of Minnesota
	Robert Swanson	University of Minnesota
	Dick Hendricks	University of Minnesota
	Jim Hastert	University of Minnesota
	Kenneth White	University of Minnesota
	Bud Rivkin	Arkay Construction Co.
	Charles Rosenberger	A.C.G. Mechanical
	Jay Ellingworth	Electric Service Co.
	Thomas Hayes	Sunrise Fire Protection
	Donald Back	C.O. Carlson A.C.
	Dick Carlson	H.S.A.E
	John Patterson	T.A.C.

The meeting was conducted by A.Walter Johnson who reviewed the prepared memorandum to inform all parties concerned about this Contract's procedures.

Dick Carlson is the H.S.A.E. representative and John Patterson is the T.A.C. representative on this phase of B/C construction. A. Walter Johnson states a letter of intent was issued February 6, 1980 to Arkay Construction Company so ordering materials can begin.

Dick Carlson requested that all material lists for general construction, electrical construction and mechanical construction be submitted to the Architect/Engineers at one time in a package. Arkay has submitted partial lists already and the Architect/Engineers will hold these until all material lists are submitted to them and will then review entire submittal. A. Walter Johnson states the "Cost Breakdown" must be complete as to labor and materials when submitted.

February 14, 1980

TO: Jack Geretz

REFERENCE: B/C Phase V - Stage I

A. Walter Johnson states a "Progress Schedule" is needed as soon as it is possible for Arkay to pull one together.

Apparently, no "Design Mix" is required for concrete on this phase, but Jim Hastert states Certified Welder Certificates will be required for some of the various pipings and must be submitted to him prior to the beginning of this work.

Arkay Construction Company foresees shop drawing problems only with "Pre-Purchased Materials". Dick Carlson states plumbing fixtures, light fixtures are approved and the fire dampers are in the process of being approved now. A. Walter Johnson and Robert Swanson state all shop drawings are to be submitted to Arkay Construction Company who will then transmit them to the University Engineering and Construction Department - Vic Scott or Roger Erne. Robert Swanson states "Change Orders" shall be handled as follows: Field changes shall go through Dick Carlson at Health Sciences Architects and Engineers; and Program Changes and User Requests are to be made through him at the Health Sciences Planning Office at the University. He further states that modifications must have all the necessary information: Who requested, what is requested, why is it required, etc., and complete cost breakdown to allow efficient processing by the involved parties.

A. Walter Johnson states: Partial Payment Requests must be submitted to the Resident Construction Superintendent first, who will handle as necessary.

The definition of "Responsibilities" was discussed and A. Walter Johnson states: All changes in the work must be handled through the proper channels otherwise, no payment can be made for same; all program changes must go through Paul Maupin, Health Science Planning Office.

The Architect states that Progress Meeting notes shall be recorded by the General Contractor. It may be that, only one meeting per month is necessary to begin with, but would go to two week intervals as soon as necessary. The first Progress Meeting will be on February 27, 1980, and will be sandwiched in with the Phases III, IVc, and VI.

The Building Permits are to be issued by the University, states A. Walter Johnson. The electrical Permit will be required from the State of Minnesota as is normally done elsewhere. All Electrical Outage Requests must be handled with Wally Mellum.

All Mechanical Outage Requests must be handled with Gordon Dahlen. The Contractor and/or his sub-contractors are absolutely not to turn off - shut off any services.

February 14, 1980

TO: Jack Geretz

REFERENCE: B/C Phase V - Stage I

Ken White states everyone present is aware of the E.E.O. requirements and sees no problem. Bud Rivkin stated there are problems to keep minorities on payroll or at job.

Wage Rates must be posted according to law, advises A. Walter Johnson. Gordon Dahlen has a cork type bulletin board that the contractor can secure near his sixth floor office door to post wage rates and other required information on this bulletin board. Bud Rivkin states the completion date is a critical one as described by John Patterson of T. A. C., and that cooperation and coordination by and with sub-contractors and vendors is most important.

Charles Rosenberger of A. C. G., Mechanical sub-contractor states he needs the shop drawings for the metal casework right away to rough in plumbing services properly. These will have to be provided by the Hamilton Company, fabricator of casework. Rosenberger also states that the 1-1/4" glass pipe shown on this contract is not available. (The Architect/Engineer is requested to review same and provide direction.)

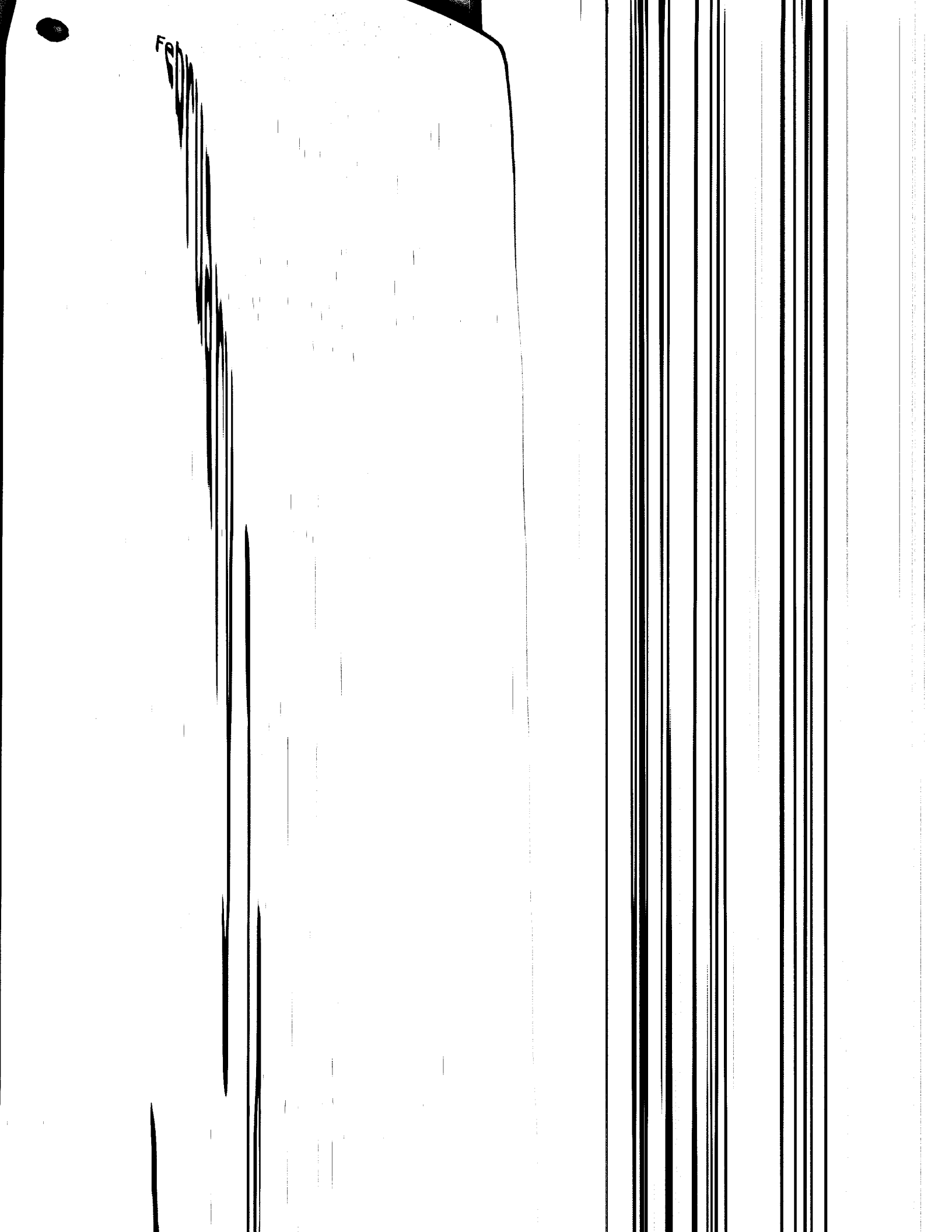
Jay Ellingworth, Electric Service Company, requested he get color schedules from Architect as soon as possible so he can order the right color on wire moldings to be used at several areas. John Patterson states color schedules from Boston office of T.A.C. will be on site in several days to provide the color schedules. Patterson states also, he needs samples required by specifications from Arkay so he can approve same.

Bud Rivkin advised his sub-contractors at this meeting that there is no employee parking available on the site. He further states that all his sub-contractors' deliveries must be made at the enclosure area at west side of B/C building, and that all materials can be hauled up to work areas by the designated Contractor's elevator, only. No materials are allowed to be transported in passenger elevators. Tools and/or equipment that cannot be held in the hand also must be transported on Contractor's elevator, only.

The Contractor and the several Sub-Contractors at this meeting state that various trades have contract agreements that terminate in April, May, June and July, and hopefully, the new contracts can be arranged without a problem - - the Architect says it is not. James Hastert states carriers for other labor delays that will affect the completion of this contract.

Gordon Dahlen informed the mechanical contractor that all of his men who will work on the proper operational procedures requires that John McCormick, the Mechanical contractor

FBI



February 14, 1980

TO: Jack Geretz

REFERENCE: B/C Phase V - Stage I

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The Contractor and the several Sub-Contractors at this meeting state that various trades have contract agreements that terminate in April, May, June and July, and hopefully, the new contracts can be arranged without strikes or other labor delays that will affect the completion of this contract on the time set. James Hastert states carriers for plumbing fixtures may still be a problem - - the Architect says it is not.

Gordon Dahlen informed the mechanical contractor that before any glass piping is installed, all of his men who will work with this glass must be schooled in the proper operational procedures required by the manufacturer. This requires that John McCormick, the local glass pipe representative be contacted by the Mechanical contractor and arrangements made for this instruction.

February 14, 1980

TO: Jack Geretz

REFERENCE: B/C Phase V - Stage I

A. Walter Johnson states that the Contractors and all Sub-Contractors inform their foremen, workmen, and delivery personnel about the outage requirements, delivery requirements, accident and safety requirements, open flame requirements before they begin working on this contract.

GD/vhd

c.c.: To all Shown as Present
Paul E. Kopietz
Paul Maupin ✓



UNIVERSITY OF MINNESOTA
TWIN CITIES

University Hospitals and Clinics
420 Delaware Street S.E.
Minneapolis, Minnesota 55455

March 4, 1980

TO: Paul Maupin 
FROM: Ron Klemz
SUBJ: Unit B/C Food Service Construction, Floor Two (2)

This is written in no official capacity but merely as an "interested" employee of University Hospitals and Clinics. For the last several weeks construction has been in progress on the above project. The construction is contiguous to the main connection between the Mayo and B/C buildings. After noticing for weeks that dirt was being tracked into the corridor, I informally mentioned to Mr. Tony Baron that perhaps a rug could be supplied to the area so that workmen could have something on which to clean their shoes before entering the corridor.

Shortly after this was mentioned a rug was provided. However, it was not long before the rug became as dirty as the floor, and it appears that the rug is never cleaned. Furthermore, within a very short time, the rug ended up in a heap to the side of the doorway, of no use whatsoever. Presently the rug is under scaffolding next to the doorway, completely inaccessible to those leaving the construction area.

In addition to the above mentioned problems, several days ago water collected on the floor of the corridor next to the construction site. I first noticed the water at about 9:00 a.m. or 10:00 a.m. I happened to see Mr. Tony Baron about 2:00 p.m. or 3:00 p.m. and asked if he was aware of the situation. He said he was, that there was a leak with an undetermined source.

However, no precautions had been taken to minimize the public from falling due to slippery floors. Such simple precautions as placing towels alongside the wall, temporary signage, or roping the area were not undertaken. Thus, for several hours a very unsafe condition was allowed to exist.

I am concerned about our public's perception of our facilities. The Mayo-BC connection is heavily used by our public. There does not appear to be concern on the part of the construction workers regarding the importance of maintaining as clean an environment as possible, perhaps because it has not been made important to them.

NCI - SPECIAL ANIMAL FACILITY PROPOSAL

Meeting Minutes
March 10, 1980

Attending: Jim Coggins; Dr. Manning; Dr. Brown; Dr. Levitt; Dr. Wattenburg;
Tom Kyle.

- Discussed B/C first floor shell space - small animal.
- Plan to develop special protective environment for cancer research.
- Facility costs should be actual and generated from users (operational costs).
- Manning to approach NCI for construction funds.
- New, Innovative, Collaborative effort (no single user-shared space)
- No present animal space to be changed or lost to other
- Matching funds required for Grant to be successful.
- Site visit by NCI required; may not replace existing.
- Available; 8,000 sq.ft. B/C basement beneath Micro-Biology animal space.
- Present assignment:
 - 50% to Research Animal
 - 50% to Surgery Department
- Dr. Brown states both areas should collaborate on Grant. Better position to gain funds. Whole area one time.
- Coggins? What are elevator facilities?
- March 31st; deadline for Kreske Foundation request. Good source if possible to make deadline.
- June 1st, August 1st, and September 1st are NCI deadlines.
- Levitt needs radiation unit in area.
- Wattenburg needs P-3's
- All moveable equipment is NOT eligible for Federal Funds




UNIVERSITY OF MINNESOTA
TWIN CITIES

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

April 29, 1980

TO: Mr. Paul Maupin
Health Sciences Planning Coordinator

FROM: Robert Swanson 
Assistant Health Sciences
Planning Coordinator

SUBJECT: Phillips-Wangensteen Building
Unit B/C - Phase IVb
Department of Otolaryngology
Research Facility
Floor 8

Attached is a copy of the April 28, 1980 "Total Estimated Project Cost" breakdown which, when substantially complete, will infill approximately 7,607 gross square feet of shell space on the eighth floor of Building B/C.

This estimate is based on the Unit B/C - Phase IV contract document set dated April 9, 1979, which originally included the subject facilities.

The following preliminary schedule was utilized to calculate the anticipated escalation in construction cost.

- | | |
|---------------------|---|
| - September 1, 1980 | Review Original Documents and verify Design Development is consistent with current program (2 months +) |
| - November 1, 1980 | Prepare and revise Contract Documents (3½ months) |
| - February 23, 1981 | University Reviews (1 month) |
| - March 19, 1981 | Bid Period (3½ weeks) |
| - April 15, 1981 | Receive Bids (1 month) |
| - May 15, 1981 | Award Contract (2 weeks) |
| - June 1, 1981 | Construction Start (12 months) |
| - June 1, 1982 | Substantial Completion |
| - June 15, 1982 | Occupancy |

RS:mg
cc: File ✓

April 28, 1980

Phillips-Wangensteen Building
Unit B/C - Phase IVb
Department of Otolaryngology
Research Facility - Floor 8

I. CONSTRUCTION:

Floor 8 (based on 7,607 GSF x \$100.00 PSF)	\$760,700	
Escalation 20 months to January 1, 1982 (mid-point of construction, based on 1½% per month)	263,852	
	<u>\$1,024,552</u>	
Bidding Contingency @ 10%	102,455	
	<u>\$1,127,007</u>	
Non-Building assessment @ 13.90% (based on 20.90% less 7% A/E fees)	156,654	
Builders' Risk Insurance @ .20% of 1%	2,254	
Architects' fees based on .30% of 7% or .021%	<u>23,667</u>	
		\$1,309,582

II. BUILDING SYSTEMS, ADDITIONAL ELEVATORS
AND SUPPORT SPACE COSTS:

@ \$10.87 per gsf Otolaryngology gsf = 7,607 7,607 x \$10.87	82,688	
Non-Building assessment @ 20.90%	<u>17,282</u>	
		\$ 99,970

III. ADDITIONAL ASSESSMENTS:

1. Construction Office and 3rd floor staging area	\$ 62,400	
2. Elevator #11	23,842	
3. Modification 93E (radiation covers)	28,068	
4. Unit A connecting link	239,085	
5. Control center wiring	100,000	
	<hr/>	
	\$453,395	
Otolaryngology share =		
$\frac{7,607 \text{ gsf}}{205,321} = .037\%$	x .037%	
	<hr/>	
	\$ 16,776	
Non-building assessment @ 20.90%	3,506	
	<hr/>	
		\$ 20,282
6. A/E Phase II Leasing Study	\$ 50,000	
Otolaryngology share = .037%	x .037	<u>1,850</u>
Total Estimated Project Cost		\$1,431,684*

* This estimate does not include the Group II equipment, furnishings, blinds, drapes and telephone costs.

Prepared by: The Health Sciences Planning Office

HEALTH SCIENCES PROJECTS

NON-BUILDING COSTS

	<u>%</u>	
1. Architectural base fee	7	(1)
Reimbursables	1	
2. Consultants	1	
3. Construction supervision	2	
4. Health Sciences Planning Office	2	
5. Miscellaneous Engineering	1	
6. Building Activation	.40	
7. Testing and Balancing	.90	
8. Site Work	.30	
9. Contingencies	4	(3)
10. Permits	.20	
11. SAC Charges	.40	
12. Graphics	.50	
13. Builders Risk Insurance	.20	(2)
	<hr/>	
	20.90%	

- (1) Architects fees are based on a sliding scale, the 7% is the best estimate to use .
- (2) Builders risk insurance is based on the dollar of construction plus length of time of project - .20% is a reasonable estimate to use
- (3) Contingencies are estimated at 4% for new construction but should be at least 5% for renovation or remodeling.

BREAKDOWN OF THE ESTIMATED TOTAL PROJECT
COST BY ROOM:

- Lion's Office 8-212		
12.33 x 18.5 = 228.11 x \$188.21 =		\$42,932.58
- Library 8-213		
18.5 x 18.5 = 342.25 x \$188.21 =		64,414.87
- Secretary 8-214		
12.33 x 12.33 = 152.03 x \$188.21 =		28,611.68
- Conference 8-215		
43.16 x 18.5 = 798.46 + 6.17 x 24.66 = 152.15 x \$188.21 =		178,914.31
- Immunology Laboratory "B" 8-220		
24.67 x 12.33 = 304.18 x \$188.21 =		57,249.72
- Immunology Laboratory "A" 8-221		
24.67 x 12.33 = 304.18 x \$188.21 =		57,249.72
- Histochemistry 8-222		
24.67 x 12.33 = 304.18 x \$188.21 =		57,249.72
- Animal Corridor 8-223		
12.33 x 5.33 = 65.72 x \$188.21 =		12,369.16
- Animal Receiving 8-224		
12.33 x 9.33 = 115.04 x \$188.21 =		21,651.68
- Animal Room 8-225		
12.33 x 7.67 = 94.57 x \$188.21 =		17,799.02
- Animal Conditioning 8-226		
6.17 x 15.67 = 96.68 + 12.33 x 2.5 = 30.83 + 3.25 x 4 = 13.00 x \$188.21 =		26,445.39

- Animal O.R. 8-227
 $9 \times 13.17 = 118.53 \times \$188.21 =$ \$ 22,308.53
- Animal Scrub 8 -246
 $5.33 \times 12.33 = 65.72 + 4 \times 3 = 12 \times \188.21 14,627.68
- Histology Laboratory 8-228
 $24.67 \times 24.67 = 608.61 + 6.17 \times 6.17 = 38.07 \times \$188.21 =$ 121,711.64
- Study 8-229
 $6.17 \times 9.25 = 57.07 \times \$188.21 =$ 10,741.14
- Study 8-230
 $6.17 \times 9.25 = 57.07 \times \$188.21 =$ 10,741.14
- Dark Room 8-231
 $12.33 \times 12.33 = 152.02 \times \$188.21 =$ 28,611.68
- Bone Dissecting 8-232
 $12.33 \times 12.33 = 152.02 \times \$188.21 =$ 28,611.68
- Office 8-233
 $12.33 \times 10 = 123.30 \times \$188.21 =$ 23,206.29
- Office 8-234
 $12.33 \times 8.33 = 102.71 \times \$188.21 =$ 19,331.05
- Photo Laboratory 8-235
 $12.33 \times 18.5 = 228.11 \times \$188.21 =$ 42,932.58
- Light Microscopy 8-236
 $18.5 \times 30.84 = 570.54 \times \$188.21 =$ 107,381.33

- Otophysiology 8-237

$$12.33 \times 24.67 = 304.18 + 12.33 \times 12.33 = 152.02 \times \$188.21 = \$ 85,861.40$$

- Audiometric Rooms 8 - 238

$$12.33 \times 18.5 = 228.11 + 12.33 \times 12.33 = 152.02 \times \$188.21 = 71,544.27$$

- Janitors 8-247

$$6.17 \times 12.33 = 76.08 \times \$188.21 = 14,319.02$$

- Corridor 8-218

$$6.17 \times 49.32 = 304.30 \times \$188.21 = 57,272.30$$

- Corridor 8-219

$$6.17 \times 73.98 = 456.46 \times \$188.21 = 85,910.34$$

- Corridor 8-245

$$6.17 \times 98.64 = 608.61 + 6.17 \times 6.17 = 38.07 \times \$188.21 = 121,684.08$$

TOTAL GSF

7,606.99

TOTAL COST \$1,431,684.00



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

May 1, 1980

TO: Unit B/C - Phase III
Project File

FROM: Robert Swanson
Assistant Health Sciences
Planning Coordinator

SUBJECT: Unit B/C - Second Floor West
Food Service Facility
Historical Data

The second floor west "Food Service Facility", although previously listed under the title of "Health Sciences Food Service Department #9.13", has always been an integral part of the Health Sciences Expansion master planning effort as defined on the final November 1, 1970 "Health Sciences Expansion - revised Phase I schematic design document".

The original master plan was developed during a period of time in which the Federal and State governments were very active in funding Health Sciences Centers; therefore, the November 1, 1970 schematic design document was prepared and, based on the nature of the programs included, the master plan was reviewed and approved by the appropriate University, State and Federal agencies. Before the completion of Unit A and the original grant submittal for Unit B/C was prepared, a cutback in Federal and State funding had occurred, causing a delay in the Unit B/C project until 1975.

Faced with an apparent short fall of Federal, State and private funding, Health Sciences administration created the shell space concept of in-filling approximately 205,321 gross square feet of Building B/C. The Food Service facility was included in the shell space category and therefore was delayed until the University Food Service department was in a position to privately fund the project in June of 1977.

On December 12, 1978, Mr. Maupin authorized the Health Sciences Architects and Engineers, Inc., to begin development of the Unit B/C - Phase III Food Service Facility as defined in

Unit B/C - Second Floor West
Food Service Facility
Historical Data
Page 2

Proceed Order #2. On July 17, 1979, Arkay Construction was the successful bidder of the Phase III project which, when substantially complete on or around June 15, 1980, will provide 5610 gross square feet of food preparation, serving and dining space for some 300 guests.

RS:mg

cc: File
Clint Hewitt
Paul Maupin
Cheri Perlmutter



UNIVERSITY OF MINNESOTA
TWIN CITIES

University Hospitals and Clinics
420 Delaware Street S.E.
Minneapolis, Minnesota 55455

MAY 19 1980

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

May 15, 1980

TO: Paul Maupin
FROM: Tom Jones *Tom Jones*
SUBJ: Unit BC Phase V-2

As you are aware, University code officials have identified serious code problems regarding proposed occupancy of floor 5 by the EEG Laboratory.

Resolution of the code problems will take, at a minimum, several weeks. Substantial redesign will be required if approval is received.

We cannot delay bidding Phase V and increase costs of the total project because of inflation.

Accordingly, please remove floor 5 from the bid package, proceeding with floors 7 and 15.

We can reincorporate the EEG/Blood Bank programs into the Masonic Clinic package which will be bid at a later date.

cc: Dr. David Brown
Mr. Al Dees
Mr. Robert Dickler
Ms. Donna Wieb

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

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MAY 16 1980
UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

MEMO TO: B/C Phase XI
MEMO BY: Michael Pederson
DATE: 13 May 1980
SUBJECT: D.D. Review Meeting - Floor 14

PRESENT: Chuck Gooder, Warren Forslund, Michael Pederson

The purpose of the meeting was to review the MTS station and layout and the cold room/core area layout.

1. MTS station location was acceptable.
2. It was agreed that if the MTS is handled as a deduct alternate, the casework, countertop, and shaft (for floor 14) in addition to the MTS itself would be omitted. The wall directly to the north would remain.
3. The shaft thru room 126, Lunchroom, was acceptable. This shaft would be built whether the floor 13 station is a part of the contract or not.
4. Combination locks are preferable on mailboxes. Mounting height will be 2-4 to bottom and 5-8 to top. 2 compartments wide by 7 compartments high. Each compartment is approximately 5" high x 12-1/2" wide x 15" deep.
5. User would like adequate outlets at offices and clerical areas. Typically at offices a double duplex is located adjacent to desk and no additional outlets are required along radiation wall. At clerical areas outlets can be provided along radiation either at the base or with "doghouses" depending on the furnishing layout.
6. Special sound consideration should be given to seminar room 125. Groups will be occupying the seminar room and the adjacent lunch room at the same time. The standard Unit B/C sound rated wall consists of 3-5/8" steel studs, a layer of 3/8" and a layer of 1/2" gypsum board both sides, with 2" sound attenuation blanket. This extends to the ceiling and then a lead plenum barrier extends from ceiling to structure. The STC rating of this wall is 53. This wall design has been acceptable throughout the rest of the project, and we would recommend staying with it for this application.
7. Fluoroscopy, storage, and nitrogen storage will be relocated. Storage room will relate to infectious disease lab and may convert to lab space in future.

5/14/80
Michael Pederson
Chuck Gooder
Warren Forslund
on 5/14/80
Michael Pederson

8. One door for each cold room is adequate. One to north and one to south. Each room will have unistrut on the walls to accept shelves and counter-tops which are not in contract.

YES
PROJ 5/16/80
9. Warren Forslund is to check with Dr. Sabbath and U of M biohazard Committee to determine if infectious disease lab needs to be built to P-3 specifications.

10. Rooms 127, 128, 129, 130, 130A will be altered to allow for waiting area in Room 129. Additional space will be utilized where possible by recessing files or shelves against stair core.

11. There was concern expressed as to the location of the door to Room 160. We would recommend that it remain where it is located in order to avoid an exiting conflict with the doors to the elevator lobby. The doors to the elevator lobby should remain as shown and swing should not be reversed. They are part of the basic building system and we feel the alteration would not be justified.

12. It was agreed that lab grade plastic laminate countertops with stainless steel sinks would be used throughout except at infectious disease lab, Room 124, center island at Dr. Tobian's labs, Rooms 164 and 165, counter at animal room, and counter in glasswash room. These areas will have stainless steel tops.

13. A proposed revision of Dr. Hanson's lab room 122 was presented. The advantages of the proposed layout are a clearer circulation pattern, a better alignment of island service columns with ceiling service panel strip, and easier access to counters and cabinets. Also, over island counters the use of 16" deep wall cabinets with glass doors both sides and mounted at the standard height of 7'-0" to the top provides a more efficient use of casework and lab countertops. Chuck Gooder will discuss with Dr. Hanson.

14. De-ionized water station will be located at nitrogen storage room only.

A/E
15. In order for the design development to be completed on time, and the review process to be effective, the equipment lists will need to be completed soon. Additionally, cold room and mechanical services information will need to be supplied.

M/S
Included is a memo to Warren Forslund dated 7 May 1980 with a mechanical services checklist and a preliminary cold room checklist. The information contained therein should be helpful to the user.

cc: Chuck Gooder
Paul Maupin

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

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMO TO: Warren Forslund
MEMO BY: Michael Pederson
DATED: 7 May 1980
SUBJECT: B/C Phase XI Design Development

ME
This note is to confirm our telephone conversation of yesterday, and our subsequent discussion at this office today.

1. Because of the tight schedule and the desire to start working drawings at the first part of June (with user review beginning mid-May) it is imperative that the equipment schedules be forwarded to us as quickly as possible. I would suggest that in your meetings with the user, you stress the importance of assembling this information quickly and comprehensively. The information should be as thorough as possible. That is, it should include:
 - a. Each individual room
 - b. Each piece of equipment and whether it is Group I or Group II
 - c. Complete description of equipment including items such as Chalkboards, tackboards, projection screens.
 - d. Brand name and model number
 - e. Dimensions
 - f. Services required

To assist you in compiling the lists, I will send you an updated version of the plans. However, I do think it's important that the process be started presently.

2. In our discussion of lab tops, you felt certain (after talking with Paul Maupin) that lab grade plam would be used throughout except in glasswash areas, P-3 labs, infectious disease labs, and animal operating areas. Unless you can identify others, we will include stainless steel only at the following areas:

13-156	P-3 lab
13-171	Animal O.R.
13-172	Glasswashing
14-124	Infectious disease lab - Dr. Sabbath
14-131	Glasswashing
14-164 & 14-165	Hypertension labs - Dr. Tobian

Stainless steel sinks will be used throughout where plain countertops are used.

3. In addition to the equipment lists we will also need information on each of the cold rooms (2 on floor 13 and 2 on floor 14). A checklist is enclosed for completion by the user. Any additional information pertaining to equipment to be used in the room and services required would be helpful. At this time, I understand that all four rooms will only need unistrut attached to all four walls. Any shelving, counters, etc. will be N.I.C.
4. Also, specific information will be required on each laboratory in regard to sink sizes, faucet and spout types, aspirators, distilled water outlets, etc. Additionally, all service outlets need to be identified or verified. Enclosed is a checklist that if used in conjunction with the drawings should be helpful to the user. If the user, with your assistance, could assemble as much of this information as possible, it could be reviewed at the next meetings and then be incorporated into the D.D. Documents.
5. The two drawings (Sheet 13-1.1 revised and 14-1.11) showing the MTS stations were agreed to be the best solution. You will review with the user and notify me of any problems concerning those station locations.
6. Sheets 14-1.3 and 14-1.4 were revised and relayed to you showing the cold rooms (one was requested to be changed from a constant temp room and decreased in size). The location of one cold room was altered slightly and one door was removed from the other. In this way, one cold room relates to the north and one to the south. This will eliminate the possibility of a 2-door cold room being utilized as a corridor. Without specific program information on the core area rooms (between grids S36 and S37) I took the liberty of moving the one cold room and slightly rearranging the other core area rooms between grids E8 and E12. Again, I would appreciate any reaction you may receive from the user prior to the next meeting.

Another item you might discuss with the user is in regard to distilled water, deionized water, and on Floor 14, central nitrogen system.

A distilled water system will be available in Unit B/C and can be piped throughout to the labs. The user will have to identify at which locations he will want outlets.

At this point, deionized water will be dispensed from only one location on each floor. Room 13-155 and room 14-132. Any additional areas needing deionized water (e.g. glass washing) will need to be identified. Also, an estimate of quantity to be used will need to be made in order for the Engineers to size the unit necessary.

On Floor 14, the amount of nitrogen to be used will also have to be estimated by the user in order to size the manifold system.

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UNIT B/C Phase XI
Departments of Pediatrics and Medicine
7 May 1980

MECHANICAL SERVICES CHECKLIST

1. Single or double compartment sinks
2. Dimensions L" X W" X D"
3. Faucets
 - a. single (hot, cold, distilled)
 - b. Mixing (hot and cold)
 - c. Special handles (wristblade or forearm operated, foot pedal, leg or knee operated)
4. Spouts
 - a. Swing
 - b. Gooseneck (swing or rigid)
5. Spout outlet
 - a. Aerator
 - b. Serrated
 - c. Serrated with aspirator
 - d. Other requirements, such as filters or thermostatic mixing valves
6. Cupsinks
 - a. number of faucets
 - b. Gooseneck or reagent rack
7. Other service outlets
 - a. Gas
 - b. Vacuum
 - (1) Laboratory, or
 - (2) Immunology

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PRELIMINARY COLD ROOM CHECKLIST

- RA*
1. Room Number
13-133
13-134
14-133
14-134
 2. Use
 3. Number of people and time
 4. Temperature range or specific temp desired
 5. Humidity range desired (standard is 50-70% at normal room temp)
 6. Special temperature or humidity timers, controls, or instruments required
 7. Equipment to be located within room
 8. Mechanical services required
 9. Electrical requirements
 10. Casework
 11. Shelving
 12. Number of doors (standard is 34" x 78")
 13. Observation windows

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MEMO TO: Unit B/C Phase XI
MEMO BY: Michael Pederson
DATED: 15 May 1980
SUBJECT: Code Investigation

The Unit B/C Phase XI project, consisting of the completion of shell space on floors 13 and 14 for the Department of Pediatrics and the Department of Medicine, will be constructed in accordance with the original B/C Project. The occupancy, B-2, is the same as was originally planned for these two floors with the exception that there are no assembly areas for greater than 50 people.

The B-2 office occupancy consists of both offices and laboratory spaces.

Corridor walls, typically required to be of 1 hour construction and extending to structure, will be constructed as non-combustible and will terminate at the ceiling as allowed by the sprinkler alternative of the 76 UBC (1807m). This is in accordance with the original B/C project and the recent B/C shell space completion projects. (the 79 UBC, 1807m² makes exception to corridors in Group B, Division 2 occupancies and does not allow the sprinkler alternative).

Corridor doors in these walls will be tight fitting and self closing, without a fire resistive time period.

Laboratory areas will be separated from the remaining space by a 1 hour wall which will extend to the structure. 'C' label doors will be used throughout at 1 hour walls. This is consistent with recent shell space completions involving laboratories.

The existing wall separating Unit B/C from Unit A is a .2 hour wall, and any openings through that wall will be 'B' label 1-1/2 hours openings.

Laboratories required to be of P-3 classification will be constructed along NIH Guidelines.

Floor penetrations required for the Materials Transport System will be protected by fire dampers.

A code review meeting with the University Code Officials is being set for before the end of the design development.

See 1/8" code set drawings dated 15 May 1980 for additional information.

cc: Paul Maupin
Don Herron
Ron Holden

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UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

JUN 2 Rec'd

UNIV. OF MINN.
HEALTH SCIENCES
PLANNING OFFICE

MEMO TO: Unit B/C Phase XI
MEMO BY: Michael Pederson
DATE: 21 May 1980
SUBJECT: Floor 13 Dept. of Pediatrics Review Meeting

PRESENT: Dr. Krivit, Norma Wubbena, Warren Forslund, Michael Pederson

1. Prior to the start of the meeting, Warren and I discussed the 14th floor mailboxes. I explained that even if the mailboxes are installed in a one hour wall it is not necessary to provide protection other than carrying the wall behind the boxes. This is because the mailboxes are of the front loading variety and not pass thru.
2. The purpose of the Dept. of Pediatrics Meeting was essentially to insure that the review process is underway. This will allow the start of contract documents the first of June with virtually all D.D. review completed two weeks later.
3. The MTS layout was acceptable. It will be handled as a deduct alternate.
4. Office layouts will be reviewed with users by Norma. Basically they will include:
 - 3 Adjustable Plastic Laminate Shelves
 - Telephone
 - Coathook Strip
5. Other administration areas were acceptable with the addition of 4 phone outlets at Room 159 and 160.
6. Special lighting requirements are necessary at the seminar room only. In addition to the fluorescent lighting, incandescent lights capable of dimming will be provided.
7. There are no special requirements for communication systems. Telephones will be located at each lab, office, etc. An additional phone will be located outside of seminar Room 161.
8. Alarm systems for incubators and freezers are to be under another contract unless we are notified otherwise.

9. Fume hoods will be of the airflow variety, and each should have both volatile storage and acid storage below. User will determine which hoods need to be radioisotope type. No drying ovens are necessary at fume hoods.
10. All laminar flow hoods are N.I.C.
11. 2 Class III Hoods (4'0") in P-3 Lab Room 156 are in contract.
o II in Unit B/C - Don't know
12. Sinks are to be standard sizes and single or double as shown on plans.
13. Distilled water should be provided at one location in each lab. This will be on a deduct alternate. If the deduct is taken, then distilled water will be available only at Room 155 and Glasswash. No separate deionized water is necessary.
14. Glasswasher, glassdryer, and sterilizer are all in contract.
15. User will determine types of gases to be stored in Room 155.
16. HSPO to set meeting with Pat Manning in regard to animal areas.

cc: Paul Maupin ✓
Norma Wubbena

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HEALTH SCIENCES EXPANSION

JUN 2 Rec'd

UNIV. OF MINN.
HEALTH SCIENCES
PLANNING OFFICE

MEMO TO: Unit B/C Phase XI
MEMO BY: Michael Pederson
DATE: 22 May 1980
SUBJECT: Floor 14 Dept. of Medicine Review Meeting

PRESENT: Dr. Hanson, Warren Forslund, Michael Pederson

1. Chuck Gooder was unable to attend.
2. Reviewed revised layout of Dr. Hanson's lab Room 122. Basic layout was acceptable with minor alterations. Island benches with cabinets above (glass doors both sides) are acceptable. 4' wide space adjacent to hoods on west wall necessary for tanks and oven. Knee space and service outlets were located. 4' long drawers were requested.
3. Adjustments need to be made to the equipment Room 121. Info is forthcoming.
4. The amount of stainless steel tops as opposed to plastic laminate countertops is still in question.
5. Fume hoods still need to be identified as to whether they are standard or radioisotope. Also, are all hoods presumed to be new (in contract) and not moved in from previous space.
6. Still to be determined is whether distilled water is needed at each lab or if one central station is adequate.

cc: Paul Maupin ✓
Chuck Gooder

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HEALTH SCIENCES EXPANSION

JUN 2 1980

UNIV. OF
HEALTH
PLANNING

MEMO TO: Unit B/C Phase XI
MEMO BY: Michael Pederson
DATE: 23 May 1980
SUBJECT: Floor 13 Review Meeting

PRESENT: Norma Wubbena, Warren Forslund, Michael Pederson

1. A ballpark figure for piping distilled water to each lab would be about \$6000 (each floor). Approximately 200' of piping and 14 outlets. The distilled water system will be handled as a deduct alternate if overall costs appear too high. Distilled water would still be available at Room 155 and glasswash, however.
2. Fume hoods were identified as to whether they were standard or radioisotope.
3. User would like to consider piping nitrogen to their labs from a central location on their floor. The engineers are to determine an approximate cost.
4. Reviewed labs 122, 124, 125, 166. Remaining labs will be reviewed at next meeting.
5. Cold room information will be finalized at next meeting.
6. Office layouts were discussed. Schemes C & D will be utilized.

cc: Paul Maupin ✓
Norma Wubbena

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HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

JUN 2 Rec'd

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

MEMO TO: B/C Phase XI
MEMO BY: Michael Pederson
DATE: 27 May 1980
SUBJECT: Code Review Meeting for Phase XI Design Development

PRESENT: Paul Maupin, Don Herron, Russ Smith, Ron Holden, Warren Forslund,
Richard Carlson, Michael Pederson

The purpose of the meeting was to discuss the code related items prior to the submittal of the design development.

1. 1976 UBC applies
2. Occupancy throughout both floors 13 and 14 is B-2 office as it was originally conceived.
3. Total area per floor is approximately 27,000 SF for an occupant load of 270 per floor
4. Although remodeling is less than 25% construction standards acceptable for original B/C phase one may not be acceptable here.
5. Corridor walls throughout will be required to be 1 hour rated, and will need to extend to structure, or the corridor ceiling will need to be 1 hour rated.
6. Elevator lobby will be 1 hour rated. Doors and sidelights will need to be redesigned in order to meet code. Glazing of sidelights cannot exceed 25% of wall area. Doors need to be "C" label 45 minute. Max glass lite is 1296 Sq. In. max door opening size is 8'-0" x 8'-0".
7. Office doors to corridor will be 20 min self closing.
8. Lab doors to corridor will be 45 min "C" label self closing. It was requested by Don Herron that these only operate to 90° in order to discourage wedging open by users.
9. Any doors swinging into corridor, or corridor doors themselves, will have vision panels.
10. Trash room will have 1 hour rated walls and a 45 min "C" label door.
11. Laboratory areas will be separated from adjacent spaces by 1 hour walls.

12. Floor penetrations required for materials transport system will be protected by fire dampers
13. Doors opening into corridors will swing such that corridor traffic won't be subjected to running into door edge as it is opened.
14. Sprinklers will be provided at cold rooms
15. Supplemental horizontal 15" wide sliding sash should be provided at fume hoods. Information regarding this application should be forwarded to the architect.
16. Nitrogen storage on nitrogen manifold system requires no special provisions.
17. If radioisotope work is to be done in any one lab, then that lab must have a radioisotope hood.
18. Doors at both ends of corridor 94 on floor 13 and corridor 96 on floor 14 should be on hold open.

cc: Meeting Attendees



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

May 28, 1980

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

Subject: Phillips-Wangenstein Building
Unit B/C Phase V, Stage 2
Floors 5, 7 & 15

Dear Mr. Carlson:

On Monday, May 19, 1980, Mr. Tom Jones provided the Health Sciences Planning Office with a written request which eliminates the fifth floor EEG and Blood Bank clinical facilities from the Unit B/C, Phase V, Stage 2 project.

Realizing that the contract documents for the subject project are currently in for final University review, the Hospital is aware that additional architectural and engineering fee's will be required to modify the documents.

Therefore, the Architects are hereby authorized to begin the modification of the contract documents on an hourly basis in order to reduce the overall schedule implications, but this office requests that the Architects provide the University with an overall estimate of the total anticipated cost by Friday, June 6, 1980.

The following is a list of the fifth floor shared facilities which shall remain a part of the overall project.

- Locker room 5-142
- Lounge 5-143
- Janitor's room 5-144
- Seminar room 5-145
- Womens toilet 5-146
- Lounge 5-147
- Mens toilet 5-148
- Locker room 5-149
- Mens toilet 5-140
- Womens toilet 5-150
- Storage closet 5-174 A & B
- Corridor 5-174 (this corridor shall be extended)

Mr. Richard Carlson
May 28, 1980
Page two

to the east between grids S35 and
S36 to grid E11)

- Corridor 5-175
- Storage Closets 5-175 A,B,C,D,E and F
- Elevator Lobby 5-173

The entire Clinical Waiting Room 5-129 including the north wall coat rack area shall be eliminated from the Phase V, stage 2 project and the following portion bound by grids S35,25 - S37,75 and E9 - E12 shall be included as a part of the Phase V, Stage 3 project.

Very truly yours,


Paul J. Maupin
Health Sciences Planning Coordinator

cc: Tom Jones
John Patterson
Robert Swanson

PJM: jm



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Assistant Vice President

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

JUN 4 1980
UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

May 29, 1980

Robert Swanson
Health Sciences Planning Office
4102 Powell Hall

RE: Plan and Specification Review - Unit B-C Phase V-2
5th, 7th, and 15th floors

Dear Mr. Swanson:

A review of the above mentioned project by the Building Official's Office results in the following comments:

I. General Code Requirements:

- a) All mechanical shafts must be constructed for 2 hour fire resistive construction. All openings into shafts must be 1½ hour rated assemblies self closing.
- b) Vertical stair shafts and elevator shafts must be constructed for 2 hour fire resistive construction. All openings in shafts must be 1½ hour rated assemblies self closing.

II. Specific Requirements:

- a) Doors. All corridor doors to offices, laboratories, and horizontal exit doors must be rated as listed below and must be self closing. Any mechanical hold open devices on these doors are not allowed. Horizontal exit doors in hallways must be held open by magnetic hold devices situated by products of combustion detectors.

1. The following doors are required to be 20-minute rated assemblies:

5th floor - 121, 122, 125, 130, 123A, 129, 134, 141, 140, 135, 139, 136, 137, 138, 120, 160A, 124, 160C, 160B, 174, 145, 145A, 143, 174, 131, 174B, 174A, 175B, 175E, 175F, 175C, 175D, 150, 151, 147, 152A, 152.

7th floor - 149, 150B, 151, 152, 152A, 153, 166, 165, 170, 171, 139B.

15th floor - 114, 115, 122, 126, 146, 138, 139.

2. The following doors are required to be 1 hour rated assemblies.

5th floor - 144, 173A, 173B, 177A, 177B

7th floor - 149A, 149B, 150, 150A, 145, 146A, 154, 155A, 167, 176B, 176A, 175C, 175D, 148, 175A, 175B, 175E, 175F.

15th floor - 112B, 112A, 117, 118, 120, 104B 120, 124B, 124A, 132A, 133, 128A, 131, 134, 102A, 102B, 103B, 148, 149.

If there are any questions concerning these matters, please contact me at 373-4558.

Sincerely,



Russell Smith
University Building Official

/jc

cc: Paul Maupin



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Office of the Assistant Vice President

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

File Copy

May 29, 1980

JUN 9 Rec'd
UNIVERSITY OF MINN.
HEALTH SCIENCES
PLANNING OFFICE

Robert Swanson
Health Sciences Planning Office
4102 Powell Hall

RE: Plan and Specification Review - Unit B-C Phase V-2
5th, 7th, and 15th floors

Dear Mr. Swanson:

A review of the above mentioned project by the Building Official's Office results in the following comments:

I. General Code Requirements:

- a) All mechanical shafts must be constructed for 2 hour fire resistive construction. All openings into shafts must be 1½ hour rated assemblies self closing.
- b) Vertical stair shafts and elevator shafts must be constructed for 2 hour fire resistive construction. All openings in shafts must be 1½ hour rated assemblies self closing.

II. Specific Requirements:

- a) Doors. All corridor doors to offices, laboratories, and horizontal exit doors must be rated as listed below and must be self closing. Any mechanical hold open devices on these doors are not allowed. Horizontal exit doors in hallways must be held open by magnetic hold devices situated by products of combustion detectors.

- 1. The following doors are required to be 20-minute rated assemblies:

5th floor - 121, 122, 125, 130, 123A, 129, 134, 141, 140, 135, 139, 136, 137, 138, 120, 160A, 124, 160C, 160B, 174, 145, 145A, 143, 174, 131, 174B, 174A, 175B, 175E, 175F, 175C, 175D, 150, 151, 147, 152A, 152.

7th floor - 149, 150B, 151, 152, 152A, 153, 166, 165, 170, 171, 139B.

May 29, 1980

- Page Two

15th floor - 114, 115, 122, 126, 146, 138, 139.

2. The following doors are required to be 1 hour rated assemblies.

5th floor - 144, 173A, 173B, 177A, 177B

7th floor - 149A, 149B, 150, 150A, 145, 146A, 154, 155A, 167, 176B, 176A, 175C, 175D, 148, 175A, 175B, 175E, 175F.

15th floor - 112B, 112A, 117, 118, 120, 104B 120, 124B, 124A, 132A, 133, 128A, 131, 134, 102A, 102B, 103B, 148, 149.

If there are any questions concerning these matters, please contact me at 373-4558.

Sincerely,



Russell Smith
University Building Official

/jc

cc: Paul Maupin



UNIVERSITY OF MINNESOTA
TWIN CITIES

Julio Lopez

Division of Clinical Laboratories
Department of Laboratory Medicine and Pathology
Medical School
Box 198 Mayo Memorial Building
420 Delaware Street S.E.
Minneapolis, Minnesota 55455
(612) 373-8619

May 29, 1980

TO: Bob Swanson
FROM: Terry Duffy
SUBJECT: Final Design/Development and Working Drawings, Phase 5,
Stage 2, B/C Review

The Design/Development and working drawing plans have been reviewed by Medical Genetics and Virology. Attached are the comments/changes/additions/deletions of each department.

The Immunology Department is not included since Barbara Alter will be submitting their comments to you directly.

Blood Bank and EEG have been withdrawn from this project and, therefore, no review of their plans will be made at this date either.

If you have any questions, please call me.

Thank you.

TD/bms

enclosure

cc: A. Dees
G. Kujawa
D. Wieb

*5/30/80 and attached to the
attached file...*

VIROLOGY - 15th Floor - Unit B/C

Room 112 looking west at island 1

- a. All shelving should have 18 inches of clearance between the bench top and the bottom of the first shelf and 15 inches of clearance between the reagent shelves themselves
- b. This is true for all island bench shelves
- c. There should be no center support from benchtop to first shelf.
- d. Elevation S38 should state SS waterbath
- e. Move the end walls out 6 inches on the center island.
- f. The 18 inch workbench should be changed to 30 instead
- g. Would like AUG out of wall rather than bench top if possible.

Room 112 looking east at island 1

- a. Outlet for equipment L260 should be on emergency power. Shows on elevations, but not on the electrical drawings
- b. Both benches at elevation S39 should be 24 inches instead of 18 inches. The end walls of the center island should be moved out 6 inches on each side.
- c. Benches at elevation S39 should be high and now low benches.

Room 112 looking west at island 2

- a. End walls of center island should be moved out 6 inches each.
- b. Benches should be high benches and not low benches.
- c. Change 24 inch bench to 36 inch bench.

Room 112 south wall

Foot control pedals do not show on elevations. Check all drawings.

Room 112 looking north from south wall

- a. Door to room 113 should have large glass area
- b. Has accordion door been removed from closet area

Room 112 north wall

Add phone outlet in center of wall

Room 113 north wall

Remove light under counter of fixed shelf

Room 113 west wall

Light under counter of fixed shelf should have a dimmer switch

Room 115 south wall

Move four-plex outlet next to telephone outlet. Move runners of shelves 30 inches from the floor.

Room 117 west wall

- a. Move south end of west wall as far south as possible
- b. Add on 18 inch high bench with 3 equal drawers
- c. Change rest of benches to high benches and not low benches

Room 117 east wall

- a. Sink should have foot control pedal
- b. Eliminate phone outlet in 117 on north end

Room 118 east wall

- a. What does "inspect door by mech" mean?
- b. Cup sink is in wrong spot, should be directly under the still
- c. There should be a clock on the wall also.
- d. Countertop should be all stainless steel

Room 119 north wall

- a. Should have plaster ceiling
- b. What services are in fume hood?

Room 120 west wall

Hood should have services on both sides

Room 120 ceiling

Ceiling should be plaster

Room 120 north wall

Door should be a 42 inch door

Room 121 cold room

- a. Should cold room have emergency power?
- b. Are there lights in the cold room?
- c. All countertops should be stainless steel

Room 112 looking east island 1

Shelves are PLM $\triangle 3$, countertop should be PLM $\triangle 4$, not $\triangle 3$

Room 112 north wall

Again, shelves are PLM $\triangle 3$, however, countertop should be PLM $\triangle 4$,
not PLM $\triangle 3$

Room 120 east wall

Shelves are PLM $\triangle 3$, countertop should be PLM $\triangle 4$

MEDICAL GENETICS - 15th floor - Unit B/C

Room 124 center of room

- a. Carpeting was indicated for the area involving the individual microscope tables
- b. Supply vents should be avoided in the central part of the room, should be located out toward the sides more

Room 124 north wall

- a. A, V should be on both sides of sink
- b. Sink should have tall spigot for cold water at E5.

Room 124 east wall

2 bench cabinets should be painted yellow for flammable cabinet

Room 131 south wall

- a. Place phone outlet for wall phone
- b. Check to see that room has enough ventilation

Room 134 east wall

Make sure that HW and CW are on sink

Room 132

Counter on south and east walls should be 36 inches deep to accomodate laminar flow hoods.

General Questions

- a. Where is CO₂ central storage system located?
- b. Trace all CO₂ lines to make sure they reach all incubator systems for Virology and Medical Genetics
- c. Do all fume hoods have lights in them or do they have to be specified?
- d. Do all hand washing sinks have foot control pedals?



UNIVERSITY OF MINNESOTA
TWIN CITIES

Immunobiology Research Center
Department of Laboratory Medicine and Pathology
Medical School
Box 724 Mayo Memorial Building
420 Delaware Street S.E.
Minneapolis, Minnesota 55455
(612) 376-8084

File Box C

JUN 2 Rec'd

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

DATE: May 30, 1980

MEMO TO: Robert Swanson
Health Sciences Planning
4104 Powell Hall
University of Minnesota
Minneapolis, MN 55455

FROM: Barbara Alter *BSA*
Immunobiology Research Center

RE: Review Comments Phase V Stage II

Enclosed are my comments on working drawings for Stage II. There are still several points to be clarified as noted. Some of these will be worked out by John Patterson in the near future, particularly rooms 141A and 141.

BJA:cks
Enc.
cc: John Patterson
Dick Carlson
Terry Duffy
Miriam Segall

REVIEW COMMENTS
Phase V, Stage II
B/C

Room 138 - Cold Room

- 1) Sheet A9-2 Elevation 50 - extend adj metal shelves to floor, i.e., add 3 shelves (may be shorter in length if CS interferes)
- 2) Sheet E-5 - no power drawings shown
- 3) Sheet E-4 - no lighting drawings shown
- 4) Consider putting room on emergency power
- 5) What is air handling system? independent? (M-15)
- 6) Add paging speaker, if possible

Room 139 - Sec/Rec.

- 1) Sheet A9-2 Elev. 48 - add 1 adj. shelf in P. Lam cswk base along wall
- 2) Sheet E-5 - add outlet for clock where shown on Sheet A9-4 Elev. 55 (i.e., north wall)
- 3) Sheet E-4 - add light switch (i.e., 3-way) at door 139A

Room 140 - Blood drawing

- 1) Sheet A8-1 - refrig equipment R621 add room designation 7-140 should be undercounter ref/freezer by owner
- 2) Sheet E-5 - low voltage buzzer (?) should be at edge of counter under overhang - doesn't appear to be indicated as such
- 3) Sheet E-4 - put 1 fluor. light on emergency circuit
- 4) Sheet E-4 - west wall over counter - delete light fixture D w/ switch

Room 148 - Storage

- 1) Sheet M-12 - add sprinkler south of existing (due to shelving in room)

Room 149 - Office

- 1) Sheet A3-2 - door swing doesn't allow desk to be put on west wall, so move door east on wall to allow for desk - consider also swinging door out into hall
- 2) Sheet E-5 - add clock outlet to east wall

Room 149A - Office

- 1) Sheet A9-2 Elev. 42 add lock to drawers
- 2) Sheet M12 - center sprinkler head in room

Room 149B - Office

- 1) Sheet A9-2 Elev. 42 & 43
 - a) add lock to drawers b) designate elev. 42 to be room 149B
- 2) Sheet M-12 - center sprinkler head in room

Room 150 - Office

- 1) Sheet M12 - center sprinkler in room

Room 150A - Office

- 1) Sheet M12 - center sprinkler in room

Room 150B - Office

- 1) Sheet A9-2 Elev. 46
 - a) extend length of adj shelves entire length of wall (i.e., over equipment)
 - b) add cable outlet for printer (i.e., large piece of equipment left of bench top)
 - c) remove 1 telephone & 1 CRT0 from middle over desk and move EO to right about 2 ft. (i.e., we need at desk top 2 CRT0 & 2 duplex EO & 2 telephones)
- 2) Sheet E-5
 - a) Remove center CRT0 and telephone

- b) add cable outlet for equipment (printer) at north end of east wall
- c) add clock outlet on north wall (over printer)
- 3) Sheet M-12 - center sprinkler in room
- 4) Sheet A4-2 - add paging speaker

Room 153 - Lounge

- 1) Sheet E5 - equip #M852 should be M552 Doesn't it need 220/3ph? (i.e., add 220 for M552)
- 2) Sheet M12 - distribute sprinklers more evenly

Room 152 - Office

- 1) Sheet E-5 - remove EO on north wall
- 2) Sheet M-12 - center sprinkler in room

Room 151 - Office

- 1) Sheet M-12 - center sprinkler in room

Room 152A - Office

- 1) Sheet M-12 - distribute sprinkler heads more evenly

Room 158 - Computer

- 1) Sheet A3-2 - needs wall finish and ceiling type
- 2) John Patterson should further review this room re: ventilation, etc.

Room 157 - Printer

- 1) Sheet E-4 - add paging speaker
- 2) Sheet A3-2 - needs wall finish and ceiling type
- 3) Sheet A4-2 - add paging speaker

Room 142 - Office

- 1) Sheet A9-2 elev. 4
 - a) remove buzzer
 - b) add tackboard under fixed shelf with light
- 2) Sheet E-4 - add paging speaker
- 3) Sheet A4-2 - add paging speaker
- 4) Sheet E-5 - remove buzzer

Room 143 - Office

- 1) Sheet A9-2 Elev 4
 - a) remove buzzer
 - b) Casework LB18G3 not described in specs documents 12345-24. These units must contain 2 reg. file drawers - if not available then we'll buy them separately to put under counter top. Please consult me re: this.
 - c) Add tack board under fixed shelf with light.
- 2) Sheet E4 - add paging speaker
- 3) Sheet A4-2 - add paging speaker
- 4) Sheet E5 - remove buzzer

Room 144 - Office

- 1) Sheet A9-2 Elev. 4
 - a) remove buzzer
 - b) see 1b room 143 above
 - c) see 1c room 143 above
- 2) Sheet E-4 add paging speaker
- 3) Sheet A4-2 add paging speaker
- 4) Sheet E-5 remove buzzer

Room 147 - Tech area MLC

- 1) Sheet A9-2 Elev 14 and 15

- a) Note CSWK LB18C1 has fixed panel in lieu of drawer - should be noted in specs document 12345-24
 - b) All CSWK LB18G1 add locks
- 2) Sheet E-4 specify task light fixture M-1 for unit beside files (NIC) see $\frac{13}{A9-2}$

Room 145 - HLA lab

- 1) Sheet E5 - add E0 under chalkboard re: elev. 12 sheet A9-2
- 2) Sheet A9-2 elev 11, 5, 6, 7
 - a) Below adj shelves, the shelf on which all CRTs sit must be 15 in in depth (elev $\frac{21}{96}$ does not reflect this special condition)
 - b) CSWK - WS36D1 not given in Spec. Docum. 12345-26. This unit should be a wall cabinet with adj shelves (2) without any doors on front of unit (as shown).
- 3) Sheet E-4 ref $\frac{11}{A9-2}$
 - a) Move task light on-off switch to center
 - b) Change task light fixtures to fit bench length which is now $13\frac{1}{2}$ ft not 16 ft due to 3 ft door clearance on MTS core wall. See
 - c) Put 1 ceiling light on emergency power outside offices 144-143.
- 4) Sheet E5
 - a) Remove wall phone from service column by sink on island bench (see A9-4 elev. 57)
 - b) Add EM power for equipment R507 and R473

Room 146 - MLC Lab

- 1) Sheet A4-2 - Add 2 paging speakers; one over island HB and one near exit to corridor
- 2) Sheet E-4
 - a) (as 1 above) i.e. paging speakers
 - b) Remove task lights on east wall (M & M-1)
- 3) Sheet E-5 - add EM to power for equip R510 and R473

- 4) Sheet M-5
 - a) Need GAV x 2 to each hood equip #s L129 (2 new and 2 exist) L137 (2 exist)
- 5) Sheet A9-2 Elev. 18 and opp. hand
 - a) Change cswk designation LB 36 C2 to LB 36 C3 (as per descrip in Spec. Doc. 12345-24)
 - b) Add cont. electric strip under wall cab.
- 6) Sheet E-5 add CO₂-Air alarm by eyewash at door to corridor (see A9-2 elev. 17)

Room 154 - Lab

- 1) Sheet A9-2 elev. 60 change cswk HP54A3 to HP54A5
- 2) Sheet E-4 put central ceiling light fixture on emergency power
- 3) Sheet E-5 - add contin elec. strip over HP54A5 lab bench (west wall) (1 duplex shown - need at least 2 and preferably 3)
- 4) Sheet A8-1 R625 and R621 should be included in contract for this room.

Room 156 - TC room

- 1) Sheet A4-2
 - a) Add paging speaker
 - b) Chg direction of fluor. lights to follow bench tops as in rms. 116, 125, 122, Stage I
 - c) Add UV lights to fluor. housing
- 2) Sheet A9-2
 - a) Elev. 24 LB18C1 should be designated with fixed panel in lieu of drawer
 - b) Elev 24 (west wall) GAVG in center - remove one A and one V
- 3) Sheet E-4
 - a) West wall - move light switch of task light (under cabinet) to center between the 2 lamps. Designate as M fixture.
 - b) Under counter task light north wall - designate M and M-1 fixtures (why aren't these D or D1 as in Stage 1?)

- c) Ceiling light fixtures should be:
- 1) Type N as given for Stage I Phase V, Spec. Doc. p. 16400-4 i.e. 4 lamp fixture with 2 UV lamps (mount UV warning light outside Rm 156 in Rm 154)
 - 2) Orientation of lights must be in direction of bench top i.e.

The diagram shows a simple line drawing of a bench. It consists of a long horizontal rectangle with a shorter vertical section on the right side. Inside the long horizontal section, there is a smaller rectangle. Two lines originate from the text 'UV-fluor lights' and point towards this inner rectangle. A label 'bench' is written to the right of the main rectangle.
 - 3) Switch for ceiling fixture must be outside room with UV warning light.

as for rooms 116, 122, 125 in Stage I.

Room 155 - Hood room

- 1) Sheet E-4
 - a) Move switch for ceiling light by door that enters 155 from Rm 156 (the door to corridor is emerg exit only)
- 2) Sheet M-15 Equip L 133 hood needs separate exhaust duct to outside - please check.

General Comments

- 1) Sheet E4 - Stage I fixed shelf lights are Type D. Stage II lights Type M. The descriptions in Spec. Doc. are different. Please reconcile.
- 2) Please note that Rooms 141 and 141A will be redone with John Patterson. They will however likely remain as shown in plan A3-2. Further, due to MTS core door the casework on the east wall Room 145 has been moved as shown in plan A3-2. These two changes however need to be reflected on M-15, M-5, E-5, E-4 as these drawings in many instances don't accommodate the changes.



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

June 10, 1980

Mr. Richard Carlson
Health Sciences Architects and Engineers, Inc.
University Park Plaza - Suite 704
2829 University Avenue S.E.
Minneapolis, Minnesota 55414

Subject: Phillips-Wangensteen Building
Unit B/C Phase V, Stage 2
Final Contract Document Review Comments

Dear Mr. Carlson:

The attached University review comments including those submitted on Friday June 6, 1980 shall be incorporated into the Unit B/C Phase V, Stage 2 contract documents prior to release of this project for contractor quotation.

Please verify in writing the specific action taken on each individual item prior to the receiving of bids, since some of the items may require further action and thereby be adjusted by addendum.

If you have any questions pertaining to the attached, please call at your convenience.

Very truly yours,

Robert M. Swanson Jr.

Robert M. Swanson, Jr.
Asst. Health Sciences Planning Coordinator

cc: John Pattersons

RMS:jm

SPECIFICATION REVIEW COMMENTS General Construction

1. Specification cover & title page
Delete reference to Paul E. Kopietz, and provide the following:
"Director of Engineering and Construction".
2. Advertisement for Bids page A1-1
The approximate cost of the project is not \$3,100,000. The low rise elevators have been deleted, as well as the fifth floor EEG & blood bank programs.
3. Bid closing date
The July 1, 1980 date will have to be adjusted to account for the removal of certain fifth floor facilities.
4. Division "C" - General Conditions of the contract
Article 3.3.12, page C8
It is not the University's responsibility to inspect the project "to determine the dates of completion", but to inspect the project in an attempt to verify the contractor's compliance with his construction schedule.
5. Summary of Work & Special Requirements
Article 1.16, page 01010-9, item A
The plaza staging area shall have "a shared responsibility between all shell space contractors".
Article 1.22, page 01010-11, item C
Delete the following "beginning at a date established by the University but not before substantial completion of the project". This statement is contrary to past Unit B/C projects. This sentence should read "set in its final place and make necessary connections at a time when the space is deemed ready by the contractor".

Article 1.22, page 01010-12, items D & E

Delete reference to the University being totally responsible for damage & removing packing materials, and change the sentence to read the "University's equipment suppliers".

Article 1.29, page 01010-17, item D

Expand this statement to give the contractors more information as to the locations of the entrances affected.

6. Contract time & Construction Schedule

Article 3.1, page 01200-2, items B & C

Verify the completion dates indicated; the July 15, 1980 date in item "B" must be in error.

7. Temporary Facilities

Article 5.6, page 01500-8, item A

This item may be misconstrued by the contractor to mean the plaza in general; alter the title to read "Use of the Existing Plaza shared Contractor Storage Area".

8. Rolling Shutters

Article 2.2, page 08330-2, items 2 & 3

Full height shutters will not require seven-pin locking cores & Best cylinders in the footpiece. To be consistent with modifications to previous Unit B/C projects, utilize a key operated control switch for locking.

Article 2.3, page 08330, item A

Change the push button operator to a key control unit. Example modification 17E to the Unit B/C - Phase VI project.

9. Finish Hardware

Article 1.1, page 08700-1, item C.5

Delete reference to "section 06100" and substitute "applicable sections".

Article 1.4, page 08700-2, item C

First sentence should read "Shortages and/or incorrect items". Also, change the second sentence as follows "shall be furnished and/or replaced".

Article 2.5, page 08700-5, item G

Change the first sentence to read "Size of door closer shall be as recommended by the closer manufacturer".

Article 2.5, page 08700-5, item H

Add the following paragraph: "H. Guarantee successful operation of each door supplied with a door closer and provide if necessary, and at no additional cost to the owner, a larger size closer for and door which will not operate properly".

Article 2.10, page 08700-5, item A

Alter reference to GJ300 stop to read "GJ500".

Article 2.12 & 2.13, page 08700-6

Add the above articles to the specification to cover Silencers & Door Seals as indicated in the Unit B/C - Phase VI hardware spec.

*Note: Hardware group comments shall follow under separate cover.

10. Miscellaneous Specialties

Articles 2.2 & 2.3, page 10050-2

Delete both I.V. track systems M-796 and M-796A since they occur in the fifth floor spaces removed from the project.

11. Adjustable Metal Shelving

Article 2.1, page 10671-1, item B

Due to experience with previous Health Science projects, the "required accessories" must be listed in the specification in order to insure a complete system is supplied.

12. Darkroom Equipment

Article 2.2, page 11470-1, item A

Please define the "required accessories" to be included.

Article 2.3, page 11470-2, item A

Please define the "required accessories" to be included.

Article 2.4, page 11470-2, item A

Typically Photographic Sink units have many different service packages available; therefore, the "required accessories" must be defined in detail.

13. Laboratory Equipment

Article 2.1, page 11600-2, item F.4

Define the services required to the "three petcocks" specified so that the appropriate color index is provided.

Article 2.1, page 11600-3, item F.5

The duct transitions required on this project should be provided as indicated on the approved Unit B/C - Phase V, stage 1 Laminar Flow hood shop drawings. See the appropriate Unit B/C - Phase VI prepurchase modification.

Article 2.2, page 11600-3, items F.4 & F.5

Same comments as for Article 2.1, items F.4 & F.5 listed above.

Article 2.4, page 11600-4, item F

Previous experience with other Health Science projects requires that optional equipment items such as spindle headers, transfer tables, pipette insert pails, test tube baskets with covers & pipette headers be defined in detail as a part of the general specification in order to assure the using department a functional piece of equipment. Therefore, please define the specific optional equipment items desired by the department in the Phase V, stage 2 specification.

14. Sterilizers

Article 1.2, page 11611-1, item A

After Vemitron's performance on the Unit B/C - Phase I and II projects, by no means shall they be considered an approved bidder on the Phase V, stage 2 project. In addition, Market Forge should be deleted as an approved equal in the specification, although if they request University approval during the bid period, this office will schedule the appropriate meetings required.

Article 2.2, page 11611-2

Delete reference to Market Forge as an approved supplier of the S-261 sterilizer and substitute the appropriate Amsco or Castle data.

Article 2.2, page 11611-3, item D

Delete "applicable portions of Ind."

Article 2.4, page 11611-4, item F

Delete "applicable portions of Ind."

15. Metal Laboratory Casework

Article 1.2, page 12345-3, item D

Delete "Jamestown Metal products, Inc. & St. Charles Manufacturing Company" as acceptable suppliers.

Article 1.2, page 12345-3, items E.1-E.4

Delete this portion of the case-work specification in its entirety.

Article 1.2, page 12345-4, item F.1

Delete reference to Mr. Oliver Hughes and substitute "Mr. Jack Geretz, phone (612) 373-4989".

Article 1.2, page 12345-5, item H

Delete in the second sentence "indicates that by interview".

Article 2.7, page 12345-14, item B

Delete current reference to adhesive and substitute the following, "Adhesive: Modified ureaformaldehyde, Urac-185, or approved equal".

Article 2.7, page 12345-15, item C

Delete current reference to sealing procedure at edges & cut outs, and substitute the following "Seal all core surfaces not laminate-faced with clear synthetic resin sealer recommended by laminate manufacturer".

Article 4.1, page 12345-24, item D

At LB-C1 casework component, add a note regarding "the fixed panel in lieu of the drawer" see casework elevations 14, 15 & 24/A9-2. Add the following casework component - "LB-G3 2 standard file drawers".

Article 4.1, page 12345-26, item D

Add the following casework component - "WS-D1 2'-7" x 1'1" deep (2) adj. shelves & no doors".

16. Controlled Equipment (Cold) rooms

Article 3.2, page 13040-7, item A

Delete reference to floor five, room 121.

SPECIFICATION REVIEW COMMENTS Mechanical Construction

1. Ventilation & Air Conditioning

Article 2.3, page 15800, item A

Stainless steel duct joint sealant procedure should be reviewed to reflect the system established in the field on the Unit B/C - Phase V, stage 1 project.

2. Miscellaneous Items

As a part of Unit B/C - Phase V, stage modification 1P, the mechanical contractor supplied individual filtration units at each laboratory vacuum outlet, please see that this item is incorporated in the appropriate section of the stage 2 mechanical specification.

SPECIFICATION REVIEW COMMENTS Electrical Contractor

1. Communications Systems

Article 2.4 and 2.5, pages 16500-3 & 4

Since the above articles apply to the fifth floor spaces, delete the entire sections.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Assistant Vice President

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

May 29, 1980

JUN 9 Rec'd
UNIVERSITY OF MINN.
PLANNING OFFICE

Robert Swanson
Health Sciences Planning Office
4102 Powell Hall

RE: Plan and Specification Review - Unit B-C Phase V-2
5th, 7th, and 15th floors

Dear Mr. Swanson:

A review of the above mentioned project by the Building Official's Office results in the following comments:

I. General Code Requirements:

- a) All mechanical shafts must be constructed for 2 hour fire resistive construction. All openings into shafts must be 1½ hour rated assemblies self closing.
- b) Vertical stair shafts and elevator shafts must be constructed for 2 hour fire resistive construction. All openings in shafts must be 1½ hour rated assemblies self closing.

II. Specific Requirements:

- a) Doors. All corridor doors to offices, laboratories, and horizontal exit doors must be rated as listed below and must be self closing. Any mechanical hold open devices on these doors are not allowed. Horizontal exit doors in hallways must be held open by magnetic hold devices situated by products of combustion detectors.

1. The following doors are required to be 20-minute rated assemblies:

5th floor - 121, 122, 125, 130, 123A, 129, 134, 141
140, 135, 139, 136, 137, 138, 120, 160A, 124, 160C,
160B, 174, 145, 145A, 143, 174, 131, 174B, 174A,
175B, 175E, 175F, 175C, 175D, 150, 151, 147, 152A,
152.

7th floor - 149, 150B, 151, 152, 152A, 153, 166, 165,
170, 171, 139B.

15th floor - 114, 115, 122, 126, 146, 138, 139.

2. The following doors are required to be 1 hour rated assemblies.

5th floor - 144, 173A, 173B, 177A, 177B

7th floor - 149A, 149B, 150, 150A, 145, 146A, 154, 155A, 167, 176B, 176A, 175C, 175D, 148, 175A, 175B, 175E, 175F.

15th floor - 112B, 112A, 117, 118, 120, 104B 120, 124B, 124A, 132A, 133, 128A, 131, 134, 102A, 102B, 103B, 148, 149.

If there are any questions concerning these matters, please contact me at 373-4558.

Sincerely,



Russell Smith
University Building Official

/jc

cc; Paul Maupin



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

June 25, 1980

TO: Unit B/C Phase V, Stage 2
Cost Information File

FROM: Robert Swanson *RS/jm*
Asst. Health Sciences Planning Coordinator

SUBJECT: Hospital Budget Review Meeting

PRESENT: Paul Maupin, Robert Swanson, Richard Carlson
Tom Jones, Diane Banta

REFERENCE: June 24, 1980 Memorandum to Unit B/C Phase V
Cost Information File (copy attached)

On January 17, 1980, Mr. John Patterson provided the University with a final design development cost estimate pertaining to the Phase V project. John's estimate stated the total funding need for construction purposes would be \$2,220,428 which agrees with the construction cost identified in the Final Proceed Order # 4, Amendment # 2.

On June 10, 1980, the Health Sciences Planning Office received Mr. Carlson's probable Phase V cost summary which indicated a \$619,144 increase in the construction cost over the final proceed order figure. Therefore, without prior knowledge of this increase, it seemed appropriate that the Health Sciences Planning Office and Hospital planning representatives meet with the Architects in an attempt to clarify the reasons, if they exist, for a 22% increase in construction cost, since the original program and design development documents had not been altered through the contract document phase.

Mr. Jones started the meeting by indicating that the Hospital's Board of Governors had agreed to the budget as defined in Amendment #2 to Proceed Order #4, and that additional funding was out of the question. Therefore, how does the Architect intend to bring the project back in line with the original budget?

June 26, 1980
Unit B/C Phase V
Hospital Budget Review Meeting
Page Two

Mr. Carlson explained that the Phase V, Stage 2 specification defines the MTS expansion to floor 15, distilled water system and fifth floor pedestrian bridge as deduct alternate items which would bring the estimated construction cost down. Therefore, the Architects would prefer to bid the project as planned.

Mr. Maupin asked that the Architects review and submit in writing an explanation as to why the Associated Space construction cost escalated by \$353,502 during the construction document phase.

Mr. Maupin with the Hospital's concurrence instructed the Architects to go back and review the June 10, 1980 cost summary and either revise the costs if found to be in error or provide the University with a means whereby the construction cost falls within the proceed order budget.



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

June 24, 1980

TO: Unit B/C Phase V
Cost Information File

FROM: Robert Swanson
Asst. Health Sciences Planning Coordinator

SUBJECT: Health Sciences Architects & Engineers Probable
Cost Summary dated June 10, 1980

1. Final Proceed Order #4 Amendment #2 Cost Summary:

\$3,115,000 Total construction cost per Proceed Order # 4
 - 363,000 * Delete EEG/Blood Donor
2,751,934
 - 529,200 * Delete Elevator #10, 11, & 12

\$2,222,734 Revised construction cost
 * Note figures deleted include 5% design
 contingency and .12% escalation

2. Comparison between John Patterson's final Design Development Cost
 summary dated January 17, 1980 and Carlson's cost summary dated
 June 10, 1980:

	<u>J.P.</u>	<u>D.C.</u>	<u>Difference</u>
a. Floor 7 Immunology & Human Preservation (Hosp.)	490,160	635,618	+ 145,458
b. Floor 15 Genetics & Virology (Hosp.)	772,472	831,707	+ 59,235
e. MTS Expansion to Floor 15 (Hospital)	<u>112,000</u>	<u>183,000</u>	<u>+ 71,000</u>
Sub-Total	\$1,374,632	1,650,325	+ 275,693
c. Associated Space Floors 5, 7 & 15	163,000	516,989	+ 353,502
d. Unit B/C Pedestrian Link	<u>350,000</u>	<u>423,000</u>	<u>+ 82,000</u>
Sub-Total	\$1,888,119	2,590,314	+ 702,195

Cost Summary Comparison
 Page two
 June 24, 1980

	<u>J.P.</u>	<u>D.C.</u>	<u>Difference</u>
f. Dist. Water System	<u>-0-</u>	<u>180,000</u>	+ <u>180,000</u>
Sub-Total	\$1,888,119	\$2,770,314	+ 882,195
Design Contingency	<u>x.05</u>	None	
	1,982,525		
Escalation @ 12% Per John's Letter	<u>X.12%</u>		
	<u>\$2,220,428</u>		
Escalation @ 2.5% per Dick's letter		<u>x 2.5%</u>	
		<u>\$2,839,572</u>	

Conclusion:

\$2,839,572
 -2,220,428
\$ (619,144) Project Deficit to Date

Stage II

HSAE

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

9 July 1980

JUL 9 Recd

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

RE: Unit B/C Phase V
Probable Cost Summary

Dear Mr. Maupin:

We wish to submit for your review a Probable Construction Cost Summary dated revised 8 July 1980. Since our review meeting held on 25 June 1980 we have obtained a second professional cost estimate of the B/C Phase V-2 project from a potential bidding Contractor.

The Phase V-2 construction cost is now estimated to be \$2,561,723.00 rather than our previous 10 June 1980 estimate of \$2,831,372.00 or a reduction of \$269,649.00. The varied amount between the two estimates is primarily in the Contractor's anticipated "front end" costs according to the potential bidder. During our meeting of 25 June 1980 we made comments about the costing instability of the current construction market and the resultant fluxuations in our recent cost estimates. This new lower estimate seems to support this observation.

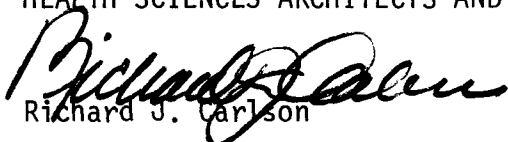
As in the previous estimate, Part VI identifies items which have been added to the Phase V Project and Part VII identifies areas which have been omitted from the project (Floor 5 EEG and Blood Bank and Floor 15 Unit B West corridor)

Part VIII indicates the change in total Phase V estimated to be (-)\$193,433.00 i.e. the difference between the approved design development cost estimate (Part VII) and the total Phase V construction cost (excluding items added) Part VI.

We hope this revised probable cost summary will satisfy the concerns regarding the budgeted amounts. If the new information is acceptable we would suggest the Phase V-2 Project be released for bidding in accordance with our indicated mid-July schedule. We will await your authorization before issuing for bidding, however.

Sincerely,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.


Richard J. Carlson

RJC:kae Enclosure
cc: John Patterson

PROBABLE CONSTRUCTION COST SUMMARY

Revised July 8, 1980
June 10, 1980

I.	PHASE V-1 (STAGE 1) CONSTRUCTION COST		\$1,326,979.00
	A. IMMUNOLOGY		
	BID PRICE	\$	775,000.00
	PREPURCHASE MATERIALS		303,727.00
	GLASSWASHING FACILITY		167,209.00
	INDEPENDENT LAB VACUUM SYSTEM		54,618.00
	MISCELLANEOUS MODIFICATIONS		26,425.00
	PHASE V-1 (STAGE 1) CONSTRUCTION COST		\$1,326,979.00
II.	PHASE V-2 (STAGE 2) CONSTRUCTION COST		\$2,561,723.00
	A. FLOOR 7 IMMUNOLOGY/HUMAN ORGAN PRESERVATION	\$	626,665.00
	B. FLOOR 15 GENETICS/VIROLOGY		870,476.00
	C. FLOORS 5, 7 & 15 ASSOCIATED SPACE		308,542.00
	D. UNIT B PEDESTRIAN LINK		393,040.00
	E. MTS EXTENSION TO FLOOR 15 (System Pathway extension not included in D.D. cost estimate)		183,000.00
	F. DISTILLED WATER SYSTEM (System not included in D.D. cost estimate)		180,000.00
	PHASE V-2 (STAGE 2) CONSTRUCTION COST		\$2,561,723.00
	SUBTOTAL PHASE V-1 & V-2		\$3,888,702.00
III.	PHASE V-3 (STAGE 3) CONSTRUCTION COST		\$ 610,000.00
	A. FLOOR 5 MEDICAL ONCOLOGY	\$	364,863.00
	B. VFW BRIDGE PLAN B		227,370.00
	PHASE V-3 (STAGE 3) SUBTOTAL	\$	592,233.00
	ESCALATION TO BID DATE		17,767.00
	PHASE V-3 (STAGE 3) CONSTRUCTION COST	\$	610,000.00
	SUBTOTAL PHASE V-1, V-2 & V-3		\$4,498,702.00
IV.	PHASE V-4 (STAGE 4) CONSTRUCTION COST		\$ 890,000.00
	A. HIGH RISE ELEVATORS NOS. 1, 2 & 3 (Elevators not included in D.D. cost estimate)	\$	472,500.00
	B. LOW RISE ELEVATORS NOS. 10, 11 & 12		400,000.00
	PHASE V-4 (STAGE 4) SUBTOTAL	\$	872,500.00
	ESCALATION TO BID DATE		17,500.00
	PHASE V-4 (STAGE 4) CONSTRUCTION COST	\$	890,000.00

Revised July 8, 1980

PROBABLE CONSTRUCTION COST SUMMARY

June 10, 1980

V.	TOTAL PHASE V (STAGE 1, 2, 3, & 4) CONSTRUCTION COST (Including items added)		\$5,388,702.00
VI.	TOTAL PHASE V CONSTRUCTION COST (Excluding items added)		\$4,500,567.00
	A. HIGH RISE ELEVATORS NOS. 1, 2 & 3	\$ 485,000.00	
	B. DISTILLED WATER SYSTEM	198,000.00	
	C. ADDITIONAL MTS PATHWAY	83,000.00	
	D. INDEPENDENT IMMUNOLOGY LAB VACUUM SYSTEM	54,618.00	
	E. MISCELLANEOUS STAGE 1 MODIFICATIONS	26,425.00	
	F. ADDITIONAL ESCALATION	41,092.00	
	SUBTOTAL	\$(888,135.00)	
VII.	APPROVED DESIGN DEVELOPMENT COST ESTIMATE		\$4,694,000.00
	A. TOTAL PHASE V COST ESTIMATE	\$5,100,000.00	
	B. OMITTED PROGRAM SCOPE	(406,000.00)	
	SUBTOTAL	\$4,694,000.00	
VIII.	CHANGE IN TOTAL PHASE V ESTIMATED COST	(SUBTRACT)	\$ 193,433.00

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

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMO TO: Unit B/C Phase XI File
MEMO BY: Paul Finsness
DATED: 19 September 1980
SUBJECT: Meeting of 18 September 1980

SEP 22 1980

A meeting was held on 18 September 1980 at the Health Sciences Planning Office with Warren Forslund (HSP0); Jim Butler, Al Newcomer, and Paul Finsness (HSAE) in attendance. Information on electrical requirements and equipment required for the 13th floor was provided us at this time. The 14th floor information will be available early in the week of 22 September 1980 according to Mr. Forslund. The following decisions were made during the course of this meeting:

1. The 13th floor Nitrogen system requires only eight tanks and the 14th floor system requires only ten tanks (not twelve as specified in his letter of 16 July 1980.)
2. The alternate floor plan layouts prepared for Rooms 14-103, 104, 105, 106, 107, 108, 109, and 110 were rejected by Mr. Forslund. We were instructed to proceed with the floor plan layout included in the reviewed design development document.
3. The previously approved floor plan layout (meeting of 11 September 1980, see memo of 12 September 1980) is no longer acceptable. The floor plan for this area is currently under study by Forslund.
4. A floor drain is required at both Rooms 13-155 and 13-162.
5. Reverse the locations of the vending machines and the kitchen unit in Room 13-162.
6. Reduce the length of the counter and casework in Room 13-155 to 30 inches.
7. Reduce the width of the tall storage unit at Room 14-119 to 18 inches. Locate the eyewash unit on a 28 inch stub wall as by Mr. Forslund.

In addition, Mr. Forslund was requested to provide us with information as soon as possible on the following subjects discussed in previous meetings.

1. The advisability of locating a bath type showerhead and a floor drain in a P-3 lab air lock Room 14-132A. (See memo of 26 August 1980.)
2. The heat load produced by the data processing equipment in Room 14-135 is urgently required. Also, whether or not a separate air conditioning unit is required for that room must be determined. (See memo of 26 August 1980.)
3. The floor plan for the Animal Area Rooms 13-169, 170, 171, 172, 173, 174, and 175 has yet to be resolved. (See memo of 12 September 1980.)

cc: Paul Maupin

AUG 1 1980

ADDENDUM NO. 1

29 July 1980

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

UNIT B/C - PHASE V-2
LABORATORY MEDICINE AND PATHOLOGY
AND DEPARTMENT OF SURGERY - FLOORS FIVE, SEVEN AND FIFTEEN

UNIVERSITY OF MINNESOTA - MINNEAPOLIS CAMPUS
HEALTH SCIENCES EXPANSION - PROJECT NO. 144-79-0524

THE ARCHITECTS COLLABORATIVE, INC.

Cambridge, Massachusetts

HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

University Park Plaza - Suite 704
2829 University Avenue Southeast
(612) 378-3833

Minneapolis, Minnesota
55114

The additions, revisions, omission, corrections and clarifications contained herein shall be made to drawings and specifications for the project and shall be included in the 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.

SPECIFICATIONS - ALL CONSTRUCTION

1 - Cover Page: (A) Under the Project Identification add the following:
Project No. 144-79-0524.

2 - Table of Contents: (A) Under Division A - Bidding Requirements, A4 Bid Bond Form, list page A4-1. and add Bid Bond Form as attached to this addendum.

(B) Under Division B - Contract Forms B1 Agreement, list pages B1-1 thru B1-4 and add Agreement Form, Contract Forms B2, Contractor's Bond, list pages B2-1 thru B2-2 and add Contractor's Bond Form both as attached to this addendum.

(C) Under Division 16 Electrical, after Section 16900 add the following:

Input/Output Schedule Legend	1 page
Input/Output Schedule	6 pages
Duty Cycle and Smoke Control Sequence Schedule	1 page

3 - Advertisement for Bids: (A) Page A1-1, Revise address for receipt of bids in first paragraph to read:

Director of Purchasing and Stores
Administrative Service Building
2610 University Avenue
Saint Paul, Minnesota 55114

(B) Revise the fifth paragraph on this page as follows:

The attention of all Bidders is called to the Equal Employment Opportunity the Affirmative Action and SED Set Aside Program requirements for Contractor, subcontractors, and suppliers, as stated in the Contract Documents.

4 - Instructions to Bidders: (A) Page A2-13, Article 15.1.1, add the following sentences: "Bidder shall note certification block on the Bid Form that requires the entry of information and a signature by the bidder. If applicable requirements as stated under Article 18 are not complied with, Bids will be rejected:"

(B) Page A2-14, Add Article 18 as follows:

ARTICLE 18 - SED SET-ASIDE PROGRAM

18-1 Certification

18.1.1 Bidder shall note certification block on the Bid Form that requires the entry of information and a signature by the Bidder. Bids will be rejected if the following list of requirements are not followed:

- a) the certification block shall be signed by the bidder.
- b) SED firm names and amounts shall be listed.
- c) The dollar amounts listed for SED procurement shall total at least 3% of the Base Bid.
- d) The SED firms listed shall appear on the SED list bound in the specifications or shall have been otherwise validated as described in the General Conditions.

5 - Bid Form: (A) Revise all references to address of Director of Purchasing and Stores to "2610 University Avenue."

6 - Division C - General Conditions of the Contract: (A) Article 9, Payments and Completion, paragraph 9.3.7, revise reference to percentage to read: Ninety-five percent (95%).

(B) Article 17, Revise to read as follows:

ARTICLE - SED SET-ASIDE PROGRAM

17.1 Small Business Firms

17.1.1 Chapter 086, Minnesota Statutes 1979, requires the University to set aside three per cent (3%) of its procurement volume for award to small businesses owned and operated by socially or economically disadvantaged persons as defined by State law. To satisfy this requirement, the Contractor shall sub-contract or purchase no less than three percent (3%) of the Base Bid cost of this contract with one or more qualifying SED small business firms.

17.1.2 A copy of the current list of small business firms that have self-certified their SED qualifications to the University is hereinafter bound in the specifications for reference. Other eligible firms may qualify by either of the following methods:

- (1) by filing a completed SED self-certification form with the University Set-Aside Coordinator prior to the date of receipt of bids. Interested bidders may verify the validation of the firms in this category by contacting the Set-Aside Coordinator at the address listed below.
- (2) by submitting a completed SED self-certification form as an attachment to the bid of a Prime Bidder for this project.

17.1.3 All such forms are subject to validation by the university Set-Aside Coordinator. Any bid dependent upon such validation for acceptance by the University will be rejected if the SED self-certification forms submitted cannot be validated, for any reason.

17.1.4 An SED self-certification form is furnished with this specification for information and for qualification use. Additional forms, if needed, or any further information regarding the SED Set-Aside Program, may be obtained from the Set-Aside Coordinator, 2610 University Avenue, Saint Paul, Minnesota 55114, Telephone (612) 373-2073.

17.1.5 (SED) LIST OF SMALL BUSINESS FIRMS: (See list in Specifications).

(C) Add the SED Set-Aside Program forms after the General Conditions as attached to this addendum.

7 - Section 01100 - Description of Alternates: (A) Article 1.1, add paragraph as follows:

F. The University reserves the right to selectively reinstate the work of any accepted deductive alternates by written order at the deductive price at any time up to ninety (90) days after receipt of bids.

(B) Article 2.2, Alternate No. 2, paragraph A, add the following in the second line after the words, "Curtainwall Systems": Omit Section 5100, Structural Metal Framing.

(C) Article 2.3, Alternate No. 3, paragraph A, revise to read: Omit concrete floor sink and drain risers as shown at detail 38/A5-1, and any other general construction work required to complete distilled water system.

(D) paragraph B, correct typo in fourth line - carbon filler, to read: Carbon filter.

8 - Section 01150 - Payment: (A) Article 1.4.B, Revise as follows:

B. Five percent (5%) of the satisfactorily completed work of all line items of the Schedule of Values, as approved by the University

on Requests for Payment, will be retained until substantial completion of the Project. Thereafter, no additional sums will be retained for that item provided the following criteria are met: (See specifications).

(B) In paragraph C, revise all references to retainage percentage to read: (5%).

9 - Section 01300 - Submittals: (A) Article 2.7.A add the following to the list of required submittals:

SED Set-Aside Program, Article 17 of the General Conditions.

SPECIFICATIONS - GENERAL CONSTRUCTION

10 - Section 05500 - Metal Fabrication: (A) Article 2.6, add reference after title, as follows:

2.6 Expansion Joint Covers: (See Alternate #2)

(B) Paragraph A, revise word "series" in second line to read "type", and omit extra word "for" in third line.

11 - Section 05750 - Special Formed Metal: (A) Article 1.1.C, omit Item 3.

12 - Section 08200 Wood Doors: (A) Article 2.1.A, omit Eggers Hardwood Product Corporation from list of acceptable manufacturers.

(B) Article 2.2.A, revise typo "Section 01300" to read "Section 1300".

13 - Section 08700 - Finish Hardware: (A) Hardware Groups, under Group 3, Add: Closer.

14 - Section 08900 - Curtainwall Systems: (A) Article 2.2.G, item 2, correct typo in second line "holow" to read: "hollow".

15 - Section 09900 - Painting: (A) Article D, item 1.e, omit this item.

16 - Section 11460 - Unit Kitchens: (A) Article 1.4.A, revise to read: Electrical power shall be 120/208 volt, single phase, 3 wire. Heating loads larger than 1.8 KW shall be 208 volt, single phase.

(B) Article 2.1.C, revise power characteristics to read: 3 wire.

17 - Section 11470 - Darkroom Equipment: (A) Article 2.3.A, correct typo in first line "filber" to read "filter".

18 - Section 11611 - Sterilizer: (A) Article 2.5, correct equipment No. typo in article title, "No. 5600" to read: "No. S600".

(B) Article 3.1.A and C, correct typo in first line of paragraph A "genrator", to read "generator", and in paragraph C "accessoreis" to read: "accessories".

19 - Section 12345 - Met Lab Casework: (A) Article 1.2.E, omit words "after the University interview" in fifth line. Sentence ends with word "date".

20 - Section 13040 - Controlled Environment (Cold) Rooms: (A) Article 2.3.C, correct typo in second sentence "10^o" to read: "10 inches".

21 - Section 14520 - Material Transport System: (A) Article 1.1.C. Omit Item 7.

MECHANICAL CONSTRUCTION SPECIFICATIONS

22 - Section 15460 - Distilled Water System: (A) Add the article as follows:

2.15 Existing Floor Drain Modification

A. Existing 4" floor drain where shown on Sheet M-2 that receives waste from still and neutralizer basin shall be modified as follows:

1. Remove existing strainer on floor drain and cleanout cover. Provide Wade grate riser and cleanout riser for existing No. 2030 floor drain with polish brass finish strainer and cleanout. Risers to be installed for new floor receptor. Existing strainer and cleanout cover to be reused.

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON BID FORM.

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we
(Here insert full name and address or legal title of Contractor)

as Principal, hereinafter called the Principal, and
(Here insert full name and address or legal title of Surety)

a corporation duly organized under the laws of the State of
as Surety, hereinafter called the Surety, are held and firmly bound unto
(Here insert full name and address or legal title of Owner)

as Obligee, hereinafter called the Obligee, in the sum of

Dollars (\$ _____),

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for
(Here insert full name, address and description of project)

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this _____ day of _____ 19____

(Witness) } _____
(Principal) (Seal)

(Title)

(Witness) } _____
(Surety) (Seal)

(Title)

This Agreement, made this _____ day of _____, 19____.

by and between

(hereinafter designated the Contractor), and the Regents of the University of Minnesota (hereinafter designated the Owner),

Witnesseth, that the Contractor in consideration of the agreements herein made by the Owner, agrees with the said Owner as follows:

ARTICLE I. The Contractor shall and will provide all the materials and perform all the work for the

as shown on the drawings and described in the specifications prepared by the Architect, which drawings and specifications are a part of this contract.

ARTICLE II. It is understood and agreed by and between the parties hereto that the work included in this contract is to be done under the direction of the Owner's authorized representatives.

It is further understood and agreed by the parties hereto that any and all drawings and specifications prepared for the purposes of this contract by the said Architect, are and remain the property of the Owner, and that all charges for the same and for the services of said Architect are to be paid by the said Owner.

ARTICLE III. No changes shall be made in the work except upon written order of the Owner through its authorized representatives; the amount to be paid by the Owner or allowed by the Contractor by virtue of such changes to be stated in said order.

ARTICLE IV. The Contractor shall provide sufficient, safe and proper facilities at all times for the inspection of the work by the authorized representatives of the Owner and shall, after receiving written notice to that effect, proceed to remove from the grounds or buildings all materials condemned by them, whether worked or unworked, and to take down all portions of the work which, by like written notice, condemn as unsound or improper, or as in any way failing to conform to the drawings and specifications, and shall make good all work damaged or destroyed thereby.

Refer to the General Conditions of the Contract, Paragraphs 3.5 and 14.

ARTICLE V. / ~~Should the Contractor at any time refuse or neglect to supply a sufficient number of skilled workmen, or sufficient material of proper quality, or fail in any respect to prosecute the work with promptness and diligence; or fail in the performance of any of the agreements herein contained, such refusal, neglect or failure being certified by the authorized representatives of the Owner, they shall be at liberty, after written notice to the Contractor, to provide any such labor or material, and to deduct the cost thereof from any money then due or thereafter to become due to the Contractor under this contract; and if the authorized representatives of the Owner shall certify that such refusal, neglect or failure is sufficient ground for such action, they shall also be at liberty to terminate the employment of the Contractor for the said work and to enter upon the premises and take possession for the purpose of completing the work included under this contract, of all material, tools, and appliances thereon, and to employ any other person or persons to finish the work, and to provide the material therefore; and in case of such discontinuance of the employment of the Contractor, he shall not be entitled to receive any further payment under this contract until the said work shall be wholly finished, at which time, if the unpaid balance of the amount to be paid under this contract shall exceed the expense incurred by the Owner in finishing the work, such excess shall be paid by the Owner to the Contractor; but if such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner. The expense incurred by the Owner, as herein provided, either for furnishing material or for finishing the work and any damage incurred through such default, shall be audited and certified by the authorized representatives of the Owner, whose certificate thereof shall be conclusive upon the parties.~~

ARTICLE VI. The Contractor shall complete the several portions, and the whole of the work comprehended in this agreement by and at the time or times hereinafter stated, to-wit:

time being of the essence of this contract. Should said contractor fail or neglect to prosecute said work as herein provided, and complete the same within the time above stated, he shall pay the Owner (1) the actual damages sustained by the delay, or (2) the sum specified in the specifications, plans and addenda, for each day said work shall remain uncompleted after said date, that amount being mutually agreed upon as liquidated damages in lieu of actual damages for such delay.

~~SUBJECT TO THE CONDITIONS OF ARTICLE 8 OF THE GENERAL CONDITIONS~~

ARTICLE VII. / Should the Contractor be delayed in the prosecution or completion of the work by the act, neglect or default of the Owner, or of any other Contractor employed by the Owner upon the work, or by any damage caused by fire or other casualty for which the Contractor is not responsible, or by combined action of workmen in no wise caused by or resulting from default or collusion on the part of the Contractor, then the time herein fixed for the completion of the work shall be extended for a period equivalent to the time lost by reason of any or all the causes aforesaid, which extended period shall be determined and fixed by the authorized representatives of the Owner, but no such allowance shall be made unless a claim therefore is presented in writing to the authorized representatives of the Owner within the time specified of the occurrence of such delay as contained in the specifications and plans.

ARTICLE VIII. It is hereby mutually agreed between the parties hereto that the sum to be paid by the Owner to the Contractor for said work and material shall be

subject to additions and deductions as herein provided, and that such sum shall be paid by the Owner to the Contractor in current funds and only upon certificates of the authorized representatives of the Owner as follows:

Except as otherwise specified in the Contract Documents,
/ Ninety (90) percent of the actual cash value of all labor performed and material furnished in place each calendar month shall be paid on proper vouchers during the next succeeding calendar month, and the balance upon the full completion of the job.

If, at any time, there shall be evidence of any claim for which, if established, the Owner of the said premises might become liable, and which is an obligation chargeable to the Contractor, the Owner shall have the right to retain out of any payment then due or thereafter to become due an amount sufficient to completely indemnify it against such claim. Should there prove to be any such claim after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging any lien or claim on said premises in consequence of the Contractor's default.

It is further stipulated and agreed that out of any retained amounts, the Owner may at his option pay, in whole or in part, any just claim against the Contractor for labor or material furnished him by persons not parties hereto, where such labor or material has been expended in the carrying out of work covered by this agreement.

ARTICLE IX. It is further mutually agreed between the parties hereto that no certificate given or payment made under this contract, shall be conclusive evidence of the performance of this contract, either wholly or in part, and that no payment shall be construed to be an acceptance of defective work or improper materials.

ARTICLE X. The Owner, through its authorized representatives, has the power and duty to decide all questions as to the due performance of this contract.

The said parties, for themselves, their heirs, successors, executors, administrators and assigns, do hereby agree to the full performance of the covenants herein contained.

In Witness Whereof, the parties have hereunto set their hands and seals the day and year first above written, and caused these presents to be executed in their behalf by the Vice President, Finance, Planning and Operations of the University of Minnesota and the Contractor by its

In the presence of:

..... Witness Contractor
..... Witness Contractor

REGENTS OF THE UNIVERSITY OF MINNESOTA

By
Vice President, Finance, Planning and Operations

Recommended by:

..... Date
Assistant Vice President
..... Date
Purchasing Agent
..... Date
University Attorney

AGREEMENT

BETWEEN

Contractor

AND

Owner

FOR

19

AMOUNT OF CONTRACT

\$

CONTRACTOR'S BOND

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned _____

(Corporate or firm name of contractor)

of _____

(Address of contractor)

a corporation,* organized and existing under the laws of the State of _____, partnership,* individual,* duly authorized by law to do business as a construction contractor in the State of Minnesota, hereinafter called the "Principal," and _____

(Corporate name of surety)

of _____

(Address of surety)

a corporation organized and existing under the laws of the State of _____, and duly authorized to do a surety business under the laws of the State of Minnesota, hereinafter called the "Surety," are held and firmly bound unto *Regents of the University of Minnesota*, hereinafter called the "Obligee," in the penal sum of _____

(Amount of contract price)

Dollars (\$ _____),

lawful money of the United States, for the payment of which well and truly to be made unto said Obligee, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents, as follows:

The conditions of this obligation are such that, whereas on the _____ day of _____, 19____, the said Principal entered into a written Contract with said Obligee for the construction of _____

(Brief description of work to be done)

located at _____ as set forth in detail in the advertisement for bids, general conditions, information for bidders, proposal, plans and specifications, and other related contract documents referred to in said Contract, all of which are hereby made a part hereof, and by reference incorporated herein.

Now, THEREFORE, If the said Principal shall well and truly perform and complete said project in strict accordance with said Contract, advertisement for bids, general conditions, information for bidders, proposal, plans, specifications and related documents; shall comply with all the requirements of the Laws of the State of Minnesota; shall pay as they become due all just claims for work, tools, machinery, skill materials, insurance premiums, equipment and supplies, for the completion of the Contract in accordance with its terms; and shall defend, indemnify and save harmless said Obligee against any and all liens, encumbrances, damages, claims, demands, expenses, costs and charges of every kind, including patent infringement claims, except as otherwise provided in said specifications and other contract documents, arising out of or in relation to the performance of said work and the provisions of said Contract, then this Bond shall be void, otherwise it shall remain in full force and effect.

This obligation is made for the use of the Obligee and of all persons doing work or furnishing skill, tools, machinery or materials, or insurance premiums, or equipment, or supplies for any camp maintained for the feeding or keeping of men or animals, or any combination thereof, engaged under or for the purpose of the execution of said Contract and may be sued on thereby.

The said Surety, for value received, hereby stipulates and agrees that no assignment, modification or change, extension of time for completion, alteration or addition to the terms of said Contract or to the work to be performed thereunder or the specifications accompanying the same, shall in any wise affect its obligations on this Bond or release the Surety, and it does hereby waive notice of any such change, extension of time for completion, alteration or addition to the terms of the Contract as to the work or to the specifications.

IN TESTIMONY WHEREOF, the parties hereunto have caused the execution hereof in _____ original counterparts as of the _____ day of _____, 19____

(Seal, if any)

Attest (or countersigned):

(Title)

(Seal)

Attest (or countersigned):

(Title)

_____, Principal
(Name of contractor)

By _____

(Title)

_____, Surety
(Name of surety)

By _____

(Title)

* Omit inapplicable terms.

(Acknowledgment by Natural Person)

STATE OF MINNESOTA,

County of _____ } ss.

On this _____ day of _____, 19____, before me personally appeared _____ to me known to be the person—described in and who executed the foregoing instrument, and acknowledged that _____ executed the same as _____ free act and deed.

My Commission expires _____

(Acknowledgment by Corporation)

STATE OF MINNESOTA,

County of _____ } ss.

On this _____ day of _____, 19____, before me appeared _____ to me personally known, who, being by me duly sworn, did say that he is the _____ of _____, corporation, and that the seal affixed to the foregoing bond is the corporate seal of said corporation, and that said bond was executed in behalf of said corporation by authority of its Board of Directors, and said _____ acknowledged said instrument to be the free act and deed of said corporation.

My Commission expires _____

(Justification by Sureties)

STATE OF MINNESOTA,

County of _____ } ss.

being each duly sworn, did each for himself depose and say that he is a resident and freeholder of the State of Minnesota and one of the sureties on the foregoing bond, and that he is worth the sum hereinafter set opposite his name over and above his debts and liabilities, and property exempt from execution.

Sworn to and subscribed before me } this _____ day of _____, 19____ } \$ _____ \$ _____ \$ _____ \$ _____

BOND OF

Contractor,

FOR WORK AT

The within Bond and sureties thereon approved and Bond filed _____, 19____

Regents of the University of Minnesota



SET ASIDE PROGRAM

Application for Designation: Small Business (if checked, complete page 2 only)
 Small Business owned & operated by socially or economically disadvantaged person(s). (If checked, complete pages 1 and 2.)

Business Identification

Legal Structure

Firm Name	
Street	County
City, State, Zip	Phone (Inc. Area Code)

- Sole Proprietorship
- Partnership
- Corporation

Dates: a) established under current ownership _____
b) registered with Secretary of State _____

Method of Acquisition: Bought existing business Secured franchise Secured concession
 Started new business Other _____

Principal(s)

Name	Phone	Name	Phone
Address		Address	
Title		Title	

- Manufacturing Service
- Non-manufacturing Other _____
- Construction - General _____
- Construction - Specialty _____

Principal Product(s) or Service(s):

Number of Employees: Office and Administrative _____ Total Minimum Employed: _____
Labor Force _____ Total Maximum Employed: _____

Gross Volume of Business: Last three years _____
(If less than three years, provide a current income and certified financial statement.)

Major Clients: _____

Type of Equipment: _____

Certificate of Compliance - Dept. of Human Rights: Yes No Applied For Date _____

CERTIFICATION FOR SET ASIDE PROGRAM

"Socially or economically disadvantaged person means a person who has been deprived of the opportunity to develop and maintain a competitive position in the economy because of social or economic disadvantage. This disadvantage may arise from cultural, social or economic circumstances or background, physical location if the person resides or is employed in an area declared as a labor surplus area by the United States Department of Commerce, or similar cause."

I certify that my company is eligible for the program as defined above.

Certified by _____ Title _____
(must be owner or officer of company)

I certify the above information to be true:

Signed _____ Title _____ Date _____



SMALL BUSINESS

Note — The white, pink and blue copies must be returned to the Purchasing Department for your firm to be eligible for this program. Company keeps the canary copy.

The University of Minnesota, by Regents' policy, is now involved in a Small Business Set Aside Program.

To assist us in assuring the success of this Small Business promotion, please indicate and certify which of the categories below best describes your firm.

- 1. Manufacturing business employing 100 people or less with gross receipts during the preceding 3 fiscal years of \$15,000,000 or less.
- 2. General construction business with gross receipts during the preceding 3 fiscal years of \$6,000,000 or less.
- 3. Specialty construction business with gross receipts during the preceding 3 fiscal years of \$3,000,000 or less.
- 4. Non-manufacturing business employing 25 people or less with gross receipts during the preceding 3 fiscal years of \$3,000,000 or less.
- 5. Firm must check this box if any of the owners have ownership or partial ownership in any other firms or stores. List names and addresses as well as all other owners (individual or company):

If none of the above are applicable, please state:

Type of business _____

Number of employees _____

Gross receipts — past 3 years _____

Product(s) or service(s) provided _____

Firm Name: _____ Certified By: _____

Street: _____ Title: _____
(must be owner or officer of company)

City, State, Zip: _____ Date: _____

RETURN TO: Purchasing Department, address above.

UM HEALTH SCIENCES
UNIT B/C V-2
C-61



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

August 5, 1980

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

SUBJECT: Phillips - Wangensteen Building
Unit B/C - Phase V, Stage 2
Final University Review Comments

Dear Mr. Carlson:

Attached, please find a single copy of Mr. Hudalla's final review comments pertaining to the subject project.

Since this particular project is currently out for competitive bidding, please review Mr. Hudalla's comments and include the requested clarifications in the next addenda issued.

Very truly yours,

Robert M. Swanson

Robert M. Swanson
Asst. Health Sciences Planning Coordinator

RMS:mka

cc: File ✓

DATE

8/4/90

ROUTE SLIP

INFO

ACTION

ITTAL

AUG 4 1990

~~L. Forstund~~

R. Swanson

~~T. Kyle~~

~~C. Zaworski~~

J. Maroney

M. Achartz

		<input checked="" type="checkbox"/>

Project Number 144-79-0524

- Phase II Stage 2

space completion.

Attached are comments on:

- Preliminary drawings and specifications.
- Final drawings and specifications.
- specifications through Division 1.
- General Construction
- Structural Construction
- Civil Engineering
- Mechanical Engineering
- Electrical Engineering

By R.V. Hudalla

Notes to Coordinator: The attached comments have been reviewed and should be forwarded to HGAE for their consideration and appropriate action.

[Signature]

COPY TO FILE



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

July 26, 1980

TO: Evan B. Merz

FROM: Robert Hudalla

RE: Mechanical Drawings and Specification Review Comments
Health Science Unit B/C Phase V-2 Laboratory
Medicine and Pathology - Fifth, Seventh and Fifteenth Floors

Sheet M-2

Inasmuch as the distilled water system is extensive on this project, the engineer should consider the following:

- a. Review the availability of process piping (glass) from Corning. If they no longer manufacture the material, it shouldn't be specified.
- b. This office is not familiar with "Tefzel" DW-3 plastic pipe. Is it approved by users and Environmental Health for use in distilled water? If so, why not use it throughout the system? *(use in glass) H2PO. 8*
- c. Coordinate 15100-2.2K with 15110-2.1.5 and 6.

Sheet M-7

1. What is the steam generator for in Room 105? No steam piping is shown leading from the generator to any point of use! Do we really need a separate source of steam? Steam generators give off a lot of heat. Do you have adequate ventilation in this location?

Sheet M-15

1. Computer and printer room 158 and 157 are supplied from a central air handler. Will S.A. temperature and humidity be adequate to maintain computer requirements all year around? Has operation of central systems been taken into account? Does installation meet NFPA requirements for computer installations?

2. Hood in Room 155 appears to be right at the doorway. Environmental Health Department has indicated this is poor practice.
3. Why is R.A. outlet in Room 164 8" off the floor? Is the air in this room contaminated? If it is, it should be connected to a return-exhaust fan.
4. These are HVAC drawings. I see no air conditioning piping to the cold Room 138. Cold Room specifications 13040 show much improvement however--

A. 13040-2.2C4 Safety Controls

Safety controls should shut down environmental controls only. Also the controls should automatically restart if space temperature returns to safe operating limits. Unless this is done you could shut off cooling and even if problem corrects itself the cooling would not restart. Valuable experimental data and material would be lost needlessly.

B. 13040-2.4B2 Temperature

Uniformity should be specified as $\pm 1.0^{\circ}\text{C}$ not $\pm 0.1^{\circ}\text{C}$. The total deviation cannot be less than the single point deviation allowed in 13040-2.4B3.

C. 13040-2.4C Testing

Test procedures specified here should be followed by the manufacturer during his testing of each room as specified in section 13040-1.3. Testing by an independent testing agency will only be done at the owners disanction. No procedure is provided for the manufacturer and confusion will occur as to who is going to do the testing based on the specification as written. We do not want duplicate testing unless it is warranted by results in the field. Please revise specification as described above.

D. 13040-3.2 Route of refrigerant piping

Should show on drawings. Sizing should be provided by the manufacturer. Engineering practice used by the supplier is the responsibility of consultant engineer. Check condenser water pipe size. Use nothing less than 3/4" pipe because of residue build-up.

- E. Humidity control tolerance should be specified under 13040-2.4 Control and Performance Parameters. Range can be on Room schedule for consistency. Specify a range of 2°C to 8°C for all rooms. It is impractical to purchase equipment with no flexibility. The user will undoubtedly change and he may want to run the room a little higher or lower. These are practical ranges.

Humidifier should be the electric steam generating type. Atomizer type give unsatisfactory performance and impossible to maintain.

Call for dessicant dehumidifier based on user humidity range specified.

Memo to E.B. Merz
July 26, 1980
Page Three

Sheet M-16

1. Show room number Room 111.
2. There is no evidence on this set of drawings or on any other phases of Unit B/C Shell Space Completion since my memo of July 20, 1979 that duct revisions were made to the E2C General Exhaust Fan System. My memo of the above date indicated that modifications must be made to the E2C fan system. Unless changes are made the E2 C fan will not be able to handle the ultimate even with the larger 75H.P. motor provided by the University. We have already exceeded the capacity of the designed fan. Unless revisions are made to the ducts we will exceed the present fan capacity of 56,897 cfm at 6.5"S.P.

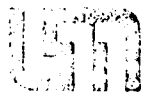
Specific locations of high static pressure loss were given in my memo of July 20, 1979 on page 3 item #7 of the comments.

Please review the attached copy of my memo and initiate action to make the necessary modifications. With this phase of work you will be finishing a large portion of the 15th floor. Much of the ductwork involved will be difficult and costly to revise if it is not done now.

Sheet M-17

1. I see Fan E-5C is being replaced. Is it being enlarged? Will this affect load on fan E-2C? The test and balance contractor should be given an updated total capacity and static pressure requirement for each major phase of Unit B/C Shell Space Completions. Where are we on Fan E-2C for example?

BH/amf



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

July 20, 1979

TO: Pete Merz
FROM: Bob Hudalla *BH*
RE: Exhaust Fan E-2C Unit B/C

Paul Kopietz has indicated a solution to the E-2C fan problem is imperative. In particular a decision should be made on the replacement of the 60 H.P. E-2C fan motor. This fan serves the highly sensitive minor operating rooms for surgery on the first floor of Unit B/C.

As indicated in my letter of May 30th, the condition of the 60 H.P. motor is questionable. It is not shut down unless absolutely necessary for fear it will not restart. Paul informed me last week the operating people used CO₂ gas to cool the windings of the motor while restarting the E-2C fan motor last week.

As you can see from my comments on H.S.A.&E. letter dated July 11, 1979 and Mech. Data Report dated June 1, 1979, a permanent solution to the E-2C fan problem does not appear likely in the near future. H.S.A.&E. indicate the fan static pressure is excessive but they do not locate the source of excessive pressure or do they propose a solution. Mechanical Data states in their report they cannot predict the future static of fan E-2C at full capacity of 51,725 cfm.

Unless the excessive static pressure loss is quickly identified and corrected I propose the following course of action.

1. Instruct the contractor to correct excessive duct leakage from 33% to a minimum of 10%. If sealing ducts is not adequate. The duct joints should be sealed and taped.
2. Have the contractor replace the present 60 H.P. motor with a new 75 H.P. motor with a high starting torque. This will require limiting the static pressure requirements of the system to 6.5 inches of water.
3. The engineers should evaluate the actual static pressure losses in the duct system and propose correction and or modifications to the existing systems to insure the new 75 H.P. motor can adequately handle the ultimate capacity of 56,897 cfm. at 6.5" S.P.

NOTE: See attached comments on HSA&E letter and Mech Data report.

BH:aep

cc: Paul Kopietz, Jim Hastert

Comments

Comments on H.S.A. & E. letter response dated July 11, 1979 and Mech. Data Preliminary Report dated June 1, 1979.

Letter

1. H.S.A. & E. letter states the static pressure should be 4.38" at 51,724 cfm. The fact is the static pressure is already 4.50" and we are only handling 27,789 cfm of the required capacity.
2. The static pressure calculations given do not provide adequate information. It certainly doesn't conform to the format outlined by ASHRAE, Chapter 31.
 - a. Duct route that is calculated is not identified.
 - b. Individual fittings are not identified and friction loss factor given.
 - c. Air flow and velocity at fitting are not given.
 - d. Many typical fittings appear to be unaccounted for, such as transitions, fire dampers, balancing dampers.

Data of the type given cannot be analyzed against actual operating conditions. More orderly and detailed information is needed.

3. If excessive static pressures exist -- Who is going to resolve the problem? Who is going to identify the cause of increase static pressure and recommend a solution?

The engineer designed and specified a particular duct system. Was this system put in as he intended? He alone knows what friction loss and velocity he intended for each fitting. If a different fitting was used, a reason must have existed. What friction loss does the new fitting have? Only an engineer level person can determine this theoretically.

Basically the duct system does not operate the way it was designed to operate. Isn't the engineer interested in knowing why? How else do you determine the validity of the design.

In my opinion the engineer should have more control over how his systems are installed.

4. I am concerned that the engineers are not using realistic values for duct system losses. The only way to correct this is for the engineers to get involved in the construction.
5. Are the calculations provided for Core 26 based on present operating conditions? Why don't the air quantities correspond to page 2 in the Mech. Data report?

6. My letter of May 30, 1979 requested H.S.A. & E. if the 60 H.P. motor furnished meets NEPA standards. H.S.A. & E. have not responded to this question.

In addition H.S.A. & E. were to determine if good practice was used by the supplier in selecting the motor. H.S.A. & E. have not responded to this question. This is a key factor in determining if we were supplied an adequate motor. We are of the opinion that a particular fan fitted with a 60 H.P. motor should be capable of operating at any point on the selection tables for that fan which has a BHP of 60 or less. This is particularly true if we stay in the same fan class. Thus a Champion size 600 SISW fan should be capable of operating at 673 rpm when operating at 74,531 cfm and 3" S.P. See Champion catalog No. 402 page 1217.

However opinions don't count. We need verification that this does constitute good practice. In addition future specs. should require the motor and drive to be sized and furnished by the manufacturer.

Mech Data Report June 1, 1979

1. Present operating conditions are not fully given. Present operating rpm and amperage draw are not given.

How is the fan operating? Do operating conditions match manufacturer's published data on the fan? Can we assume the fan is operating satisfactorily and we can expect it to follow published data.

2. If leakage is reduced to 10% are we to understand the system could be balanced for the required cfm of 27,905 cfm on Phase II at the present rpm of _____?
3. Future discharge static pressure can be calculated by adding the required added cfm to the present and using formula
$$\frac{P_1}{Q_2} = \left(\frac{Q_1}{Q_2}\right)^2$$
4. Please explain 3rd paragraph page 3.

Unless someone analyzes the shell space loads remaining, we can take S.P. at 38,898 and calculate theoretical S.P. at 51,725 cfm.

Someone has to project the future static.

5. Paragraph 5, Page 3

Does this mean we are running at 620 rmp - $620 \times 4\% = 595$ rpm?
Here again - How is the fan actually performing?

Why do we need inlet vanes? We certainly don't need the added static.
Is capacity control required for fire management.

6. Paragraph 1, Page 5

Leakage of 33%, 38%, 49% is intolerable. Some systems have only 10% leakage - why is this one so bad? Max. static pressure is only 2.8". Avg. less than 1.5.

Leakage must be reduced below 10%. If further sealing of ducts is not effective contractor should begin taping all joints.

At the present rate of leakage we'll have to move 72,000 cfm of air to get 51,725 cfm. Theoretical S.P. would increase by $3.42 \times 4.5" = 15.4"$ We need a 200 H.P. motor.

If the leakage is reduced to 10% and the static pressure losses in the system remain the final capacity will be 56,897 and final S.P. = $2.1 \times 4.5" = 9.5"$.

B.H.P. required per Champion catalog is 89 or a 100 HP motor. At 6" S.P. a 75 H.P. motor.

7. Chart II

Why is the S.P. so low in Core 34 Riser (.950) This is 1.85 inches below the S.P. of 2.8 at the fan. 1.85" are lost just in the 15th floor equip. room. Note that .47 inches is lost just from core 34 to core 35! Why? We shouldn't talk about a booster fan until we know why. If static pressure in core 34 was equal to other cores we wouldn't have a problem in core 34 riser.

6 August 1980

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

UNIT B/C - PHASE V-2
LABORATORY MEDICINE AND PATHOLOGY
AND DEPARTMENT OF SURGERY - FLOORS FIVE, SEVEN AND FIFTEEN

UNIVERSITY OF MINNESOTA - MINNEAPOLIS CAMPUS
HEALTH SCIENCES EXPANSION - PROJECT NO. 144-79-0524

THE ARCHITECTS COLLABORATIVE, INC.

Cambridge, Massachusetts

HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.
University Park Plaza - Suite 704
2829 University Avenue Southeast
(612) 378-3833

Minneapolis, Minnesota
55414

The additions, revisions, omissions, corrections and clarifications contained herein shall be made to drawings and specifications for the project and shall be included in the 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.

SPECIFICATIONS - ALL CONSTRUCTION

I - Instructions to Bidders: (A) Article 4.4.8. Revise to read: within 90 days after the scheduled time and date for receipt of bids, at the deductive price proposed by the Contractor.

(B) Add the following article:

ARTICLE 18 - PRE-BID CONFERENCE

18.1 University and Bidders Pre-Bid Conference

18.1.1 The University will conduct a pre-bid conference for the benefit of bidders and all bidders are encouraged to attend. It is the intent to include pertinent interpretations, clarifications and other information which may be discussed, and which is not already a part of the Contract Documents, in subsequent addenda. Any discussion items not included in subsequent addenda are subject to the provisions of Article 6 of these Instructions to Bidders.

18.1.2 The pre-bid conference will be held:

Time: August 12, 1980 at 2:00 through 4:00 P.M.

Place: Room 555, Diehl Hall, 505 Essex Street Southeast,
Minneapolis Campus, University of Minnesota.

SPECIFICATIONS - GENERAL CONSTRUCTION

2 - Section 05500 - Metal Fabrications: (A) Article 1.1.B. Add item as follows:

10. Metal door and frame to telephone cabinet, detail 1/1 of 1, Appendix A, Addendum #2.

(B) Article 2.2, add the following paragraph:

C. Telephone cabinet metal door and frame. Door locks: At telephone terminal cabinets, provide Best Cabinet Lock Set Number 5L7LR4, seven pin-tumbler, left-handed self-latching lock which only allows key to be withdrawn in locked position. Keying to University system as directed.

3 - Section 10180 - Toilet Compartments: (A) Article 2.1.A. Change reference to Mid-South Manufacturing Company to read: Accurate Partitions, Division Kinkead Industries, Inc., and omit reference to Accurate in last line.

4 - Section 10800 - Toilet Accessories: (A) Article 2.7.4. Revise as follows:

2.7 GRAB BARS

A. Mounted in all toilet partitions with "outswinging" doors, on both sides; and elsewhere as indicated on drawings. Mount on one side only in Toilet Rooms 7-170 and 7-171. Series 817-005-2 and 817-006-2 (both sides), 817-2 (one side), 1-1/2" diameter with safety grip, 90° angle, type 304 stainless steel as manufactured by Bradley Washfountain Company. Fastenings as recommended by manufacturer to withstand 500 pound pull. Maximum projection of outside of grab bar from wall to wall shall be 3 inches.

5 - Section 12345 - Metal Laboratory Casework: (A) Article 1.2. Omit paragraphs E, items 1, 2 and 3; and F, items 1 and 2; and G in their entirety. Bidder's samples will not be required on this project.

DRAWINGS - GENERAL CONSTRUCTION

6 - New Drawing - Sheet #1 - Appendix A: (A) This drawing is issued as a part of this Addendum.

DETAILS - GENERAL CONSTRUCTION

7 - Detail 35: (A) Revise as required to show a horizontal grab bar on the wall behind the water closet mounted at 28-1/4 inches from the floor to the center line of the grab bar.

8 - Detail 40: (A) Revise to show mounting height of E.W.C. to be 2'-9" from the floor to the spout.

SPECIFICATIONS - ELECTRICAL CONSTRUCTION

9 - Section 16400 - Lighting Fixtures: (A) Article 2.5. Delete Type "K" and "R" light fixtures.

10 - Section 16500 - Communications Systems: (A) Article 2.1.E. Add paragraph as follows:

E. Telephone cabinets shall be furnished by the General Contractor unless otherwise indicated consisting of 36" x 36" painted plywood inside of the wall cavity with a steel frame and door. See architectural details for construction of cabinet. The Electrical Contractor shall provide a 3" x 6" wireway from the cable tray to the telephone cabinet as indicated on the plans.

11 - Section 16900 - Fire Management and Environmental Control System: (A) Refer to Input/Output Schedule at back of section and make the following revisions:

- 1) Delete duct type smoke detector #EIC-5-16 and all programming.
- 2) Change message sequence for EIC-5-18 from Z to A.
- 3) Add smoke control sequences, 5A, C and H to 5th floor smoke control sequencing.

DRAWINGS - ELECTRICAL CONSTRUCTION

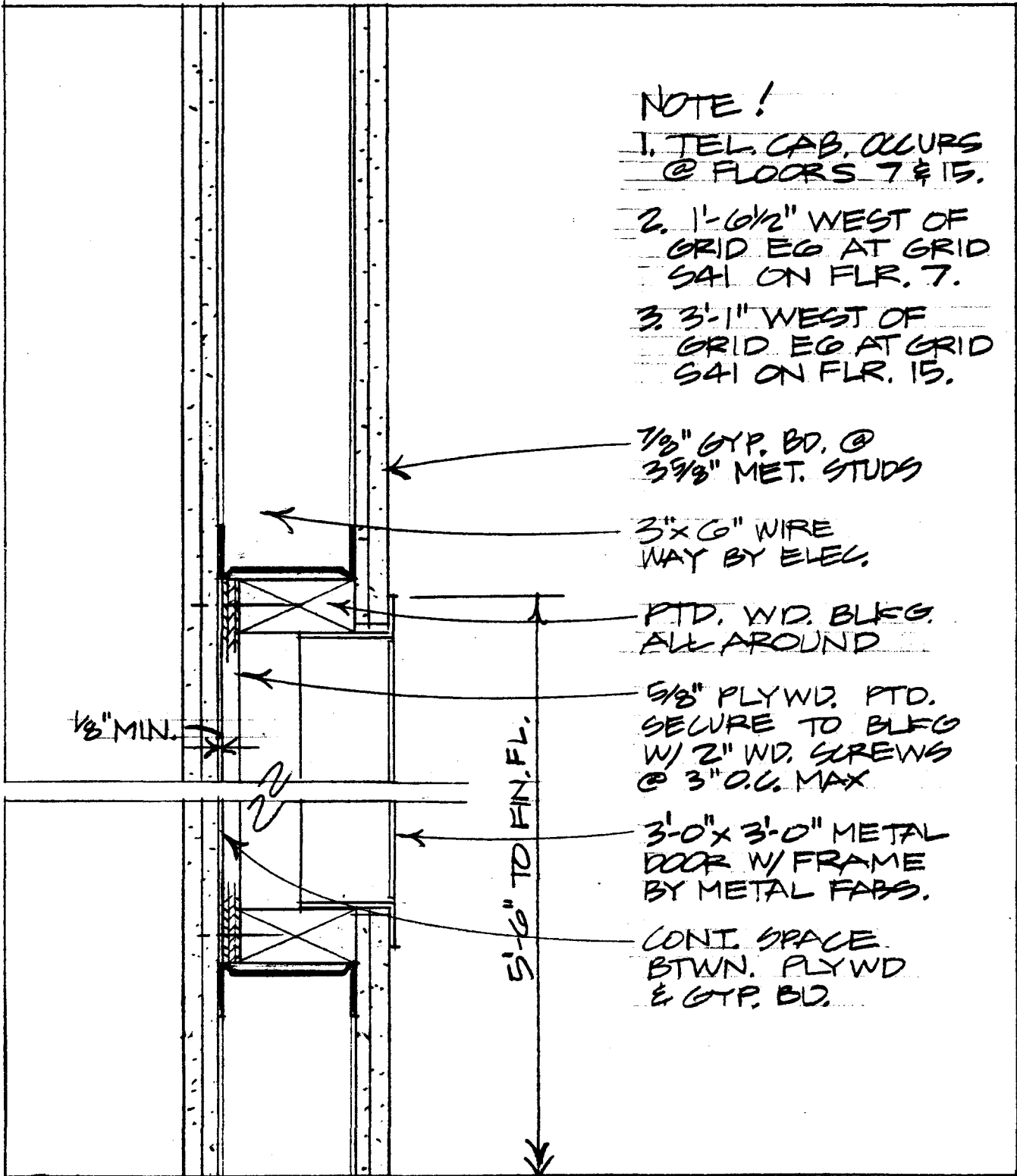
12 - Sheet E-5: (A) Bell shown in corridor #177 located near grids S27-1/2 - E3-1/2 shall be Honeywell #SC806C, 24 volt.

(B) Furnish and install a 3" x 6" wireway from telephone cabinet to cable tray above ceiling. See attached drawing, Appendix C, drawing #1.

13 - Sheet E-7: (A) Bell shown in corridor #143 located near grids S40-1/2 - E9 shall be Honeywell #SC806C, 24 volt.

(B) Furnish and install a 3" x 6" wireway from telephone cabinet to cable tray above ceiling. See attached drawing, Appendix C, drawing #1.

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON THE BID FORM



NOTE!

1. TEL. CAB. OCCURS @ FLOORS 7 & 15.
2. 1'-6 1/2" WEST OF GRID EG AT GRID S41 ON FLR. 7.
3. 3'-1" WEST OF GRID EG AT GRID S41 ON FLR. 15.

1/8" GYP. BD. @ 3 7/8" MET. STUDS

3" x 6" WIRE WAY BY ELEC.

PTD. W/D. BLKG. ALL AROUND

5/8" PLYWD. PTD. SECURE TO BLKG W/ 2" W/D. SCREWS @ 3" O.C. MAX

3'-0" x 3'-0" METAL DOOR W/ FRAME BY METAL FABR.

CONT. SPACE BTWN. PLYWD & GYP. BD.

1/8" MIN.

5'-6" TO FIN. FL.

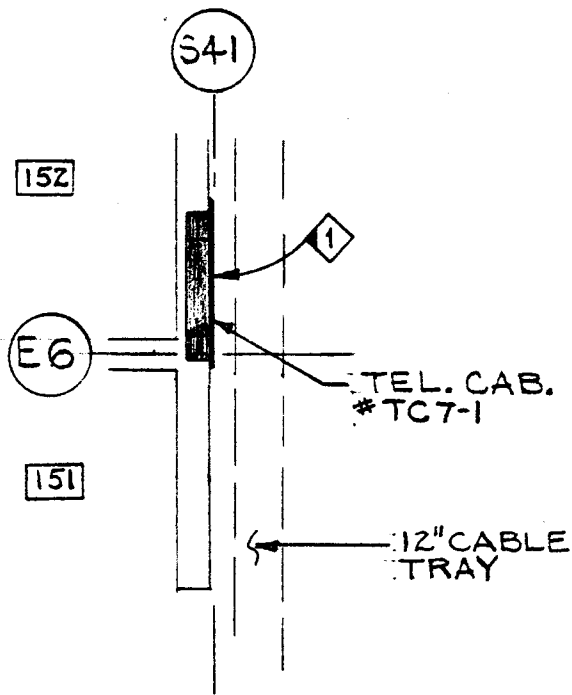
1 SECTION @ TELEPHONE CABINET 3" = 1'-0"

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION
THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

JOB NO 333.03
DRAWN FE
CHECK FE
SCALE AS NOTED
DATE 6 AUG. 80

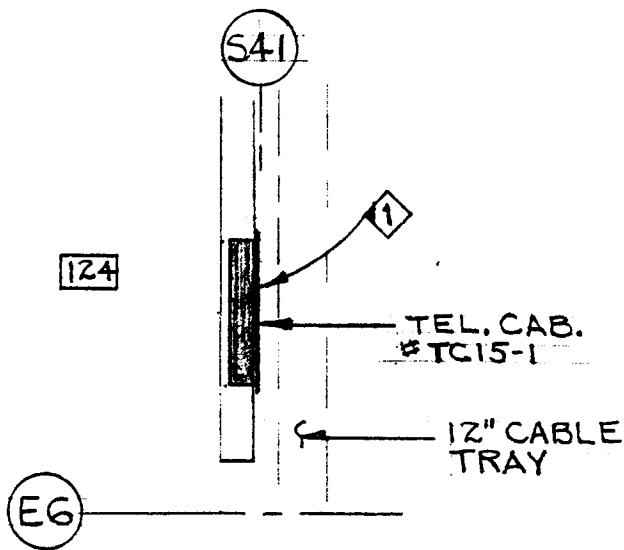
ADDENDUM #2
LAB MEDICINE
& PATHOLOGY,
DEPT. OF SURGERY
UNIT B/C PHASE V-2

SHEET NO APPENDIX
A
SHEET - 1



① PROVIDE 3"X6" WIREWAY UP FROM TELEPHONE CABINET TO CABLE TRAY ABOVE CEILING. TELEPHONE CABINET PROVIDED BY GENERAL CONTRACTOR. SEE ATTACHED ARCHITECTURAL DETAILS.

7TH FLOOR



① PROVIDE 3"X6" WIREWAY UP FROM TELEPHONE CABINET TO CABLE TRAY ABOVE CEILING. TELEPHONE CABINET PROVIDED BY GENERAL CONTRACTOR. SEE ATTACHED ARCHITECTURAL DETAILS.

15TH FLOOR

**UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION**
THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. &
THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

JOB NO 333.03
DRAWN DA
CHECK JB
SCALE NONE
DATE 6 AUG. 1980

ADDENDUM #2
7TH & 15TH FLOORS
SHOWING TELEPHONE
CABINET LOCATIONS

SHEET NO
APPENDIX
C
SHEET-1

AUG 13 1980

11 August 1980

ADDENDUM NO. 3

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

UNIT B/C - PHASE V-2
LABORATORY MEDICINE AND PATHOLOGY
AND DEPARTMENT OF SURGERY - FLOORS FIVE, SEVEN AND FIFTEEN

UNIVERSITY OF MINNESOTA - MINNEAPOLIS CAMPUS
HEALTH SCIENCES EXPANSION - PROJECT NO. 144-79-0524

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University Park Plaza - Suite 704
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(612) 378-3833

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55414

The additions, revisions, omissions, corrections and clarifications contained herein shall be made to drawings and specifications for the project and shall be included in the 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.

SPECIFICATIONS - ALL CONSTRUCTION

1 - Addendum No. 2: (A) Item 4, Article 2.7.A, in fourth line, revise words, (one side) to read: (back side).

2 - Division C - General Conditions of the Contract: (A) Article 17.1.5 (SED) List of Small Business Firms, add the following firms:

AGRICULTURAL BUILDINGS CONSTRUCTION

VANDERVORT BLDG. CO., INC., 3rd Av. SW, Box 162 Crookston, MN 56716
Mr. Wayne Vandervort 218/281-1785

BUILDING SUPPLIES

CARLUND OF MILWAUKEE, INC., 21620 Fondant Av. N., Forest Lake, MN 55025
Kathleen Koch 464-3035

F.S. FOSTER & ASSOCIATES, INC., 1781 N. Hamline Av., St. Paul, MN 55113
Frank S. Foster 645-3751

FOSTER WOOD PRODUCTS, Rt. 1, Box 346, Cass Lake, MN 56633
James R. Foster 218/335-2083

CARPENTRY

DRUM MAJOR BUILDING, INC., P.O. Box 14472, Mpls., MN 55414
Robert E. Bailey 297-6734

CONCRETE

CARLUND OF MILWAUKEE, INC., 21620 Fondant Av. N., Forest Lake, MN 55025
Kathleen Cock 464-3035

CONSULTANTS

ENVIROSCIENCE, INC., Hennepin Square Bldg., 2021 E. Hennepin Av.,
Mpls., MN 55413
Isaac L. Yomtovian, Alwin C.H. Young 379-7242

DRYWALL (OMit B. TATUM & SONS, INC.)

DULUTH DRYWALL, INC., Box 6671, Duluth, MN 55806
Rich Zabukover 218/728-1836

M & W CONSTRUCTION INC., 712½ E. Lake St., Mpls., MN 55407
Wm. H. Tatum 827-4723

THE TEXTURE MASTER, 6745 Queen Av. S., Richfield, MN 55423
Walter J. Peterson 866-4828

DEMOLITION, RAZING (Omit B. TATUM & SONS, INC.)

M & W CONSTRUCTION INC., 712½ E. Lake St., Mpls., MN 55407
Wm. H. Tatum 827-4723

ELECTRICAL CONTRACTORS

ELM CREEK ELECTRIC INC., 16775 69th Av. N., Osseo, MN 55369
Ronald C. Wiehle 425-4320

GEPHART ELECTRICAL CO., INC., 116 Lake Av. S., White Bear Lake, MN 55110
Daniel M. Gephart, Jr. 429-9706

HARVEY JOHNSON ELECTRIC, INC., 315 W. Michigan St., Duluth, MN 55802
Molly R. Johnson 218/722-3739

M & M ELECTRIC, INC., R.R. 1, New Richland, MN 56072
Doreen Mucha 684-2221

QUALITY ELECTRIC, 1313 NE 7th St., Grand Rapids, MN 55744
Lucille Olson 218/326-9122

SCHAMMEL ELECTRIC, INC., P.O. Box 735, 1006 8th Av. SE, Austin, MN 55912
Jerome A. Schammel 507/433-3486

WILSON ELECTRIC COMPANY, 2901 Lyndale Av. S., Mpls., MN 55408
Jeanne Wilson 827-5515

ELECTRICAL SUPPLIES

ED BARBER ELECTRIC SUPPLY, INC., 451 Grove St., St. Paul, MN 55101
Edward Barber 224-5785

RECO DISTRIBUTIVE COMPANY, 345 Atwater, St. Paul, MN 55117
Billeigh H. Riser 488-5119

EXCAVATING CONTRACTORS (Omit B. TATUM & SONS, INC.)

HAZEL'S CONSTRUCTION CO., INC., 9252 Lake Drive, Forest Lake, MN 55025
Hazel Ashbach 464-2186

M & W CONSTRUCTION INC., 712½ E. Lake St., Mpls., MN 55407
Wm. H. Tatum 827-4723

VEIT CONSTRUCTION, INC., 7900 Lakeland Av. N., Mpls., MN 55445
Gae Veit 425-2186

FLOORING, FLOOR & CEILING TILE

ARROWHEAD ACOUSTICS, INC., 3539 Solway Road, Duluth, MN 55810
David A. Engstrom 218/624-9637

EARL JOHNSON FURNITURE INC., 126-130 E. Cherry St., Mankato, MN 56001
Earldean Johnson 507/345-3223

GENERAL CONTRACTORS (Omit B. TATUM & SONS, INC.)

ADAMCZAK'S CUSTOM BLDG. SERV. INC., Railroad St., Moose Lake, MN 55767
Robert Adamczak 218/485-4705

B & B PAINTING INC., 247 3rd Av. S., Mpls., MN 55415
William Captain 340-8200

BENOY BROTHERS CONSTRUCTION COMPANY, INC. 647 S. Lake St., Forest Lake,
MN 55025
Warren Benoy 464-2121

C. O. BACKLUND & SONS, INC., Highway 61 East, Grand Marais, MN 55604
John Backlund 218/387-1275

CREATIVE REMODELERS, INC., 1705 Miller Trunk Highway, Duluth, MN 55811
William R. Hughes 218/723-8140

W. H. CATES CONSTRUCTION INC., 3220 Xenium Lane N., Plymouth, MN 55441
John Backlund 218/387-1275

ENERGY UNLIMITED, INC., 320 Adams A. NE, Madelia, MN 56062
Thomas E. and Wanda R. Norman 507/642-3122

F. S. FOSTER & ASSOCIATES, INC., 1781 N. Hamline Av., St. Paul, MN 55113
Frank S. Foster 645-3751

HAZEL'S CONSTRUCTION CO., INC., 9252 Lake Drive, Forest Lake, MN 55025
Hazel Ashbach 464-2377

HERB TRIMBORN PAINTING & GENERAL CONTRACTING, 8219 3rd Av. S., Mpls., MN 55420
Herb Trimborn 827-4723

M & W CONSTRUCTION INC., 712½ E. Lake St., Mpls., MN 55407
Wm. H. Tatum 827-4723

MCDONALD CO. INC., 423 NW 7th, Brainerd, MN
John D. McDonald 218/829-3511

MODEL NEIGHBORHOOD DEVELOPMENT CO., 716 Dayton Av., St. Paul, MN 55104
James O. Mann 227-0781

NORTHSIDE MANAGEMENT, 3704 Loring Street, Mpls., MN 55411
Debra Frys 374-9473

RAY RIIHILUOMA INC., 1415 Hwy 33 South, Cloquet, MN
Ray Riihiluoma 218/879-3317

THE TEXTURE MASTER, 6745 Queen Av. S., Richfield, MN 55423
Walter J. Peterson 866-4828

TRI-UNITED CONSTRUCTION, INC., 4721 11th Av. S., Mpls., MN 55407
Thomas C. Harris 823-5211

VESEL CONSTRUCTION, INC., 1801 W. Pioneer Rd., Duluth, MN 55803
Jacob Vesel 218/721-4766

HAULING

LIB TRUCKING COMPANY, P.O. Box 22421, Robbinsdale, MN 55422
Carol Glime 533-4003

(Revise firm name as follows:)

T & R RIGGING, INC., 1801 Old Highway 8, New Brighton, MN 55112
Terrance R. Roy 633-6637

WEST GATE GARDENS, Stone Hedge #19, Winona, MN 55987
John T. Morris 507/452-7114

INSULATION

GENERAL PIPE COVERING, INC., 6801 W. Lake St., St. Louis Park, MN 55426
Donna M. Dingley 929-0018

SPECTRUM ANALYSIS COMPANIES, 1515 Cliff Road, Burnsville, MN 55337
Michael A. Taylor 890-8490

LANDSCAPING

H & M CONSTRUCTION, INC., 432 Wabasha St., St. Paul, MN 55107
Morris Wilson 224-5391

RANGE LANDSCAPE, 905 19th St. N., P.O. Box 505, Virginia, MN 55792
218/741-6643

STEINBACH SODDING, 1040 Lyndale Av., North Mankato, MN 56001
Marvin Steinbach 507/387-1268

WESTGATE GARDENS, Stone Hedge #19, Winona, MN 55987
John T. Morris 507/452-7114

MASONRY

E-CON-PLACER, 2450 Pilot Knob Rd., St. Paul, MN 55120
Robert and Mary Tousignant 454-6633

(Add name and telephone no. as follows:)

EDWARD WATSON CONSTRUCTION CO., INC., 521 N. Lyn Park Circle, Mpls., MN 55411
Edward Watson 588-2465

EMPIRE CONSTRUCTION COMPANY, 1035 Arkwright, St. Paul, MN 55101
George S. Robinson 776-6684

MECHANICAL CONTRACTORS

CHESTER ZIMM, INC., 1615 London Road, Duluth, MN 55812
Irene T. Zimm 218/728-4208

DRYKE PLUMBING & HEATING CO., 1313 Howard Gnesen Rd., Duluth, MN 55803
Robert L. Dryke 218/728-2525

PAINTING

B & B PAINTING, INC., 247 3rd Av. S., Mpls., MN 55415
William Captain 340-8243

FISHER DEVELOPMENT CO., 12 S. 6th St., Mpls., MN 55411
Andrew Fisher 370-0749

HERB TRIMBORN PAINTING & GENERAL CONTRACTING, 8219 3rd Av. S., Mpls., MN 55420
Herb Trimborn 888-4201

R & M PAINTING, 9024 47½ Av. N., New Hope, MN 55428
Roger T. Gardner 537-8460

THE TEXTURE MASTER, 6745 Queen Av. S., Richfield, MN 554
Walter J. Peterson 866-4828

PLUMBING & HEATING

C. O. BACKLUND & SONS, INC., Highway 61 E., Grand Marais, MN 55604
John Backlund 218/387-1275

DRYKE PLUMBING AND HEATING CO., 131 Howard Gnesen Rd., Duluth, MN 55803
Robert L. Dryke 218/728-2525

REMODELING CONTRACTORS

FISHER DEVELOPMENT CO., 12 S. 6th St., Mpls., MN 55411
Andrew Fisher 370-0749

ROAD CONSTRUCTION

HAZEL'S CONSTRUCTION CO., INC., 9252 Lake Drive, Forest Lake, MN 55025
Hazel Ashbach 464-2377

MINNEWASKA CONSTRUCTION INC., Rt. 3 Box 27, Glenwood, MN 56334
Linda Sievert 634-3592

VEIT CONSTRUCTION, INC., 7900 Lakeland Av. N., Mpls., MN 55455
Gae Veit 425-2186

SECURITY SYSTEMS INSTALLATION

ARMOR LOCK & SAFE CO., 2313 Hennepin Av. S., Mpls., MN 55405
Doug Wilson 374-1826

DUDLEY A.A. LOCK & KEY SERVICE, 996 Marshall Av., St. Paul, MN 55104
Richard C. Dudley 645-6521

PHOTO SECURITY SYSTEMS, INC., 9139 Cedar Av. S., Mpls., MN 55420
Daniel R. Liquette 854-6164

SHEET METAL CONTRACTORS

RELIABLE SHEETMETAL & ROOFING, CO., Highway 169, Box 565, Mt. Iron, MN 55768
Larry D. Glass 218/735-8232

SODDING

STEINBACH SODDING, 1041 Lyndale Av., N. Mankato, MN 56001
Marvin Steinbach 507/387-1268

STEEL FABRICATION

ALLIED STEEL & ENGINEERING CORP., 3400 Meridian Dr., Mpls., MN 55422
Ms. Freda Levine 588-4644

WATER & SEWER

H & M CONSTRUCTION, INC., 432 S. Wabasha St. St. Paul, MN 55107
Morris D. Wilson 224-5391

NOTE: For information on vendors offering other services not listed,
please call Michael Hopkins 373-2073.

3 - Section 01100 - Description of Alternates: (A) Article 2.1, Revise as follows:

2.1 ALTERNATE NO. 1

A. General Construction: Omit material transport system in its entirety as specified under Section 14520, including the following items:

1. Omit the revision of the existing material transport system supervisory panel.
2. Omit the track, station, switch, fire damper, and air baffle at the 7th floor.
3. Omit the track, switch, and power modules at the 9th floor.
4. Omit the track, power modules, fire damper, reinforced slab opening, and steel grating catwalk with steel pipe guardrail and gate at the 10th floor.
5. Omit the track, fire dampers, reinforced slab openings, power modules, and switches at the 11, 12, 13, and 14th floors.
6. Omit the track, station, fire damper, air baffle, and reinforced slab opening at the 15th floor.

B. Mechanical Construction:

1. Omit any rerouting of existing ductwork or piping to allow the material transport system to be installed above the 9th floor ceiling. See Sheet A2-3.
2. Omit the re-routed 38 x 36 duct at the 10th floor. See Sheet M-17.

C. Electrical Construction: Omit all electrical equipment and work indicated in detail No. 1 and detail No. 6, except type M light fixture and switch shall remain at the 11th and 12th floors. Refer to drawings #E7 and E9.

SPECIFICATIONS - GENERAL CONSTRUCTION

4 - Section 03410 - ARCHITECTURAL PRECAST CONCRETE: (A) Article 2.1.3, Omit reference to Hufschmidt Engineering Co.

5 - Section 08200 - WOOD DOORS: (A) Article 2.4.C, Add the following sentence:
"Provide vision panels at label doors."

6 - Section 08700 - FINISH HARDWARE: (A) Article 2.10.A, in third line, revise 6J500 series to read: GJ300.

SPECIFICATION - ELECTRICAL CONSTRUCTION

7 - Acceptable Manufacturers: (A) The below listed manufacturers of materials, equipment or systems are acceptable subject to final acceptance of the specific products as to satisfying all requirements of the Contract Documents. The cost of any changes in the work of all trades as a result of substitutions shall be borne by the Contractor making the substitutions.

<u>Specification Section</u>	<u>Item</u>	<u>Acceptable Manufacturer</u>
16400-2.6	Minor Operating Light	Amsco

DRAWINGS - GENERAL CONSTRUCTION

8 - Sheet A4-4: (A) Detail 25, add the following floor to soffit dimension: 7'-0" @ rooms 15-138 and 15-139.

9 - Sheet A5-1: (A) Detail 31, add to the typical toilet partition support detail the following plaster soffit dimension: 7'-0" @ rooms 15-138 and 15-139.

10- Sheet A6-1: (A) Detail 22, add to the title: " and 138." Note: locate the transom panel on the room side of the stop. Add this detail to the Door Schedule. Specific Notes Column, at door No. 15-138.

(B) Detail 11, change the title to: "Vision Panel Detail"

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UNIVERSITY OF MINNESOTA
TWIN CITIES

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

August 12, 1980

TO: Mr. Burt Flick
Senior Architect

FROM: Robert Swanson 
Asst. Health Sciences Planning Coordinator

SUBJECT: Phillips-Wangensteen Building
Unit B/C - Phase V, Stage 2
Final Specification Review Comments

The following clarifications were included in Addendum #1 dated July 29, 1980 and apply to the five specific concerns outline in your August 4, 1980 memorandum.

1. Concern: Neither the specification nor the drawings carry the University Project Number?
Action: Included in Addendum #1, on page 1, under Item 1A.
2. Concern: As directed by my memo to you dated July 21, 1980, insert the revised SED wording in the Instructions to Bidders, Bid Form and General Conditions Article 17.
Action: Included in Addendum #1, on page 2, under items 4B and 6B.
3. Concern: Insert, following the General Conditions, the attached current list of SED contractors and a copy of the SED self-certification form.
Action: Submitted to the architects by letter on July 22, 1980, and included in Addendum #1, on page 2, under item 4B and 6B.

Mr. Burt Flick
Memo
Page 2
August 12, 1980

4. Concern: In General Conditions 9.3.7 change amount of progress payments to ninety five percent (95%).

Action: Included in Addendum #1, on page 2, under item 6A.

5. Concern: Section 01150 - In paragraph 1.4 (B) change the amount of retainage to five percent (5%) from each and every progress payment until final inspection.

Action: Included in Addendum #1, on page 3, under items 8A and 8B.

cc: File
Mr. Dave Kerkow

RMS:mka

15 August 1980

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

UNIT B/C - PHASE V-2
LABORATORY MEDICINE AND PATHOLOGY
AND DEPARTMENT OF SURGERY - FLOORS FIVE, SEVEN AND FIFTEEN

UNIVERSITY OF MINNESOTA - MINNEAPOLIS CAMPUS
HEALTH SCIENCES EXPANSION - PROJECT NO. 144-79-0524

THE ARCHITECTS COLLABORATIVE, INC.

Cambridge, Massachusetts

HEALTH SCIENCES ARCHITECT & ENGINEERS, INC.
University Park Plaza - Suite 704
2829 University Avenue Southeast
(612) 378-3833

Minneapolis, Minnesota
55414

The additions, revisions, omissions, corrections and clarifications contained herein shall be made to drawings and specifications for the project and shall be included in the 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.

SPECIFICATIONS - ALL CONSTRUCTION

1 - ADDENDUM NO. 2: (A) Item 1. paragraph B, change reference to Article 18 to read Article 19 and number accordingly. SED Set-Aside Program added by Addendum No. 1 is Article 18.

(B) Item 4, Article 2.7.A, in third line add room #5-146 and 5-148, and in fourth line revise number 817-2 to read 817-001, 30".

(C) Item 7 Detail 35, revise to read Detail 35/A5-1.

(D) Item 8 Detail 40, revise to read Detail 40/A5-1.

(E) Item 12-A, revise grid reference to read S37½ in lieu of S27½.

2 - Section 01100 - DESCRIPTION OF ALTERNATES: (A) Article 2.3 Alternate No. 3, paragraph B, revise as follows:

B. Mechanical Construction: Under this Alternate the new still, demineralizer and interconnecting piping, equipment, controls and wiring shall all be omitted. This shall include all system equipment described in Section 15460, with the exception of pressure reducing valves specified in Article 2.13 and the distribution pump specified in Article 2.6 and related vibration isolation, concrete pad, pump control and control wiring and related distilled water distribution piping shown on the drawings.

SPECIFICATIONS - GENERAL CONSTRUCTION

3 - Section 08700 - FINISH HARDWARE: (A) PART 2: Hardware Groups, omit hardware items as listed under Group 14 and substitute the following:

Group 14

- 1 - Exit device 6639TL x 373L
- 1 - Exit device 6637
- 2 - Closers 4110
- 2 - Magnetic holder FM998
- 2 - Kickplates
- 1 - Electric strik 310-2 x fail safe

4 - Section 10500 - LOCKERS: (A) Article 2.4.A, add the following:

3. Type C: 18" wide, 18" deep and 72" high (not including base) single tier lockers.

5 - Section 11611 - STERILIZER: (A) Article 2.3.B, omit words, "rear, bottom."

(B) Article 2.4.A, revise first sentence to read: "Sterilizer No. S-281 shall be a laboratory, clean steam powered. . ."

(C) Article 2.4.B. Omit words, "rear, bottom."

(D) Article 2.4, add the following paragraph:

H. Piping Finish: All chamber steam supply and drain line piping to be stainless steel. Safety valve to be stainless steel.

(E) Article 2.5.A. Revise to read: "0 to 55 psig using 75 psig steam."

6 - Section 13040 - CONTROLLED ENVIRONMENT (COLD) ROOMS: (A) Article 1.3.A, add the following:

1. Test Procedures: In general testing of the chambers, the following points shall be included:

a. Noise level inside each room with evaporator fans operating at full capacity.

b. Level of illumination throughout at bench level (approximately 36" off floor). Allowance shall be made for the shading effect from any wall-mounted shelving.

c. Temperature tests at both the highest and lowest temperatures, specified for the room and both no-load and full-specified-load conditions. Tests will utilize a twelve point Honeywell Recording Thermometer with thermocouple sensors. Eleven of these sensors will be distributed through the work space. The deviation of temperature from the set point, (as selected on the set point potentiometer), will be determined by the ability of at least one of these eleven points to maintain the set point temperature. The uniformity

will be determined by the total span from lowest to highest temperature recorded during each test duration. The twelfth sensor will be immersed in an ice water bath during the entire duration of testing to establish the calibration of the test instrument.

(B) Article 2.2.E item 4, revise first sentence as follows:

a. High and Low limit temperature safety controls shall incorporate thermostats, calibrated in Celsius scale, so installed to shut down environmental controls only. These controls should automatically restart if space temperature returns to safe operational limits. When safe limits above or below the control set points have been exceeded, an audible and visible alarm shall sound.

(C) Article 2.4.B item 2, revise temperature uniformity to $\pm 1.0^{\circ}\text{C}$ or better. Add item 4 as follows:

4. Humidity Control tolerance: $\pm 5\%$ throughout control range (as scheduled on page 13040-9).

(D) Article 2.4.C item 1, revise to read:

1. General: Upon completion of the installation of these environmental chambers, the manufacturer shall perform his on-site testing as described under Article 1.3. At the Owner's discretion, an independent testing agency may be separately contracted to verify the results in the field. The purpose of the testing would be to establish whether or not the rooms conform to the parameters required by the specifications and to establish the limits of performance to be expected from the rooms.

(E) Page 13040-9, Controlled Environment Room Schedule, Rooms No. 7-138, 15-121, 15-130, revise room operating temperature range to read: 2°C to 8°C .

7 - Section 14520 - MATERIAL TRANSPORT SYSTEM: (A) Article 1.5.B.1 in third sentence substitute "three" for the word single.

(B) Article 2.5.B.1 revise voltage to read: "208V", and insert "three phase", after AC, revise ampere to read: 50.

(C) Article 2.5.B.2, omit paragraph.

(D) Article 2.6.A.1, omit words, "and a continuous audible alarm."

(E) Article 2.8.B, revise to read:

B. When a station is at design capacity for car storage, all additional incoming cars shall be automatically recirculated within the system. Cars shall make a continuous attempt to reach the indicated station.

(F) Article 2.8.B.1, omit words, "and at the main supervisory panel as specified in Article 2.6."

(G) Article after 2.8 should read: 2.9 Automatic Self-Propelled Cars.

(H) Article after Automatic Self-Propelled Cars, should read: 2.10 Fire Doors and Air Baffles.

(I) Article 2.10.B in fourth line revise word "fuse" to read: "fusible." Omit words "and smoke detector."

8 - Acceptable Items and Manufacturers - General Construction: The below listed manufacturers of materials, equipment or systems are acceptable subject to conformance as to satisfying all requirements of the Contract Documents. The cost of any changes in the work of all trades as a result of substitutions shall be borne by the Contractor making the substitutions.

<u>Specification Reference</u>	<u>Item</u>	<u>Acceptable Manufacturer</u>
03300.2.2.E	Grout	Euclid N-5 Grout Euclid Firmix
03300.2.2.G	Bonding Agent	Sikabond Euclid Euoweld
03300.2.2.H	Curing Compounds and Floor Sealer	NC Clear Cote
09541.2.1.A	Metal Ceiling	Alcan Planar (supplied with custom color panels to match existing metal ceilings).
10800.2.6.B	Paper Towel Dispenser (P.T.D.)	American Dispenser Company
10800.2.11.B	Soap Dispenser	American Dispenser Company
10800.2.13.B	Facial Tissue Dispenser	American Dispenser Company
12345.2.6.A	Solid Modified Epoxy Resin Tops	Prime Industries (conforming to Article 2.6.F ASTM requirements).

SPECIFICATIONS - MECHANICAL CONSTRUCTION

9 - Section 15100 - BASIC MATERIALS AND METHODS: (A) Article 2.2 paragraph K, change first sentence to read:

The distilled water system shall be borosilicate glass with the exception of the high pressure pipe (transfer pump discharge between Basement and 15th Floor storage tank) and shall be a completely pressure beaded system, and shall not exceed the pressure ratings of the material installed.

10 - Section 15110 - PIPE AND PIPE FITTINGS: (A) Article 2.1 item 5, Distilled Water. Delete all reference to Corning Glass pipe.

11 - Section 15160 - MECHANICAL SYSTEMS INSULATION: (A) Article 2.5 item D, Hot Piping: Add steam piping to schedule:

2. Steam

- a. Zero to 50 psig
 - 2" and smaller - 2" thick
 - 2-1/2" through 4" - 2-1/2" thick
 - 5" through 6" - 3" thick
 - 8" and larger - 3-1/2" thick
- b. Over 50 psig
 - 2" and smaller - 2-1/2" thick
 - 2-1/2" through 4" - 3-1/2" thick
 - 5" through 6" - 4" thick
 - 8" and larger - 4-1/2" thick

12 - Section 15300 - PLUMBING FIXTURES AND TRIM: (A) Article 2.7.A, Plumbing Fixture Schedule, Item F-1A Water Closet in handicapped rooms 5-146, 5-148, 7-170, and 7-171. Provide Sloan Royal No. 110-3 flush valve with 11-1/2" inlet height for handicapped water closets in these rooms only.

13 - Section 15310 - LABORATORY FIXTURES AND TRIM: (A) Article 2.4 Laboratory Trim Schedule:

Item A, GD-Double, should read: "GDI-Double."

(B) Article 2.2 item L-77, Laboratory Fixtures. Change sentence: Modified with 1-1/4" high, to read 17-1/4" high.

14 - Section 15430 - SPECIAL GASES: (A) Article 2.1 General. New paragraph:

C. All alarm wiring for alarms in this section of the specification shall be by the Mechanical Contractor except as noted otherwise. This shall include the wiring from necessary remote pressure switches.

(B) Article 2.2 paragraph A-2. Add the following: Furnish alarm and annunciator device complete with a power supply box with 24V power transformer.

(C) Article 2.2 paragraph B-3. Add the following: Furnish a power supply box with 24V power transformer.

(D) Article 2.2 paragraph C-2. Change to read:

Carbon Dioxide and Oxygen System Alarm Panel: Provide and install one alarm with power supply and pressure switches. Alarm shall be Chemetron Model No. 74-12-0015 four signal alarm with stainless steel fascia. The alarms and indicators shall be supplied and installed to indicate abnormal pressure for the CO₂ and the O₂ systems.

16 - Acceptable Manufacturers - Mechanical Contracts: The below listed manufacturers of materials, equipment or system sare acceptable subject to final acceptance of the specific products as to satisfying all requirements of the Contract Documents. The cost of any changes in the work of all trades as a result of substitutions shall be borne by the Contractor making the substitutions.

<u>Specification Reference</u>	<u>Item</u>	<u>Acceptable Manufacturer</u>
15410 2.2	Press Reducing Valves (Compressed Air)	Thrush
15460 2.14	Cooling Water Circulating Pump	Thrush
15650 2.1	Reheat Coils	Dunham-Bush Airterm, Carrier
15800 2.5	Flexible Duct	Anco, Wiremold, Thermafex
15800 2.6C	Utility Exhaust Fans	Green Heck Twin City Blower
15800 2.6B	Fume Hood Exhaust Fans	Twin City Blower
15800 2.6D	Ceiling Booster Fans	Powerline, ACME Green Heck
15800 2.7	Registers and Grilles	Agitair, Tuttle & Bailey
15800 2.4	Fire Dampers	Action Air, Prefco

DRAWINGS - GENERAL CONSTRUCTION

17 - Sheet No. A2-2 - ACCESS PLAN: (A) Change 6-1/4" dimension to 10-1/4" at Detail 2A.

18 - Sheet No. A3-1 - FLOOR PLAN: (A) Revise door at grids S36 and E4 to have door number 5-174C.

19 - Sheet No. A3-2 - 7TH FLOOR PLAN: (A) Room 7-160, omit the number, "M521" shown in this room. Lockers shall remain but are not described under an equipment number.

20 - Sheet No. A4-1 - 5TH FLOOR CEILING PLAN: (A) Room 5-173, elevator lobby. Omit all special formed metal light cone in this room.

21 - Sheet No. A6-1 - 5TH FLOOR DOOR SCHEDULE: (A) Revise door no. 5-175A to be a 20 minute door with hardware group 22.

Unit shall include a 24V power transformer and be completely factory pre-wired. See architectural plan sheet A3-2 for location of alarm. The signal from this device shall be capable of being transmitted to the central automation system (Honeywell Delta 2000) under a separate contract.

(E) Article 2.2 paragraph D, Carbon Dioxide - 15th Floor. Change to read:

1. Provide a special 8 x 8 manifold which shall include a special automatic gas heater. The heaters and manifold shall be fully automatic in operation. The cylinders themselves will be arranged in a staggered configuration. The manifold shall provide a fully automatic changeover from exhausted to reserve cylinder bank without changing the delivery pressure settings. Heater units will operate on standard 120 volt A.C. current and have sufficient capacity to heat 500 lbs. of CO₂ per eight hour day. Manifold shall be Chemetron Medical Products, Inc. Number SPQ 480-105 Series 86.

2. Carbon Dioxide Control Panel: See control panel as detailed on Drawings M-7, the control panel shall consist of the following:

- a. Line Pressure Gauge - Chemetron 70-10-0004 (air)
- b. Line Pressure Gauge - Chemetron 70-10-0010 (CO₂)
- c. Alarm - Chemetron 74-13-0013
- d. Pressure Switches (CO₂ and Air) - Chemetron 74-13-0005
- e. Power Supply Box at Manifold - Chemetron 74-13-0001 (Include 24V transformer.)
- f. Control Unit Shut-off Valve - Chemetron 77-11-0000

3. Wiring from pressure switches to five local annunciator devices shall be by Electrical Contractor. The signal from this device shall be capable of being transmitted to the central automation system (Honeywell Delta 2000) under a separate contract.

(F) Article 2.4 Zone Shut-Off Valve Boxes, paragraph A. Eliminate items 2, 3, and 4 on page 15430-4.

15 - Section 15460 - DISTILLED WATER SYSTEM: (A) Article 2.1, new paragraph B:

This Contractor shall provide four (4) inches thick Housekeeping pads under all equipment items specified under this section. See also Section 15100 Article 2.5.

(B) Article 2.2 paragraph A-1. Change last sentence to read:

The still shall be Vaponics Four Effect "Thermevap" Model VSS 300-4E, or equal Barnstead.

(C) Article 2.6 paragraph D. Pump Schedule: Change distribution capacity to 6 G.P.M. at 138 ft. head.

(B) Revise doors no. 5-174A and 5-174B to have hardware group 22.

(C) Revise door 5-174C to be door type A1 with hardware group 10 and specific note #12.

22 - Sheet No. A9-2 - CASEWORK ELEVATIONS: (A) Tackboard occurs on the back wall of the study carrels as shown in detail 11/9-6.

DRAWINGS - MECHANICAL CONSTRUCTION

23 - Sheet M-4: (A) All waste piping circled in 6th Floor ceiling has been installed under previous modification. This drawing is for reference only, and showing risers to 7th Floor equipment.

24 - Sheet M-6: (A) At core 34, change 1-1/2" capped immunology vacuum piping to 1-1/4" capped.

(B) 2" distilled water piping as shown between grids E-8 and E-9 is existing.

(C) On the 13th and 14th Floors, between grids S32 and S33, E5 and E6 Remove the 2" and 3" floor drains. Floor drain bodies, piping and lead pans. Patching of floor shall be the responsibility of the Mechanical Contractor.

25 - Sheet M-7: (A) Laborator hot and cold water, and pumped cold water piping is existing between grids E-8 and E-9. All branch connection from lab and hot and cold water mains are new.

26 - Sheet M-15: (A) Fire damper supply and transfer ducts which penetrate walls of rooms 157 and 158.

27 - Sheet M-16: (A) A 1/2" stainless steel steam line shall extend from clean steam generator to room 118 and connects to clean steam sterilizer. See Detail #22/M-18.

(B) Change condenser pipe size serving Environmental Room condensing units from 1/2" to 3/4".

28 - Sheet M-17 - PARTIAL 10TH FLOOR PLAN: (A) Change condenser pipe serving Environmental Room condensing unit from 1/2" to 3/4".

29 - Sheet M-19 - PARTIAL 14TH FLOOR PLAN: (A) Pipe 1" steam and 3/4" condensate return line from 1-1/4" steam main and 1" condensate return main to the steam jacket of clean steam sterilizer equipment item S-281 located in Room 118 of the 15th Floor. Provide all necessary valving and steam traps.

DRAWINGS - ELECTRICAL CONSTRUCTION

30 - Sheet E-5: (A) Room #165. Install junction box above accessible ceiling 5'-0" south of grid S37 and 5'-0" east of grid E5. Install 3/4" -2#12 home run from junction box to panel #ELC7-3 located in core #29 and connect to spare 20A-1 pole circuit breaker. Coil up wire leads in junction box.

31 - Sheet E-7: (A) Room #127. Install junction box above accessible ceiling 5'-0" south of grid S40 and 2'-0" west of grid E6. Install 3/4" -2#12 home run from junction box to panel #ELC15-1 located in core #29 and connect to spare 20A-IP circuit breaker. Coil up wire leads in junction box.

(B) Room #133. Furnish and install a CO₂ alarm and a compressed air alarm as detailed in detail #1, drawing #E-5. Install alarms 5'-6" above floor on east wall where shown on architectural drawing #A3-3. Connect alarms to associated alarms located in room #132 with 3/4" -4#16.

32 - Sheet E-9: (A) Detail No. 2. Install junction box on west face of wall on grid E10 near grid S36. Mount junction box at 8'-0" above floor. Install 3/4" -2#12 home run from junction box to panel #ELC15-2 located near grids S40/E10 and connect to spare 20A-IP circuit breaker. From junction box make connection to three (3) ultraviolet lights in existing distilled water storage tank near grids S36/E10½.

(B) Detail #4. Install a 3/4" -2#12 branch circuit from panel #ELCB-2 located near grids S36/E17 to still located near grids S33/E14. Make connection to still. Make connection to spare 20A-IP circuit breaker in panel #ELCB-2.

(C) Install a 3/4" -2#12 branch circuit from panel #ELCB-2 located near grids S36/E17 to demineralizer located near grids S33/E15 and to distilled water storage tank. Make connection to demineralizer and distilled water storage tank (3 ultraviolet lights). Make connection to spare 20A-IP circuit breaker in panel #ELCB-2.

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM ON BID FORM.

THE ARCHITECTS COLLABORATIVE
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

GGI 2 Rec'd

MEMO TO: Unit B/C Phase XI
MEMO BY: Paul Finsness
DATE: 29 September 1980
SUBJECT: Meeting of 26 September 1980

A meeting was held at our office on 26 September 1980 with the following persons in attendance: Warren Forslund (HSPO); Jim Butler, Al Newcomer, Glenn Hawkinson, George Eklund, and Paul Finsness (HSAE).

The following decisions were made:

1. Incubator air on the 14th floor will be capped off in the corridor as required. Mr. Forslund will investigate whether this procedure is required at the 13th floor.
2. There are no CO₂ alarms required at either the 13th or 14th floors.
3. The perchloric acid fume hood located in Room 14-120 will be bid as an alternate deduct. The exhaust duct with washdown, non-sparking fan and explosion proof motor will be included in the base bid. Mr. Forslund will verify for us the length of the existing perchloric hood owned by the department.
4. The floor drain and shower head indicated on the reviewed Design Development document in Room 14-132A is not required.
5. A floor drain is required in Room 14-131.
6. The stainless steel sink in Room 131A shall have ledge mounted trim.

The following questions need to be answered by Mr. Forslund:

1. Are ultra-violet lights required in Room 14-120?
2. Is 24-hour air conditioning required at Room 14-135?
3. Which rooms require refrigeration alarms?

|| Lastly, Jim Butler of our electrical department needs a letter from the director of the 13th floor Animal Area stating that no flammable and/or inhalative type anesthetics will be used in the OR Room.

cc: Paul Maupin ✓
Warren Forslund

THE ARCHITECTS COLLABORATIVE
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

OCT 07 1980

MEMO TO: Warren Forslund ✓
MEMO BY: Paul Finsness
DATE: 1 October 1980
SUBJECT: Fume Hoods

The Group I Type B (isotope) fume hoods scheduled for installation in Room 14-122 have been investigated by this office in view of our concern about their required accessories. In the opinion of the local representative for Kewaunee Scientific Equipment Corporation (one of our two qualified bidders), Kewaunee does not recommend the installation of cooktops or waterbaths in isotope fume hoods for the following reasons:

1. The cleanability of the fume hood countertop would be impaired.
2. The sealing of the accessories in the fume hood countertop is impractical.

Please advise us as soon as possible as to the direction we should take in this matter.

In a related matter, we would like to point out at this time that requiring a Type B (isotope) fume hood in lieu of a Type A (laboratory) fume hood with a stainless steel countertop is not an equal exchange. A Type B fume hood requires the following additional items: an accessible HEPA filter, ductwork to accommodate 2/3 more CFM's, and a larger fan to move the greater quantity of air. All of which serves to make the Type B fume hood installation more expensive than a comparable Type A fume hood installation.

cc: Paul Maupin
Don Herron

OCT 07 1980

THE ARCHITECTS COLLABORATIVE
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMO TO: Unit B/C Phase XI
MEMO BY: Paul Finsness
DATE: 2 October 1980
SUBJECT: Meeting of 1 October 1980

A meeting was held at the Health Sciences Planning Office on 1 October 1980 with the following persons in attendance: Norma Wubbena (PEDS), Warren Forslund (HSPO), Richard Carlson and Paul Finsness (HSAE).

The revised floor plan for the 13th floor Animal Area was provided us at this time. Design considerations include the following:

1. Architectural
 - a. Spray glaze at walls and ceilings of animal holding rooms.
 - b. Composition flooring at all animal rooms.
 - c. Wall bumpers at animal holding and receiving areas. Corner guards located as required.
 - d. Standard animal room hardware required.
2. Mechanical
 - a. Fifteen (15) air changes per hour.
 - b. One hundred percent (100%) exhaust.
 - c. Low velocity diffusers.
 - d. Four inch (4") floor drains.
 - e. No washdown required.
 - f. No surgical scrub sink required.
3. Electrical
 - a. Automatic timer to simulate day and night at animal holding rooms.
 - b. Eighty (80) foot candles required at animal rooms.
 - c. No operating light required.

The 14th floor animal room shall be designed in accordance with the 13th floor animal room.

The following additional information was also provided us at this time:

1. The sterilizer, glasswasher, and dryer scheduled for Room 13-172 can all be specified for competitive bidding. Ms. Wubbena will inform Mr. Forslund of the chamber size required for the sterilizer.
2. Accessories are required for the glasswasher. Ms. Wubbena will inform Mr. Forslund as to what is exactly required.

The following decisions were made:

1. Alarms are required for all 13th floor refrigerators. Mr. Forslund will respond to our written request for this information with regard to the 14th floor.
2. Mr. Forslund will provide us with a sketch of the latest gas outlet configuration required at the plastic laminate backsplash and the reagent shelf.

cc: Paul Maupin ✓
Warren Forslund

THE ARCHITECTS COLLABORATIVE
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

OCT 13 1980
~~OCT 10 1980~~

MEMO TO: Unit B/C Phase XI
MEMO BY: Paul Finsness
DATE: 9 October 1980
SUBJECT: Meeting of 8 October 1980

A meeting was held at our office on 8 October 1980 with the following persons in attendance: Warren Forslund (HSP0); Richard Carlson, Glenn Hawkinson, Al Newcomer, and Paul Finsness (HSAE).

The following decisions were made:

1. In Room 14-120 provide a five (5) foot Type B (isotope) fume hood in lieu of the perchloric hood specified in the reviewed Design Development document. Also, ultra violet lights are not required in this room.
2. Alarms will be required at all freezers on both the 13th and 14th floors.
3. At the controlled environment rooms 13-133, 134 and 14-133, 134 provide the following:
 - a) Observation window in the door.
 - b) Standard humidistat.Do not provide any of the rooms with emergency power.
4. The 4" floor drain required at the animal areas refers to the diameter of the grating.
5. Gas outlets at the reagent shelf will be oriented at 45° to the shelf and spaced at 6" on center.

In addition to the aforementioned decisions, Mr. Forslund has instructed us to disregard the advise of the controlled environment room manufacturer (see memo of 8 October 1980) and provide an insulated building floor slab as opposed to an insulated chamber floor.

The following questions need to be answered by Mr. Forslund:

1. Is 24-hour air conditioning required at Room 14-135?
2. What sterilizer is required at Room 13-172?
3. Are all the laminar flow hoods either type "A" or "I"?

cc: Warren Forslund
Paul Maupin ✓



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

October 13, 1980

TO: Hospital Dentistry Clinic
Project File

FROM: Robert Swanson
Asst. Health Sciences Planning Coordinator

SUBJECT: Unit B/C - Phase XII
Proceed Order No. 8 and
Tentative Schedule

- On Friday October 10, 1980, Duane Blanchard, Dick Carlson and I met to discuss, review and approve the tentative schedule and architectural proceed order. (see copies attached).
- On Friday October 10, 1980, Mary hand carried a copy of proceed order no. 8 to Clint Hewitt's office for signature.
- The first planning meeting between the University and Architects will be scheduled to occur during the week of October 20-24, 1980 pending verification with Dr. Holland's secretary.

cc: File
Dr. Holland

RS:mka



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

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION
UNIT B/C, SHELL SPACE COMPLETION

OCTOBER 8, 1980
PURCHASE ORDER NO. _____

PROCEED ORDER NO. 8
UNIT B/C PHASE XII
HOSPITAL DENTISTRY CLINIC
SHELL SPACE COMPLETION PROJECT

The ARCHITECTS COLLABORATIVE, INC. of Cambridge, Massachusetts and HEALTH SCIENCES ARCHITECTS and ENGINEERS, INC. of Minneapolis, Minnesota a Joint Venture, are hereby authorized to provide Professional Services to the University for the design, bidding and construction phases of the project segment entitled UNIT B/C - PHASE XII, as provided in the UNIT B/C SHELL SPACE COMPLETION AGREEMENT, dated 30 September 1977.

The project segment shall include dental treatment, patient waiting, clerical, conference and clinical support facilities to be constructed on the seventh floor link. The floor area of the program element is approximately 5000 gross square feet. The construction of this facility shall be done as a single prime contract with substantial completion occurring by March 1, 1982.

The conditions of the above referenced Owner and Architect Agreement shall apply to this Proceed Order as follows:

ARTICLE I- PROFESSIONAL SERVICES

The provisions of this article shall apply for Phases I through V appropriate to the scope of the work. The design and contract documents shall be developed consistent with the attached sketch and space tabulation dated April 21, 1980,

Proceed Order No. 8
Unit B/C Phase XII
Page 2
October 8, 1980

with the specific detailed information for a given space compiled during the design development meetings. Periodic site visits and attendance at scheduled meetings with the Contractors and the University shall not exceed one-half day per month during the construction phase.

ARTICLE II - COST OF THE PROJECT

The budgeted construction cost of this project segment is \$500,000. The provisions included in this article apply to this proceed order.

ARTICLE III - COMPENSATION

Compensation shall be on a percentage basis in accordance with the provisions of this article. The percentage fee for the construction cost indicated in Article II is 8%.

ARTICLES IV THROUGH XIII

The provisions included under these Articles shall apply to this proceed order.

As on other Health Sciences Projects, the Health Sciences Architects and Engineers, Inc. will interface with the Health Sciences Planning Office.

If this proceed order meets with your approval, please sign three copies and return to this office.

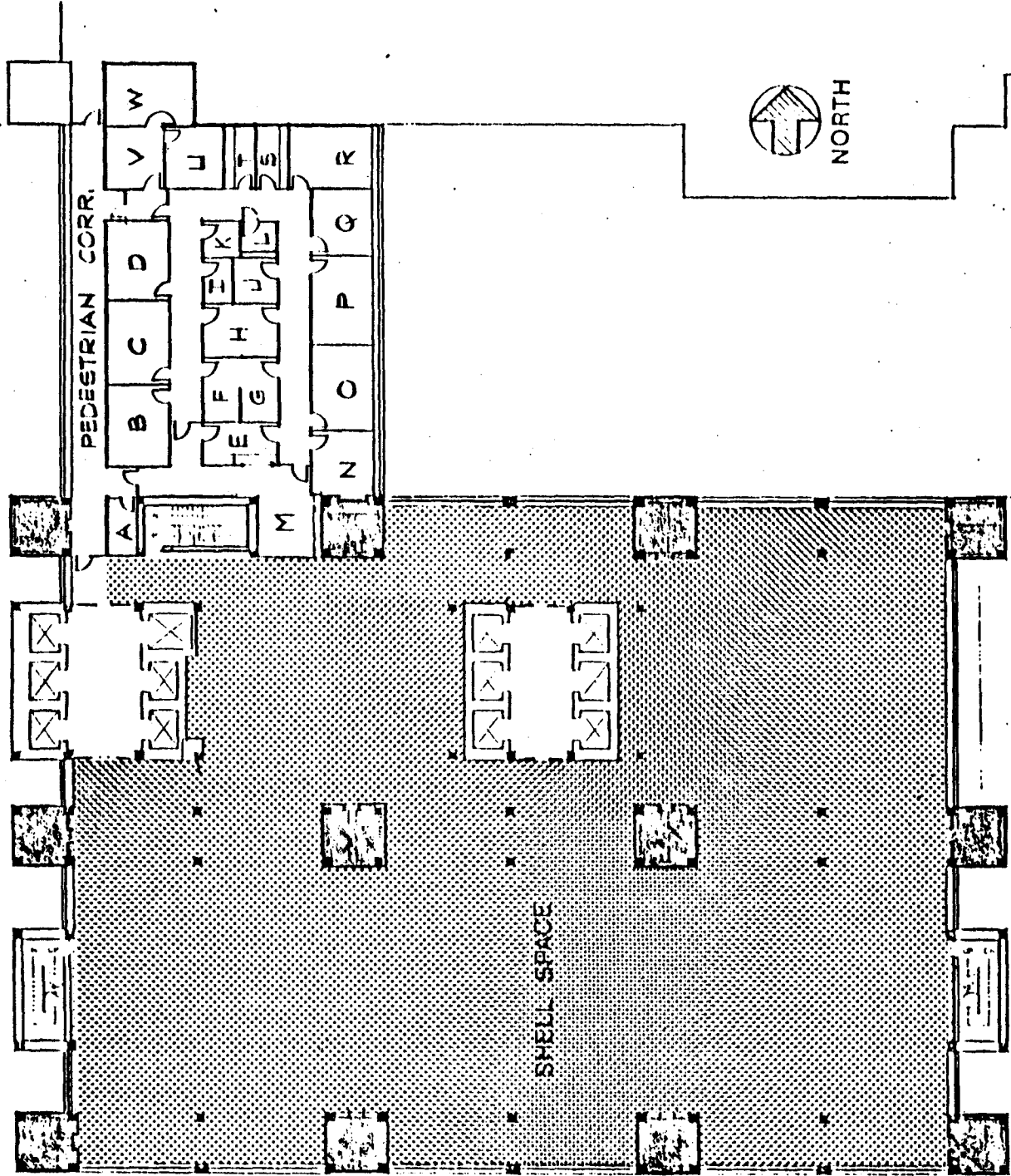
Very truly yours,

Clinton N. Hewitt
Assistant Vice President
Physical Planning
University of Minnesota

UNIT B/C - FLOOR 7
 PROPOSED HOSPITAL DENTISTRY CLINIC
 SPACE TABULATION - DATED APRIL 21, 1980

<u>KEY</u>	<u>ROOM DESCRIPTION</u>	<u>AREA IN NET SQ. FT.</u>	<u>KEY</u>	<u>ROOM DESCRIPTION</u>	<u>AREA IN NET SQ. FT.</u>
A	STORAGE	66	R	CONFERENCE, STUDY & RESIDENT'S ROOM	190
B	TREATMENT ROOM	208	S	LABORATORY	77
C	TREATMENT ROOM	208	T	STORAGE	77
D	TREATMENT ROOM	208	U	FACULTY OFFICE	144
E	RECEPTION DESK	135	V	CLERICAL OFFICE	144
F	PANOGRAPHIC X-RAY	94	W	FACULTY OFFICE	204
G	REGULAR X-RAY & EXAM ROOM	88			
H	STERILIZATION ROOM	142			
I	X-RAY DEVELOPMENT	51			
J	STAFF WOMEN'S LOUNGE	72			
K	RECOVERY ROOM	56			
L	TOILET	42			
M	PATIENT WAITING	216			
N	TREATMENT ROOM	162			
O	TREATMENT ROOM	196			
P	TREATMENT ROOM	196			
Q	TREATMENT ROOM	162			
				SUB-TOTAL	3,138
				CORRIDORS - includes 473 net sq. feet for Unit A-B/C pedestrian corri- dor	1,540
				TOTAL NSF	4,678
				FLOOR 7 LINK GSF	(4,865)
				UNIT A GROSS SQ. FT.	(204)
				TOTAL GSF	5,069

UNIT B-C UNIT A



UNIT B-C FLOOR 7
PROPOSED HOSPITAL DENTISTRY CLINIC



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

10/10/80 schedule to
be used in conjunction
with proceed order #
approved by Blanch
Swanson and Carlson

April 29, 1980

TO: Dr. Mel Holland
Associate Dean
School of Dentistry

FROM: Robert Swanson *RS*
Assistant Health Sciences
Planning Coordinator

SUBJECT: Phillips-Wangensteen Building
Unit B/C - Phase XII
Hospital Dentistry Clinic
Floor 7

Attached is a copy of the April 28, 1980 "Total Estimated Project Cost" breakdown which, when substantially complete will infill approximately 5,069 gross square feet of shell space on the seventh floor of Building B/C.

This estimate is based on the revised schematic plan layout dated April 21, 1980, and the following preliminary schedule was utilized to calculate the anticipated escalation in construction cost.

24 OCT - August 1980 ^{OCT 24} 1980	COMBINED SCHEMATIC DESIGN AND Begin Design Development PHASE (4 WEEKS)
21 NOV - September 1980	ADVISORY U/M REVIEW (2 WEEKS)
5 DEC - December 1980	Prepare Construction Documents (3 months)
27 FEB - January 1981	University Reviews (2 WEEKS)
13 MAR 1981	REVISIONS COMPLETE DOCUMENTS AND PRINT
24 MAR - January 1981	REVISIONS BEGIN BID PERIOD (
21 APR - February 1981	Receive Bids
8 MAY - February 1981	Award Contract
8 MAY - February 1981	REVISIONS START Construction Phase
11 MAR - February 1982	(9 1/2 months)
1 APR - February 1982	Substantial Completion
	Occupancy

RS:mg
✓ cc: Paul Maupin

THE ARCHITECTS COLLABORATIVE
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

MEMO TO: Unit B/C Phase XII, Hospital Dentistry Clinic File
MEMO BY: Richard J. Carlson
DATE: 28 October 1980
SUBJECT: Phase XII Planning Meeting

PRESENT: Mel Holland, DeWayne Varnes, Les Martens, Bruce Pihlstrom,
Greg Hart, Michael Till, Robert Swanson, and Richard Carlson.

In a review of the previous weeks meeting minutes dated 21 October 1980, Dr. Holland indicated proper reference should be made for incorporation of memoranda prepared by the Users and transmitted to the Architect. Receipt of a memorandum dated 31 March 1977 from M. R. Holland describing the B/C Hospital Dentistry Facility and a memorandum dated 10 September 1980 minutes of the Hospital Dentistry Clinic Planning Committee are hereby acknowledged.

The project "Certificate of Need" hearing will be held 12 November 1980.

Dr. Holland reviewed the attached memorandum dated 27 October 1980 which included suggestions of the Hospital Dentistry Clinic regarding the schematic plan prepared by HSP0. The Architects revised schematic plan dated 28 October 1980 was concurrently reviewed with consideration for the suggestions listed by the Committee. The Architect will revise the schematic plan for the next meeting and include other revisions discussed.

DeWayne Varnes reviewed a portion of the attached memorandum dated 28 October 1980 entitled "Services and Equipment for Treatment Rooms". Pipe services of certain systems are expected to be extended to the new facility from Unit A. The Architect and Engineer will evaluate the feasibility of extension of each of the systems since services for Unit B shell spaces have generally extended from the Unit B/C complex.

Services

1. The high volume and high velocity vacuum systems pumps exist in Unit A. Further discussion will be required with HSAE Engineers for appropriate ties to the existing systems.
2. The oxygen system exists in Unit A. Wall type outlets will be required.
3. The source of nitrous oxide will need to be discussed with HSAE Engineers.
4. The existing 90 psi air system in Unit A will be sufficient for use in this project.

TAC/HSAE, B/C XII
28 October 1980
Page 2

5. The existing tepid water system in Unit A has developed bacteria problems due to insufficient usage or lack of circulation.
6. A high pressure nitrogen system will not be required for this project.
7. The intercom system to the desk will not need to be as elaborate as the Unit B/C system.
8. Gas - 20 pounds air laboratory.
9. Electric supply at walls and unit area.
10. The quick disconnect water coupling needs to be on the potable water system.
11. A music sound system is desirable for some masking of background noise.

Les Martens reviewed the "Moveable Equipment" and "Fixed Equipment" portion of the attached memorandum.

1. The Dental chair may be an "Air Glide" but will be listed as "group II" equipment.
2. The type of dental unit will be a moveable cart or "over-the-chest" type to be determined later.
3. A ceiling mounted dental track light fixture is preferred.

The Architect will meet with Les Martens and Robert Swanson this Thursday, October 30, to review certain existing Unit A rooms and to obtain further background on the design of the treatment rooms.

cc: Meeting Attendees

Hospital Dentistry Clinic Planning
 Services and Equipment for Treatment Rooms
 October 28, 1980

H S A E
REC'D 10/28/80
ARCH FW
REC'D FW
ILL JB
SIR' JB
TAC JB
DB
EX
FILE E/UNIT

Services

1. 2 vacuum systems - high volume and high velocity.
2. Oxygen. Plug-in type.
3. Oxygen and nitrous oxide in some or all rooms.
4. Air pressure for slow and high speed turbines and triplex syringes.
5. Tepid water for handpieces and syringes.
6. Nitrogen under high pressure about 165 p.s.i.'s in surgical rooms for bone drills. Check whether really needed.
7. Call-communication system.
8. Gas - 20 pound ^{AIR} laboratory.
9. Electric supply at walls and unit area.
10. Quick disconnect water coupling.
11. Sound system. Music.

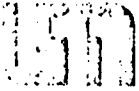
Movable Equipment

MOVABLE CART OR

1. Dental chair. Air (glide if possible).
2. Type of unit. ~~Cast~~ Over-the-chest. Pedestal in surgical room (likely not?).
3. Ceiling mounted dental track light. Pelton Crane or better one. Not Ritter.
4. Small movable writing desk. Would have built-in but likely not needed. Movable may be better.
5. 2 small sitting chairs. 1 at desk and 1 at side of desk.
6. Mobile assistants cabinets.
7. Operator and assistants stools.

Fixed Equipment

1. Built-in large x-ray view box(es).
2. Dental-type cabinetry. Use Unit A for some reference on this.
3. X-ray unit - each room? Or mobile unit?



UNIVERSITY OF MINNESOTA
TWIN CITIES

Office of the Dean

School of Dentistry
Health Sciences Unit A
515 Delaware Street S.E.
Minneapolis, Minnesota 55455

10/28/80
R.S. X
DB
BUII

TO: Robert Swanson

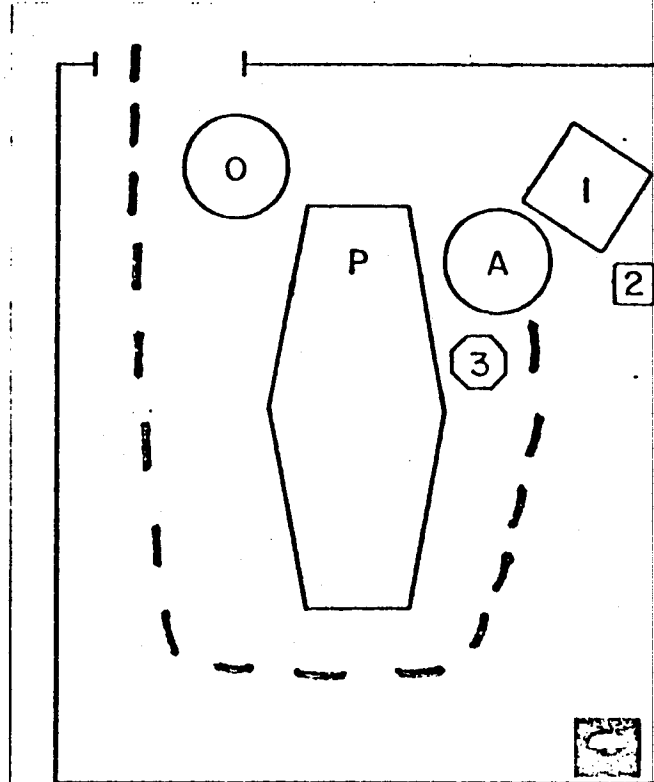
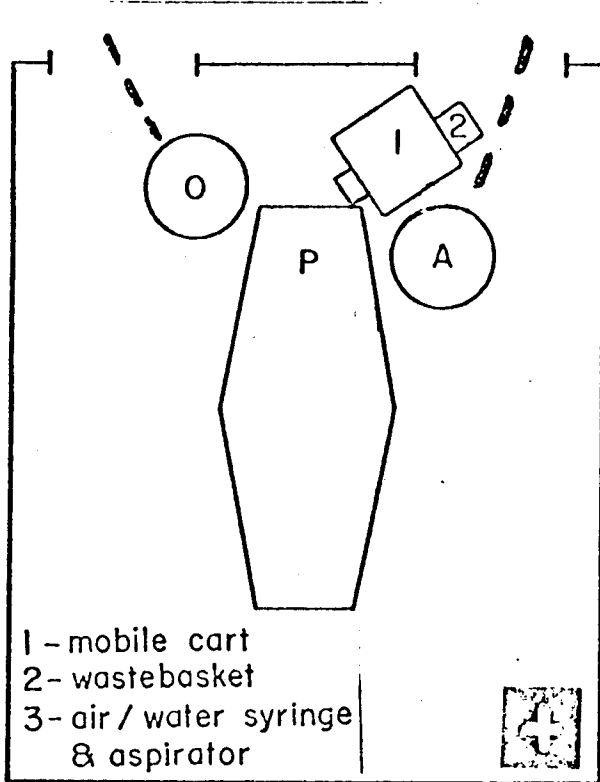
FROM: Mel Holland *Mel*

DATE: October 27, 1980

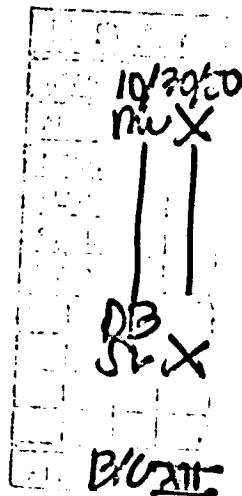
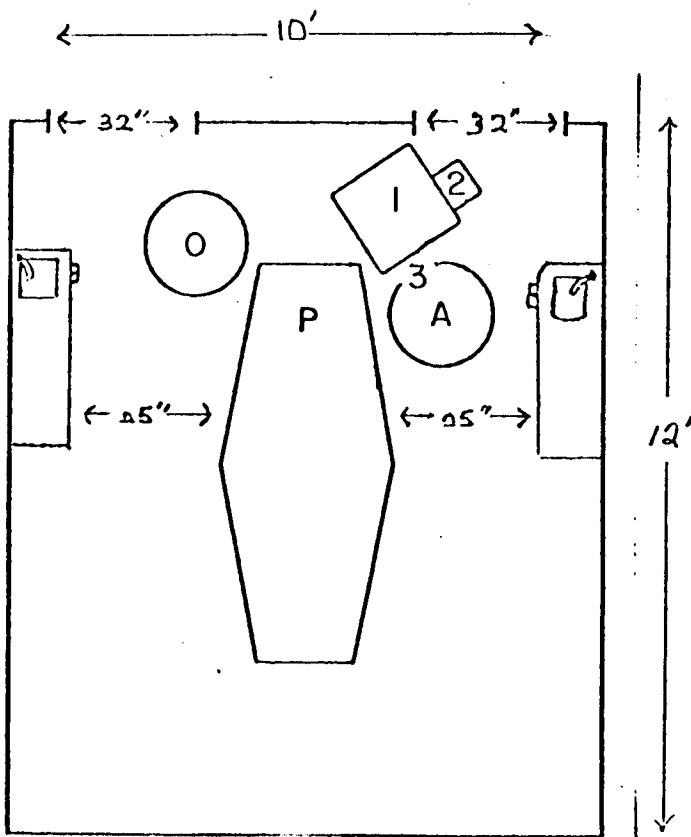
The following are some suggestions on the Hospital Dentistry Clinic design as developed by the staff and faculty in the School of Dentistry working on this project.

1. Is patient reception room large enough? How many chairs would it hold?
2. Divide space for rooms N, O, P, and Q to 5 clinic rooms. What would be their size? Large enough?
3. Martens prefers 2 entries to each operatory. Would this be feasible and wise?
4. Are rooms and corridors able to accommodate litters?
5. Divide space for rooms B, C, and D to have 3 treatment rooms of about 150 square feet plus an exam room for physical examinations and one storage room. Each would be about 75 square feet. Acceptable size?
6. Is scattering of storage rooms a good plan? Possible to consolidate?
7. Is sterilization room large enough? Need to have steam and ethylene oxide sterilization.
8. Request again that H and I-J be reversed and that a window be on the north wall of H allowing viewing of recovery room K.
9. All rooms should have two vacuum systems to handle small and large suction tips.
10. Could storage room T be widened by taking 2 feet from east side of faculty office U
11. Could a storage room be established by taking about 6' x 12' from east side of faculty office W?
12. Request that faculty office U be designed so it could more easily be converted to a clinic room if needed later.

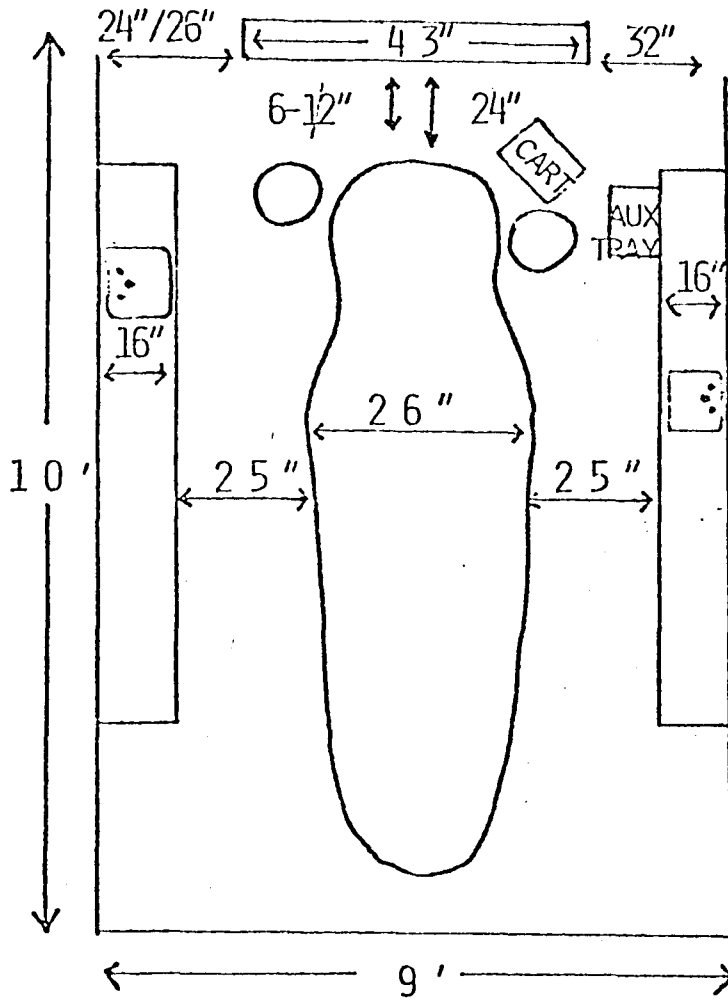
Traffic Patterns & Operator Arrangement



Measurements



OPERATORY ARRANGEMENT



HSAE	
10/2/60	
ALCH	X
MECH	
ELTC	
SIRL	
IAC	
DB	X
SI	X
FILE	BUZIE

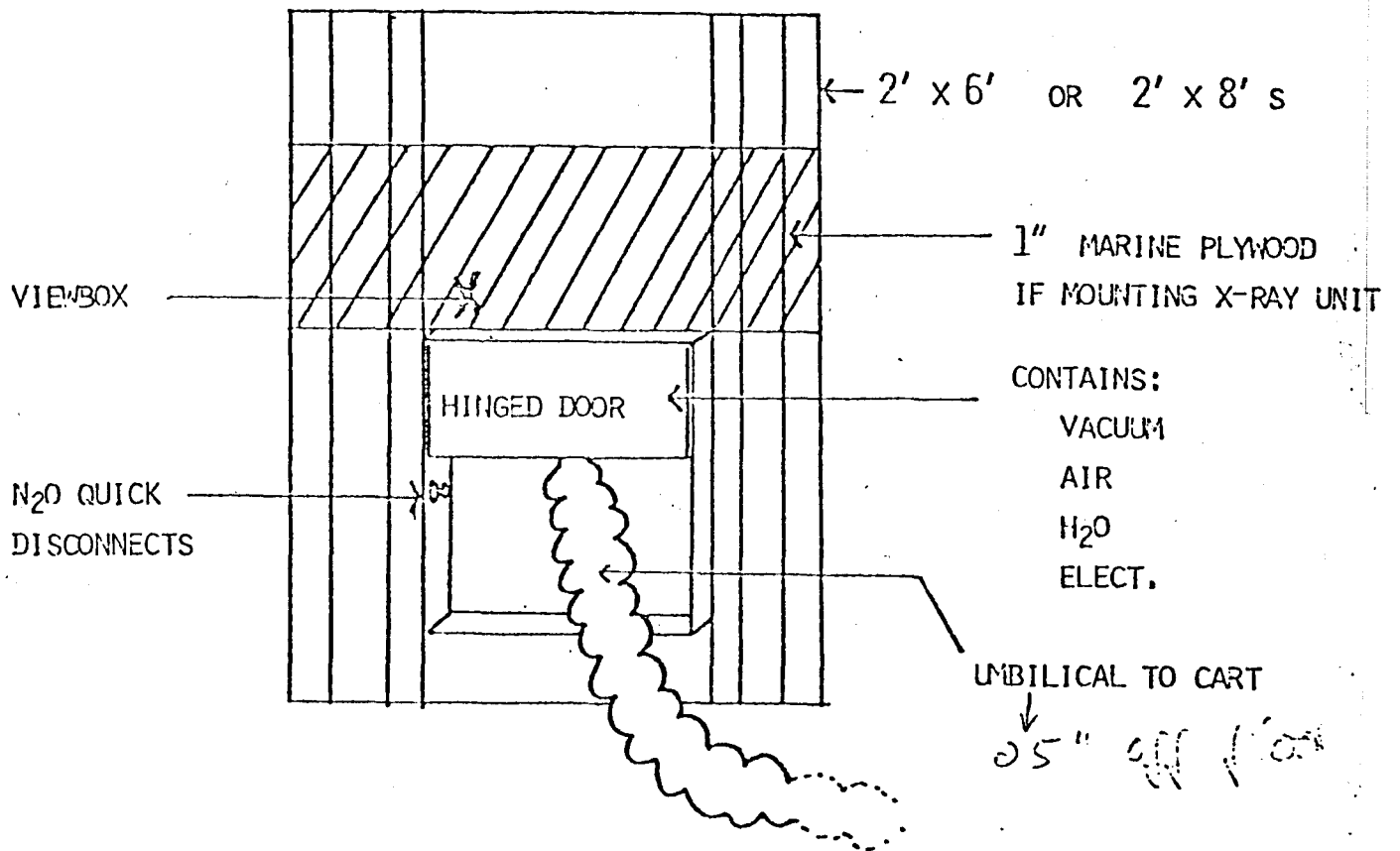
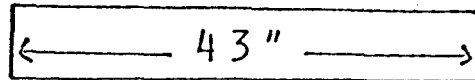
operator height = 30'

BACK WALL CONSTRUCTION

10/30/80
~~THU~~

~~DB~~
~~SLX~~

BUKIT



- REAR WALL
- X-RAY UNIT
- VIEWBOX
- JUNCTION BOX

THE ARCHITECTS COLLABORATIVE
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

NOV 20 1980

MEMORANDUM

MEMO TO: Unit B/C Phase XII, Hospital Dentistry Clinic File
MEMO BY: Harry Wilcox
DATE: 11 November 1980
SUBJECT: B/C Phase XII Piped Service Systems

PRESENT: DeWayne Varnes, Robert Swanson, Harry Wilcox, George Eklund, Richard Carlson

1. High volume vacuum system (oral suction 6" HG.) will be extended from Unit A.
2. High velocity vacuum system (Clinical vacuum 20" HG.) will be extended from Unit A system. A separate line will be run down to tie into manifold at vacuum pump in basement. Mr. Varnes suggested that Unit A clinical vacuum pump be used for this Dentistry expansion rather than Unit B/C clinical vacuum system which would have to be modified for this special vacuum service.
3. Oxygen requirements will be met by an extension of Unit B/C system.
4. Nitrous Oxide requirements will be met by an extension of Unit B/C system.
5. 90 psi air - extension of Unit B/C system
6. 20 psi Lab air - extension of Unit B/C system.
7. High-pressure nitrogen - no need identified (DeWayne Varnes to verify).
8. Tepid water requirements will be met by an extension of Unit A system on the 10th floor. A circulating line will also be extended into the 7th Floor of Unit B/C with a recirculating pump added to pump this line directly back to the 10th floor hot water heaters. This pump should be located in an accessible location (in Storage Room 7-101).
9. Natural gas requirements in Lab 7-112 will be met by extension from Unit B/C system.
10. Mr. Varnes will verify whether quick disconnect couplings are to be used on potable water systems.

NOV 20 Rec'd

TAC/HSAE, B/C XII
11 November 1980
Page 2

- 11. Potable water will be used throughout the Dentistry expansion in Unit B/C, including Laboratory 7-112 where vacuum breakers will be used on sink trim.
- 12. Mr. Varnes will verify whether sanitary sewer connections will be required at treatment room junction boxes.
- 13. The valving arrangements for services in the treatment room junction box should be identical to that used in Unit A. This final arrangement will be verified on the site.
- 14. Oral suction and sanitary waste piping must be run in soffit below the Unit B link. It is the opinion of HSAE Engineers that a cat-walk or permanent scaffolding system must be erected within the soffit as part of the project to assure proper safe access for maintenance. Additional heat should also be considered to ensure that the soffit space is adequately heated.

cc: Dr. Holland
Paul Maupin ✓
Dewayne Varnes.
Les Martens

THE ARCHITECTS COLLABORATIVE
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

MEMO TO: Unit B/C Phase XII, Hospital Dentistry Clinic File
MEMO BY: Richard J. Carlson
DATE: 1 December 1980
SUBJECT: Phase XII Planning Meeting - X-Ray Suite

PRESENT: Mel Holland, Remesh Kuba, DeWayne Varnes, Robert Swanson,
and Richard Carlson.

Remesh Kuba transmitted the attached program information to the Architect entitled "Room 121 Panoramic; Room 122 Radiographic; and Darkroom Equipment and Supplies Room 123". Information on the Seimens Otho-pantomograph and three sketched plans of Room 121, 122, and 123 were also transmitted.

Panographic X-Ray 121 and Radiographic X-Ray 122

Each room should include a 3'-0" (+) long X 3'-1" high plastic laminate base cabinet unit. The casework should include two drawers 4" and 6" deep respectively, two doors - one with provisions for a waste paper basket/door slot per Unit A. A foot pedal operation stainless steel hand wash sink with 6" high gooseneck spout should be included. The selection of soap dispenser types will be further considered by Holland and Varnes. A folded paper towel dispenser should be mounted above each cabinet.

A single 14" X 17" recessed film illuminator with drip tray and two 14" X 17" recessed illuminators without drip trays are required in the adjacent X-ray Corridor.

Lead glass operator view windows (12" X 16") should be mounted appropriately for average height females. Those of Unit A are mounted 4'-8" to the bottom and are apparently too high. The view windows and controls should be centered on the chair. X-ray operator cords are not desirable.

The Radiographics X-ray unit should be wall mounted on "Unistrut" centered behind the chair with accessibility to the cable according to DeWayne Varnes. A flush service column may be developed.

The Radiographic X-ray Units may be a "General Electric" model to be confirmed by Remesh Kuba. The X-ray chair will be a "sit-up" type to be confirmed by DeWayne Varnes.

TAC/HSAE, B/C Phase XII
1 December 1980
Page 2

X-Ray Development Room 123

An existing Philips automatic film processor will be furnished by the Users. The thermostatic mixing valve should have hot and cold water shut-off valves inside this room. The film processor will need an exhaust hood above. Open shelves below the processor will allow space for replenisher tanks. A funnel drain is necessary at the floor. A 120 volt wall receptacle is required for power.

Casework will be plastic laminate with lab grade plastic laminate countertops.

A safe light wall switch will be mounted at 4'-0" and room light switch will be mounted at 6'-0".

Emergency access is required into the Development Room from the Corridor, therefore a thumb-turn and turn-piece shield similar to clinic toilet door hardware will be utilized. This door will also need to be "light-tight".

A light-tight drawer in the base cabinet is required for the storage of film boxes.

cc: Meeting Attendees

121
Room ~~122~~ - Panoramic

1. Siemens OP5
2. OP5 unit should be mounted 20" from south wall to allow for wheelchair patients.

OP5 mounted on east side of room and patient to face south.

3. 40" doorway on northwest corner to allow easier access for wheelchairs and litters.
4. Lead glass window and control panels on north outside of room.

5. Shelf space
View box 14 x 17
Chair for patient
Hanger for lead apron
Hanger for patient's coat
Metal tray for biteblocks
Cold sterilization tray for biteblocks
Waste basket
Mirror

H S A E	
REVISION	12/1/60
APPROVED	RCX
DESIGNED	
ENGINEER	
CHECKED	
DATE	
FILE	B/6874

122
Room 121 - Radiographic

1. 40" door to room at northeast corner.
2. Dental chair situated off center toward west. Chair facing north.
Center of chair 42" from west wall. Tube head mounting on south wall.
3. Lead glass window and controls out of room on north side.
4. Counter space
View box 14 x 17
Hanger for lead aprons
Hanger for patient's coat
Mirror
Waste basket
5. Film dispenser above counter outside of room.
6. Towel dispenser, soap dispenser by sink outside of room.
7. View box with hanger rack and drip tray above sink.

H	S	A	E
		12/1/50	
		RCX	
		SLX	
FILE			B/G&H

THE ARCHITECTS COLLABORATIVE
HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMO TO: Unit B/C Phase XII, Hospital Dentistry Clinic File
MEMO BY: Richard J. Carlson
DATE: 9 December 1980
SUBJECT: Phase XII Planning Meeting

PRESENT: Mel Holland, Les Martens, Michael Till, DeWayne Varnes,
Dan Waite, Greg Hart, Robert Swanson, Marilyn Clark, Nancy
Omundson, and Richard Carlson.

Swanson, Varnes, and Carlson will meet at Unit A Thursday, December 11,
10:00 AM to review existing X-ray Laboratory and Sterilization facilities.

Swanson indicated the University Building Official was unavailable
today for discussion of Treatment Room sliding doors.

In the Laboratory, 20 psi compressed air outlets will be required on
the West wall bench at each work station, however the 90 psi will be
required only at one location on this bench. DeWayne Varnes will confirm
East wall bench air requirements.

In Sterilization the ultrasonic cleaner will be a countertop type and
not a "built-in" model.

The oral suction system which should operate without interruption when
switched to emergency power seems to be a problem on Unit A according
to DeWayne Varnes. HSAE Engineers will need to review this further
with Mr. Varnes.

Dr. Holland's memorandum dated 8 December 1980 was reviewed by the group:

- Item 1. The danger of accidental connection to the nitrous oxide system
rather than oxygen system was discussed at length. Different
types of connectors may be considered.
- Item 2. DeWayne Varnes indicated University shops may be involved in
the fabrication and installation of the Treatment Room service
panels. Unit A mechanical services were brought into the
junction box valves and connections beyond were completed
by University personnel.
- Item 3. DeWayne Varnes suggested since this clinic will not tie into
the Unit A tepid water system the water piping to the junction
boxes should be as small a diameter as possible to prevent
contamination. 1/4" diameter is preferred with a maximum size
of 3/8" diameter. HSAE Engineers will need to discuss the system
further with Mr. Varnes. Heaters for tepid water will be installed
in the junction boxes.

Item 5. Conference Room

- a. Since the projection screen will be located adjacent to the East windows, draperies and blinds will be required in this room.
- b, c, and d. In further discussion it was determined that a 6'-0" long white marker board would be located on the West wall with a recessed film illuminator adjacent on the West wall North side. The tackboard surface will be located on the North wall West end.
- e and f. The bookshelves on the South wall will be open adjustable shelving and not lockable. The room entrance door will lock, however locks will not be required on the wardrobe cabinet.
- g. Dr. Holland will confirm the size of the tracing table and whether a new or existing unit will be utilized. The table will have wheels and will require a 120 volt wall receptacle for power.

Item 5. Offices

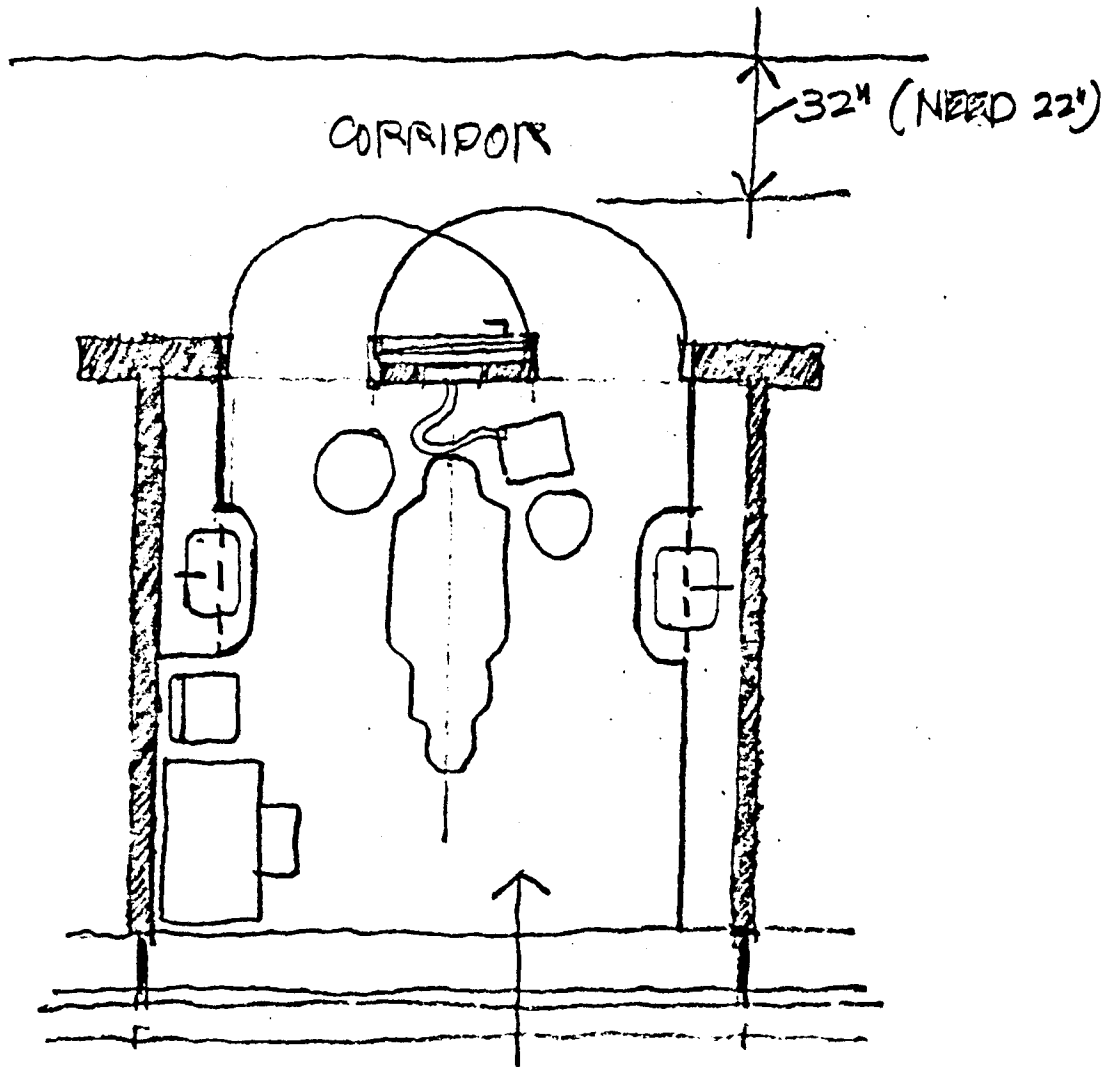
- a. An additional closet for coats will be incorporated in corridor 80 adjacent to the Reception area.
- b. Open adjustable plastic laminate shelving approximately 5'-0" in length will be included in each of the three offices.
- c. The tackboard in Room 110 Secretary will be 4'-0" X 4'-0" while those in Rooms 109 and 111 will be 3'-0" long X 2'-0" high.
- e. All electrical wall receptacles in the three Offices should be double duplex as previously requested by Mr. Varnes.

Other Discussion

Marilyn Clark suggested controls for sinks in the Periodontics, Oral Surgery Treatment Rooms should be push button operation similar to those of the Ambulatory Surgery scrub sink.

Two possible solutions to the Treatment Room entrance doors were presented by the Architect:

1. Entrance doors would be "standard" hinged units, swing into the corridor, overlapping, and "hooked" into place. Refer to the attached sketch Treatment Room Plan dated 9 December 1980.



TREATMENT ROOM

H.P.A.E.

GUZEL

DEC. 9 1980




UNIVERSITY OF MINNESOTA
TWIN CITIES

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

March 9, 1981

TO: Dr. Michael Paparella, M. D.
Professor and Chairman
Department of Otolaryngology

FROM: Robert Swanson 
Asst. Health Sciences Planning Coordinator

SUBJECT: Phillips-Wangenstein Building
Unit B/C - Phase IVb, Stage 2
Otolaryngology Departmental
Laboratory Facilities

On Thursday February 26, 1981, the University received favorable bids on the Unit B/C - Phase IVb, Stage 1 project (Conference Room Suite), which defined a Construction Cost of \$171,000 or a cost per gross square foot of \$56.25. Utilizing this data our office prepared the attached revised Total Estimated Project Cost breakdown for the subject project, which takes into account the anticipated difference in the construction cost for Office and Laboratory Facilities. The end result is a recommendation that the Otolaryngology Department consider committing the \$35,550 in Architectural fees required to prepare the Stage 2 bid documents, thereby saving valuable time as it relates to our ability to release the project for competitive bids once the project funds become available.

If this proposal seems appropriate, and the necessary planning funds can be transferred, we will be glad to schedule planning meetings.

RS:mka

Phillips-Wangenstein Building
 Unit B/C - Phase IVb, Stage 2
 Otolaryngology Department
 Laboratory Facilities

I. CONSTRUCTION:			
Floor 8 (based on 4567 GSF x \$89.00)	\$406,453		
Non-building assessment @ 14% (based on 21% less 7% A/E fees)	56,905		
Builders Risk Insurance @ .20% of 1% of the construction cost	813		
Architect's fees based on 8.5% (See Article III in the shell space completion agreement)	<u>34,550</u>		498,730
II. BUILDING SYSTEMS, ADDITIONAL ELEVATORS AND SUPPORT SPACE COSTS:			
@ \$10.87 per gsf Otolaryngology gsf = 4,567 4,567 x \$10.87	49,643		
Non-building assessment @ 21%	<u>10,425</u>		60,068
III. ADDITIONAL ASSESSMENT:			
1. Construction Office and 3rd floor staging area	62,400		
2. Elevator #11	23,842		
3. Modification 93-E (radiation covers)	28,068		
4. Unit A connecting link	239,085		
5. Control Center Wiring	100,000		
	<u>453,395</u>		
Otolaryngology share = $\frac{4,567 \text{ gsf}}{205,321 \text{ gsf}} = .02\%$	<u>x .02</u>		
	9,068		
Non-building assessment @ 21%	<u>1,904</u>		10,972
6. A/E Phase II Leasing Study Otolaryngology Share = 2%	50,000 <u>x .02</u>		<u>1,000</u>
ESTIMATED TOTAL PROJECT COST			<u><u>570,770*</u></u>

*This estimate does not include group II equipment and furnishings costs.

PREPARED BY: Health Sciences Planning Office



UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Plant Operations
200 Shops Building
319 15th Avenue S.E.
Minneapolis, Minnesota 55455

File



June 16, 1982

Arkay Construction Company
620 North County Road 18
Minneapolis, MN 55427

Attn: Julius M. Rivkin, President

Re: Final Inspection No. 1
Unit B/C - Phase IV - C
Change Order 15 - Modification 32 P
General Construction Only
Project No. 144-79-0142

Gentlemen:

We are enclosing, for your attention, two copies of the Final Inspection Punch List dated June 10, 1982.

The fifteen (15) items, enumerated on the list representing discrepancies and/or omissions must be corrected. This listing should in no way be construed to alleviate the Contractor of his obligations to complete any other items not listing but otherwise covered in the contract documents.

This inspection covers: Room 8 - 215.

The facility was judged to be substantially complete at this time.

Please notify this office, in writing, with copies to A.W. Johnson and Gordon Dahlen when work on all of the items on the Punch List have been satisfactorily completed. This notification must be submitted in order to receive the Final Payment.

Sincerely,

Gordon Dahlen /rh

Gordon Dahlen
Resident Construction Superintendent

GD:rh

Encl:

cc: Jack Geretz Jim Hastert Bob Swanson Jerry Needels - Box 396 Mayo
 Ron Holden R. Hendricks R. Carlson - H.S.A.E.
 Wally Mellum Don Holberg Walter Johnson - Custodial

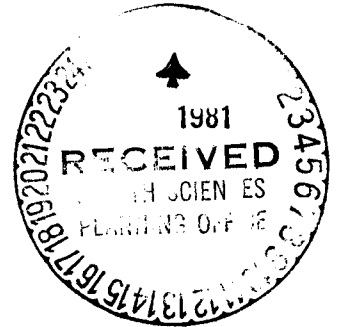
Note to M & O: The above date of substantial completion is the date normal maintenance shall commence.



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

*Paul Kaupen
B/C Code file*



April 21, 1981

MEMORANDUM

To: Don Denzer, Ellerbe/HOK
Don Berry, Ellerbe/HOK
Bruce Sprenger/Ellerbe/HOK
Fire Marshal Bush, Minneapolis Fire Department
Fire Chief Kelly, Minneapolis Fire Department
Donna Ahlgren, Hospital Administration
Al Eilers, Physical Planning
Howard Heck, University Engineering and Design
Harvey Ramlow, University Engineering and Design
Dave Kerkow, University Engineering and Design
Jerry Pitzrick, Gilbane/Mortenson
Michael Austin, Environmental Health and Safety
Ray Arntson, Environmental Health and Safety

From: Ray Arntson, University Safety Officer, Department of
Environmental Health and Safety, Boynton Health Service *RAA*

Subject: Meeting Minutes - Fire Department Access B/C Plaza Area

A meeting was held on April 15, 1981 to define concerns of University Engineering and Design of fire department access to the B/C plaza area. Because of the contemplated new Hospital construction and the resultant limitation of proper access to surrounding buildings, this plaza area will have to be used for fire department truck access.

Fire Marshal Bush stated that the Fire Department is procuring a fire truck having a front axle load of 13,000 pounds and a rear axle load of 39,000 pounds which could be used in the B/C plaza area. The truck also is provided with two hydraulically actuated support pads which would be used in conjunction with any ladder or extension equipment used for fire fighting purposes. Such a loading would be in excess of the present structural capabilities of B/C plaza area. In order to provide appropriate access, structural modification of the plaza area will be necessary. *L*

Additional constraints on access were mentioned such as fire department trucks will not be allowed on grassy areas situated between B/C and Diehl Hall and as such these areas will not be reenforced. Proper marking of these areas to preclude fire truck loading was discussed with one possible alternative being the provision of bollards in the area.

Swing radius of fire department trucks was also discussed so that proper access to the plaza may be gained. One existing bollard on the plaza access from the street may have to be removed to provide appropriate clearance.

Additional review will be made by the Department of Environmental Health and Safety in other areas throughout the Minneapolis Campus to determine if there are additional areas where fire department trucks may pose a concern because of weight restrictions.

RA:mw



UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
Physical Planning
Health Sciences Complex
Box 726 Mayo Memorial Building
Minneapolis, Minnesota 55455
(612) 373-8981

May 7, 1981

TO: Dave Kerkow
FROM: Paul J. Maupin *Paul*
SUBJECT: Fire Department Access

Attached are several memos to and from the State Fire Marshall's office which indicates that we have had continuous communication with them during the various stages of construction projects.

This would indicate to me, at least, that they have had ample time and opportunity to request fire truck access prior to now.

cc: Clint Hewitt
Russ Smith

PJM:jmw

23 January 1970



Mr. Ronald Sockness
Minnesota State Fire Marshall
Room 210
State Office Building
St. Paul, Minnesota 55104

Dear Mr. Sockness;

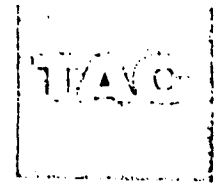
It was good to meet with you last Wednesday. I am glad that you had an opportunity to discuss the requirements of your office relating to the design of the University of Minnesota Health Sciences Expansion.

Below I have summarized our understanding of the material we covered. Please point out any inaccuracies or omissions so that we may be assured that the design will proceed in a manner consistent with your standards.

1. The review of aspects relating to life safety will be based on the requirements of the NFPA #101 Code. This includes determination of occupancy classifications, exit location, type and size, hazardous areas, rated walls, smoke barriers, area separation and sprinkler locations. Fireproofing structural members will meet requirements of the Uniform Building Code. These two codes will apply to all parts of Phase 1 construction, Units A through F. Since the State Building Code has not yet been adopted it will not apply to Phase 1, Units A through F.
2. The bank of escalators connecting floors 2, 3, 4, 5 in Unit A will be enclosed by a smoke barrier consisting of large lites of wire glass and penetrated by electrically held back doors connected to smoke detectors and the fire alarm system. Sprinklers within the vertical opening will supplement the smoke barrier in preventing the spread of fire.
3. Occupancy classifications will be assigned to areas of the building as described in NFPA #101. Outpatient departments and research laboratory areas shall be treated within office occupancy classification.

THE ARCHITECTS COLLABORATIVE

U. OF MINN.		
DATE:		
	COO.	ATTN.
ICH		
RK	X	
RT	X	
KT		✓
JS	X	
DM		✓
OP		
FL		
JO		✓
US		
WH		
PO		
SW	X	
ZK		
←	←	
SD	X	



- JEAN D. FLETCHER 1945 - 1965
- NORMAN FLETCHER
- WALTER GROPIUS 1945 - 1960
- 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

27 January 1970

Mr. Gus Sheffler
 Environmental Health and Safety
 University of Minnesota
 Minneapolis, Minnesota 55455

Re: TAC Job No. 68013

Dear Gus:

Please review the accompanying information. It represents our current understanding of the issues discussed during our meetings of January 20 and 21. The material is in four parts.

1. A summary of our attempt to identify all review agencies, persons and codes which will effect the project. (Enclosed).
- * 2. A summary of our meeting with Chief Welch and Captain Peterson. (Enclosed).
- * 3. A summary of our meeting with Ron Sockness. (Enclosed).
4. Immediately below we have summarized information relating directly to your review for Environmental Health.
 - a. The bank of escalators connecting floors 2, 3, 4, 5 in Unit A will be enclosed by a smoke barrier consisting of large lites of wire glass and penetrated by electrically held back doors connected to smoke detectors and the fire alarm system.
 - b. Occupancy classifications will be assigned as described in NFPA #101. Outpatient departments and research laboratory areas shall be treated within office occupancy classification.
 - c. We are requesting from the University a determination of the degree of fire and health hazard caused by activities in laboratory areas.

Mr. Gus Sheffler
27 January 1970
Page Two

- d. We will study and propose alternative methods of providing smoke and fire separation between laboratory areas in Unit B and the adjoining patient bedrooms in Unit C.

Please point out any inaccuracies or omissions in this summary.

Very truly yours,

THE ARCHITECTS COLLABORATIVE, INC.



Robert D. Turner

RDT/bb

cc: Brooks Cavin

Enclosure

THE ARCHITECTS COLLABORATIVE INC.

JEAN B. FLETCHER
NORMAN FLETCHER
WALTER G. GORDON
JOHN C. HARRIS
SARAH E. HARRIS
LOUIS A. McHILLER

23 January 1970

RICHARD BRUDER
ALEX E. VUKANOVIC
HERBERT GALLAGHER
WILLIAM J. GEDDIS
ROLAND KLEVER
PETER W. MORTON
H. MORSE PAYNE, JR.
ERNEST L. BIRDALL
TREASURER

Chief Kenneth E. Welch
Captain Earle A. Peterson
Minneapolis Fire Prevention Bureau
200 Grain Exchange Building
Minneapolis, Minnesota 55415

Dear Chief Welch and Captain Peterson,

It was a pleasure to meet with you last Wednesday. I am glad that we had an opportunity to discuss the requirements of your office relating to the design of the University of Minnesota Health Sciences Expansion.

Below I have summarized our understanding of the material we covered. Please point out any inaccuracies or omissions so we may be assured that the design will proceed in a manner consistent with your standards.

1. The review of life safety will be based on regulations of the NFPA 101 code.
2. Exit stairs will be enclosed by two hour rated vertical shafts leading to the exterior of the building at grade level. A smoke-proof tower as described in the Uniform Building Code will not be required by your office.
3. The bank of escalators connecting floors 2, 3, 4, 5 in Unit A will be enclosed by a smoke barrier consisting of large lites of wire glass and penetrated by electrically held back doors connected to smoke detectors and the fire alarm system.
4. Occupancy classifications will be assigned to areas of the building as described in NFPA 101. Outpatient departments and research laboratory areas shall be treated within office occupancy classification.
5. In each bank of elevators at least one elevator will be subject to keyed operation for fire department use.
6. The storage of high hazard materials will be minimized and decentralized.
7. The standby generator will be powered by natural gas or diesel fuel.

UNIVERSITY OF MINNESOTA
TWIN CITIES

Physical Planning
340 Morrill Hall
Minneapolis, Minnesota 55455
(612) 373-2250

RECEIVED

FEB 18 1976

UNIV. OF MINN.
HEALTH SCIENCE
PLANNING OFFICE

February 10, 1976

Al Wold, Minneapolis Fire Marshall
Fire Department, Room 200
Grain Exchange Building
400 South 4th Street
Minneapolis, Minnesota 55415

Subject: Health Sciences Expansion - Unit B/C

Dear Mr. Wold:

I would like to express my appreciation of the consideration shown by you and Mr. Fiman in our discussion of fire protection requirements for the Unit B/C project.

In summary the conclusions of our discussions were that in view of the fact that an adequate water supply network systems surrounds the building, two fire pumps are being provided either of which has sufficient capacity to serve the needs of the B/C building, each of these fire pumps has a separate source of emergency power and in addition one of the pumps has a direct diesel drive that it would not be necessary to provide the fire tank on the roof of the B/C structure providing a twenty minute reserve supply as called for in Section 1807. This variance is based on the fact that the pending code changes will be less restrictive in regard to the water supply requirements for sprinkler systems and is also based on the further consideration that there is no reduction in the amount of fireproofing of the structural frame under the sprinkler option of Section 1807. The requirements for the test header as discussed will be further worked out by our engineer Mr. Harry Wilcox, and the results discussed with you in the future.

I will send the campus maps you requested under separate cover as soon as I can obtain them from the records section.

Very truly yours,


E. A. Kogel
University Building Official

cc: Clint Hewitt, Gus Scheffler, Pete Merz, Harry Wilcox
Paul Maupin, Oliver Hughes, Duane Blanchard

THE ARCHITECTS COLLABORATIVE
UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

(Drawing) Unit B/C 1604, 21
SAFETY 501

MEMORANDUM

TO: Unit B/C File

FROM: Ken Schwarz

DATE: 17 May 1971

TAC JOB: 70046

SUBJECT: The Use of Sprinklers below Grade, Unit B/C.

The color coded plans entitled "Sprinklers" dated 1 April 1971 illustrate the areas in which we propose to install a sprinkler system in Unit B/C. These include hotel areas on floor 15, the Class B Assembly Area on Level 2 and the File Room on Level 1. In addition we have agreed to sprinkle other hazardous areas as they become identified. We expect that these will generally be small rooms used for storage of combustible materials, entrance to the trash chute, etc.

The fact that we have not proposed the total sprinkler protection for all areas below grade has been questioned by Capt. Peterson of the Minneapolis Fire Prevention Bureau. In answer to this we have outlined the assumptions upon which our proposal is based. We believe that it satisfies the requirements of the applicable code and offers an adequate degree of safety.

Assumptions:

1. Unit B/C is an extension of Unit A and is subject to similar code requirements. Agreements reached with code enforcement authorities regarding Unit A are applicable to similar areas in Unit B/C.
2. The review of life safety will be based on regulations of the NFPA 101 code. (See attached notes from meetings with code enforcement authorities)*
3. Both Units A and B/C include more than one NFPA occupancy classification. Drawings of Unit A dated 1 June 1970, color coded to indicate the extent of each occupancy were explained to and left with all applicable code enforcement authorities in August 1970.

THE ARCHITECTS COLLABORATIVE
UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

Subsequent design decisions including the determination of exit distances, exit units, floor population, dead end limits, sprinkler location, location of smoke stop and fire rated walls, etc. were based on the requirements of each occupancy classification as assigned in the color coded drawings. We have received no objections to this method from any of the applicable code enforcement authorities. Therefore we assume that the concept of mixed occupancy can be applied to Unit B/C.

4. Out-patient departments and research laboratory areas are treated according to the requirements of office occupancy classification. (See attached notes of meetings with code enforcement authorities and especially the letter dated 7 November 1969 regarding this point from Richard E. Stevens, Director of Engineering Services, NFPA.)*
5. The inhabited areas below grade in which the lack of sprinklers is criticized consist of photography offices and labs, animal quarters and labs, outpatient clinics and the business and accounting office. These areas are offices or, according to the above agreement, classify as offices for code review purposes.

A review of Chapter 13 of NFPA 101, Office Occupancies reveals no requirement for the use of sprinklers. Section 13-1214 refers to basement levels occupied for offices but does not mention sprinklers. Section 13-133 refers to office occupancies not provided with sprinklers in which more than 200 persons work below street level. In this case an automatic or manual fire alarm system is required in accordance with Chapter 6-B. We have agreed to provide an alarm system in accordance with these requirements.

6. The other area below grade which is currently not sprinklered is the mechanical room on level B. The NFPA code requires that mechanical rooms be sprinklered only when they are hazardous areas as defined in Chapter 3, Definitions. Under this definition the mechanical equipment below grade does not qualify as a hazardous area.
7. A review of the index under "Sprinklers" reveals a reference to Educational, Industrial, Institutional, Maintenance and Mercantile Occupancies--not to office occupancy or to mechanical equipment spaces which are not classified hazardous.

Consequently, we can find no applicable code requirements for additional sprinklers below grade in Unit B/C. The following code enforcement authorities have reviewed our proposal in meetings on May 12 and May 13, 1971 and have expressed willingness to accept the location of sprinklers as we have proposed: Gus Sheffler, Safety Engineer, Environmental Services, University of Minnesota; Ken Tidemann, Dept. of Physical Planning and Development, University of Minnesota; Ron Sockness, Asst. State Fire Marshall.

THE ARCHITECTS COLLABORATIVE
UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

We estimate that the cost of sprinklering all additional areas below grade would be \$93,575.** Since our preliminary cost estimates were based on a distribution of sprinklers strictly in accordance with code requirements, this sum is currently not budgeted. If the Minneapolis Fire Prevention Bureau will require additional sprinkler protection we recommend that the project budget be augmented accordingly.

*Attached notes of meetings with code enforcement authorities:

23 January 1970--Chief Kenneth Welch, Captain Earle A. Peterson, Minneapolis Fire Prevention Bureau.

23 January 1970--Ron Sockness, Asst. State Fire Marshall.

27 January 1970--Gus Sheffler, Safety Engineer, Environmental Services, University of Minnesota.

27 January 1970--Eugene Kogl, Department of Physical Planning and Development, University of Minnesota.

7 November 1969--Richard E. Stevens, Director of Engineering Services, NFPA.

**Assumes all additional area below grade in Unit B/C, including mechanical equipment area on level B: 187,150 SF @\$.50/SF; if the mechanical equipment area is left unsprinklered the cost of sprinklering the remaining space would be \$77,325, 154,650 SF @ \$.50/SF.

KS:cf



UNIVERSITY OF MINNESOTA
TWIN CITIES

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

June 24, 1976

TO: Gene Kogl
Paul Kopietz
Bob Dickler
Tom Jones
Jim Nelson
Dave Preston
Dick Campbell
Herb Enzmann
Dick Hendricks
✓Gus Scheffler
Bill Bowen
Dave Kerkow
Pete Merz
Cherie Perlmutter
Lee LeMay

FROM: Paul Maupin *Paul*

SUBJECT: University of Minnesota Health Sciences Expansion
Unit B/C Phase II

We have attached, for your review, a draft proposal entitled Unit B/C Phase II from Mr. John Scott of The Architects Collaborative. The scope of work outlined is based upon previous discussions with the Health Sciences Planning Office and consists of two parts. The first part deals with developing a program for financing and finishing the B/C shell space. The second part deals with the construction implementation of the B/C shell space program. At this time, it is the opinion of the Architects and the Health Sciences Planning Office, that most of the part II effort should be developed as a separate contractual agreement.

Once you have reviewed the enclosed draft, we would appreciate your comments so that they may be incorporated in a response to John Scott so that this work scope may be finalized.

PJM:jam

THE ARCHITECTS COLLABORATIVE, INC.

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

UNIT B/C - PHASE II - A study of the phasing, financing and
completion of shell space.

11 June 1976

A. DEVELOP A PROGRAM FOR FINANCING AND FINISHING OF UNIT B/C SHELL SPACE.

1. Assemble current data concerning funding for shell space development.
 - a. Review with the 21 Users and ascertain the likely amounts and sources of funding for completing their space.
 - b. Verify that extent of funding coverage being sought is adequate to cover indicated costs.
 - c. Determine when funds will be available.
 - d. Determine the extent of prefunding documentation necessary, grant application required, and coordination of joint funding applications.
2. Review of Contract Documents
 - a. Evaluate the extent of Mechanical, Electrical, and Vertical Transportation services deleted from the project, the areas served by these systems, and the affected Users.
 - b. Review contract alternates added and deleted from Phase I Construction.
 - c. Determine which systems must be supplemented, extended, modified, or added to the project in order for shell space to be completed.
3. Develop concepts for shell space development.
 - a. Using future occupants' schedules and funding availability suggest phasing or packaging of shell space development.
 - b. Consider packaging of development based upon integration into the construction schedule, minimizing of Phase I work and occupants, efficiency of prosecuting the work and method of contract award.
 - c. Suggest size of packages based upon User needs for new or existing Mechanical, Electrical, and Elevator services, their location in the building, the scope of front end expenditures, economics of scale, etc.
 - d. Study User originated schedule demands on shell space development such as their needs for expansion from existing space, relocation, etc.
 - e. Consider influence of currently funded Medical Records, Business Office, Ophthalmology, and Food Service Departments on overall development program.

- f. Ascertain the flexibility of phasing and packaging as influenced by change in schedule, User program, space requirements, etc.
4. Assignment of Attributable Costs.
 - a. Identify value of front end costs necessary to complete shell space packages.
 - b. Suggest methods of assessing these costs against new Users, current Users, the Hospital, Medical School, or the Health Sciences in total.
 5. Review of IMAPCT Report.
 - a. Check validity of basic assumptions.
 - b. Verify cost projections against Phase I bidding experience, indicated funding schedule, current escalation factors, etc.
 - c. Update projected schedules against costs.
 6. Review of Phase I Construction Schedule.
 - a. Consider timing of shell development with Phase I Construction. Establish critical dates for completion of systems and spaces for optimum efficiency.
 - b. Review influence on schedule of completion.
 - c. Project shell space construction schedule and estimate lead time for occupancy dates.
 7. Identify procedures necessary for completion of shell space construction documents.
 - a. Establish format for meeting with Users to verify original program and extent of changes comparison original design development drawings with new User program development.
 - b. Project a schedule for development of revised contract documents.
 - c. Establish schedule for review and approval.
 - d. Determine maximum/minimum lead time necessary prior to contract award.
 8. Review Influence of method of contract award.
 - a. Funding agency requirements.
 - b. Phase I construction cost record in unit prices and change orders.
 - c. Influences resulting from shell space development schedule on construction schedule.

8. Issue a report of findings and recommendations.

B. CONSTRUCTION IMPLEMENTATION OF B/C SHELL SPACE

The second phase will be implementation of this program by the actual preparation of B/C Contract Documents for Shell Space Development. This work will be under a separate contract arrangement as each package proceeds.

HSAE

MEMO TO: Unit B/C File and Unit "F" File
MEMO BY: Robert Nielsen
DATE: March 31, 1976
SUBJECT: Review of Water Service and Fire Protection System on February 6, 1976

People in attendance: Gene Kogl, Jerry Nelson, Gus Scheffler, Pete Merz, Harry Wilcox and Bob Nielsen.

WATER SERVICE

Sketches of the water service routing to and through Unit A, Unit B/C and Unit F shown on a composite drawing were presented and discussed.

The discussion centered on the duplicate water (and fire) services in Delaware Street serving Unit A and Unit B/C as being somewhat redundant particularly when the connection to Washington Street main is made to serve Unit "F" with a 12" cross connection to Unit A's water service.

Consensus of opinion was that in light of the cost reduction needs for Unit B/C it would be feasible to omit the 12" water service (and 8" fire service) to Unit B/C and serve this building (B/C) through a connection to the 12" water service passing through Unit A. Mr Jerry Nelson concurred.

The domestic water meter shall remain in the contract for Unit B/C but should be relocated closer to Unit A connection.

A modification will be forthcoming on these changes.

FIRE SERVICE

Drawings of fire service and standpipe systems for building Unit A, B/C and F on a composite plan were shown and reviewed.

Mr. Gene Kogl requested that we should add a separate fire pump in Unit "F". The size of this pump was discussed it could be sized to serve just Unit F in which case 750 GPM capacity would be sufficient however the head requirement would have to be similar to Unit A pump. This should be reviewed with the fire department.

Mr. Gus Scheffler requested a separate fire service connection to Washington Avenue water main.

Mr. Pete Merz requested an 8" fire line from Unit F and Unit A. This connection would have to be on the suction of the pumps in each building.

FIRE SERVICE (cont.)

It was also suggested that the cross connection on the discharge side should be 8" size. The present fire line through Unit A is 6" size therefore it may be necessary to parallel this line with another 6" fire line. This will need further study to finalize.

A review with the fire department has been set up for next week to discuss the implications of the fire tank as it relates to the over-all fire protection system for all Units A, B/C and F.

BOOSTER PUMPS

Sketch of the booster pump system for Unit A, B/C and F was reviewed.

We recommended that the booster pumps in Unit B/C should remain in the contract rather than omit them and connect the new system to Unit A booster system. We will however consider changing the B/C booster pump RPM from 3500 to 1750 RPM for the cost reduction advantage.

We suggested that the booster pumps in Unit "A" could serve Unit "F" as a cost saving factor for the Unit "F" contract.

cc: Attendees

HSAE

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

24 September 1981

Mr. Paul J. Maupin
Health Sciences Planning Coordinator
University of Minnesota
Box 726 - Mayo
Minneapolis, Minnesota 55455



RE: Unit B/C Shell Space Completion
Extra Services Invoice dated 24 September 1981
Emergency Electrical Load Summary

Dear Mr. Maupin:

Under separate cover we have sent to you an invoice for extra service compensation for the preparation of a schedule of all electrical loads related to the Fifteenth Floor emergency generator which has been added by the shell space projects. The summary was requested by Mr. Ed Ehlenz of the Engineering and Construction Department. The work was inadvertently done without the proper prior approval by the Planning Office. We would appreciate your favorable consideration of our request for compensation even though it is, in effect, after the fact.

The schedule of emergency electrical loads includes Phase I, II, III, V, and XI. We suggest and recommend that the schedule should be updated to include the other shell space projects which have been completed since March of this year. We estimate that the schedule could be updated with approximately six hours of engineering time. The information should be added to the Unit B/C Phasing Study document. We request your authorization to proceed with the updating of the load summary.

Enclosed is a copy of the Emergency Load Summary for your use and files. Please contact me if you have any questions regarding the summary or our request for compensation to do the load summary.

Sincerely yours,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.


Duane E. Blanchard

DEB:kae
Enclosure

HSAE

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

3 March 1981

Mr. Jack Geretz
Assistant Supervising Engineer
Department of Engineering and Construction
University of Minnesota
319 15th Avenue S. E.
Minneapolis, Minnesota 55455

Re: Unit B/C
Emergency Load Summary

Dear Mr. Geretz:

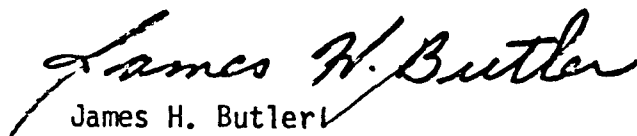
For your information we enclose the attached summary.

The emergency load calculation is for the 600 KW generator located on 15th floor. The electrical load sheets for motor control centers #EMCC15-1 and 2 include all motors added to the project since Phase I. The total load of 522 amperes is well within the capacity of the motor control center bussing and feeder. The total load of 813 amperes on the existing 600 KW generator is also within the capacity of the generator output of 902 amperes.

If you have any questions, please call.

Sincerely,

HEALTH SCIENCES ARCHITECTS AND ENGINEERS, INC.


James H. Butler


JHB:1a

cc: Ed Ehlenz

MOTOR CONTROL CENTER - EMCC15-1

BLDG. UNIT NO.	MOTOR NO.	EQUIPMENT	CONTRACT DOCUMENT H.P.	FINAL H.P.	LOAD AMPS	REMARKS
B/C-1	96	RETURN FAN * RE17C	1 1/2	1 1/2	2.6	4
B/C-1	101	RETURN FAN * RE18C	7 1/2	5	7.6	1,4
B/C-1	102	ANIMAL EXH. FAN * E4C	50	75	96	2,4
B/C-1	97	SUPPLY FAN * S21C	5	5	7.6	4
B/C-1	106	TOILET EXH. * E1C	15	15	21	4
B/C-1	104	GENERAL EXH. * E2C	50	75	96	2,4
B/C-1	99	SUPPLY FAN * S22C	10	10	14	4
B/C-1	110	FUME HOOD EXH. FAN * FE-1C	3	3	4.8	4
B/C-1	111	FUME HOOD EXH. FAN * FE-2C	3	3	4.8	4
B/C-1	112	FUME HOOD EXH. FAN * FE-3C	3	3	4.8	4
B/C-1	113	FUME HOOD EXH. FAN * FE-4C	2	2	3.4	4
B/C-1	114	FUME HOOD EXH. FAN * FE-5C	2	2	3.4	4
B/C-1	115	FUME HOOD EXH. FAN * FE-6C	2	2	3.4	4
B/C-1	116	FUME HOOD EXH. FAN * FE-7C	3	3	4.8	4
B/C-1	117	FUME HOOD EXH. FAN * FE-8C	3	3	4.8	4
B/C-1	118	FUME HOOD EXH. FAN * FE-9C	3	3	4.8	4
B/C-1	184	EM. GEN. RAD. PUMP * P-37C	7 1/2	5	7.6	1,4
B/C-1	108	CANOPY EXH. FAN * E5C	7 1/2	7 1/2	11	4
B/C-1	200	EM. GEN. RAD. FAN	5	5	7.6	4
B/C-1	64	EM. GEN. FUEL PUMP * P46C	1/2	1/2	1	4
B/C-1	109	CANOPY EXH. FAN * E6C	5	5	7.6	4
B/C-1	280 281	ENV. ROOM COOLING WATER PUMP * P31 & P32	5/5	5/5	7.6	4
B/C-1	191	ENV. ROOM COOLING TOWER FAN	3/4	3/4	1.4	4
B/C-1	282 283	ENV. ROOM COOLING TOWER PUMP * P33 & P34	1/1	1/1	1.8	4
B/C-1	304	FUME HOOD EXH. FAN * FE-10C	5	5	7.6	4
B/C-1	305	FUME HOOD EXH. FAN * FE-11C	3	3	4.8	4
B/C-1	306	FUME HOOD EXH. FAN * FE-12C	1	1	1.8	4
B/C-1	307	FUME HOOD EXH. FAN * FE-13C	1	1	1.8	4

CONTINUED

	UNIVERSITY OF MINNESOTA HEALTH SCIENCES EXPANSION	JOB NO 115.00	UNIT B/C
	THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. & THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.	DRAWN J.H.B.	EMERGENCY LOAD CALCULATION OF 600 KW GEN. 15 TH FL.
		CHECK G.A.H.	
		SCALE NONE	
		DATE FEB. 26, 1981	SHEET NO 1 OF 5

B/C-II	120	FUME HOOD EXH. FAN * FE-15C	3	3	4.8	4
B/C-II	121	FUME HOOD EXH. FAN * FE-16C	3	3	4.8	4
B/C-II	122	FUME HOOD EXH. FAN * FE-17C	3	3	4.8	4
B/C-II	123	FUME HOOD EXH. FAN * FE-18C	2	2	3.4	4
B/C-II	124	FUME HOOD EXH. FAN * FE-19C	3	3	4.8	4
B/C-II	125	FUME HOOD EXH. FAN * FE-20C	1	1	1.8	4
B/C-II	126	FUME HOOD EXH. FAN * FE-21C	2	2	3.4	4
B/C-III	4	EXHAUST FAN * E3C	7 1/2	7 1/2	11	4
B/C-V-1	12	FUME HOOD EXH. FAN * FE-35C	1	1	1.8	4
B/C-V-1		FUME HOOD EXH. FAN * FE-36C	1 1/2	1 1/2	2.6	3,4
B/C-V-2	11	FUME HOOD EXH. FAN * FE-47C	1 1/2	1 1/2	2.6	4
B/C-V-2	19	EXHAUST FAN * E5C	15	15	21	4
TOTALS			248 3/4	293 3/4	412.4	

NOTES:

1. H.P. CHANGED BY MECHANICAL
2. ORIGINAL H.P. CHANGED TO 60 H.P. BY ADDENDUM.
CHANGE TO 75 H.P. BY USER.
3. ADDED BY MODIFICATION.
4. CONNECTED THRU AUTOMATIC TRANSFER SWITCH #8



UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

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

JOB NO 115.00
DRAWN J.H.B.
CHECKED G.A.H.
SCALE NONE
DATE FEB. 26, 1981

UNIT B/C

EMERGENCY LOAD
CALCULATION OF
600 KW GEN. 15TH FL.

SHEET NO

2

OF 5

MOTOR CONTROL CENTER - EMCC15-2

BLDG. UNIT NO.	MOTOR NO.	EQUIPMENT	CONTRACT DOCUMENT H.P.	FINAL H.P.	LOAD AMPS	REMARKS
B/C - XI	1	FUME HOOD EXH. FAN * FE-52C	1/2	1/2	1	2
B/C - XI	2	FUME HOOD EXH. FAN * FE-53C	1/2	1/2	1	2
B/C - XI	3	FUME HOOD EXH. FAN * FE-54C	1/2	1/2	1	2
B/C - XI	5	FUME HOOD EXH. FAN * FE-56C	2 1/2	2 1/2	4	2
B/C - XI	6	FUME HOOD EXH. FAN * FE-57C	1	1	1.8	2
B/C - XI	7	FUME HOOD EXH. FAN * FE-58C	3	3	4.8	2
B/C - XI	9	FUME HOOD EXH. FAN * FE-60C	2	2	3.4	2
B/C - XI	10	FUME HOOD EXH. FAN * FE-61C	2 1/2	2 1/2	4	2
B/C - XI	11	FUME HOOD EXH. FAN * FE-62C	2 1/2	2 1/2	4	2
B/C - XI	12	FUME HOOD EXH. FAN * FE-63C	1 1/2	1 1/2	2.6	2
B/C - XI	13	FUME HOOD EXH. FAN * FE-64C	2 1/2	2 1/2	4	2
B/C - XI	14	FUME HOOD EXH. FAN * FE-65C	1 1/2	1 1/2	2.6	2
B/C - XI	16	FUME HOOD EXH. FAN * FE-67C	1/2	1/2	1	2
B/C - XI	17	FUME HOOD EXH. FAN * FE-68C	1/2	1/2	1	2
B/C - XI	19	FUME HOOD EXH. FAN * FE-70C	2 1/2	2 1/2	4	2
B/C - XI	23	FUME HOOD EXH. FAN * FE-74C	1 1/2	1 1/2	2.6	2
B/C - XI	24	FUME HOOD EXH. FAN * FE-75C	1/2	1/2	1	2
B/C - XI	25	FUME HOOD EXH. FAN * FE-76C	1 1/2	1 1/2	2.6	2
B/C - XI	26	FUME HOOD EXH. FAN * FE-77C	1 1/2	1 1/2	2.6	2
B/C - XI	27	FUME HOOD EXH. FAN * FE-78C	1 1/2	1 1/2	2.6	2
B/C - XI	28	FUME HOOD EXH. FAN * FE-79C	1/2	1/2	1	2
B/C - XI	30	FUME HOOD EXH. FAN * FE-81C	1 1/2	1 1/2	2.6	2
B/C - XI	34	FUME HOOD EXH. FAN * FE-85C	2	2	3.4	2
B/C - XI	35	FUME HOOD EXH. FAN * FE-86C	1 1/2	1 1/2	2.6	2
B/C - XI	36	FUME HOOD EXH. FAN * FE-87C	2	2	3.4	2
B/C - XI	37	FUME HOOD EXH. FAN * FE-88C	1/2	1/2	1	2
B/C - XI	38	FUME HOOD EXH. FAN * FE-89C	1 1/2	1 1/2	2.6	2
B/C - XI	39	FUME HOOD EXH. FAN * FE-90C	1 1/2	1 1/2	2.6	2
B/C - XI	40	FUME HOOD EXH. FAN * FE-91C	1 1/2	1 1/2	2.6	2
B/C - XI	43	FUME HOOD EXH. FAN * FE-94C	1 1/2	1 1/2	2.6	2
B/C - XI	45	EXHAUST FAN * E16C	1 1/2	25	34	1, 2
TOTALS			46	69.5	110.0	

NOTES:

1. H.P. CHANGED BY ADDENDUM
2. CONNECTED THRU AUTOMATIC TRANSFER SWITCH *8.



**UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION**

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

JOB NO	115.00
DRAWN	J.H.B.
CHECK	G.A.H.
SCALE	NONE
DATE	FEB. 26, 1981

UNIT B/C

EMERGENCY LOAD
CALCULATION OF
600KW GEN. 15TH FL.

SHEET NO

3

OF 5

PANELBOARDS - EMERGENCY POWER

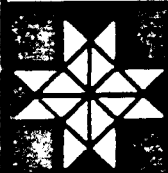
PANEL NO.	LOCATION	VOLTS/ PHASE	CONNECTED KVA						REMARKS
			LTG.	REC.	MTR.	MISC.	TRAN.	TOTAL	
EHC10-1	CORE 29 10 TH FL.	277/480 3Ø-4W	9.5	—	2.8	—	22.6	35.9	1
ELC10-1	CORE 29 10 TH FL.	120/208 3Ø-4W	—	7.0	13.6	2.0	—	22.6	1
EHC11-1	CORE 29 11 TH FL.	277/480 3Ø-4W	5.0	—	—	—	26.9	31.9	1
ELC11-1	CORE 29 11 TH FL.	120/208 3Ø-4W	.9	24.0	—	2.0	—	26.9	1
EHC12-1	CORE 29 12 TH FL.	277/480 3Ø-4W	4.7	—	—	—	26.3	31.0	1
ELC12-1	CORE 29 12 TH FL.	120/208 3Ø-4W	—	24.3	—	2.0	—	26.3	1
EHC13-1	CORE 29 13 TH FL.	277/480 3Ø-4W	9.7	—	—	—	30.9	40.6	1
ELC13-1	CORE 29 13 TH FL.	120/208 3Ø-4W	—	28.9	—	2.0	—	30.9	1
EHC14-1	CORE 29 14 TH FL.	277/480 3Ø-4W	7.0	—	—	—	23.0	30.0	1
ELC14-1	CORE 29 14 TH FL.	120/208 3Ø-4W	—	21.0	—	2.0	—	23.0	1
EHC15-1	CORE 29 15 TH FL.	277/480 3Ø-4W	8.7	—	—	—	22.5 26.4	57.6	1
ELC15-1	CORE 29 15 TH FL.	120/208 3Ø-4W	—	18.6	1.9	2.0	—	22.5	1
ELC15-2	15-105	120/208 3Ø-4W	—	15.1	11.3	—	—	26.4	1
EVHC16-1	ELEVATOR P'HOUSE	480 3Ø-3W	—	—	95.0 *	7.2	3.6	105.8	2
EVL16-1	ELEVATOR P'HOUSE	120/208 3Ø-4W	1.2	1.2	1.2	—	—	3.6	2
TOTAL CONNECTED KVA			46.7	140.1	125.8	19.2	—	331.8	
TOTAL DEMAND KVA			46.7	70.0	121.2 *	19.2	—	257.1	

DEMAND FACTOR - LIGHTING 100 %
 DEMAND FACTOR - RECEPTACLES 50 %
 DEMAND FACTOR - MOTORS 85 %
 DEMAND FACTOR - MISC. 100 %

* DEMAND NOT APPLIED TO ELEVATOR

NOTES:

1. CONNECTED THRU AUTOMATIC TRANSFER SWITCH * 7
2. CONNECTED THRU AUTOMATIC TRANSFER SWITCH * 6



**UNIVERSITY OF MINNESOTA
 HEALTH SCIENCES EXPANSION**
 THE ARCHITECTS COLLABORATIVE, INC. CAMBRIDGE, MASS. &
 THE HEALTH SCIENCES ARCHITECTS & ENGINEERS, INC.

JOB NO. 115.00
 DRAWN J.H.B.
 CHECKED G.A.H.
 SCALE NONE
 DATE FEB. 26, 1981

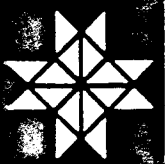
UNIT B/C
 EMERGENCY LOAD
 CALCULATION OF
 600 KW GEN. 15TH FL.

SHEET NO. **4**
 OF 5

EMERGENCY LOAD SUMMARY - 600 KW GENERATOR

ITEM	EQUIPMENT	KVA	AMPS
ATS *6	PANEL * EVHC-16-1 ELEVATOR	105.8	127.0
ATS *7	EHC SERIES PANELS	135.9	164.0
ATS *8	MOTOR CONTROL CENTERS * EMCC15-1 & 2		522.0
TOTAL			813.0

ATS = AUTOMATIC TRANSFER SWITCH



**UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION**

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

JOB NO	115.00
DRAWN	J.H.B.
CHECKED	G.A.H.
SCALE	NONE
DATE	FEB. 26, 1981

UNIT B/C
EMERGENCY LOAD CALCULATION OF 600 KW GEN. 15 TH FL.

SHEET NO	5
OF 5	



UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
Physical Planning
Health Sciences Complex
Box 726 Mayo Memorial Building
Minneapolis, Minnesota 55455
(612) 373-8981

March 1, 1982

TO: David Kerkow
Assistant Director
Engineering & Design Division

FROM: Robert Swanson
Asst. Health Sciences Planning Coordinator

SUBJECT: Phillips-Wangensteen Building
Unit B/C - Phase IVc
Dept. of Otolaryngology Facilities Mods 16P - 18P
Hospital EEG/Blood Donor Clinics Mods 19P - 21P

After reviewing the statements made in your February 23, 1982 memorandum, it appears that you have been given some erroneous information as it relates to the procedures utilized to develop the projects identified above.

Unfortunately, in my January 11, 1982 correspondence to Mr. Geretz, I failed to insert the word "competitive" in my sentence describing the most expedient and cost effective method of constructing the facilities described above. For your information both projects were competitively bid by Arkay and Sheehy Construction Companies, which have consistently provided the University with the low bid on all ten of the previous shell space projects. While this office basically agrees with your statement "a project of this magnitude, particularly as it is compared to the initial project cost, should never be handled as a modification," we do feel that alternative solutions should be considered if they are deemed in the best interest of the University, and in this case the following reasoning applied.

At the time each of the occupants approached this office with their initial program to in-fill their assigned shell space, each expressed concern that the total estimated project cost exceeded the funds available, therefore, in an attempt to address this issue, we authorized the architects to proceed with an indepth review of this problem, and submit in a timely manner a method

David Kerkow
Modifications
March 1, 1982
Page Two

by which the anticipated total project cost could be reduced to fall within the funds available. The architects reply indicated that in their best judgement, substantial savings could be realized if these projects were competitively bid under one or more of the existing construction contracts. Their reasoning behind this statement cited the following examples.

- A. The architects fees would be reduced if the need for a complete bid document set including a specification was eliminated.
- B. The development and construction schedules could be accelerated by item A above, thereby saving precious time and ultimately saving the purchasing power of the funds available due to the rapid increase in the inflation rate associated with construction.
- C. Certain projects costs associated with the "front end" of the specification would be eliminated or reduced since both contractors were already mobilized in the structure.

This information was reviewed at length, and the final decision reached between the parties involved was that the architects suggestions surely provided a means by which shell space facilities could be in-filled in a timely and cost efficient manner.

Until I received your memorandum, I was not aware there was a problem associated with project identification. Especially since the eighth floor facilities have always been assigned to the Phase IVc project as modifications 16P, 17P and 18P.

As for the fifth floor facilities, I can see the potential for an initial error in identification since this project was developed as a part of the Phase V - Stage 2 project which was under contract to Sheehy Construction, but when the bids were received, Arkay was the low bidder, and in order for this project to be included as a part of an on-going construction project of Arkays the project assignment had to be made to the Phase IVc project as modifications 19, 20P and 21P.

On all Unit B/C construction projects since Phase I and IB, the construction budget including the non-building line items are calculated by utilizing the percentage basis established in cooperation with Mr. Scott and Mr. Erne. I would also like to make mention that before any given pre-bid or final budget is accepted, Mr. Scott, Mr. Erne and representatives from this office meet to

David Kerkow
Modifications
March 1, 1982
Page Three

discuss each line item and make adjustments as deemed necessary. Now if for some reason the mechanical section did not receive a copy of the final budget, I would suggest your review this matter with Mr. Scott and Mr. Erne.

This statement also applies to the Phase V - Stage 2 construction project.

This office for a number of years has controlled the budgets and by the sound management practices established, we have management to bring our projects in successfully under budget. As a part of this strict management practice, we have been co-signing and approving all change order documents and it is the opinion of this office that this practice shall continue.

RS:mka

cc: Paul Maupin
Warren Soderberg
Evan Merz
Jack Geretz
Tony Aydinalp

File

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

UNIVERSITY OF MINNESOTA
HEALTH SCIENCES EXPANSION

MEMORANDUM

MEMO TO: Unit B/C Phase XII, Hospital Dentistry
MEMO BY: Richard J. Carlson
DATE: 17 May 1982
SUBJECT: Phase XII Committee Review Meeting

PRESENT: Mellor Holland, Dan Gotto, Dan Waite, Michael Till, Ron
Geistfeld, Jon Dalrymple, [REDACTED] Warren Forslund,
Richard Carlson

Dr. Holland began the meeting with a review of the Committee's function. Project decisions, if required, will be reviewed and decided by the Committee rather than by a single individual. Communications will occur through the Committee. Warren Forslund is to replace Robert Swanson as Health Sciences Assistant Planning Coordinator of the project. Warren will assist the Committee in incorporation into the project of certain group I and group II equipment. Dr. Holland further indicated it would be appropriate to have construction progress photographs of the project. He may make separate arrangements for these since they are presently not a requirement of the contract.

Mike Till indicated some members may need to review the drawings again to familiarize themselves with the project since the group has not met for some time.

The installation method of the Owner's Treatment Room track lights was discussed at length. The contract documents include steel tripod supports above the ceiling for attachment of these lights. During the development of the project, concern was expressed by the Users that the track lights would be firmly supported and not have excessive deflection. The steel supports were therefore included in the documents. The steel supports will be retained in the project and not omitted, as previously questioned.

Additional ceiling 120 volt electrical outlets will be provided by modification in each of the four Oral Surgery Treatment Rooms 103, 104, 105, and 106 to provide power for an operator head lamp. The Architect will prepare a modification document for obtaining the cost of this change. The ceiling outlets will be located on the sink side of the patient and approximately at the middle of the chair.

The dental chair electrical floor outlet location was discussed. Since the purchase or confirmation of dental chair types is still unresolved, Jon Dalrymple will set up a model installation for evaluation in locating these outlets.

The mechanical and electrical services into the Treatment Room junction boxes was discussed. Warren Forslund will lay out the piping within the box which the University is to install for connection to the umbilical.



UNIVERSITY OF MINNESOTA
TWIN CITIES

Health Sciences Planning Office
Physical Planning
Health Sciences Complex
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July 13, 1982

Mr. Duane Blanchard
Health Sciences Architects & Engineers, Inc.
1201 Harmon Place
Minneapolis, Minnesota 55403

Subject: Unit B/C Design Errors and Exclusions in
Design Package

Dear Mr. Blanchard:

The following problems which have come to our attention, we believe, are due to design error or non-inclusion by neglect in the total design package.

1. Plenum blank off removals in the building air supply system were not addressed in the contract documents for all phases served by the 10th floor mechanical area. This has caused considerable confusion, inadequate air supplies in the interim to the various phases, and run up costs far beyond what they would have been for both blank off removal and air balancing. This work was performed by University Shops.
2. Plenum blank-off removals and electrostatic filter installations (including metal frames, power supplies, and electrical wiring) in the building air supply system were not addressed in the contract documents for all phases served by the basement mechanical area. This work remains to be accomplished and funds for the effected phases have been depleted. Along with the confusion and inadequate air supplies in the interim, there will be excessive costs to accomplish this remaining work and unforeseen funding problems.
3. A temporary occupancy permit has been issued for the 13th floor and a small portion of the 14th floor with the stipulation that the fire management speaker problem be corrected within thirty days. Presently, the fire management messages can be heard only in the corridors and not in any of the rooms because the sound cannot penetrate the corridor walls. In an attempt to come up

Mr. Duane Blanchard
July 13, 1982
Page Two

with an answer, bull horns were placed above each lab with a plastered ceiling. The sound penetrated the plastered ceiling lab and the drop-in ceiling labs on either side but there is not sufficient amplifier capacity to go this direction. At this time, we are experimenting with speakers in each lab and office complex.

4. Steam lines were not provided to the owner supplied still on the 14th floor. This omission was provided for by modification after walls, ceilings, etc. were in place at considerable extra cost. Its present location in Mayo was provided by the Health Sciences Planning Office to Health Sciences Architects and Engineers, Inc. for inclusion in the project. A shelf for the unit and an AC 110v duplex unit was provided for in the contract documents.
5. The tank harness design shown on the contract documents would not work in the majority of the bottle gas tank locations. This design was corrected by modification.
6. A modification was written to change the distilled water monitor location because of its accessibility to unauthorized personnel and its protrusion into the corridor. Upon further investigation, it was found that in accordance with the contract documents, the entire building's water supply would be dumped if monitored rightly or wrongly. This monitor was supposed to indicate the "quality only" of the distilled water for the 14th floor. The relocation of the monitor and the elimination of the solenoid dump valve, drain and soil stack were done by a modification.

Until satisfactory answers can be provided to the above problems brought about by design errors or omissions, this office is holding payment on invoices totaling approximately \$10,000.00.

Very truly yours,



Warren Forslund
Asst. Health Sciences Planning Coordinator

cc: Paul Maupin
Dick Carlson

WF:jmw