

University of Illinois

BUDGET REQUEST FOR OPERATING AND CAPITAL FUNDS

FISCAL YEAR 1977



**Prepared for Presentation to the
Board of Trustees
October 15, 1975**

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PREFACE

The materials contained herein are summary data in support of the Fiscal 1977 Operating and Capital Budget Requests of the University of Illinois.

Contingent upon approval by the Board of Trustees, this request (along with a large amount of supporting detail) will be transmitted to the Illinois Board of Higher Education. The IBHE will analyze these data and data from other university systems and will produce a set of budgetary recommendations to the Governor and to the General Assembly in December or January.

Normally the Bureau of the Budget requests additional information from the systems after receiving the IBHE recommendations for the preparation of the Executive Budget Message in February or March. Following receipt of the Executive Budget Message, the appropriations staffs of the respective chambers of the General Assembly and of each party request further information to assist the process of legislative deliberations and final appropriation bill preparation and enactment.

The final step in this process is the approval or amendment of appropriations bills by the Governor, which often does not occur until July.

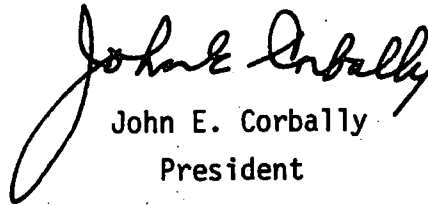
The budget process, therefore, takes from September until July, during which time constant deliberations and discussions take place. The final approval by the Board of Trustees of the detailed FY 1977 budget (including both income and expenses) will probably not occur until September 1976.

What, then, is the meaning of approving a budget request in this form?

It is clearly not a budget. A budget is normally defined as an authority to expend funds. That action must wait until next September. It is also not a commitment to carry out the programs described, and it is certainly not a commitment to increase revenue through internal measures - including specifically tuition. This budget request which is before the Board of Trustees in October is best described as a description of that set of items and programs which are needed to continue the scope and mission of the University of Illinois - tempered by the awareness of

restricted resources. The budget request represents the best judgement of the administration, after a great deal of analysis of and consultation about the needs of the University. Therefore, the action of approving this budget request provides the authority for the University administration to work to attain the approvals necessary to implement the items and programs contained within the budget request. Recommendations for the final approval of the detailed FY 1977 budget will come to this Board before any expenditures of FY 1977 funds can occur.

This document will be given wide distribution and has been prepared for a wide readership. I appreciate and commend the work of both University- and campus-level staff and faculty which has resulted in this presentation.


John E. Corbally
President

PART ONE

BUDGET REQUEST FOR OPERATING FUNDS FISCAL YEAR 1977

CHAPTER A
ANALYSIS OF TRENDS AFFECTING THE UNIVERSITY
OF ILLINOIS OPERATING BUDGET

During the past few years the University of Illinois has attempted with varying degrees of success to maintain the quality of its programs while admitting increasing numbers of students and coping with inflationary pressures. Table 1 presents in summary form the original and adjusted incremental operating funds requested by the Board of Trustees from FY 1973 through FY 1976. It also contains the final increment approved by the General Assembly and Governor in each of these years. While it is true that the University received an increasing percentage of its adjusted request from FY 1973 through FY 1975 (and would have continued this upward trend had the Governor not vetoed \$11.9 million, excluding retirement, from the FY 1976 operating appropriations), it is equally true that failure to receive these requested amounts is seriously hindering the maintenance of program quality. In these times of economic uncertainty, it is important to note that the preliminary FY 1977 increment outlined in Table 4 represents a smaller percentage increase (11.92% excluding special service and special funding components) over the previous year's base than any of the adjusted requests from FY 1973 to FY 1975. This indicates a reasonable and balanced approach to the needs of the University when considered in light of the State's financial condition.

Table 2 shows the State funding sources which are appropriated to the University for its operations. While a quick glance at this table appears to indicate that the University Income Fund (primarily tuition collection) is providing a relatively constant percentage of total operating needs, it is important to realize that:

- a. The FY 1975 Income Fund appropriation was increased by \$1.5 million because of the State-mandated closeout of the Stores and Service and Working Cash Funds; and
- b. The FY 1976 Income Fund appropriation contains \$2.1 million accumulated from higher than anticipated enrollments.

TABLE 1

SUMMARY OF INCREMENTAL OPERATING BUDGET DECISIONS¹
 UNIVERSITY OF ILLINOIS
 (Thousands of Dollars)

	<u>BOT Original Request</u>	<u>% of Previous Base</u>	<u>Adjusted Request</u>	<u>% of Previous Base</u>	<u>Increment Received</u>	<u>% of Previous Base</u>	<u>% of Adjusted Request</u>
FY 1973	\$32,016	17.88	\$32,016	17.88	\$ 9,637	5.38	30.10
FY 1974	27,837	14.75	27,837	14.75	9,683	5.13	34.78
FY 1975	22,800	11.49	26,368 ⁴	13.29	20,043	10.10	76.01
FY 1976	32,344	14.81	35,149 ⁵	16.09	16,951	7.76	48.23
FY 1977 ²	27,753	11.92					
FY 1977 ³	29,276	12.57					

¹Excludes Retirement, IBA Rentals.

²Excludes Special Service and Special Funding Components (see Chapter C).

³Includes Special Service and Special Funding Components (See Chapter C).

⁴Includes \$3,568 requested as utility contingency; \$1,500 received.

⁵Includes \$2,655 requested for Chicago Public Health Hospital and Clinics and \$150 for Willard Airport-Commercial Operations; \$2,496 received for CPHH&C and \$141 for Willard.

TABLE 2
SUMMARY OF STATE APPROPRIATED FUNDING SOURCES¹
UNIVERSITY OF ILLINOIS
(Thousands of Dollars)

	<u>General Revenue</u>	<u>% of Total</u>	<u>Income Fund</u>	<u>% of Total</u>	<u>Agricultural Premium</u>	<u>% of Total</u>	<u>Total State Funds</u>	<u>% of Total</u>
FY 1974	171,618	86.50	24,918	12.56	1,845	.94	198,381	100.00
FY 1975	189,393	86.71	27,076 ⁴	12.40	1,956	.89	218,425	100.00
FY 1976	202,682 ²	86.11	30,486 ⁵	12.95	2,208	.94	235,376	100.00
FY 1977 Total ³							262,156	
Cont/Progr Comp							260,633	
Spec Svc/ Fund Comp							1,523	

¹Excludes Retirement and IBA Rentals.

²Includes \$2,496 for CPHH&C and \$141 for Willard Airport -Commercial Operations.

³Includes Special Service and Special Funding Components (see Chapter C).

⁴Includes \$1,500 from closeout of Stores and Service and Working Cash Funds.

⁵Includes \$2,100 from Income Fund Balances due to higher than anticipated enrollments.

Without these increased amounts, the State would have had to provide these dollars from tax funds (General Revenue) or the University would have been forced to further scale back some phases of operation.

Table 2 also contains the FY 1977 amount to be requested to the Illinois Board of Higher Education for appropriation from the General Revenue, Agricultural Premium, and University Income Funds. Table 3 presents planned enrollments for the fall term of FY 1977 and projected enrollments through FY 1981. Once again, these planned enrollments are entirely contingent upon the success in achieving the University's funding needs.

Table 3

ON-CAMPUS HEADCOUNT ENROLLMENT

UNIVERSITY OF ILLINOIS

(Actual Figures for FY 1975 and Projected Figures for FY 1976-81)

Campus and Level	FY75	FY76*	FY77	FY78	FY79	FY80	FY81
<u>Chicago Circle</u>							
Lower Division	9,248	8,825	8,725	8,650	8,575	8,500	8,450
Upper Division	8,237	8,175	8,200	8,200	8,200	8,200	8,200
Total Undergrad	17,485	17,000	16,925	16,850	16,775	16,700	16,650
Prof	0	0	0	0	0	0	0
GI	1,457	1,480	1,525	1,575	1,625	1,675	1,700
GII	451	520	550	575	600	625	650
Total Grad	1,908	2,000	2,075	2,150	2,225	2,300	2,350
Total W/out Extended Day	19,393	19,000	19,000	19,000	19,000	19,000	19,000
<u>Extended Day</u>							
Lower Division	0	0	0	150	1,500	1,500	1,500
Upper Division	0	0	725	1,850	4,500	4,500	4,500
GI	0	0	475	1,050	2,000	2,000	2,000
Total Extended Day	0	0	1,200	3,050	8,000	8,000	8,000
Total With Extended Day	19,393	19,000	20,200	22,050	27,000	27,000	27,000
<u>Medical Center</u>							
Lower Division	453	434	445	450	460	460	460
Upper Division	1,201	1,274	1,271	1,298	1,335	1,395	1,450
Total Undergrad	1,654	1,708	1,716	1,748	1,795	1,855	1,910
Prof & Post-Prof	2,059	2,170	2,219	2,283	2,321	2,350	2,408
GI With Public Health	451	487	512	545	591	638	673
GII	184	187	197	208	220	234	242
Total Grad	635	674	709	753	811	872	915
Grand Total	4,348	4,552	4,644	4,784	4,927	5,077	5,233
<u>Urbana-Champaign</u>							
Lower Division	13,644	12,472	11,868	12,214	12,301	12,318	12,322
Upper Division	12,204	12,837	13,316	12,968	12,649	12,753	12,818
Total Undergrad	25,848	25,309	25,184	25,682	24,950	25,071	25,140
Prof - Law	607	607	630	630	763	896	1,030
Prof - Vet Med	326	344	344	358	372	386	400
Prof - Health Related (BMS Clinical)	65	100	100	110	134	184	228
Total Prof	998	1,051	1,074	1,098	1,269	1,466	1,658
GI	4,249	4,203	4,193	4,193	4,193	4,193	4,193
GII	3,950	3,947	3,947	3,947	3,947	3,947	3,947
Total Grad	8,199	8,150	8,140	8,140	8,140	8,140	8,140
Grand Total	35,045	34,510	34,398	34,420	34,359	34,677	34,938
<u>Total University W/out Extended Day</u>							
Lower Division	23,345	21,731	21,038	21,314	21,336	21,278	21,232
Upper Division	21,642	22,286	22,787	22,466	22,184	22,348	22,468
Total Undergrad	44,987	44,017	43,825	43,780	43,520	43,626	43,700
Prof & Post-Prof	3,057	3,221	3,293	3,381	3,590	3,816	4,066
GI	6,157	6,170	6,230	6,313	6,409	6,506	6,566
GII	4,585	4,654	4,694	4,730	4,767	4,806	4,839
Total Grad	10,742	10,824	10,924	11,043	11,176	11,312	11,405
Grand Total W/out Extended Day	58,786	58,062	58,042	58,204	58,286	58,754	59,171
<u>Total University With Extended Day</u>							
Lower Division	23,345	21,731	21,038	21,464	22,836	22,778	22,732
Upper Division	21,642	22,286	23,512	24,316	26,684	26,848	26,968
Total Undergrad	44,987	44,017	44,550	45,780	49,520	49,626	49,700
Prof & Post-Prof	3,057	3,221	3,293	3,381	3,590	3,816	4,066
GI	6,157	6,170	6,705	7,363	8,409	8,506	8,566
GII	4,585	4,654	4,694	4,730	4,767	4,806	4,839
Total Grad	10,742	10,824	11,399	12,093	13,176	13,312	13,405
Grand Total W/ Extended Day	58,786	58,062	59,242	61,254	66,286	66,754	67,171

*FY 1976 enrollments and those in later years will be revised based upon actual Fall, 1975 enrollments.

CHAPTER B

CONTINUING AND PROGRAMMATIC COMPONENTS OF THE INCREMENTAL FY 1977
OPERATING BUDGET - STATE FUNDS

The six sections which follow outline in some detail the FY 1977 incremental operating budget request. These six sections, which are summarized in Table 4, can logically be divided into two parts:

1. Continuing Components	\$20.2 million
2. Programmatic Components	7.6 million
TOTAL	<hr/> \$27.8 million

Of this \$27.8 million, approximately 73% is related to the continuing components of the University's operating budget. These components provide funds:

- a. To enable staff salaries to increase to a level relatively consistent with inflationary and comparative market studies;
- b. To continue the pay plan instigated in FY 1976;
- c. To annualize FY 1976 salary increases;
- d. To retain the University's purchasing power for supplies and services, including utilities;
- e. To operate facilities which will be completed by FY 1977 or which appear for the first time under University responsibility including those affiliated with the University's Medical Center.

The programmatic components, which comprise 27% of the total, enhance opportunities for the general public and current students (both traditional and non-traditional) through improved, expanded, and new programs. Included are continuing education proposals, an extended day at Chicago Circle, further expansion in the health professions at the Medical Center and regional locations, and increased funding for the College of Veterinary Medicine at Urbana-Champaign.

TABLE 4
FY 1977 INCREMENTAL OPERATING BUDGET
CONTINUING AND PROGRAMMATIC COMPONENTS
STATE FUNDS

I. Continuing Components	
A. Inflation and Market Driven	
1. Salary Increases (7.5%)	(\$14,035,400)
2. General Price Increases (7.0%)	(2,096,300)
3. Utility Price Increases (20.0%)	(2,331,000)
Subtotal	\$18,462,700
B. Operating Costs for New Facilities	1,695,500
Total	\$20,158,200
% Increase Over FY 1976 Base*	8.66%
II. Programmatic Components	
A. Extended Education	
1. Continuing Education	(\$ 1,640,000)
2. Extended Day	(1,650,000)
Subtotal	\$ 3,290,000
B. Expansion in Health Related Fields	4,305,600
Total	\$ 7,595,600
% Increase Over FY 1976 Base*	3.26%
III. Total Increment	\$27,753,800
% Increase Over FY 1976 Base*	11.92%

*FY 1976 State Base (\$232,879,208) excludes retirement (\$13,951,151) and Chicago Public Health Hospital and Clinics (\$2,495,935).

CONTINUING COMPONENTS

A. INFLATION AND MARKET DRIVEN

SECTION ONE SALARY INCREASES

SECTION TWO GENERAL PRICE INCREASES

SECTION THREE UTILITY PRICE INCREASES

B. OPERATING COSTS FOR NEW FACILITIES

SECTION FOUR OPERATING COSTS FOR NEW FACILITIES

SECTION ONE
SALARY INCREASES

When determining the percentage salary increases which University employees should receive, a number of factors must be considered. Most important among these are the effects upon staff morale, the rate of inflation, comparative market conditions with peer institutions, other fringe benefits, the financial condition of the State, and the financial condition of the University. It is indeed a hard task, if not an impossible one, to weigh all these factors and arrive at a salary increase request which is mutually acceptable to University staff members, the Board of Higher Education, the Bureau of the Budget, the Governor, and the General Assembly. It is even possible that responsible individuals will interpret the same conditions in different ways, thereby drawing different conclusions which, depending upon one's point of view, are equally justifiable. Given these inevitable conflicts, the University administration feels that all the above factors, when considered thoroughly and logically, point to the need for a 7.5 percent increase in FY 1977 plus sufficient funds to annualize the 7 percent average increases in FY 1976. This will allow the University to continue the pay plan for nonacademic open-range employees.

To assess as closely as possible the effects of inflation on the salaries of University employees, a variety of sources are monitored; an information source which is particularly useful is published by the Bureau of Labor Statistics. These data estimate for three family income levels at Urbana-Champaign and Chicago the costs for different types and amounts of goods and services. Table 5 shows the dollar increases in such budgets which are necessary to maintain a standard of living equivalent to that of September 1972. The graph (Figure I) which follows Table 5 estimates the maximum, intermediate, and minimum inflation rates which could occur between June 1975 and September 1977. While any analysis of this type is fraught with difficulty and accordingly will be closely monitored in the coming months, the University administration currently believes that the financial

condition of the State when coupled with comparative market and inflation analyses such as the one which follows point to the need for sufficient funds to annualize the 7 percent increase in FY 1976 and to grant 7.5 percent average raises in FY 1977. This will require \$14,035,400.

TABLE 5
ANALYSIS OF COST-OF-LIVING INCREASES
COMBINED URBANA-CHAMPAIGN AND CHICAGO FAMILY BUDGETS*

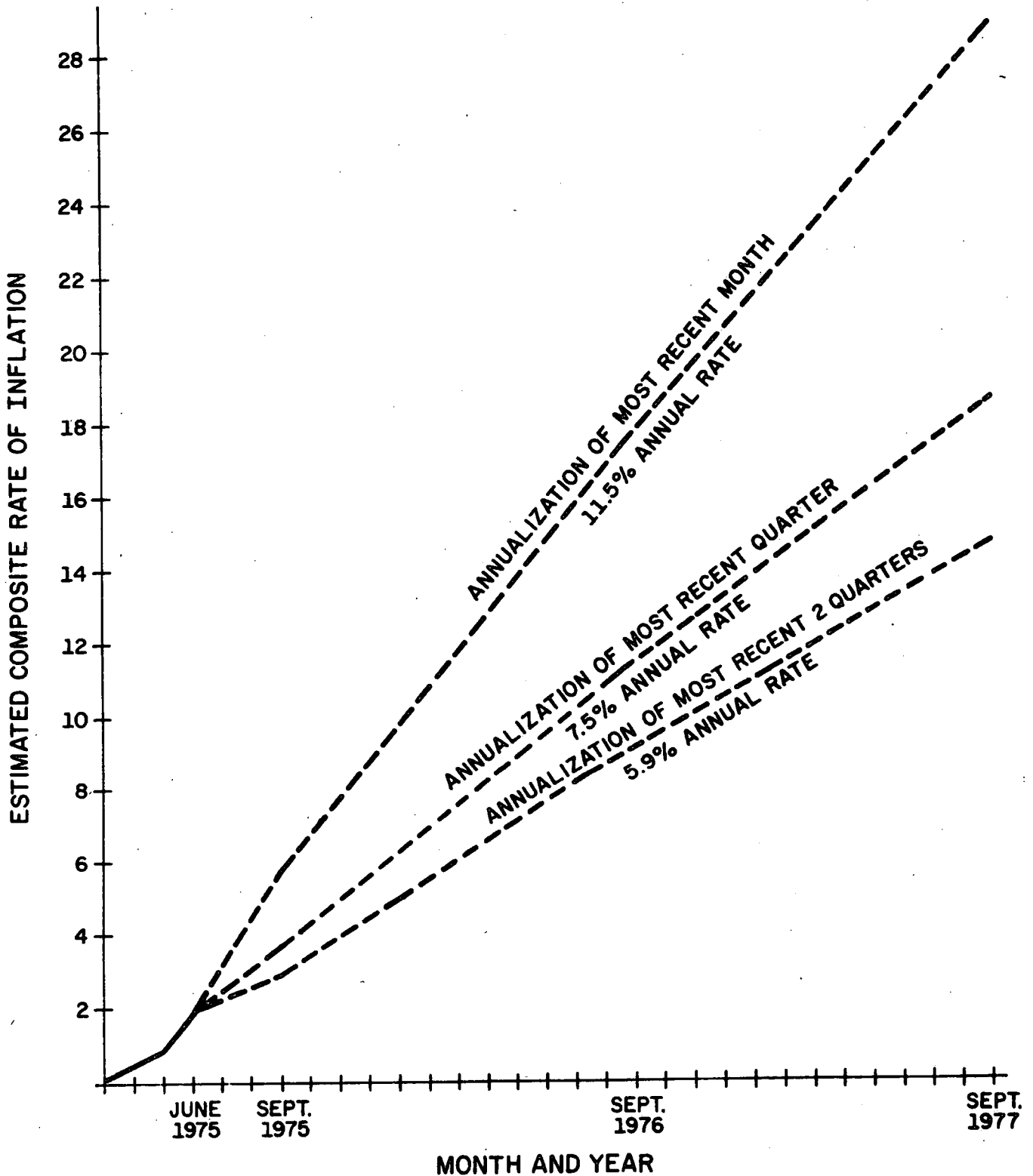
	Food	Housing	Transportation	Clothing	Medical Care	Other From Consumption**	Total
<u>September 1972</u>							
Lower	\$2059	\$1743	\$ 515	\$ 718	\$ 646	\$ 599	\$ 6280
Intermediate	2620	3057	987	1038	649	991	9342
Higher	3342	4546	1294	1521	672	1568	12943
<u>September 1973</u>							
Lower	2500	1821	542	753	683	618	6917
Intermediate	3196	3159	1046	1089	686	1020	10196
Higher	4066	4702	1372	1595	711	1612	14058
<u>September 1974</u>							
Lower	2776	1944	617	818	748	680	7583
Intermediate	3494	3467	1209	1185	751	1120	11226
Higher	4425	5190	1589	1735	779	1771	15489
<u>December 1974</u>							
Lower	2854	1994	625	823	765	695	7756
Intermediate	3593	3555	1225	1192	768	1145	11478
Higher	4550	5322	1610	1745	797	1811	15835
<u>March 1975</u>							
Lower	2889	2019	631	819	780	703	7841
Intermediate	3637	3600	1236	1186	783	1158	11600
Higher	4606	5390	1624	1736	813	1831	16000
<u>April 1975</u>							
Lower	2887	2033	637	821	786	707	7871
Intermediate	3635	3624	1248	1189	789	1164	11649
Higher	4603	5426	1640	1741	819	1840	16069
<u>May 1975</u>							
Lower	2902	2040	642	824	791	710	7909
Intermediate	3654	3637	1258	1193	794	1169	11705
Higher	4627	5446	1653	1747	824	1848	16145
<u>June 1975</u>							
Lower	2946	2054	652	822	797	716	7987
Intermediate	3709	3661	1279	1190	800	1179	11818
Higher	4697	5482	1680	1742	830	1863	16294

*Excludes retirement system contributions, personal income taxes, allowances for gifts and contributions, life insurance, and occupational expenses.

**Includes cost for personal care, reading, recreation, tobacco products, alcohol, education.

FIGURE I

ESTIMATED ALTERNATIVE INCREASES IN THE COST OF LIVING FROM JUNE 1975 TO SEPT. 1977



SECTION TWO

GENERAL PRICE INCREASES

During the past three years, the purchasing power of the dollar has deteriorated in all segments of the United States economy; the University of Illinois has not escaped this phenomenon. Although the University does carefully consider such factors as product quality, performance, suitability, and timeliness of delivery when making purchases, the cost of such services and products is the critical factor.

Not only because of rapidly rising prices but also because it makes good managerial sense to do so, the University is in the process of re-examining its method of purchasing services and products. A portion of this study deals with a new procurement/disbursement system, the procurement side of which will allow the University to more efficiently analyze the use of funds at its disposal. Although the University is seeking new and improved ways of increasing its purchasing power, the simple fact is that even the most sophisticated systems do not enable the University to keep pace with inflation. The result is an inability to maintain program quality. The tables which follow present in summary form the weighted effects of inflation on the state appropriated objects-of-expenditure contractual services, travel, commodities, equipment, tele-communications services, and operation of automotive equipment. By associating particular consumer and wholesale price indices published by the Bureau of Labor Statistics in the Monthly Labor Review with each of these objects-of-expenditures, a weighted price index can be calculated which shows the approximate effect of inflation on the University's purchasing power.

Since there is a strong parallel between the purchasing power of the University and that of individual employees, a 7 percent general price increase is requested for FY 1977 to partially offset the declining purchasing power with which even the most efficient internal management cannot cope. This will require \$2,096,300.

TABLE 6

INFLATIONARY IMPACT FROM JUNE 1973 TO JUNE 1975*

<u>Object</u>	<u>FY73 % in Object</u>	<u>Jun 1973 Index No</u>	<u>Weighted</u>	<u>FY75 % in Object</u>	<u>Jun 1975 Index No</u>	<u>Weighted</u>
Contr. Serv.	44.3	126.9	56.2	47.0	170.7	80.2
Travel	4.9	144.9	7.1	4.3	154.1	6.6
Commodities	28.0	136.7	38.3	21.6	173.7	37.5
Tele. Serv.	9.9	115.9	11.5	9.4	125.3	11.8
Op-Auto Equ.	1.8	146.6	2.6	1.5	252.2	3.8
Equipment	11.1	121.9	13.5	16.2	161.0	26.1
Weighted			129.2			166.0

Inflation Increase = 28.5% from June 1973 to June 1975

TABLE 7

INFLATIONARY IMPACT FROM JUNE 1974 TO JUNE 1975*

<u>Object</u>	<u>FY74 % in Object</u>	<u>Jun 1974 Index No</u>	<u>Weighted</u>	<u>FY75 % in Object</u>	<u>Jun 1975 Index No</u>	<u>Weighted</u>
Contr. Serv.	45.2	153.6	69.4	47.0	170.7	80.2
Travel	4.4	148.6	6.5	4.3	154.1	6.6
Commodities	25.7	155.7	40.0	21.6	173.7	37.5
Tele. Serv.	9.3	121.1	11.3	9.4	125.3	11.8
Op-Auto Equ.	1.5	232.2	3.5	1.5	252.2	3.8
Equipment	13.9	137.2	19.1	16.2	161.0	26.1
Weighted			149.8			166.0

Inflation Increase = 10.8% from June 1974 to June 1975

* Excludes any assessment of the inflationary impact on salaries and utility prices.

SECTION THREE

UTILITY PRICE INCREASES

A. Cost Reducing Measures

Due to dramatic increases in the cost of fossil fuels, the University of Illinois has instituted a program to conserve the greatest possible amount of both electrical and heating energy. This program is primarily one of reducing consumption by turning off energy consuming devices. For example, electric fans and motors are turned off when not needed, reduced lighting is used where possible, air conditioning is used as little as possible and is turned off before the end of the business day, little-used areas of buildings have temperatures reduced when not occupied, windows and outside doors are kept closed during heating and cooling seasons, and ventilation rates are reduced by using recirculated air to a greater extent. These efforts of energy conservation have been very successful in the 18 months of the program's existence. Table 8 indicates the savings that have been achieved in several of the University's larger and most frequently used buildings. The energy conservation program was in effect for approximately half of FY 1974 and all of FY 1975.

In addition, the University has made significant reductions in the peak demand portion of its electrical bill. This charge is based on the highest kilowatt demand in any 15-minute period. Peak demand loads are generally experienced between 10:00 a.m. and 3:00 p.m. on about 10 days during each summer. Last summer, the Urbana-Champaign campus alone saved approximately \$90,000 in charges through its telephone energy alert program and by cycling electric motor usage during peak periods. Offices were called when the peak load was approximated and air conditioners and other electrical appliances were turned off for short periods of time resulting in peak shaving. The Chicago campuses also achieved significant savings in demand charges by balancing hydronic systems, reducing lighting loads, and more efficiently using refrigeration equipment.

While the University is proud of the level of savings that it has attained, it recognizes that only a certain amount of energy can be

conserved through these manual manipulations. If further savings are to be made, certain capital improvements must be implemented. Due to the spiralling nature of energy costs, though, most of the improvements will pay for themselves through direct energy savings in a relatively short period of time.

There are two types of improvements which can be made: (1) adding devices to buildings and (2) removing devices from buildings. The additions which directly control the transfer of heat consist of weather stripping and caulking, translucent insulating panels in lieu of glass, and storm windows. The payback periods on these capital improvements vary from one year to four years. More sophisticated additions include Central Supervisory Control Centers (UC) or Building Equipment Automation (Chicago), air to air heat exchangers in exhaust stacks, and "free-cooling" coil arrangements for areas which must be cooled twelve months.

The Central Supervisory Control and Building Equipment Automation Systems would allow O&M personnel to routinely shut off energy consuming devices when the areas are not in use. Examples are fans, pumps, and air conditioning in buildings which can be shut off during the lunch hour or when a building does not have scheduled use. This will provide peak shaving, mentioned earlier, and still maintain acceptable levels of comfort for building occupants. Fans can be turned off in buildings earlier in the day and turned on later in the morning with fewer personnel than are presently doing the job. It is estimated that this system will save 15 percent of the energy used in any building connected to it.

Exhaust heat recovery is a process by which conditioned air exhausted through fume hoods could be used to pre-heat the make-up air via air-to-air heat exchangers in the exhaust stacks. It is estimated that this process could save \$85,000 annually. The payback period is less than two years.

The use of a "free-cooling" coil arrangement to cool the Digital Computer Laboratory during the winter months is estimated to save \$15,000 annually. The payback on this system is approximately four years.

The reduction of devices is primarily ventilation reduction. Nationwide, universities are beginning to reduce ventilation from original design conditions to those consistent with use and occupancy of the building. The payback period for the necessary remodeling is less than one year in most instances.

In addition to these capital improvements, hydronic balancing in those buildings with hot and chilled water systems could reduce energy consumption by 5 to 10 percent in each building.

Initial phases of the Central Supervisory Control Center and Building Equipment Automation systems have been funded in past capital requests and more funds are requested in the Capital Budget Request to complete and continue these projects. The other improvements are scheduled to be completed by physical plant personnel if funds are available. Table 8 also shows the timetable for improvements in selected buildings.

B. FY 1977 Needs

Even with these energy conservation measures, there are many factors which point to rather substantial increases in the price of utilities in FY 1977. Based upon historical trends, approximately 45 percent of the University's utility bill is spent on fuel oil for heating, 40 percent on electricity, 9 percent on steam, 2 percent on natural gas, and 4 percent on water. While it is extremely difficult to predict with any absolute degree of accuracy what will happen to the prices of these utilities, the following discussion of important factors indicates that the price can only go up. The major question, and one which has no simple answers, is how much. Given these confusing and sometimes conflicting factors, the University administration currently is requesting for FY 1977 a 20 percent increase, or \$2,331,000, in additional utility funds. If conditions in the federal government and world market become clearer allowing better estimates, this may have to be revised. The following is an analysis of those factors which leads to the 20 percent utility increase request.

Fuel Oil

On November 15, 1975 the present control authority on "old" oil (domestic oil from wells which were producing before May 15, 1973) will expire under an agreement between President Ford and Congress. Under

this control authority the price of "old" oil is frozen at \$5.25 per barrel; with the total removal of control, the price could logically approach the world market level. Since the Urbana-Champaign campus purchases all of its fuel oil from Marathon, which primarily is domestic, decontrol could have a critical impact on the fuel oil costs to the campus. The particular problem is not quite as severe for the Chicago campuses since the fuel oil purchased is of a less refined quality, however it is subject to the control provisions of the existing law.

If the decontrol of "old" oil was the only factor to be considered, then the effects of decontrol on fuel oil prices could be studied in an analytical fashion. The problem, unfortunately, is not so simple. Although the federal government has been debating the entire issue of decontrol, with the federal administration advocating a gradual removal of the price ceiling and certain elements within the Congress resisting any attempts at decontrol, the type of compromise solution developed by the federal government by the November 15, 1975 expiration date is not known. Further complicating the situation is the price of imported oil. The oil exporting countries agreed to raise prices by 10% on October 1, 1975. This will have repercussions not only on the price of imported oil, but also on the price of domestic oil if the price is allowed to reach the world market level.

It is clear from the above discussion that the price of fuel oil will increase. The major question, which unfortunately does not have an apparent answer, is by what amount. It is also clear that prices could increase by substantially more than 20 percent with the total removal of domestic controls and the 10% price increase by oil exporting countries.

Electricity

The price of electricity depends upon many factors, three of which are the major contributors to price increases. First, unit price is adjusted depending upon the demand. This depends upon the highest fifteen

minute kilowatt usage, which becomes the basis for the demand charge for the next twelve-month period, unless a higher peak load is reached during these twelve months. Second, total cost is increased based upon the total kilowatts used. Third, and most important, electricity companies, unlike universities, can pass their increased costs to the consumers through a fuel adjustment charge. For example, Chicago Circle, which spends approximately one-half of its utility budget on electricity, was assessed a 42 percent fuel adjustment charge in FY 1975. While the weighted price increase was less than 42 percent, this substantial jump could be even larger in future months if some of the more serious impacts mentioned in the fuel oil section occur. Another particularly troublesome fact is that Commonwealth Edison, which supplies electricity in Chicago, is dependent to a large extent upon low sulphur coal from the western states as a major raw material in the production of electricity in the Chicago area. Since mining and transportation costs for coal are continually increasing, the repercussions on electricity costs could be substantial. Additionally, the contractual agreement with Illinois Power, which allows the Urbana-Champaign campus to purchase electricity at a reduced rate, required that the University have standby capacity to produce electricity when the need arises. Although the Urbana-Champaign campus presently does not generate electricity unless requested, since it is cheaper to purchase from Illinois Power than generate using expensive fuel oil, the maintenance of the standby capacity is a costly undertaking. It also is important to note that the same factors which influence electricity prices in Chicago apply equally to Urbana-Champaign.

Steam, Natural Gas, Water

Although these three utilities comprise only 15 percent of the total utility expenditures of the University, the production of steam, high temperature hot water, and chilled water requires as inputs water, natural gas and/or fuel oil, and electricity. The prices of gas and water have increased over 20 percent in the past 12 months.

Given the above discussion, it seems apparent that utility prices will increase. There are so many factors which affect prices, any of which can become crucial, that to attempt to exactly predict utility price increases a year from now would be counterproductive. However, it could very well turn out that the 20 percent price increase will not be sufficient in FY 1977 and will have to be revised upward.

TABLE 8
ESTIMATED SAVINGS REALIZED BY COST REDUCING MEASURES
IN SELECTED UNIVERSITY BUILDINGS

CHICAGO CIRCLE CAMPUS

Bldg	Building Name	Yr of Constr	# of Rooms	GSF	Cu Ft	Est Year and Type of Improve		FY74 Consumption		(Est) FY75 Consumption	
						Type	Year	BTU (10 ³)	KWH	BTU (10 ³)	KWH
633	Physical Education	1971	125	221,621	5,000,000	V	FY76	21,840,000	3,521,200	19,248,000	3,486,000
						C	FY77				
609	Library	1965	246	264,242	2,444,000	O	FY76	16,784,000	5,187,000	13,076,000	5,323,000
						C	FY77				
619	Science and Engineering South	1969	571	330,924	4,840,000	V	FY77	87,780,000	13,382,600	82,371,000	12,962,000
						O	FY77				
						C	FY78				
621	Roosevelt Road Building	1950	154	113,180	1,715,000	O	FY77	11,927,000	896,000	9,909,000	738,000
						C	FY77				
623	Education & Communication	1971	291	131,864	1,584,000	O	FY76	9,282,800	2,421,830	7,634,000	2,334,000
						C	FY77				
Subtotal								147,613,800	25,408,630	132,238,000	24,843,000
% Savings										10.4%	2.2%

MEDICAL CENTER CAMPUS

Bldg	Building Name	Yr of Constr	# of Rooms	GSF	Cu Ft	Type	Year	Thou Lb	KWH	Thou Lb	KWH
924	College of Pharmacy	1952	536	270,738	3,411,738	O	FY76	56,559.20	6,580,400	54,302.20	6,456,440
						C	FY79				
902	Eye & Ear Infirmary	1964	719	167,227	2,006,724	O	FY76	20,550.76	3,651,371	17,423.76	3,125,907
						V	FY77				
						C	FY76				
920	Hospital Addition	1950	917	240,000	3,024,000	O	FY76	42,267.76	6,663,600	42,066.30	7,286,440
						V	FY77				
911	University of Illinois Hospital	1925	798	193,428	2,437,193	O	FY76	17,197.70	4,769,300	17,011.90	3,699,600
909	First Unit DMP	1930	435	179,600	2,262,960	V	FY76	15,542.40	2,557,000	16,063.90	2,337,000
910	Second Unit DMP	1937	535	169,700	2,138,220	V	FY76	18,158.10	1,597,710	18,731.20	1,696,090
						C	FY77				
935	Medical Science Addition	1964	448	161,282	2,032,153	V	FY76	42,529.18	7,423,280	43,137.45	7,005,000
						C	FY77				
Subtotal								212,805.10	33,242,661	208,736.71	31,606,477
% Savings										1.9%	4.9%

URBANA-CHAMPAIGN CAMPUS

Bldg	Building Name	Yr of Constr	# of Rooms	GSF	Cu Ft	Type	Year	BTU (10 ⁶)	KWH	BTU (10 ⁶)	KWH
024	Civil Engineering Building	1967	278	180,450	4,364,000	V	FY76	65,196	4,628,000	55,711	4,214,400
						O	FY76				
						C	FY77				
						X	FY80				
198	Physical Plant Services Building	1963	113	149,693	2,557,370	C	FY76	9,088	822,000	7,615	775,400
						X	FY81				
076	Psychology Building	1969	501	147,733	2,119,730	V	FY76	27,008	2,147,400	24,898	2,057,700
						R	FY79				
						C	FY78				
						X	FY77				
099	Undergraduate Library	1969	22	95,992	1,709,400	C	FY76	12,449	1,803,300	10,932	2,368,100
						X	FY77				
156	Law Building	1955	101	125,155	1,464,100	V	FY78	7,242	1,511,770	6,081	1,324,700
						C	FY76				
						X	FY79				
159	Commerce West Building	1964	273	98,206	1,305,800	C	FY76	17,080	978,100	13,511	991,490
						S	FY77				
						W	FY77				
						X	FY78				
026	Altgeld Hall	1899	114	73,160	1,241,120	C	FY77	8,547	409,200	8,111	365,900
						S	FY76				
						W	FY76				
						X	FY78				
160	Education Building	1964	284	92,783	1,200,000	C	FY76	15,121	1,378,000	8,887	1,208,000
						X	FY81				
Subtotal								151,731	13,677,770	135,746	13,305,690
% Savings										16.1%	2.7%

CODE: V = Ventilation Reduction
C = Central Supervisory Equipment Control
R = Reuse of Exhaust Heat
W = Weather Stripping and Caulking
O = Use of Outside Air
X = Hydronic Balancing
S = Storm Windows

SECTION FOUR

OPERATING COSTS FOR NEW FACILITIES

There are three types of facilities for which operating funds are requested in FY 1977: (1) recently constructed buildings, (2) University buildings which have not been operated by the University in the past, and (3) private hospitals which are affiliated with the University's medical education program. The Board of Higher Education has adopted the recommendation of the Health Education Commission that the State fund the operations and maintenance costs of space in affiliated hospitals for which capital grants have been given. The Board has directed that the University request these funds as part of the annual operating request.

Table 9 shows the operating costs, area, and occupancy date of the facilities to be funded in FY 1977. The total unit cost of operating buildings varies with the geographical location, the amount and time of usage and the type of space.

TABLE 9

OPERATING COSTS FOR NEW FACILITIES IN FY 1977

<u>Name of Building</u>	<u>Gross Square Feet</u>	<u>Total Unit Cost</u>	<u>Estimated Occupancy Date</u>	<u>Annual Cost</u>	<u>Funding Requested For FY76-77</u>
Peoria School of Medicine	117,973	\$2.92	8/1/76	\$344,835	\$ 316,000
Rockford School of Medicine	82,544	3.42	7/1/76	282,300	282,300
Liquid Storage Facility	1,250	1.50	7/1/76	1,875	1,875
Goldberg Research Center	49,000	2.45	7/1/76	120,100	120,100
Subtotal, Medical Center					(\$ 720,275)
Speech and Hearing Clinic	29,226	2.54	1/1/77	74,141	37,070
Memorial Stadium	162,944	1.60	7/1/76	260,710	260,710
University Skating Rink	54,964	1.70	7/1/76	94,349	93,439
Veterinary Medicine Feed & Storage	10,100	.47	7/1/76	4,771	4,771
Subtotal, Urbana-Champaign					(\$ 395,990)
Rockford Hospitals	21,551	3.50	7/1/76	75,428	75,428
Peoria Hospitals	42,795	3.50	7/1/76	149,782	149,782
Metro Group Hospitals	114,299	3.50	7/1/76*	400,046	354,061*
Subtotal, Affiliated Hospitals					(\$ 579,271)
TOTAL					\$1,695,536

* 26,266 GSF available January 1, 1977.

PROGRAMMATIC COMPONENTS

SECTION FIVE EXTENDED EDUCATION

SECTION SIX EXPANSION IN HEALTH RELATED FIELDS

SECTION FIVE

EXTENDED EDUCATION

A. Continuing Education

The University of Illinois is a statewide resource. It serves citizens through its threefold mission -- teaching, research and public service. The last, public service, has special significance for the State and for the University because the University of Illinois is (1) the State's land-grant institution, and (2) it specializes in the research and advanced professional knowledge which society wants "extended" for its uses.

By its depth and comprehensiveness, the University has a unique and extendable base which can and should be used for programming and delivery of educational services beyond the campus. This base-support makes possible the matching of the knowledge producer (University) and the knowledge consumer (society) for mutual benefits. The potential for such matchmaking was recognized by the Board of Higher Education in its October staff report on institutional scope and mission. It emphasized the University's particular attention to continuing education for the professions, the historic type of land-grant extension, assistance for the urban area and problems of Chicago, and a catalytic role in "statewide cooperative and interinstitutional programs in instruction and public service."

To the well-known old dimensions, like statewide agricultural extension, some revolutionary new dimensions have now been added: public demand for genuine "alternative education" off-campus; new licensure requirements for the practicing professions; rise of urban and community problems amenable to applied knowledge; mid-career training needs; growing appeal of education as a self-fulfilling part-time intellectual pursuit; and an increased number of institutions of higher education which must cooperate -- and all of this when on-campus enrollments are tapering off. It is not surprising that the Board of Higher Education has reported an Illinois off-campus enrollment increase of 21 percent in contrast to 1.5 percent for on-campus, between Fall 1973 and Fall 1974.

Reaching these new audiences, where suited to its mission, is the University's added new responsibility. The public demand upon the University as a knowledge resource clearly exceeds the University's present financial capability of response. How the University plans to respond, given the requisite resources, is found in the proposals contained in Appendix A. To meet the obligations of a research-oriented land-grant University will require \$1,595,000 in FY 1977.

Clearly, the University cannot do it all but it is willing and ready to assume the major share in areas where it has a distinctive academic support base and, particularly, where it has graduate and research capabilities unique to it. Such a share clearly extends to the practicing professions, which require repeated updating for medicine, pharmacy, law, veterinary medicine, education, and urban sciences, to name but a few.

Faculty expertise in dealing with problems of the rural community has always been recognized through the efforts of the Cooperative Extension Service. The problems of urban society are different, involving more disciplines, but again the University offers its knowledge in urban planning, architecture, environmental studies, housing, local government, engineering and health delivery.

As important as "delivery" is knowledge of what to deliver, or what individuals and society need in educational terms. The University's statewide field staff serves to assess such needs, to link the campus-based knowledge with them, and to make appropriate response. The requested funds for the field staff will help in determining need, with emphasis on the professions (e.g., medicine, law, pharmacy, engineering) and the University's own strengths.

As a specific public service related to the delivery of knowledge to the citizens of the State of Illinois, the University is exploring the acquisition of a 1,000 watt AM station at 1450 KHZ in the City of Chicago previously operated under the call letters WVON that has become available to a qualified licensee to be approved by the Federal Communications Commission (FCC). A license application would be filed during FY 1976 and, if approved, FY 1977 would involve the development of studio facilities, acquisition of needed

equipment, and hiring of the core staff who would operate the station. This will require a funding level of \$45,000 in FY 1977. Depending upon the speed with which the FCC processes the license application and progress on the other items noted above, some broadcasting might ensue in the latter part of FY 1977 or early in FY 1978. It is expected that the station would be fully operational by FY 1981 at which time approximately \$235,000 per year would be required from University sources, an amount that would be supplemented by equivalent or greater funding from various granting agencies and listener contributions. In addition it is expected that the bulk of the original equipment acquisition can be obtained from external sources.

The station would be operated as a public broadcasting facility which would bring to the citizens of the Chicago metropolitan area the expertise of the three campuses of the University, informational programming developed elsewhere in the State and nation and a variety of other educational and cultural attractions. While much of the State of Illinois and most of the metropolitan areas of the nation are served by public radio, the Chicago metropolitan area has the dubious distinction of being the largest such area in the country without a public radio station. The AM facility and the program format proposed to be offered by the University would remedy this deficiency.

B. Extended Day at Chicago Circle

From the very first set of planning assumptions to the current status of programming for the University of Illinois at Chicago Circle, the fundamental thrust of its unique urban mission has been to offer quality programs to large numbers of commuter students in the most convenient fashion. During the past ten years of the campus' development, it has been recognized that students need access to its programs at hours of the day beyond the traditional, and it has always been a part of long range plans to "extend" the hours of operation of the Chicago Circle campus when the facilities, programs, and planning were ready: This is now the time.

Incremental funds in the amount of \$1,650,000 would enable the Chicago Circle campus to extend the operations of its regular academic programs beginning in Fall, 1976 from the present 8 a.m. to 5 p.m. on Mondays through Fridays to 8 a.m. to 10 p.m. on Mondays through Thursdays and 8 a.m. to 5 p.m. on Fridays. It is anticipated that 1,700 students would be enrolled in courses offered during the extended hours of operation of which 1,200 of these students would be incremental to the campus and 500 would be current students who would opt to take a portion of their program in the evening hours. Total evening enrollments are projected to increase to 12,000 by the third year of the operation of the Extended Day program of which 8,000 would be incremental headcount students to Circle campus. By the third year of operation the Extended Day session would include the hour of 5 p.m. to 10 p.m. on Friday and essentially all Circle physical facilities would be operated until 10 p.m. In order to accommodate these increased enrollments and to operate the physical facilities, additional budget increments of \$1,500,000 will be required in both FY 1978 and FY 1979.

The fundamental objective of the Extended Day program is to provide increased educational opportunity and access to residents of the Chicago metropolitan area who, for financial reasons or family responsibilities, cannot pursue their education during the traditional daytime hours at the Chicago Circle campus or those who, for reasons of a unique program offering at the Circle, the location of the Circle campus or costs cannot pursue a degree in the evening at other Chicago area institutions. It should be emphasized that the Extended Day Program will be oriented toward serious degree-candidates who will be taught by the same faculty as daytime students and who meet the normal admissions criteria. Courses will be offered in the extended hours so as to permit upper division students or master's degree candidates entering Extended Day to fulfill their degree requirements in as few as three years depending upon the extent of load that the individual candidate carries. An intensive research study performed by the University Survey Research Laboratory in March 1974 indicated a substantial potential enrollment demand for the Extended Day Program from high school graduates, junior college students and the general adult population of the Chicago metropolitan area, as well as an indication

that a significant number of the current daytime students at the Circle campus would be interested in taking at least a portion of their load in the evening to provide greater opportunity for part-time employment. Thirty-four degree programs will be offered beginning in the Fall of 1976. These programs were selected based on expressions of student interest in various disciplinary areas as ascertained by the Survey Research Laboratory Study as well as subsequent analyses performed by the Circle campus. The selection of these particular programs as well as the planned phasing of enrollments is expected to minimize any adverse impact on other higher education institutions in Chicago.

A secondary but important fact is that initially the Extended Day program will not require any additional buildings and will actually achieve a greater utilization of the Circle's physical facilities, supporting services and faculty than is possible under the currently restricted hours of operation. The average costs per full-time equivalent (FTE) student at the Circle campus are projected to be \$2,808 in FY 1977 without an Extended Day Program. Even in the first year of its operation, with incremental enrollments intentionally limited to 1,200 headcount or 600 FTE students, the average costs per incremental FTE student would be \$2,750 or \$58 less than the average without an Extended Day Program. Thus, even in the first year of operation of this important new program the economies of scale will be such that a modest reduction in total average costs will be achieved for the campus. Further, significant reductions in average costs will be achieved as the Extended Day Program reaches maturity. For example, it is projected that overall average costs in the third year (FY 1979) will be reduced to \$2,510 per FTE student for the campus as a whole when measured in constant FY 1977 dollars. In other words, implementation of the Extended Day Program is expected to result in a reduction of average costs per FTE student of approximately 10 percent even when it is recognized that a relatively larger portion of Extended Day enrollments will be graduate students than the current campus graduate-undergraduate mix. This fact, when linked with the fundamental objective of increasing educational opportunity and access, provide powerful incentive for the implementation of an Extended Day program.*

*A detailed report on the Extended Day Program was presented to the Board of Trustees in its June 18, 1975 meeting.

SECTION SIX
EXPANSION IN HEALTH RELATED FIELDS

A. Medical Center

The Medical Center campus will require for FY 1977 the amount of \$3,955,600 to continue its planned expansion of health-related programs by 350 students during FY 1976 and FY 1977. This amount includes funds necessary to restore non-recurring funds used in support of the health expansion in FY 1976 (in the absence of state-appropriated funds for health expansion) and includes funds required for the continued development of clinical schools at the regional locations, and the development of a Doctor of Philosophy degree program in the College of Nursing.

The request of \$3,955,600 is minimal and has been arrived at after an analysis of current needs and proposed program expansion. It assumes constant levels (FY 1976) of Federal capitation awards (\$3,225,251). The requested amount has been allocated on a "preliminary" basis among Medical Center campus units as follows:

College of Medicine	\$2,497,100
College of Dentistry	567,200
College of Nursing	368,400
College of Pharmacy	204,600
School of Public Health	318,300
TOTAL REQUEST	<u>\$3,955,600</u>

The request for additional funds was determined by using the basic rationale presented in the FY 1975 and FY 1976 requests. This rationale was applied to the proposed expansion to arrive at specific requests by campus units, recognizing the need to restore recurring for non-recurring funds used in FY 1976.

Table 10 contains the projected growth in terms of enrollment headcount for each campus unit.

Table 10

Growth In Headcount Enrollment

	<u>FY75</u>	<u>FY76</u>	<u>Change FY75-FY76</u>	<u>FY77</u>	<u>Change FY76-FY77</u>
College of Medicine*	1,604	1,781	177	1,849	68
College of Dentistry	578	628	50	644	16
College of Nursing	892	883	-9	896	13
College of Pharmacy	813	816	3	818	2
School of Public Health	<u>96</u>	<u>125</u>	<u>29</u>	<u>135</u>	<u>10</u>
Total Health Professions	3,983	4,233	250	4,342	109

*Does not include residents and interns.

B. Urbana-Champaign (College of Veterinary Medicine)

One of the major goals of the College of Veterinary Medicine at Urbana-Champaign is to increase its national standing as an instructional and research center. To aid in the attainment of the goal, the College, in conjunction with the campus and the University administration, is studying similar institutions to determine averages in costs per student, student per academic staff ratios, academic staff per support staff ratios, research efforts, and public service programs.

Instruction

The training of future veterinarians holds a primary position in the philosophy of the College. With the added financial support derived from federal capitation funds, the College has been able to increase entering class enrollment to 86 students, of which 16 are supported by capitation funds. It is presently expected that capitation funds will not be available after FY 1977 which will necessitate an increase in State support if an envisioned enrollment of 100 entering students is to be realized by FY 1981. This entering class of 100 students is also

contingent upon the construction of a new Basic Sciences Building for which planning funds will be requested in FY 1977 (see Capital Budget Request).

The funds available per veterinary student which are required to effectively operate the College must be increased if a better quality education is truly to be attained. In FY 1975, the average dollars spent per student at ten similar institutions¹ were \$17,488² while at the University of Illinois College of Veterinary Medicine the dollars spent per student were \$11,946; this will increase to \$12,503 in FY 1976. Contingent upon receipt of the FY 1977 requested funding level, the dollars spent per student are expected to be \$13,847. The long range goal of the College is to increase funding to \$17,000 per student in FY 1977 dollars. This is still lower than the nation-wide average and will be closely examined as comparative data warrant. The availability of the funds will allow the College to revise the curriculum to achieve: (1) a greater variety of course offerings, allowing the pursuit of special interests; (2) the use of clinical facilities 50 weeks per year for teaching purposes rather than 30 weeks; and (3) more extensive and individualized clinical and laboratory experiences to students.

Research

The research activities undertaken by the College are an important component required for the support of instruction and for the continuation of a supply of well-trained educators to meet future demands of teaching

¹Ten Veterinary Medical Colleges compared include: University of California (Davis), Cornell, Illinois, Iowa State, Kansas State, Michigan State, Minnesota, Missouri, Ohio State, and Purdue.

²American Association of Veterinary Medical Colleges: Comparative Data Summary for 1974-75.

and research. Unfortunately, the grants devoted to research are below the average for the ten schools compared. The lack of research facilities available to the faculty has greatly reduced their ability to attract research grants, although the deficiency in research funding does not reflect a poor faculty attitude toward research activities.

Public Service

The public service activities performed by the College are in two broad categories. First, the category of continuing education underwent a reorganization which had been approved by the Long Range Planning Committee for Production--Agriculture in Cooperative Extension. The program is designed in conjunction with the Cooperative Extension Service and has as its mission the improvement of veterinary services rendered to Illinois animal owners. The services include traditional credit and non-credit courses in animal health for both livestock producers and practicing veterinarians, field research and disease incidence reporting services, and consultative services to livestock producers and practicing veterinarians.

The second category refers to the Diagnostic Laboratory. This service offers the diagnostic expertise and resources of the faculty to help solve both human and animal diagnostic and control problems throughout the State and to cooperate with other state and federal agencies in similar efforts. The Diagnostic Laboratory, besides for its vital function in the control of communicable and non-communicable diseases, also serves as a resource to support research and laboratory experience for students.

To achieve the above stated goal, \$350,000 in additional recurring funds is requested in FY 1977 for operating and program improvement. This amount is requested in addition to the amount required for salary and general price increases.

CHAPTER C
SPECIAL SERVICE AND SPECIAL FUNDING COMPONENTS OF THE
FY 1977 INCREMENTAL OPERATING BUDGET
STATE FUNDS

These components of the University's operating budget request provide essential services to Illinois residents, as indicated in the next six sections and summarized in Table 11. The programs, although managed by the University, are outside the mainstream of University instruction, research, and public service, and therefore should not compete with educational funds. Instead, each program should be funded based upon need.

TABLE 11

FY 1977 INCREMENTAL OPERATING BUDGET SPECIAL SERVICE
AND SPECIAL FUNDING COMPONENTS - STATE FUNDS

I. Special Service Components		
A. Veterinary Diagnostic Laboratory	(280,900)	
B. Division of Services for Crippled Children	(300,000)	
C. Police Training Institute	(343,000)	
D. Willard Airport - Commercial Operations	(237,100)	
TOTAL	\$1,161,000	
II. Special Funding Components		
A. Cooperative Extension Service	(183,000)	
B. County Board Matching Funds	(178,500)	
TOTAL	\$ 361,500	
III. Total Increment		\$1,522,500

SPECIAL SERVICE COMPONENTS

SECTION ONE	VETERINARY DIAGNOSTIC LABORATORY
SECTION TWO	DIVISION OF SERVICES FOR CRIPPLED CHILDREN
SECTION THREE	POLICE TRAINING INSTITUTE
SECTION FOUR	WILLARD AIRPORT - COMMERCIAL OPERATIONS

SECTION ONE

VETERINARY DIAGNOSTIC LABORATORY

In FY 1971, the College of Veterinary Medicine at the Urbana-Champaign campus of the University of Illinois entered into an agreement with the State of Illinois Department of Agriculture whereby the College of Veterinary Medicine assumed the management of the Diagnostic Laboratory in Urbana. At that time, the Department of Agriculture agreed to provide \$198,000 annually to be used by the College of Veterinary Medicine to aid veterinarians and other citizens of Illinois in animal disease diagnosis, specimen examination, etc. At the time of the original agreement, the \$198,000 was provided based upon a workload which was approximately 70 percent general public animals and 30 percent University animals; the \$198,000 covered only the cost of the College of Veterinary Medicine's service to the general public while the remaining funds necessary for diagnostic work on University animals were provided by the University. The University funding commitment in terms of personnel and facilities for the Diagnostic Laboratory has increased in dollar value from an FY 1971 level of \$87,300 to an estimated FY 1976 level of \$140,000, an increase of approximately 60 percent or 10 percent per year. During this same time period, funding from the Department of Agriculture remained at \$198,000 from FY 1971 to FY 1974 with an increase to \$261,600 in FY 1975 and remaining at the same level in FY 1976.

The statewide demand for services of the Diagnostic Laboratory has continued on an upward trend as shown by the following statistics.

- a. 11,286 diagnostic cases in calendar year 1971 to 14,767 in calendar year 1974;
- b. 27,104 laboratory examination of specimens in calendar year 1971 to 111,173 in calendar year 1974.

While it is apparent that the public service functions of the Diagnostic Laboratory are steadily increasing, the Diagnostic Laboratory is also assuming an increasingly important role both in the research and

educational endeavors of the College of Veterinary Medicine. Concerning research activities, the Diagnostic Laboratory is a resource which supports research efforts of both faculty and students. Concerning educational activities, the resources of the Diagnostic Laboratory are utilized in the hospital program involving veterinary students since it is imperative that these students receive clinical training to prepare them for actual practice upon graduation. For example, in the clinical instruction area, third year students are required to receive general training in animal care while fourth year students must spend nine class hours weekly receiving clinical instruction in specialized medical sciences. Additionally, the College of Veterinary Medicine's increasing emphasis on preventive medicine makes the services of the Diagnostic Laboratory essential for quick diagnostic reports. In the preventive medicine area, students in the College now engage not only in actual field work, but also must diagnose through laboratory analyses the reasons for the problems. This requires the expertise and facilities of the Diagnostic Laboratory.

Although the Diagnostic Laboratory has continued to offer services to both the State and to the University, there have been difficulties in maintaining a professional staff due to the funding uncertainties of the contractual portion with the Department of Agriculture. Valuations of the Illinois Diagnostic Laboratory system by out-of-state examiners have recommended that the Diagnostic Laboratory be funded through the University rather than the Department of Agriculture. Negotiations are in process with the Department of Agriculture to shift the current funding from the Department to the University of Illinois in FY 1977. It is important to note that the FY 1976 funding level from the Department of Agriculture (\$261,600) should not be construed as an increase in the total funding commitments of the State of Illinois in FY 1977; rather, it is a transfer of funds from the Department of Agriculture's budget to the University of Illinois' budget, with only the salary and price increases added in FY 1977. The following are the FY 1977 requirements.

TABLE 12
FY 1977 REQUIREMENTS

	<u>FY 1976</u>	<u>Increment*</u>	<u>FY 1977</u>
Personal Service	\$225,700	\$16,800	\$242,500
Expense	31,900	2,220	34,120
Equipment	4,000	280	4,280
TOTAL	\$261,600	\$19,300	\$280,900

The results of this transfer should be the continued provision of the services of the Diagnostic Laboratory with a competent professional staff becoming an integral part of the instructional and research program of the College of Veterinary Medicine.

SECTION TWO

DIVISION OF SERVICES FOR CRIPPLED CHILDREN

The Division of Services for Crippled Children is administered by the University of Illinois as a specific legislatively authorized public service program which is concerned with the provision of medical care and related habilitative services to handicapped children. The operating budget of DSCC is derived from two sources: federal funds allocated by a formula process from the Department of Health, Education, and Welfare (Social Security Act, Title V, Section 504) and state funds appropriated to the University of Illinois. The latter is the major source of support. Continued increases in the costs associated with specialized medical services and increasing funding uncertainties associated with federal support are combining to increase the dependence of DSCC on state funding. For example, the federal budget for FY 1976, as proposed by the President to the Congress, contains a cutback for the Illinois DSCC program of over \$500,000 and anticipates additional cutbacks in FY 1977 and thereafter; the President's logic is that individual states and other third party funding sources, such as the varied National Health Insurance programs now being debated, should assume additional responsibilities for such service programs. Although Congressional reaction to such cutbacks has been, for the most part, negative, the FY 1976 federal funding for DSCC programs is still undecided. Present indications are that the final decision on increased federal funding will not be forthcoming until late in FY 1976, which creates a number of planning problems.

Because of federal funding uncertainties and sharply escalating medical service costs, it is recommended that state funding for DSCC beyond normal salary and price increases be increased by \$300,000 in FY 1977; this incremental funding request recognizes that the Board of Higher Education did recommend incremental funds for DSCC in FY 1976. Given increased federal allocations, these incremental funds could prevent the discontinuation of current programs, although even modest program extension is unlikely in FY 1977.

SECTION THREE

POLICE TRAINING INSTITUTE

An Illinois statute adopted in 1955 provides: "The trustees of the University of Illinois shall establish a school to be called the Police Training Institute (PTI) for the purpose of training police officers in the State of Illinois in the methods of maintaining police services at a level consistent with the needs of the community." The Police Training Institute, located at Urbana-Champaign, has since operated under that legal mandate.

In June, 1972, PTI began a parallel or "second campus" operation at Lisle, Illinois, to serve law enforcement agencies and officers in the northern portion of the State, outside the City of Chicago. Such extended coverage had long been urged by police chiefs and by independent studies of need. The funding of the Lisle operation began with a grant from the Illinois Law Enforcement Commission (ILEC) and has since been supported almost completely from this source.

While this has extended PTI's services as statutorily intended, it has increasingly made the total PTI operation dependent on "soft" money. In fact, PTI now operates with only 26.7 percent of its operating funds derived from State appropriations, in contrast to 63 percent in FY 1970. This trend, which has occurred in response to budget constraints, is contrary to the University's intention when the first ILEC grant was sought early in 1972 and has increasingly met resistance from ILEC. Indeed, ILEC has threatened to cut off all or part of its support unless more state-appropriated funds are requested and obtained. The University's last proposed grant was reviewed by ILEC on the stated assumption that the "funding will stimulate exploration and development of a method to fund the program" for "self-sufficient police training in the State" (i.e., by State appropriations).

Quite apart from the Lisle operation, associations of local law enforcement officials have long been urging the University of Illinois to extend its police training capacity still further, both geographically

and in subject-matter. Since the University's Police Training Institute provides 84 percent of all basic training and 74 percent of all special and advanced training offered under the Illinois Police Training Act, it is only natural that these associations would look to the University to not only maintain its current programs but to extend them to meet the needs of the State.

Therefore, the University is requesting \$343,000 for FY 1977, to enable PTI to meet its intended responsibilities, particularly in the light of reduced ILEC support. This sum, with inflation increases added, will roughly offset the latest ILEC grant of \$305,444 for the Lisle operation. Failure to obtain these funds will mean such a drastic reduction in the program that PTI could be forced to cease its Lisle operation, which serves the law enforcement needs of Northeastern Illinois. The University believes this would be contrary to the declared public policy of the State of Illinois, as expressed in the original 1955 legislation and in the Illinois Police Training Act of 1965.

It should be noted that recently enacted House Bill 2278 amends the Illinois Police Training Act and provides for mandatory training of all full-time, and a majority of part-time, local law enforcement officers. The impact of House Bill 2278 and the likelihood that the length of the basic training course may be extended well beyond the current 240 hours, will increase the demands on the Police Training Institute for in-house and regionalized services. Thus, the FY 1977 request for incremental funds should be viewed as part of a long-range expansion of the Institute. The details of this expansion are not certain at this time; however it will require additional State funding beyond FY 1977 unless the nature of PTI services and/or the sources of funding support are revised substantially.

SECTION FOUR

WILLARD AIRPORT - COMMERCIAL OPERATIONS

The University of Illinois-Willard Airport has grown over the years, and it is now one of the busiest airports in Illinois. Throughout the country, however, only a few of the largest commercial airports are able to generate sufficient income to support entirely the commercial operations carried on at these airports. In fact, the only commercial airport in the State of Illinois which generates sufficient income to meet both operating and capital needs is O'Hare International Airport; all other commercial airports in the State are heavily subsidized by the operating agency. The University of Illinois-Willard Airport is not now and will not be self-supporting in the foreseeable future. If commercial operations are to be carried on at Willard Airport, it is essential that the funds generated by Airport income be augmented with additional, recurring funds.

Prior to receipt of \$141,000 in FY 1976 for the commercial operations of Willard Airport, the University estimated that the operating deficit would be \$356,500; the \$141,000 in special State support will reduce this operating deficit to \$215,500, which in part will be defrayed by non-recurring reallocations. As the following table shows, the anticipated commercial operating deficit in FY 1977 will be \$237,100; it is recommended that funds sufficient to cover this deficit be provided by the State of Illinois in FY 1977.

TABLE 13
OPERATING DEFICIT FOR COMMERCIAL OPERATIONS

	<u>FY 1974</u>	<u>FY 1975</u>	<u>FY 1976</u>	<u>FY 1977</u>
<u>Revenues</u>				
From Commercial Operations	\$648,300	\$680,000	\$680,000	\$705,000
FY 1976 State Appropriations	-0-	-0-	141,000	141,000
FY 1977 Request	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>	<u>237,100</u>
TOTAL	\$648,300	\$680,000	\$821,000	\$1,083,100
<u>Costs of Operation</u>				
Personal Services	\$321,800	\$427,100	\$470,100	\$495,100
Costs of Goods Sold	235,900	260,000	260,000	260,000
Materials, Supplies, and Other	184,500	191,400	216,400	238,000
Provision to Improve Facilities	-0-	-0-	50,000	50,000
Provision to Replace Equipment	<u>-0-</u>	<u>37,000</u>	<u>40,000</u>	<u>40,000</u>
TOTAL	742,200	915,500	1,036,500	1,083,100
TOTAL OPERATING DEFICIT	\$ 93,900 ¹	\$235,500 ¹	\$215,500 ²	-0-

¹From Internal Reallocations.

²From Internal Reallocations and Operating Cost Reductions.

SPECIAL FUNDING COMPONENTS

SECTION FIVE COOPERATIVE EXTENSION SERVICE - PROGRAM
EXPANSION AND MAINTENANCE

SECTION SIX COOPERATIVE EXTENSION SERVICE - COUNTY
BOARD MATCHING FUNDS

SECTION FIVE
COOPERATIVE EXTENSION SERVICE
PROGRAM EXPANSION AND MAINTENANCE

To effectively carry out its mission to provide expertise in areas directly affecting Illinois agriculture, the Cooperative Extension Service of the University of Illinois will require new funds in FY 1977 to support necessary program expansion and to allow maintenance of the current level of statewide contact. Descriptions of these needs, which total \$183,000, follow:

Intensified Farm Development Program in Southern Illinois

This program, which has been funded for two years by the Illinois Department of Agriculture from the Rural Rehabilitation Fund, provides intensified instruction to low resource farmers who have a reasonable chance for success if farming skills are upgraded. For the following reasons, it is recommended that \$42,200 be appropriated from the Agricultural Premium Fund to support the activities of the program in FY 1977.

1. A joint evaluation committee of the Department of Agriculture and the Cooperative Extension Service, which analyzed the results of the program after its initial year of operation, recommended that the program definitely merited continuation, that it be expanded to eight more counties in Southern Illinois, and that its funding be shifted from the Rural Rehabilitation Fund to the Agricultural Premium Fund. These recommendations have the full support of the Director of the State of Illinois Department of Agriculture and the University of Illinois.
2. Reaching low resource farmers requires specialized programs of a continuing nature which can most effectively be carried out by the Cooperative Extension Service, contingent upon recurring funding.

Area Livestock Extension Advisers

After an intensive study of the adjustments which the Cooperative Extension Service must make to meet the needs of the Illinois agriculture industry in the next decade, it became apparent that area livestock advisers must be provided to back up the county extension staff and to work with area livestock producers and marketing organizations to insure that they are aware of the most current conditions and expertise in the livestock industry.

Although three professional advisers have been provided through the internal reallocation of funds, it is necessary that two more livestock extension advisers be hired in FY 1977 to meet this high priority need; this need, which is widely recognized and supported throughout the Illinois agricultural industry, requires \$54,000 in additional funds to provide reasonable coverage.

Area Grain Marketing Advisers

Because of the recent dramatic shift in the nature of the marketing of corn and soybeans to an internationally oriented system, serious problems have been created in the agricultural industry in understanding market forces and translating these forces into sound production and marketing decisions. Although internal funding shifts will be made in the Department of Agricultural Economics to increase the capacities to provide resources and basic educational materials, the Cooperative Extension Service must intensively increase its marketing educational program to provide the link between the Department of Agriculture Economics and the agricultural industry in the dissemination and explanation of such educational materials. To provide two area grain marketing advisers to help conduct such a program in the heavy cash grain sections of Illinois will require \$54,000 in additional funds.

Funds to Meet Increased Travel Costs

Since field work is absolutely essential to the mission of the Cooperative Extension Service and since staff members should not have

to subsidize business travel, it is imperative that the travel object-of-expenditure funded from the Agricultural Premium Fund be increased from the FY 1976 level of \$124,550 to an FY 1977 level of \$166,100, an increase of \$41,550. Since a portion of these funds (approximately \$8,750 will be requested within the University's general price increase amount), it is necessary in FY 1977 that an additional \$32,800 be made available from the Agricultural Premium Fund beyond the normal price increase request. Failure to adequately respond in FY 1977 could very well result in decreased statewide contact due to a lack of funds.

SECTION SIX
COOPERATIVE EXTENSION SERVICE
COUNTY BOARD MATCHING FUNDS

Under the County Cooperative Extension Law which passed the General Assembly in 1963, the University of Illinois is to provide appropriated State matching money from the Agricultural Premium Fund to County governing boards in an amount equal to one-fourth of the total needs for funds. The State funds, which are a supplement to county funds, are to be used for such purposes as extension educational programs in agriculture and home economics, including 4-H Clubs and community resource development work. The county or multi-county extension councils, which are set up under guidelines issued by the University of Illinois Board of Trustees, submit county or multi-county budgets to the Director of the University of Illinois Cooperative Extension Service for review and approval. After this review and approval process is completed, the county or multi-county extension councils submit the approved budgets to the county or multi-county extension boards, who then forward the approved budgets to the county governing boards. All funds which are appropriated by county governing boards are then paid over to the University of Illinois to be maintained in a trust fund and to be distributed along with the matching funds in a manner consistent with the budgets.

The funds available for the county board matching item increased by \$57,591 in FY 1975 to \$475,000. However, this decreased in FY 1976 to \$446,500, leaving the Cooperative Extension Service with inadequate funds to match incremental funding requests from counties. Given the magnitude of inflation during FY 1975 and inflationary effects anticipated in FY 1976 and FY 1977, it is recommended that county board matching funds be increased in FY 1977 by \$178,500 to a total level of \$625,000. Without this increased level of funding, it will be necessary for local extension councils to decrease their level of activity due to an absence of any increased matching funds.

PART TWO

BUDGET REQUEST FOR CAPITAL FUNDS FISCAL YEAR 1977

CHAPTER A

OVERVIEW

The FY 1977 Capital Budget Request for the University of Illinois is the product of a year-long planning process which considered (a) the programmatic needs of the campuses, (b) the technical limitations of construction time and techniques, and (c) the realities of the fiscal conditions in Illinois in FY 1976. This budget request, like the requests for the past four years, presents a multi-year capital program which shows the appropriations for the current year as well as the anticipated requests for future years.

This request is divided into four sections: (1) a Summary of the Request which includes a description of the Space Realignment, Remodeling, and Replacement Program, (2) the Current Status of the Capital Program, (3) the Capital Requirements Necessary to Fulfill the Scope and Mission of the University through 1980, and (4) a Description of the FY 1977 Capital Budget Request by Campus.

Summary of the FY 1977 Capital Request

The total capital program requested from state funds for FY 1977 is \$36,989,500 exclusive of reappropriations. This amount will be reduced by \$5,862,400 if the funding of the Space Realignment, Remodeling and Replacement concept is approved. Table 1 provides a listing of the estimated state funds required in FY 1977 for the building projects and budget categories by campus.

This Capital Budget Request recognizes the need to preserve and remodel existing buildings for more efficient and more effective utilization. The new buildings which are requested are library additions, replacement buildings, special purpose buildings, and minor additions which are more similar in scope to remodeling projects than to building requests.

The major requests for the Chicago Circle campus are for (1) a library addition for which planning funds were appropriated in FY 1975, (2) continuation of remodeling in the Roosevelt Road Building and the Science and Engineering Laboratory, and (3) continuation of the Building Equipment Automation program. The thrust of the capital program at Chicago Circle is to complete the library addition which will accommodate the projected

TABLE 1

SUMMARY OF FY 1977 CAPITAL BUDGET REQUESTS
TOTAL DOLLARS REQUESTED BY EACH CAMPUS

	<u>Chicago Circle</u>	<u>Medical Center</u>	<u>Urbana- Champaign</u>	<u>Total</u>
Buildings, Additions, and/or Structures	\$ 7,375,100	-0-	\$ 7,793,200	\$15,168,300
Library Addition	(7,375,100)			
Vet Med Research Buildings			(366,400)	
Physics Lab Research Addition			(119,800) ¹	
Ornamental Horticulture Addition			(29,700)	
Library Sixth Stack Addition			(3,978,900)	
Nuclear Reactor Lab, Phase II			(1,955,600)	
Botany Greenhouse			(1,342,800)	
Funds to Complete Bond Eligible Buildings	43,000	213,700	45,100	301,800
Land	-0-	-0-	350,000	350,000
Equipment	690,500	4,003,400	730,000	5,423,900
Utilities	221,000	-0-	1,147,500	1,368,500
Remodeling and Rehabilitation	2,150,600	7,204,400	3,039,300	12,394,300
Site Improvements	350,500	-0-	546,500	897,000
Planning	-0-	182,000	730,800	912,800
Cooperative Improvements	110,000	-0-	62,900	172,900
Total	\$10,940,700	\$11,603,500	\$14,445,300	\$36,989,500
Space Realignment, Remodeling and Replacement	(1,170,013)	(1,301,319)	(3,569,929)	(6,041,261) ²

¹ \$100,000 available from federal funds in addition to \$119,800 from State funds.

² If these funds are approved, a total of \$5,862,400 will be removed from other capital budget categories.

enrollments for several years and to begin remodeling the campus space to reflect the changing mission of that campus.

The Medical Center request includes no new buildings but continues the trend of the past several years of upgrading space and remodeling vacated areas for expanding programs. The next five years will see the completion of the replacement hospital and the conversion of the old hospital space into academic space for the colleges at the Medical Center.

The Urbana-Champaign campus is comprised of some of the oldest buildings of all of the public universities in Illinois. Over one-third of the space on this campus was built before 1930 and much of it is in old houses and wood frame structures. It is the University's intention to replace or remodel much of this space in the next ten years. The Urbana-Champaign campus also has the responsibility for expanding some special purpose buildings during this period, e.g., Library Stacks, Law Building, Nuclear Reactor Laboratory. The FY 1977 capital request is composed of three buildings (Library Sixth Stack Addition, Botany Greenhouse, and Nuclear Reactor Laboratory Phase II) and planning funds for five buildings for FY 1978 in addition to the remodeling projects.

A description of all of the projects is presented in Chapter D.

University Priorities for the FY 1977 Request

Establishing priorities for capital projects on three campuses with missions as disparate as those comprising the University of Illinois is a very complex undertaking requiring experienced judgement. These priorities are established by the University Planning Council.

In determining the FY 1977 priorities, the recommendations of the IBHE staff in the Review of Construction and Capital Needs in Public Higher Education were studied and generally accepted. Although no specific criteria can dictate the priorities of all of the requested projects of an institution as complex as the University of Illinois, guidelines which were believed to be consistent with the IBHE recommendations were used to establish the University priorities.

The first priority is given to the completion of ongoing building projects. The second priority is for new buildings and those remodeling projects which the campuses feel are necessary to carry out their programs (these projects include both upgrading of space and the change in function of space). In every case the relative priorities assigned to the projects by the campuses are retained.

Table 2 presents the FY 1977 Capital Budget Request in priority order. The projects which are asterisked will be removed from the request if the Space Realignment, Remodeling, and Replacement program is approved. These projects would be replaced by the projects listed under Space Realignment, Remodeling, and Replacement program (Table 3) which is explained in the next section.

TABLE 2
UNIVERSITY OF ILLINOIS
PROPOSED LIST OF CAPITAL PROJECTS FOR FY77 IN PRIORITY ORDER

UNIV. PRIORITY		PROJECT DESCRIPTION	PROJECT CODE	BUDGET CATEGORY	PROJECT TOTAL	CUMULATIVE TOTAL
1	MC	REPLACEMENT HOSPITAL EQUIP	1B	EQU	\$3000000.	\$ 3000000.
2	UC	SPEECH & HEARING CLINIC	1A	FUND	\$ 45100.	\$ 3045100.
3	UC	SPEECH & HEARING CLINIC	2A	EQU	\$ 187000.	\$ 3232100.
4	MC	COMPLETE COL OF MED SPACE #1	2C	REMD	\$ 417800.	\$ 3649900.
5	MC	PEORIA SCHOOL OF MEDICINE	3D	FUND	\$ 164700.	\$ 3814600.
6	MC	PEORIA SCHOOL OF MEDICINE	8D	EQU	\$ 150200.	\$ 3964800.
7	MC	ROCKFORD SCHOOL OF MEDICINE	7	EQU	\$ 49100.	\$ 4013900.
8	CC	EXTERIOR LIGHTING	1	SITE	\$ 177500.	\$ 4191400.
* 9	CC	CAMPUS SECURITY	2	REMD	\$ 95600.	\$ 4287000.
10	UC	LIFE SCIENCES TEACHING LAB	3B	PLAN	\$ 141800.	\$ 4428800.
11	UC	LIFE SCIENCES TEACH LAB	4B	LAND	\$ 100000.	\$ 4528800.
12	UC	VET MED BASIC SCI PHASE 1	5	PLAN	\$ 200500.	\$ 4729300.
13	UC	COLLEGE OF ENGINEERING	6C	REMD	\$ 275000.	\$ 5004300.
14	UC	COLLEGE OF ENGINEERING	7C	EQU	\$ 25000.	\$ 5029300.
15	UC	ENGLISH BUILDING RENOVATION	8D	REMD	\$ 285000.	\$ 5314300.
16	UC	ENGLISH BUILDING RENOVATION	9D	EQU	\$ 25000.	\$ 5339300.
17	CC	LIBRARY ADDITION	3A	BLDG	\$7375100.	\$ 12714400.
18	CC	LIBRARY ADDITION	4A	FUND	\$ 43000.	\$ 12757400.
19	CC	LIBRARY ADDITION	5A	EQU	\$ 390500.	\$ 13147900.
20	MC	SCHOOL OF PUBLIC HEALTH	4A	FUND	\$ 49000.	\$ 13196900.
21	MC	COL OF MED PROJECT 1	5C	EQU	\$ 707300.	\$ 13904200.
22	UC	ANIMAL ROOM IMPROVEMENTS	10E	REMD	\$ 279000.	\$ 14183200.
23	UC	ANIMAL ROOM IMPROVEMENTS	11E	EQU	\$ 20000.	\$ 14203200.

UNIV. PRIORITY		PROJECT DESCRIPTION	PROJECT CODE	BUDGET CATEGORY	PROJECT TOTAL	CUMULATIVE TOTAL
24	UC	LIBRARY SIXTH STACK ADDN	12F	BLDG	\$3978900.	\$ 18182100.
25	UC	LIBRARY SIXTH STACK ADDITION	13F	UTIL	\$ 70000.	\$ 18252100.
26	CC	SEL ENGINEERING	6B	REMD	\$ 300000.	\$ 18552100.
27	CC	SEL ENGINEERING REMODELING	7B	EQUF	\$ 300000.	\$ 18852100.
28	UC	LAW BUILDING ADDN	14	PLAN	\$ 126000.	\$ 18978100.
29	UC	MORRILL HALL VENTILATION-PLAN	15	REMD	\$ 35000.	\$ 19013100.
* 30	UC	MEMORIAL STADIUM	16	REMD	\$ 440000.	\$ 19453100.
* 31	UC	GREGORY HALL-JOURNALISM	17G	REMD	\$ 28000.	\$ 19481100.
* 32	UC	GREGORY HALL JOURNALISM	18G	EQUF	\$ 60000.	\$ 19541100.
* 33	UC	ENERGY CONSERVATION HEAT CONTROL	19	REMD	\$ 150000.	\$ 19691100.
34	UC	CENTRAL SUPERVISORY CONTROL CENTER	20	UTIL	\$ 300000.	\$ 19991100.
35	MC	SCHOOL OF PUBLIC HEALTH	6A	EQUF	\$ 96800.	\$ 20087900.
36	UC	VET MED RESEARCH BLDGS	21	BLDG	\$ 366400.	\$ 20454300.
37	UC	PHYSICS RESEARCH LAB ADDN	22	BLDG	\$ 119800.	\$ 20574100.
38	UC	ORNAMENTAL HORT ADDN	23	BLDG	\$ 29700.	\$ 20603800.
39	UC	ENGINEERING LIBRARY STACK ADDN	24	PLAN	\$ 50900.	\$ 20654700.
* 40	UC	FREER GYM	25	REMD	\$ 171000.	\$ 20825700.
* 41	UC	LIBRARY FIRE PROTECTION	26	REMD	\$ 88000.	\$ 20913700.
42	UC	COBLE HALL IMPROVEMENTS	27	REMD	\$ 275000.	\$ 21188700.
43	MC	VACATED COL OF MED SPACE #2	9	REMD	\$ 827200.	\$ 22015900.
44	CC	ROOSEVELT ROAD BUILDING	8	REMD	\$ 600000.	\$ 22615900.
45	UC	TURNER HALL ADDN	28	EQUF	\$ 400000.	\$ 23015900.
46	UC	TENNIS COURT IMPROVEMENTS	29	SITE	\$ 161500.	\$ 23177400.

UNIV. PRIORITY	PROJECT DESCRIPTION	PROJECT CODE	BUDGET CATEGORY	PROJECT TOTAL	CUMULATIVE TOTAL
47 UC	NUCLEAR REACTOR LAB PHASE 2	30H	BLDG	\$1955600.	\$ 25133000.
48 UC	NUCLEAR REACTOR LAB PHASE 2	31H	UTIL	\$ 194500.	\$ 25327500.
49 UC	AGRICULTURE REPLACEMENT LAND	32	LAND	\$ 250000.	\$ 25577500.
* 50 UC	LINCOLN HALL	33	REMD	\$ 64000.	\$ 25641500.
51 UC	AUDITORIUM ROOF REPLACEMENT	34	PLAN	\$ 55000.	\$ 25696500.
* 52 UC	ENVIRONMENTAL RESEARCH LAB	35	REMD	\$ 70000.	\$ 25766500.
* 53 UC	ELECTRICAL MODERNIZATION	36	REMD	\$ 70000.	\$ 25836500.
* 54 UC	BUILDING SAFETY IMPROVEMENTS	37	REMD	\$ 88500.	\$ 25925000.
55 UC	CONDENSATE RETURN SYSTEM	38	UTIL	\$ 155000.	\$ 26080000.
56 UC	PEABODY & PENN ST IMPROVEMENTS	39	SITE	\$ 274000.	\$ 26354000.
57 MC	REMODEL 1919 W TAYLOR	10	REMD	\$ 900000.	\$ 27254000.
58 MC	PLAN STUDIES-VACATED HOSP SPACE	11	PLAN	\$ 100000.	\$ 27354000.
* 59 MC	RENOVATION OF GEN SERVICE BLDG	12	REMD	\$ 150000.	\$ 27504000.
* 60 MC	CORRECT BLDG CODE VIOLATIONS	13	REMD	\$ 100000.	\$ 27604000.
61 UC	SANITARY DISTRICT IMPROVEMENTS	40	COGP	\$ 35000.	\$ 27639000.
62 UC	BOTANY GREENHOUSE	41I	BLDG	\$1342800.	\$ 28981800.
63 UC	BOTANY GREENHOUSE	42I	UTIL	\$ 352500.	\$ 29334300.
64 UC	WATER MAIN EXTENSION SE	43	UTIL	\$ 25500.	\$ 29359800.
* 65 UC	DAVENPORT HALL-GEOGRAPHY	44	REMD	\$ 93000.	\$ 29452800.
* 66 UC	COMMERCE OFFICES	45	REMD	\$ 28000.	\$ 29480800.
* 67 UC	NATURAL HISTORY BLDG SPRINKLERS	46	REMD	\$ 95000.	\$ 29575800.
* 68 UC	DAVID KINLEY HALL-RM 114	47J	REMD	\$ 95000.	\$ 29670800.
* 69 UC	DAVID KINLEY HALL ROOM114	48J	EQUF	\$ 5000.	\$ 29675800.

UNIV. PRIORITY		PROJECT DESCRIPTION	PROJECT CODE	BUDGET CATEGORY	PROJECT TOTAL	CUMULATIVE TOTAL
* 70	UC	AIRPORT HANGAR IMPROVEMENT	49	REMD	\$ 97000.	\$ 29772800.
71	CC	BUILDING EQUIPMENT AUTOMATION	9	REMD	\$ 300000.	\$ 30072800.
72	MC	COMPLETE REMOD OF SUDMP	14	REMD	\$ 666900.	\$ 30739700.
73	MC	RENOVATION OF FUDMP BLDG	15	PLAN	\$ 82000.	\$ 30821700.
* 74	MC	GEN HOSPITAL-3RD FLOOR	16	REMD	\$ 175000.	\$ 30996700.
75	MC	VENTILATE PHARMACY BLDG	17	REMD	\$ 625000.	\$ 31621700.
* 76	MC	VENT & AIR COND 2035 TAYLOR	18	REMD	\$ 128000.	\$ 31749700.
* 77	CC	PANIC BUTTONS	10	REMD	\$ 210000.	\$ 31959700.
78	MC	PHARMACOGNOSY AND PHARMACOLOGY	19	REMD	\$ 270000.	\$ 32229700.
79	CC	PEDESTRIAN TRAFFIC CONTROL-MORGAN	11	COOP	\$ 55000.	\$ 32284700.
80	CC	PEDESTRIAN TRAFFIC CONTROL-POLK	12	COOP	\$ 55000.	\$ 32339700.
81	MC	ELEVATOR RENOVATION SUDMP	20	REMD	\$ 450000.	\$ 32789700.
82	CC	EXTERIOR CAMPUS GRAPHICS	13	SITE	\$ 43000.	\$ 32832700.
83	CC	BUS STOP SHELTERS	14	SITE	\$ 35000.	\$ 32867700.
* 84	CC	ECB & PEB INTERIOR GRAPHICS	15	REMD	\$ 35000.	\$ 32902700.
* 85	CC	UH FIRST FLOOR SECURITY DOORS	16	REMD	\$ 34000.	\$ 32936700.
86	MC	INSTRUMENT SHOP LAB	21	REMD	\$ 220000.	\$ 33156700.
* 87	MC	FIRE ALARM SYSTEM	22	REMD	\$ 273000.	\$ 33429700.
* 88	CC	FIRE ALARM MODIFICATION	17	UTIL	\$ 96500.	\$ 33526200.
* 89	CC	SERVICE BLDG	18	REMD	\$ 32000.	\$ 33558200.
* 90	CC	HULL HOUSE HUMIDIFICATION	19	REMD	\$ 14000.	\$ 33572200.
* 91	MC	R&L SBMS ADMIN 1ST FLOOR	23	REMD	\$ 148500.	\$ 33720700.
* 92	MC	INTERCONNECT CHILLED WATER LINES	24	REMD	\$ 207000.	\$ 33927700.

UNIV. PRIORITY		PROJECT DESCRIPTION	PROJECT CODE	BUDGET CATEGORY	PROJECT TOTAL	CUMULATIVE TOTAL
93	UC	LANDSCAPE IMPROVEMENTS	50	SITE	\$ 75000.	\$ 34002700.
94	UC	AGRICULTURAL ENGINEERING BLDG	51	PLAN	\$ 156600.	\$ 34159300.
* 95	UC	STEAM TUNNEL IMPROVEMENT	52	UTIL	\$ 50000.	\$ 34209300.
* 96	MC	ELEVATOR RENOVATION-GEN HOSP	25	REMD	\$ 275000.	\$ 34484300.
* 97	CC	SES CHEMISTRY LEARNING CENTER	20	REMD	\$ 30000.	\$ 34514300.
* 98	CC	SEL COMPUTER CENTER	21	REMD	\$ 10500.	\$ 34524800.
* 99	CC	BSB ACOUSTICAL TREATMENT 4113A	22	REMD	\$ 18500.	\$ 34543300.
*100	UC	KRANNERT PERFORMING ARTS	53	REMD	\$ 56500.	\$ 34599800.
*101	MC	BIOLOGIC RESOURCE LAB	26	REMD	\$ 131000.	\$ 34730800.
*102	CC	OSHA CORRECTIONS	23	REMD	\$ 57000.	\$ 34787800.
*103	UC	MUMFORD HALL BASEMENT	54	REMD	\$ 74800.	\$ 34862600.
*104	UC	LIBRARY REFERENCE ROOM	55K	REMD	\$ 25000.	\$ 34887600.
*105	UC	LIBRARY REFERENCE ROOM	56K	EQUF	\$ 8000.	\$ 34895600.
*106	MC	PHARMACY ROOM 200	27	REMD	\$ 140000.	\$ 35035600.
*107	UC	PHYSICS BUILDING	57	REMD	\$ 40000.	\$ 35075600.
*108	MC	OSHA COMPLIANCE	28	REMD	\$ 100000.	\$ 35175600.
109	CC	SITE CORRECT-HANDICAPPED STUDENTS	24	SITE	\$ 95000.	\$ 35270600.
*110	UC	GREGORY HALL STAIR ENCLOSURES	58	REMD	\$ 116500.	\$ 35387100.
*111	MC	ELEVATOR RENOVATION-ISI	29	REMD	\$ 150000.	\$ 35537100.
*112	CC	UH ELEVATOR AUTOMATION	25	REMD	\$ 200000.	\$ 35737100.
113	UC	INTRAMURAL FIELD IMPROVEMENT	59	SITE	\$ 36000.	\$ 35773100.
114	MC	BUILDING EQUIPMENT AUTOMATION	30	REMD	\$ 150000.	\$ 35923100.
*115	CC	LECTURE CENTER 12 KV DUCT CORRECT	26	UTIL	\$ 72500.	\$ 35995600.

UNIV. PRIORITY	PROJECT DESCRIPTION	PROJECT CODE	BUDGET CATEGORY	PROJECT TOTAL	CUMULATIVE TOTAL
116 UC	MATHEWS AVENUE RESURFACING	60	COOP	\$ 27900.	\$ 36023500.
* 117 MC	BLDG SYSTEMS IMPR COMP AIR	31	REMD	\$ 175000.	\$ 36198500.
* 118 CC	LECTURE CENTER AIR INTAKE	27	UTIL	\$ 52000.	\$ 36250500.
* 119 MC	PHARMACY OFFICES	32	REMD	\$ 100000.	\$ 36350500.
* 120 CC	LECTURE CENTER LIGHTING CORRECT	28	REMD	\$ 45000.	\$ 36395500.
* 121 MC	GEN HOSPITAL-5TH FLOOR-	33	REMD	\$ 100000.	\$ 36495500.
* 122 CC	UH IONIZER FIRE DETECTORS	29	REMD	\$ 38000.	\$ 36533500.
* 123 CC	ECB-INSTALL POLYCARBONATE DOORS	30	REMD	\$ 11000.	\$ 36544500.
* 124 CC	ECB-ACOUSTICAL CORRECTION	31	REMD	\$ 50000.	\$ 36594500.
* 125 MC	ELEVATOR 715 S WOOD	34	REMD	\$ 200000.	\$ 36794500.
* 126 MC	715 S WOOD SECOND FLOOR PHASE 1	35	REMD	\$ 125000.	\$ 36919500.
* 127 CC	SAFETY VALVE FOR HEATING SYSTEM	32	REMD	\$ 70000.	\$ 36989500.

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*Represents projects which will be withdrawn if Space Realignment, Remodeling and Replacement Program is approved.

TABLE 3

SPACE REALIGNMENT, REMODELING AND REPLACEMENT PROJECTS

CHICAGO CIRCLE

\$1,170,013

Campus Security	\$ 95,600
ECB & PEB Interior Graphics	35,000
UH First Floor Security Doors	34,000
Fire Alarm Modification	96,500
Service Building	32,000
BSB Acoustical Treatment 4113A	18,500
OSHA Corrections	57,000
Lecture Center 12 KV Duct Correct	72,500
Lecture Center Air Intake	52,000
Lecture Center Lighting Correct	45,000
Safety Valve for Heating System	70,000
Repair Roofs (Library, A&A, BSB)	100,000
Switch Gear Maintenance Program, Phase II	30,000
Ventilation Changes in Service Building	10,000
Exterior Wall Repair- ECB, Service Building	39,413
Vibration Eliminators (PEB & ECB)	3,500
Sump Pump Rehabilitation Program, Phase II	20,000
Rehabilitate Exterior Doors to Classroom Bldgs	15,000
Repair Seating in Classroom Buildings	10,000
Pigeon Control	30,000
Elevator Rehabilitation	10,000
Exterior Masonry Repair	40,000
Repair Insulation in Heating and Cooling System	25,000
Valve Replacement for Heating System	10,000
Rehabilitate Fresh Air Dampers	10,000
Rehabilitate Ventilation System in Lecture Center	5,000
Rehabilitate Upper Walkway & Stairs, Phase I	100,000
Rehabilitate Lecture Center Roof and Drainage, Phase I	100,000
Rehabilitate S-4 Fan System in SEL	4,000

\$1,301,319

MEDICAL CENTER

Masonry Repair	\$ 25,000
Roof and Gutter Repair	30,319
General Hospital-Third Floor	175,000
Elevator Renovation	
General Hospital	100,000
Research and Library	100,000
NPI	125,000
ISI	150,000
Biologic Resource Lab - Cage Washing Area	101,000
Pharmacy Room 200	140,000
Pharmacy Offices	100,000
Window Renovation (NPI, FUDMP)	50,000
General Services Building - Remodeling	100,000
Pigeon Control	30,000
Replace Chilled Water & Steam Coils	75,000

URBANA-CHAMPAIGN

\$3,569,929

Gregory Hall-Journalism - Remodeling	\$ 28,000
Gregory Hall-Journalism - Equipment	60,000
Energy Conservation Heat Control	150,000
Roofing and Gutters-Architecture Building north gutters and fourth floor window replacement	75,000
Masonry-Morrill Hall-Repair parapet wall and open joints at lintels in the exterior brick	20,000
Freer Gym - Remodeling	171,000
Library Fire Protection	88,000
Memorial Stadium - Remodeling	440,000
Lincoln Hall - Remodeling	64,000
Heating System Replacements-Natural History Part of total replacement	150,000
Exterior Painting-Part of areas last painted in 1970	135,000
Environmental Research Lab	70,000
Electrical Modernization	70,000
Building Safety Improvements	88,500
Building Safety Improvements	86,000
Flooring Replacement-Architecture Building	15,000
Windows-Agronomy Seed House-Metal sash replacement	40,000
Davenport Hall-Geography	93,000
Commerce Offices	28,000
Roofing and Gutters-Huff Gymnasium-Built-up roofing replacement	80,000
Masonry-Geological Survey-Tuckpointing	20,000
Natural History Building Sprinklers	95,000
David Kinley Hall-Room 114 - Remodeling	95,000
David Kinley Hall-Room 114 - Equipment	5,000
Airport Hangar Improvement	97,000
Heating System Replacement-Architecture Building	150,000
Interior Painting-Part of areas last painted in 1964-65	150,000
Steam Tunnel Improvement	50,000
Lincoln Hall Stair Enclosure	132,000
Elevator Replacement-Lincoln Hall	70,000
Krannert Performing Arts	56,500
Mumford Hall Basement - Remodeling	74,800
Library Reference Room - Remodeling	25,000
Library Reference Room - Equipment	8,000
Flooring Replacement-Library	8,400
Plumbing-Coble Hall-Hot water heater and storage tank	7,000
Roofing and Gutters-Armory-East copper band replacement	94,000
Physics Building - Remodeling	40,000
Masonry Repairs-East Chemistry	10,000
Gregory Hall Stair Enclosures	116,500
Interior Painting-Buildings last painted in 1964-65	129,929
Exterior Painting-Buildings last painted in 1969	112,300
Elevator Replacement-Altgeld Hall	72,000

Space Realignment, Remodeling, and Replacement

While faculty and staff are the most important commodity at an institution of higher education, adequate physical facilities to carry out their duties are of extremely high importance. This section describes a condition of deteriorating physical facilities which is developing at the University of Illinois and proposes a logical solution to the problem. In the early 1970's, competition for funds for all activities within the State were such that there have not been sufficient revenues to adequately fund all functions at the University. The result has been a protection of faculty and staff salaries by deferring renewal and replacements of physical facilities. This type of deferral is possible on a short range basis, but if it is continued, the existing facilities will deteriorate to a point that full efficiency of their use cannot be realized.

When a building is planned for construction by academic planners, the building is described in terms of space types, such as classrooms, instructional labs, research labs, office, library, etc., which will provide facilities for delivery of the educational programs. However, when that same building is designed by an architect and the construction documents are sent out to contractors for bids, the bids are usually made in terms of building components such as foundations, superstructure, exterior skin, roofing, interior construction, vertical transportation, plumbing, heating, ventilating and air conditioning, electrical, etc. It is this dual classification of buildings, space type by academic planners and component type by contractors and architects, that causes some confusion in the area of remodeling, renewal, and replacement. Once a building is constructed and in use, changes to the building components can be required by (1) a change in educational program or (2) a building component wearing out, e.g., roof replacement.

The remainder of this discussion is devoted to developing the rationale for requesting in FY 1977 a separate identification in the capital budget titled "Space Realignment, Remodeling, and Replacement" that will be used for renewal and replacement of facilities and the remodeling required for changes in educational programs.

Between 1970 and 1973, numerous studies on building costs and building components were conducted throughout the United States. Three excellent sources of data are (1) the McKee-Berger-Mansueto, Inc. study titled "Cost Differential Study for the State Board of Higher Education" in May of 1971, (2) the Academic Building Systems Study Building Information Circular 3 - System Building, Office of the Secretary HEW, and (3) a University of Illinois study titled "Building Construction Cost Study Analysis - June 1971." The MBM study reviewed 18 building projects at various locations in the State of Illinois. This study was conducted under the auspices of the Illinois Building Authority at the request of the State Board of Higher Education. The Academic Building Systems study was conducted by the Education Facilities Laboratory, Incorporated, a subsidiary of the Ford Foundation, and an analysis was made of six buildings, three at institutions in California and three at institutions in Indiana. The last building study by the University of Illinois was conducted under the direction of Kenneth Belford and analyzed the cost differential of nine buildings in the State of Illinois - one high school, three junior college buildings, and five University buildings. The results of these studies, giving an analysis of the percentage of building costs to building components, are shown in Table 4.

An examination of Table 4 shows a subtotal for the building components of foundations, superstructure, and exterior skin. These are components which do not normally deteriorate. The average for these values is 33 percent, or one-third of the building cost. One value which appears to be out of line at first glance is the subtotal of 41.3 percent for the MBM survey. As the MBM survey did not allow for general contractor overhead and fixed equipment as part of the building cost, these costs are part of the other components. If the overhead and fixed equipment were removed from all the components, in all probability the value for the MBM survey would be very close to 33 percent. The results of these studies tend to indicate that 33 percent of a building does not deteriorate. Thus, unless an existing building is too small to functionally

TABLE 4
COMPARISON OF PERCENTAGE OF BUILDING COSTS FOR BUILDING COMPONENTS

	MBM Survey*	Bldg-Constr Cost Study & Analysis**		Academic Building Systems***		Average
		Junior College (3 Buildings)	University (5 Buildings)	Bio-Science Buildings (California)	Sci-Engr Bldgs (Indiana)	
Foundations	7.2	5.8	6.4	7.4	6.0	6.6
Superstructure	21.1	19.6	11.7	18.4	13.2	16.8
Exterior Skin	13.0	6.9	8.0	8.7	11.3	9.6
Subtotal (Items That Do Not Deteriorate)	(41.3)	(32.3)	(26.1)	(34.5)	(30.5)	(33.0)
Roofing & Components	1.7	1.4	0.9	--	--	0.8
Interior Construction	19.2	15.2	18.5	9.7	15.3	15.6
Vertical Transportation	1.1	--	--	2.1	1.0	.89
Plumbing	5.6	4.5	5.1	11.0	8.6	7.0
HVAC	19.8	17.0	18.4	11.5	14.1	16.1
Electrical	11.3	13.8	11.6	11.4	11.8	12.0
General Contractor and Overhead	--	10.8	11.6	10.0	12.9	9.1
Equipment (Fixed)	--	5.0	7.8	9.8	5.8	5.6
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

SOURCES OF DATA:

- * Cost Differential Study - McKee-Berger-Mansueto, Inc. (May 10, 1971). Study to thoroughly analyze and critically review cost differentials of 18 building projects at various locations around the State of Illinois. Conducted under auspices of Illinois Building Authority at the request of the State Board of Higher Education in Illinois.
- ** Building Construction Cost Study and Analysis - University of Illinois (June 9, 1971). Analysis of cost differentials of nine buildings - one high school, three junior college, and five university buildings.
- *** Building Information Circular Systems Building - Academic Building System (ABS), HEW Education Facilities Laboratories, Inc., a subsidiary of Ford Foundation. Analysis made of six buildings - three at institutions in California and three at institutions in Indiana.

accommodate a program or more assignable square feet are required for the ground cover available, a general statement may be made that the life of this portion of a building should be considered as infinite and programs should be developed which will provide for the realignment, remodeling, and replacement of the remaining 67 percent of the building components.

The components of a building do not have the same life span. The life span of various components depends upon quality and type of material initially used and the annual maintenance provided. For example, asphalt shingles are considered to have a useful life of 20 years, whereas a slate roof is considered to have a life of 60 years. Painting may have to be accomplished every five to seven years and elevators replaced on the basis of 25 to 40 years dependent on whether they are hydraulic or gear type. While some portions of the electrical system never deteriorate, the trend of increased electrical usage in buildings will require upgrading of the electrical systems approximately every 10 to 20 years. The general point is that although any building component may have a predicted useful life, it may fail before or after that predicted life. Thus, some budgeting method must be developed to provide sufficient funds to the operation and maintenance manager to allow him to make judgmental decisions on the replacement of the building components when they have served a useful life. A review of various reports on useful life of components of buildings and building maintenance indicates that the normal useful life of a building is 40 to 50 years. If the useful life is assumed to be 50 years with 33 percent of the building having an infinite life, then 67 percent of a building will require two complete replacements over a period of 100 years. At a major university, like the University of Illinois, it can be assumed that one of these replacements will occur due to academic changes and replacements and the other will occur as a complete building gutting and rehabilitation. The space realignment, remodeling, and replacement funds will be used for that portion due to academic changes and replacements and will provide for the normal roof replacement, elevator replacement,

exterior-interior painting, upgrading of plumbing and safety features, and the space realignment and remodeling for the program changes by the academic departments. Normally when a program change or addition is made to a department, the remodeling involves 4,000 to 5,000 square feet. Thus, most of the projects accomplished by the space realignment, remodeling, and replacement fund will be for projects of \$200,000 and under. The other portion of the remodeling that involves the complete gutting of a facility will be requested in the remodeling and rehabilitation category of the capital budget and then only after an obsolescence study has shown that the building is functionally suitable for continued operation, and that it will serve the needs of the University for another 50 years.

The SR³ request is based upon the replacement cost of University facilities as of January, 1977 (midpoint of FY 1977). The procedure used to develop these costs is similar to the process for development of costs for new buildings, as proposed by the State Board of Higher Education in the RAMP manual for preparation of the FY 1977 budget. Table 5 gives the cost guidelines by space type to determine the cost of a building. As part of the RAMP submission for the capital request, a Table 4.1 - Total NASF Space Additions and Reductions by Room Type is provided for each budget year from 1973 through 1981. Table 6 gives a summary of the NASF that will be on each campus in FY 1977 if the capital budget request is approved. Applying the cost guidelines of Table 5, it is possible to obtain the unadjusted construction cost for all buildings at the University of Illinois as of January, 1975. Table 6 indicates that the cost per gross square foot in January, 1975 for University facilities would be \$49.88. As the replacement cost of the facilities in January, 1977 must be obtained, a cost escalation as recommended by the Board of Higher Education of one percent per month was applied to this 1975 cost. The result was a construction cost index multiplier of 1.26974, which resulted in a cost per gross square foot of \$63.35. Using the logic developed in the preceding section that two-thirds of the space would have to be remodeled one time per 100 years by space realignment, remodeling, and replacement funds, the result is that 42.4¢ per gross square foot would be required on an annual basis.

TABLE 5
COST GUIDELINES BY SPACE TYPE¹
(\$/Gross Square Feet)

Space Types	Multiplier Factor ²	\$/GSF ³	Equipment ⁴	
			%	\$/GSF
1. Classrooms	1.50	43.80	1.5	.65
2. Instruction Lab (Dry)	1.64	48.65	6	2.90
3. Instruction Lab (Wet)	1.64	51.90	8	4.15
4. Research Lab (Dry)	1.67	64.85	20	13.00
5. Research Lab (Wet)	1.67	68.20	20	13.65
6. Office	1.70	43.80	None	-
7. Study (Library): Under 1,400 NSF Over 1,400 NSF	1.70 1.40	43.80	None	-
8. Special Use	1.80	47.05	6	2.80
9. General Use	1.90	51.90	7	3.65
10. Supporting Facilities	1.20	40.55	None	-

¹BASE: Chicago, Illinois, January 1975.

²Multiplier Factor is a combination of GSF/NASF plus building volume consideration;
Application: NASF X Multiplier Factor = GSF X \$/GSF = Construction Cost (unad-
justed).

³These unit costs are based on average standards of finish and include air-condi-
tioning. The following must be added to these unit costs for a complete budget
statement:

Added Costs: special foundations; above average finishes; movable partitions;
flexible mechanical requirements.

Guidelines: outside source for air-conditioning: deduct \$1.90/GSF
self-contained heating: add \$1.10/GSF
high rise building (over 4 floors): add 5% to cost
extension to existing building: add 2% to cost
tight schedule: add 2% to cost
high sophistication of piping: add 1% to cost
closed circuit TV capability: add \$0.35/GSF

⁴Percent of unit cost budgeted for fixed equipment.

TABLE 6

ESTIMATED REPLACEMENT COST OF UNIVERSITY FACILITIES IN JANUARY 1975

		(1) <u>Urbana- Champaign</u>	(2) <u>Medical Center</u>	(3) <u>Chicago Circle</u>	(4) <u>(1)+(2)+(3) Total</u>	(5) <u>Multiplier Factor</u>	(6) <u>GSF</u>	(7) <u>\$/GSF</u>	(8) <u>(6)x(7) Unadjusted Constr Cost</u>
Classroom	100	325,072	67,717	156,594	549,383	1.5	824,075	43.80	36,094,485
Lab	200	1,908,161	521,708	521,876	2,942,745	1.65	4,855,529	60.00	291,331,740
Office	300	1,431,593	390,020	444,600	2,266,213	1.7	3,852,562	43.80	168,742,215
Study	400	515,558	118,607	157,142	791,307	1.4	1,107,830	43.80	48,522,954
Special Use	500	731,738	18,665	193,095	943,498	1.8	1,698,296	47.05	79,904,826
General Use	600	925,244	120,892	234,141	1,280,277	1.9	2,432,526	51.90	126,248,099
Supporting	700	558,875	200,193	123,159	882,227	1.2	1,058,672	40.55	42,929,150
Medical Care	800	68,965	470,769	2,815	542,549	1.7	922,333	68.20	62,903,110
Residential	900	1,786,595	148,629	-0-	1,935,224	1.7	3,289,881	43.80	144,096,787
Unassigned	080	18,469	144,995	33,109	196,573	1.7	334,174	46.84	15,652,710
							20,375,878		1,016,425,539
							Cost Per GSF =		\$49.88

In examining Table 6, it can be determined that the estimated replacement cost of University facilities included residential and student service facilities which are not maintained by State funds. Thus, the amount of funds to be provided to each campus for SR³ must be determined on the facilities that are maintained from State funds. Each year the University provides to the Board of Higher Education data on the non-residential gross square feet that are maintained from State funds. As the areas maintained at each campus are known for the Fall of 1974 from existing reports, the additional areas to be maintained for the Fall of 1975 and the Fall of 1976 can be determined from a review of the construction program. With these data, the funds that are generated at each campus for the space realignment, remodeling, and replacement funds can be determined. Table 7 gives the procedures used for this calculation, and shows that the total funds generated are \$6,041,261 distributed to the Chicago Circle as \$1,170,013, Medical Center as \$1,301,319, and Urbana-Champaign as \$3,569,929.

In summary, this discussion has indicated that the University cannot continue to defer renewals and replacement of the physical facilities and has shown a logical process for budgeting that will provide the necessary funds to maintain the facilities on a continuing basis. To achieve an appropriate funding base to support annual space realignment, remodeling, and replacement projects, it is recommended that \$6,041,261 be allocated in FY 1977.

TABLE 7

ESTIMATION OF SPACE REALIGNMENT, REMODELING, AND
REPLACEMENT FUNDS THAT COULD BE REQUESTED

1. Estimated Replacement Cost of Facilities - January 1977	\$1,290,596,164
2. Gross Area	20,375,878
3. Average Cost per Square Foot	63.35
4. Annual Space Realignment and Remodeling Generation - \$/GSF	.424
63.35 (\$/GSF) X .667 (2/3 to be Remodeled) X .01 (1 Time/100 Years)	

	<u>Chicago Circle</u>	<u>Medical Center</u>	<u>Urbana- Champaign</u>	<u>Total</u>
5. Areas at Each Campus Maintained by PP from State Funds Fall 1976	2,759,464	3,069,148	8,419,643	14,248,255
6. Funds to be Generated at Each Campus at \$0.424 per GSF	\$1,170,013	\$1,301,319	\$3,569,929	\$ 6,041,261
7. Percent to Each Campus	19.37	21.54	59.09	100.00

Implications of Approval of FY 1977 Projects Relating to Buildings

Every annual capital budget has implications for the capital budgets of future years. Rarely can a building be completed in one year and the unexpended funds must be reappropriated to complete the project. The average length of time required to complete a building is presently two to three years. In addition, related projects such as equipment, site work, and completion costs are requested after the building has been approved. Planning funds are normally requested a year prior to a building request. Table 8 presents the anticipated requests for future years for projects related to building and planning projects in the FY 1977 Capital Budget Request.

TABLE 8

PROPOSED PLANNING OF REQUESTS FOR BUILDING PROJECTS

LISTED IN FY 1977 (STATE FUNDS ONLY)

	<u>Total Project Cost</u>	<u>Authorized Prior To FY 1977</u>	<u>Requested FY 1977</u>	<u>Programmed Request For FY 1978</u>	<u>Programmed Request For FY 1978 and Beyond</u>
<u>Chicago Circle</u>					
Library Addition	8,026,900	110,500	7,808,600	107,800	
<u>Urbana-Champaign</u>					
Library Sixth Stack Addition	4,116,500		4,048,900	67,600	
Veterinary Medicine Research Buildings	386,400 ¹		366,400	20,000	
Physics Research Laboratory Addition	119,800		119,800		
Ornamental Horticulture Addition	29,700		29,700		
Nuclear Reactor Laboratory - Phase II	2,559,400		2,150,100	200,000	209,300
Botany Greenhouse	1,810,400		1,695,300	115,100	
Life Sciences Teaching Laboratory	7,415,100		241,800	6,669,600	503,700
Veterinary Medicine Basic Science - Phase I	9,895,600		200,500	9,535,100	160,000
Law Building Addition	5,097,600		126,000	5,539,100	464,000
Engineering Library Stack Addition	2,481,400		50,900	2,255,500	175,000
Agricultural Engineering Building	8,547,000		156,600	7,950,400	440,000

¹This represents the state portion of the funding. The total cost will be \$219,800.

CHAPTER B

CURRENT STATUS OF CAPITAL PROGRAMS

The current status of the capital program for the University of Illinois is indicated by the funds authorized in House Bills 289, 802, and 1552 and in Senate Bill 468 for FY 1976. New appropriations for FY 1976 are found in House Bills 289 and 802 and Senate Bill 468. Table 9 shows the status of all funds for capital projects authorized in FY 1975. Reappropriations of the unexpended balances and unreleased funds for all uncompleted projects were made in House Bill 1552 and Senate Bill 468. An examination of Table 9 indicates that of the \$40,009,417 authorized in FY 1975 by Senate Bill 1424 and House Bill 2274, \$36,547,717 (91%) has been released for construction. Table 10 summarizes the status of all building projects authorized in FY 1975 and Table 11 indicates the status of all major remodeling projects authorized in FY 1975.

The total FY 1976 capital projects for the University of Illinois presented to the 79th General Assembly for action were \$84,707,420. Of this amount, \$84,201,420 was appropriated in House Bill 289 and 802, and \$506,000 was appropriated in Senate Bill 468. Of this total request, \$68,645,020 was authorized by the Governor. A summary of the FY 1976 capital projects authorized by the Governor is given in Table 12.

TABLE 9

FY 1975 CAPITAL BUDGET AS AUTHORIZED IN SB 1424 AND HB 2274

	SB 1424		2274 General Revenue		Released During FY 1975	
	Capital Development Board New Funds	Reapprop	New Funds	Reapprop	CDB	Gen Rev
Buildings, Addns, and/or Struct	\$ 110,000	\$21,253,704	-0-	\$ 271,800	\$21,363,704	\$ 271,800
Funds to Complete	-0-	-0-	\$ 170,300	342,900	-0-	506,800
Land	-0-	280,000	-0-	143,796	280,000	143,796
Equipment	4,071,900	3,167,092	311,200	377,600	5,535,892	539,400
Utilities	346,000	146,700	-0-	97,300	492,700	97,300
Site Improvements	286,000	-0-	-0-	391,700	286,000	391,700
Remodeling and Rehabilitation	2,918,500	2,967,900	152,300	224,800	5,772,900	298,300
Planning	1,860,500	11,425	75,000*	31,000	461,425	106,000
Cooperative Improvements	-0-	-0-	-0-	-0-	-0-	-0-
UNIVERSITY TOTALS	9,592,900	27,826,821	708,800	1,880,896	34,192,621	2,355,096
TOTAL AUTHORIZATION	40,009,417				36,547,717	
Released to Date	6,445,800	27,746,821	474,200	1,880,896		
Percent of Total	67%	100%	67%	100%		
Requests Not Processed in FY 1975**	1,464,000	-0-	49,600	-0-		
Percent of Total	15%	0%	7%	0%		
Balance to be Requested	1,683,100	80,000	185,000	-0-		
Percent of Total	18%	0%	26%	0%		

*These funds are actually CDB funds but were appropriated in HB 2274.

**These funds were reappropriated in HB 1552 and SB 468 and have been requested for release in FY 1976.

Data as of June 30, 1975.

TABLE 10
STATUS OF BUILDING PROJECTS FY 1975

	Year Initially <u>Authorized</u>	Estimated Cost <hr/>	Status <hr/>
<u>Medical Center</u>			
College of Dentistry - Phase II	1971	\$7,405,000	Occupancy in Process
Peoria School of Medicine	1974	6,309,045	Under Construction Est Completion Date 8/76+
Rockford School of Medicine	1974	4,239,565	Under Construction Est Completion Date 6/76+
 <u>Urbana-Champaign</u>			
Veterinary Medicine Hospital	1970	7,949,900	Under Construction Est Completion Date 12/75
Medical Sciences Building	1972	4,555,000	Completed 4/75
Speech and Hearing Clinic	1972	1,887,600	Under Construction Est Completion Date 2/77
Turner Hall Addition	1975	9,390,200	Estimated Start of Construction 10/75

TABLE 11

STATUS OF MAJOR REMODELING PROJECTS FY 1975

	<u>Amount Authorized</u>	<u>Status</u>	<u>Est Completion Date</u>
<u>Chicago Circle</u>			
Roosevelt Road Building	\$ 748,000	Phase I - Bid 10/75 Phase II - To be Bid 12/75	6/76
<u>Medical Center</u>			
Rockford School of Medicine	638,380	Under Construction	10/75
College of Medicine - Phase I	2,329,600	Under Construction	9/76
Hospital Remodeling	791,000	To Be Bid 10/75	9/76
Third Floor SUDMP	241,000	Contracts to be Awarded by CDB	9/76

TABLE 12

FY 1976 PROJECTS AUTHORIZED IN HB 289 & 802 AND SB 468

1. Building Projects

MC	Hospital Replacement	\$51,250,000
MC	Liquid Gas Storage Facility	50,000
UC	Speech and Hearing Clinic (Supplemental)	62,000
UC	Turner Hall Addition	7,933,200
	Subtotal	(\$59,295,200)

2. Funds to Complete Bond Eligible Buildings 70,600

3. Land -0-

4. Equipment 2,024,800

5. Utilities 798,800

6. Remodeling and Rehabilitation

CC	Science and Engineering Lab	412,020
CC	Roosevelt Road Building	417,800
MC	9th Floor SUDMP	210,000
MC	College of Medicine Space Vacated by Dent #1	1,674,200
MC	University Security and Fire Alarm	77,000
MC	OSHA Corrections	100,000
MC	Building Code Violations	100,000
UC	Architecture Building Safety	262,500
UC	English Building Renovation	250,000
UC	Visual Arts Laboratory	162,200
UC	College of Engineering	270,000
UC	Veterinary Medicine	14,500
UC	Energy Conservation Heat Controls	105,000
UC	Volatile Storage Improvements	50,000
UC	Gregory Hall Journalism	40,000
UC	Horticulture Field Lab	25,000
UC	Air Condition Terminal Building Willard Airport	66,000
UC	Vet Med Bldgs-Small Animal Clinic & Basic Med Sci Bldg	420,000
UC	Conversion of Old Large Animal Clinic to Meats Laboratory	600,000
	Subtotal	(\$5,256,220)

7. Site Improvements 1,175,900

8. Planning -0-

9. Cooperative Improvements 23,500

T O T A L

\$68,645,020

CHAPTER C

THE CAPITAL REQUIREMENTS NECESSARY TO FULFILL THE SCOPE AND MISSION OF THE UNIVERSITY OF ILLINOIS THROUGH 1980

The Scope and Mission of the University of Illinois 1974-1980 lists seven major buildings which will be required by the University. Of the seven, two buildings, both libraries, are requested for FY 1977; the Replacement Hospital was approved for FY 1976; the Law Building Addition will be requested in FY 1978; an office building at Chicago Circle has been deferred pending the development of a campus plan, and the remaining two buildings are future library additions at Urbana-Champaign.

The remainder of the decade will see continuous remodeling at the Chicago campuses -- to accommodate the shifting enrollments at Chicago Circle and to provide for program expansion at the Medical Center. At the Urbana-Champaign campus the needs are for replacement buildings, special purpose buildings, and remodeling for space realignment and rehabilitation.

The University estimates it will require approximately 25-30 million dollars per year over the next five years to replace buildings and to maintain the present buildings. It is planned for \$6 million to be requested for space realignment, remodeling and replacement in the capital budget, \$6 million to be requested for major remodeling in the capital budget; and \$10-15 million to be requested for new buildings. Table 13 shows the proposed building requests for the next five years.

TABLE 13

PROPOSED PLANNING AND BUILDING REQUESTS
FOR MAJOR BUILDINGS FY77-81
(In Thousand Dollars)

<u>Campus</u>	<u>Project</u>	<u>FY77</u>	<u>FY78</u>	<u>FY79</u>	<u>FY80</u>	<u>FY81</u>
CC	Library Addition	\$ 7,808.6	\$ 107.8			
MC	University Replacement Hospital	3,000.0	4,000.0			
MC	Rockford School of Medicine	49.1				
MC	Peoria School of Medicine	314.9				
UC	Turner Hall Addition	400.0	655.5			
UC	Speech and Hearing Clinic	215.1				
UC	Library Sixth Stack Addition	4,048.9	67.6			
UC	Nuclear Reactor Phase II	2,150.1	200.0	\$ 209.3		
UC	Botany Greenhouse	1,695.3	115.1			
UC	Life Sciences Teaching Lab	(141.8)	6,669.6	150.0	\$ 353.7	
UC	Vet Med Basic Sciences Phase I	(200.5)	9,535.1	160.0	389.1	
UC	Law Building Addition	(126.0)	5,539.1	464.0		
UC	Engineering Library Stack	(50.9)	2,255.5	175.0	87.0	
UC	Agricultural Engineering Building	(156.6)	7,950.4	100.0	340.0	
UC	Research Animal Facility		(18.1)	699.7	200.0	63.8
UC	Library North Court Addition		(40.4)	1,758.0	130.0	122.4
UC	Architecture Building		(148.8)	8,234.9	160.0	185.0
UC	Pilot Training Facility			(17.2)	619.5	
UC	Fire and Police Station			(38.5)	1,533.6	
UC	Library South Wing			(113.6)	4,987.8	100.0
UC	Nuclear Reactor Lab III			(35.9)	1,388.7	135.0
UC	Aviation Research Lab				(57.2)	2,307.6
UC	Car Pool Maintenance				(27.4)	1,380.4
UC	Medical Life Science Library				(111.5)	4,930.8
UC	Swine Research Complex				(49.7)	1,967.7
UC	Vet Med Basic Science Phase II					(88.5)
UC	Geology Building					(125.0)
UC	Krannert Art Museum Addition					(25.0)
	TOTAL BUILDING	\$19,682.0	\$37,095.7	\$11,951.8	\$10,189.4	\$11,192.7
	TOTAL PLANNING	(\$ 675.8)	(\$ 207.3)	(\$ 205.2)	(\$ 245.8)	(\$ 238.5)

Building Costs include Funds to Complete, Utilities, and Equipment. All cost estimates are in FY 1977 dollars. Planning requests are shown in parentheses.

CHAPTER D

FY 1977 CAPITAL REQUEST

The two previous chapters have attempted to present the current status of the capital program at the University of Illinois and outline the needs of the University in the future. This chapter will present the FY 1977 capital projects by campus and provide descriptions of the building, major remodeling, and planning for building projects.

The projects are classified under the budget categories specified by the Board of Higher Education. The projects which are noted (*) in the equipment, utilities, and remodeling sections will be withdrawn if the space realignment, remodeling, and replacement concept is approved.

CHICAGO CIRCLE CAMPUS

Funds requested for capital projects at the Chicago Circle campus for FY 1977 total \$10,940,700. The bulk of the request involves four projects -- the construction of the Library Addition (\$7,766,800), Phase II of the remodeling and equipping of the Science and Engineering Laboratory (\$600,000), Phase II of the remodeling of the Roosevelt Road Building (\$600,000), and continuation of the Building Equipment Automation project (\$300,000). The remaining funds (\$1,673,900) include: campus lighting improvements (\$177,500), and improved campus security (\$95,600). A complete list of projects is presented in Table 14. Following the detailed list of projects is a description of each of the four major projects.

TABLE 14.

CHICAGO CIRCLE CAMPUS: CLASSIFIED LIST OF PROJECTS
INCLUDED IN THE CAPITAL REQUEST FOR FY 1977

<u>Project</u>	<u>Estimated Cost</u>
1. <u>Buildings, Additions and/or Structures</u>	
Library Addition	\$ 7,375,100
Subtotal, Buildings, Additions and/or Structures	(\$ 7,375,100)
2. <u>Funds to Complete Bond Eligible Buildings</u>	
Library Addition	\$ 43,000
Subtotal, Funds to Complete Bond Eligible Buildings	(\$ 43,000)
3. <u>Land</u>	
None	- 0 -
4. <u>Equipment</u>	
SEL Remodeling	\$ 300,000
Library Addition	390,500
Subtotal, Equipment	(\$ 590,500)
5. <u>Utilities</u>	
*Lecture Center Air Intake	\$ 52,000
*Lecture Center 12KV Duct Correct	72,500
*Fire Alarm Modification	96,500
Subtotal, Utilities	(\$ 221,000)
6. <u>Remodeling and Rehabilitation</u>	
*Campus Security	\$ 95,600
SEL Engineering	300,000
Roosevelt Road Building	600,000
Building Equipment Automation	300,000
*Panic Buttons	210,000
*ECB & PEB Interior Graphics	35,000
*UH First Floor Security Doors	34,000
*Service Building	32,000
*Hull House Humidification	14,000
*SES Chemistry Learning Center	30,000

<u>Project</u>	<u>Estimated Cost</u>
6. <u>Remodeling and Rehabilitation (Continued)</u>	
*SEL Computer Center	\$ 10,500
*BSB Acoustical Treatment 4113A	18,500
*OSHA Corrections	57,000
*UH Elevator Automation	200,000
*Lecture Center Lighting Correct	45,000
*UH Ionizer Fire Detectors	38,000
*ECB-Install Polycarbonate Doors	11,000
*ECB-Acoustical & Glass Correct	50,000
*Safety Valve for Heating System	70,000
Subtotal, Remodeling and Rehabilitation	(\$ 2,250,600)
7. <u>Site Improvements</u>	
Exterior Lighting	\$ 177,500
Exterior Campus Graphics	43,000
Bus Stop Shelters	35,000
Site Correct-Handicapped Students	95,000
Subtotal, Site Improvements	(\$ 350,500)
8. <u>Planning</u>	
None	-0-
9. <u>Cooperative Improvements</u>	
Pedestrian Traffic Control-Morgan	\$ 55,000
Pedestrian Traffic Control-Polk	55,000
Subtotal, Cooperative Improvements	(\$ 110,000)
TOTAL CAPITAL BUDGET REQUESTS	<u>\$10,940,700</u>

*This project will be withdrawn if the space realignment, remodeling, and replacement concept is approved.

LIBRARY ADDITION

Estimated Total Project Cost.	\$8,026,900
Prior to Fiscal Year 1977 (Anticipated) . . .	110,500
Estimated Bond-Eligible Funds Required in FY 1977.	7,375,100
Gross Square Feet	88,400
Net Assignable Square Feet.	68,000
Building Efficiency	76.9%

The Library Addition, for which planning funds were appropriated in FY 1975, continues to be a requirement to meet the normal growth of the library collection at the Chicago Circle campus and to meet the growing requests for library services by the developing and increasing graduate programs. With the stack space provided in this addition, spaces in the existing building will be reassigned to functions other than stack, thereby providing expansion for services and functions that are in critical need of additional space. The collection and characteristics of use of the library have changed since the open stack undergraduate collection moved into the original building. The upper division and graduate collections are best managed in closed stacks. It is these collections which have and will continue to grow at the most rapid rate. The target acquisition rate is approximately 50,000 volumes per year, and the size of the collection was reported in Fall 1974 to be approximately 560,000 volumes. The proposed Library Addition and space reassignment in the existing building will provide a capacity of about 900,000 volumes and services for a student population of 19,000.

Space by USOE Category Code in the Library Addition

<u>Category Code</u>	<u>Title</u>	<u>NASF</u>
420	Stack	68,000

This project is planned for completion by June, 1978. The total estimated building cost is \$7,485,600 of which \$110,500 was authorized in FY 1975 and the remainder is being requested in FY 1977. (Project Code No. 76-1A in FY 1976 Capital Budget Request.)

The Library Addition has two construction elements -- a stack tower and remodeling. The stack tower is to be a systems-type structure (uniform bay size, repetitive framing, and pre-engineered elements). The remodeling (\$735,400) will allow for the establishment of divisional libraries within the library building. The estimated total project cost including remodeling (by budget category) and the amount requested for FY 1977 are as follows:

	<u>Estimated Total Project Cost</u>	<u>Authorized In FY 1975</u>	<u>Required for Authorization In FY 1977</u>
Basic Building Cost (Including Fixed Equipment and Professional Fees)	\$7,485,600	\$110,500	\$7,375,100
Funds to Complete Bond-Eligible Buildings	85,500	-0-	43,000 ^a
Equipment	455,800	-0-	390,500 ^b
Utilities	-0-	-0-	-0-
Site Improvements	-0-	-0-	-0-
Planning (Included in Basic Building Cost Above)	(426,100)	(110,500)	(315,600)
TOTAL	\$8,026,900	\$110,500	\$7,808,600 ^c

^aExcludes \$42,500 for funds to complete to be requested in FY 1978.

^bExcludes \$65,290 for equipment to be requested in FY 1978.

^cExcludes \$107,790 for funds to complete and equipment to be requested in FY 1978.

Remodeling and Rehabilitation

There are four major remodeling programs requested for the Chicago Circle campus for FY 1977. All are continuing projects which are being phased. The Science and Engineering Laboratory remodeling for the College of Engineering is the first step in realigning the existing space on the campus. A long range plan for realigning campus space will be developed during FY 1976. The Roosevelt Road Building project is a continuation of the remodeling which was initiated in FY 1975. This remodeling will upgrade unusable space to be used for the University's central computer, general university offices, and several administrative units from the Chicago Circle campus, thus freeing space in academic buildings. The Building Equipment Automation project will add approximately half of the campus buildings to the automation system.

Science and Engineering Laboratory, College of Engineering (\$300,000). This request represents the second of a multi-phased project to convert large undergraduate teaching laboratories into smaller research laboratories. This conversion is estimated to cost \$2,830,200 including \$1,060,200 for equipment in FY 1977 dollars and will be phased over five years. The total area to be remodeled is 52,355 NASF. These laboratories were occupied in 1965 and 1967 and were originally constructed as undergraduate teaching laboratories when planning called for an undergraduate institution of 20,000. Remodeling is now proposed to convert some of these laboratories for the graduate education program of the College of Engineering. These laboratories have been identified by the College as under-utilized by the undergraduate curriculum and available for conversion to graduate research laboratories. The \$412,020 for remodeling and \$200,100 for equipment appropriated in FY 1976 will begin the remodeling in those departments whose needs for research space are most acute. This request (FY 1977) will provide funds to continue the remodeling on a priority basis.

Roosevelt Road Building (\$600,000). This request represents the third phase of a multi-phase project to reclaim and upgrade the space in the Roosevelt Road Building. The total project cost is estimated to be \$3,500,000 (in FY 1977 dollars) spread over a period of six years and involves virtually all of the 70,707 net assignable square feet in the building.

The first phase of the remodeling (FY 1975 appropriation of \$795,000) involves preparing the third floor of Building #2 for the University's consolidated administrative computer center and the provisions of electrical service to the building from the University central source. The second phase (FY 1976 appropriation of \$417,800) involves remodeling the second floor of Buildings #1 and #4 for General University administra-

tive offices and the College of Education's Day Care Center, respectively, and the first floor of Building #1 for Placement Services. Phase three (this request) will provide funds for remodeling the basement of Building #1 for Energy Engineering Laboratories, the first floor and basement of Building #2 for Duplicating Services, and the installation of an existing boiler and centrifugal chiller salvaged from the Racine Avenue Building to provide sufficient heating and cooling capacity for the remodeled areas. This request (FY 1977) involves approximately 18,340 NASF. Future requests will provide additional office space on the second floor of Building #2, replace the elevator in Building #2, provide a loading dock and exterior improvements, complete the upgrading of utilities, and complete the remodeling of the consolidated administrative computer center.

Building Equipment Automation (\$300,000). This project began in FY 1970. \$95,000 were appropriated to purchase the computer and tie-in three buildings to the automation system. This project will provide funds to connect approximately half of the remaining buildings on campus to the computer. The total remaining cost of this project is \$684,000. This system will allow the Physical Plant personnel to monitor and control building equipment such as ventilating fans, air-conditioning pumps, compressors, heating systems, etc. from a central location. This system will allow the Physical Plant to save operating funds on utilities and personnel travel time on monitoring equipment.

MEDICAL CENTER CAMPUS

Funds requested for capital projects at the Medical Center campus for FY 1977 total \$11,603,500. Approximately one-third of this request represents funds for ongoing projects which were deferred in FY 1976: Replacement Hospital Equipment (\$3,000,000), Peoria School of Medicine Funds to Complete (\$164,700) and Equipment (\$150,200), Rockford School of Medicine Equipment (\$49,100), and College of Medicine Project #1 Remodeling (\$417,800). Additional remodeling projects total \$7,204,400. A complete list of these projects is presented in Table 14 beginning on the following page. Following this detailed list of projects is a description of the major new remodeling projects. All of these projects, except reprogramming the Pharmacology Laboratory and ventilating the Pharmacy Building, involve upgrading vacated space for an expanding program.

TABLE 15

MEDICAL CENTER CAMPUS: CLASSIFIED LIST OF PROJECTS
INCLUDED IN THE CAPITAL REQUEST FOR FY 1977

<u>Project</u>	<u>Estimated Cost</u>
1. <u>Buildings, Additions and/or Structures</u>	
None	-0-
2. <u>Funds to Complete Bond Eligible Buildings</u>	
School of Public Health	\$ 49,000
Peoria School of Medicine	164,700
Subtotal, Funds to Complete Bond Eligible Buildings	(\$ 213,700)
3. <u>Land</u>	
None	-0-
4. <u>Equipment</u>	
Replacement Hospital Equipment	\$ 3,000,000
School of Public Health	96,800
College of Medicine Project 1	707,300
Rockford School of Medicine	49,100
Peoria School of Medicine	150,200
Subtotal, Equipment	(\$ 4,003,400)
5. <u>Utilities</u>	
None	-0-
6. <u>Remodeling and Rehabilitation</u>	
Complete College of Medicine Space #1	\$ 417,800
Vacated College of Medicine Space #2	827,200
Remodel 1919 W. Taylor	900,000
Pharmacognosy and Pharmacology	270,000
Instrument Shop Lab	220,000
Building Equipment Automation	150,000
* Renovation of General Service Bldg	150,000
* Correct Building Code Violations	100,000
Complete Remod of SUDMP	66,900
*General Hospital - 3rd Floor	175,000
Ventilate Pharmacy Building	625,000
*Ventilating & Air Conditioning 2035 Taylor	128,000
Elevator Renovation SUDMP	450,000

<u>Project</u>	<u>Estimated Cost</u>
6. <u>Remodeling and Rehabilitation (Continued)</u>	
*Fire Alarm System	273,000
*R&L SBMS Admin 1st Floor	148,500
*Interconnect Chilled Water Lines	207,000
*Elevator Renovation - General Hospital	275,000
*Biologic Resource Lab	131,000
*Pharmacy Room 200	140,000
*OSHA Compliance	100,000
*Elevator Renovation - ISI	150,000
*Building Systems Impr Comp Air	175,000
*Pharmacy Offices	100,000
*General Hospital - 5th Floor	100,000
*Elevator 715 S. Wood	200,000
*715 S. Wood Second Floor Phase 1	125,000
Subtotal, Remodeling and Rehabilitation	(\$ 7,204,400)
7. <u>Site Improvements</u>	
None	-0-
8. <u>Planning</u>	
Planning Studies - Vacated Hospital Space	\$ 100,000
Renovation of FUDMP Bldg	82,000
Subtotal, Planning	(\$ 182,000)
9. <u>Cooperative Improvements</u>	
None	-0-
TOTAL CAPITAL BUDGET REQUESTS	<u>\$11,603,500</u>

*This project will be withdrawn if the space realignment, remodeling, and replacement concept is approved.

Remodeling and Rehabilitation

College of Medicine II, SUDMP 3, 12, 13, 14 (\$827,200). This project was requested in FY 1976. All of the space to be remodeled was vacated in the Summer of 1975 by the College of Dentistry. Complete renovation of the space is required prior to occupancy by the College of Medicine. This is a continuation of the program to remodel and renovate the SUDMP Building which started with funding in FY 1974.

The remodeling included under Project II totals 8,359 NASF. The third floor remodeling includes the creation of offices and laboratories for the Abraham Lincoln School of Medicine. The 12th and 13th floors will provide offices and research laboratories for faculty of the School of Basic Medical Sciences, and the 14th floor will provide space to house the Center for Genetics in the School of Basic Medical Sciences.

Remodel 1919 W. Taylor (\$900,000). The curricula in Occupational Therapy and Physical Therapy of the School of Associated Medical Sciences will be moved into space in 1919 W. Taylor. It will be necessary to remodel 1919 W. Taylor to include a multi-purpose laboratory-classroom, a physical therapy laboratory, a student lounge-dressing room, and faculty offices.

In addition, a general upgrading of the building is needed, including the installation of fire doors, exit lights, new electric power distribution risers and panels, air conditioning, black top paving of driveway, receiving area, and gravel lot, and the renovation of existing bathrooms to meet OSHA standards.

College of Pharmacy, Department of Pharmacognosy and Pharmacology (\$270,000). This remodeling project is needed to meet the curriculum changes which have resulted from changes in accreditation standards which emphasize increased education in drug use, abuse, misuse and clinical applications of this knowledge. It involves 5,680 NASF in a single pharmacology laboratory for undergraduate instruction, a facility which is outmoded for today's instructional methods. Conversion of the area will double the efficiency of space utilization by providing suitable facilities for the preparation of animal surgery demonstrations, an animal holding area, a modern laboratory -- demonstration teaching area, research laboratory space, and offices. Costs have been estimated based on experience at the Medical Center campus.

Basement R&L Building for Instrument Shop (\$220,000). This project involves remodeling in the basement of the R&L unit of the DMP Building of space recently vacated by the Library. An area of 4,600 NASF which was utilized as stack area will be renovated to a modern instrument shop for design and creation of special teaching, research and other types of equipment not normally available commercially. The Instrument Shop will vacate space it currently occupies on the second floor of the First Unit DMP Building which is urgently needed by the Department of Physiology of the College of Medicine.

College of Medicine Remodeling, SUDMP - Basement, 1st, 5th, and 6th Floors (\$666,900). This project is the last remodeling of a multi-phased project to renovate and remodel almost an entire building vacated upon completion of the new College of Dentistry buildings. The area of this project includes 17,625 NASF and will be assigned to the College of Medicine. The basement will be used for student lockers and lounge space and office laboratories for the Department of Radiology. The 1st floor space occupied by the School of Associated Medical Sciences will be upgraded. The 5th floor space is currently a two-story amphitheatre which, following extensive demolition and reconstruction will be converted into general classroom space. The 6th floor space is currently classroom space that needs to be renovated.

Ventilate Pharmacy Building (\$625,000). This project is the first phase of a program to remodel the ventilation system of the Pharmacy Building. The current system, constructed with the building in 1954, has fixed windows and recirculates the air within the building, thus mixing exhaust gases from one area of the building with those in another and producing toxic and potentially explosive combinations. In addition, only a small part of the building has been air conditioned, and the high temperatures reached during the summer months in the un-airconditioned areas represent an additional threat to health and safety due to the effects of the excessive heat on the chemicals used in the teaching and research. Proper venting of exhaust air and airconditioning of the building will be accomplished using existing air handling equipment wherever possible. A future request of \$600,000 will be made in FY 1978 to complete the project.

URBANA-CHAMPAIGN CAMPUS

Funds requested for capital projects at the Urbana-Champaign campus for FY 1977 total \$14,464,700. New buildings and additions to existing buildings make up more than half of this request (\$7,793,200), while remodeling projects account for roughly another quarter (\$3,039,300). With the exception of the College of Engineering remodeling (\$275,000), the English Building Renovation (\$285,000), Animal Room Improvements (\$279,000), Morrill Hall Ventilation - Planning (\$35,000), and Coble Hall Improvements (\$275,000), all 19 other remodeling projects could be accomplished under the Space Realignment, Remodeling, and Replacement program. A complete list of these projects is presented in Table 16 beginning on the following page. A description of each of the building, planning, and the major remodeling projects requested follows Table 16.

TABLE 16

URBANA-CHAMPAIGN CAMPUS: CLASSIFIED LIST OF PROJECTS
INCLUDED IN THE CAPITAL REQUEST FOR FY 1977

<u>Project</u>	<u>Estimated Cost</u>
1. <u>Buildings, Additions and/or Structures</u>	
Library Sixth Stack Addition	\$ 3,978,900
Veterinary Medicine Research Bldgs	366,400
Physics Research Lab Addition	119,800
Ornamental Horticulture Addition	29,700
Nuclear Reactor Lab Phase 2	1,955,600
Botany Greenhouse	1,342,800
Subtotal, Buildings, Additions and/or Structures	(\$ 7,793,200)
2. <u>Funds to Complete Bond Eligible Buildings</u>	
Speech & Hearing Clinic	45,100
Subtotal, Funds to Complete Bond Eligible Buildings	(\$ 45,100)
3. <u>Land</u>	
Life Sciences Teaching Lab	\$ 100,000
Agriculture Replacement Land	250,000
Subtotal, Land	(\$ 350,000)
4. <u>Equipment</u>	
College of Engineering	\$ 25,000
English Building Renovation	25,000
Animal Room Improvements	20,000
* Gregory Hall Journalism	60,000
* David Kinley Hall Room 114	5,000
* Library Reference Room	8,000
Speech & Hearing Clinic	187,000
Turner Hall Addition	400,000
Subtotal, Equipment	(\$ 730,000)
5. <u>Utilities</u>	
Central Supervisory Control Center	\$ 300,000
Library Sixth Stack Addition	70,000

<u>Project</u>	<u>Estimated Cost</u>
5. <u>Utilities (Continued)</u>	
Condensate Return System	\$ 155,000
Nuclear Reactor Lab Phase 2	194,500
Water Main Extension SE	25,500
Botany Greenhouse	352,500
*Steam Tunnel Improvement	50,000
Subtotal, Utilities	(\$ 1,147,500)
6. <u>Remodeling and Rehabilitation</u>	
College of Engineering	\$ 275,000
English Building	285,000
Animal Room Improvements	279,000
Morrill Hall Ventilation - Planning	35,000
*Gregory Hall - Journalism	28,000
*Freer Gym	171,000
*Energy Conservation Heat Control	150,000
*Memorial Stadium	440,000
*Library Fire Protection	88,000
Coble Hall Improvement	275,000
*Lincoln Hall	64,000
*Environmental Research Lab	70,000
*Electrical Modernization	70,000
*Building Safety Improvements	88,500
*Davenport Hall - Geography	93,000
*Commerce Offices	28,000
*Natural History Building Sprinklers	95,000
*David Kinley Hall - Room 114	95,000
*Airport Hanger Improvement	97,000
*Krannert Performing Arts	56,500
*Mumford Hall Basement	74,800
*Library Reference Room	25,000
*Physics Building	40,000
*Gregory Hall Stair Enclosures	116,500
Subtotal, Remodeling and Rehabilitation	(\$ 3,039,300)
7. <u>Site Improvements</u>	
Tennis Court Improvements	161,500
Peabody & Pennsylvania Street Improvements	274,000
Landscape Improvements	75,000
Intramural Field Improvement	36,000
Subtotal, Site Improvements	(\$ 546,500)

<u>Project</u>	<u>Estimated Cost</u>
8. <u>Planning</u>	
Life Sciences Teaching Lab	\$ 141,800
Law Building Addition	126,000
Veterinary Medicine Basic Sciences Phase I	200,500
Auditorium Roof Replacement	55,000
Engineering Library Stack Addition	50,900
Agricultural Engineering Building	156,600
Subtotal, Planning	(\$ 730,800)
9. <u>Cooperative Improvements</u>	
Sanitary District Improvements	\$ 35,000
Mathews Avenue Resurfacing	27,900
Subtotal, Cooperative Improvements	(\$ 62,900)
 TOTAL CAPITAL BUDGET REQUESTS	 <u><u>\$14,445,300</u></u>

*This project will be withdrawn if the space realignment, remodeling, and replacement concept is approved.

LIBRARY SIXTH STACK ADDITION

Estimated Total Project Cost.	\$4,116,500
Estimated Bond-Eligible Funds Required in FY 1977.	4,048,900
Total Non-State Funding for Which the Project is Eligible	-0-
Estimated Non-State Funding	-0-
Gross Square Feet	58,800
Net Assignable Square Feet.	42,000
Building Efficiency	71%

This project would provide additional shelf storage for the constantly growing University General Library book collection. The University Library adds approximately 150,000 to 180,000 volumes a year to its collections in order to meet the instructional and research needs of students and faculty. Approximately twenty percent of these volumes are absorbed in working collections in departmental library units, and the balance, amounting to over 100,000 volumes a year, is absorbed by the General Library Bookstacks, which houses many of the principal research collections as well as less frequently used material transferred from departmental library collections.

The latest stack addition, completed in July 1970, was intended to relieve a severely overcrowded situation, but because of the yearly acquisitions, that space is already beyond standard working capacity. The proposed Library Sixth Stack Addition would alleviate the present crowded conditions and improve the operating efficiency of the entire library. The project's planned 42,000 NASF would accommodate about 700,000 volumes and provide approximately 100 closed reading carrels.

The Library Sixth Stack Addition is programmed to contain the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Addition</u>
Office	300
Reading/Study Rooms	2,200
Stack	39,500
TOTAL	42,000

This project is planned for completion by the Fall of 1979. The total estimated project cost is \$4,116,500, of which \$4,048,900 will be required for authorization in FY 1977 and the remainder in FY 1978 and FY 1979. The estimated total project cost (by budget category) and the amount requested for FY 1977 are as follows:

	<u>Estimated Total Project Cost</u>	<u>Required for Authorization In FY 1977</u>	<u>Required for Authorization In FY 1978 and Beyond</u>
Basic Building Cost (Including Fixed Equipment and Professional Fees)	\$3,978,900	\$3,978,900	-0-
Funds to Complete Bond-Eligible Buildings	24,600	-0-	\$24,600
Equipment	43,000	-0-	43,000
Utilities	70,000	70,000	-0-
Planning (Included in Basic Building Cost Above)	<u>(268,300)</u>	<u>(268,300)</u>	<u>-0-</u>
TOTAL	\$4,116,500	\$4,048,900	\$67,600

There will be no release of space upon completion of this project.

NUCLEAR REACTOR LABORATORY PHASE II

Estimated Total Project Cost	\$2,559,400
Estimated Bond-Eligible Funds Required in FY 1977	2,150,100
Total Non-State Funding for which the Project is Eligible	-0-
Estimated Non-State Funding	-0-
Gross Square Feet	20,400
Net Assignable Square Feet	12,160
Building Efficiency	60%

The Nuclear Reactor Laboratory is an interdisciplinary facility, administered by an interdepartmental committee, primarily for the training of students majoring in Nuclear Engineering. The Laboratory is also used by the Departments of Chemistry and Chemical Engineering, Physiology and Biophysics, Physics, and various other engineering departments for specialized research and instructional activities.

The Illinois TRIGA reactor was upgraded in power level by a factor of 10 in 1968-69 (funded by the National Science Foundation, the Atomic Energy Commission, and the University) and its use is growing rapidly in volume and sophistication. Even prior to the upgrading, the Nuclear Engineering Program and the demand for reactor use by other departments and programs increased steadily. This has now resulted in extreme congestion of equipment in the present Nuclear Reactor Laboratory.

The State of Illinois is vitally involved in the study and use of nuclear energy. This is demonstrated by the presence of the Argonne National Laboratory, the National Accelerator Laboratory at Weston, seven Nuclear Power Plants, and a sizable nuclear industry. The Nuclear Engineering Program at the Urbana-Champaign campus was developed to assist and nourish this new field of Nuclear Engineering. In the fourteen years since the establishment of the Nuclear Engineering Program, it has grown to equal in prestige the programs at the Massachusetts Institute of Technology, the University of Michigan, and the University of California (Berkeley). If this program is to maintain a high standard of excellence, it must

have adequate research and supporting space. The need for further research in the field of Nuclear Power has never been greater. The long range energy potential involving Nuclear Power is tremendous, but it will take considerable research in order to realize the full potential of Nuclear Power. We have already delayed too long in this critical area of energy research.

The requested facility, the first of a two-phase addition, was originally included in the University's 1967-69 biennium Capital Budget Request. Schematic drawings were completed and a proposal was submitted to the National Science Foundation for a matching grant of \$635,000. After review of the proposal, the National Science Foundation indicated its ability to fund the grant for construction. Because the project was not approved by the Board of Higher Education for the 1967-69 biennium, however, the grant application was reluctantly withdrawn by the University in February 1968.

This project was requested in the University's 1969-71 biennium Capital Budget Request and again in the FY 1976 Capital Budget Request, only to be denied both times by the Board of Higher Education.

This first phase project is not planned to meet the total needs of the Nuclear Engineering Program. Only the most critical needed research and support areas are being requested at this time with the less demanding space to be requested in FY 1980. The project is programmed to provide the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Addition</u>
Classroom	300
Non-class Laboratories	8,798
Office	<u>3,062</u>
TOTAL	12,160

The project is planned for completion by the Fall of 1979. The total estimated budget is \$2,559,400, of which \$2,150,100 will be required for authorization in FY 1977 and the remainder in FY 1978 and 1979. The estimated total project cost (by budget category) and the amount requested for FY 1977 is as follows:

	Estimated Total Project Cost	Required for Authorization in FY 1977	Required for Authorization in FY 1978 and beyond
Basic Building Cost (In- cluding Fixed Equipment and Professional Fees)	\$1,955,600	\$1,955,600	-0-
Funds to Complete Bond- Eligible Buildings	29,300	-0-	\$ 29,300
Equipment	380,000	-0-	380,000
Utilities	194,500	194,500	-0-
Planning (Included in Basic Building Cost Above)	<u>(160,500)</u>	<u>(160,500)</u>	<u>-0-</u>
TOTAL	\$2,559,400	\$2,150,100	\$409,300

Before construction can begin, it will be necessary to raze the western-most bay of Warehouse Building #1, containing 4,159 NASF, in order to clear the site.

BOTANY GREENHOUSE

Estimated Total Project Cost	\$1,810,400
Estimated Bond-Eligible Funds Required in FY 1977	1,695,300
Total Non-State Funding for which the Project is Eligible	-0-
Estimated Non-State Funding	-0-
Gross Square Feet	20,000
Net Assignable Square Feet	15,318
Building Efficiency	77%

This project will permit the consolidation of all the Department of Botany's research-oriented greenhouses into a single modern facility and allow the razing of two existing outdated greenhouses that are 66 and 73 years old. Presently, the Department of Botany greenhouse facilities are grossly inadequate--there is not enough space and the facilities are poorly designed, in poor physical condition and terribly outdated. The aisles are too narrow, the headhouse service facilities are totally inadequate and the existing structures are dilapidated and beyond the point of repair. Also, the existing greenhouses are separated physically, resulting in uneconomical operations.

The proposed new Botany Greenhouse would be a single unit adjacent to the existing Agronomy-Horticulture greenhouse, thus allowing improved data interchange between these units. The project is planned to properly meet the bench-area needs of the Department, plus a headhouse with (1) adequate fumigating and sterilizing chambers; (2) soil preparation and potting rooms; and (3) a room for growth chambers permitting withdrawal of plants for periodic controlled experimentation.

The project is programmed to provide the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Addition</u>
Instructional Lab	454
Office	873
Research	2,121
Greenhouse	<u>11,870</u>
TOTAL	15,318

This project is planned for completion by the Fall of 1979. The total estimated project cost is \$1,810,400, of which \$1,695,300 will be required for authorization in FY 1977 and the remainder in FY 1978 and FY 1979. The estimated total project cost (by budget category) and the amount requested for FY 1977 are as follows:

	<u>Estimated Total Project Cost</u>	<u>Required for Authorization in FY 1977</u>	<u>Required for Authorization in FY 1978 and beyond</u>
Basic Building Cost (Including Fixed Equipment and Professional Fees)	\$1,342,800	\$1,342,800	-0-
Funds to Complete Bond-Eligible Buildings	15,100	-0-	\$ 15,100
Equipment	100,000	-0-	100,000
Utilities	352,500	352,500	-0-
Planning (Included in Basic Building Cost Above)	<u>(103,600)</u>	<u>(103,600)</u>	<u>-0-</u>
TOTAL	\$1,810,400	\$1,695,300	\$115,100

Upon completion of this project, 5,674 NASF (North Greenhouse), 8,737 NASF (Botany Annex and greenhouse), and 598 NASF (Natural History Building Greenhouse) will be razed.

VETERINARY MEDICINE RESEARCH BUILDINGS

Estimated Total Project Cost.	\$386,400
Estimated Bond-Eligible Funds Required in FY 1977.	366,400
Total Non-State Funding for Which the Project is Eligible	-0-
Estimated Non-State Funding	-0-
Gross Square Feet	6,400
Net Assignable Square Feet.	6,000
Building Efficiency	95%

This project will provide two of a group of six structures planned for the Veterinary Research Farm to serve the research and graduate student training needs of the College of Veterinary Medicine. One of these six structures has already been constructed. It is the University's intention to request two similar Veterinary Medicine Research Buildings in FY 1978 and one such building in FY 1980. The facility will provide laboratory space to support research farm programs and projects. The need for this type of space has increased in recent years in proportion to increased research activities on the Veterinary Research Farm and the attendant increase in numbers and species of research animals. Moreover, recent federal legislation concerning the maintenance and care of laboratory animals requires substantially greater quantity and quality of animal laboratory space than has been acceptable in the past.

The need for these buildings is further intensified by increased enrollments in the professional curriculum and the present deficiency of space for graduate student training programs. Additionally, increased numbers of students will require an increase in faculty members who will include research programs with their teaching activities. Research grants, generally, are not awarded to scientists or institutions without adequate animal laboratory facilities.

The Veterinary Medicine Research Buildings are programmed to contain the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Building</u>
Non-Class Laboratories	6,000
TOTAL	6,000

This project is planned for completion by the Fall of 1977. The total estimated project cost is \$386,400, of which \$366,400 will be required for authorization in FY 1977 and the remainder in FY 1978. The estimated total project cost (by budget category) and the amount requested for FY 1977 are as follows:

	<u>Estimated Total Project Cost</u>	<u>Required for Authorization In FY 1977</u>	<u>Required for Authorization In FY 1978 and Beyond</u>
Basic Building Cost (Including Fixed Equipment and Professional Fees)	\$366,400	\$366,400	-0-
Funds to Complete Bond-Eligible Buildings	-0-	-0-	-0-
Equipment	20,000	-0-	\$20,000
Planning (Included in Basic Building Cost Above)	(39,200)	(39,200)	-0-
TOTAL	\$386,400	\$366,400	\$20,000

There will be no release of space upon completion of this project.

PHYSICS RESEARCH LABORATORY ADDITION

Estimated Total Project Cost	\$219,800
Estimated Bond-Eligible Funds Required	119,800
in FY 1977	119,800
Total Non-State Funding for Which the	
Project is Eligible.	100,000
Estimated Non-State Funding.	100,000
Gross Square Feet.	2,720
Net Assignable Square Feet	2,500
Building Efficiency.	92%

This project involves extending the area of the Physics Research Laboratory formerly occupied by the 300 MeV betatron by attaching a 40' by 68' standard industrial steel frame building to the south wall and by knocking out portions of that wall to provide the required access. This extension will make it possible to complete a new electron accelerator with a much higher energy than would otherwise be possible. This accelerator is unique in that the emerging electron beam is available continuously, whereas all other high energy accelerators provide beams only in short bursts which are separated by wasted time during which no beam is available. The new accelerator, called a microtron, recirculates an electron beam through a superconducting linear accelerator; the superconductivity makes it practical to keep the accelerating fields on continuously. The requested building extension is needed to house a new 250-ton end magnet which will be part of the recirculation system. The other end magnet will be inside the existing barn structure.

This accelerator development and the associated nuclear structure research at the Physics Research Laboratory has been supported by the National Science Foundation. A prototype microtron which can recirculate an electron beam through a superconducting linear accelerator has been assembled in another part of the Physics Research Laboratory, and is being used for nuclear studies. From April 1, 1971 to September 14, 1974, NSF grant GP 28413 has provided \$1,220,000 for this program.

Because of the success of this prototype microtron, NSF has agreed to the installation of an improved, higher energy microtron in the large

experimental area that housed the 300 MeV betatron. This installation is currently in progress. Temporary end magnets will be installed that will allow for only six traversals of the beam and would limit the maximum energy to 60 MeV. After the installation is perfected, a new proposal will be put forward to the NSF for larger end magnets that would accommodate energies of 300 MeV or higher. The greater flexibility and higher energy of the larger recirculation system to be housed in this proposed building will make possible a nuclear physics research program that will attract international attention as well as continued and likely additional financial support.

The project is programmed to provide the following type and amount of space.

<u>Room Type</u>	<u>NASF in Proposed Addition</u>
Non-Class Laboratory	2,500
TOTAL	2,500

The project is planned for completion by the Fall of 1977. The total estimated construction budget is \$219,800, all of which will be required in FY 1977. The equipping of this addition as well as remodeling and equipping of existing space associated with this building addition request will be funded from federal funds related to the project. The estimated total project cost (by budget category) and the amount requested for FY 1977 is as follows:

	<u>Estimated Total Project Cost</u>	<u>Required for Authorization In FY 1977</u>	<u>Required for Authorization In FY 1978 and Beyond</u>
Basic Building Cost (Including Fixed Equipment and Professional Fees)	\$219,800	\$119,800 ¹	-0-
Funds to Complete Bond-Eligible Buildings	-0-	-0-	-0-
Equipment	-0-	-0-	-0-
Utilities	-0-	-0-	-0-
Planning (Included in Basic Building Cost Above)	<u>-0-</u>	<u>-0-</u>	<u>-0-</u>
TOTAL	\$219,800	\$119,800 ¹	-0-

There will be no release of space upon completion of this project.

¹\$100,000 is available from federal funds.

ORNAMENTAL HORTICULTURE ADDITION

Estimated Total Project Cost	\$29,700
Estimated Bond-Eligible Funds Required	
in FY 1977	29,700
Total Non-State Funding for which the	
Project is Eligible	-0-
Estimated Non-State Funding	-0-
 Gross Square Feet	 800
Net Assignable Square Feet	640
Building Efficiency	80%

This request is for funds to construct a 640 NASF addition to the Ornamental Horticulture Building. The additional space is needed to replace that which the Horticulture Department has lost in Bevier Hall due to the expansion of Home Economics. The new space will be used as a laboratory preparation room for three 200-level courses.

Because the Horticulture Department does not have adequate instructional laboratory space, it has limited twelve of its courses to majors and accepts only a fraction of those wanting to take two of its service courses. The new laboratory preparation space to be provided in this project would allow a slight relaxation of these current enrollment restrictions; however, the space is needed primarily to provide the centrally located preparation space that is currently lacking from the instructional program. The requested preparation space is intended to be adjacent to both the greenhouse and the classroom space and would contribute greatly to the efficiency and convenience of the instructional activities. Currently, the preparation must be done in various parts of the building, instructor's offices, for example, and then brought back to either the greenhouse or the classrooms. The classrooms were created two years ago by remodeling existing space as the initial phase of a planned two-phase project of providing additional instructional facilities. This request for new laboratory preparation space is the second or remaining phase needed to complete the project as planned.

The type and amount of space programmed for the Ornamental Horticulture Addition are as follows:

<u>Room Type</u>	<u>NASF in Proposed Addition</u>
Class Laboratory Service	640
TOTAL	640

This project is planned for completion by the Fall of 1977. The total estimated project cost is \$29,700, all of which will be required for authorization in FY 1977. The estimated total project cost (by budget category) and the amount requested for FY 1977 are as follows:

	<u>Estimated Total Project Cost</u>	<u>Required for Authorization in FY 1977</u>	<u>Required for Authorization in FY 1978 and beyond</u>
Basic Building Cost (Including Fixed Equipment and Professional Fees)	\$29,700	\$29,700	-0-
Funds to Complete Bond-Eligible Buildings	-0-	-0-	-0-
Land	-0-	-0-	-0-
Equipment	-0-	-0-	-0-
Utilities	-0-	-0-	-0-
Planning (Included in Basic Building Cost Above)	<u>(2,800)</u>	<u>(2,800)</u>	<u>-0-</u>
TOTAL	\$29,700	\$29,700	-0-

There will be no release of space upon completion of this project.

Remodeling and Rehabilitation

The \$3,039,300 requested for remodeling and rehabilitation at the Urbana-Champaign campus is part of a long-range space renovation and realignment program. Included in this category are some major building renovation projects. Many of the smaller projects could be carried out under the Space Realignment, Remodeling and Replacement program proposed. In reviewing these requests, it is important to realize that the Urbana-Champaign campus is 108 years old and many of its existing physical facilities are 60 to 80 years of age. Several of the remodeling requests are an attempt to begin to renovate some of these outdated facilities in order that they may be used more effectively and efficiently in modern educational activities.

The major projects being programmed are continuations of the remodeling of the College of Engineering, and the renovation of the English Building. The animal room improvements are the first of several requests for general upgrading of the animal facilities on the Urbana-Champaign campus. A description of the major remodeling projects follows:

College of Engineering Remodeling (\$275,000). This request represents the second phase of an extended remodeling program involving the physical facilities of the College of Engineering. This phase, in conjunction with the first phase work approved in FY 1976, will allow certain space consolidations to be made by moving the department of Aeronautical Engineering and General Engineering into the Mechanical Engineering Building, the Mechanical Engineering Laboratory, the Talbot Laboratory, and the Metallurgy and Mining Building. This sequence of relocations will allow the Transportation Building to be vacated in order for it to be remodeled into an Engineering Library. Related to this remodeling project is an Engineering Library Stack Addition which is needed to complement the above moves since the Transportation Building does not have the floor loading capacity or actual size to accommodate the Engineering Library needs.

Also included in this second phase work will be remodeling in Talbot Laboratory to accommodate an expanded emphasis on the materials engineering curriculum as well as to vacate space in the Metallurgy and Mining Building. In summary, the major thrust of the first two phases of this program will involve the renovation and modernization of approximately 50,000 NASF of old and antiquated office and laboratory space to upgrade outmoded existing space and to vacate a major existing building for use as an Engineering

Library. The actual work involved in this undertaking will include improved lighting, relocation of large pieces of equipment, electrical renovations, new partitioning, heating, ventilation and air conditioning, and plumbing. Also there is a \$25,000 equipment request related to this project.

The importance of this project cannot be overemphasized. Because fewer fiscal resources are available to meet its capital needs, the Urbana-Champaign campus is attempting to solve some of its space problems through major remodeling of existing facilities. The ultimate goal of this total undertaking, which is estimated to cost approximately \$2,215,000 and extend over a five-year period, is intended to create space for a much needed Engineering Library and to modernize Engineering space for more efficient utilization of older buildings, including the provision of a central facility for materials engineering which will serve several engineering departments. This increased effectiveness of space utilization will also allow the Department of Astronomy to eventually be relocated on the Engineering campus for better academic interchange with the Department of Physics, and solve some minor but important space needs of the Department of Computer Science. Additionally, certain small old laboratory facilities that are costly to maintain and impractical to renovate will be razed. The Aeronautical Laboratory (10,984 NASF) and the Brakeshoe Laboratory (1,344 NASF) will be vacated and razed as a result of this total remodeling program.

English Building Renovation (\$285,000). This request represents the second of a multi-phase project to completely renovate the English Building. This renovation program is estimated to cost approximately \$1,125,000 and extend over a four-year period. The English Building, originally designed for use as a physical education facility, was constructed in 1905 with additions in 1913 and 1923. The physical layout of the building places two gymnasiums and a swimming pool in the central portion with offices and classrooms around the perimeter.

The initial phase of this program was approved as a part of the University's FY 1976 Capital Budget Request and involved the remodeling of the lower gymnasium into classrooms and faculty offices. This request is for the second phase of the program and will involve remodeling the old unused swimming pool area into office and classroom space. The completion of new physical education facilities (IMPE Building and Freer Gym Addition) along with the elimination of the mandatory physical education requirement has made it possible to phase out this 70-year-old swimming facility that is in need of major repair and has not been used for over one year.

The first and second phases of this renovation program will provide the additional space needed to partially vacate the upper floors for later remodeling. The second phase work involves approximately 8,000 gross square feet and 5,000 net assignable square feet. The remodeling will involve removing the existing pool and developing two useful floors of modern, well-lighted and ventilated classroom and office space.

Animal Room Improvements (\$279,000). This project involves the conversion of vacant mechanical equipment space into 700 NASF of animal room space of which 200 NASF would be cold temperature (45° - 50°) rooms for Arctic rodents. It will also provide for the remodeling of an adjacent 3,812 NASF of animal rooms in the basement of Morrill Hall to bring them in compliance with the U.S. Department of Health, Education and Welfare standards and regulations governing the humane handling, care, and treatment of laboratory animals. The project involves increasing the rate of air movement in the animal rooms, constructing new walls, removing laboratory benches, installing a standby air conditioner chiller system, installing a potable water system for animal drinking water, and installing timer clocks on the lights in the animal rooms. This is the first part of a multi-phased program to remodel all existing animal holding space to a level necessary to meet new Federal regulations. This program is planned to complement the Research Animal Facility which will be requested in a future budget request. The conversion of vacant mechanical room space will permit the University to vacate leased space at 129 North Race Street and abandon a small outmoded, inefficient animal room in the attic of the Natural History Building.

Coble Hall Improvements (\$275,000). This project is part of a planned major space realignment program involving both University and Campus administrative units with the primary goal of consolidating in one centralized location (the Administration Building) the entire operations of Admissions and Records, Administrative Data Processing, the various Business Offices, and the President and his primary support staff. In order to accomplish this, it has been proposed that the Graduate College be relocated from the third floor of the Administration Building to the ground and first floors of Coble Hall. The Chancellor and his staff would be relocated to the second and third floor space of Coble Hall which will be vacated by the Department of Mathematics upon the scheduled Spring 1977 completion of the new Speech and Hearing Clinic.

The Coble Hall Remodeling would involve primarily the second and third floors (approximately 7,900 NASF) and would include heating and ventilating changes, installation of a sprinkler system, installation of an elevator, partition changes, relighting, and painting.

LIFE SCIENCES TEACHING LABORATORY -- PLANNING (\$141,800)

Funds in the amount of \$141,800 are requested for the planning of a Life Sciences Teaching Laboratory through definitive design. The total project cost is estimated at \$7,415,100. It is anticipated that \$6,769,600 will be requested for this project in FY 1978 and the remaining \$503,700 will be requested in FY 1979 and FY 1980.

This facility is intended to be a unified teaching laboratory building designed to encompass laboratory instruction in all areas of the Life Sciences. In addition to providing much needed laboratory space, the facility is programmed for maximum interaction among the laboratory activities of the several Life Sciences Departments and will provide the needed potential for space consolidation, program cooperation and educational experimentation.

The concept of physical interaction of the Life Sciences disciplines at the undergraduate laboratory level represents a new and exciting approach to large-scale education of students. It is presently planned to conduct the laboratory instruction portion of approximately 55 separate Life Sciences courses in the new facility. Fruition of this facility would provide the University of Illinois with a unique opportunity for leadership in modern laboratory teaching and would also alleviate the expensive problem of continually remodeling archaic and unsuitable space into wet laboratories for the teaching of Life Sciences.

This project has gained an even greater urgency during the past two years as a result of the tremendous increase in the number of students in the area of Life Sciences, primarily pre-professional students (pre-med., pre-dental, and pre-vet., etc.). These students are exerting an extraordinary pressure regarding course enrollment and utilization of facilities, and, from all appearances, this "bulge" will not decrease over the coming years. While Life Sciences enrollment may reach a steady state in the near future, that steady state far exceeds the current potential to provide proper instructional laboratory space for teaching of Life Sciences to the current majors in this area.

This project is programmed to contain the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Structure</u>		<u>Total</u>
	<u>Wet</u>	<u>Dry</u>	
Classroom	--	3,500	3,500
Instructional Laboratory	28,000	5,000	33,000
Office	--	8,500	8,500
Lounge	--	1,000	1,000
Greenhouse	--	4,000	4,000
TOTAL	28,000	22,000	50,000

Upon completion of this project, Harker Hall (16,720 NASF) will be vacated by Life Sciences, and it is planned to raze this 100-year-old building. Additionally, 408 S. Goodwin (5,484 NASF) will be razed and 1204 W. Oregon (2,628 NASF) will be reassigned after space is remodeled and reassigned in the Natural History Building following the completion of the Life Sciences Teaching Laboratory.

VETERINARY MEDICINE BASIC SCIENCE PHASE I -- PLANNING (\$200,500)

This project will allow the College of Veterinary Medicine to complete its relocation to the new south campus area as well as to increase its entering class size from 86 to 100 professional students.

The Phase I construction for which planning funds are being requested will house three departments plus the College administration: Veterinary Biological Structure, Veterinary Physiology and Pharmacology, and Veterinary Pathology and Hygiene. When this project is completed, it will provide space and facilities at the new location to teach all courses in the veterinary professional curriculum. The planned construction will also provide badly needed library space to overcome the current deficiency.

The proposed facility is programmed to contain the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Structure</u>		<u>Total</u>
	<u>Wet</u>	<u>Dry</u>	
Classroom	--	1,500	1,500
Instructional Laboratory	19,118	5,000	24,118
Non-Class Laboratory	13,951	--	13,951
Office	--	10,407	10,407
Study	--	10,875	10,875
Lounge	--	7,293	7,293
Storage	--	7,656	7,656
TOTAL	33,069	42,731	75,800

Upon completion of this project, the College of Veterinary Medicine will release for reassignment to the College of Agriculture 35,061 NASF in the existing Veterinary Medicine Basic Science Building. After this reassignment, the College of Agriculture will, in turn, release for reassignment to other units an equal amount of poor quality space.

The total planning cost of the proposed building through definitive design is estimated to be \$200,500. It is anticipated that funds for constructing the initial phase of the proposed building will be included in the FY 1978 Capital Budget Request.

LAW BUILDING ADDITION -- PLANNING (\$126,000)

The Law Building Addition has had a long history of requests dating back to the University's 1967-69 biennial request, but has either been deferred for lack of funds or funds have been approved but not released. Most recently, in reviewing the University's FY 1976 Capital Budget Request, the Illinois State Board of Higher Education indicated that expansion of legal education on this campus should be deferred until the forthcoming Master Plan IV is completed. Because the project's scope is directly dependent upon how the educational program is defined in the Master Plan IV recommendations and how the definition relates to the Urbana-Champaign campus, only planning funds are requested in FY 1977. The project had been planned through the working drawing stage, but it has been concluded that the project as represented in the working drawings is no longer completely viable. Therefore, this request reflects the law education expansions as the Urbana-Champaign campus believes it should be relative to Master Plan IV and the University of Illinois. The Urbana-Champaign campus would provide the support staff for the intern type program to be developed in Springfield. Also, there would be a modest increase of 120 to 150 professional law students at the Urbana-Champaign campus. The facility required to accommodate the program as envisioned will include expansion of the Law Library and additional office space to meet existing deficiencies and the new staff for the expanded program.

The proposed Law Building Addition is programmed to contain the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Addition</u>
Classroom	2,993
Office	9,382
Library	29,229
Lounge	1,414
Lockers	<u>1,267</u>
TOTAL	44,285

No space will be vacated by the College of Law upon completion of this addition.

Planning funds in the amount of \$126,800 are requested in the current FY 1977 request. It is anticipated that funds for constructing this addition will be included in the FY 1978 Capital Budget Request.

ENGINEERING LIBRARY STACK ADDITION -- PLANNING (\$50,900)

This Stack Addition, together with the remodeled Transportation Building, will provide library space for all students in the College of Engineering, except for those in the Department of Physics, as well as provide an interdisciplinary research center for information storage and retrieval. This project will be done in conjunction with the College of Engineering remodeling to be requested in FY 1978 to provide the total facilities for the Engineering Library. The College of Engineering remodeling requested in FY 1976 and FY 1977 is intended to clear the Transportation Building for the anticipated FY 1978 remodeling and construction.

The new construction for which planning funds are being requested will be a stack addition to the Transportation Building. This "addition to an existing facility" approach will allow improved utilization of existing College of Engineering space and yet will overcome the problem of older buildings not having the floor loading capability to support a book stack facility.

The College of Engineering at Urbana-Champaign is one of the country's largest and most distinguished centers of engineering education and research. With a total enrollment of over 4,000, including 1,200 graduates, the College's library space is grossly inadequate. The present facility offers seating space for only 99 students and book storage for approximately 80,000 volumes, while required adequate seating space currently approximates over 1,000 stations and the book collection is expected to reach over 200,000 volumes by 1980. A substantial portion of the engineering collection has already been transferred to the book stack in other buildings where they are relatively inaccessible to the Engineering students and faculty. Based upon current needs, there is a total space deficiency of 41,621 NASF in the Engineering Library.

In addition to providing the much needed library facilities, this building is programmed to house a research center on information storage and retrieval that will be jointly operated by the Coordinated Science Laboratory, Graduate School of Library Science, the Department of

Computer Science, and the Department of Electrical Engineering. It is the intent of this program to develop sophisticated electronic equipment and methods for storing and retrieving informational materials so that newer methods of information management may be explored and applied to modernize this and other library operations. The proposed facility, including remodeling, is programmed to contain the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Addition</u>
Stack	22,615
Total NASF New Construction Only	(22,615)
Reading	22,000
Service & Office	2,500
Research (Information Retrieval)	3,700
Office (Information Retrieval)	3,800
Total NASF Remodeling Only	(32,000)
Total NASF Remodeling & New Construction	54,615

Upon completion of the project, 4,432 NASF being used for stack collection in Altgeld Hall will be used to relieve the congestion in the Mathematics Library and 12,174 NASF in Engineering Hall will be reassigned to non-library units.

The total planning cost of the proposed addition through definitive design is estimated to be \$50,900. It is anticipated that funds for constructing this building will be included in the FY 1978 Capital Budget Request.

AGRICULTURAL ENGINEERING BUILDING -- PLANNING (\$156,600)

Almost all of the engineering oriented programs within the College of Agriculture are housed in facilities that are either obsolete or inadequate to properly support the programs. Almost 80% of the space assigned to the Department of Agricultural Engineering is in a wood frame structure constructed nearly 70 years ago. An obsolescence study of the facility has indicated that further remodeling of the structure is not warranted and that it should be replaced. In addition, the wood science program in the Department of Forestry and the food engineering program in the Department of Food Science are located in poor quality temporary space which cannot meet the needs of these growing programs. Consolidating the engineering oriented programs of these three departments into a new facility properly designed to provide flexibility and efficiency of use of resources is essential if the research and teaching responsibilities of these departments are to be met. It is desirable to have specialized facilities used cooperatively by several units to eliminate unnecessary duplication. The research work of the departments involved could be greatly enhanced by new facilities in a common structure. The proposed Agricultural Engineering Building is programmed to contain the following types and amounts of space:

<u>Room Type</u>	<u>NASF in Proposed Addition</u>
Classroom	1,500
Class Laboratories	10,781
Non-Class Laboratories	27,418
Office	12,778
Lounge	609
Storage	<u>7,414</u>
TOTAL	60,500

Before construction can begin, it will be necessary to raze the Dairy Manufacturers Building, containing 16,505 NASF, in order to clear the site. The Dairy Manufacturers Building is obsolete for current research and teaching programs, in part because the large equipment is sized for production rather than research. As a consequence, the site itself can be

better used for construction of a replacement Agricultural Engineering Building. Upon the completion of this project, the Forest Science Laboratory, containing 21,843 NASF will also be razed. The College of Agriculture will release for reassignment to the Operation and Maintenance Division 6,429 NASF in the newer portion of the old Agricultural Engineering Building. The College of Agriculture will release for reassignment to the University Library for archive storage 3,987 NASF in the Horticulture Field Laboratory and 5,188 NASF in the Horticulture Field Laboratory Steel Building.

The total planning cost of the proposed building through definitive design is estimated to be \$156,600. It is anticipated that funds in the approximate amount of \$7,950,400 for constructing the proposed building will be included in the FY 1978 Capital Budget Request.

APPENDIX A CONTINUING EDUCATION AND PUBLIC SERVICE

APPENDIX A
CONTINUING EDUCATION AND PUBLIC SERVICE

Continuing Education and Public Service has been and continues to be a major function of the University as the land-grant institution in the State of Illinois. In 1973 the University reorganized its Continuing Education and Public Service (CE & PS) components so as to be more responsive to the needs of the citizens of the State. However, the budgetary restrictions and inflationary forces in the subsequent years have been such that it has not been possible to obtain or reallocate sufficient funds to the CE & PS functions to take full advantage of the new organization. The need and demand for such services continues to mount as evidenced by such factors as (a) the shifting age distribution of the population towards post-college age adults, (b) the need to maintain and update the skills of such individuals as health service professionals and public employees, and (c) the problems of the urban communities and those related to the environment and energy. The \$1,595,000 requested for FY 1977 for Continuing Education and Public Service will enable the University to expand significantly these services to the citizens of the State. The many individual programs encompassed by this funding request can be summarized into three primary categories of program thrusts:

1. Continuing Education for the Professions, with special note of the commitment to the health professions and the needs of public employees.
2. Off-Campus Program Alternatives to On-Campus Residential Instruction, including a) credit courses, particularly at the graduate level, and b) community-oriented Continuing Education and Public Service Programs.
3. Basic Campus and University-Wide Structures or Logistical Systems for Needs Assessment and Facilitation of Delivery.

In order to meet these three thrusts the allocations to the individual campuses and General University Field Staff by major program thrust will be as follows:

TABLE 1
SUMMARY OF FINANCIAL REQUIREMENTS

	CC	MC	UC	UC Field Staff	Total
Continuing Education for the Professions	130,000	301,000	229,000	--	660,000
Off-Campus Program Alternatives to On-Campus Residential Instruction	70,000	--	381,000	110,000	720,000
Basic Campus and University-Wide Structure of Logistical Systems for Needs Assessment & Facilitation of Delivery	75,000	49,000	110,000	250,000	484,000
TOTAL	275,000	350,000	720,000	250,000	\$1,595,000

Chicago Circle (\$275,000)

The allocation of \$275,000 to the Chicago Circle Campus will be assigned to its Extension Division to support eleven new Continuing Education and Public Service Programs and to supplement the currently small administrative core in the Division. The bulk of the amount, \$200,000, would be used for faculty salaries and other expenses associated with offering either off-campus credit or public service assistance directly associated with the eleven programs. It should be emphasized that these programs are complementary to rather than competitive with the Extended Day Program in that they relate to individuals who would not be degree-credit candidates when they are taking courses offered through the Extension Division. In fact, these programs may have a positive impact on Extended Day in that students may find that they will be interested and capable of pursuing a degree program through Extended Day after taking one or more off-campus courses. The remainder of the funds, \$75,000, would provide for the additional administrative overhead related to the Extension offerings and also provide for furthering contacts with community agencies, development of other new programs and evaluation of current extended programs.

Continuing Education for the Professions

1. Program for Government Personnel (Public Personnel Training Program). Metropolitan Chicago is a major governmental center with tens of thousands of Federal, State and local government personnel at all levels in a great variety of skill areas. Increasingly, governmental offices have expressed interest in the development of academic programs designed to meet the particular needs of their personnel. This program would provide courses and curricula developed in conjunction with specific public agencies and would tailor programs to their specific sets of needs and requirements.

2. Community-Based Educational Attainment Program for Women. This program would establish an out-reach effort with a specific and specialized commitment to the needs and interests of the inner city woman who wishes to achieve a greater level of self-actualization and attainment through the ultimate pursuit of a business or professional career. The program would 1) identify particular priorities and interests of women in the inner city; 2) provide intensive counseling and guidance to these women; 3) provide academic programs in community facilities; and 4) provide direct services such as supervision of children during class and counseling sessions--services which are essential to the long-range success and impact of the program.

3. Continuing Education Programs Aimed at Professional Development. This program would expand and extend continuing education graduate credit offerings in specific fields such as Special Education, Health Education and other areas where there is a shortage of professionals trained at the graduate level. These professionals are needed in local school systems, government agencies and industry.

4. Master of Social Work Degree Program in Rockford. This program would emanate from the Chicago Circle campus Jane Addams School of Social Work in response to requests from the Rockford Regional Academic Center, which already has identified sixty individuals employed in social work agencies who have taken the limit of Extension courses applicable to an

MSW degree and apply for admission to the degree program were one initiated. No other institution of higher education in the State has a similar program in the Rockford area.

5. Engineering and Business Programs in Rockford. This program would 1) offer upper division business courses to individuals in the Rockford area who have completed their Associate of Arts degree in one of the four State community colleges in the greater Rockford area; and 2) develop master's degree programs in various fields of Engineering. It would be offered in conjunction with the Rockford Regional Academic Center.

6. Criminal Justice Upper Division and Graduate Programs in Region II Outside of Chicago. Currently local community colleges in the suburban and small town areas of Public Service Region II offer lower division courses in Criminal Justice. This program would extend the opportunity to law enforcement personnel to pursue baccalaureate or higher degrees in Criminal Justice who have no opportunities outside of the downtown Chicago area.

Off-Campus Program Alternatives to On-Campus Residential Instruction Including Credit Courses and Community Oriented Continuing Education and Public Service Programs

1. Continuing Education for Senior Citizens. This program would develop out-reach counseling and educational mechanisms for senior citizens in metropolitan Chicago, a segment of the population which has long been ignored as a higher education constituency while supporting higher education through their tax dollars. Specifics of the program will be developed in cooperation with the UICC Project on the Aged, the Mayor's Office for Senior Citizens and other community and governmental organizations concerned with the interests of senior citizens. Courses, both credit and non-credit, will be offered at locations convenient to senior citizens in the metropolitan area.

2. Community-Oriented Continuing Education Program. This program, and a similar program to be offered by the Urbana-Champaign campus, are oriented towards improving the quality of life within communities by upgrading the ability of the local citizenry to deal with their particular problems. Examples of credit and non-credit courses to be offered include those in leadership and program development, parent involvement in schools, and courses geared to specific community problems uncovered in needs assessment. In all instances the programs will include cooperative planning between community and University personnel.

3. Community Arts Program. The importance of the visual and performing arts to the quality of urban life is gaining increasing recognition. This program has two objectives: 1) To enhance appreciation of the arts through a variety of courses, lectures and cultural events with particular emphasis upon reaching communities which currently have limited access to such resources and to provide citizens with both the exposure and the basic comprehension which will enable them to take better advantage of other existing rich and varied opportunities to experience the arts in metropolitan Chicago; and 2) To train teachers, teachers' aids and parents to utilize the arts to stimulate and sustain student interest in core curricula and to promote achievement in the arts in both the public and parochial school systems in the region.

4. Continuing Education Program--Ethnic Heritage. This program, operated in cooperation with the UICC Inter-Ethnic Project, would provide a varied menu of courses and other offerings dealing with the cultural heritage of various major ethnic groups who reside in the Chicago area. Topics covered would include history, art, music and language, and would be aimed at not only providing personal benefits to those engaged in the program but would also multiply the impact of their direct learning experiences through contacts with their friends and neighbors.

5. Technical Assistance Programs for Solution of Immediate Urban and Suburban Related Problems. Non-credit short courses, conferences and seminars will be developed to deal with immediate problems related to energy, criminal justice, finance, drugs, transportation, urban

planning, etc. and will involve such units of the Circle campus as the Urban Systems Laboratory Energy Research Center, Center for Research in Criminal Justice, the Urban Study Center and comparable efforts in the Colleges of Education and Social Work.

Medical Center (\$350,000)

The need to expand the Continuing Education activities of the Medical Center campus has been recognized for some time. Modest internal allocations of University funds have supported some activities in this regard and a portion of the federally sponsored Area Health Education System program has been available for continuing education activities at regional sites outside of the central Medical Center campus. However, the logistical and funding problems associated with the large-scale enrollment expansion at the Medical Center and its regional affiliates in Peoria, Rockford, and Urbana-Champaign have been such that until this time the opportunity to expand the Continuing Education and Public Service mission of the Medical Center has been limited. The \$250,000 requested herein can be considered as the minimum core funds required to establish the needed faculty/administrative bases in each of the Colleges as well as the central campus administration required for initial and continued program planning, program development, and limited program delivery and evaluation. It is anticipated that significant additional increments of faculty and other resources will have to be devoted to the Continuing Education and Public Service programs as they mature. A portion of such needs will have to be requested in subsequent budget documents; however, it is anticipated that a substantial portion of future costs can be recovered through collection of fees from participating professionals.

Continuing Education for the Professions

1. College of Medicine. The College of Medicine will provide continuing education for physicians and allied health personnel in the Medical Regions throughout the State. The objectives of this program are: a) to formally develop and designate an Office of Continuing

Education Services within the College of Medicine at the Medical Center campus, and b) to develop a Division of Continuing Education in the School of Associated Medical Sciences to provide continuing education program leadership for the allied health professions. The Area Health Education System provided some basis for this program in nursing and allied health in Rockford, Peoria, and Urbana-Champaign. The proposed program will be expanded to include continuing education for physicians and allied health personnel in each of the State's Medical Regions.

2. Dentistry. The College of Dentistry will provide a formalized program for continuing education for over 6,000 dentists and 18,000 dental auxiliaries in the State by establishing a unit within the College which will be responsible for the College's continuing education program and which will conduct continuing education programs at the Medical Center and elsewhere in the State. The programs will be aimed at maintaining and increasing the current level of knowledge and psychomotor skills of practitioners demanded by their professional responsibilities.

3. Pharmacy. The College of Pharmacy has developed a formalized continuing education and information program for pharmacists throughout the State. The purpose of this program is to conduct non-credit short courses and service activities for pharmacists. This existing program is threatened with extinction because it is based upon a federal source of funds which is being phased out. This "new" program will continue and expand the benefits of the existing continuing education program.

4. Nursing. The College of Nursing proposed to develop a continuing education system to upgrade the skills of 44,000 actively employed nurses in the State as well as to assist the over 15,000 inactive nurses to re-enter the employment market. The objectives of the proposal are a) to assist nurses to maintain and increase their expertise and enlarge the scope of their professional practice; b) to prepare and motivate inactive nurses to return to practice, thereby increasing the number of Illinois nurses in active practice; c) to make available the teaching and research capabilities of the College and University to communities throughout the State for meeting continuing education needs; d) to provide continuing

education programs that are responsive to community needs in terms of content and accessibility; 3) to develop mechanisms for cooperative action in sharing and implementing programs which utilize college and community resources with particular emphasis on working with existing community educational institutions and health agencies. Much of the effort will be to locate sources of potential instruction and teaching facilities, public and private, throughout the State and to make these available to nurses.

5. Public Health. The School of Public Health proposes to bring continuing education programs to the diversely trained public health practitioners in the State through a series of credit and non-credit courses. The objectives of this program are: a) to increase the effectiveness and scope of health agencies and their personnel; b) to assist career development of health personnel in community health and human development; and c) to advance community health services by providing information concerning public health systems, management, evaluation methods, and other health matters. Programs will be linked with a variety of institutions in the State in order to make varied competencies available to practitioners at minimal cost.

Basic Campus Structure

The objective of this program would be to promote the campus thrust toward an expanded and improved delivery of continuing education services to the many professional audiences related to the health fields.

A campus coordinating effort in continuing education is necessary to provide a unifying perspective to continuing education for the professions. This campus-wide effort would be expected to avoid duplication of effort by each of the professional colleges and to uncover areas of needs which have been unmet by programs of each professional group.

Urbana-Champaign (\$720,000)

The historical development of the Urbana-Champaign campus has been such that substantial efforts in the areas of Continuing Education and

Public Service have been fundamental to the mission of that campus since its inception, with particular reference to the large-scale programs carried under the aegis of the Cooperative Extension Service. However, the current scale of Continuing Education and Public Services does not minimize the need to further extend these services so that the campus may continue to fulfill its mission to the State. Twelve new programs or program expansions are identified herein that will require \$720,000 in additional funding in FY 1977.

Continuing Education for the Professions

1. Commerce and Business Administration. This program responds to requests from businessmen in the State who wish to pursue an MBA degree on a part-time basis off campus; and, provides technical assistance to managers of small businesses, especially minorities.

2. Engineering. The Engineering program is designed to meet the needs of professional engineers who daily confront problems caused by rapid technological change, and would offer both resident-credit off-campus courses as well as non-credit short courses and conferences. These activities will be carried on through traditional faculty/student contact and will also make expanded use of such educational technologies as Univex-Net and PLATO.

3. Library Science. The School of Library Science intends to respond to the request of librarians throughout the State for assistance in areas related to the application of administrative techniques to problems encountered on a daily basis. This multi-disciplinary program would enable practicing librarians to work in areas which include: collective bargaining, cost accounting, system analysis, program evaluation and review (PERT), and program planning and budgeting systems (PPBS).

4. Recreation and Park Administration. The basic objective of this program is to translate research findings into immediately usable guidelines for professionals in the field. The over 1,700 members of the Illinois Park and Recreational Society, for example, find their

role has shifted from simple management of leisure services to involvement with the entire life style of the community. Many studies have been conducted which would greatly assist these professionals in handling their new responsibilities. In order to make the findings of these studies useful to the practicing professionals it will be necessary to both translate these findings into a language immediately understood and directly related to their professional needs and then to package them in seminars, conferences, and other materials which the professionals can use at their own convenience.

5. Veterinary Medicine. The purpose of this program is to increase consultative and instructional services of the School of Veterinary Medicine for veterinarians and food animal producers in various locations throughout the State. Funding for this program would support a mobile consultation laboratory which would increase the effectiveness of the College in bringing its programs to the veterinarians and food animal producers. In addition, the funds would provide for additions of adjunct professors to increase Continuing Education programming and a Veterinary Consultation-Educational Specialist to service Public Service Regions 1, 3, and 5.

Off-Campus Program Alternatives to On-Campus Residential Instruction,
Including Credit Courses and Community Oriented CE & PS Programs

1. Residence (R) - Credit Courses. A recent policy change greatly expands the opportunities for off-campus students to receive residence credit for off-campus courses thereby providing them with increased opportunities to pursue degrees at their home locations. Funding of this proposal provides for faculty stipends and expenses associated with the anticipated great demand for Extension Division (R) - credit course offerings.

2. Agriculture. The College of Agriculture will develop two distinct, yet complementary, programs designed to improve the quality of home and family life in communities which have been adversely affected by accelerating social and technological change as well as inflation.

The first program will address the shortage of well qualified personnel in Home Economics, Nutrition, and Family Life by offering Continuing Education experiences for individuals with some background in the total field of Home Economics as the central element of a program of in-service training for adjunct faculty. The second program will be directed toward adults in the metropolitan Chicago area and will emphasize increasing their competencies as homemakers and consumers in areas of nutrition, home gardening, home owner education, and total family economics. This second program would be accomplished through the development of a Northeastern Illinois Homeowner and Consumer Education Center.

3. Education. The objectives of this program are: 1) to increase the capacity of lay citizens and local leadership in Illinois communities to address and to seek solutions to local educational problems, and 2) to increase the capacity of Illinois communities to deal with their educational problems in a manner that enhances the quality of educational services provided by the community for its citizens. Members of participating communities would be actively involved in the program and would identify their particular community educational concerns. These concerns, for example, might include ability grouping, discipline, funding and reallocation of educational resources, racism and ethnicity, teacher contract negotiations, school reorganization, or sexism in schooling.

4. Environmental Studies. The central objective of this program is to develop general environmental education programs for those in a position to solve local environmental problems in their communities. The program would use innovative approaches such as individualized PLATO programs and gaming-simulation, general orientation to ecology, understanding of man's relation to the environment, and principles of environmental management; and, would be directed to four primary client groups: 1) elementary and secondary school teachers; 2) recreation and park supervisors; 3) those with instructional responsibilities in public agencies; and 4) government officials and industrial/business leadership as examples of public and private sector decision makers.

5. Community-Oriented Continuing Education (COCE). The Community-Oriented Continuing Education Program is a comprehensive problem-solving effort stressing collaborative work by communities and academic resources appropriate to local needs. The funds made available will enable faculty to be given released time and necessary financial support to respond to requests identified by University Regional Program Directors to work on a regular basis with communities with specific problems. Examples of problems already identified with accompanying requests for assistance include land-use, social concerns (alcoholism, drugs, juvenile crime), environmental abuse, educational policies, and recreational programs. This would be a multi-disciplinary program involving the expertise of many of the colleges and departments on the campus.

Basic Campus Structures

1. Need Appraisal. Need appraisal is a critical task in Continuing Education and Public Service, the success of which depends upon faculty ability to identify the kinds of programs that professionals in the field must have in order to maintain and increase their competence. This program is designed to strengthen faculty competence in the need appraisal process by 1) acquainting faculty members with established procedures used to appraise needs of various professional and lay citizen groups; 2) by involving faculty in regular contact with Regional Program Directors and potential clients and professional and community groups throughout the State; and 3) by synthesizing the first two segments through planning sessions with individual faculty members to assist them with development of Continuing Education and Public Service Programs which respond to the needs identified.

2. Educational Opportunities for Adults. This program is designed to acquaint citizens with one-time or long-term educational opportunities available through continuing education programs offered by various institutions or other agencies in each region of the State. As a first step a computer-based information system or clearing-house containing data on available continuing education offerings throughout the State will be

developed. In fact, staff personnel have been actively involved on this project since the summer of 1974. Once the technology of the clearing-house system has been established, along with the initial information-data base and means to keep the base current, an eighteen-month demonstration stage will be enacted involving the establishment of selected citizen inquiry centers or locations. Some part of the costs of these activities will be covered by non-State funds. The continuing costs for center personnel in regional facilities should probably be included in the budget for University Field Staff once the program is fully operational.

University Regional Public Service Field Staff (\$250,000)

In July, 1973, the University's total Continuing Education and Public Service functions were reorganized and ten public service regions were established covering the entire State of Illinois. All of this network was placed under the Associate Vice President for Public Service, who had responsibility for coordinating, but not merging, the two traditional kinds of extension services, 1) the Cooperative Extension Service and 2) all other Continuing Education and Public Services in the Field. At the time of the reorganization, it was stated that the existing field force would be "fleshed out" on the general extension side to provide, minimally, one Regional Program Director in each region, recognizing that more populous regions like Region II (including Chicago) then did, and would in the future require additional personnel. The \$250,000 requested herein would provide the needed funds to complete the field network as originally intended in the reorganization of 1973.

The responsibility of the field network is to "marry" the manifold needs of the citizens of the State with the strong on-campus capacity which the University has to respond to those needs when they have been identified and articulated. Thus, the University's representatives in the field must 1) work with a variety of individuals, agencies, community groups, etc., to identify needs to which the University or other institutions may make an appropriate response; 2) be the broker, liaison

or bridging mechanism between the field and the three University campuses or other institutions in bringing to bear the most effective response to meet those needs; and 3) aid in providing logistical assistance to the various modes of response delivery. When performing these functions, the regional staff not only facilitate cooperation between the campuses of the University and other institutions in the State, but avoid unnecessary duplication of efforts.