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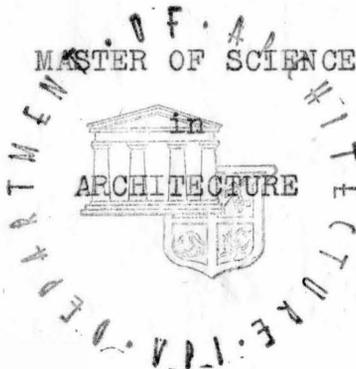
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A STUDENT CENTER  
for  
WAKE FOREST COLLEGE  
Winston-Salem, North Carolina

by  
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A Thesis Submitted to the Graduate Committee  
for the Degree of



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SECTION ONE

Thesis Objective-

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I. Thesis Objective

The objective of this thesis is ~~principally~~ twofold -- (a) to present a comprehensive study and analysis of the facilities necessary to satisfy all of the demands of a college student's social and physical well-being, and,

(b) to present all of these facilities in a unified and complete architectural design. The design shall be designated as a "STUDENT CENTER".

SECTION TWO

Thesis Subject Selection

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## II. Thesis Subject Selection

To date, college campuses have overlooked or tended to slight the most important single aspect of the student's campus and collegiate life -- that of his social and physical activities. The author felt that this aspect of the student's collegiate life should be thoroughly investigated and facilities and services ascertained that would be necessary to completely satisfy the above important aspect.

Since the College of Wake Forest is moving its entire physical plant to the City of Winston-Salem, North Carolina, it was felt that it would be more opportune and appropriate that a Student Center be designed for this new campus rather than take a hypothetical college building. It is on this premise the thesis will be based.

SECTION THREE

Philosophical Need For a  
Complete Student Center-

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### III. Philosophical Need for a Student Center

The search for knowledge has been avidly and relentlessly pursued throughout the ages. In the past, this pursuit of knowledge was quite different in approach from that we know today. Students and scholars in turn became teachers who imparted their knowledge to their succeeding scholars and so on down to the present day. However, methods of imparting knowledge have changed as the centuries have passed. In the days of Homer, Plato and Aristotle, knowledge was of the "informal" type. Scholars and disciples of the teachers would gather, listen, discuss and then depart -- <sup>there was</sup> no formal schooling as we know it today. At that time, the fundamentals of education began in the homes under parental guidance. In most cases, education did not extend beyond the confines of the homes. Great emphasis was placed on the physical development of the body in the form of athletic contests and events. As time paraded past, through the Roman heyday, the Middle Ages, the Renaissance, and approached the present day, education tended strongly toward the more formalized and stylized type of learning. Here the emphasis was placed on the scientific and learned matter derived from books and from teachers. Less and less emphasis was being placed on the social and recreational aspects of education. During this

time a very important and critical phase of education was being neglected -- a dominant factor in education was being overlooked. Students were being educated in a very narrow sphere. Institutions were producing intellectual automatons to perform specific and specialized tasks, but were neglecting to condition the mind and body to post-college social and fraternal obligations.

Today, education is endeavoring to undergo a major transformation -- education is in ~~that~~<sup>an</sup> awkward period of transition. Educators have come to realize that education involves the entire life and activity of the student while in college rather than being limited to basic courses of academic instruction. Educators have taken time to realize that a student is in the classroom and laboratory only a small number of the hours of the day. What, then, should the student or scholar do with his free time? It is a certainty that unless attractive, convenient and appealing places of activity are placed at the easy disposal of the students, they will find the means of spending their free time elsewhere, and, in all probability, not to anyone's credit or advantage.

Essentially, it boils down into this problem -- a campus must be made inviting, appealing and interesting to the student so as to hold his attention during hours unoccupied by academic work. There must be on the campus

a concentrated area for activities. This area may consist of one large building or several smaller adjacent buildings. In all cases, the area must be concentrated in one simple grouping so all students as well as faculty members will be induced to associate with each other during their free time. Gone are the days when the professor and instructor can be placed high on the proverbial pedestal -- far above the reach of the student. -- and ~~no~~ longer will the teacher be able to administer the elements of education from the lone, solitary chamber window of his "ivory tower". He must become closely associated with the students. It hardly seems sensible that association <sup>and</sup> fellowship between students and professors can be terminated by the ring of the bell ending the class hour. Then, too, the problem of faculty relaxation and recreation is equally important. The mental faculties of the academic staff can be perfectly attuned to automatic dispensation of specific knowledge, and yet their social and physical activities have become warped and stagnant like a body that has lost its muscle tone through the lack of periodic exercise.

SECTION FOUR

Practical Need For a  
Complete Student Center-

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#### IV. Practical Need For A Student Center

As a possible solution to the problem of subily directing the free time or off-time of the students into the proper channels, the STUDENT CENTER was proposed. A forerunner of this union center was the commons room, but such a commons room was not found adequate and capable of supplying the many varied demands of the twentieth century student.

The solution to the requirements of a STUDENT CENTER is necessarily complex in nature. There can be no standardization of this type of building. Each institution's requirements vary tremendously. If the campus on which the building is to be built is located in a small community or rural setting with relatively ample site available, then the structure to be designed could hardly be compared to a similar structure to be designed for a large university campus which is located in a metropolitan area. Each instutution must consider its own students as individual personalities. The CENTER must be more than just a room or collection of rooms. It must be above and beyond the physical requirements of space and furniture, heat and light. An example of a relatively good student union center is the Hart House of the University of Toronto (circa 1920). The Hart House seeks to provide for all the activities of the

undergraduate, graduate and faculty life which lies outside the actual lecture and class rooms. Every male undergraduate of the university is required to be a member of the Hart House. Graduates and alumni and faculty members also pay an annual fee. The house has no endowment; so these fees are its source of income. The house to a large extent is managed and operated by the students themselves. The founders of this house had in mind that true education is founded in good fellowship, in friendly disputation and debate, and in the conversations of wise and earnest men, in music, pictures and plays, in the casual book, in sports and games and the mastery of the body.

The STUDENT CENTER must serve as a center for all extra-curricular activities. As a building, this center houses the headquarters for all social societies, school publications, dramatics, special athletics, welfare organizations, well-equipped club rooms, lounges for men and women, music rooms, game rooms, swimming pools, library, dining facilities, alumni facilities, college guests, visiting teams, faculty clubs and bachelor faculty quarters. The list of facilities and requirements can be listed indefinitely. But as stated before, each institution will have its own general and special requirements.

Only through extensive research and personal interviews with the institutional staff heads can these requirements be effectively evaluated and pinned down, ~~definitely.~~

In order to study the problem of the contemporary STUDENT CENTER, we should discuss each of the elements to be contained in a typical STUDENT CENTER. The student's needs are the primary consideration. It will be a major problem to adjust the conflicting interests and to justly apportion the space <sup>while</sup> keeping in mind the economic situation. There are no hard and fast formulae for planning such a student center. The study must begin at the very "fountainhead". When a study or analysis is made of other similar buildings of the same general type, the researcher must know the compelling factors behind their origin -- he must know the conditions which produced it.

SECTION FIVE

Practical Requirements of a  
Student Center -

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## V. Practical Requirements Of a Student Center (Typical)

### Location and Setting

The location or placement of the STUDENT CENTER on the campus with relation to other building groups is of extreme importance. This center building is fast displacing the strategic importance of the administration and library building. The student center becomes what it implies -- the center or focal point of the campus. It becomes the heart and blood of the campus and from it will spring the impetus for all extra curricular activities. The student center must be located in a central portion of the campus which is easily accessible to students and faculty members alike. The academic buildings, libraries and such other institutional buildings will be placed in close proximity and relationship with the student center. The center will be designed for living and constant use throughout the day and night. Entrances should be accessible to all pedestrian and vehicular traffic. In as much as possible, the vehicular traffic will be limited to service elements and certain other specific elements which will be discussed later in this thesis.

Considerable thought must be given to the appropriate landscaping. Proper and skillful landscaping is all important to the building.

The landscaping and entourage must amplify the beauty of the architecture. Orientation of the building with regard to the sun, prevailing winds and attractive views must also play an important role in the initial and final stages of the design, particularly with reference to certain specific elements which will be discussed in detail further in the thesis.

#### Lobbies:

When the university is comprised of several colleges or separate institutional departments, the direct circulation from these groups must be fed through central lobbies and then traffic distribution<sup>ed</sup> to the separate facilities of the center. In this way, all students and faculty members will be thrown into contact with one another at some time during the course of daily routine.

The main lobby should be on the main floor level for easy accessibility to all personnel. This lobby should contain such facilities as information centers, telephone and toilet facilities for men and women and partial lounge facilities. The lobbies should be as domestic and warm in expression and treatment as possible. The feeling of austere splendor and gilt should be minimized. The student, faculty members, visitors and returning alumni should be made to feel completely at home immediately upon entrance. An ex-

cellent example of warmth and attractiveness can be cited in the lobbies and lounges of the new Statler Hotel in Washington, D. C. Although the major portions of the lobbies are two stories in height and is quite expansive, it still maintains a quiet dignity and comfortable appearance. One feels as if ~~they~~<sup>he</sup> belongs to it when ~~they~~<sup>he</sup> enters. Such a feeling must be conveyed upon entrance in the STUDENT CENTER. The student must not be overpowered upon entrance with ornate Victorian Gothic, with flowery Richardsonian Roman<sup>e</sup>sque, or the stilted appearance of the typical Georgian styles.

#### Offices:

To administer the needs of the STUDENT CENTER, many offices and suites of offices will be required. General and private offices must be located near the main or central lobby for the administrative offices of the center. Offices for welfare organizations, YMCA and YWCA facilities, and similar organizations must be accounted for. Space must be allocated for offices for the institution's student publications as well as general work areas and conference rooms. Additional space must be allowed for special purpose rooms adjoining these offices and work areas. Offices must be allocated for the close supervision of the kitchen operations which service the dining areas. These offices

must be located in close proximity to the kitchen areas for the most efficient supervision of services, supplies and miscellaneous administrative kitchen details. These offices, though they must be attractive, need not seriously affect the overall design of the center.

### Lounges:

Lounges form a very important part in the general requirements of a student center. There should be a central lounge in which both sexes can be accommodated. This lounge should be adjacent to the main ballrooms and theater so <sup>that</sup> this lounge or a series of lounges can be used during concerts, plays and such other social activity <sup>as</sup> ~~which~~ may be held in the theater or in the ballrooms. Other separate lounges for men and women with adjoining toilet facilities should be provided. These lounges will be used by the students when the sexes are voluntarily separated. The domestic atmosphere of the lobby should prevail in the main and supplementary lounges. The use of lower ceiling heights, interesting fenestration, materials and interior decoration play an extremely important role in the character of these lounges. Lighting should be adequate but subdued enough so as to be restful to the eyes. Normally, here in the lounges,

the male and female students will be able to fully relax and be comfortable between class periods or prior to dining or prior to participating in some form of athletic or light recreational endeavor.

The individual lounges for the men and women, though still of the relaxed and free atmosphere, will be treated differently with respect to the interior decorative treatment.

#### Ballrooms and Dancing Facilities:

Of a necessity, the ballroom must be on the first floor level for easy access during social functions. Its entrance should be somewhat direct to the pedestrian and vehicular traffic so as to relieve as much congestion of traffic as possible. The ballroom must be of ample size to accommodate a sizeable gathering. Essentially, the ballroom would be utilized for dances, and on occasions, it would possibly be used for large banquets when the dining elements would not be adequate in size to agreeably accommodate an unexpectedly large gathering of people. Such a ballroom should have ample balcony space so as to accommodate spectators during dances. This would eliminate a very common occurrence at most collegiate dances where the walls of the dance floor are lined with non-dancers and chaperons<sup>e</sup> who tend to

decrease the amount of dancing area. The ballroom should have an adjoining terrace with a commanding view, if possible. This terrace could very easily be by daytime the normal open terrace dining element. Needless to state, the lounges must be adjacent to the ballroom facilities so <sup>that</sup> full use can be made of these lounges and their toilet facilities. A small portable stage should be provided. Acoustical treatment in the ballroom must be given considerable thought in the design of the ballroom.

#### Main Dining Elements:

Dining requirements in the student center may vary from no major dining elements to the dining of the entire faculty and student body. This variable element will be in accordance with the wishes of the student body and college trustees. At Virginia Polytechnic Institute, separate dining facilities are provided for the students and faculty members. Therefore, at this institution no elaborate dining facilities are required in the Student Union Building. However, at the University of Toronto, all personnel eat at the Hart House, the university's union building. Similarly at the University of Minnesota, the Coffman Memorial Union has facilities for feeding its entire enrollment.

It can be seen that the dining elements must be ~~def-~~  
~~initely~~ defined as to what specific facilities are  
needed. In the Coffman Memorial Union Building, there  
are some twenty-odd dining elements. Normally in a  
medium-sized or smaller university, such a large allot-  
ment of dining areas ~~are~~<sup>is</sup> not needed. A minimum would  
be a cafeteria which would serve short orders, coffee  
and doughnuts, light breakfast, etc. A main dining room  
to serve the students, if incorporated into the design,  
should be ample in size, well lighted and ventillated.  
This student dining area should be cafeteria style .  
It has been found that a smaller space, with much less  
expense to operate, can be utilized better when the  
cafeteria style of feeding is used. The area for eating  
should be as attractive as any large restaurant. This  
can be done with proper design and appropriate architectural  
treatment of the interior. Too many institutions have  
resorted to the bleak and barren dining halls which  
reflect the great banquet halls of medieval knights or  
British Lords, or it may have the character of a  
Franciscan monastery. With regard to the location of  
the dining facilities within the building proper, these  
elements should not be shoved into some sub-basement.  
They, like lounges, should be readily accessible to the  
students and faculty members.

Separate entrances for daily use is considered advisable. However, the dining element should not be considered as a separate part of the building group, but as an integral part of the building proper. That compelling force which says, "EAT," has a great following and probably would contribute to the activities in the center immensely. Also, the hours of eating are common hours to all, and therefore the students and faculty are induced into a common fellowship during these hours.

The dining areas and cafeterias must of a necessity be located near the kitchen service elements. If the economy will allow such an expense, it would be deemed advisable to have separate kitchens for each dining element. However, in most cases, the use of a single main kitchen with minor kitchen utility rooms would suffice.

#### Assembly Rooms:

One of the major considerations in the design of assembly rooms is the determination of the appropriate size. Like a cafeteria or snack shop, an assembly room can never really be large enough to accommodate the maximum anticipated gathering since this would not be economically sound. If maximum space were allowed, the major ~~portions~~ <sup>part</sup> of <sup>the</sup> time the room would not be used to its fullest extent. It seems reasonable to state that such a room should be designed for slightly over normal requirement.

When larger numbers must be accommodated, other rooms or areas might be opened up to take care of the heavy overload. Under this premise, it would seem advisable to have adjacent rooms, such as the dining elements, which could be opened up to provide additional space for assemblies.

#### Library Facilities:

It must be understood that this library area in the student center would not serve as a central repository for a vast number of literary volumes. It would not try to compete in size or function with that of the central library or that of the departmental libraries on the campus. This library should be used primarily for the housing and distribution of periodicals and books of the lightest type of reading matter. Therefore, the space required would not have to be large. A beautiful quiet room or area with attractive shelving should be adequate. In this library the student would find periodicals and books for complete relaxation and sheer enjoyment. The library area would carry through the theme of the student center -- one of common fellowship and relaxation without restraint. The character and atmosphere of the library must be intimate. Comfortable chairs and seats should be provided.

If possible, portions of the area should be semi-detached to provide reading alcoves for intimacy and privacy. For example, reading bays projected ~~out~~ from the library area with ample natural lighting, furnished with comfortable chairs, would create this atmosphere of intimacy and privacy. The usual, austere, sophisticated and cold atmosphere which prevails in most libraries must be avoided. The student and faculty members must be made to feel they are welcome and a natural part of the library. In many libraries, the walls are lined with volumes of books and periodicals which means the windows are placed at a very high level. Nothing can kill the feeling of warmth and intimacy more than shoving the windows up to prison-like heights. These windows must be brought down to a sensible height so <sup>that</sup> the library reader can take advantage not only of the reading matter but the surrounding views as well.

#### Auditorium and Theater Facilities:

In the past few years, the use of educational films have taken an important place in <sup>the</sup> field of education. It has been proven, according to Army statistics, that individuals learn through their five senses - - and of these five senses, the individual absorbs approximately 75 per cent of his knowledge through the single

sense of sight. Therefore, one can readily see that ample facilities must be maintained for the showing of these films. In the more progressive educational institutions, provisions are made in each classroom, recitation or lecture rooms for the showing of appropriate training or educational films. These classroom facilities would be used to show film which are pertinent to the particular course of study. However, there are many other films which students and faculty members should see jointly, and the classroom facilities would not accommodate the large numbers.

On many college campuses, there are many active dramatic organizations and societies. These organizations and societies should be provided with adequate <sup>spaces</sup> where they may freely take advantage of them and further their desires along the dramatic lines.

In conjunction with the theater-auditorium, there must be ticket lobbies, check rooms, retiring rooms, dressing rooms and general work rooms for making and storing of scenery and stage appliances. The problem of acoustics, lighting, stage arrangement, seating, entrances and exits, and the many other necessary elements tend to make this group quite complex. Considerable attention must be devoted to the solving of these problems individually and as a whole.

Such an element as an auditorium and theater group must have separate entrances and exits since most of these group activities would be held at night and would be open to students, faculty and visitors in general. Its entrances, while they must be convenient and accessible, need not be imposing and monumental.

#### Kitchens:

In the kitchen facilities of a student center, where the dining elements are many and varied, the problem of efficiency presents an intricate and complex problem. The design of the kitchen and service elements alone would supply sufficient material for a lengthy thesis.~~in itself.~~ As discussed in a previous paragraph, the size of the kitchen elements and their requirements are based directly on the amount and type of dining facilities to be provided in the center.

Flow charts must be prepared and studied in minute detail to attain the maximum efficiency. The food must be traced from initial delivery, storage, refrigerator to ranges, boilers to kettles and onto dishes, terminating with served food on the tables or at the cafeteria counters. Flow charts will not be confined to foodstuffs alone, but to all accessories

which must accompany its handling. Storage space for linens, china and miscellaneous items if of primary importance. All too often, storage space is not considered as an integral part of the kitchen planning. In as large an element as a student center's kitchens, the problem of refrigeration is very important.

When more than one level is employed in the dining elements, the use of a system of dumbwaiters and service elevators will be needed.

#### Athletic and Light Recreational Facilities:

The student center is primarily established to house all extra-curricular activities. The elements of light recreation as well as normal athletics must be considered as a part of these extra-curricula activities. The elements of light recreation must be located in a convenient and accessible part of the center. These light recreational facilities need not be closely correlated to the major athletic facilities.

The extent to which athletic facilities should be expanded is subject to the needs and judgment of each individual institution. In the Hart House, nearly all the elements of a complete field house are included therein including several large gymnasia and several indoor swimming pools with appropriate facilities for each.

In the light recreational group, it is essential that an adequate provisions be made for bowling enthusiasts, <sup>and</sup> areas or rooms for billiards. In these areas, provisions should be made for a small spectator gallery, for those who enjoy observing as well as playing the games. These galleries could be used also during scheduled tournaments and exhibitions. Space should be allotted for the playing of games such as backgammon, checkers, chess, bridge and other similar games. A large concourse provided with alcoves or cubicles for the playing of these games would be excellent. These cubicles and alcoves could serve as well for between class study or before-examination refreshing since the area as a whole would be relatively quiet.

Normally, it does not seem economically sound to have vast areas devoted to the playing of indoor tennis, swimming, handball, and such other similar sports which require a large area when these elements would be a duplication of facilities contained in another part of the campus, such as in the field house or athletic center. Where the economy of the project is not considered, then all athletic facilities should be provided in the student center regardless of duplication in other parts of the campus.

Ample toilet facilities must be provided adjacent to the above mentioned light recreational facilities. The location of these toilet facilities will not radically affect the overall design of the group.

#### Miscellaneous Rooms:

Throughout the student center adequate space must be allotted for general purpose and miscellaneous uses. Many various organizations and societies must be accommodated. For example, all student publications such as the college daily paper (if any exists), the weekly and quarterly publications and the college annual. These facilities for student publications would consist primarily of offices or suites of offices with adjoining special utility areas to be used for dark rooms, layout and processing rooms.

Also, on nearly all campuses, there are many honorary and professional fraternities <sup>which</sup> ~~who~~ will require permanent headquarters in the student center as well as other societies and clubs which will require periodic assembly spaces and areas. The space allotment for these areas will depend upon the number of organizations and activeness of each organization.

All college campuses have a student government of some form. Space must be provided for its specific functioning. Such space would consist of several adjoining offices and record and file areas. Also a larger room must be provided for the use of the councils, courts and general assembly. Space should be provided for the use of the student honor courts. Within this area, space resembling a typical courtroom with jury and judges' chambers, jury and judges' boxes and counsel rooms with small gallery for spectators must be provided.

Playing a large part in the student life is the Young Men's Christian Association and Young Women's Christian Association, particularly in non-sectarian colleges. Adequate and appropriate space must be allocated for these organizations' use. These facilities would consist of offices, consultation rooms and a small chapel or general area for assembly of small groups. All too often the using agencies are not consulted as to their specific needs and requirements. Each organization requiring any space larger than a single room or simple area must be consulted and their specifications can then be modified and the necessary compromises made with respect to the economic situation and the validity of their individual claims.

Within the student center, certain space allotments must be made for the student counselors and their administrative staffs. Adequate record, file, work and storage areas must be provided for each of these counselors.

Special consideration should be given to a music and reading room. Since music plays such an important part in the student's social life, space must be allocated for such expression. A special area with particular emphasis being placed on the acoustical treatment and arrangement should be provided in the student center. This area may be designated as the "musical library" (See paragraph entitled "Library"). This area would contain listening booths so that more than one student or groups of students can be accommodated. Also, this area should be arranged so <sup>that</sup> it could be easily converted into a medium or small sized assembly chamber for the use <sup>of</sup> small concerts in recorded form. Musical records and albums in this library would vary from popular to semi-classical and classical selections. All of these records would be catalogued so <sup>that</sup> each student might easily find the desired selection and replace <sup>it</sup> ~~them~~ without requiring too much close supervision.

The reading room could very well be an annex to the library area which has already been discussed. This reading room would give additional space for the library users as well. The reading room should also contain a selection of film strips and appropriate facilities for the showing of these film strips either to the individual student or to groups of students.

The location of these elements within the student center is not of great importance. When such facilities are made known to the student and faculty member, each will avail <sup>himself</sup> ~~themselves~~ of the opportunities if it is <sup>his</sup> ~~their~~ choice of recreational expression and outlet.

#### Snack Bars:

In addition to the normal dining facilities, a snack bar or small cafeteria for coffee, doughnuts, light breakfasts, etc., should be provided. If these facilities are not provided in the student center, the student will find them off the campus. Anyone who has ever attended college, regardless of size, will recall the sandwich shop or the local hostelry as the place of fraternal gathering. Such an important phase in the formation of the student's social character should not be slighted or overlooked. The tap rooms at

the university of Minnesota in the student union building has proven to be a highly frequented center of free discussion and warm fellowship -- and out of such free discussion and fellowship, real knowledge and social grace ~~is~~<sup>are</sup> gleaned. Designers and educators must provide the proper atmosphere for such gatherings.

#### Book Store:

Nearly all collegiate campuses operate a central agency for the dispensing of books, materials and equipment. Also the daily necessities of the students must be supplied such as tooth paste, soap, razor blades, and like articles. The college administration usually administers such personal services in the form of a central book store area. In this element, the feeling of a commercial establishment will be difficult <sup>to</sup> minimize since its functions are strictly commercial in nature. This element must be provided with ample space for storage of miscellaneous equipment and supplies; sufficient and appropriate display areas must be provided also. The purchasing student and faculty member must have ample room in which to circulate.

#### Post Office Area:

The post office area is a very important

and highly frequented area. The visits to this area ~~is~~ <sup>are</sup> a daily rituals to both students and faculty alike. This area must be designed for the maximum of anticipated traffic. The post office elements would include arrangement of postal boxes, service windows, mail reception and distribution areas and storage and office spaces. Entrances and exits must be thoroughly studied with regards to the flow of students from other elements in the student center as well as flow of students from adjacent academic and living groups.

#### Barber and Beauty Shops:

The important elements of the barber and beauty shops must not be overlooked in the design of the student center. There has been, however, quite a great deal of discussion as to whether ~~these~~ <sup>this</sup> type of elements should be included in a student center. Some authorities seem to feel that the college should not enter into competition with neighboring commerical establishments. However, the college administration should keep in mind that if the student can be more conveniently served in the center, then there should be no question as to whether these elements should be included. Also, the college administration must keep in mind that as many student services as are necessary to satisfy the needs of the

student and faculty must be provided in this center. The students must be made to feel they can turn to this student center for all of their needs whether they be social, physical or general.

Alumni and Bachelor Faculty Facilities:

It is logical and appropriate that the alumni facilities be established in the student center. These facilities would consist of attractive lounges, offices for administration and maintenance of records and files, offices for alumni organizations and staff members, conference and meeting room and general toilet facilities. There should be provided sleeping areas for returning alumni, distinguished visitors and their families. These sleeping areas should ~~should~~ be a self-contained group which is slightly separated from the administrative wing facilities. Guest rooms should have separate baths or semi-private baths; they should be light and airy with consideration given to orientation with respect to the sun and prevailing breezes. Some of these rooms should be designed to accommodate two to four persons (dormitory type). These large rooms could well be used for visiting athletic teams, delegations and similar guest groups.

On the upper levels of the alumni wing, provisions should be made for bachelor faculty members. These rooms would vary in size and accommodation so as to be

in keeping with the various ratings of the faculty members. These bachelor facilities would also include communal and semi-private lounges with appropriate general toilet facilities. Access to these facilities should be direct.

SECTION SIX

Thesis Stipulations and limitations-

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## VI. Thesis Stipulations and Limitations

### General:

In order to arrive at an intelligent design for a Student Center for any college campus, the actual needs and specific requirements necessary to fulfill the functions of the center must be ascertained, and these needs and requirements <sup>should</sup> then <sup>be</sup> integrated into an efficient and pleasing structure. The design should reflect the general attitudes and character of the college campus as a whole. Since the specific needs and requirements of a Student Center for the new Wake Forest College have been chosen as the basis of illustration of the latter part of the thesis objective, the following information is given for the purpose of establishing the background and general motivation for the proposed Student Center.

### Historical Background:

"The history of the founding of Wake Forest College is inseparable from the history of the formation of the Baptist State Convention. One of the two main purposes which led to the organization of the convention in 1830 was to establish an educational institution that would give training under Christian influences ■■■

and provide educated ministers.

"Immediately after the formation of the Baptist State Convention, Dr. Samuel Wait, serving as agent for the Convention, began an intensive four-year educational program among the Baptists of the State. Two years later, in 1832, the Convention purchased from Dr. Calvin Jones a 600 - acre farm sixteen miles north of Raleigh, North Carolina, to be used as a site for the proposed school."

Chartering Wake Forest Institute:

"Under the authorization of a charter granted by the State Legislature in December, 1833, the school was opened as Wake Forest Institute on February 1834, with Dr. Samuel Wait as principal. Although the primary purpose was to give collegiate instruction in the arts and sciences, for five years the Wake Forest Institute operated as a manual labor school, attracting liberal patronage from the large planters of the State, who wished their sons to receive practical training in agriculture, along with education in liberal arts. In 1836, the enrollment had increased from the original 16 to 141."

The College:

"The manual labor feature was abandoned at the close of the year 1838, and the institution was rechartered, in December 1838, as Wake Forest College. With teachers who were graduates of Columbian College, Brown University, and Dartmouth College, and with a liberal arts curriculum that was standard for that time, Wake Forest College conferred the degree of Bachelor of Arts upon four young men in June of 1839.

"From 1839 to 1894 the College operated exclusively as a college of liberal arts; the School of Law was established in June of 1894; and the School of Medicine in May of 1902.

"----- The college has made a distinguished contribution to culture, Christian influence, and leadership in accordance with the original purpose of the founders of the institution. ----- The present property of the College, including the endowments, and the buildings and grounds, amounts to about \$5,250,000."

Enlargement Program:

"A program to provide for at least 2,000 students was launched by the trustees in 1943. C. J. Jackson, an alumnus, was selected as director and R. P. Holding, alumnus and trustee, as general chairman.

"Progress toward a seven million dollar goal for buildings and endowments at Wake Forest College was being made when the Z. Smith Reynolds Foundation offered in 1946 its annual income, up to \$350,000, and Mr. and Mrs. Charles H. Babcock a beautiful campus site of several hundred acres at Reynolda on condition that the College move to Winston-Salem, North Carolina. These offers have been accepted with sincere appreciation. Members of the Gray families have made sizeable gifts recently to the Bowman Gray School of Medicine of Wake Forest College, already located at Winston-Salem.

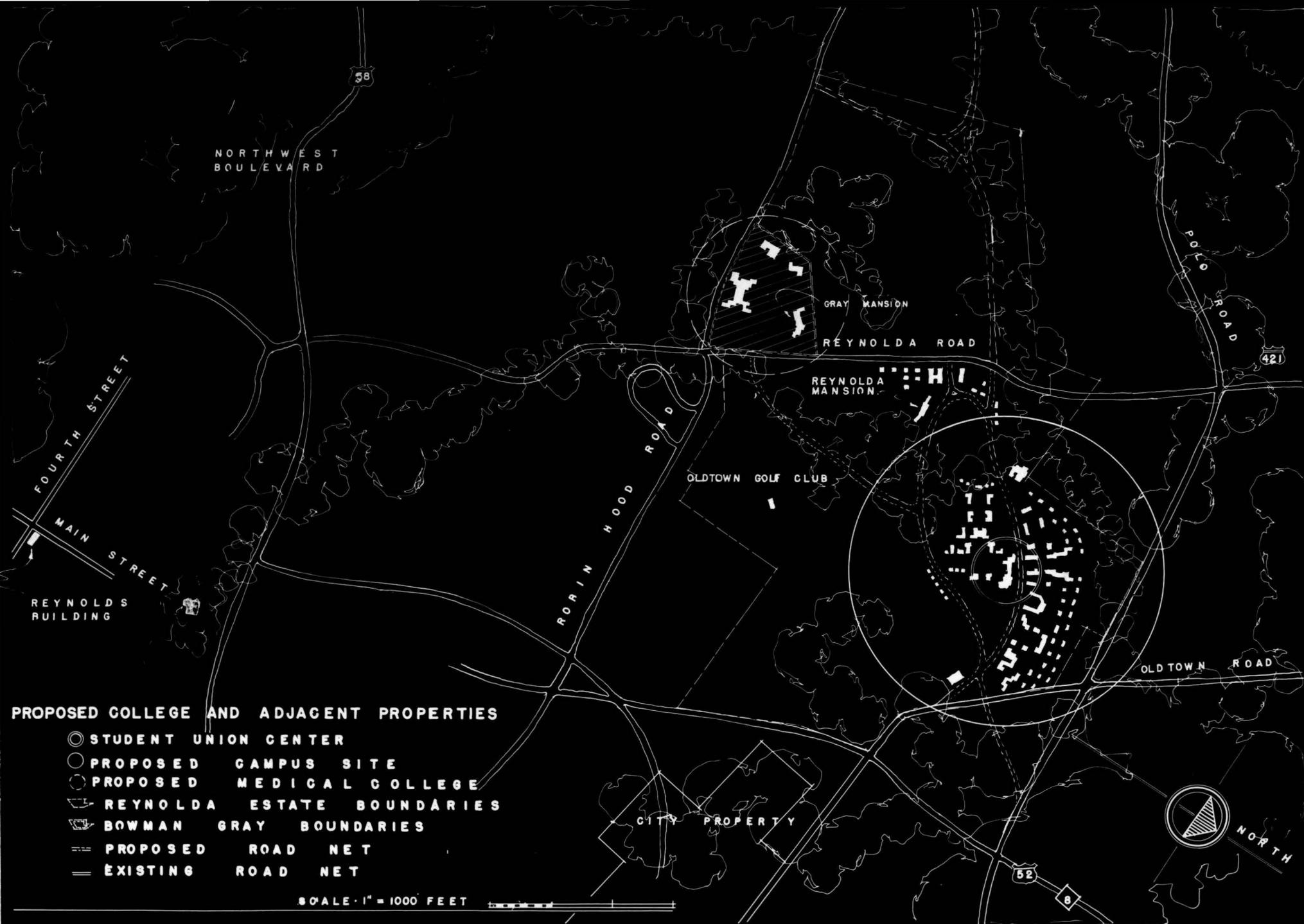
"From six to ten million dollars will be needed for constructing on a new site a college adequate for approximately 3000 students. Both the trustees and the Convention are seeking to secure within the next five years from individuals, corporations, foundations, and through the churches, ample funds for this purpose."

It can be seen from the past history of the College that the academic courses offered have changed over the hundred year period. The College had its beginning primarily as a Baptist sponsored agricultural school and then changing<sup>ed</sup> to the liberal arts curricula of Religion, Law and Medicine, of which the School of Religion was the prominent curriculum. Then, in 1939, with the large Bowman Gray medical endowment, which moved

the Medical College to Winston-Salem, the School of Medicine became the prominent curriculum of the College. Another major change was undergone at Wake Forest when the institution became co-educational in the summer session of 1942.

In 1946, with acceptance of the Z. Smith Reynolds Foundation, the College ~~has~~ made expansive plans to move the entire college plant to Winston-Salem to occupy the northern tip of the present Reynolda Estate. Mr. Jens Frederick Larsen, of New York City, was selected to submit a master plan study of the new college site. (See Master Campus Plan). With this <sup>t</sup>tentative master campus plan presented and accepted, Mr. Larsen was selected as the college architect with the firm of Northup and O'Brien (Winston-Salem, N. C.) and Mr. Dietrick (Raleigh, N. C.) as associate architects.

To date, no other formative plans have been made except the <sup>t</sup>tentative master campus plan. Mr. Larsen has stated that no definite style or period of architecture would prevail on the campus but that each building or groups of buildings would express architecturally the subjects to be taught therein and would also express the history and character of the state of North Carolina.



NORTH WEST  
BOULEVARD

38

FOURTH STREET

MAIN STREET

REYNOLDS  
BUILDING

GRAY MANSION

REYNOLDA ROAD

REYNOLDA  
MANSION

OLDTOWN GOLF CLUB

ROBIN HOOD ROAD

POLO ROAD

421

OLDTOWN ROAD

CITY PROPERTY

52

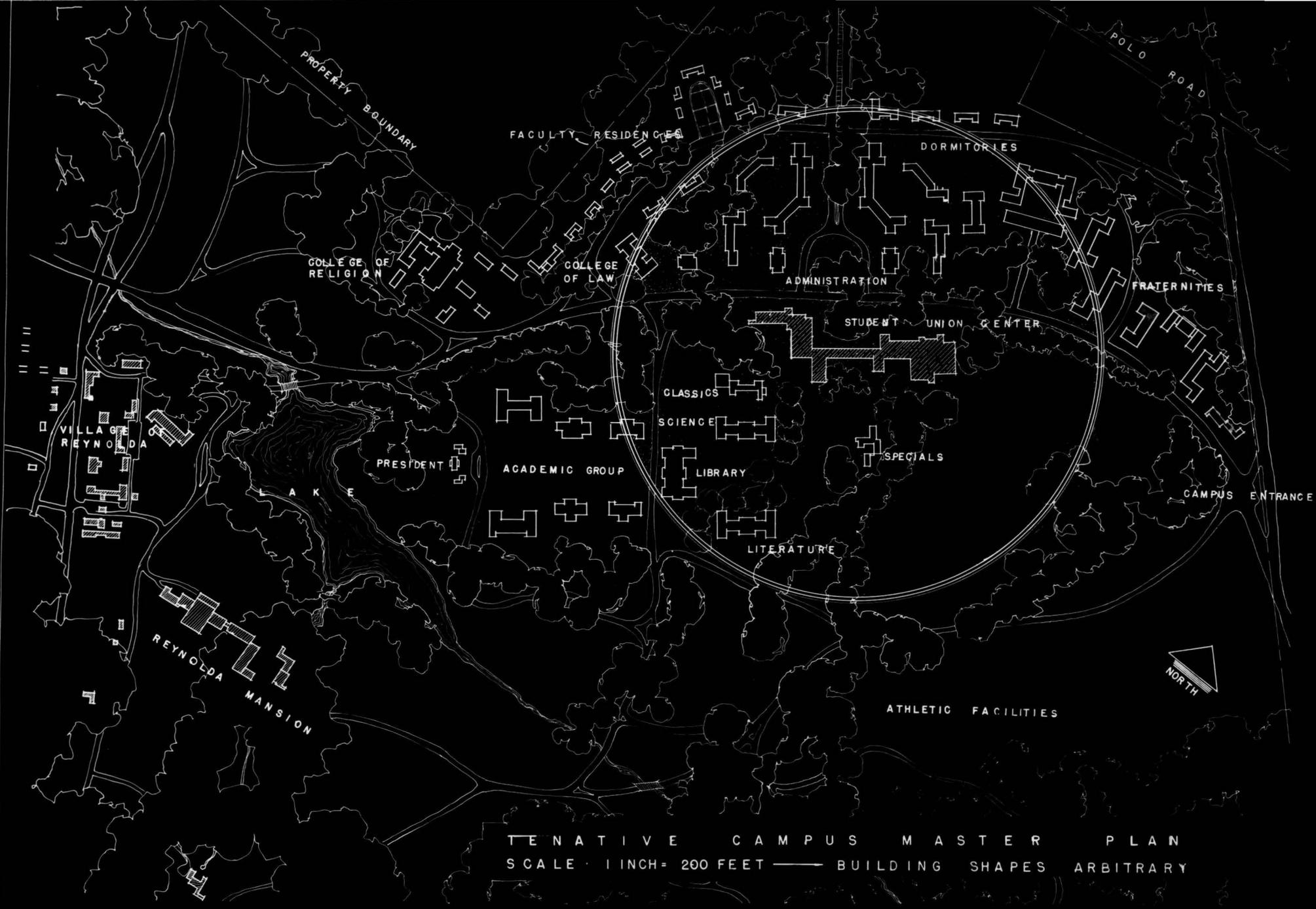
8

NORTH

**PROPOSED COLLEGE AND ADJACENT PROPERTIES**

- STUDENT UNION CENTER
- PROPOSED CAMPUS SITE
- PROPOSED MEDICAL COLLEGE
- ▬ REYNOLDA ESTATE BOUNDARIES
- ▬ BOWMAN GRAY BOUNDARIES
- PROPOSED ROAD NET
- EXISTING ROAD NET

SCALE 1" = 1000 FEET



TENATIVE CAMPUS MASTER PLAN  
 SCALE 1 INCH = 200 FEET — BUILDING SHAPES ARBITRARY

The elements to be included in the Student Center have been left to the descretion of the designer, subject to the approval of the board of trustees and alumni of the college. No specific limitations or stipulations were made. It will be the responsibility of the designer to establish the specific needs and individual requirements of the Student Center.

The Principal Plans and Elevations  
Of the Student Center-

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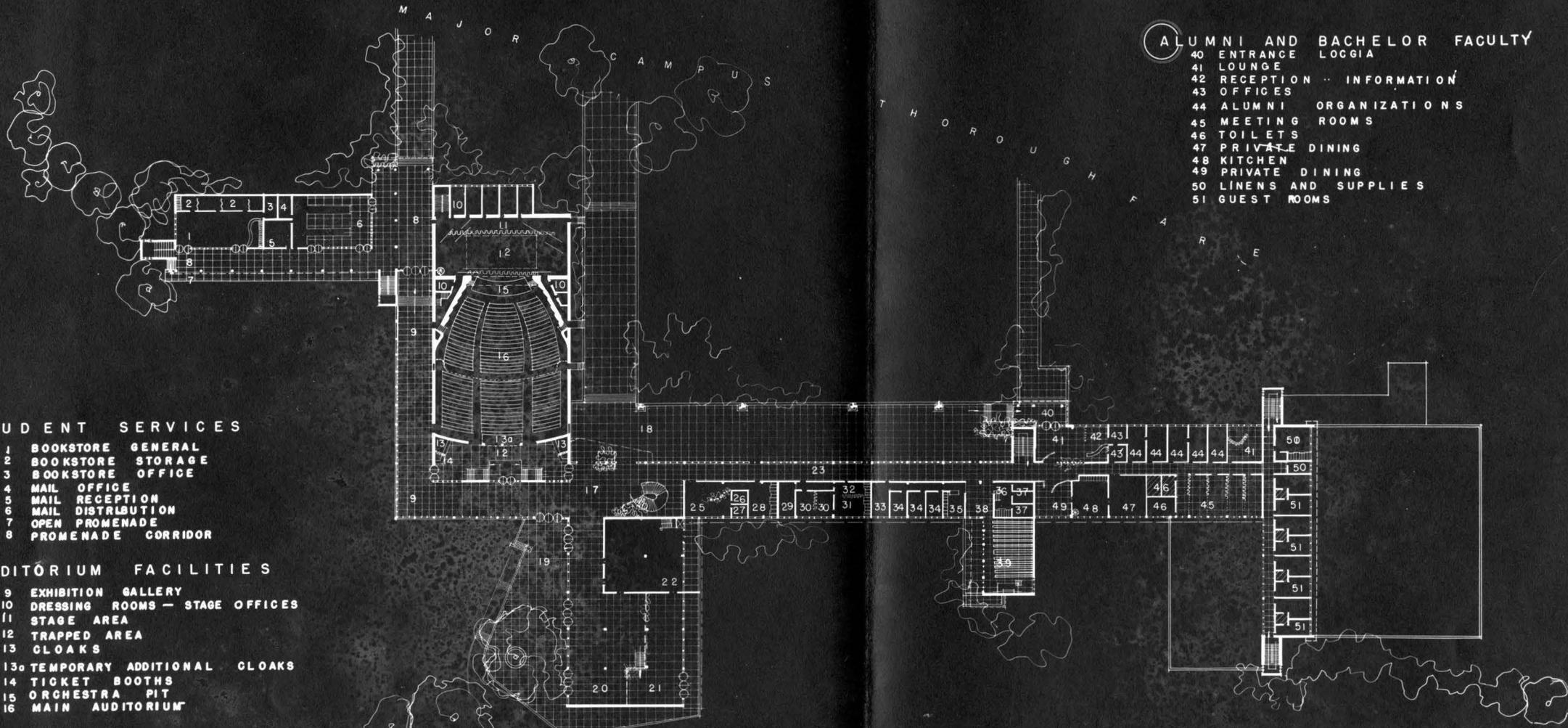
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• BIRDSEYE PERSPECTIVE •  
• COMPLETE STUDENT UNION CENTER •

Main First Floor Plan Level



**STUDENT SERVICES**

- 1 BOOKSTORE GENERAL
- 2 BOOKSTORE STORAGE
- 3 BOOKSTORE OFFICE
- 4 MAIL OFFICE
- 5 MAIL RECEPTION
- 6 MAIL DISTRIBUTION
- 7 OPEN PROMENADE
- 8 PROMENADE CORRIDOR

**AUDITORIUM FACILITIES**

- 9 EXHIBITION GALLERY
- 10 DRESSING ROOMS - STAGE OFFICES
- 11 STAGE AREA
- 12 TRAPPED AREA
- 13 CLOAKS
- 13a TEMPORARY ADDITIONAL CLOAKS
- 14 TICKET BOOTHS
- 15 ORCHESTRA PIT
- 16 MAIN AUDITORIUM

**STUDENT ACTIVITIES**

- 17 MAIN LOBBY
- 18 MEMORIAL PROMENADE
- 19 OUTDOOR DINING
- 20 MAIN DINING AREA
- 21 MEZZANINE DINING
- 22 UPPER KITCHEN ELEMENT
- 23 GLASSED CORRIDOR
- 24 OUTDOOR KITCHEN SERVICE BELOW
- 25 S.U.C. BUSINESS OFFICES
- 26 S.U.C. MANAGERS OFFICE
- 27 STUDENT MANAGERS OFFICES
- 28 CONFERENCE - STORAGE
- 29 RECORD - FILE ROOM
- 30 FACULTY ADVISERS

- 31 FACULTY ADVISERS CONF.
- 32 RECEPTION - STORAGE
- 33 YMCA CONFERENCE
- 34 YMCA DIRECTORS
- 35 YMCA RECEPTION
- 36 YWCA RECEPTION
- 37 YWCA DIRECTORS
- 38 COMMUNAL ELEMENT -
- 39 CHAPEL

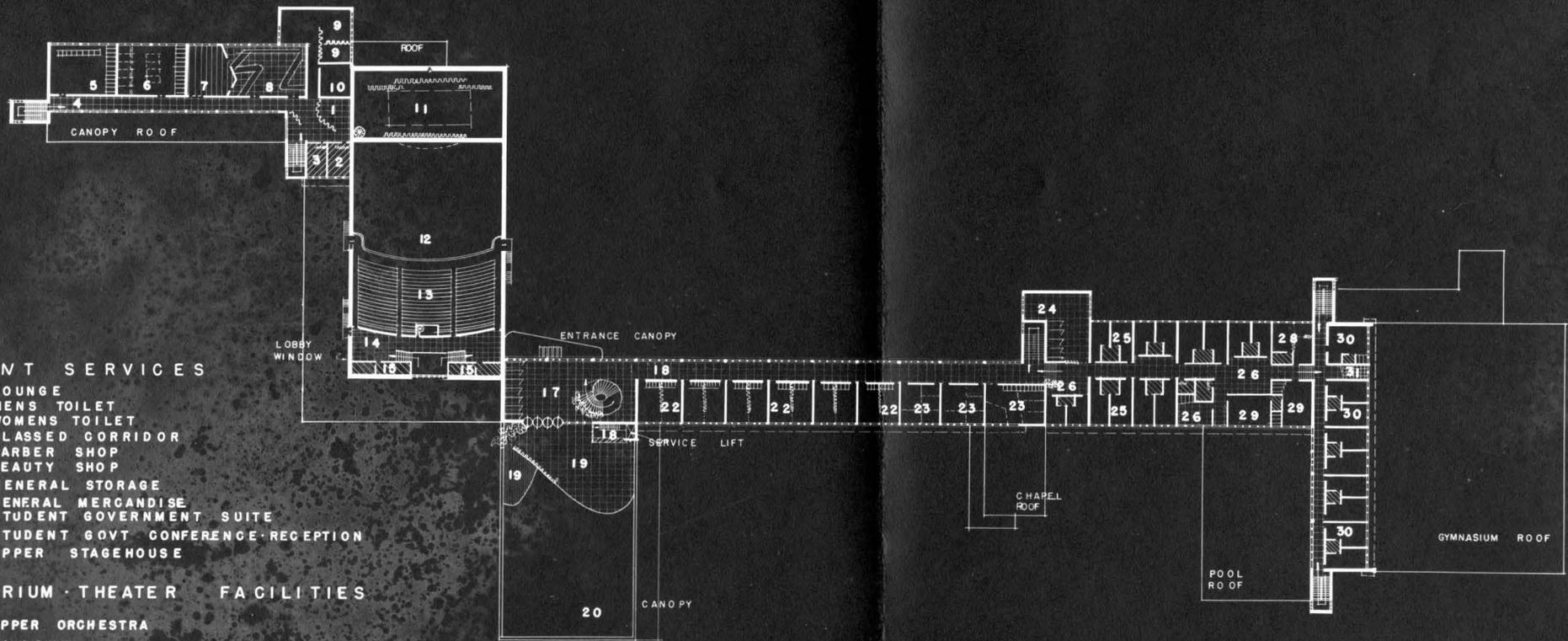
**ALUMNI AND BACHELOR FACULTY**

- 40 ENTRANCE LOGGIA
- 41 LOUNGE
- 42 RECEPTION - INFORMATION
- 43 OFFICES
- 44 ALUMNI ORGANIZATIONS
- 45 MEETING ROOMS
- 46 TOILETS
- 47 PRIVATE DINING
- 48 KITCHEN
- 49 PRIVATE DINING
- 50 LINENS AND SUPPLIES
- 51 GUEST ROOMS

MAIN FIRST FLOOR LEVEL

SCALE 1:32 INCH = 1 FOOT

Second Floor Plan Level



**STUDENT SERVICES**

- 1 LOUNGE
- 2 MENS TOILET
- 3 WOMENS TOILET
- 4 GLASSED CORRIDOR
- 5 BARBER SHOP
- 6 BEAUTY SHOP
- 7 GENERAL STORAGE
- 8 GENERAL MERCANDISE
- 9 STUDENT GOVERNMENT SUITE
- 10 STUDENT GOVT CONFERENCE RECEPTION
- 11 UPPER STAGEHOUSE

**AUDITORIUM THEATER FACILITIES**

- 12 UPPER ORCHESTRA
- 13 BALCONY
- 14 UPPER LOBBY
- 15 TOILETS

**STUDENT ACTIVITIES**

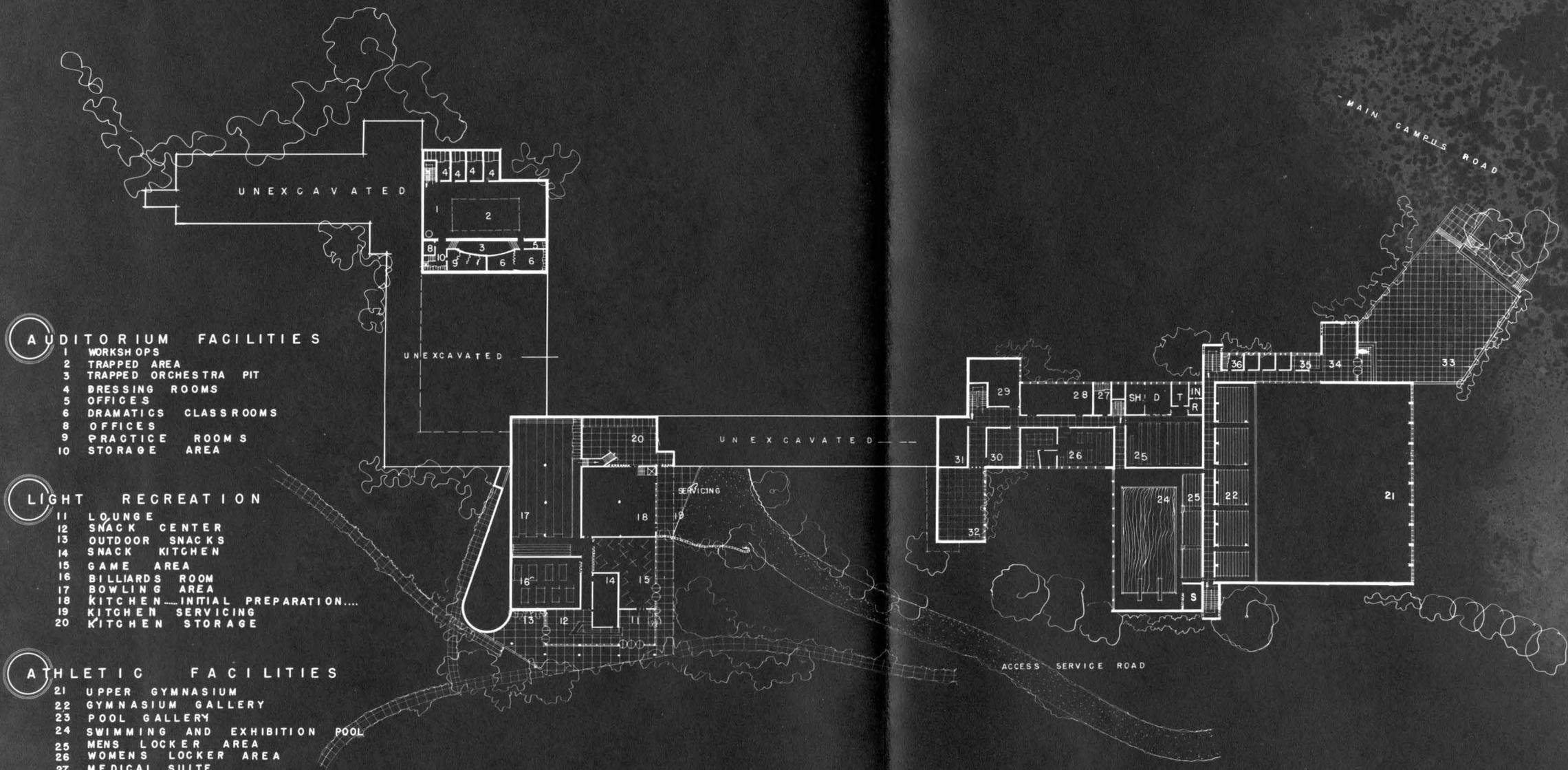
- 16 STUDY CUBICLES
- 17 LOUNGE
- 18 KITCHEN BOOTH
- 19 OPEN TERRACE
- 20 DINING ROOF
- 21 GLASSED CORRIDOR
- 22 HONORARY FRATERNITIES - CLUB ROOMS
- 23 STUDENT PUBLICATIONS
- 24 RECORD - RADIO - LIGHT LIBRARY

**ALUMNI AND BACHELORS**

- 25 BACHELOR FACULTY QUARTERS
- 26 LOUNGES
- 27 TOILET FACILITIES - GENERAL
- 28 FACULTY MANAGERS APARTMENT
- 29 FACULTY DORMITORIES
- 30 GUEST ROOMS
- 31 LINENS AND SUPPLIES

SECOND FLOOR LEVEL  
SCALE 1:32 INCH = 1 FOOT

Intermediate Floor Plan Level



**AUDITORIUM FACILITIES**

- 1 WORKSHOPS
- 2 TRAPPED AREA
- 3 TRAPPED ORCHESTRA PIT
- 4 DRESSING ROOMS
- 5 OFFICES
- 6 DRAMATICS CLASSROOMS
- 8 OFFICES
- 9 PRACTICE ROOMS
- 10 STORAGE AREA

**LIGHT RECREATION**

- 11 LOUNGE
- 12 SNACK CENTER
- 13 OUTDOOR SNACKS
- 14 SNACK KITCHEN
- 15 GAME AREA
- 16 BILLIARDS ROOM
- 17 BOWLING AREA
- 18 KITCHEN.....INITIAL PREPARATION...
- 19 KITCHEN SERVICING
- 20 KITCHEN STORAGE

**ATHLETIC FACILITIES**

- 21 UPPER GYMNASIUM
- 22 GYMNASIUM GALLERY
- 23 POOL GALLERY
- 24 SWIMMING AND EXHIBITION POOL
- 25 MENS LOCKER AREA
- 26 WOMENS LOCKER AREA
- 27 MEDICAL SUITE
- 28 GENERAL PRACTICE AREA
- 29 WRESTLING
- 30 STORAGE AND EQUIPMENT
- 31 FENCING GALLERY
- 32 PRACTICE GYMNASIUM
- 33 ATHLETIC MEMORIAL TERRACE
- 34 TROPHY AND MAIN ENTRANCE LOGGIA
- 35 ADMINISTRATIVE SUITES
- 36 ATHLETIC OFFICES

I N T E R M E D I A T E F L O O R L E V E L  
 S C A L E 1/32 I N C H = 1 F O O T

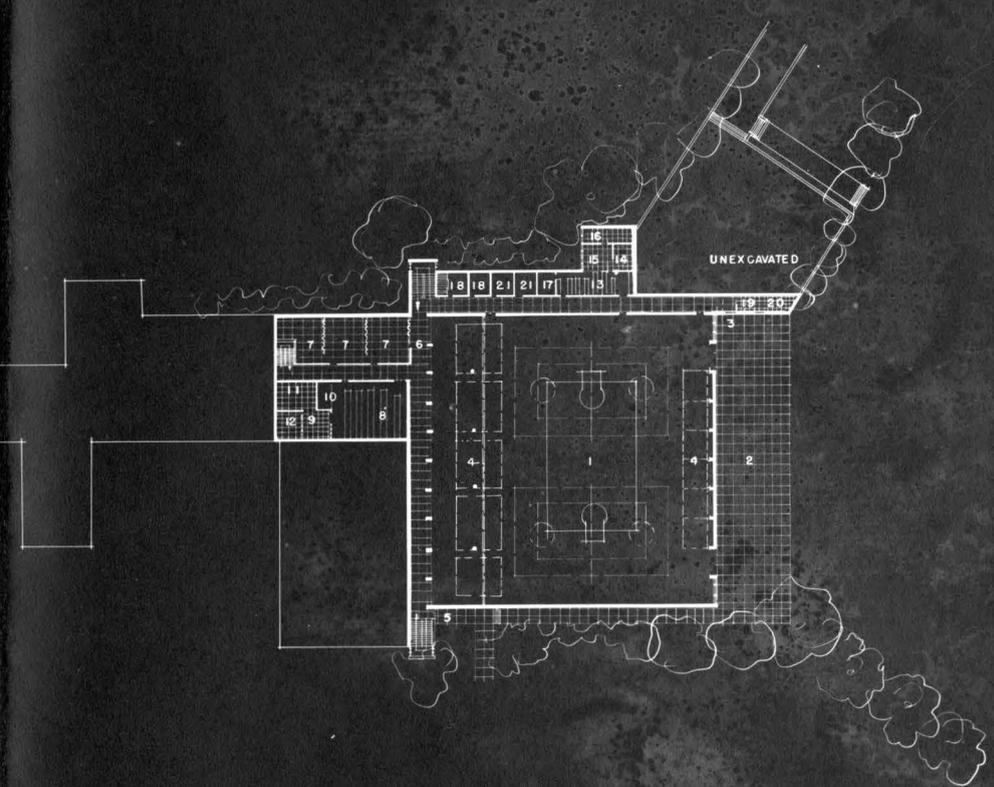
Lower Floor Plan Level

ATHLETIC FACILITIES

- 1 MAIN DOUBLE GYMNASIUM
- 2 LOWER TERRACE APPROACH
- 3 LOWER ENTRANCE
- 4 COLLAPSING BLEACHERS
- 5 REAR ENTRANCE
- 6 ACCESS CORRIDORS
- 7 ATHLETIC EQUIPMENT
- VARSIITY TEAM ROOMS
- 8 LOCKERS
- 9 DRYING
- 10 RUBBING
- 11 SHOWERS
- 12 TOILETS
- VISITORS TEAM ROOMS
- 13 LOCKERS
- 14 TOILETS
- 15 DRYING
- 16 SHOWERS
- 17 RUBBING
- 18 MEDICAL SUITE
- 19 TICKET CONCESSION
- 20 STORAGE
- 21 ATHLETIC OFFICES

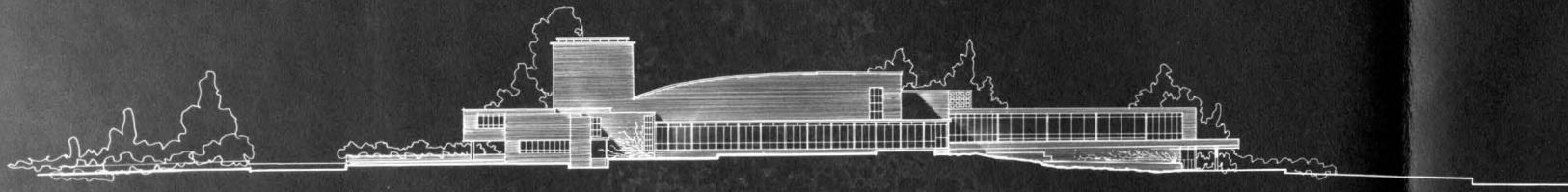


LOWER FLOOR LEVEL  
SCALE 1/32 INCH = 1 FOOT

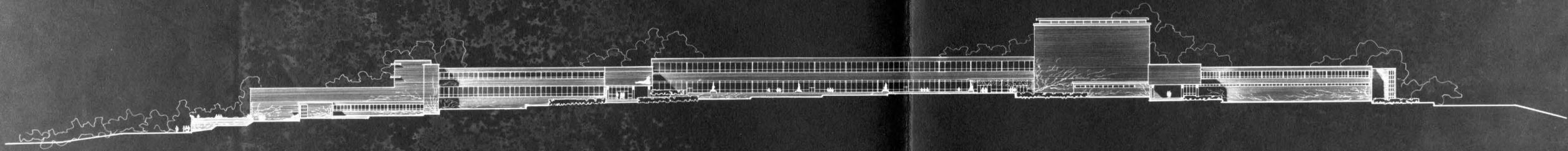


Northwest Elevation

Southwest Elevation



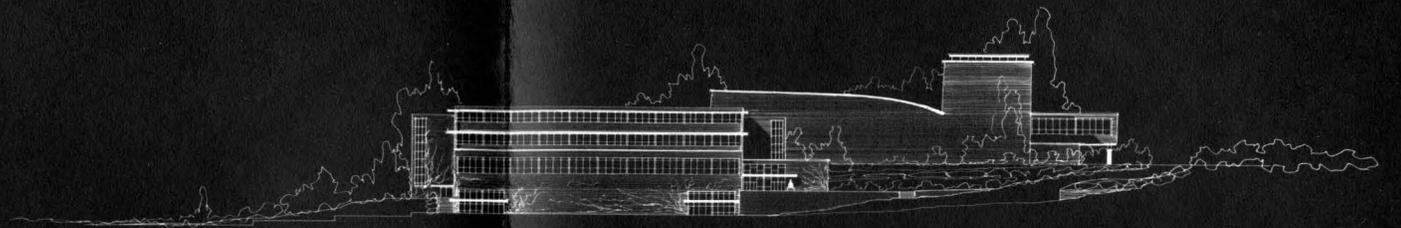
S O U T H W E S T E L E V A T I O N  
S C A L E — 1/32 INCH = 1 FOOT



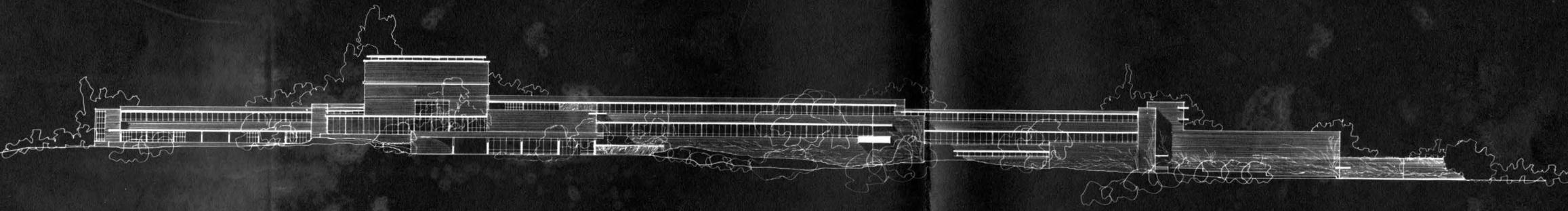
N O R T H W E S T E L E V A T I O N  
S C A L E 1/32 INCH = 1 FOOT

Northeast Elevation

Southeast Elevation



N O R T H E A S T E L E V A T I O N  
S C A L E · 1 / 3 2 I N C H = 1 F O O T



S O U T H E A S T E L E V A T I O N  
S C A L E · 1 / 3 2 I N C H = 1 F O O T

SECTION SEVEN

Design Analysis of the Student Center

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## VII. Design Analysis of the Student Center

### General:

From the Architect's (Larsen) plan, it can be seen that the three major elements (student activities, gymnasium and auditorium) have been relegated to three separate buildings. (See master campus plan). The designer (author of thesis) had three alternatives from which to choose in the formation of the initial and final design. They were:

- a. to keep the three major elements as three buildings,
- b. to correlate the three major elements into a connected group of buildings, or
- c. to consolidate the three major elements into a single unified structure.

In keeping with the original premise that all extra-curricular activities would be satisfied in the Student Center, it was felt that, psychologically speaking, the major elements should be concentrated in a single unified structure. Although this scheme would make a relatively large building, it was felt that the student would tend to begin thinking, not in terms of several buildings, but of a single center or concentrated area of activity where all of his social and recreational needs can be satisfied. One might say, the student will be unconsciously induced to form the

the habit of frequenting the center for one or many reasons. The STUDENT CENTER, in effect, becomes the clearing house and "campus filter" for the students and the faculty. Through the center's activities, it is felt the college can subtly direct and control the extra-curricular activities of the student body without obvious regulations.

The designer felt that the Student Center should be student-owned, operated and controlled. Each student and faculty member would be required to become members of the STUDENT CENTER and will be required to pay a nominal initiation fee which would entitle him to the use of all facilities and services of the center. The center's administrative staff should be members of the student body (preferably ■ representatives of the senior class) and should be voted to office. These student staff members would transact the business and maintain proper administration of the center with the guidance and aid of trained personnel. The STUDENT CENTER would be self-supporting and the revenue derived from the facilities of the center, over and above the operating expenses and maintenance expenses, would be deposited in a central fund. These surplus funds would be used as the student body directed.



OVERALL PLOT DIAGRAM  
SCALE 1/64" = 1 FOOT

Site selection:

The northern tip of Reynolda Estate is a well wooded area of virgin and second growth oaks and pines formed into varying sized tree groves. The contours of the land vary sufficiently to make the terrain rather informal in character. The general lay of the land is composed of a series of gentle slopes punctuated by slight valleys and ridges which are dominated by small plateaux~~x~~ opposing rounded knolls.

The site selected for the STUDENT CENTER is the highest level of the plot and dominates the entire surrounding terrain. The land slopes gently away from the building on the southwest to southeast sides and drops sharply on the northeast terminating in a relatively flat plateau; on the northwest side of the building, the land is relatively level near the building and drops gently some seventy odd yards away from the building.

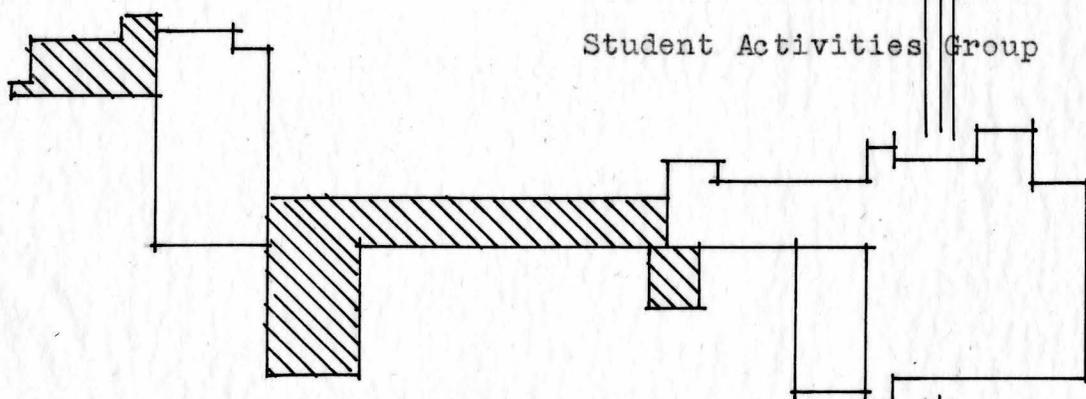
The auditorium facilities and student activities group <sup>are</sup> ~~is~~ located on the highest portion of the knoll with the athletic facilities located to the east on a level some thirty-odd feet below the auditorium and student activities groups. The alumni wing is sandwiched between the student activities facilities and the athletic facilities on a level some

ten to twelve feet below the student activities group. The dining wing extends southeast from the student activities group to include a drop of about 15 to 18 feet where the light recreational facilities are located on the ground level under the main dining area. The center as a whole was designed so as to fit into the existing contours of the site. A minimum of grading and filling would have to be executed in the construction of this STUDENT CENTER. (See overall plot diagram).

The location of each major group of facilities was determined principally by the relation to other important facilities of the campus. The logic and reasoning for the placement of these facilities is discussed under each specific group analysis.

Attention Patron:

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numbering





PERSPECTIVE

OF

MAIN

ENTRANCE

B. Student Activities GroupGeneral:

The student activities group comprises the central portion of the student center. All of the elements are directly accessible from the main entrance lounge (lobby) and glassed corridor which runs the entire length of this group. The paved promenade spans the whole length of the front. This promenade forms a pleasant and spacious entrance plaza to the STUDENT CENTER. Opposing the long glassed corridor on the north side of the promenade are four memorial statuary groups which express the four qualities of education, culture, Christian influence and leadership.

The central lounge is a spacious low-ceilinged room uncluttered by columns and partitions. This central lounge forms the nucleus of the STUDENT CENTER and controls the traffic to the gallery and auditorium, student activities group and the dining areas. The large free-shaped, free-standing stair carries the traffic up to the second level and down to the intermediate level containing the light recreational facilities and snack bar facilities. The central lounge is finished in a harmonious combination of walnut, glass and brick.

The second level lounge reflects the character of the central lounge. This second level lounge opens



· P E R S P E C T I V E      O F      M A I N      E N T R A N C E      L O B B Y ·

onto a large terrace with an unobstructed view to the southwest and to the east.

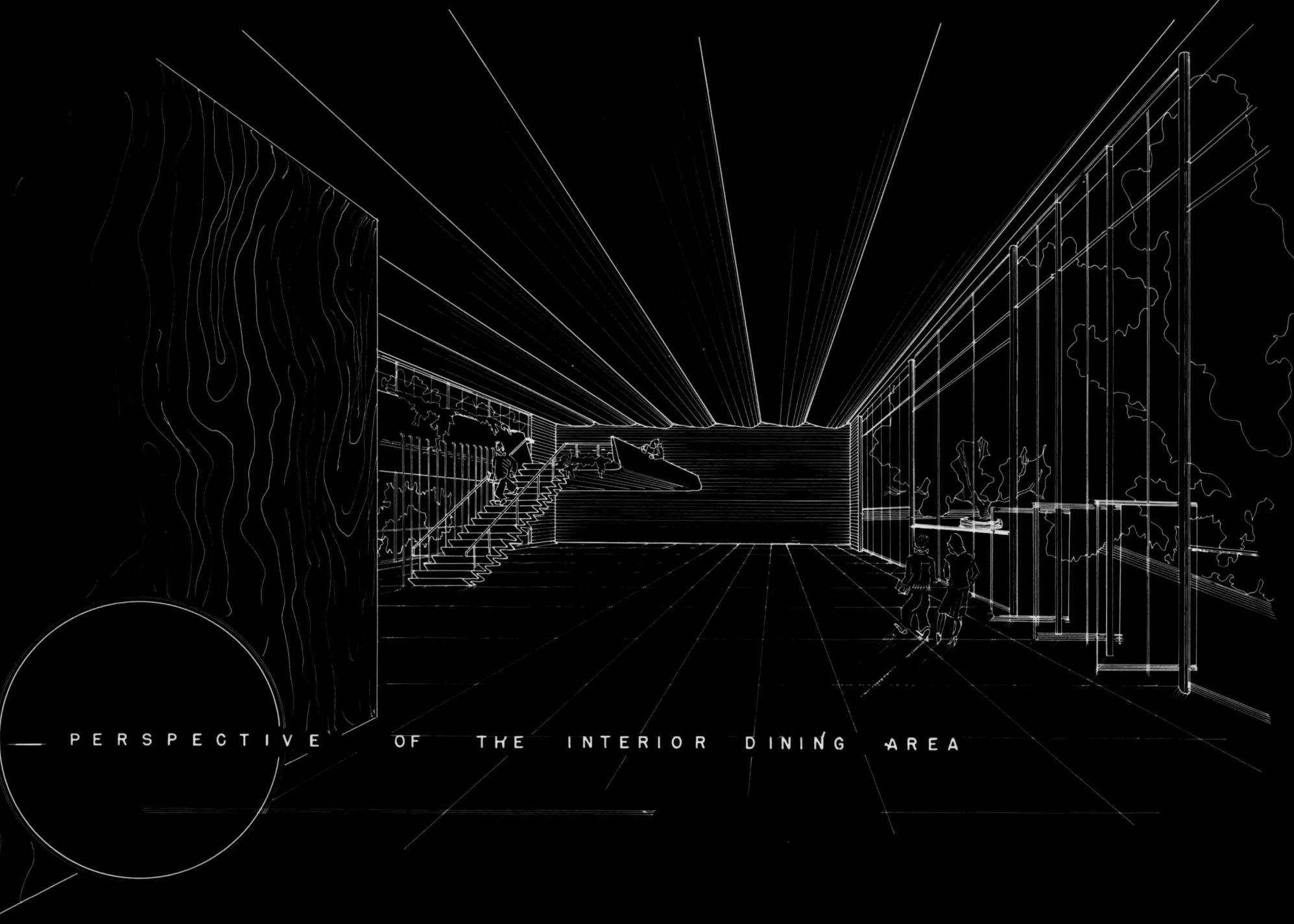
The main level contains the business administrative suites, faculty adviser<sup>ws</sup> suites, YMCA and YWCA facilities including a small chapel with seating capacity of approximately 200 individuals. The second level contains facilities for the student publications such as "The Student", "Old Gold and Black" and the "Howler". The publications suites have movable partitions so<sup>that</sup> the using agencies can allocate such individual space as they deem necessary. Area is also provided for the use of professional and honorary fraternities and societies. These areas are designed so<sup>that</sup> either large areas are available to accommodate fraternities and societies of large numbers, or, through the device of sliding partitions and walls, these large areas can be sub-divided into smaller meeting rooms.

Adequate general toilet facilities are provided adjacent to the lounges on both the main and second levels.



P E R S P E C T I V E

O F   T H E   I N T E R I O R   D I N I N G   A R E A



### Dining Facilities:

All students will be fed in the STUDENT CENTER. Faculty Members will also be required to take the noon meal in the center. Since the enrollment of the school will approach 3000 students, provisions must be made to serve approximately 1500 to 1800 students at one time. This allotment of dining area was considered ample since the students and faculty would be served cafeteria style from the central kitchen area.

The dining elements are located so <sup>that</sup> they are easily accessible to both students and faculty and the occasional visitor from either the academic groups, general college groups or from the living areas.

It was anticipated that these dining areas would occasionally be used by visitors and townspeople for special events and activities.

To provide additional dining space, a large mezzanine was provided. The mezzanine overlooks the main dining floor area on one side and opens to an outside view on the opposing side. The main dining floor has a minimum of columns and is completely glass on the west side for maximum natural light. The opposing wall is partially of glass and opens to a view to the east. The lower glass panels of these walls are pivoted to allow the area to be almost completely open and give

the diners the sensation of outdoor dining while under cover and protection. These large pivoted glass panels open onto a large outdoor terrace which will serve as outdoor dining space in favorable weather. The dining area and terrace command an excellent view to the south and southwest. This view includes the academic groups and the large natural lake and its facilities. The terrain from the terrace slopes down continuously until it reaches the lake shore line.

#### Kitchen Services:

The kitchen area is of the two level type. The final preparation and serving areas are on the main level with the dining areas. The remaining kitchen services such as spaces for initial and intermediate preparation areas, storage, service and supply areas are all located on the level directly below the upper kitchen. The two levels are connected by a system of stairs, dumbwaiters and a service elevator. In addition to food storage areas, adequate space was allowed for equipment and supplies (brooms, linens, silverware, etc.) required in the preparation and serving of food and the maintenance of the kitchen facilities.

Light Recreational Group:

Directly below the major dining facilities and terrace is located the light recreational group. This group is accessible from the main lounge and also has direct access to the academic group and adjacent buildings and building groups to the southwest and to the south. It was felt that this group would become an extremely popular area before, between and after the academic class-room hours.

This group is comprised of areas for bowling, billiards, game and study areas, lounges, toilet facilities,<sup>and</sup> outdoor and indoor snack bar facilities. The snack bar and lounge areas span the entire southeast end of the group. This end of the group claims the principal view to the south, southeast and east.

Record and Light Reading Library:

Many students are rabid enthusiasts of recorded music whether it be classical, semi-classical or popular music. It was considered advisable to devote a space for such an activity in the STUDENT CENTER. Soundproof cubicles are provided for playing of records of the student's choice selected from the library of records. Using these cubicles, many students or groups of students may play their record choice

either privately or collectively without disturbing the general conduct of the area as a whole.

Also contained in the adjoining area is a small library containing only the current and appropriate periodicals and books of the lightest type of reading. This library would in no way attempt to supplant or compete with the central campus library or the departmental libraries. These books would be primarily for "on-premise" reading. Several larger universities have found this type of activity to be extremely popular and satisfying to the students.

General Student Service Area:

Although closely related to the other student services, it was felt that these general student services should be separated slightly from the light recreational and activity groups.

This group or area would be comprised of the post office and general book store area on the main level and barber shops, beauty shops and general merchandise areas on the second level.

It was ascertained that at certain hours of the day, the post office area would have to accommodate an extremely heavy traffic of students. Anticipating this traffic congestion and to provide maximum

freedom of circulation, a large corridor and open promenade was designed to encompass the entire post office area. This open promenade would also serve as one of the principal entrances to the auditorium and theater facilities, and also reinforces the circulation in the glassed gallery element which surrounds the auditorium on the southwest and southeast sides.

#### Student Government Suites:

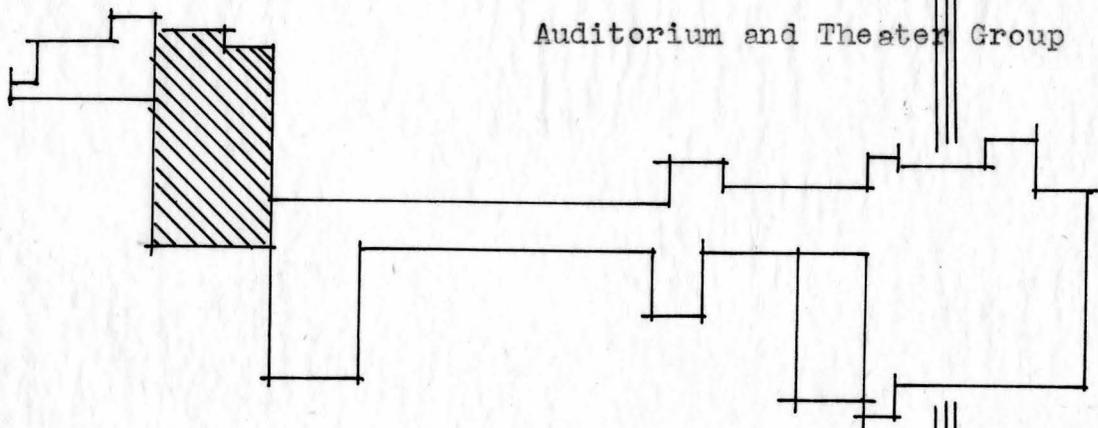
It was felt that the student government suites <sup>should</sup> be removed from the other elements in this group for maximum privacy and seclusion. This element was placed on the second level of the general student service group and can be completely separated from the other elements on this level.

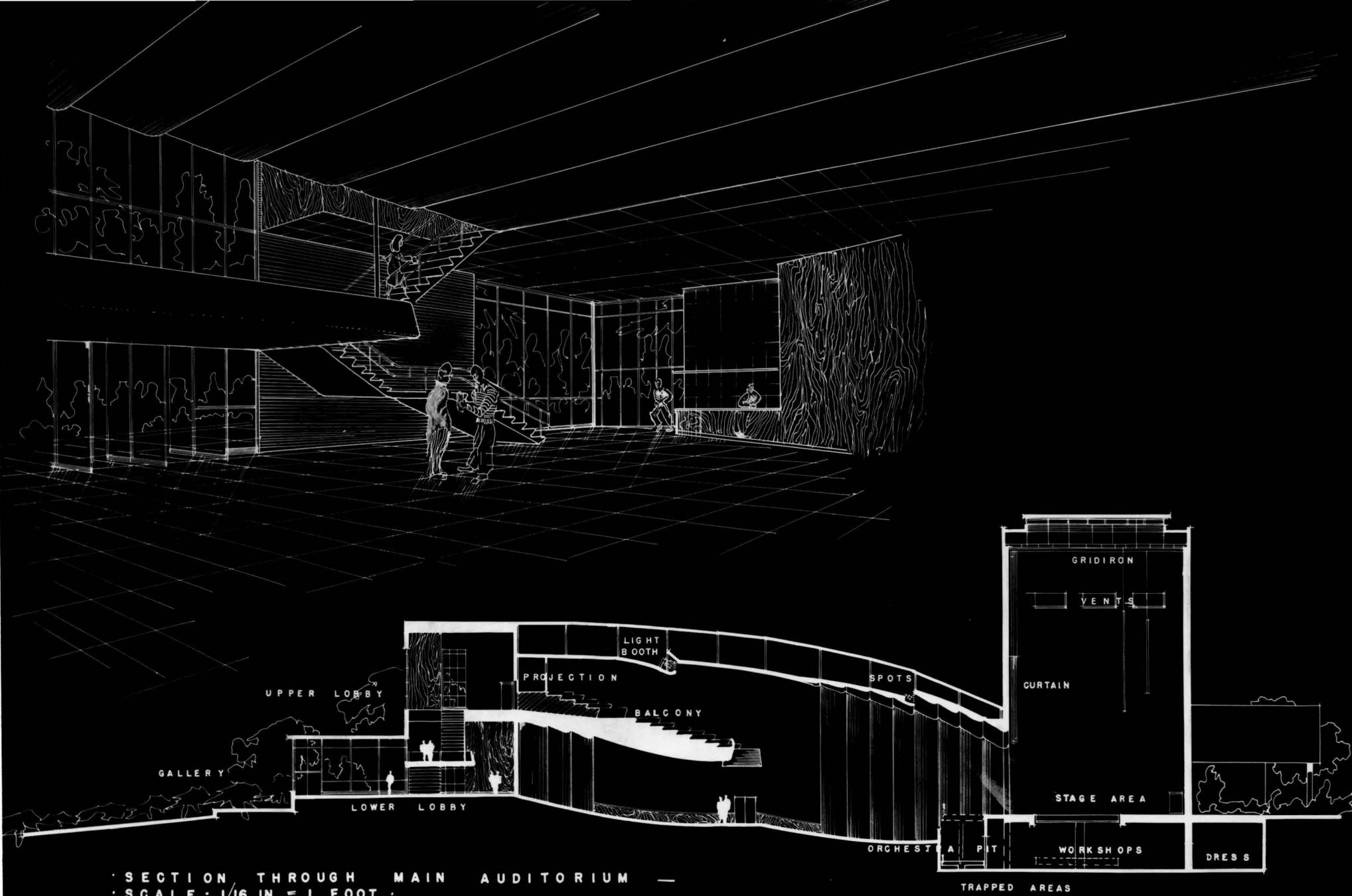
The student government suites are comprised of a large council chamber to accommodate the Legislative Body and Student Council (either jointly or separately), large conference rooms, access corridor, and supplementary waiting lounge. The entrance to this suite can be completely separated from the other elements on this second level by means of a light, pierced plywood partition which can be folded out into position when partial or total isolation of the student government suites is necessary or desirable.

Dancing Facilities:

The college administration does not look favorably on dancing (student dances) at the present time. However, it is believed this existing college policy will be modified to bring the college up-to-date since dancing plays a very important part in the social life of the collegiate student.

Since the area required for dancing would of a necessity have to be large, and since dances are given only periodically throughout the season, it was felt that the area allocated for dining would be extremely pleasant surroundings for social dancing. The adjoining dining terrace would serve as an excellent place for outdoor dances and intermissioners. When large dances are held, or when more than one dance is scheduled for the same time, the main gymnasium floor would serve as an excellent dance floor.





SECTION THROUGH MAIN AUDITORIUM  
 SCALE · 1/16 IN. = 1 FOOT

### C. Auditorium and Theater Group

#### General:

When the complete facilities of the New Wake Forest College have been moved to the City of Winston-Salem, it will undoubtedly become the cultural center of the city and surrounding districts. The college would act as host for the major arts in music, education and drama. All presentations along these field of artistic endeavor would be sponsored by the college in the STUDENT CENTER. Also, since the college at present has mandatory chapel services every other weekday, the designer felt that a centrally located auditorium seating approximately 2800 students would be adequate. Therefore, the auditorium and theater facilities of the center would be complete within themselves.

Since not only students and faculty members of the college would be using the auditorium facilities, the designer felt that the auditorium should be in a prominent location with respect to the STUDENT CENTER as a whole. Therefore, these facilities were placed so <sup>that</sup> they dominated the center and were easily accessible to the public as well as accessible to the students and faculty members.

Approaching the STUDENT CENTER from the main campus entrance (See plot diagram) the observer notices

the tall stagehouse which dominates the STUDENT CENTER. The auditorium itself is projected forward of the main elements of the building, therefore, bringing it closer and more accessible to the main campus thoroughfare. This also tends to emphasize this element's prominence.

Entrances and exits to the main auditorium are generously placed at strategic part of these facilities. On close analysis, the observer can see that no problem of circulation should be incurred. The large glassed gallery which surrounds <sup>the</sup> auditorium's entire southwest and southeast walls provides an excellent circulatory passage for those attending functions held in these auditorium and theater facilities. It was also felt by the designer that ample space should be provided adjoining the auditorium for the use of the patrons during, before and after high social functions. This additional area needed was well taken care of when the glassed gallery and auditorium lobbies (upper and Lower) were used in conjunction with the adjacent main entrance lounge and the two spacious promenade areas.

The general shape of the auditorium is parabolic in plan and section for the first half of the main auditorium area nearest the stage. The remaining half of the auditorium returns to a simple rectangular

shape. The rear auditorium wall curves slightly, reflecting the curve of the seats on the interior. The ceiling heights are sufficient to allow for a large balcony section. The lobby is divided into two distinct portions -- the upper and lower lobbies. An overhead supported stair connects these two divided lobbies. This stair contains a landing mezzanine which is open and overlooks the lower lobby area. Ample exits are provided on the main level and at the balcony level. Ticket and coat spaces are provided at the lower lobby level. Provisional coat spaces are provided at the rear of the main auditorium on the lower lobby level. Toilet and lounge facilities are located at the upper lobby level.

The stage area was designed so as <sup>to</sup> allow that area to be completely separated from the main auditorium element in cases of fire and similar emergencies. The stage area would be equipped with all of the necessary facilities for complete theatrical and musical productions. Facilities would also be provided for the showing of films as well.

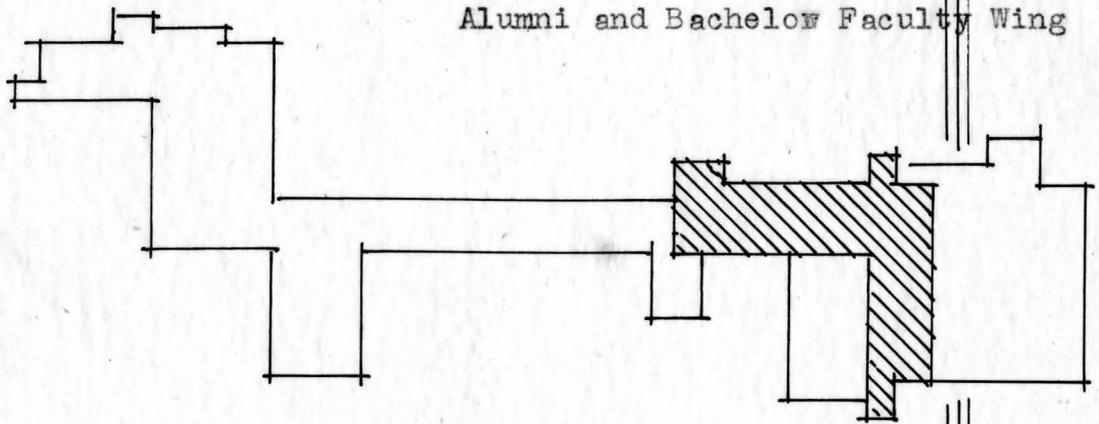
The tall stagehouse was designed to accommodate many changes of scenery and uncongested activity back stage. The area directly in the center of the stage proper is a trapped area to the workshop below.

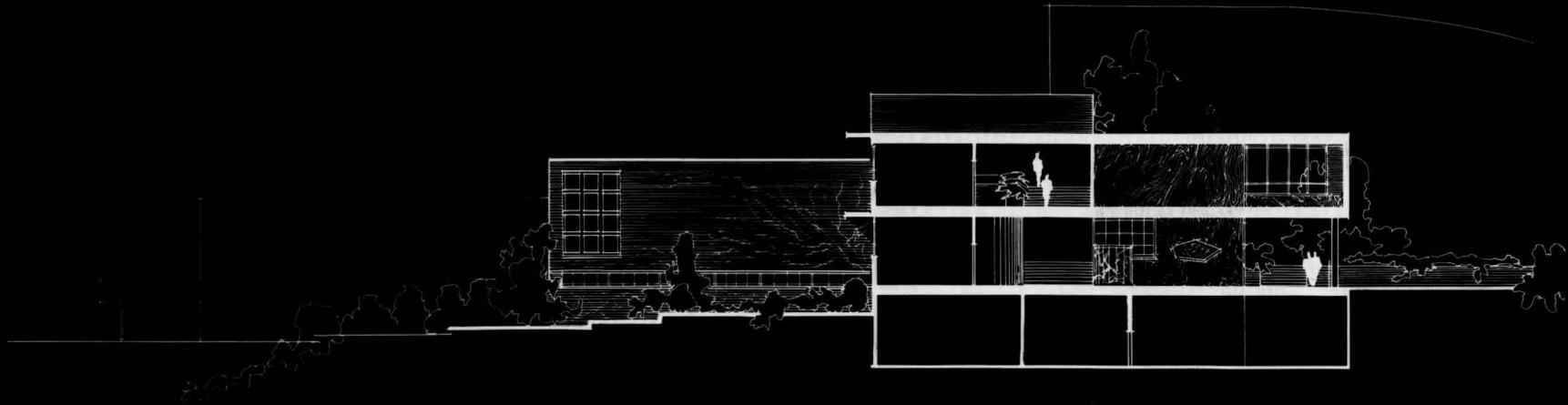
The orchestra pit area is also a trapped area. During theatrical productions and similar productions requiring a pit orchestra, the entire trapped pit area would be lowered to appropriate level. During concerts or musical productions and presentations, the pit area would be raised to the same level as the main stage area. This has the effect of extending the stage area proper forward. This would place the concert artists in the base of the parabolic roof and wall shape, thereby enhancing the acoustics of the auditorium.

To the rear of the stage house are several dressing and accessory rooms. Directly below the stage is the large workshop area, additional dressing rooms, offices, dramatics classrooms and practice rooms. Adequate toilet facilities are provided for each of these elements at this level.

The projection and light booths are above the balcony level. The spot-light booth is near the stage and is accessible from the stage as well as from the projection and light booths.

Alumni and Bachelor Faculty Wing





SECTION THROUGH ALUMNI LOUNGE  
SCALE: 1/16 INCH = 1 FOOT



PERSPECTIVE OF ALUMNI ... VISITORS ENTRANCE

D. Alumni and Bachelor Faculty WingGeneral:

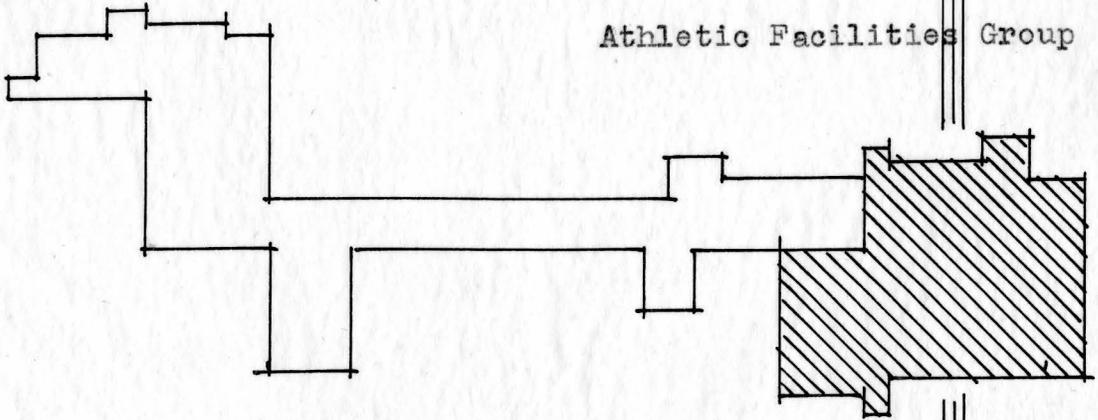
The college of Wake Forest has an extremely active alumni association. Graduates of the school have always taken an active part in the activities of the school even after having been graduated many years. It was felt that ample space and facilities should be allotted in the STUDENT CENTER for their use.

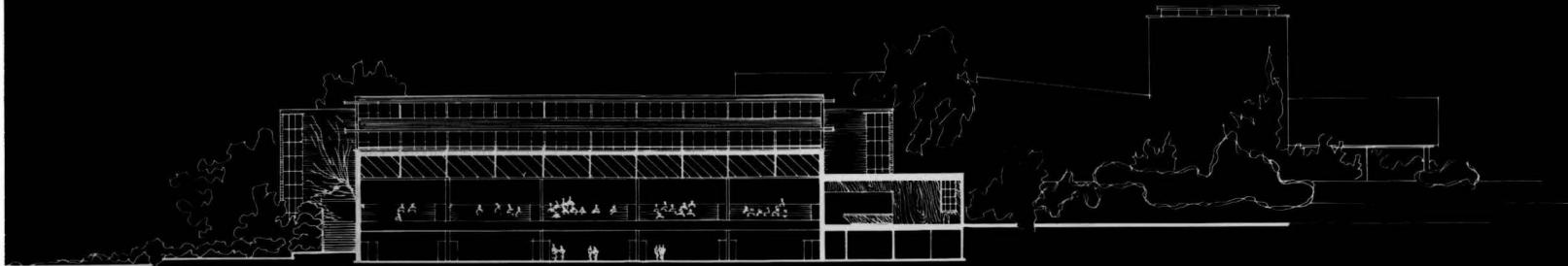
The alumni wing has a separate entrance and is placed next to the activities group on a slightly lower level. This wing includes an information and administrative center; the alumni entrance lobby forms the nucleus for the information and administrative center. On the main level of this wing are two private dining rooms and adjoining kitchen facilities where meals are served to returned alumni and their families. Also on the main level are several alumni association and organizational offices. Four meeting rooms are provided for the use of the alumni. These four rooms are divided by folding or sliding partitions which can be folded into the walls out of the way to make the four smaller rooms into one large meeting or assembly area to <sup>be</sup> used for rallies, reunions, and other similar functions.

It was felt that space should be allotted for

living quarters for bachelor faculty members rather than providing for their living facilities in another building or separate part of the campus. The designer felt they should live in this wing of the STUDENT CENTER. The second level of this alumni wing is devoted to housing these bachelor faculty members. This level is comprised of communal lounges, semi-private lounges, toilet facilities and general sleeping areas. These sleeping areas are of the single, double and dormitory type suites with each suite or single room having a semi-private bath. Provision was made for approximately forty to fifty bachelors.

On the first and second levels of the alumni wing, running perpendicular to the principal element, are provisions for sixteen double rooms and two rooms accomodating four to six persons each. These rooms (designated as guest rooms) will be used by returning alumni and their families, distinguished visitors, visiting athletic teams or visiting artists who have engagements in the auditorium group. These rooms have direct access to the separate alumni entrance and to the main entrances, or direct accessibility to the gymnasium and athletic group in general. Each of these rooms command an unobstructed view toward the wooded area near the main campus entrance roads.





SECTION THROUGH GYMNASIUM AND TROPHY ROOMS  
SCALE - 1/32 INCH = 1 FOOT



PERSPECTIVE .. GYM ENTRANCE  
SHOWING MEMORIAL TERRACE

## E. Athletic Facilities

### General:

Wake Forest College has always stressed the importance of a strong, healthy body as well as ~~ex-~~  
~~panding~~ the academic knowledge of the student. The curriculum is established so <sup>that</sup> each student is required to participate in some form of athletic activity in order to receive a minimum number of credit hours in general athletics.

Since every student must avail himself of the college athletic facilities, these facilities must be adequate enough to conveniently accomodate the large number of users. The college also fosters and encourages all intermural and intramural athletic events. This factor accounts for the relatively large varsity teams on the campus.

As previously discussed, all indoor athletic needs will be satisfied in the STUDENT CENTER. Accomodations will be made for both male and female students as well as for the faculty in general.

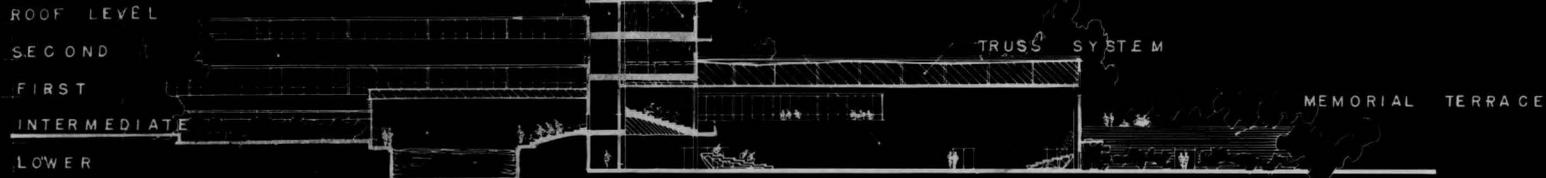
### General Plan:

The general overall plan of the athletic facilities group is relatively simple. This group of facilities is, fundamentally, a two level field

house comprised of a large double gymnasium at the lower level flanked on two sides by team rooms, general student dressing facilities, miscellaneous gymnasias and accessory and equipment areas on both the lower and upper levels. From the front of the STUDENT CENTER ~~that~~ <sup>the</sup> fact that the main gymnasium floor is sunken some fifteen to twenty feet below the level of the main gymnasium approach belies the size of these athletic facilities. The principal athletic entrance is from the main campus thoroughfare across a large paved athletic memorial terrace. To the south of this terrace is the main entrance. This canopied entrance opens into a large trophy and reception room containing the athletic museum. This trophy room narrows into an open circulatory passage which overlooks the main gymnasium floor from the second level. This passage serves to feed the traffic into the permanent spectator's balcony and to the other facilities contained in the athletic group. Flanking the circulatory passage are the athletic administrative offices and facilities.

The main gymnasium is a double gymnasium which accomodates two regulation-sized basketball courts with additional space for minor activity.

MAIN GYMNASIUM  
GUEST AND ALUMNI  
ACCESS CORRIDORS  
ALUMNI AND VISITORS  
INDOOR POOL FACILITIES



SECTION THROUGH GYMNASIUM AND INDOOR POOL  
SCALE = 1/32 INCH = 1 FOOT



PERSPECTIVE  
EAST ENTRANCE TO GYMNASIUM  
MINOR ENTRANCE

For intermural and intramural athletic events, additional <sup>space</sup> was provided in the form of temporary, steel folding bleachers at the lower gymnasium level. When all temporary seating is used in conjunction with the permanent spectator's gallery, the gymnasium will accommodate approximately 3500 or more spectators easily. These temporary steel folding bleachers fold up into the gymnasium walls when not in use to allow maximum free area for athletic activity.

Large entrances are placed at the lower level of the main gymnasium principally for the purpose of opening up the gymnasium when social dances are held in this part of the group. Also, these lower level entrances allow for maximum circulation in and out of the gymnasium proper. This freedom of circulation is particularly desirable when large crowds of students are to be accommodated as spectators or active participants.

Parking for the athletic group is on the same level as the main gymnasium floor.

On the lower level are the facilities for the varsity teams, visiting teams for space for athletic storage and equipment rooms. On the upper level are contained the permanent gymnasium spectator gallery and swimming spectator gallery, general student and faculty locker facilities. The locker facilities

are complete with drying, shower, toilet and medical areas. Also located on this upper level are the practice gymnasias, fencing, wrestling and handball areas and an indoor swimming pool.

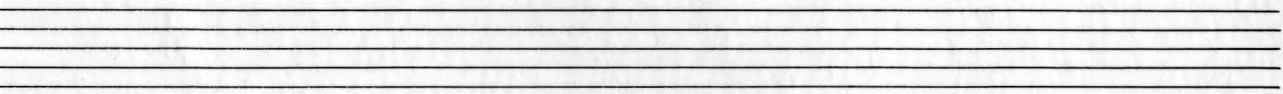
All of the locker rooms and dressing facilities have easy access to the practice gymnasias, main gymnasium and the indoor swimming facilities.

The indoor swimming pool has adequate ceiling heights to accommodate diving exhibitions in addition to casual student amateur. Opposite the spectator's gallery is a floor-to-ceiling wall of glass. This large glassed area was designed to create an atmosphere of outdoor swimming although the swimmer would be completely enclosed and protected from the elements. ~~of the weather.~~

The circulation in this athletic group has been carefully studied with particular emphasis on minimizing the cross-circulation of spectators and the athletic participants. The designer feels this has been accomplished without the use of excessive corridors and passageways.

SECTION EIGHT

Architectural Character Analysis



### VIII. Architectural Character Analysis

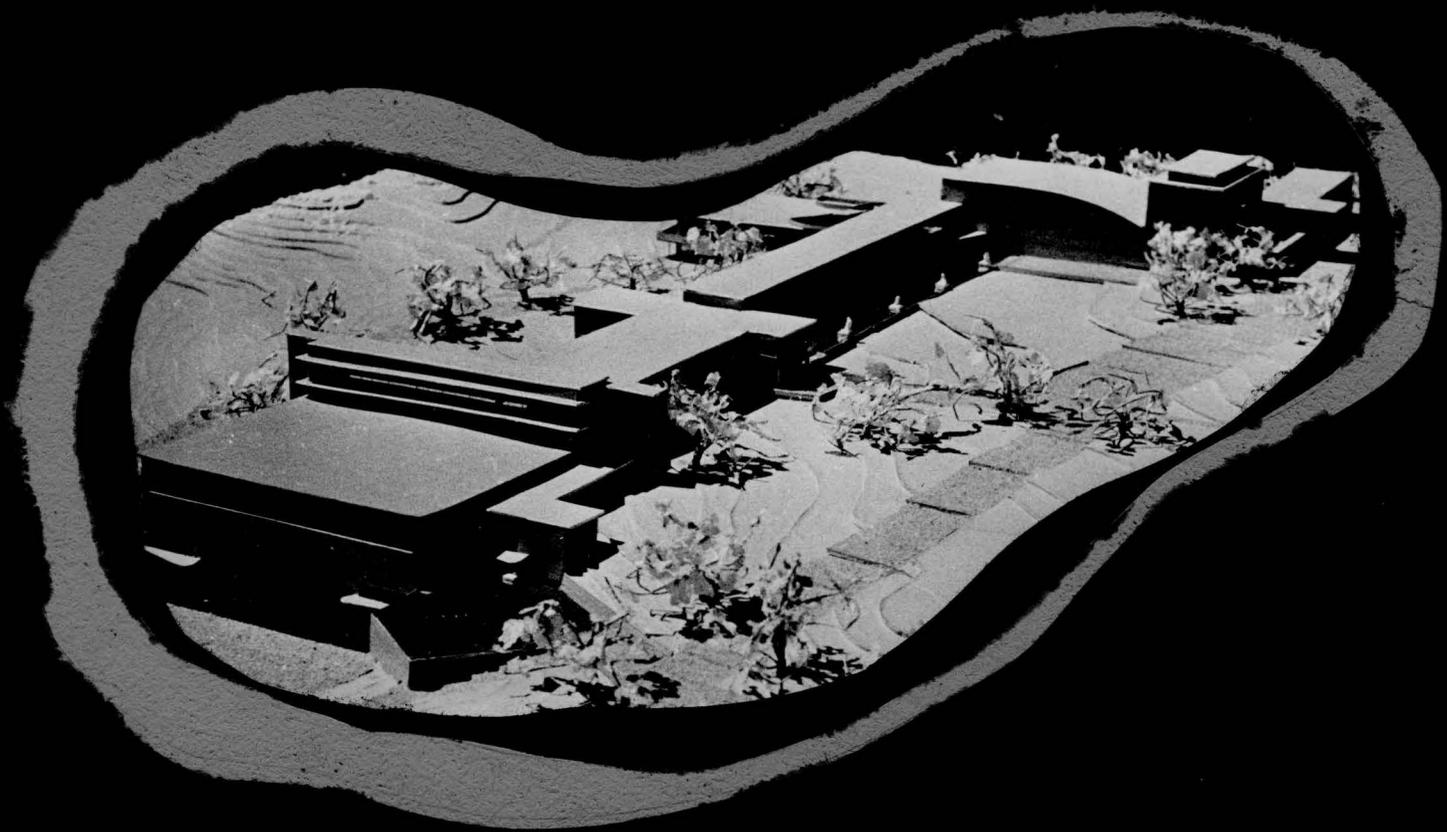
The STUDENT CENTER's appeal lies in its directness and honesty of expression. The structure is essentially a two-storied building of brick, glass and architectural concrete accented by the subtle changes of floor and roof levels and punctuated by gentle projections and recesses. The long horizontal unbroken lines of glass tend to give the building <sup>a feeling</sup> of frivolity and gaiety with occasional interruptions of the serious in the form of solid, unpierced masonry.

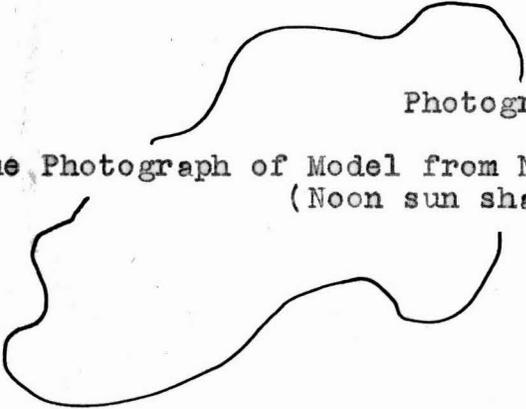
The long sweeping length of the center conveys a feeling of impressiveness without monumentality. The observer feels at first glance that a great many elements are concentrated in this single building, and at the same time feels an expression of unity and a singleness of purpose.



Photograph A

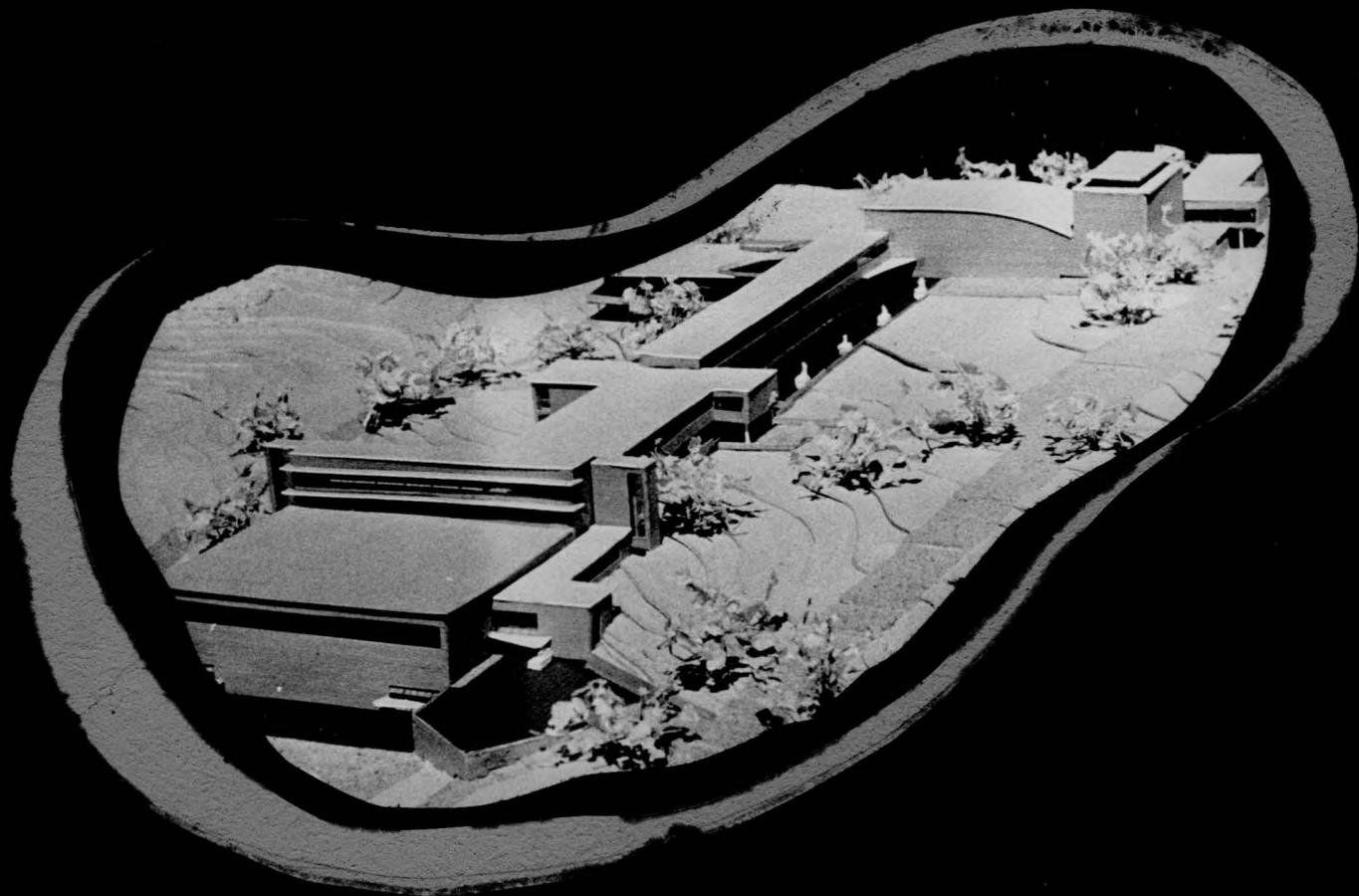
Oblique Photograph of Model from North  
(Mid morning sun shadow)





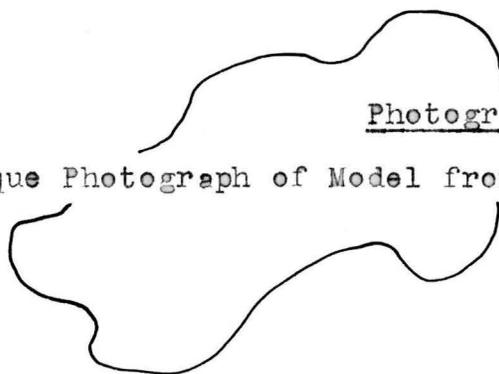
Photograph B

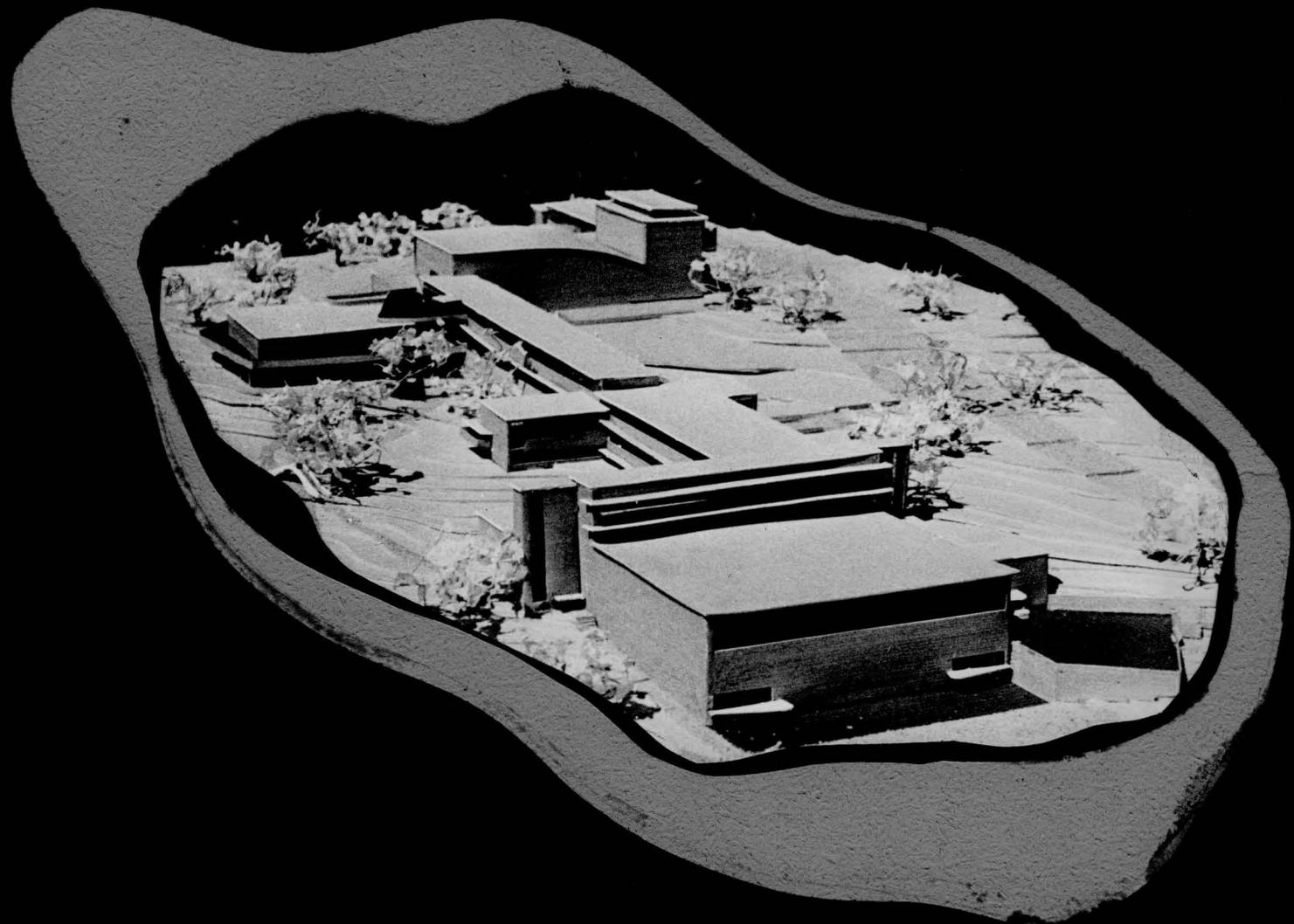
Oblique Photograph of Model from North-  
(Noon sun shadow)-



Photograph C

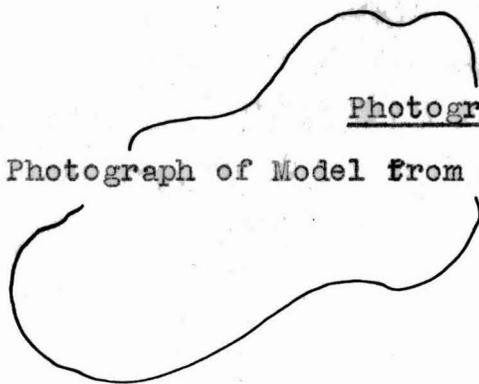
Oblique Photograph of Model from East





Photograph D

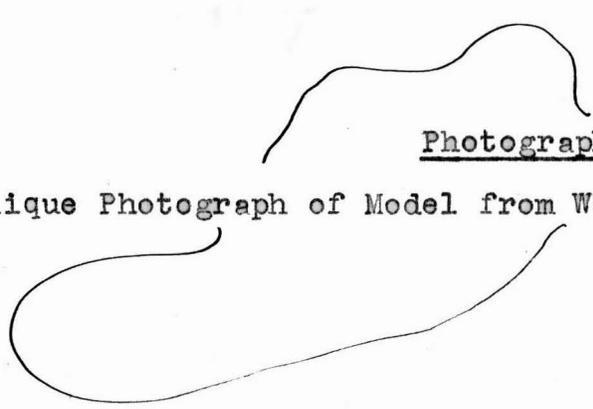
Oblique Photograph of Model from South

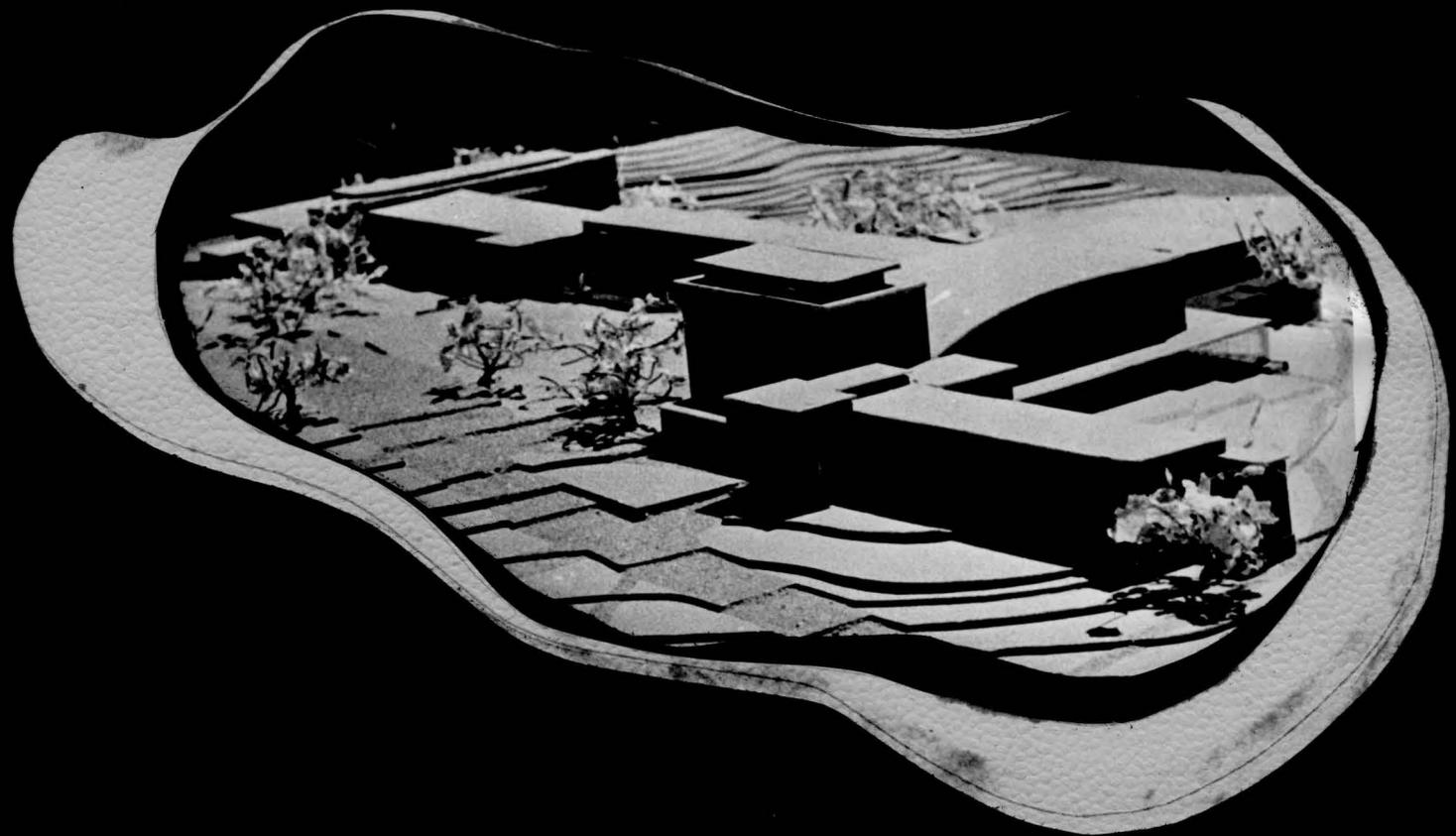




Photograph E

Oblique Photograph of Model from West





SECTION TEN

Abbreviated Structural Analysis

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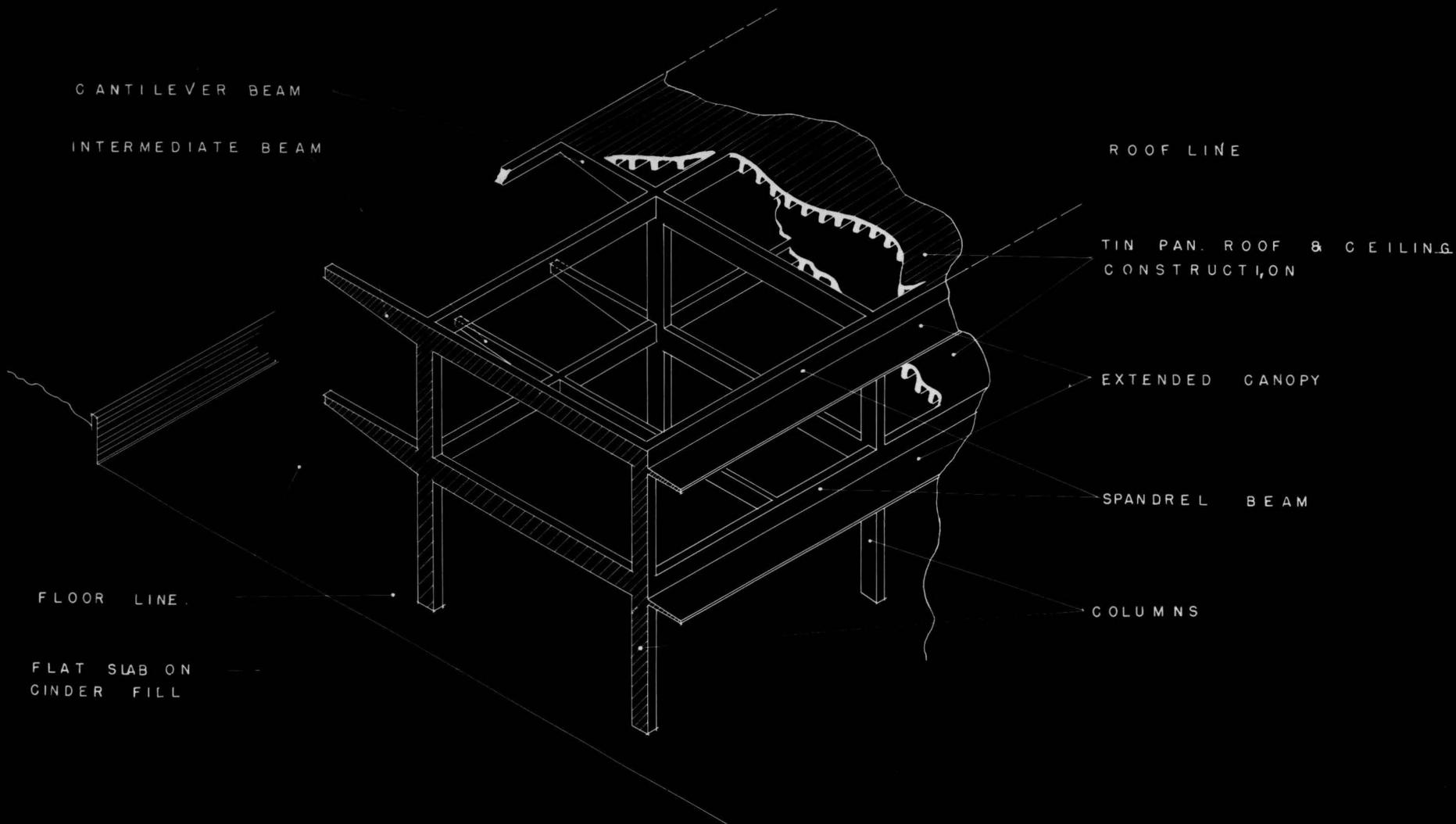
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X. Abbreviated Structural Analysis

A reinforced concrete frame with tin pan roof and upper floor construction will be used throughout the building except in the gymnasium, auditorium and other special areas where steel will be used to support roof and balcony loads.

The large glass areas, such as in the main entrance lounge, dining area and exhibition gallery, will be fabricated structural steel frames with glass section inserts.



ISOMETRIC SECTION THROUGH ACTIVITIES  
 SHOWING CONCRETE STRUCTURAL SYSTEM

**SECTION ELEVEN**

**Summary and Conclusions**

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## XI. Conclusions and Summary

College administrators must be shown that to educate and develop the mental faculties of the student without equal emphasis on his social and physical welfare is a narrow and incomplete education indeed. Not only must this regard for the student's social and physical welfare be implanted in the minds of college administrators, but positive action must be taken on their part to assure the students on the campus of a comprehensive and well-rounded<sup>d</sup> education.

It is believed by the author of this thesis that a STUDENT CENTER embodying all of the elements and facilities discussed and planned in this thesis would greatly enhance the possibilities of the actual materialization of a more complete and well-rounded education for all college students.

SECTION TWELVE

Bibliography

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XII. Bibliography

Ittner, William B., FAIA; "The Planning and Construction of Modern School Plants"

Larsen, Jens F and  
Palmer, Archie M. Innes; "Architectural Planning of the American College"

Klander, Charles Z and; "College Architecture in America"  
Wise, Hubert C

Short and Borwn, Stanley; "Architecture Under the PWA"  
1933-1939

-Page 275-

Student Activities Building  
V. P. I. - Blacksburg, Vrgna.

-Page 288 -

Student Union Building  
University of Cincinatti, Ohio

-Page 301 -

Student Activities Building  
University of Nebraska

-Page 309 -

Student Union Building  
University of New Mexico

--Page 318 -

Auditorium and Commons Building  
University of Wichita, Kansas

Goodwin, P. L; "Brazil Builds"  
The Museum of Modern Art; New York; 1943

"American School and University", Yearbooks; American  
School Publishing Corp.  
New York

Coffman Memorial Union - University of Minnesota, Minnesota.  
Arch. Record - September 1941  
Pages 41-54

Recreational Center for Kansas City, Kansas  
Arch. Forum - September 1945  
Pages 145-154

Goucher College Campus Competition -  
Pencil Points - December 1938

- Student Alumnae Building - Wheaton College  
Arch Forum -  
February 1946 - Pages 56-72
- Campus Controversy - "Wheaton Students Unite for Modern"  
Arch Forum  
February 1946 - Pages 11-12
- Oklahoma University Goes Modern  
Arch Forum  
September 1945
- What Do Colleges Really Want - Hugh Stubbins  
Arch Record  
April 1946
- Wheaton College Drops Modern  
Arch Forum  
May 1946
- Two Lounges in Constrasting Climates  
Beaux Arts Bulletin
- Wayne University - An article  
Arch Forum  
September 1943
- American School and University  
Pencil Points  
September 1943
- Mintz, Bellows; "Art as an Integral Part of Student Living"  
Pencil Points  
December 1943 - Pages 20-21
- Theaters in Memorial Unions - Indiana University  
Arch Record  
January 1933
- Indiana Union Building - Indiana University  
Arch Record  
October 1939

College Architecture in Relation to Student Recreation  
 American Landscape Architect  
 September 1930

Stowell, K. K.; "Collegiate Architecture"  
 Arch Forum  
 June 1933

Walker, C. H. ; "Expression and the Collegiate Style"  
 Arch Forum  
 June 1931

Hale, W. H. ; "Old Castles for New Colleges"  
 Arch Forum  
 June 1931

Stowell, Kenneth K. ; "Education's New Demands"  
 Arch Forum June 1931

Ackerman, Frederick L. ; "The Planning of Colleges  
 and Universities"  
 Arch Forum  
 June 1931

Women's League Building - University of Michigan  
 Arch Forum  
 June 1931 - Page 696

Memorial Union Building - Purdue University  
 Arch Forum  
 June 1931 - Page 713

Memorial Union Building - University of Wisconsin  
 American Architect  
 June 1929

Pond, Irving K. ; "The College Union"  
 Arch Forum  
 June 1931 - Pages 771-779