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Catholic Regional High School and Adjacent Parish Complex

Joseph F. Boehning

A CATHOLIC HIGH SCHOOL AND PARISH COMPLEX FOR ALBUQ., N. MEX. - BOEHNING

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A CATHOLIC HIGH SCHOOL
AND
PARISH COMPLEX
for
ALBUQUERQUE, NEW MEXICO

by

JOSEPH F. BOEHNING

BACHELOR'S THESIS

Presented to the Faculty of the Division of Architecture, University of New Mexico, in partial fulfillment of the requirements for the degree of Bachelor of Architecture.

The University of New Mexico

May 26, 1961

THESIS COMMITTEE:

John J. Hemmerich

Lou L. Schlegel

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BACHELOR'S THESIS PROPOSAL

by

JOSEPH F. BOEHNING

TITLE: Catholic Regional High School and Adjacent Parish Complex

PURPOSE OF STUDY: The purpose of this study is to design a four year Catholic high school with a caretaker parish complex. The school will serve a large region of Albuquerque, while the church will serve the small parish community. The study will include a detailed analysis of the "Little School Plan" which has been used in a few secondary school plants around the country. Finally, the study will analyze the function of a parish complex that will include church, convent, and rectory, so that the school staff may also serve as the clergy for parishioners in the adjoining neighborhood.

LOCATION: Albuquerque, New Mexico

THESIS CONTENT: The thesis will be compiled and presented in two phases. Phase one will include the program, research, and the written statement of all research as it applies to the chosen program. Phase two will include the design work and drawings,

which will be the result of the research performed.

The research will investigate and analyze the so-called "Little School Plan" approach to a parochial high school. Included in the school research will be all phases of high school activity including, but not limited to, class room curriculum, athletics, drama, vocational work, library, cafeteria, social activities, auto parking, etc. The research will also include the study of public use of school facilities during non-school hours.

As far as the parish complex is concerned, the study will include housing for the school and parish staff, as well as the church which will be used by school children and parishioners.

The research will be written up to include, but not limited to, problem, program, and solution.

The second, or design and drawing, phase will include complete presentation drawings for each building as well as the complete site plan. Included in these drawings shall be floor plans, elevations or perspectives, and sections if needed to explain complicated structure. A bird's eye

perspective or a model will be included to illustrate the complete site plan. All drawings will be reproduced and bound with the research statement.

Approved:

John J. Heinrich

Chairman, Faculty Committee
Division of Architecture
The University of New Mexico

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1. INTRODUCTION:

Albuquerque, New Mexico has more than doubled its population during the last ten years. As a result of this explosion, public and parochial schools have felt the shock wave, as have the churches. During this same period, the architectural design concepts of churches and schools all over the nation have undergone change, perhaps more than they had during the preceding century.

The basic aim of education has always been to teach our people how to live. However, the methods to achieve this aim are continuously changing and improving. During the last decade, these changes have been brought about because of many things -- higher standard of living, the international situation, Sputnik, changing social standards, new technological achievements, and many others.

The basic aim of Christian churches has always been the salvation of man through the teachings of Christ. Again, some of the methods to achieve this aim are undergoing change. These changes result from the same things mentioned previously in discussing schools.

It is reasonable to assume that these changes

in method will continue to occur in the future, perhaps at even a more rapid pace. The success or failure of new and old methods in religion and education rests primarily with the individual teacher and clergyman. This success or failure will also be determined to a certain extent, by the buildings in which religious and education activities are carried on. As a result, architectural concepts in these two areas must meet the challange so that buildings built today will be just as useful in twenty or thirty years.

This writer believes that the only way to solve these design problems is to make a thorough study of the existing situation, as is done in this thesis, and to follow-up with continuous study in the future.

It is realized that the budget for a proposed building project is normally a strong determinant in the architectural design. Budget is considered in this thesis problem, but it is not a determining factor. The approach here is to design the best facility for the educational and religious problems involved. This approach is strictly taken from a design standpoint, and a tight budget would limit the possibilities. However, all non-essentials have been eliminated and each design approach and concept has been justified in the text.

Many thanks go to Father Ted Hunt, Principal of Pius X High School, Gerald Gerken, student at Pius X High School, George Wright, Don Schlegel, and John Heimerich of the University of New Mexico Architectural Department, and to my wife Bonnie, who did all of the typing.

2. PROBLEM - School

2-01. GENERAL

Before a program for any type of building can be formulated, general criteria should be considered. A noted educator, Dr. Walter D. Cocking, presents some excellent general criteria. He says, "To me, school design means interpreting a school program and the characteristics of the pupils in terms of building spaces - using suitable materials in appropriate ways, and providing for visual, hearing, and bodily comfort and efficiency - so that the resulting structure is functionally useful, artistically pleasing, and combines all elements into a beautiful, comfortable, efficient, and economical building. Good design then, gives to every structure both a healthy body and an immortal soul."

Dr. Cocking goes on to say, "To create good design takes a lot of doing. It requires a lot of facts - facts about the people who will use the building, their characteristics, their cultural background, their past experiences, their mores, hopes, and ambitions. Facts must be available about the programs which will be conducted in the building. Community organization, growth, and future expansion are the other types of information

needed. The procedures and activities of the school must be outlined as specifically as possible. The building uses for both school and community activities must be analyzed. Creative ability of the highest order is required. Technical understanding of the problems involved is a must. Patience and long suffering will be a necessity. There must be a vision of what such a building could be, and a never ending effort to attain it. Complete satisfaction cannot be secured. Such an attack rules out copying other building designs in whole or in part. Recreating past design, no matter how worthwhile it was in its time and place and purpose, is ruled out. Each problem must be solved in terms of its own characteristics. Every community has a right to expect such an approach and such a result. When attained, we will have good buildings beautifully and usefully designed. Progress will be made. We will move forward to undreamed of solutions."[1]

2-02. SITE

Size is usually the most important single point to be considered in choosing a school site. The too-small site can never be educationally adequate regardless of expenditures on development.

The broadened and intensified educational task of

today involves a larger classroom than previously required, because of more numerous and diversified activities and the equipment and space to go with them. Our increasingly urban society carries accompanying demands for more physical education and exercise to give trained minds more sturdy physical support. Games are also a way to learn how to get along with others in cooperative and competitive enterprise.

With the present extensive use of automobiles, parking areas and access drives have become necessities, and schools are no exception. Parking along streets and roads adjacent to the school site violates principles of safety and should not be part of the planned parking capacity for a school.[2] Where community use of the facilities is anticipated, tomorrow's parking facilities may be beyond expectations.[3]

Closer relationship between community and school is reflected in the increased use of school facilities for community purposes. This changes the nature of school sites from part-time areas to centers of year-round activities. Adults, for instance, participate in community meetings in school buildings.[4]

2-03. PUPIL

Noted school architect, William Caudill, has made an extensive study of students. He says, "Since all children, particularly those of high school age, are social beings, they are going to gather in small groups as often as they can and where they can. Some of this time will be spent in homes, some in churches, and some in less desirable spaces. It does not cost too much money to make the school another place to help the children stay out of hangouts and parked cars.

However, keeping pupils off of the streets is not the only reason for making schools livable. In spite of the technical curricula, the basic aim of education is to teach the human animal how to live. In the eyes of the children, school is not so much a preparation of life as it is life itself with very real problems, social as well as scholastic. For this reason, the architect must plan for the social child as well as the physical child and mental child."

Mr. Caudill continues, "Many will complain that this sort of thinking is overdoing the social aspect of planning. Schools should be places of learning and not country clubs. This is true, but social emphasis is being stressed today because it has been badly

neglected in the past, particularly in high school planning."

School administrator Russell E. Wilson also has some words on high schools. He says "Most adults are now willing to admit that our kindergarten program is our most successful school program....Continuing the line of thought, most of them also are willing to admit that we become more unsuccessful in our school program as the children progress from kindergarten through the twelfth grade. Perhaps, this is because we like little children....Adults then are patient, kind, sympathetic, and helpful to little children. But conversely most adults do not like secondary school children, and they do not like the characteristics these children have.... Adults and secondary school youth then find themselves at an Irish standoff."[5]

At Hanover Park, New Jersey, the social needs of the student were met by constructing a commons area of over 5000 square feet. It is the heart of the school and provides a designed environment, relaxed informal learning situations, and encourages learning and practice of social graces. It is the place where committees and small groups work on projects for the regular academic program. Adult education groups, P.T.A., seminar and conference groups also use this space.[6]

2-04. EDUCATIONAL REQUIREMENTS OF THE CATHOLIC CHURCH

Catholic high schools in New Mexico follow the scholastic requirements of the State Department of Education. Actually, the 24 units required for graduation from St. Pius X High School in Albuquerque are more than are required by the State.

The curriculum at St. Pius X offers the student the option to select from three different four year courses, depending upon which field the student expresses an interest in. For those pupils who do not know what specific field of study they want to pursue, a general academic course is offered. All three courses are directed at preparing the student for college. However, all three will leave the student well prepared for a vocation if he selects not to attend college.

These three courses are outlined as follows:

GENERAL ACADEMIC COURSE

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
Ethics I	Ethics II	Ethics III	Ethics IV
Eng. I	Eng. II	Eng. III	Eng. IV
Gen. Math.	World Hist.	Am. Hist.	Civics
Phys. Ed.	Phys. Ed.		
Gen. Science	Biology		
	Algebra or		
	Comm. Math.		
5 Required	6 Required	3 Required	3 Required
1 Alternate	No Alternates	3 Alternates	3 Alternates

REQUIRED FOR GRADUATION: 17 Required
7 Alternates

Modern Language Offered: Spanish, French, German

Freshman alternates: Glee Club, Art, Typing (Personal), Band.

Upper classman alternates: Same as freshman alternates with addition of:

Mechanical Drawing
Drafting (2nd yr. M/D)
Physiology (open to Senior girls only)
Shorthand/Bookkeeping
Speech I and II

Modern languages are not permitted to be chosen as an alternate in the freshman year.

CLASSICAL COURSE

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
Ethics I	Ethics II	Ethics III	Ethics IV
Eng. I	Eng. II	Eng. III	Eng. IV
Latin I	Latin II	Latin III	Latin IV
Phys. Ed.	Phys. Ed.	Mod. Lang. I	Mod. Lang. II
Algebra I	Biology	Am. Hist.	Chemistry
_____	World Hist.	Plane and Solid Geom. (Algebra II)	Civics
5 Required	6 Required	6 Required	6 Required
1 Alternate	No Alternates	No Alternates	1 Alternate

REQUIRED FOR GRADUATION: 23 Required
1 Alternate

Modern Language offered: Spanish, French, German

Freshman alternates: Glee Club, Art, Typing (Personal), Band.

Upper classman alternates: Same as freshman alternates with addition of:

Mechanical Drawing
Drafting (2nd yr. M/D)
Physiology (open to Senior Girls only)
Shorthand/Bookkeeping
Speech I and II

Modern languages are not permitted to be chosen as an alternate in the freshman year.

THE SCIENTIFIC COURSE

FRESHMAN	SOPHOMORE	JUNIOR	SENIOR
Ethics I	Ethics II	Ethics III	Ethics IV
Eng. I	Eng. II	Eng. III	Eng. IV
Algebra I	Algebra II	Geom.	(Trig. and
Gen. Science	Biology	(Plane and	(Ana. Geom.)
Phys. Ed.	World Hist.	Solid)	Physics
	Phys. Ed.	Mod. Lang. I	Mod. Lang. II
		U.S. Hist.	
		Chemistry	
5 Required	6 Required	6 Required	5 Required
1 Alternate	No Alternates	No Alternates	1 Alternate

REQUIRED FOR GRADUATION: 22 Required
2 Alternates

Modern Language offered: Spanish, French, German

Freshman alternates: Glee Club, Art, Typing (Personal), Band.

Upper classman alternates: Same as freshman alternates with addition of:

Mechanical Drawing
Drafting (2nd yr. M/D)
Physiology (open to Senior girls only)
Shorthand/Bookkeeping
Speech I and II

Modern languages are not permitted to be chosen as an alternate in the freshman year.

Perhaps the most significant difference between the public school and the Catholic high school is the fact that Papal Decree requires the Catholic secondary school to be co-institutional. This means that for general classroom work, boys and girls do not attend class together. However, in specialized areas that would be too costly to duplicate, boys and girls are not separated. Such areas would include library, cafeteria, and physical sciences. Contrary to popular belief, this separation is not done for moral reasons. Tests have indicated that in the secondary school age group, girls are about two years ahead of boys in maturity. This gap begins to narrow down during the age of senior students. These tests also indicate that the girls are usually more advanced in the academic areas.

In this system, girls are normally taught by nuns and female lay teachers, while boys are taught by priests and male lay teachers. This teacher separation is used because tests have also indicated that boys of secondary school age seem to resent being taught by female teachers. People who have taught and studied under the co-institutional system feel that it presents a better learning environment for the student. They site an English class as an example. If the class is all boys, a boy student is more apt to

volunteer a verbal presentation of his approach to an English problem since he does not have to fear embarrassment in front of girls, particularly a girl of whom he is fond.

The students also seem to like this system. A junior student at St. Pius X, Gerald Gerken, indicated that he was in favor of it. During his two and one half years at the school he has found no reason not to like it. He says that the boys and girls are together enough at school so as not to disrupt the normal social learning process between boys and girls. The separation, then, is not great enough to cause frustration.

As far as vocational school is concerned for the Catholic student in Albuquerque, there is no problem. All students desiring this specialized course of study may attend Lourdes Vocational School south of the city. Therefore, vocational courses, such as machine shop, are not carried in the average Catholic high school in Albuquerque. The students are free to transfer between the academic high school and the vocational high school if they so desire.

A survey taken at Pius X High School indicated

that only two girls desired a course in cooking. As a result, the Home Economics course does not include cooking. The scheduled study hall period has also been dropped at St. Pius because it was found that much more time was wasted than was used for study. A large area is provided near the library, however, for study use.

2-05. LITTLE SCHOOL CONCEPT

During recent years this new method for organizing and administering schools, called the "little school plan," has been gaining rapid acceptance. The plan works as follows: the large high school is divided into two, three, or four little schools, each with its own faculty. Each student is assigned to one of these units. In most cases the students take all their required academic courses in the little school with its smaller staff and student body. Other courses, demanding specified facilities, are taken in central facilities from a faculty which serves all of the little schools.

Which courses to be taken in the little school, and which in central facilities, will vary from plan to plan. But whatever division is used, two very fundamental advantages accrue:

1. More individual attention is possible. A student is less likely to become lost in the crowd.

2. The virtues of a large high school - a broader curriculum, specialized facilities, and a stronger faculty - are economically possible.

A third advantage is found for the little school plan in the co-institutional system, and that is because it provides a natural separation for the boys and girls. One little school is the boys' school, one little school is the girls' school, and one little school contains the central facilities.

In many cases guidance facilities are moved into the little school; thus the central administrative offices are kept small. The more thoroughly decentralized senior high school has 450 to 600 students per unit.[7]

In addition to the basic advantages of the little school plan, it also allows a fair share of the school day to be fashioned so that the student spends his time in a small sub-group with a smaller group of teachers. Thus the guidance program can work through to the student. In some instances, the guidance facility provides for a series of counseling rooms in each little school.

They provide a full time guidance counselor as the leader of each little school, with other counseling time made available for teachers.

The little school contains within its concept many ideas for exploitation. By creating a series of parallel organizations, opportunities appear for multiplying students' participation in activities. One overall student council for the school may be supplemented by student subcouncils for each little school. Intramural sports, dramatics, school papers, music organizations, and the like may be organized for each of the smaller groups.[8]

One final advantage of the little school that cannot be overlooked is its adaptability to future expansion. If a school is built to initially facilitate fewer students than future plans call for, because of financial reasons, the little school plan is ideal. One little school can be constructed along with the necessary specialized facility to provide the students and faculty with a complete plant. As more funds become available, more little schools can be constructed, and the student body may be divided as desired.

2-06. THINKING OF THE FUTURE

It is reasonable to assume that school programs and teaching methods will change even more rapidly in the future. Therefore, much thought must be given to how the schools built today will meet this educational change.

The President of Educational Facilities Laboratories, Inc. says, "The design of a school should reflect the philosophy of its times. There are many published statements of what a school should be and do, most of which say about the same thing, namely, that the days of educating a select few beyond the grammar school for a handful of professors are long past, that today's schools must strive to personalize as much of the students' school experience as is practicable, and that every boy and girl must be thought of as an individual with unique problems, interests, and potentials, and not as another face in the crowd."

He continues, "To these commonly accepted concepts we would add the following:

1. In a large school, it is desirable that the student body be subdivided into smaller units which provide an instructional program that more nearly fits the needs of the individual and at the same time personalizes

his relationship to the school.

2. Teachers will work in teams, both in subject matter fields and in the general life of the school.

3. Some aspects of the curriculum will be taught to large groups exceeding 100 students. Spaces should be provided for such instruction, yet be convertible to smaller units as the need arises. Flexibility and multiple use of space should be basic to the design. Standardization of educational areas should be kept to a minimum, with the emphasis being placed on designing spaces that meet particular needs, yet are not so frozen that they cannot, at will, be used for other purposes.

4. In order to justify their inclusion, specialized areas such as shops, home economics, and physical education should provide opportunity for all students, including college preparatory, to find something of interest and worth. Therefore, these special facilities must differ from the traditional layouts of these areas.

5. High school education is moving toward a twelve-month school year for many students. With the increased emphasis on college entrance requirements, it is only a matter of time before summer courses will become generally available to the student desiring to meet unusual admission standards or to broaden his background in a particular field. It therefore will be prudent to consider

not only the heating of the building, but also its overheating in summer months.

6. The school should seek through its organization and hopefully its physical arrangement to give parents the assurance that they, as individual families, will be known intimately and well by someone in an administrative post. This is of particular concern to the parents of average children. The child who is either highly talented or extremely nonconforming is visible to the administration even in a large school."

He concludes by summing up the educational specifications which many secondary schools are calling on the architect to do today:

"1. Provide the student with a sharper sense of personal identification with the school.

2. Use teachers in teams grouped either around a particular subject-field or around a fixed number of students.

3. Use a broad range of audio-visual devices and machines for teaching.

4. Move toward organizing groups which vary in size according to the nature of the instruction and ranging from the one-student booth to the round table seminar, to the standard class, to lecture-discussion, to audience participation.

5. Seek decentralization of special services if the school is large - e.g. dispersing library service by creating sub-libraries rather than drawing all students to one central facility; by deploying administration rather than concentrating principal, assistant principals, deans, etc., in one cluster of administrative offices.

6. Dejuvenilize the environment by providing some places of comfort and amenity, thus to counteract the general institutional tone of kitchen-like classrooms and hospital-like corridors where the furnishings and surface place such premium on antisepsis and indestructibility."[9]

Many educators and architects are advocating similar approaches to secondary educations. The plan by Dr. J. Lloyd Trump prescribes four specific proposals: 1. big lecture rooms for "100 or so"; 2. private study booths where pupils could get off by themselves and work alone, possibly aided by such instructors as tape recordings; 3. seminars for "12 or so"; and 4. the usual classroom.[10]

In order to provide more comfort, as well as lower maintenance costs, architect William Caudill contends that carpeting is the best floor cover.

More comfortable furniture is being introduced.[11] Some secondary schools are doing away with ringing of bells. It is felt that this type of environment will not only encourage the student to hasten his maturity, but the management of students will move toward a more adult relationship with the student.

As far as flexibility is concerned, an article in the May 1960 issue of ARCHITECTURAL RECORD contends that the desire now expressed by many schools to achieve malleable space that can be shaped at once and at will, must await the development of a retractable partition which will give acoustical privacy. It appears that such a partition will soon be available, since only its cost remains unsolved.[12]

2-07. CONCLUSION

In summary, it seems that the education program today has many problems for architecture and will continue to create more. Educators and architects are forever exploring and trying to improve on teaching processes, in many ways through architecture. Only a few examples of this exploration have been included herein, but they include a representative cross section.

As far as the secondary education problem of the

Catholic Church is concerned, it is basically the same as the public school. In other words, parochial schools must also continuously strive to keep up with our changing times.

3. PROGRAM - School

3-01. SITE

The site must be located in the northeast heights of Albuquerque. Since the school is expected to relieve the increased load at St. Pius X, it should be located in the anticipated growth area. Presumably, this area would be north and east of St. Pius X High School.

Land development costs vary tremendously since they depend upon topography and soil conditions. The time to find out what it will cost to prepare the site for use is before it is bought. Acceptable site sizes today range from 40 to 100 acres for senior high schools.

In order to meet the demands for space placed upon secondary schools, and anticipating future demands, the school site should contain between 40 and 50 acres of usable land. The church, rectory, and convent, with appropriate drives and parking, will require another 5 acres.

3-02. CURRICULUM

The curriculum for this school shall include the courses similar to those used at St. Pius X, as

ALBUQUERQUE

LOCATION MAP

hereinbefore indicated. The curriculum will also be broken down into three basic courses of study. These three basic courses allow the student to select the field in which his primary interest lies.

3-03. ADMINISTRATIVE SYSTEM

In order to conform with Papal Decrees of the Catholic Church, the administrative system of the school must be built around the co-institutional system. The "little school" concept should be used as the method to build around this co-institutional requirement. Perhaps the best approach to this concept would be to divide the school into three little schools plus the common facilities to be used by all students. The three little schools would be a girls' school, a boys' school, and a science school. The common facilities would include library, cafeteria, gymnasium, auditorium, and student social commons.

The girls' school should include a subadministration for the girls, which would include separate girls' dean, faculty and counselors. It might also include space for a girls' student body organization, which would fit into an over all student organization. The boys' school would be similar. These schools would have the students who are enrolled in the general

academic course and the classical course.

The science school would have the students, both boys and girls, who are enrolled in the science course as its student body. The science school will also have its own faculty, counselors, and dean, and its own student body organization. The science school is not a separate entity just to emphasize the importance of science. Actually this science school is brought about for reasons of economics. The high cost of science equipment and laboratories demands that they not be duplicated. Students enrolled in the science school will attend classes in either the boys' or girls' school as their schedule requires. Similarly, students in the boys' and girls' schools will attend their scheduled science courses in the science school.

3-04 PLAN

3-04.1 GENERAL

The school must be a most attractive place in order to compete with the corner drugstore and other student hangouts. Everything possible must be done to overcome the tendency for a student to become "lost" in the large high school, thereby missing the advantages of the close relationships between students

and teachers that prevails in smaller schools. The school will be designed for a maximum enrollment of 1200 pupils; thus each little school will provide for about 400. The buildings will be scaled so as not to overpower the student, and this scale will also tend to keep the student from being lost in the large school.

Since much learning is gained from informal contacts and vicarious experience, every opportunity should be given students to meet for casual talk. Some controls are necessary for this age, but every effort should be made to avoid the "pink slip" atmosphere and to encourage student responsibility for orderly conduct.

3-04.2 LITTLE SCHOOL UNIT

Each unit shall have its own lecture room for about 100 pupils. This room will have a level floor so that it may be used for other purposes, such as a study hall. The lecture room will have a raised platform, however, for ease of instruction. The unit shall also have a locker lobby and lounge, toilets, storage space, counseling suite, conference rooms, teachers' lounge, as well as classrooms, seminar spaces, and/or laboratories. The boys' and girls' schools will have 10 classrooms for English, math, languages,

art, ethics, and social sciences. The girls' school will have a home economics room, without cooking facilities, and the boys' school will have a drafting room. A dean-assistant principal will be in charge of each school.

The science school shall have 8 classroom laboratories with small experiment-project rooms adjacent to each lab. These small project rooms are primarily for projects that will take several days to complete. Consideration will be given to outdoor space for science activities during warm weather.

3-04.3 LIBRARY

The nature of the library shall be of warmth and grace. It should be an invitation to enjoy reading and studying. It should also be a place where those involved in independent study or research may work in privacy. It should tempt the student to spend part of his leisure time for study. The space should be divided into several small reading and study areas instead of the normal large room. The books should be accessible to each student, and the stacks should be open. In order to eliminate the closed in feeling created by ceiling high stacks, the stacks should be about shoulder height.

The library must be located so as to be easily accessible to each school unit. It must also be in a quiet area of the site.

3-04.4 ADMINISTRATION

Because each little school unit assumes administrative duties, the main administrative area will be relatively small. The area should include offices for the principal, a secretary, and a modest waiting room, as well as space for health and dental hygiene. The administrative unit shall also contain teaching space for typing, shorthand, and bookkeeping. This arrangement will allow advanced commercial students to work "in the office" as part of their course. The unit shall also include modest space for the general student body organization.

The administrative unit must be housed in an area easily accessible from all parts of the school itself, and yet available to the general public. Adequate walkways, roadways, and parking space must be provided.

3-04.5 CAFETERIA

The cafeteria should be designed to serve 500 students and 40 teachers at one seating. Such a capacity will require the student body to eat in three

shifts. The cafeteria should be an enjoyable place in which to eat and should be as informal as possible and still provide the student with the opportunity for self-discipline.

Kitchen storage shall provide for refrigerated as well as dry storage. Ease of access should be provided for food delivery and garbage removal.

The cafeteria should be easily accessible from all parts of the school, and yet available to the general public. It is anticipated that this facility will be used by the public for different types of functions.

3-04.6 AUDITORIUM

The idea that the auditorium should be large enough to seat the entire student body at one time is gradually being displaced by the concept of smaller units, more intimate and more useful in speech, dramatics, forums, and debates as part of the educational program. The auditorium for this school shall be designed to seat 500 people.

An open type stage shall be used in lieu of the standard proscenium. The audience may be arranged

on three sides. The background may be a simple architectural facade pierced with openings for entrances, or scenery might be employed in this same place. Such an arena stages functions without a curtain. This type of plan has application for an overall program which includes concerts and forumn presentations. Facilities for band and choral practice shall also be included within the building.

The auditorium should be easily accessible from all parts of the school, and yet available to the general public. It is anticipated that this facility will be used by the public for certain types of functions.

3-04.7 GYMNASIUM

The main basketball arena will seat 3000 persons for interscholastic athletic events. This arena will contain a regulation size basketball floor, which can utilize two smaller cross courts for practice. The gymnasium will also contain locker rooms, coaches' rooms, a combat room, a girls' gym and locker space, and a lobby and ticket selling area.

The gymnasium should be easily accessible from all parts of the school, and yet available to the

general public for athletic events as well as for spectator events. A common lobby with the auditorium may be investigated.

The gymnasium should also be easily accessible to the athletic and practice fields so that locker and shower facilities may be used for outdoor sports.

3-04.8 OUTDOOR ATHLETIC FACILITIES

It is assumed that interscholastic football, track and baseball shall be played at central facilities supported by all Catholic schools in the city.

Practice fields will be provided for football, baseball, track, and playfields shall also be provided for other outdoor sports. These playfields will be used for intramural competition and for physical education classes.

These facilities shall be easily accessible to the gymnasium, yet they shall be located so the noise will not penetrate the academic facilities.

4. PROBLEM - Church

4-01. GENERAL

The first requirement of a church today is that it be contemporary, a structure embracing the total life of a parishioner. Today's parishioner drives a streamlined car to a modern office designed for maximum efficiency and comfort. He also travels in streamlined trains and jet planes. He should not, then, be expected to travel back to the Gothic past to pray.

Good churches are made for God. They are also made for people who are seeking their salvation. If good, modern church architecture of today is to prevail, the first step has to be an open minded and modest clergy. The Most Reverend Francis C. Kelley, Bishop of Tulsa, wrote the following, "The fact that a bishop has to examine and approve of architectural plans in his diocese does not make an architect out of him. Gaze on the consequences that have followed the negatives and positives of bishops who were architects only by self-confidence. No wonder we have a liturgical arts movement - we had long needed it. How many are the buildings too costly to replace, but too utterly bad to tolerate in silence? Everyone of them is a monument to someones ... ignorance." [13]

4-02. APPROACH TO DESIGN

Many known architects have designed outstanding churches, and they have well considered approaches to church design.

Architect Victor Lundy says, "The designer of a church building cannot design for himself alone or for an elite group who think as he does. He must reach out to people in the realization that the building he designs is the means of conveying a message to people - not his message, but God's. We need symbols in architecture; we need them especially in church architecture. A church should look like a church, inside and out, and when it does, it becomes such a symbol. It must look and be what it is without further explanation."[14]

Well-known architect Pietro Belluschi says, "And now that most of the battles against dogmas have been won, I hope they (architects) may also gain a certain amount of tolerance for all the human symbols and forms of the past, because people need them and live by them to a greater extent than is realized because they furnish a feeling of continuity which gives them faith in their evolution." [15]

In the Catholic Church today, the stress is on the

Mass and on participation. There are problems involved in designing a building to allow everyone to clearly sense the significance of the Mass and to find it easy to take an active part. To help solve this problem, the altar table should be unmistakably the central object in the church, and the congregation should seem to gather around the altar as if taking part in the action.[16]

4-03. CHURCH AS AN INSTRUMENT AND EXPRESSION

According to Father John La Farge, a religious building, be it Protestant, Catholic, or Jewish, is an "instrument" of religious worship and an "expression" of religious conviction and sentiment.

Since the central act of the Catholic Church is the celebration of the Mass, the architect must be familiar with the construction of the altar and the sanctuary. The proper prominence and space are of utmost importance in the celebration of the Mass. Other functional requirements that need careful consideration are the baptistry, confessional, location of side altars, relation of pulpit to sanctuary, and location of choir and organ according to the Churche's prescriptions on church music. The trend today is away from choir lofts in the rear of the church. The planning of sacristies is also of utmost importance.

Another trend today is toward greater simplicity and less profuse decoration. This allows more attention to be devoted to a strong and impressive featuring of those basic indispensable elements prescribed by the liturgy. Parallel to this is greater attention to the "symbolic character of the building itself."

A church is traditionally a place of seclusion and interior recollection, and a refuge from noise and disturbance. In a Catholic church, its "sacral" character must be strongly emphasized by a style and furnishing which tends to produce a sense of reverence, culminating in the reverential elements of the altar, with its tabernacle and reserved Sacrament. The church must be oriented to the mysteries of the unseen world beyond, as well as to the spiritual needs of a struggling humanity.[17]

The sanctuary, which contains the altar within its area, shall be separated from the nave with a communion railing. The space between the railing and the nave shall be adequate to allow easy movement by communicants. The sanctuary shall be sufficient in area to permit the celebration of Solemn High Mass. The altar shall be elevated on a level three risers above the main sanctuary area.

Two side altars shall be provided for in recessed areas that are located so as not to distract from the main altar.

Space will be provided for two confessionals, each of which shall accommodate one priest and two penetants, one on each side of the priest.

Space for the baptistry shall be provided near the main entrance of the church. Baptistry shall be on the Gospel side of the church and should be separated from the church by a railing, screen, or door.

An adequate narthex shall be provided between the main entrance and the nave. Toilet facilities shall be located off of the narthex.

keeper's quarters shall be provided near kitchen and laundry.

An assembly or sewing room shall be provided. This room should have a lot of storage space and should be as pleasant as possible because the sisters will spend many hours in it.

A bedroom shall be provided for each of the 20 sisters, one of which will be for the sister superior. Two guest bedrooms shall also be provided. Each bedroom shall contain a lavatory and closet space. Toilets and showers shall be grouped for easy access. A private toilet and shower shall be provided for the sister superior. The bedrooms are usually located on the second floor.

6-03. EXTERIOR

An outside exercise patio should be located adjacent to the convent. This patio should not be visible to passers by, and it should be pleasantly landscaped.

8. SOLUTION

8-01. SITE

The 55 acre site selected is in the northeast heights in an area that is undeveloped at this time. It is north of Candelaria Road NE, and east of Juan Tabo Road NE. It is situated on the west slope at the foot of the Sandia Mountains.

This location was selected so that it would relieve St. Pius X High School of the rapid influx of students from the new residential areas as they expand to the north and east. The site is approximately four miles east of St. Pius. An undeveloped area was selected so that when it is developed, it may be planned with the school property in mind.

8-02. PLAN

8-02.1 GENERAL

The site has been developed into four distinct areas. The first area is the religious area in that it contains the church, convent, and priests' residence. The second (academic) area contains the boys' and girls' little schools, the science little school, and the library. The third area is the activities and public area.

The church and the library have thin-shell, folded plate construction. This is done to emphasize these two structures. The library is the focal point of the academic area, and it has a playful shape to invite students inside to an informal atmosphere. It is intended that this informal atmosphere will encourage students to participate in more library activities as a "break" from the more formal classroom activities. The library should be a "fun-place" to be.

The thin-shell roof structure is utilized in the church for two basic reasons. The first is that it is the focal point of the entire campus. It will pull the eye, and thus the mind, to it from any spot on the grounds. The second reason is that it provides the symbol that most people search for in a Christian church. This symbol of verticality and pointed arch stems from the Gothic, but modern materials and details are used here.

8-02.2 RELIGIOUS AREA

This area is on the highest level of the multi-level campus. The convent and priests' residence are on each side of the church. A parking lot serves both the church and the priests' residence. This parking lot is also accessible to the academic area and the activities area. The lot is on a level lower than

track, and baseball. Playfields for field hockey, softball, etc., are also available for physical education classes.

This area is close to the lockers and dressing rooms so physical education students may shower easily after PE classes.

8-03. LITTLE SCHOOLS

The little school units meet the requirements of the program as detailed on pages 27 and 28. Each unit has its own landscaped court. Each side of the court is enclosed with sliding glass doors. These doors may be opened to let spring and fall breezes into the building, and may be closed to keep out the winter cold.

The lockers in the locker lobby are 4 feet 6 inches high so the lobby does not appear to be a series of narrow corridors. A spacious student lounge is located adjacent to the locker lobby. This lounge, with informal furniture, provides an atmosphere that the students like to be in. It is separated from the landscaped court by a glass wall. This type of environment is provided to entice students away from the corner drugstore.

8-04. LIBRARY

The library is divided into small reading areas, each to contain four or five tables. Again, informality is the byword. The dividers separating each area are only four feet high so that the space does not become too tight, but remains free and light.

A periodical room is provided with a small landscaped court adjacent. This is to provide another place on campus where students may spend their spare time.

The stacks are only four feet high and are open to encourage the students to use the books. The stacks in the center of the building are in a depressed area so that students browsing in the stacks are not in the way of normal foot traffic. The round bench in the center of the stack area provides a little informal comfort for browsing pupils.

8-05. ADMINISTRATION

This unit is small and simple. It provides two large classrooms for commercial classes. The large public lobby provides ample space in which visitors can wait.

8-06. CAFETERIA

The cafeteria has glass walls on the east and west side so that the landscaped courts on each side may be enjoyed by the diners. The court on the west side is enclosed by a fence to minimize the sun control problem.

The cafeteria is adjacent to the gymnasia and auditorium so that it may be used in conjunction with their activities on certain occasions.

8-07. AUDITORIUM

This facility utilizes a common lobby, toilets and ticket booth, with the gymnasia. The lobby will also be used as a gallery to display student projects.

The open platform permits the use of a movable or removable backdrop. Thus the platform may be adapted to a large variety of programs and productions. The accessibility of the workshop will encourage the students to build props for their productions.

8-08. GYMNASIUM

The gymnasium deviates from the program in that seating is provided for 1500 persons instead of the 3000 called for. This reduction was made because high

schools today are trying to discourage large non-student basketball crowds in an effort to cut down fights, vandalism, etc. Tournament games are held in Johnson Gym on the University of New Mexico campus.

A large exercise room is located between the boys' and girls' gymnasia. This area may also be used as a lobby when the gym is used for interscholastic events.

8-09. CHURCH

The church seating is planned to accommodate most worshippers near the altar. However, some people, particularly those with small children, prefer to sit farther away from the altar.

The altar end of the church faces the Sandia mountains, only a mile or so to the east. To allow this magnificant view to be appreciated by the worshippers, the entire east wall, above the sacristies, is glass. The image of the cross is placed in the center of this glass wall. Since the purpose of this wall is to provide view, and not light, the glass is gray, glare reducing glass.

Natural light is provided by continuous strips of glass between each folded plate section that forms the

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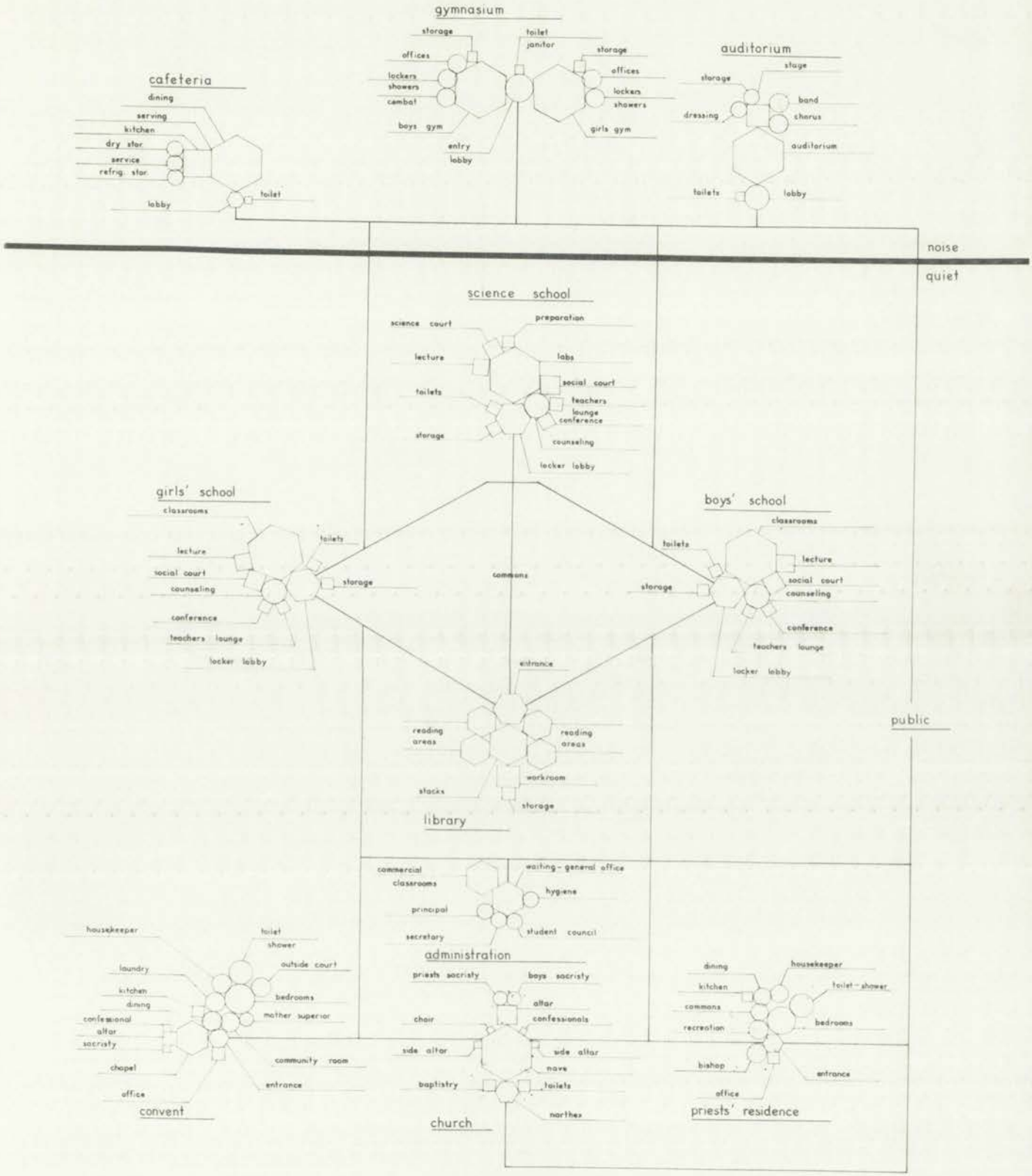
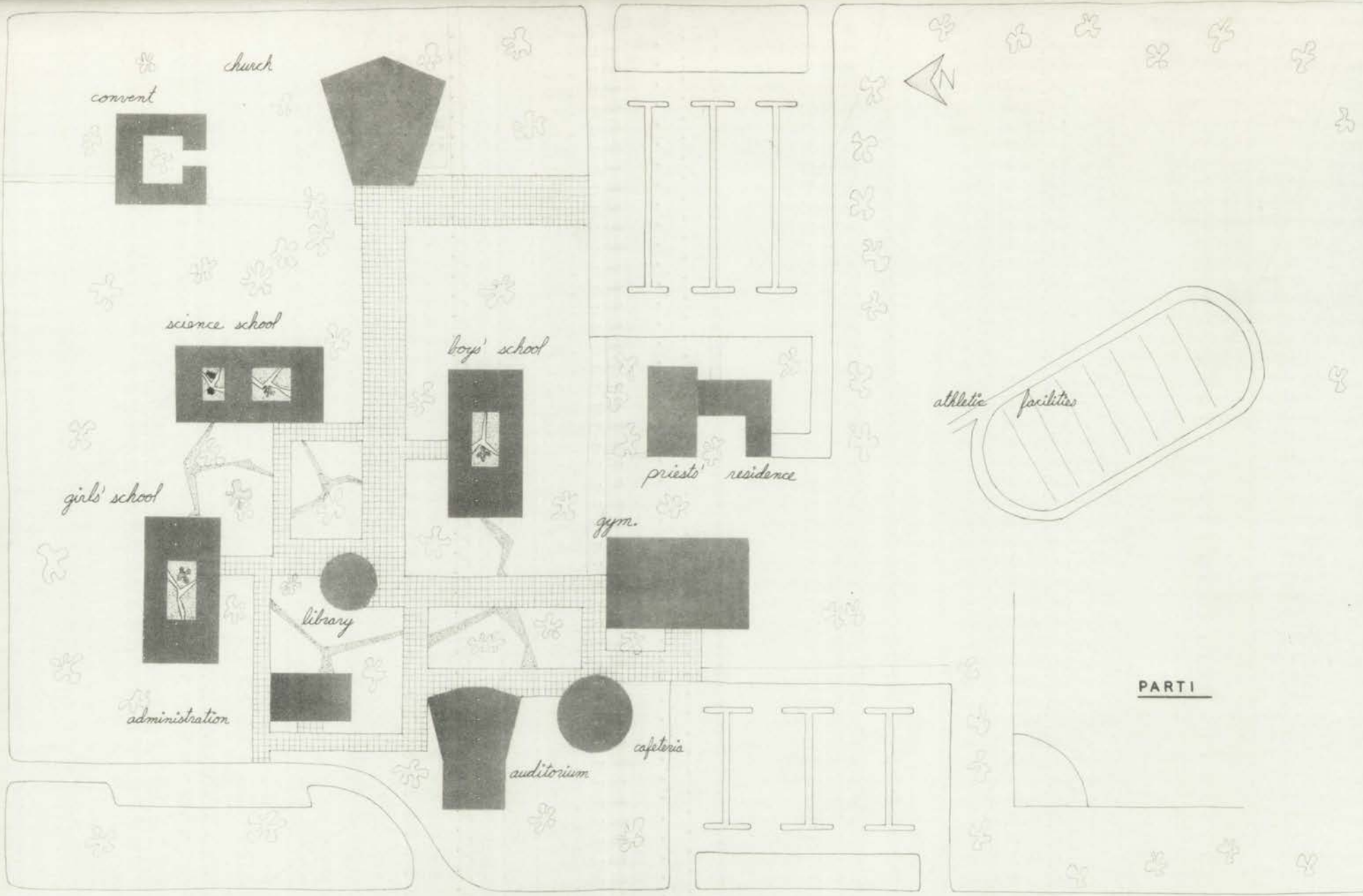
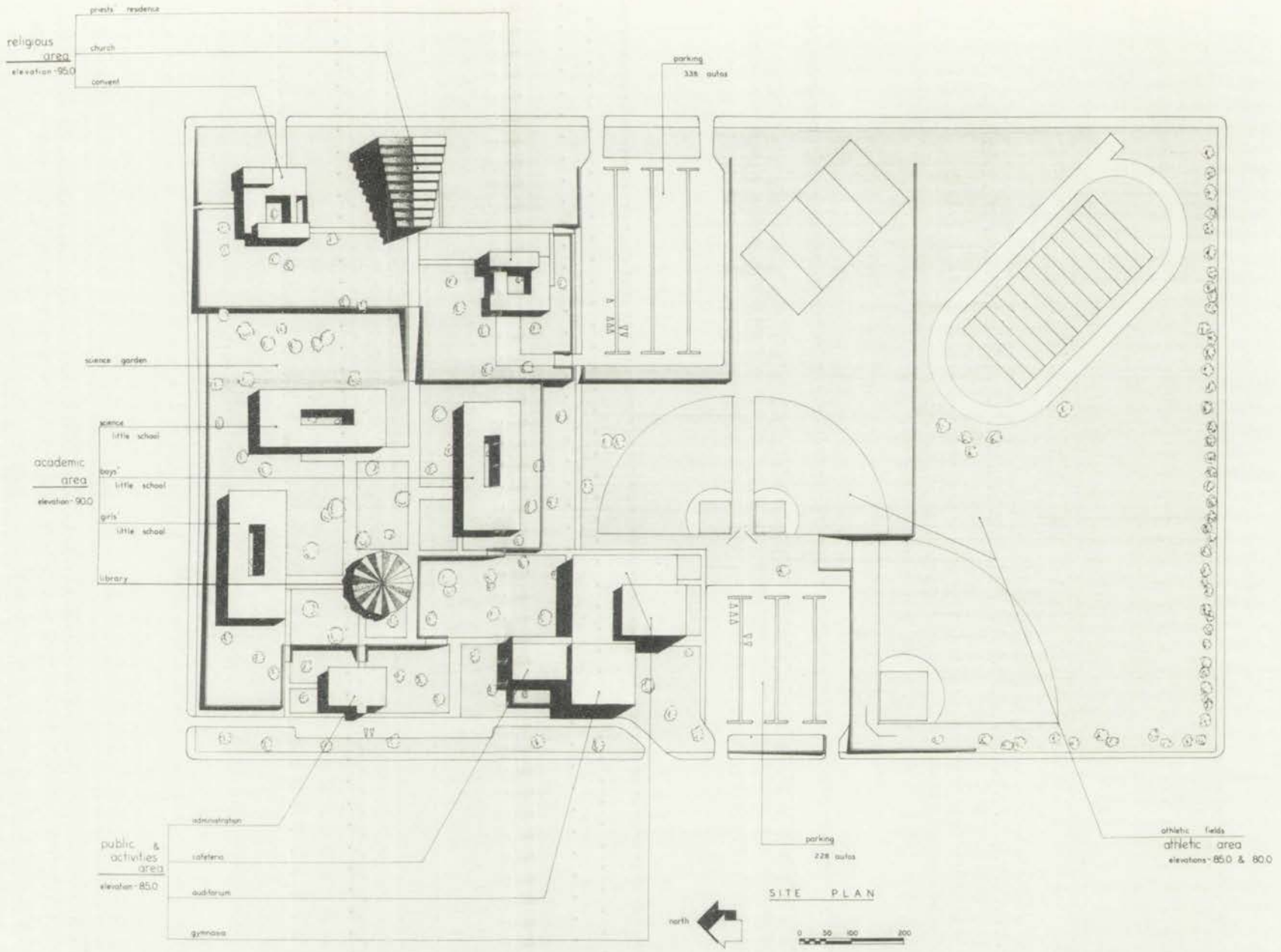
athletic facilities



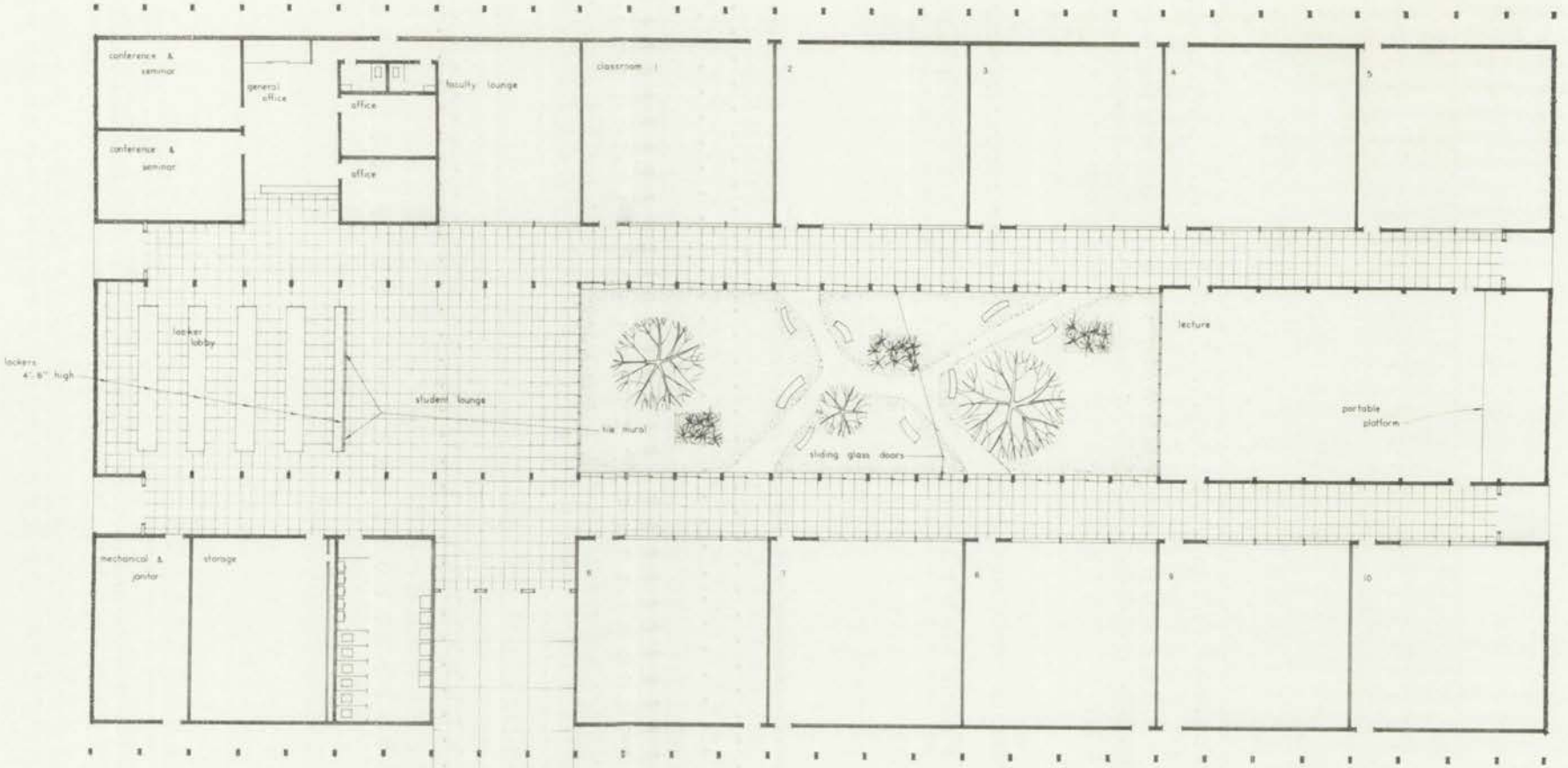
SCHEMATIC DIAGRAM


church
convent
science school
boys' school
priests' residence
athletic facilities
girls' school
gym.
library
administration
auditorium
cafeteria
N
PARTI



A CATHOLIC HIGH SCHOOL & PARISH COMPLEX

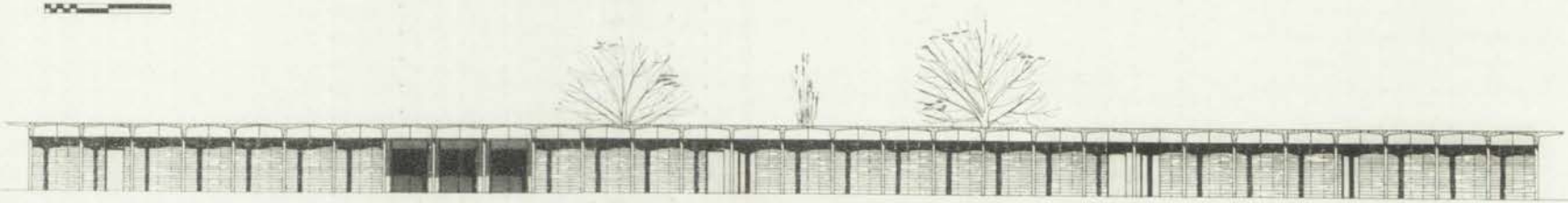
by joe boehning



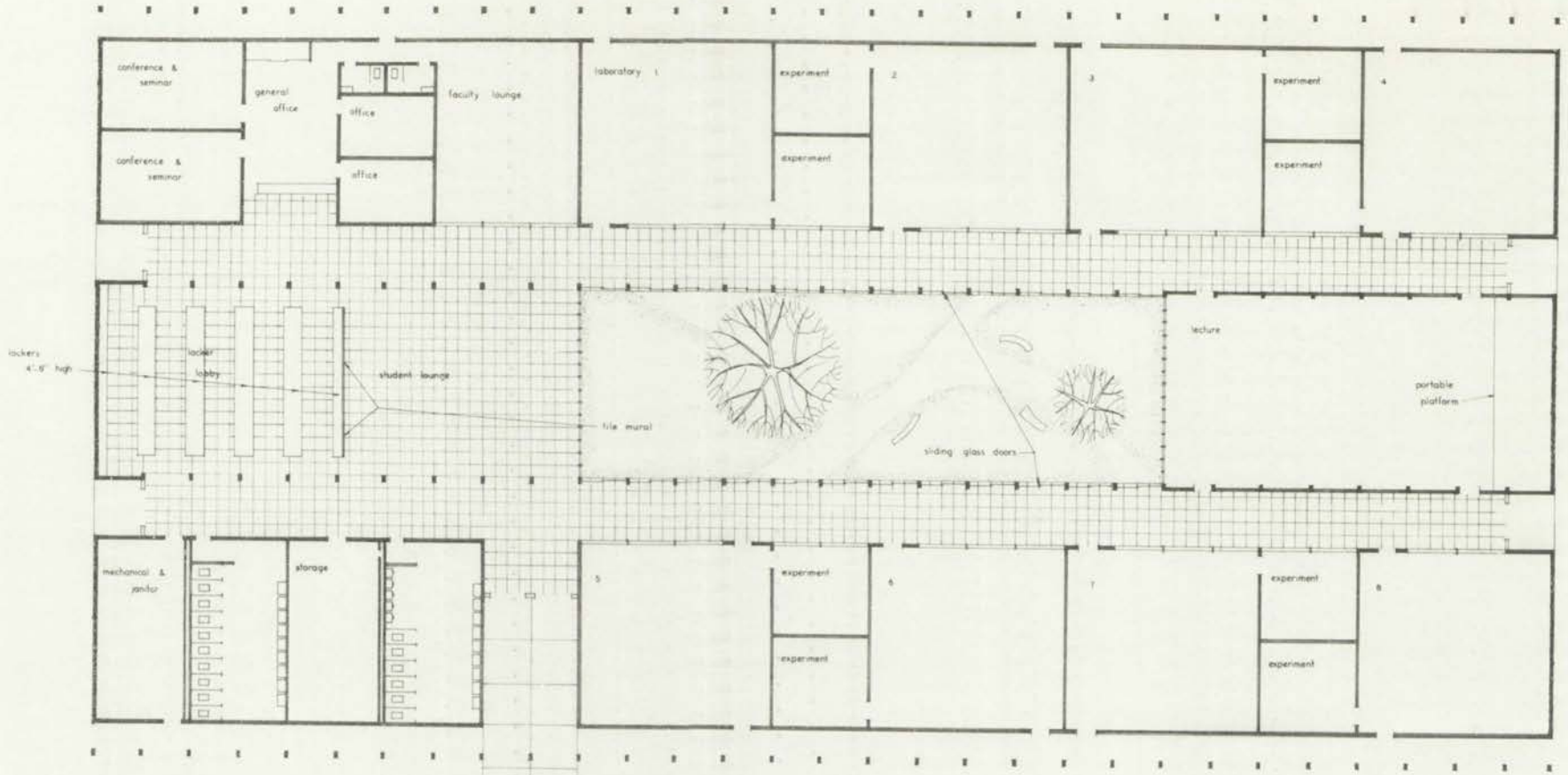
FLOOR PLAN

0 5 10 20

"LITTLE" SCHOOL

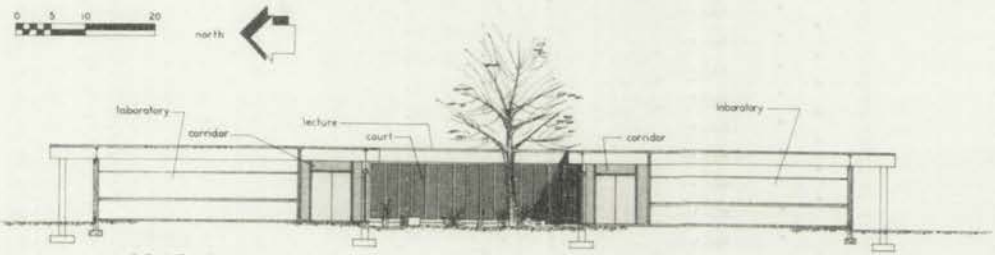


ELEVATION

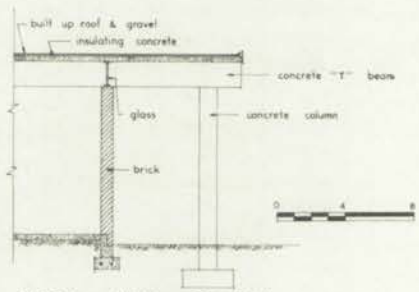


FLOOR PLAN

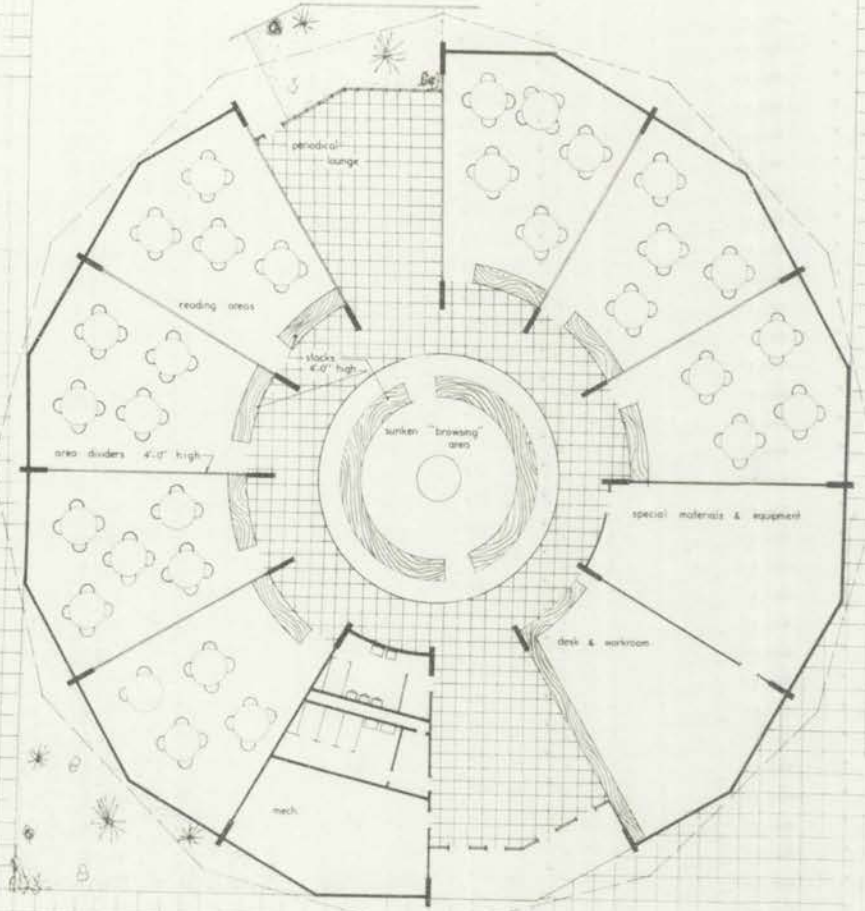
SCIENCE "LITTLE" SCHOOL



SECTION



TYPICAL WALL SECTION



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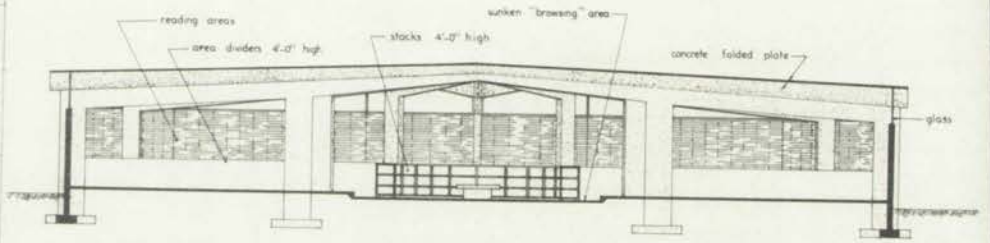

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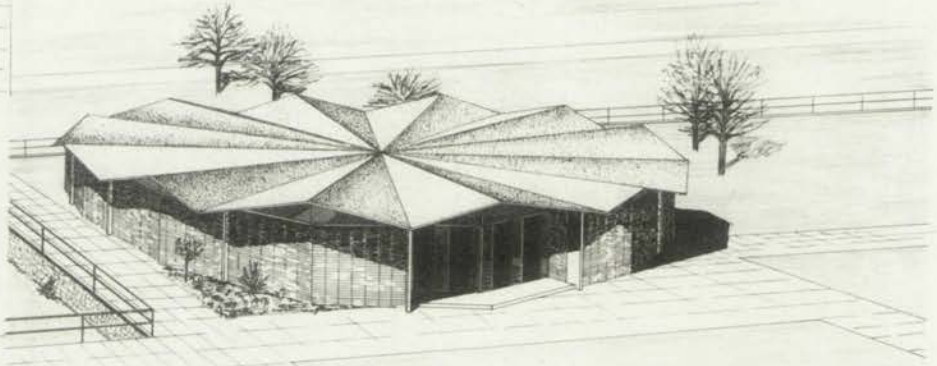
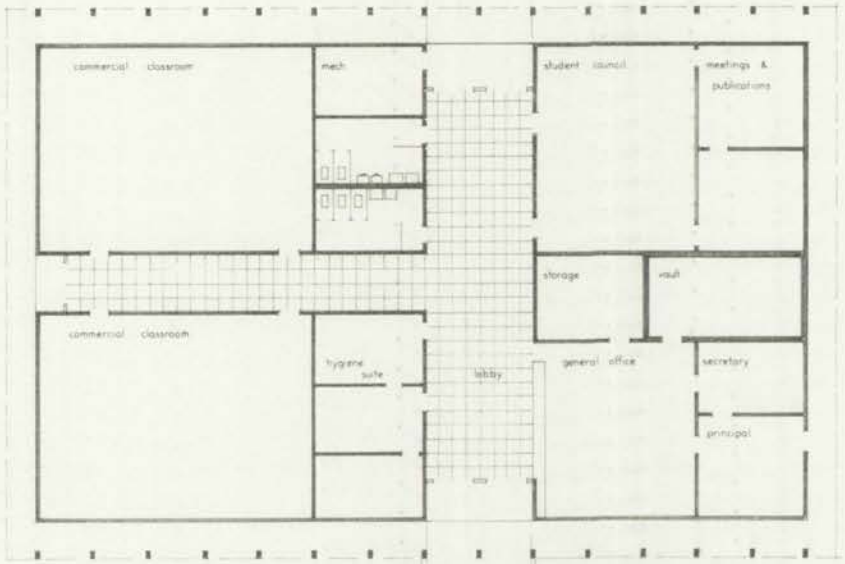
LIBRARY





FLOOR PLAN

WEST ELEVATION

SOUTH ELEVATION

ADMINISTRATION

lockers
dressing
showers
mech.
storage
office
ramp ↓ down
combat room
lockers
dressing
showers
office
office
storage
mech.
8 rows of
folding bleachers
girls' gym
boys gym
lobby &
exercise area
8 rows of
folding bleachers
janitor
lobby & gallery
tickets
projection
kitchen
serving
line
cafeteria
122
156
auditorium
122
115
mech.
dry
storage
refrigerated
storage
service
122
platform
portable
backdrop
mech.
dressing
dressing
backstage workshop
band
choir

FLOOR PLAN

north

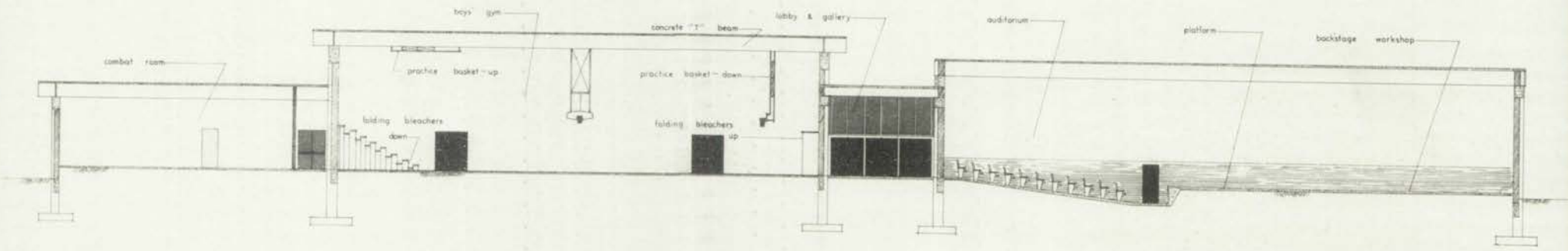
0 5 10 20

CAFETERIA
AUDITORIUM
GYMNASIA

NORTH ELEVATION

0 5 10 20

AUDITORIUM
CAFETERIA
GYMNASIA



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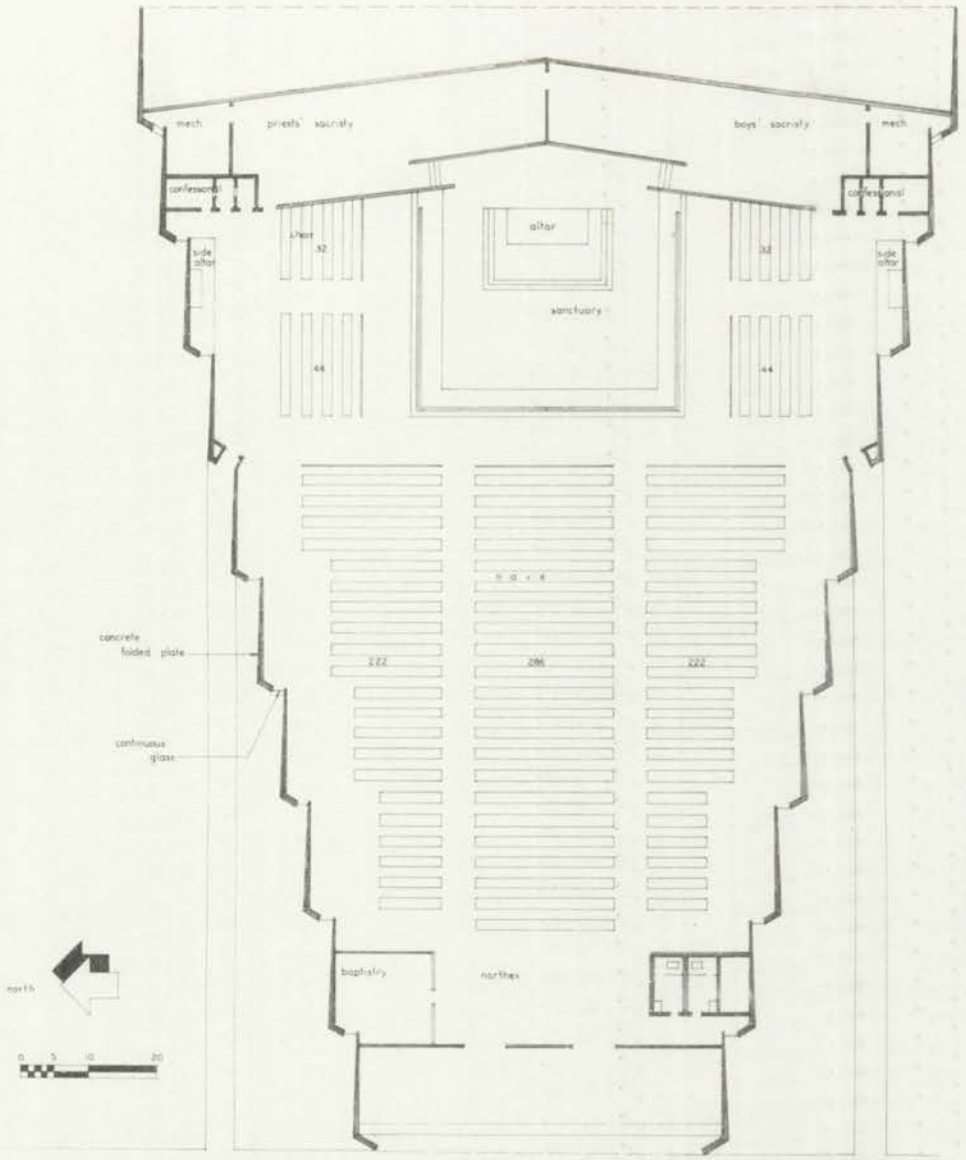
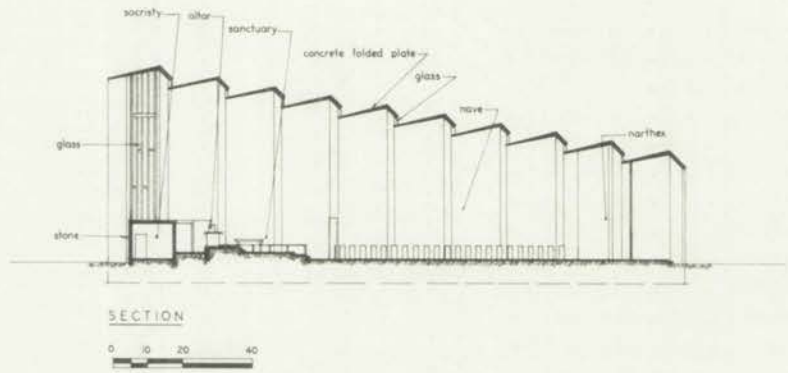


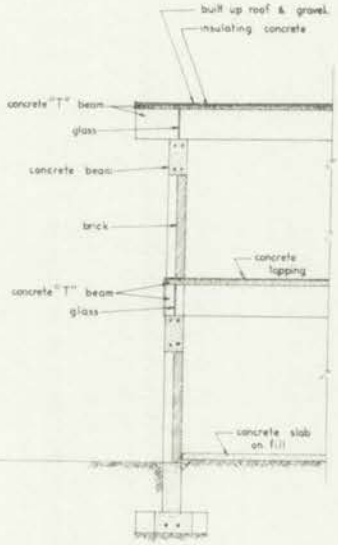
FLOOR PLAN



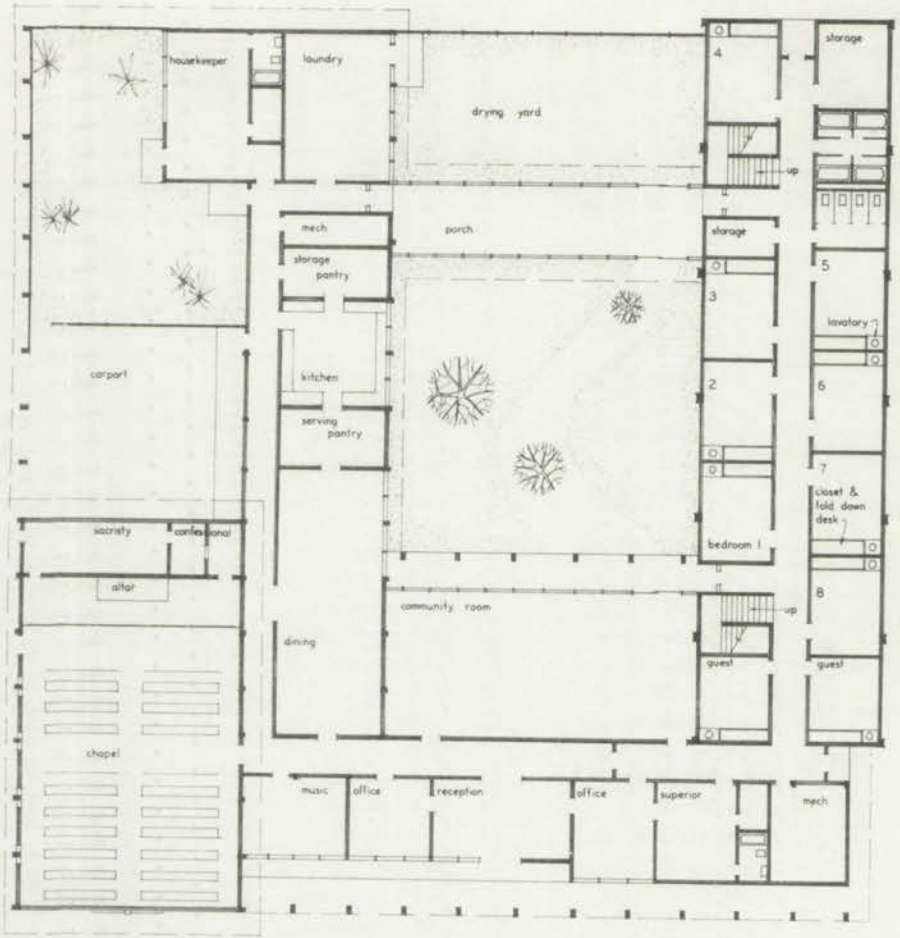
SECTION

CHURCH

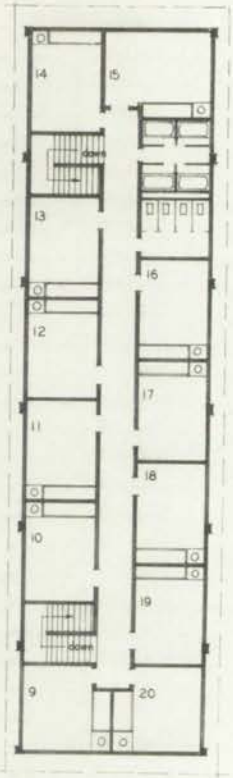
CONVENT



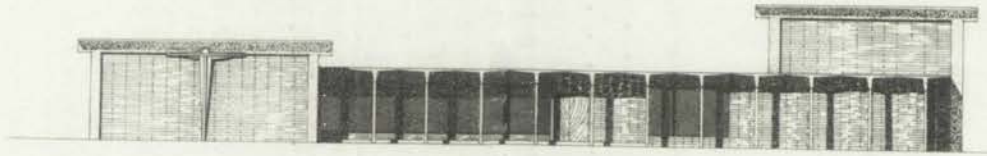
TYPICAL WALL SECTION



1ST FLOOR PLAN

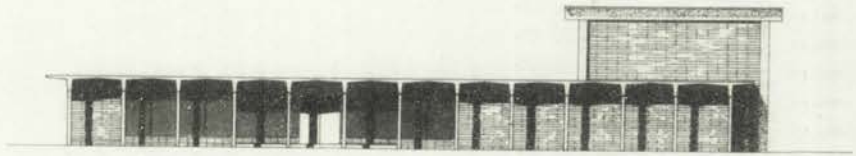


2ND FLOOR PLAN

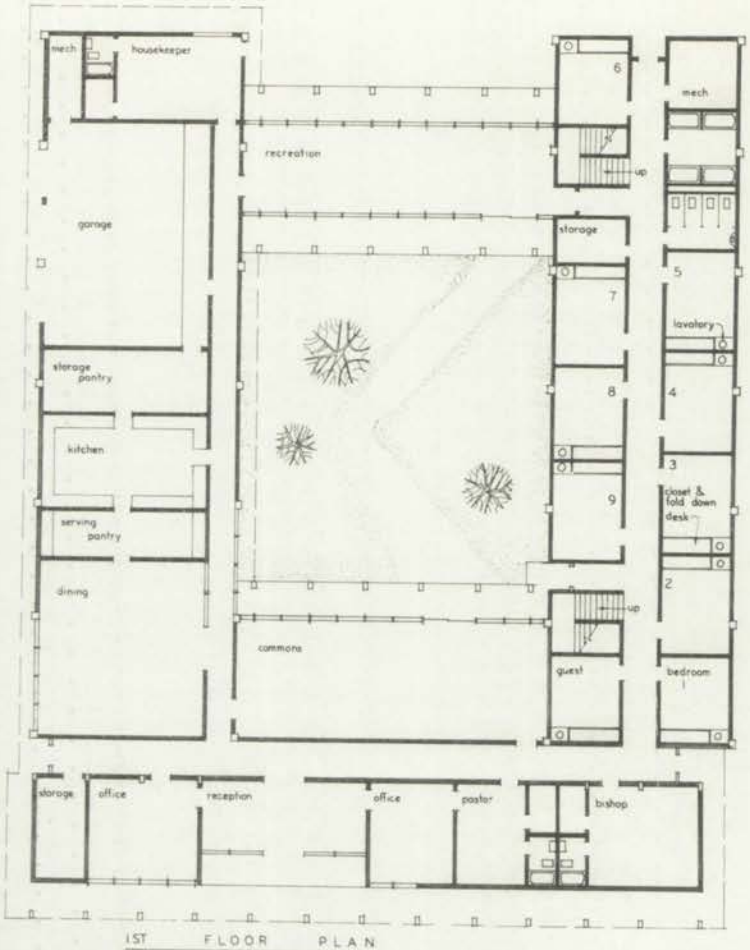


NORTH ELEVATION

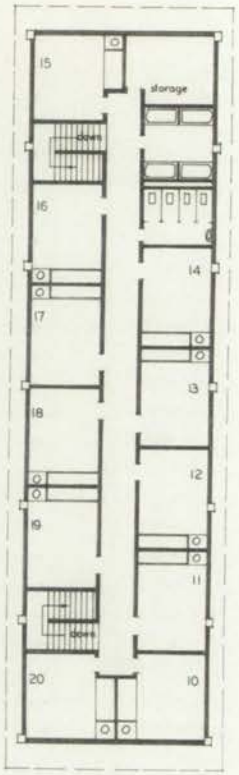
PRIESTS' RESIDENCE



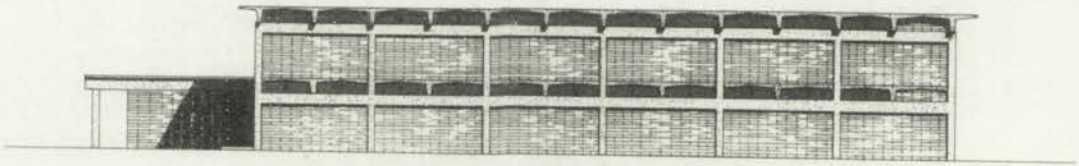
SOUTH ELEVATION



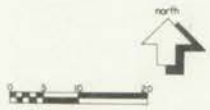
1ST FLOOR PLAN

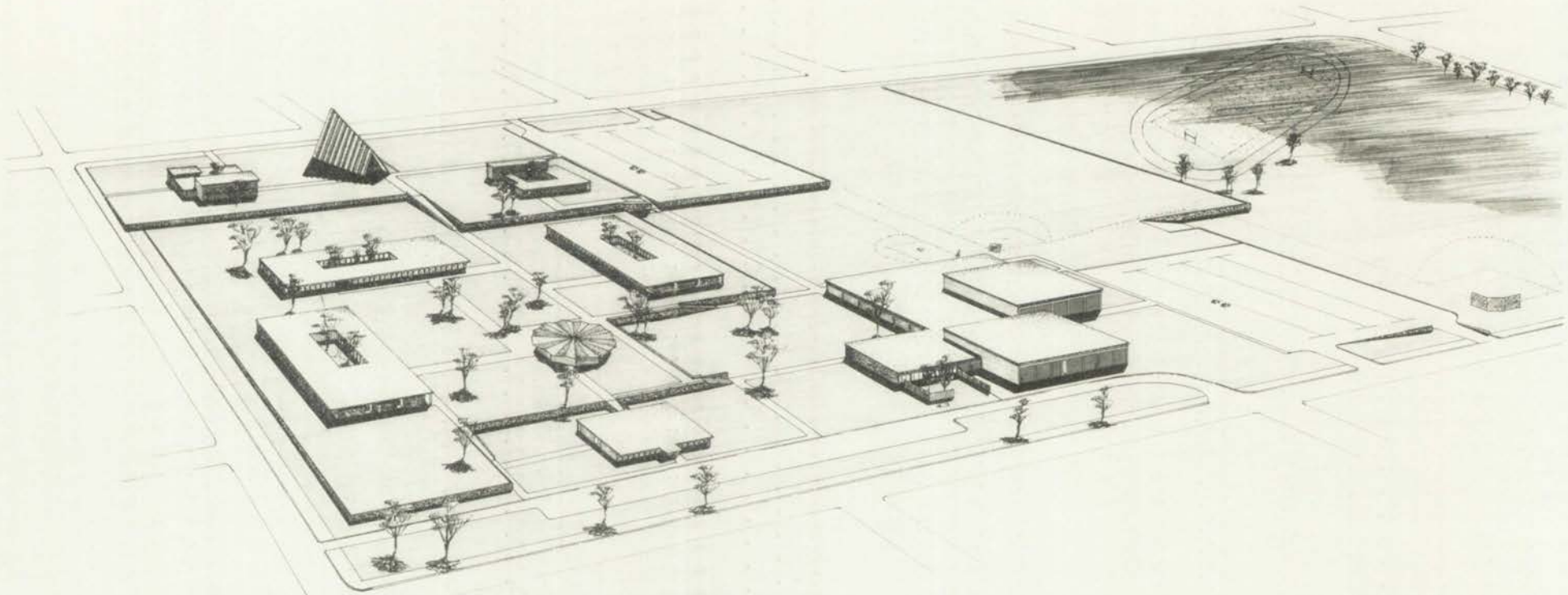


2ND FLOOR PLAN



EAST ELEVATION





in the northeast heights of
albuquerque . . . . . near
the sandia mountains

A CATHOLIC HIGH SCHOOL & PARISH COMPLEX

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