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PRIVATE SCHOOL
GALLATIN CANYON

UNDERGRADUATE THESIS

BY

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SUBMITTED TO THE SCHOOL OF ARCHITECTURE AS PARTIAL
FULFILLMENT OF REQUIREMENTS FOR BACHELOR OF ARCHITECTURE.

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HOW DOES THIS DIFFER FROM A PUBLIC SCHOOL?

A. SUBJECT

The subject of my thesis is a private school for a group of young people of the ages 13 to 18. The number of the group will fluctuate between 100-125 students which live at the school and with some local day students which could boost the total enrollment to 150. This would be the maximum number of students which would be considered in this project.

The school will be located in the Gallatin Canyon on the north side of the mouth of the west Fork Creek. The land is situated between the highway, 191, and the Gallatin River and covers 38 acres. The highway is the west boundary and the river is the east boundary with the west Fork Creek being the southern boundary between the highway and the river. The land is bordered on the north by land which is owned by other parties. The amount of land owned by the other parties occupies only a few acres before the river bends back to the highway again.

The location of the site for this school lends the school to having a dual purpose. The dual purpose being that with such a location the people at the school, who are in a rapid development stage of growth, can develop fully both physically and mentally. With the natural facilities of the site there is no excuse for there being a preference of development.

B. THESIS

The location of this school presents many problems. The land of this area is extremely delicate and this project must be researched and ideas put forth which will lend to the betterment of future projected development in the area. The question of sewage removal, air pollution and upsetting the evolutionary processes of the land itself will deserve much attention.

With a private institution the means of getting things done would be more rapid and effective due to the elimination of an elected school board.

I feel with a private school that through evaluation of resources that this micro-environment of the total canyon area can be handled in a way which would serve its human development needs as well as meet the needs of the surrounding ecology.

C. RESOURCE PEOPLE

The sources of information that I used to help in making my decisions are not completely gathered as of yet, but this is what I have thus far.

Right now the main sources are from persons which are right here on campus. The school bias a physical development program so I have talked with Dr. Shroyer, Director of Physical Education, here at M.S.U., about the suggested requirements the physical program should meet. Also in this area, Chuck Karnop, head trainer for the Athletic Department. He, besides being head mechanic for the campus horses, is the one who sets up the conditioning programs for the sports in the off season. This is very helpful in the prevention of injuries during the season. He knows how the body works and what is good for it.

Since this is a school for future persons as well as the present, the need for a look into the educational systems was called for. The person who is providing much information on systems which are projected as good is Dr. Robert Van Woert. He is the head of teaching certification here at the university. He has also been a school guidance counselor and had mentioned some of the psychological effects the school can have on a young adult.

The site, as mentioned before, poses a very involved problem. For this there is a man who has done a study on the Gallatin Canyon's capacities toward development. His study and information

provided by him is of the whole Gallatin Canyon and is not directed specifically at the site which I am working with. While talking to him, he indicated that the project which I am proposing be very appreciative of the area if it has to be built at all. This person is Dr. Gerald Neilson of the Plant and Soils Dept.

The person who has helped in the way of getting this idea going is Dr. Michael Copeland. He is the owner of the land and consented to let me use this as a site for a thesis project. He has also found and informed me of much of the resources I have found to date.

Also, I have been given the name of the director of school accreditation for the Northwest Region. This will provide a minimum curriculum for the school which will insinuate certain requirement.

I have sent some letters of inquiry to a few, approximately 20, private schools which will also give me an idea of present school set-ups. The schools are from areas in the northern and central part of the nation from Maine to Colorado.

Other sources of reference have come from bound pages or books. I have read a study called, The Impact of Recreational Development Upon a Primitive Area: A Case Study. This was done by the Plant and Soils Department of M.S.U. and Jerry Neilson, who I mentioned previously, also had a lot to do with this publication.

Written resources used for educational systems that have been recommended and found are these for now: Phi Delta Kappa, Journal of Teacher Education, American Education, Journal of American Association of School Principals, Journal of Education Research, American Education Studies, School Management, National Education Association Journal.

My Thesis Advisor is Gifford Pierce, whom you all know. I asked him to take this position because I have observed that he has had many studios which offered different objectives which I foresee having to solve in m problems.

D. OUTLINE OF METHOD

This is the manner which I plan to research my solution.

I. Topic

A. Given in previous part of this proposal

B. Look up reference material which will give me information about the project I propose

C. Conduct interviews which will open areas which must also be researched not already known myself.

D. Go through what I have gathered and cut unnecessary material and things which cancel themselves out.

E. Start making decisions based on what I have found which produce physical things from the written words.

F. From these decisions I will achieve solutions from arranging the decisions into cohesive areas.

G. I will refine the rough solutions to the most refined solution time will allow.

E. TIME TABLE

For the 550 portion of the time table the only things I can say halfway definitely is that I will be at the Monday, Wednesday and Friday meetings at 1:00. With verification from the members of the thesis committee's schedules that there will be some conference meetings on Mondays and Fridays at or around 10 a.m. starting with the first Monday or Friday in February.

As for meetings with resource personnel, well, since they are all members of the university staff I feel that it would be unfair to try and pin down times of meetings at this time. The

people have assured me, however, to come to see them whenever necessary. I think now that I will probably see them at least once a week.

F. PRESENTATION

In the project I must show how I arrived at the decisions I made. To do this will require Tables and graphs showing soil conditions and climate data. The soil conditions and the way the soil and project come together will be shown in sections and perspective. There will also be a site model with building representations to show the layout of the project in relation to the site and outside influences.

Along with these final visual displays there will be sketches and early doodles, etc. to set up a total though direction.

I would like to point out here that I don't foresee any working drawing projected for the presentation. Sizes will be given probably but will be "design" sizes not final and absolute dimensions.

G. PROGRESS REPORT

At the progress report I hope to have the curriculum set up for the school and the anticipated learning technique nailed down. The general size requirements (square feet) needed for the spaces which will be needed in the project.

I am aiming also to have the overall function areas layed down on the site and have the general ecological balance achieved in sewage solution and energy input ideas, etc.

PROJECT -- Private School

PHILOSOPHY AND PURPOSE --

Mental and physical development are compatible and to provide a community of physical and mental development for high school age persons.

LOCATION --

This school is located in the Gallatin Canyon 45 miles southwest of Bozeman, Montana, adjacent to Highway 191. The school site is bound on the east and north by the Gallatin River, the southern limit being the mouth of the West Fork Creek and the Gallatin River.

With Big Sky of Montana located eight miles from the site on the meadows surrounding the West Fork. On the slopes of Lone Mountain there is ample opportunity for physical endeavors as well as the mental experiences the school provides.

REASON FOR SCHOOL --

The Big Sky Project foresees a growth in the population in the area to be approximately 5,000 year-around residents. The nearest high school would be 50 miles away in either West Yellowstone or Bozeman without this school.

Also as the school is located in an area of a multitude of recreation and sport opportunity, there is an interest which would be

beneficial to the people attending the school. The recreational interests offered provide a sensitive observer the chance of observing many ecological, environmental impact processes and occurrences that are very relevant to the future of mankind in this and other areas.

LIFESTYLE OF SCHOOL --

The student population of the school will be made up of young people who have acquired an eighth grade education. This then suggests a group of young people that are at a stage of life where the interaction in such a school would be a great experience toward finding a direction of their own choosing.

The idea of a direction must however be found within limits of "society." Responsibility would be nurtured through the undertaking of duties by all people on the school campus. These duties entail taking pride in the appearance of the school and the consideration of fellow students and people outside the school census.

The instructors will also take on duties for the benefit of the school. They must provide an example for the students at all times so that while the student is exploring for a direction to follow, he has indirect direction to assist him.

The location of the school is the implicating criteria for the duties of the individuals who will live there. Besides unity of

the school population, the isolation of the site calls for facilities provided for the function of the school. The school must provide facilities which in an urban setting would be independent from the school. By these functions I mean business, population of school age, etc., which a school in an urban setting is brought about to fulfill. This school which I propose must provide: an educational system, living spaces for a domestic life for instructors and students, relaxation and entertainment for the campus population. Along with these necessities, of which there may be more, there must be a number of supporting facilities which can provide for the wants of the campus population and site.

In order for the facilities being provided for the school to have a worthwhile scale, they must be open to persons from off campus. These people from off campus would be mostly young persons of a similar age to those at the school. Their coming to the campus would come about mainly through association with persons in the school and because the school will offer facilities for this age group.

This would contrast to the facilities which are being proposed for an older and more financially capable population.

The use of these facilities is desired since it will bring on an interaction that can keep the school from becoming an island.

EDUCATIONAL IDEAL --

This school must be a possibility now and also be complementary to the future. To do this a system must be chosen as an improvement of the present system and one to which has shown possibilities of continued improvement which will make it worthwhile in the future.

An educational environment can have a mass production effect on thoughts. All thoughts of students during their school years are graded, in that the answer a person gives, is a reflection of what a person was thinking. If a person gets a poor grade through these thoughts, it is then assumed by the student that his thinking is abnormal. This is possible, but it is also possible that through the direction which the student is thinking, a better and more refined way of finding the solution can be found. The student may have gotten the "wrong answer" because of a slight mistake in a calculation or absentminded thinking in a part of the solution process rather than it being a bad process.

In absolute reality there is no such thing as an abnormal thought.[1] As long as there is a beneficial answer found the thought should not be criticized because someone else is thinking in a different direction.

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[1] Education and the Impulse Life of the Child; Phi Delta Kappan, Sol Gordon; February, 1966, p. 310.

For some insight as to an educational system which would be good for the future and towards the ideal, I consulted Dr. Robert Van Woert, Head of Teaching Certification at Montana State University. He mentioned the open space concept of learning. This concept has been used in recent years with much success in the elementary education field and is now being adopted to the secondary level.

The open space form of education was developed for many reasons. I feel, through my research, that the main one was to provide a results oriented system rather than follow the method learning process.[2] For such a system to accomplish this ideal, the curriculum must be learner centered and relevant to adult roles.[3]

This curriculum must be more democratic, relevant and humanistic in its objectives to be able to obtain a results rather than method type of learning. To be a results learning system an attitude should be adapted which implicates that the right answer is possible using many different methods. This contrasts to the method type learning where the attitude is that there is "a" way of getting the answer and you the pupil will follow it or get poor marks. Since the system is more for the end results to a problem

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[2] An Educational System for the '70s; Phi Delta Kappan, December, 1969, p. 199.

[3] Ibid.

rather than how or following "the system," the schools are beginning to advance students on a basis of accomplishments rather than age.[4]

With the procedure of advancement according to achievement level rather than age, many things enter into consideration. One consideration is the possibility of a person achieving at a faster rate in one area than another thus putting a person at different levels for different subjects. With this situation it becomes extremely hard to accommodate the schedules of all the persons who would be involved in this situation. In such a system the students' "growth is not thwarted or stunted by such artificial and frustrating barriers to learning (grades) their progress, therefore, is evaluated in terms of individual growth and development, measured in terms of self-capability."[5]

The open space type of education is actually based on the idea that there is only open space. This opens up the physical boundaries and instruction boundaries to accommodate the results and achievement form of advancement. In this situation the students are assigned an area in a large space based on their achievement. Then the instructors come to each area and give a lecture concerning a specific field. The student is also free to move from

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[4] Education Digest, December, 1966.

[5] Open Space Schools; Report of the AAASA Commission on Open Space Schools.

a lecture which he feels he has adequate achievement to another with which he may be having trouble.

The idea of having the instructor come and give a lesson only long enough to instruct not to fill up an hour works well in an open space system school. Instruction in this manner is well utilized in an independent study program which is most compatible to open space systems. In an independent study curriculum students are allowed, with the consent of an instructor, to contract for a grade in an area which the instructor is proficient. The student says that, within a general format which is agreed upon, he will do so much work for such a grade. During the time which is specified, the person has regular meetings with the instructor keeping him up-to-date on the progress of the project. Also, this provides the instructor with a better basis for advancing the student or not.

If the student does not accomplish what he sets out to do, then he takes the project over. The student must also attend the lectures which the instructor gives to the class as a whole to provide general knowledge in the subject area.

Because of this attitude toward the advancement of people, it is rather logical to have a space which is as open as the learning process.

With an open space system the time schedule can be set up so that teachers only give lessons for one-half day and then are free for the rest of the day. This free time can then be used to have consultations with students, prepare lessons, and for field trips on the school property or the surrounding countryside. These field trips will give the students the opportunity to observe many of the occurrences that are presented to them in lessons. They are also subjected to physical activity such as climbing, hiking, etc. under the supervision of the instructors which is beneficial to body development. The time schedule can be set up to meet the needs of the instructors and students in any way.

Another tool for better use of the open space system is the incorporation of electronic aids. The use of computer assisted instruction is very helpful in finding students who are having problems and those which could be moving at a faster rate. Use of such a learning device provides efficiency beneficial to the student and the instructor. The answer is able to be evaluated right or wrong instantly and given to the student within seconds rather than a day or week later. The instructor is also able to observe by way of a master panel who is getting the right answers and who the wrong while the lesson is being carried out instead of when an assignment is handed in. With this information he can then assist the students during the exercise. Thus, he might eliminate problems which the student might have in his independent course of

study or an outside work assignment.

The computer is very helpful in obtaining resource materials from a central resource point. This provides access to many materials which a small school library would not normally keep. The possibility to serve more people through an outpost computer allows the central resource point to keep a wider range of material.

Teaching aids are good in the respect of eliminating human error; they keep a constant instruction procedure. Thus, the possibility of a bad lesson because an instructor is in a poor mood is cut down. The aid can also assist an instructor who is not as knowledgeable in a particular area. The lessons from a computer are also proofread and edited so the right meaning is given during a lesson. This way, if there is a lack of understanding, it is on the part of the student in his interpretation of the material presented.[6]

The electronic aids are very helpful in simulations. Simulations are what relate the knowledge presented to a particular real situation.[7] They give an indication of how the material can be used and, from these examples, applications to everyday and unique problems are made. This is not to say this is the only way, but that this way does work.

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[6] Evolving Instruction; Eugene H. Haddan, Eastern Michigan University.

[7] Ibid.

A technique in using teaching aids is that of delayed action response. This is a method in which the student is given a question, he answers that question and is given the evaluation, be it right or wrong. Then before he is given the next question he is given time to absorb what he has just experienced. It was found that it gave better retension results in students who were exposed to such a technique.[8]

Electronic aids eliminate a number of circumstances which can hinder learning. When a student is evaluated by the computer exercise it is based on the normally accepted basis and is not evaluated on a curve against other people in his group. The aids also help relieve the instructor of having to be both the rewarder and the punisher with regard to the achievement level. Cut lines become more obvious to all persons concerned. The machines can also go over and over an exercise without taking the instructor from the rest of the class.

The instructor, however, is not useless. The idea is people run machines, not machines run people. Someone must schedule the lessons and classes. There must be someone to answer unanticipated questions which the computers are not programmed to handle.

The open space school offers to students the opportunity to experience and contemplate many things, any student who does not get

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[8] Journal of Educational Research, Vol. 65, No. 7, March, 1972.

such opportunity is a deprived person.[9]

PHYSICAL DEVELOPMENT --

The people who will enroll in the school will be at a stage in life when the development of the body will be progressing at a rapid pace.

The location of this school is ideal for many types of recreational activity. Those who enjoy sports and recreation will be able to participate as much as possible by coming to this school. The educational requirements can be met while enjoying many worthwhile body-developing activities.

The surrounding locality provides the recreation aspects of Big Sky of Montana which can be utilized by the school for organized physical education classes and experiences. This complex will attract adults of students to the area as well.

The school, besides taking advantage of Big Sky and the surrounding area potential, will offer a physical education program which would supplement these activities and be beneficial to the development of the students' bodies. There will be a varsity sports program as part of the physical development program. The varsity sports will include basketball, gymnastics, wrestling, skiing and tennis. This would provide the school with a connection with other schools in the

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[9] Open Space Schools; AASA Report

area. With the publicity from this and other functions, the project will keep from sinking into obscurity. This would be a granted source of acknowledgement rather than the school soliciting it.

The physical education program will be based on what the instructor feels is best of course. However, some courses which might be offered are:[10]

golf
tennis
badmitten
fencing
camping
backpacking
judo
volleyball
basketball
dancing
tumbling
fundamental courses:
fishing
river floating
hunting safety
swimming

The offering of these courses, or what the instructor feels is best, should be beneficial to the functions of the human body. Since the body is not fully developed at the age which the students would be upon entering the school, team sports are best offered to freshmen and working more towards specialized and individual sports being better.[11] This sequence of moving from team toward individual sport works well as a confidence builder for the students.

The site for the school indicates that varsity football, soccer, baseball, etc. are not feasible. The site does not lend itself to large open fields requiring large maintenance and care. That is

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[10] Interview with Dr. George Shroyer, Head of Physical Education Department, Montana State University, Bozeman, Montana.

[11] Ibid.

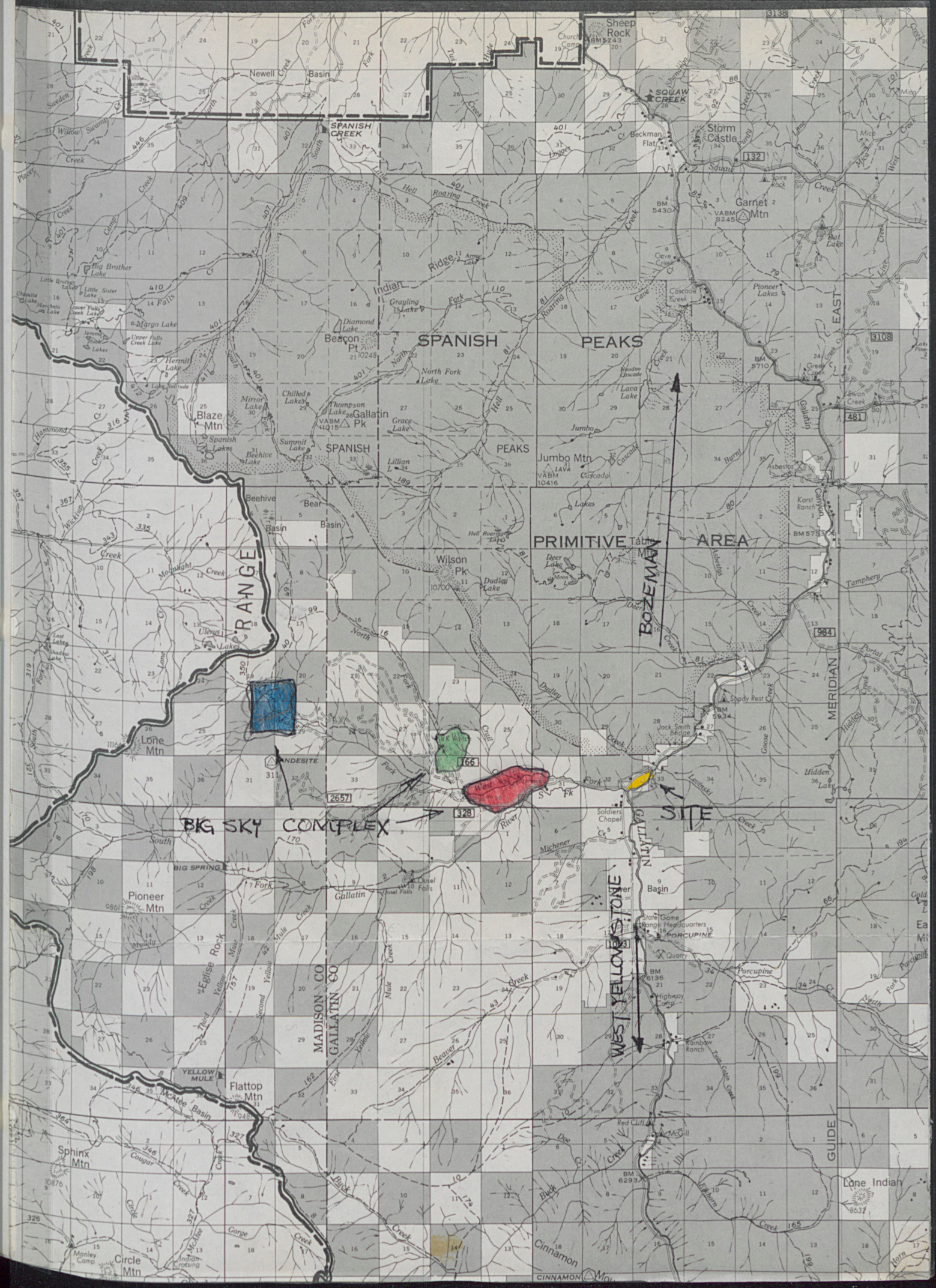
not to say that these sports would not happen there, but not at the varsity level. Along with the physical dimensions of the site, the climate is uncooperative at times to make these facilities for the sports not worthwhile.

During this time at the school, the student will be able to become very confident in the capabilities of himself.

COMBINING EDUCATION AND SPORT --

The development of the mind and body have been explained because of their importance in the philosophy of the school. The reason this school is based on such a combination is that the geographical area provides so much opportunity for both. There is abundant ecological processes which can be observed by the students during pack trips, horseback excursions, fishing trips and class field trips. While getting out and exercising their bodies the students can learn about many natural processes and the impact on them that certain intrusions can make. The exposure to this can help make the students more aware of life and themselves.


Helena
E. Helena
York
HELENA
Hauser Lake
Hauser Dam
Canyon Ferry
Canyon Ferry Dam and Rec. Area
Unionville
Montana City
Rimini
Alhambra
Clancy
Winston
Corbin
Wickes
Jefferson City
DEERLODGE NATIONAL FOREST
Early Mining Camp
Basin
Boulder
Elkhorn
Hot Springs
Elk Park
Boulder River School and Hospital
Radersburg
Toston
Townsend
Canyon Ferry Lake
BROADWATER
JEFFERSON
Whitetail Peak El. 8476
Elk Park Pass El. 6372
Columbia Gardens
Homestake Pass El. 6375
Pipestone
Lewis and Clark Cavern State Park
Missouri Headwaters State Monument
Trident
Logan
Manhattan
Whitehall
Jefferson Island
Cardwell
La Hood
Three Forks
Willow Creek
Madison Buffalo Jump State Mon.
Amsterdam
Belgrade
Waterloo
Silver Star
Harrison
Pony
Hollow Top Mtn. El. 10513
Willow Cr. Res.
Anceney
Bozeman
Bozeman Hot Sprs.
Norris
Twin Bridges
Potosi Hot Springs
BEAVERHEAD NATIONAL FOREST
Sheridan
McAllister
Madison Dam
BEAVERHEAD
Ennis Lake
Laurin
Nevada City
Early Mining Camps
Historical Museum
Alder
Ruby Dam
Ennis
Jeffers
Gallatin Peak El. 11015
Spanish Peaks Primitive Area
Ennis Recreation Area
Lone Mtn. El. 11166
Virginia City
Ruby River Reservoir
Cameron
Sphinx Peak El. 10860
Kock Pk. El. 11293
Lookout Pt. El. 927
Earthquake Area Visitor Center
Hebgen Dam
Quake Lake
Hebgen Lake
Wade Lake
Cliff Lake
Raynolds Pass El. 6834
Red Rock Lakes National Wildlife Refuge
Red Rock Lake
Hidden L.
Lower L.
Elk L.
Swan L.
Red Rock Pass El. 7000
Lakeview
Upper Red Rock Lake
Henry Lake
Targhee Pass El. 7075
West Yellowstone
CENTENNIAL MTNS.
CONTINENTAL DIVIDE
TARGHEE NATIONAL FOREST
Lima Reservoir
Ruby River
Gravelly Range
Snowcrest Range
Madison Range
Gallatin Range
Absaroka Range
Beartooth Range
Tobacco Root Mountains
Jefferson River
Missouri River
Gallatin River
Madison River
Yellowstone River
Boulder River
Stillwater River
Sweet Grass Creek
Shields River
Musselshell River
Crazy Mtns.
Bridger Range
Castle Mtns.
Big Belt Mts.
Big Belt Mtns.
Little Belt Mts.
Little Belt Mountains
Crazy Mountains
Belt Mountains
Castle
Early Mining Camp
Martinsdale
Lennep
Checkerboard
LEWIS AND CLARK NATIONAL FOREST
White Sulphur Springs
Mineral Springs
Martinsdale Reservoir
Coffin Butte El. 6400
Twodot
Harlowton
Judith Gap
High Mtn. El. 8240
Buffalo
Fort Logan
Kings Hill El. 8008
Three Peaks El. 7875
Ringling
Sixteen
Maudlow
Wilsall
Clyde Park
Conical Peak El. 10737
Crazy Peak El. 11214
Porcupine Butte El. 6970
Melville
Big Timber
Greycliff
Springdale
Swingley
McLeod
Livingston
Bozeman Pass El. 5712
Mt. Delano El. 10200
Mt. Blackmore El. 10196
Mt. Cowen El. 11206
Emigrant
Pray
Chico Hot Springs
Montanapolis Springs
Emigrant Peak El. 10960
Monitor Peak
Miner
Corwin Springs
Jardine
Gardiner
Electric Peak El. 11155
Petrified Forest
Absaroka Primitive Area
Cooke City
Silver Gate
Colter Pass El. 8066
Mammoth Hot Springs (Yellowstone Park P.O.)
Mammoth Hot Sprs. Visitor Center
Silver Gate
Golden Gate
Gray Peak El. 10300
Petrified Tree
Folsom Peak
Tower Junction
Bison Peak El. 8800
Lamar Unit
Pilot Peak El. 11708
Abiathar Peak El. 10800
Cache Mtn. El. 9600
The Needle El. 9600
Tower Fall
YELLOWSTONE NATIONAL PARK
Mt. Holmes El. 10300
Apollinaris Spring
Dunraven Pass El. 8859
Mt. Washburn El. 10243
Norris Canyon Jct.
NORRIS GEYSER BASIN
GRAND CANYON
Inspiration Point
Artist Point
Yellowstone Falls (Upper Falls 109 ft. drop)
(Lower Falls 308 ft. drop)
Visitor Center
Madison Jct.
Gibson Falls (84 ft. drop)
Mud Volcano
Pelican Cone El. 9643
Castor Peak El. 10800
Parker Peak El. 10200
Saddle Mtn. El. 10670
Pyramid Peak El. 10400
Cathedral Peak El. 10780
Mt. Chittenden El. 10198
Fishing Bridge Visitor Center
CENTRAL PLATEAU
Imperial Geyser
Fountain Paint Pot
Natural Bridge
Old Faithful Geyser
Old Faithful
Paint Pots
Lake
Yellowstone
Grizzly Peak
Sylvan Pass
MIRROR PLATEAU
Twin Peaks El. 11860
Mystic Lake Dam
Grasshopper Glacier
Granite Peak El. 12799 Highest Point in Montana
Beartooth Primitive Area
Limestone
Nye
CUSTER
GALLATIN NATIONAL FOREST
Mt. Douglas El. 11300
Absaroka Range
Hyalite Res.
Lone Mtn.
Ennis Lake
Madison Dam
Willow Cr. Res.
Lower Res.
Upper Res.
Cayuse Cr.
Porcupine Cr.
Sweet Grass Cr.
Lebo Lake
Martinsdale Reservoir
Bair Lake
N. Fk. Smith R. Res.
Canyon Ferry Lake
Hauser Lake
Lake Helena
Missouri River
Yellowstone River
Gallatin River
Madison River
Jefferson River
Boulder River
Stillwater River
Musselshell River
Sweet Grass Creek
Shields River
Crazy Mtns.
Bridger Range
Castle Mtns.
Big Belt Mts.
Big Belt Mtns.
Little Belt Mts.
Little Belt Mountains
Crazy Mountains
Belt Mountains
Gallatin Gateway
Absaroka Range
Beartooth Range
Tobacco Root Mountains
Madison Range
Gallatin Range
Gravelly Range
Snowcrest Range
Ruby River Reservoir
Lima Reservoir
Lake
Yellowstone


BIG SKY COMPLEX
SITE
SPANISH PEAKS
PRIMITIVE AREA
BOZEMAN
RANGE
MERIDIAN
WEST YELLOWSTONE
GALLATIN
MADISON CO
GALLATIN CO
SPANISH CREEK
SQUAW CREEK
PORCUPINE
CINNAMON
Sheep Rock
Storm Castle
Garnet Mtn
Beacon Pt
Gallatin Pk
Blaze Mtn
Wilson Pk
Jumbo Mtn
Lone Mtn
Pioneer Mtn
Flattop Mtn
Sphinx Mtn
Circle Mtn
Lone Indian
Indian Ridge
Newell Basin
Beckman Flat
Garnet Mtn
Big Brother Lake
Hermit Lake
Spanish Lakes
Beehive Basin
Bear Basin
Wilson Pk
Dudley Lake
Deer Lake
Lava Lake
Cascade
Jumbo
Lillian L.
Grace Lake
North Fork Lake
Thompson Lake
Chilled Lakes
Mirror Lake
Summit Lake
Diamond Lake
Grayling Lake
Arrow Lake
Hell Roaring Lake
Ulevig Lakes
Lost Lake
Shadow Lake
Deer Lake
Moon Lake
Hidden Lake
Soldiers Chapel
State Dome Ranger Headquarters
Quarry
Highway Camp
Rainbow Ranch
Red Cliff
Asbestos
Karst Ranch
Canyon
Tampery
Portal
Hidden
Michener
Lewinski
Jack Smith Bridge
Sheep Mtn
Beaver
Yellow Mule
Mule
Second Yellow Mule
Third Yellow Mule
Eglise Rock
McAtee Basin
Cougar
Buck
Doe
Elk Horn
Gorge
Monley Camp
Indian Crossing
Cinnamon Mtn
Andesite
Big Spring
Gallatin
Lone
Hammond
Wickiup
Moonlight
Tamarack
Porcupine
Basin
Creek
Fork
Ridge
Mtn
Pk
Lake
Lakes
Falls
Basin
Meridian
Primitive Area
Big Sky Complex
Site
Gallatin
Madison Co
Gallatin Co
West Yellowstone
Bozeman
Range
Meridian
Guide
Cinnamon
Andesite
Big Spring
Yellow Mule
Flattop Mtn
Pioneer Mtn
Lone Mtn
Sphinx Mtn
Circle Mtn
Lone Indian
Cinnamon Mtn

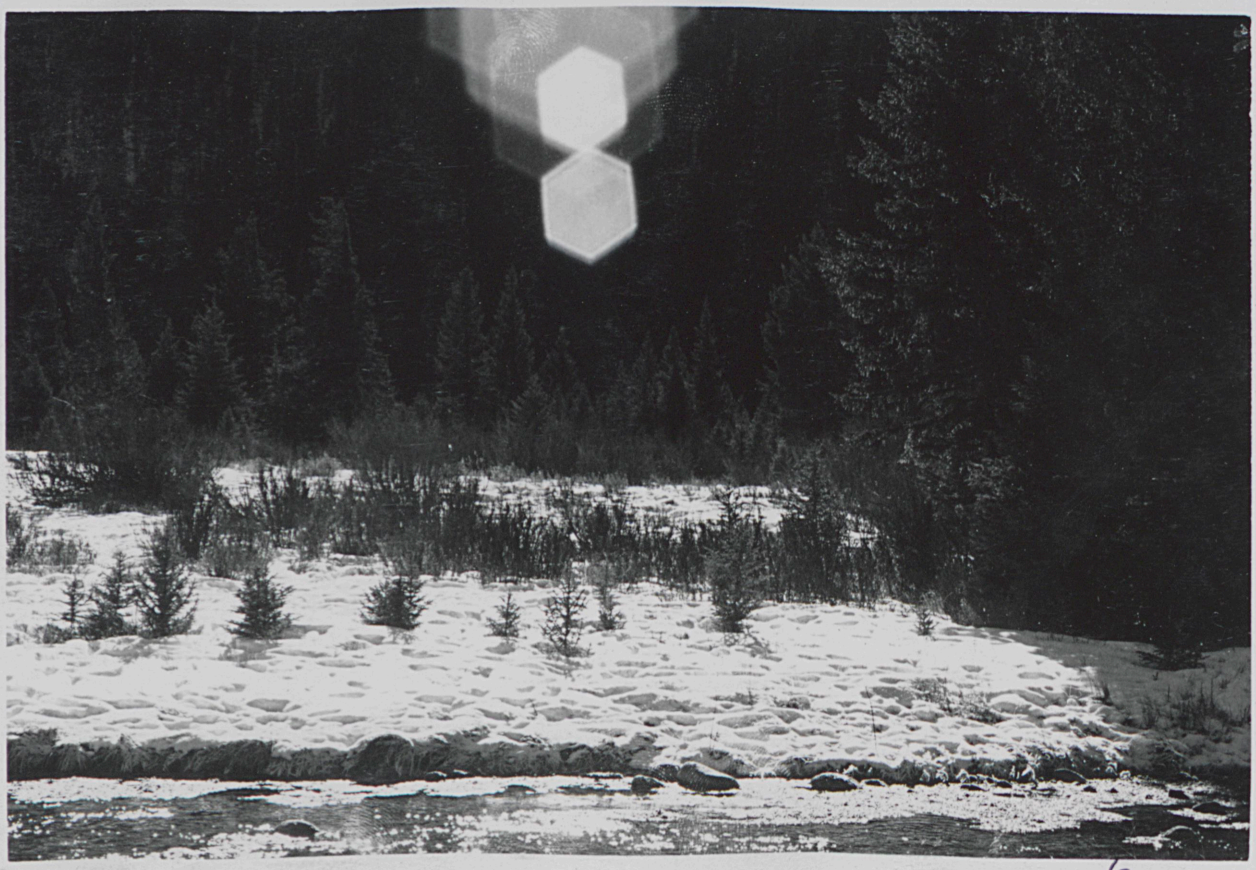

SITE



2



2

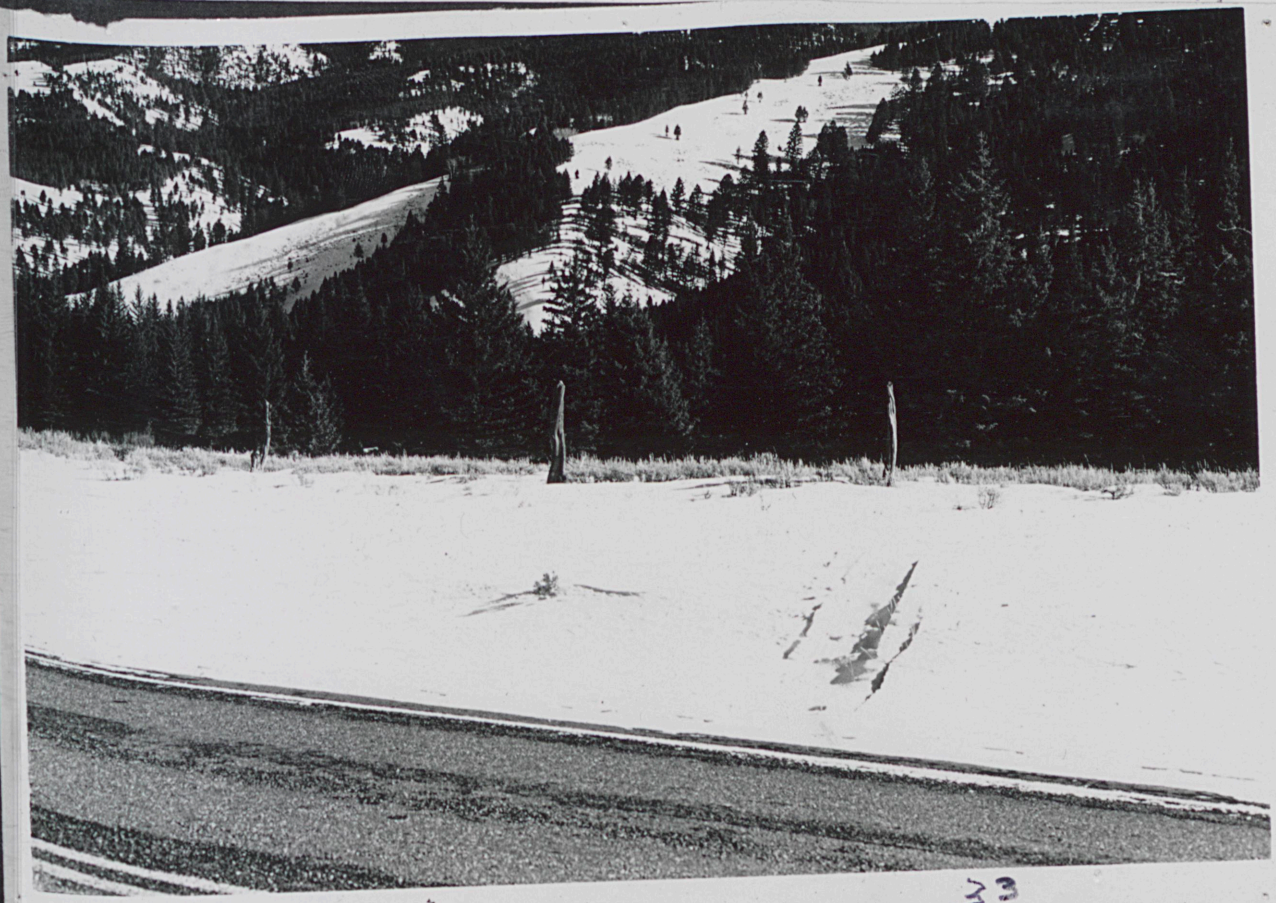


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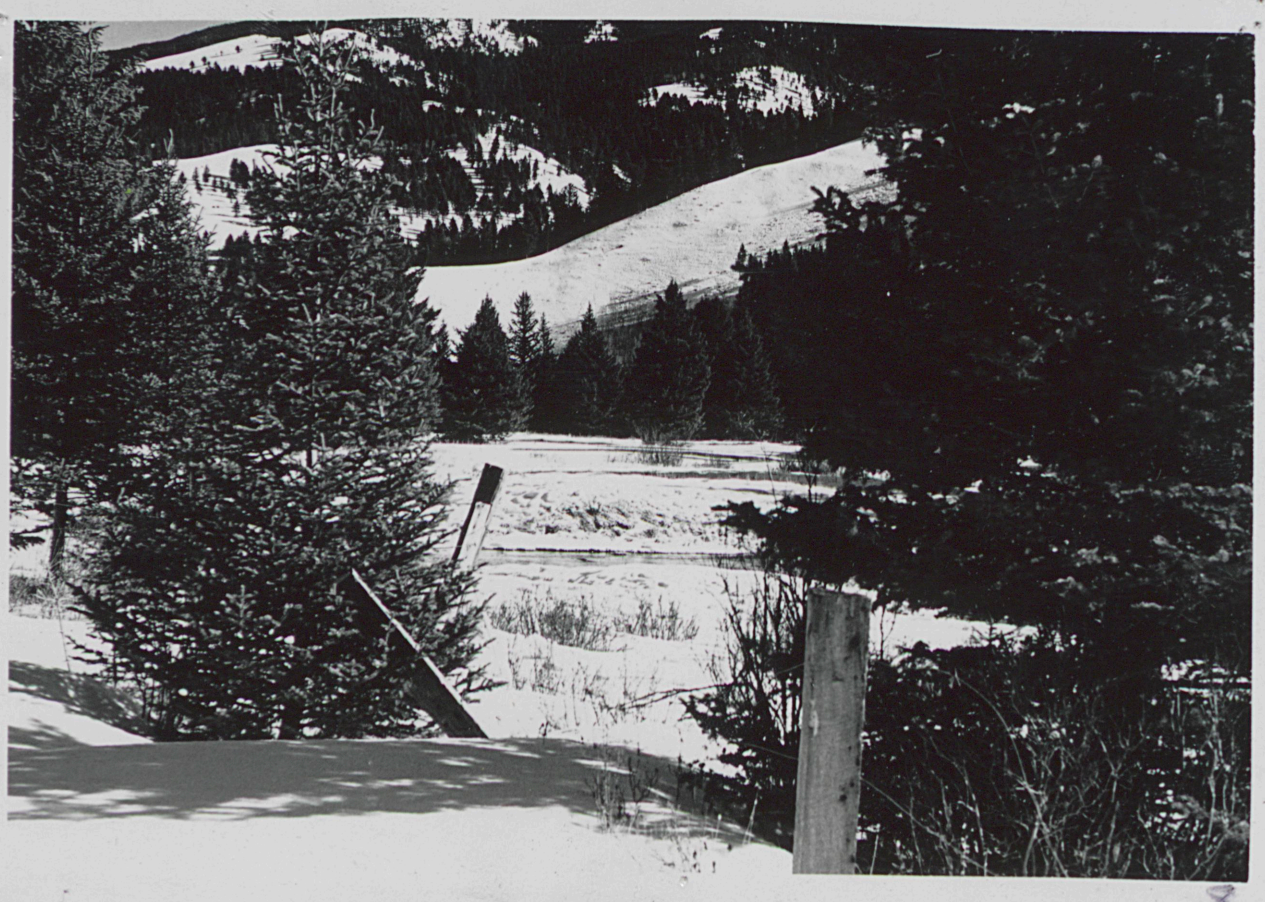


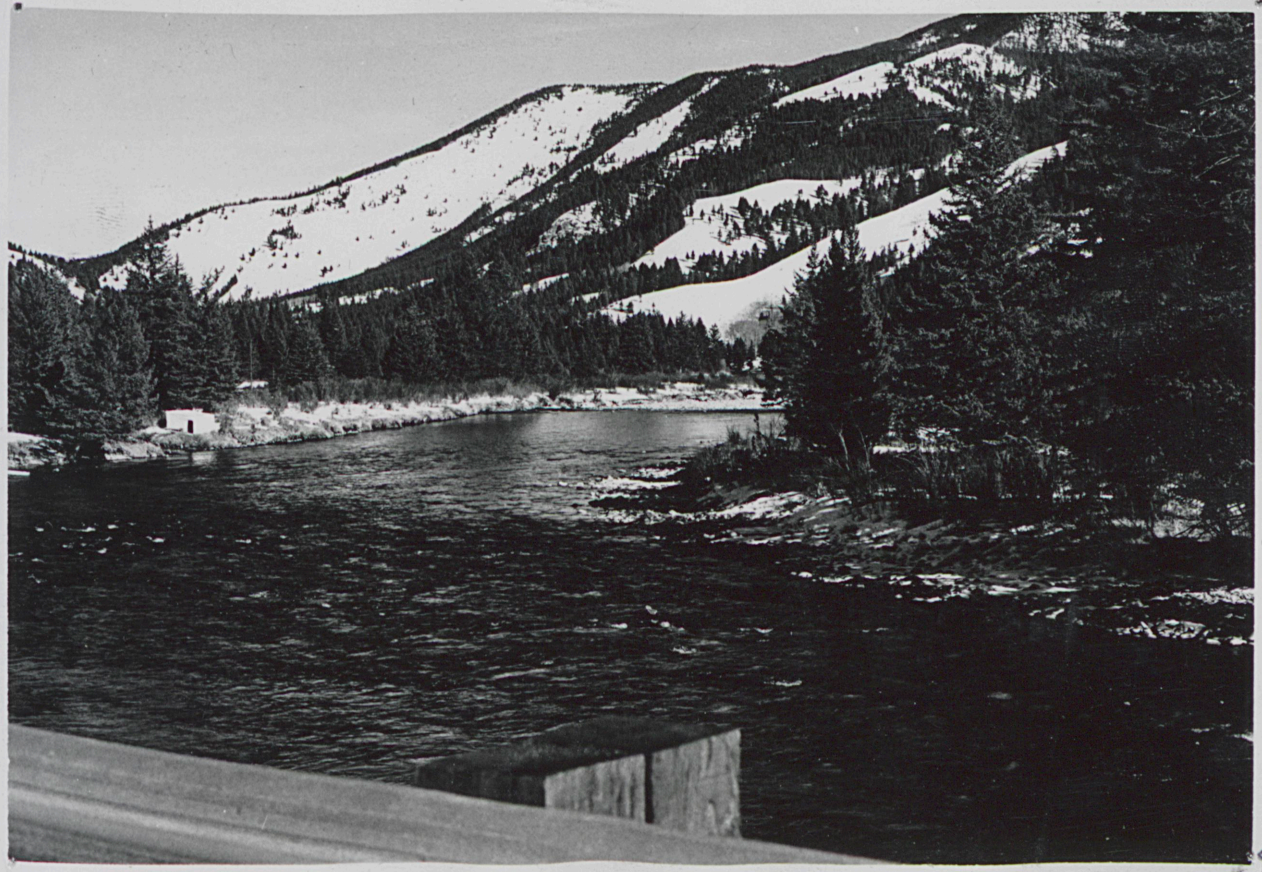
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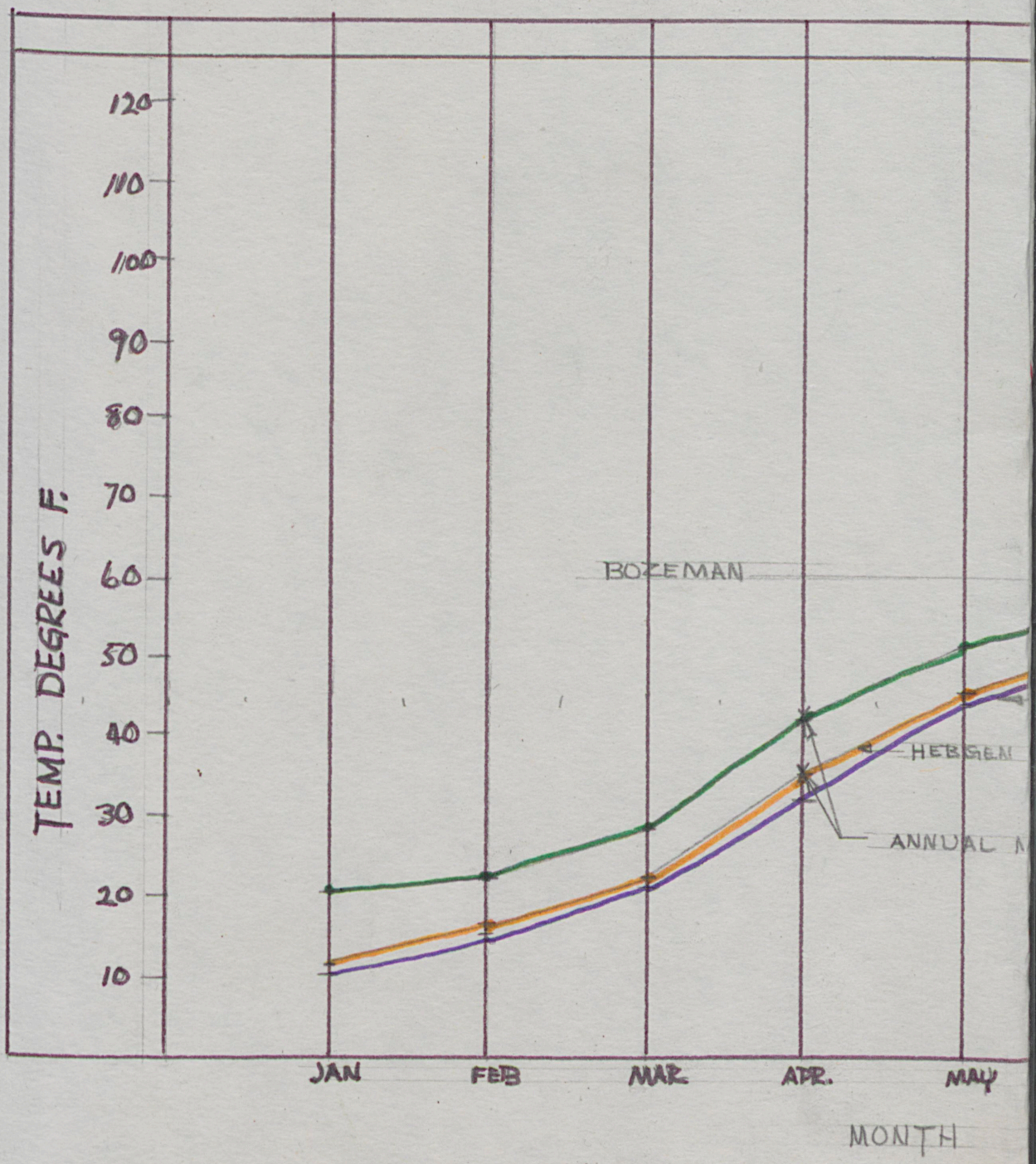
4

EXTREMES ELEV. 5600 FEET

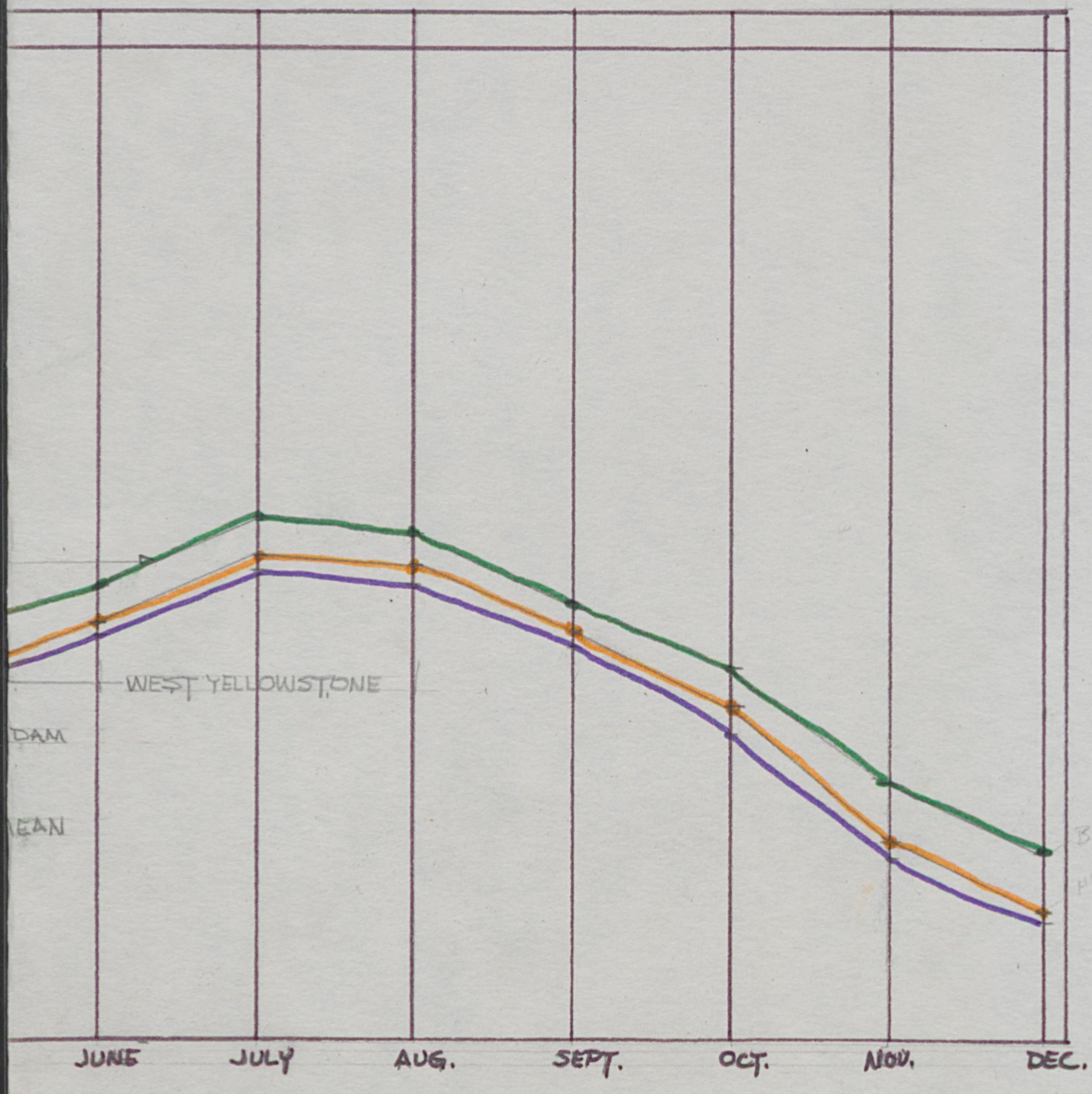
AVERAGE FREEZE FREE DAYS 70

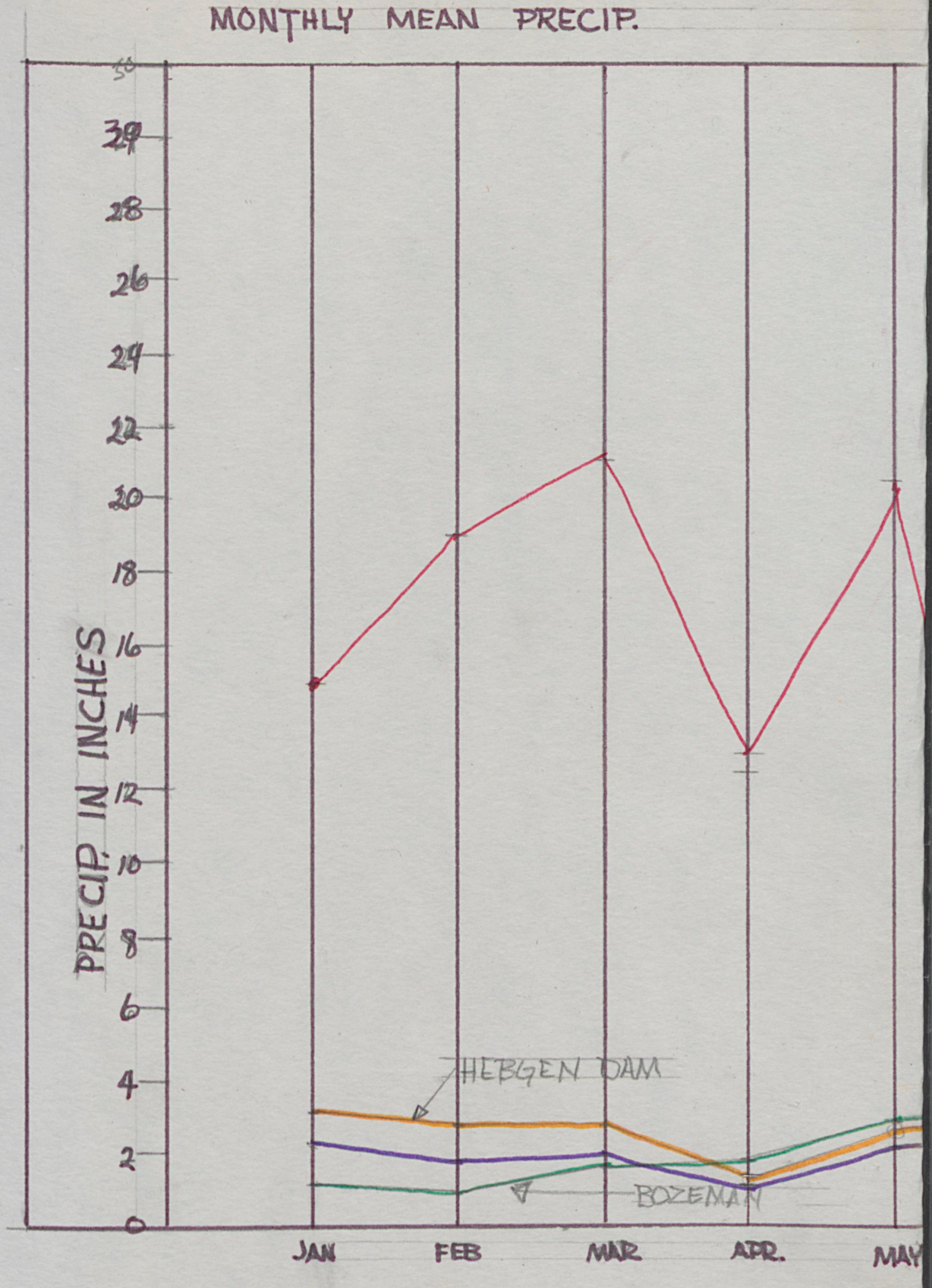
HIGH	54	60	64	79	88
LOW	-48	-52	-36	-13	12

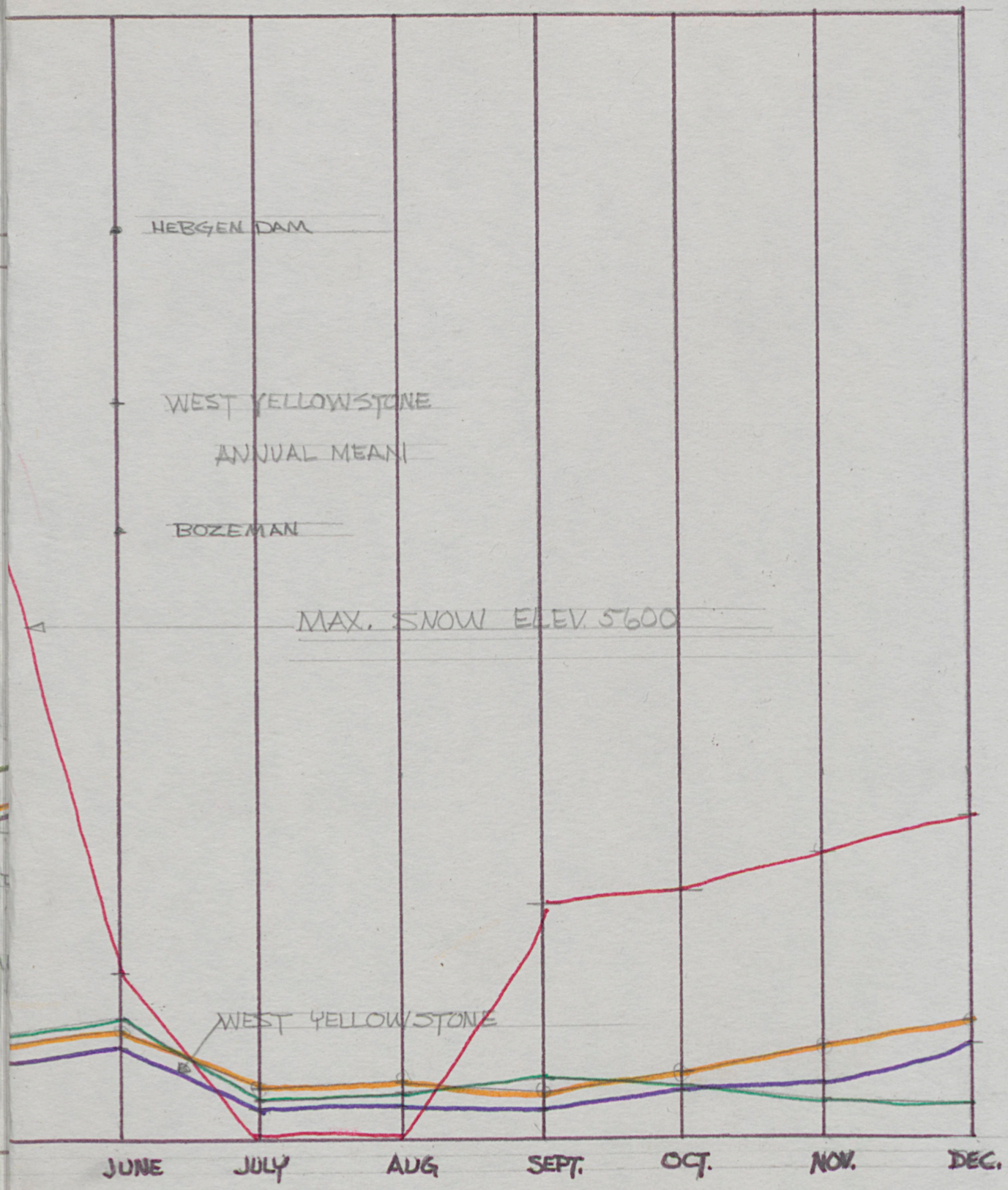
MONTHLY MEAN TEMP.



93	100	99	91	83	68	62
23	29	27	12	-19	-34	-37

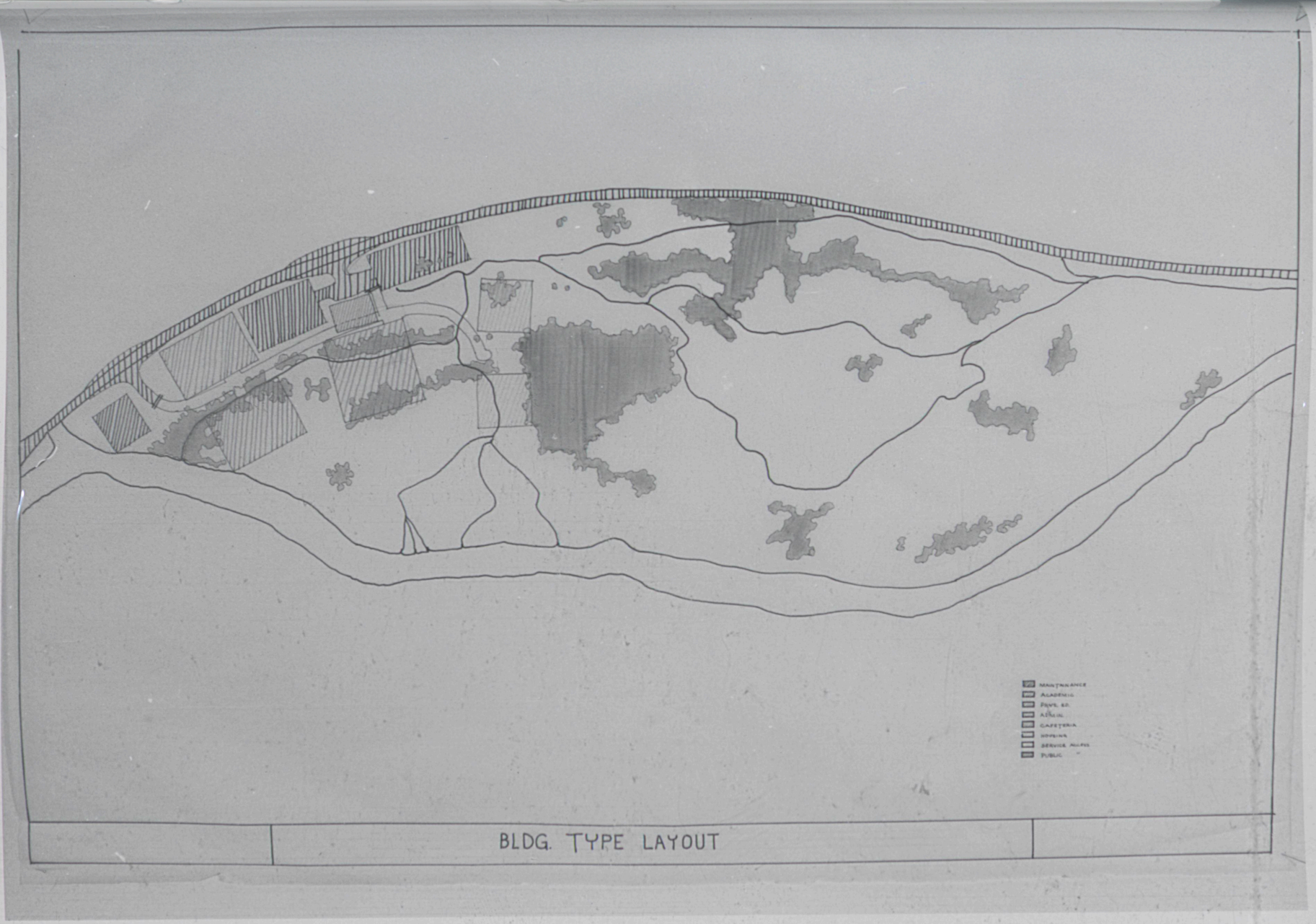



MONTHLY MEAN PRECIP.
PRECIP IN INCHES
30
29
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
JAN
FEB
MAR
APR.
MAY
HEBGEN DAM
BOZEMAN


HEBGEN DAM
WEST YELLOWSTONE
ANNUAL MEAN
BOZEMAN
MAX. SNOW ELEV. 5600
WEST YELLOWSTONE
JUNE
JULY
AUG
SEPT.
OCT.
NOV.
DEC.



SITE PLAN



BLDG. TYPE LAYOUT



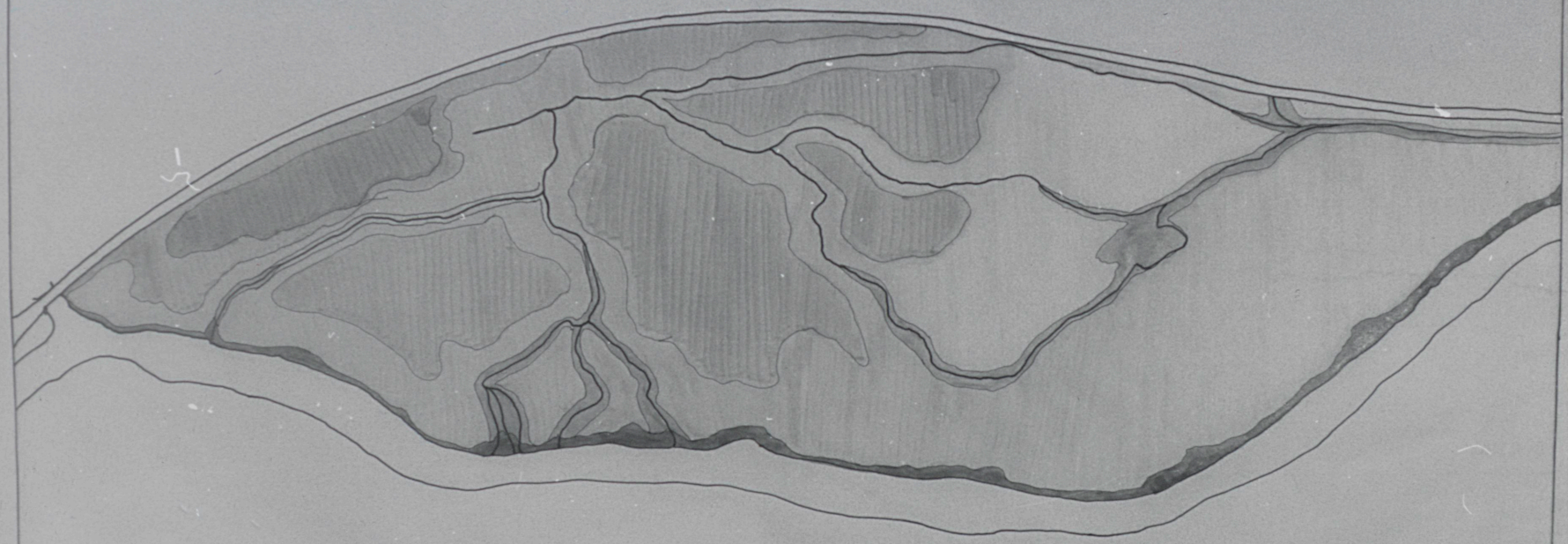
INTERNAL & EXTERNAL VEIWS



PROBABLE ELEVATED VIEWS

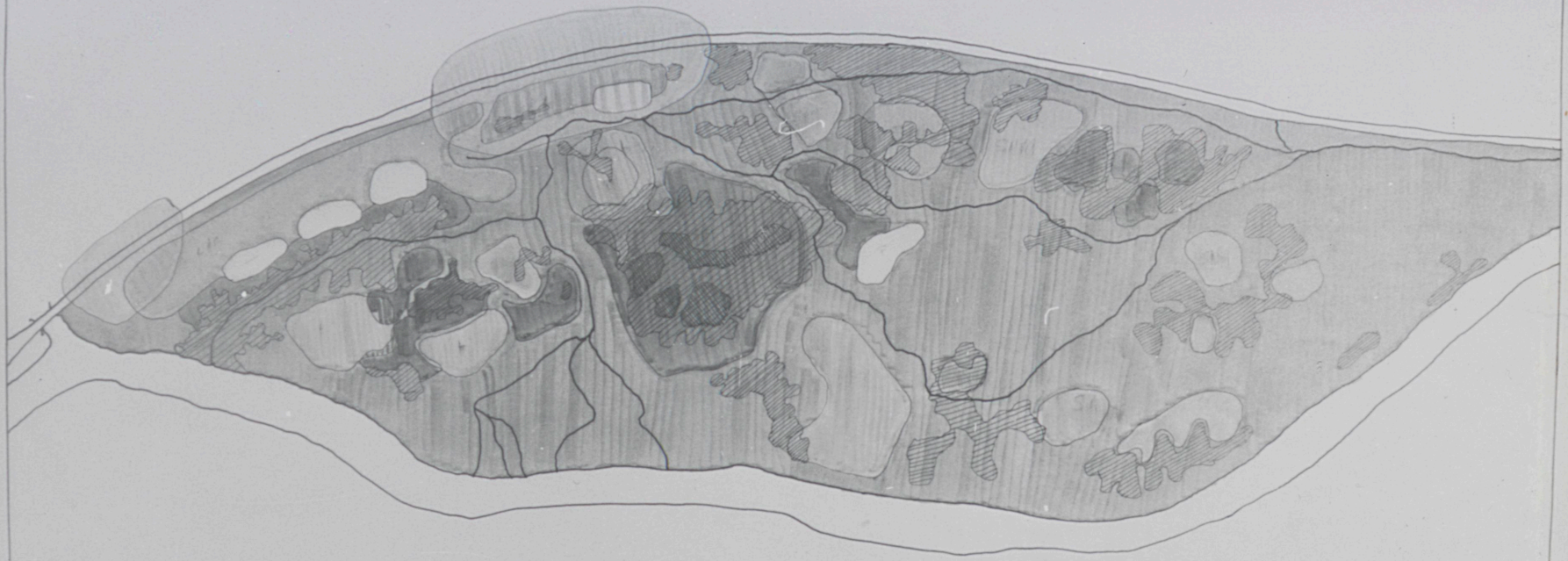

SUN ANGLES NOON


LEGEND
VEGETATION



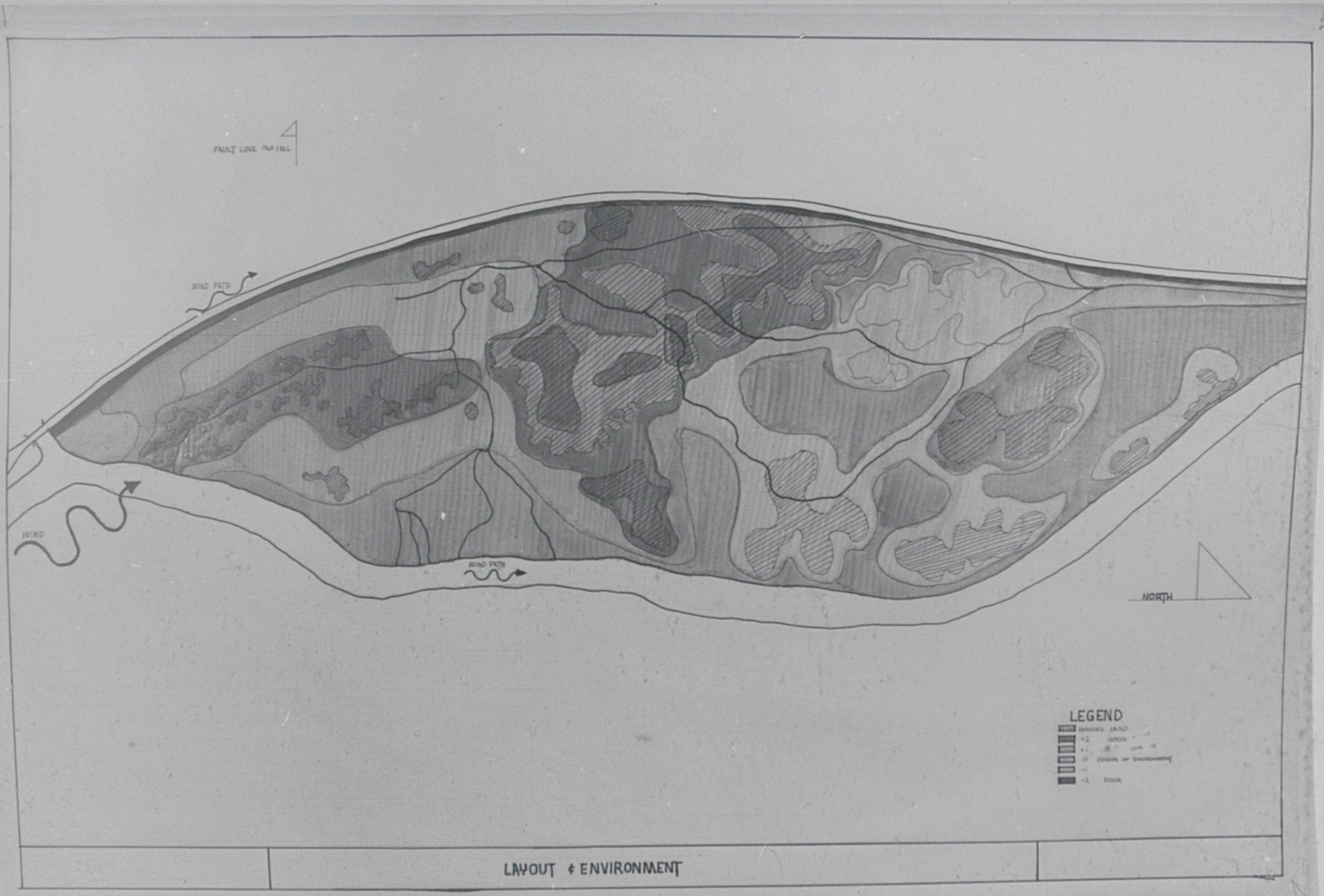
SURFACE SOIL TYPES


HWY 141
GALLATIN RIVER
LEGEND
MOST MOISTURE
LEAST MOISTURE
SOIL MOISTURE

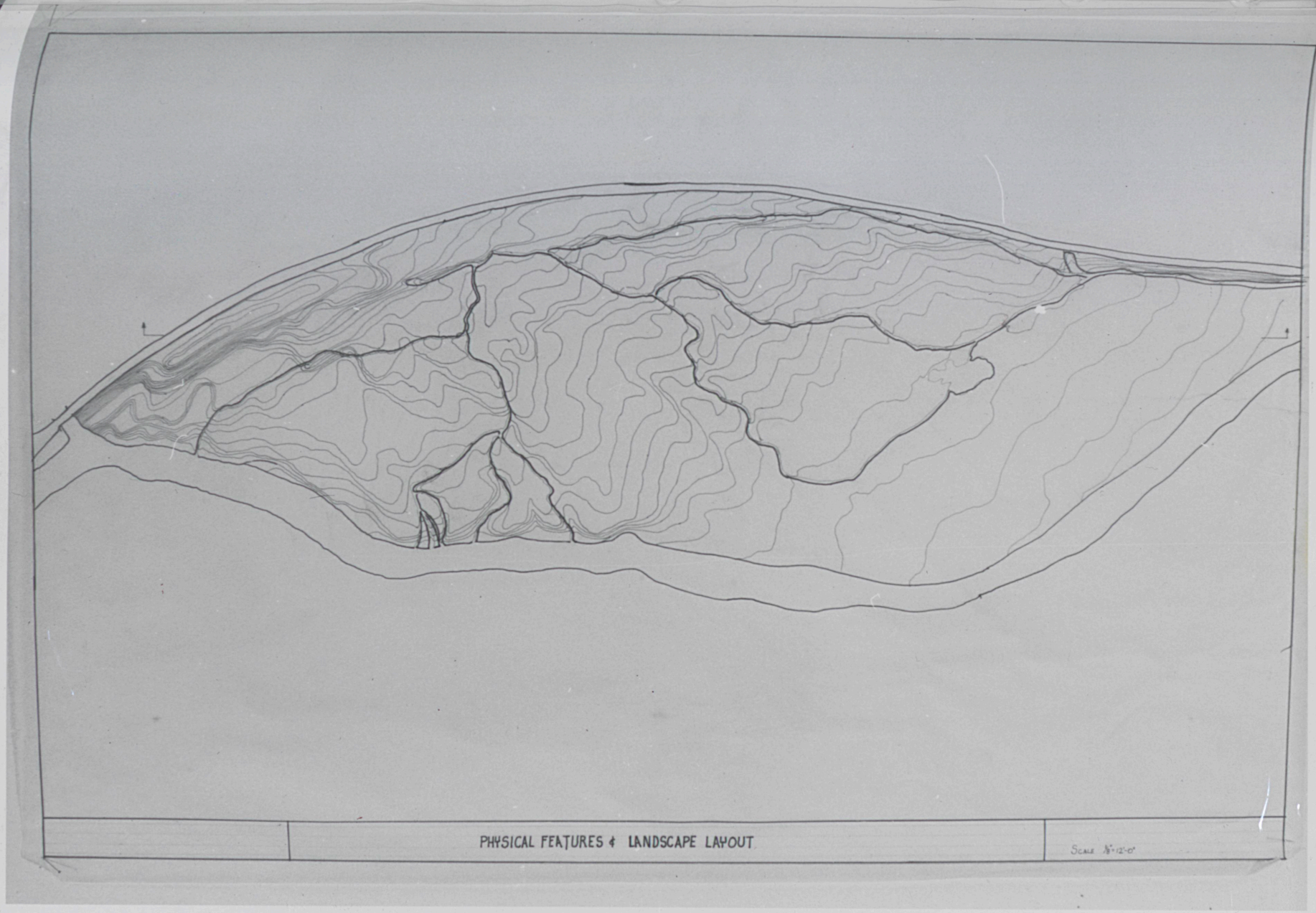


LEGEND

POSSIBLE CONSTRUCTION AREAS



LAYOUT & ENVIRONMENT



PHYSICAL FEATURES & LANDSCAPE LAYOUT

SCALE 1/8"-1'-0"

DESIGN --

The school is located in an area offering much in education and sport. It is also located on a site which offers many educational and physical development opportunities. In order for the site to be able to continue these opportunities, the physical make-up of the school functions should not disrupt the site. By locating the functions of the school to best accommodate the needs of the site, the people, and the means by which the school is supported is the essence of this project.

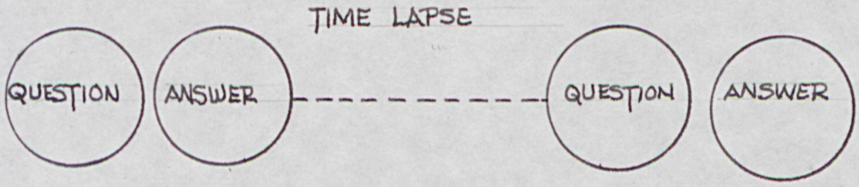
CONCEPT --

A school is made up of many different functions and this school has more because of its location and the needs which the location place upon it. However, if the school is to work the functions must work together.

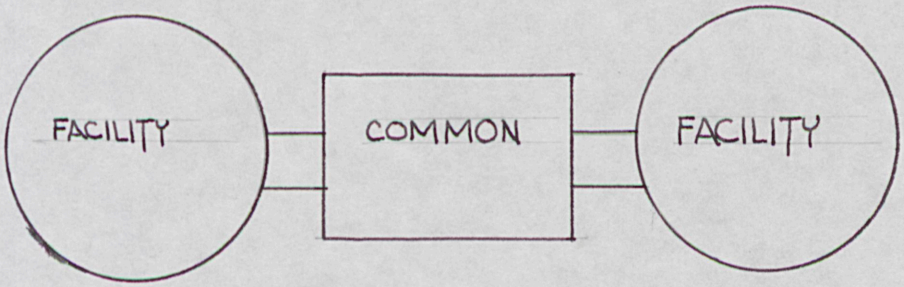
With the school having different functions there became an implication of different facilities to provide for these different functions. Since there are to be different facilities rather than one large conglomerate there had to be a basic concept developed which would hold the differences together as one school.

During my research of an educational system for the school the method of a "break" technique was mentioned within computer assisted instruction. The idea was mentioned earlier in the paper but

graphically this is the concept:

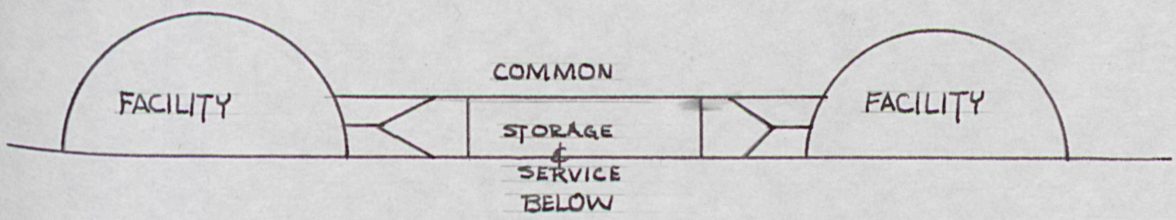


This seemed to offer a synonomous solution for the layout of the total complex and into the buildings themselves. The system which evolved is this. Each facility became a separate physical function and there was provided a separation or "break" which became a common to accommodate interaction between facilities on the human side and also a distribution point for the services brought to the school functions. That is:



Since the school movement is by pedestrian means the service supplying the needs of the buildings is by machine. I felt that this was a significant conflict which should be eliminated. To eliminate this conflict I chose to reduce the number of access routes needed and to limit vehicle access to an area next to the highway. To

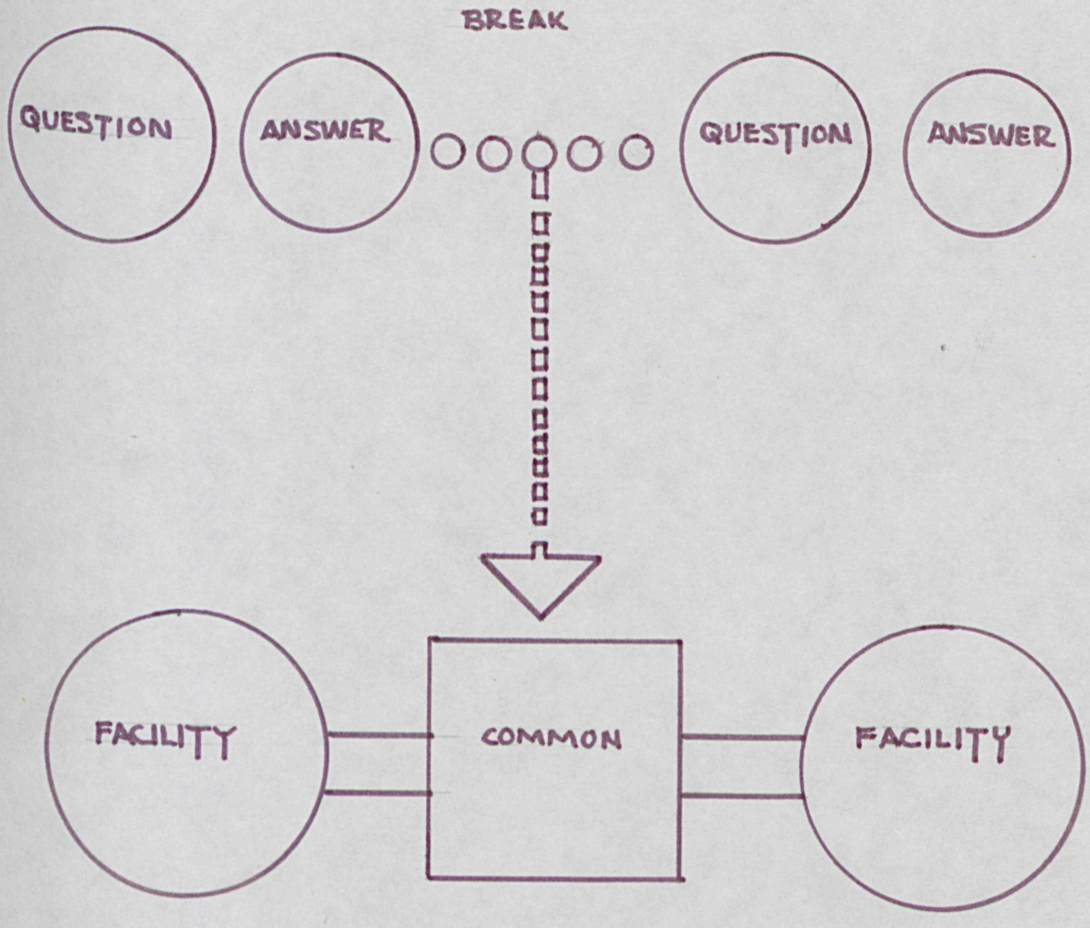
eliminate the conflict of service with the pedestrian flow I decided to take the storage requirements of the common buildings and group them under the Common and bring delivery to these places. Therefore, the Common is separated from service by a vertical means:

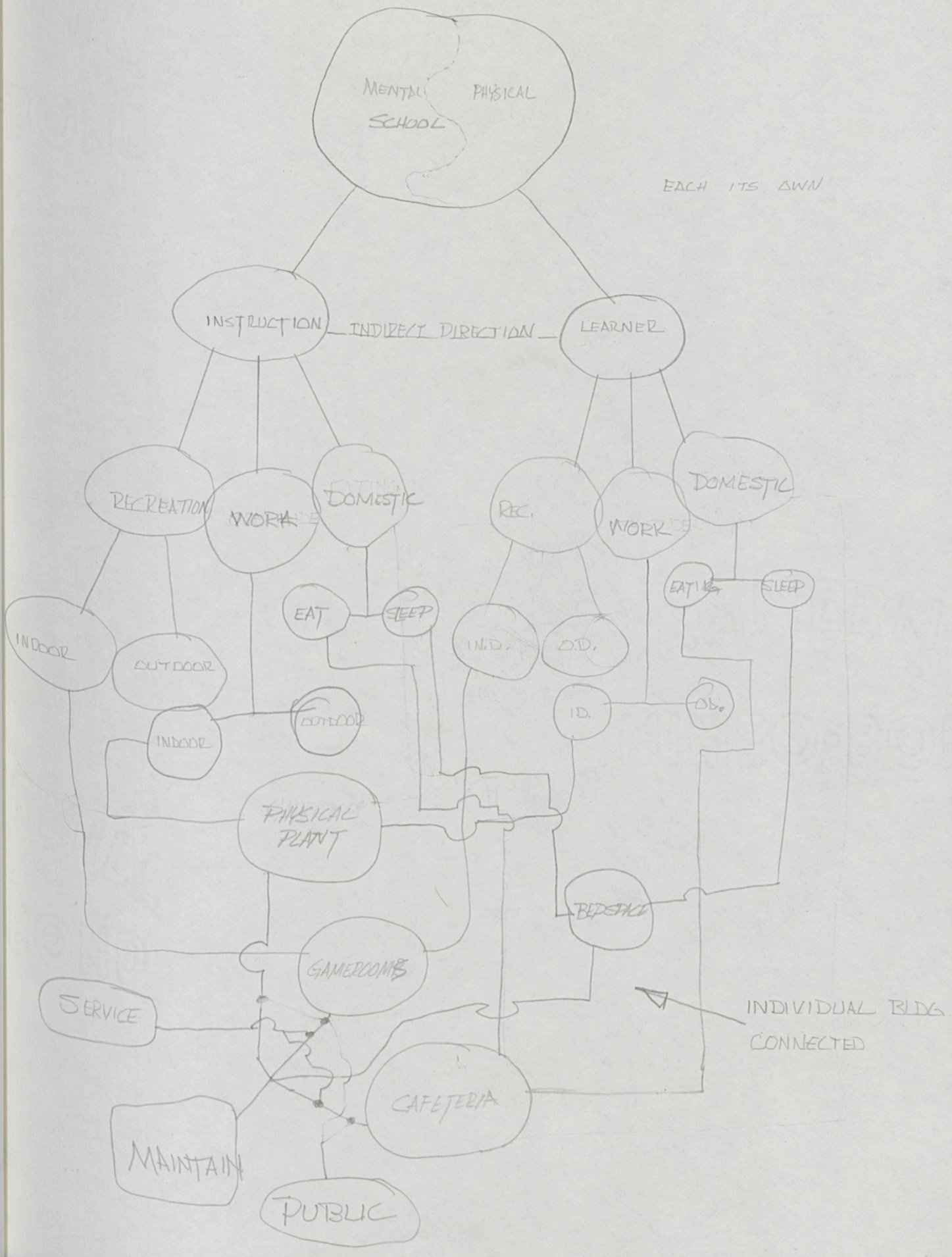


The system of the common "break" area also lent itself in the layout of a mechanical system for the complex. The below level common became the location for the boilers, sewage and refuge points of the total.

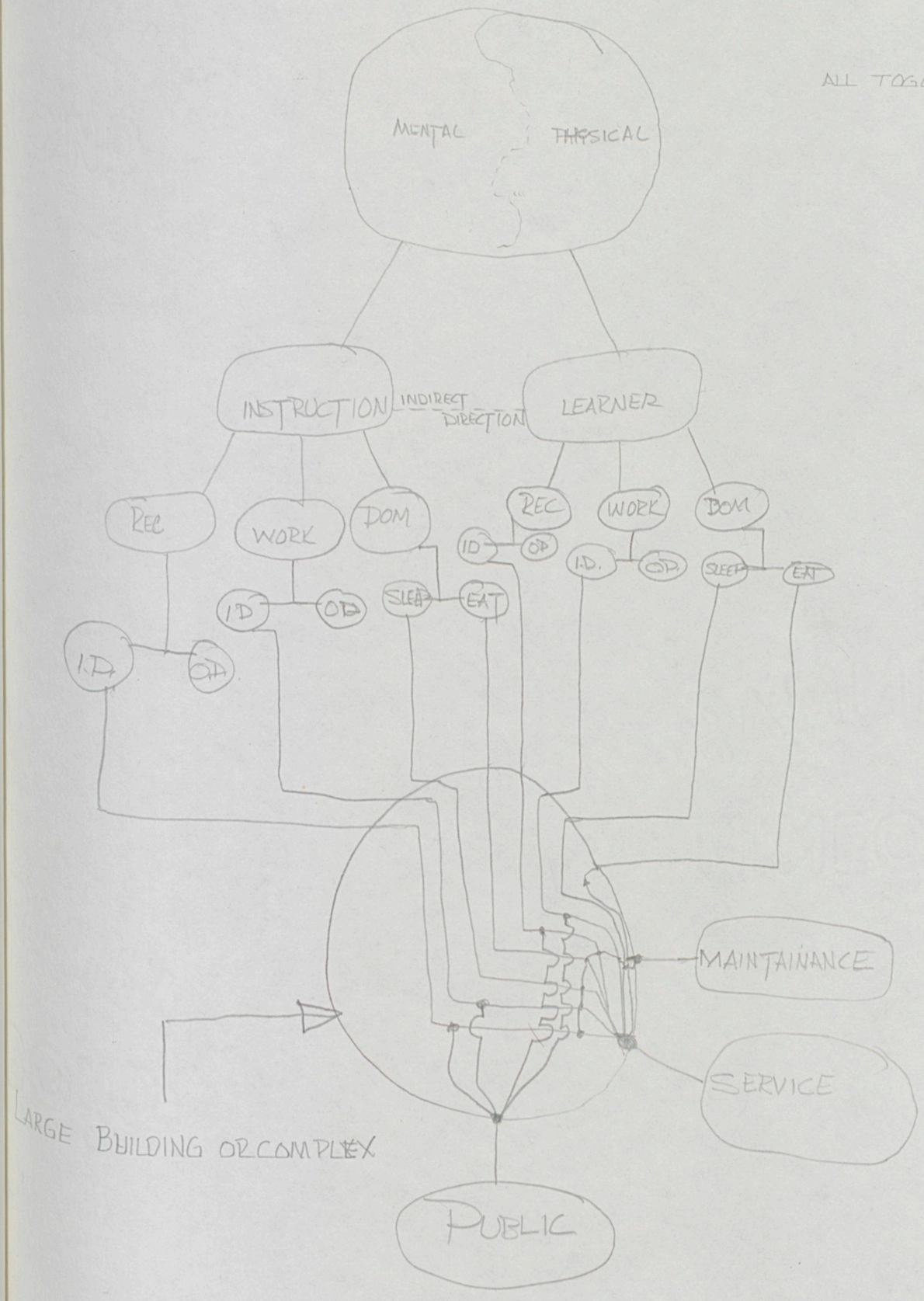
CONCLUSION --

The break concept utilized in the design of this school is a very real and encompassing system. The concept provided an overall availability to design considerations of the school from the most general requirement to the specific buildings themselves. Thus as a design concept in the case of this school, the "break" concept has fulfilled the needs of the site, the needs of the school facilities and the means of keeping a group of facilities functioning together.


BREAK
QUESTION
ANSWER
QUESTION
ANSWER
FACILITY
COMMON
FACILITY


MENTAL
PHYSICAL
SCHOOL
EACH ITS OWN
INSTRUCTION
INDIRECT DIRECTION
LEARNER
RECREATION
WORK
DOMESTIC
REC.
WORK
DOMESTIC
EAT
SLEEP
EAT
SLEEP
INDOOR
OUTDOOR
I.N.D.
O.D.
INDOOR
OUTDOOR
I.D.
O.D.
PHYSICAL PLANT
BEDSPACE
GAMEROOMS
SERVICE
INDIVIDUAL BLDG
CONNECTED
CAFETERIA
MAINTAIN
PUBLIC

ALL TOGETHER



SITE LAYOUT --

Relationships: In a School Everything Relates!

CAFETERIA, MULTI-PURPOSE, BOOKSTORE, RECREATION HALL, GAME HALL --

1. Housing
2. Service Access
3. Provide Break from Work -- Distance!
   a) Physical Education Building
   b) Academic Building
   c) Maintenance
   d) Physical Plant
4. Parking
5. Pedestrian Access No Connect Vehicle
6. Views -- Relate to as many involved as possible
7. Located in an area least affecting total site
8. Access by general public

PHYSICAL EDUCATION BUILDING --

1. Parking
2. Flat ground - Athletic fields
3. Public Access - Pedestrian
4. Views not important
5. Connection to Housing through Cafeteria -- Pedestrian
   a) Indirect access to Housing -- Location closeness
   b) Relative closeness to Academic Area

6. Maintenance equipment and sanitary disposal

   a) limited vehicle access

ACADEMIC BUILDING --

1. Located close to Cafeteria.
2. Service to building limited vehicle.
3. Pedestrian access from Housing through Cafeteria.
4. Pedestrian access from parking.
5. Link to Physical Education Building.
6. Link to Administration.
7. Link to Housing.
8. Make Distinct Building (irrelevant)

ADMINISTRATION --

1. Public drop off -- Information area for whole project

   a) vehicle parking small

   b) pedestrian access
2. Vehicle link to site.
3. Pedestrian link to all parts of school.

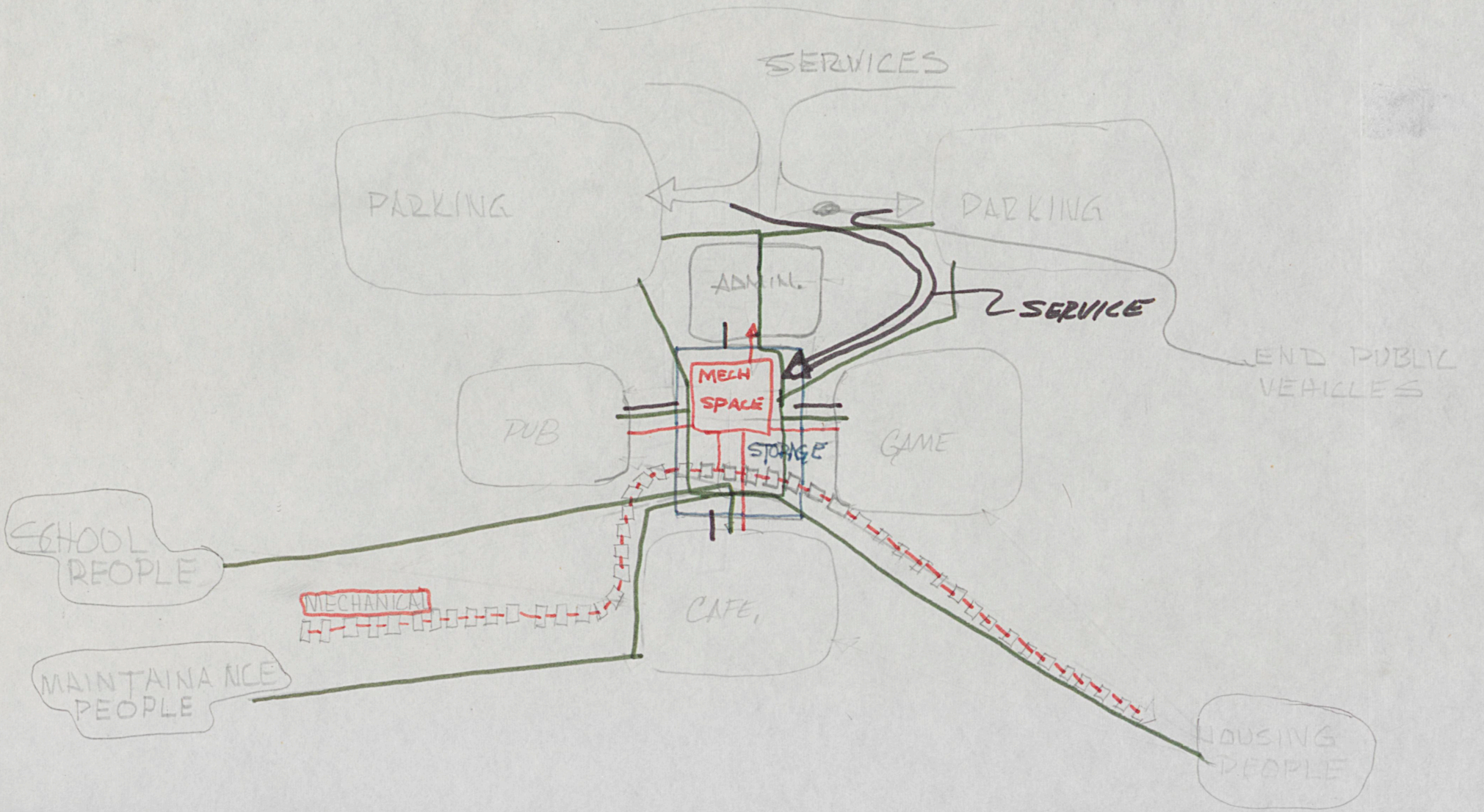
HOUSING --

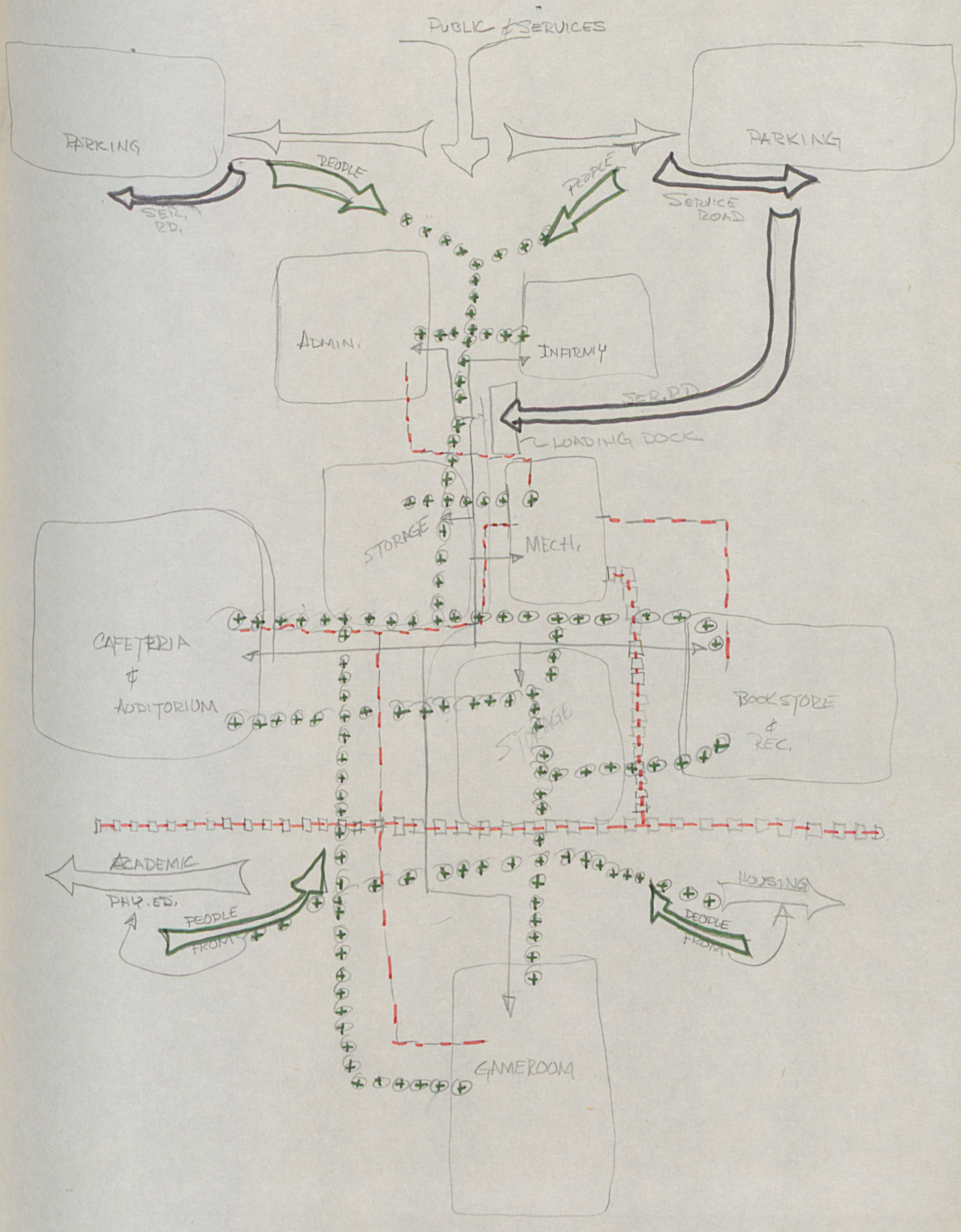
1. Located as a separate function of the project.
2. Must be on link with rest of project.
3. Must consider the maintenance of housing.
4. Must have convenient link to Cafeteria.
5. Should have access to open sapces.
6. Located in good environment area.

MAINTENANCE --

1. Access to all buildings.
2. Access to Highway for deliveries (limited).
3. Limited parking area and unloading dock.


BUILDING TYPES
SITE OFFERS
LARGE SING.
LARGE & GROUP
SMALL & GROUP
SMALL SING.
PARKING
ACCESS TO SITE
FOLIAGE
OPEN PARKS
WET (LOW) GRD.
HIGH GRD.
LIVE SPR. & CREEK
WILD LIFE
VEIWS (OUTWARD)
WINDS
TIMBER STAND
FAULT LINE (NEAR)
RIVER
FISHING
HIKING
NEW TREES
VEIW (INWARD)


SERVICES
PARKING
PARKING
ADMIN.
SERVICE
END PUBLIC VEHICLES
MECH SPACE
STORAGE
PUB
GAME
SCHOOL PEOPLE
MECHANICAL
CAFE,
MAINTAINANCE PEOPLE
HOUSING PEOPLE


PUBLIC & SERVICES
PARKING
PARKING
PEOPLE
PEOPLE
SERV. RD.
SERVICE ROAD
ADMIN.
INFIRMY
SER. RD.
LOADING DOCK
STORAGE
MECH.
CAFETERIA
&
AUDITORIUM
BOOKSTORE
&
REC.
ACADEMIC
PHY. ED.
PEOPLE
FROM
HOUSING
PEOPLE
GAMEROOM



42



① ACADEMIC
② PHYSICAL EDUCATION
③ GAME HALL
④ CAFETERIA & MULTI-PURPOSE
⑤ BOOKSTORE & RECREATION
⑥ ADMINISTRATION & INFIRMARY
⑦ HOUSING
⑧ MAINTENANCE & TREATMENT PLANT
⑨ PARKING
⑩ COMMON

SITE LAYOUT

STRUCTURAL SYSTEM --

Must provide a consistency in the school.

Must create a character homogenizing element for the school.

Must be capable of satisfying those needs which different facilities require.

Must be able to handle the influences of the site, i.e.:

1. wet soft soil
2. hard dry soil
3. possibility of flood
4. wind
5. snow load
6. earthquake possibility
7. tree windfall

Esthetic Values:

trees -- wood

mountains -- rocks or aggregate

delta like soil -- mortar or adobe

Must be broken down to human scale.

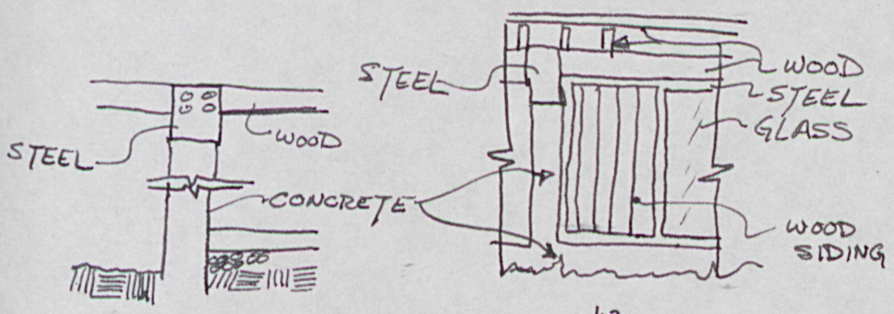
Wood and rock or concrete do not come together easily -- need for a transtion material.

Wood put directly in concrete can rot.

Wood put directly in the wet soil can rot or deteriorate unless treated to the point of not being wood.

If kept completely wet or dry at all times will last a long time.

Montana has snow in winter, hot dry wind and sun in summer. This is contradictory to either wet or dry for wood.



MECHANICAL SYSTEM --

Mechanical Rooms

-- Fresh air supply

-- Service door or access

-- Return air

-- Insulation

-- Hot water heaters

-- Fire protection - Sprinkler system

-- Pumps - Sink wells for water in building

-- Sump pumps for sewer

May need because of the soil conditions.

The waste treatment plant would have to be located a good distance away or close to the river.

Bad in event of overflow.

Must supply backwater values in event sump backs up.

Vent stacks.

Roof drains -- gutters

-- Pulper for Cafeteria

Can be piped to service point.

Large stuff taken in carts with bins.

SOLUTION --

Locate a pair of boilers in each common area to accommodate each surrounding group of buildings. Pipe hot water to buildings and change to forced air except for housing which can stay hot using fin tube.

ROUGH BTU REQUIREMENTS --

Rule of Thumb: 77 BTU/HR LOSS based on 70 BTU/HR HEAT LOSS + 10% my safety factor.

Academic Building: 1,630,860 BTU/HR LOSS

Living Spaces: 654,500 BTU/HR LOSS

Physical Education Building: 2,551,395 BTU/HR LOSS

Maintenance: 508,508 BTU/HR LOSS

Bookstore: 254,100 BTU/HR LOSS

Auditorium: 369,600 BTU/HR LOSS

Game Area: 924,000 BTU/HR LOSS

Recreation Room: 207,900 BTU/HR LOSS

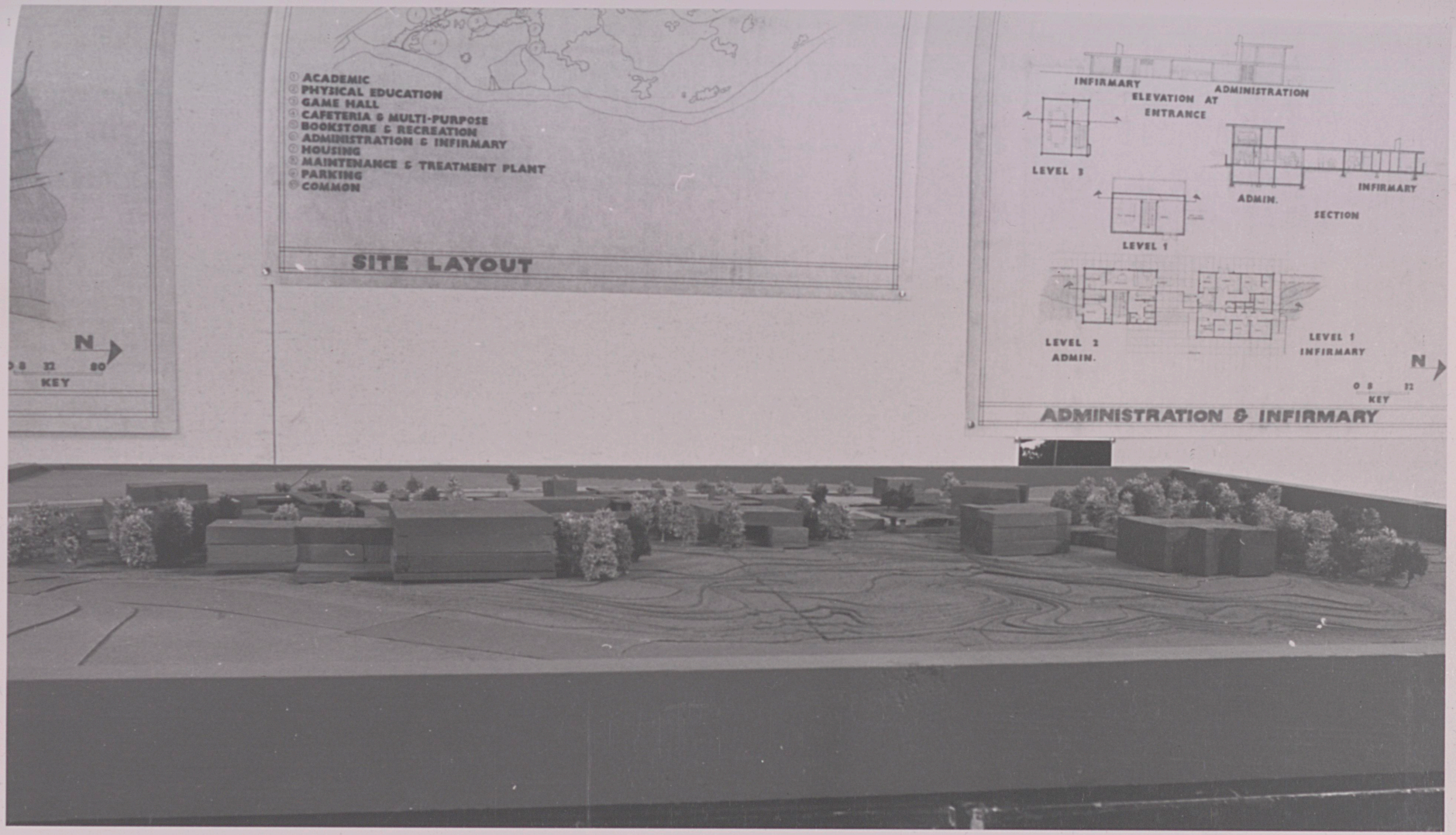
Cafeteria: 392,700 BTU/HR LOSS

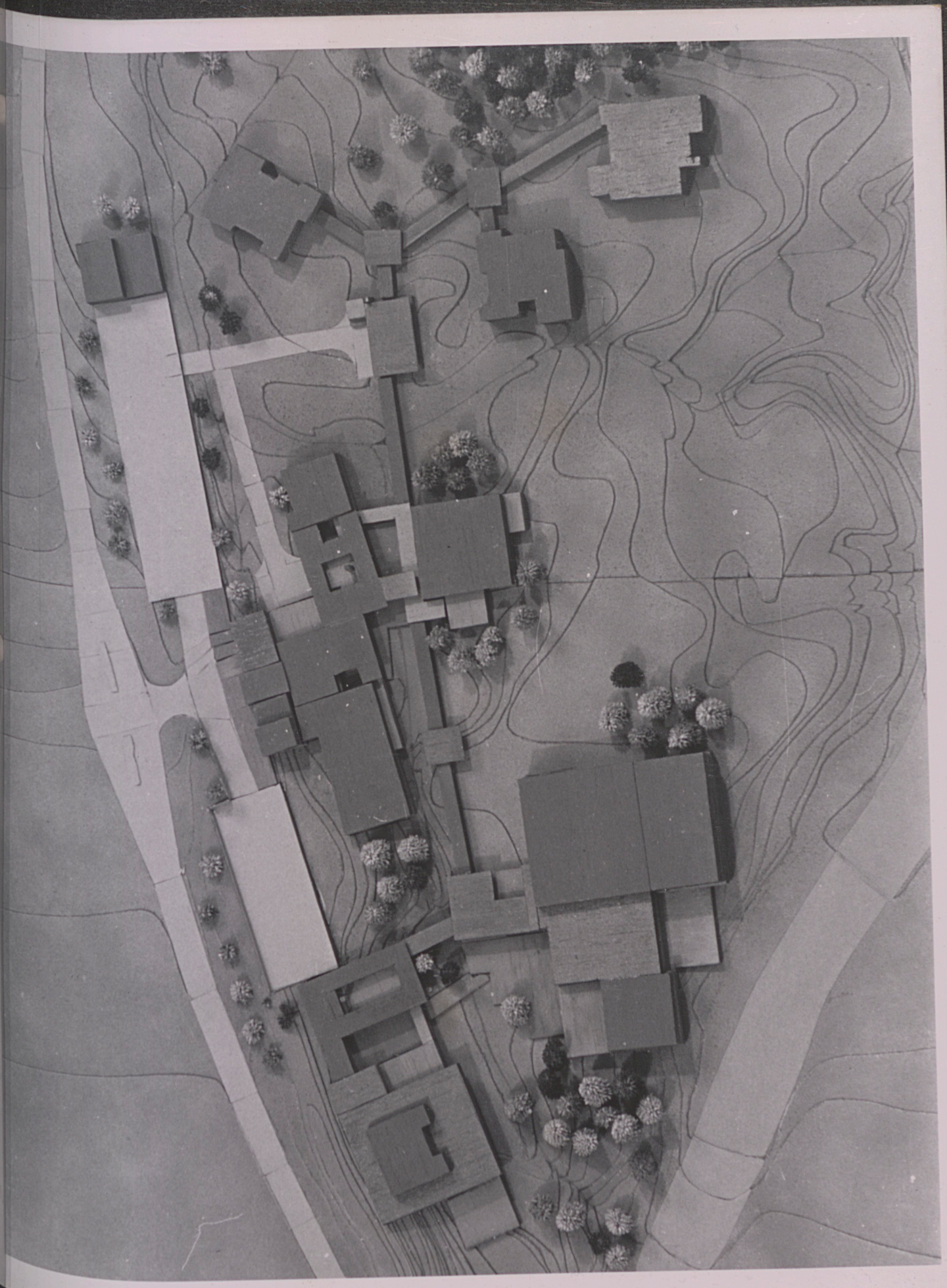
Administration: 154,006 BTU/HR LOSS

Infirmary: 84,700 BTU/HR LOSS

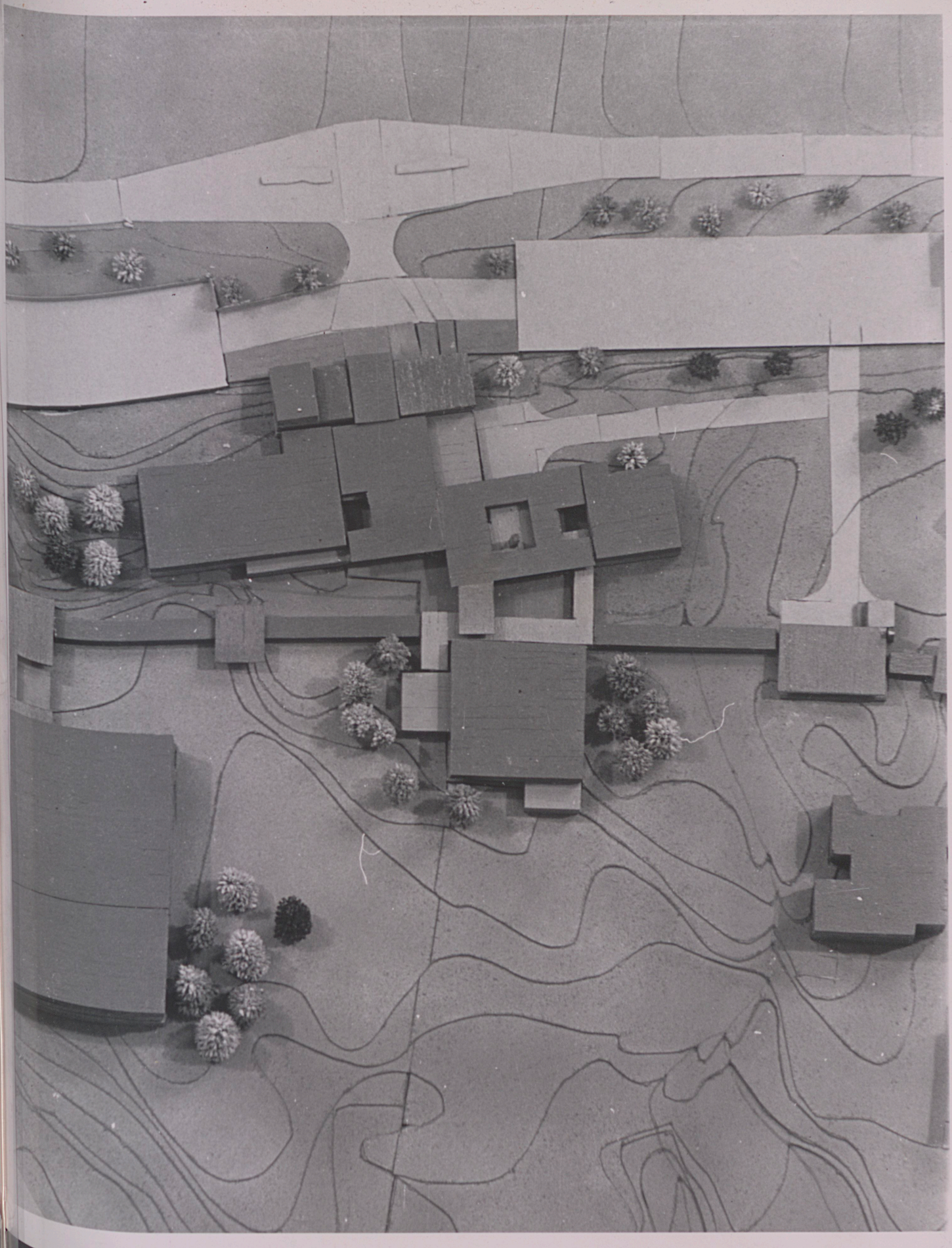
SEWAGE TREATMENT --

The site is in a location which the presence of a conventional disposal system is undesirable. The site itself presents limitations which do not allow a conventional system. The system to be used is a self contained PHYSICAL CHEMICAL TREATMENT SYSTEM.


1 ACADEMIC
2 PHYSICAL EDUCATION
3 GAME HALL
4 CAFETERIA & MULTI-PURPOSE
5 BOOKSTORE & RECREATION
6 ADMINISTRATION & INFIRMARY
7 HOUSING
8 MAINTENANCE & TREATMENT PLANT
9 PARKING
10 COMMON
SITE LAYOUT
N
KEY
INFIRMARY
ADMINISTRATION
ELEVATION AT ENTRANCE
LEVEL 2
LEVEL 1
ADMIN.
INFIRMARY
SECTION
LEVEL 2 ADMIN.
LEVEL 1 INFIRMARY
N
KEY
ADMINISTRATION & INFIRMARY









LEVEL 1

CENTRAL COMMON



LEVEL 2

N

0 8 32 80

KEY

CENTRAL COMMON

INFIRMARY --

Since the school is located at a distance from an urban sprawl and the facilities which urbanism offers, there must be some mandatory health facilities provided at the site. One of the most important is a facility which in case of an emergency could offer medical aid.

There must be some service which will provide assistance in case of a major accident which could prevent death. The facility is not to be a hospital with operating rooms, wards, etc.; however, it should be able to handle an outbreak of colds and administer the first steps in helping a major accident victim and to prolong his life until he is in a more intensive care facility.

If there is a need for a person to have supervision during recovery then he would go to a facility which would provide this. What this infirmary would provide is an initial diagnosis and a minor treatment facility on an out-patient basis.

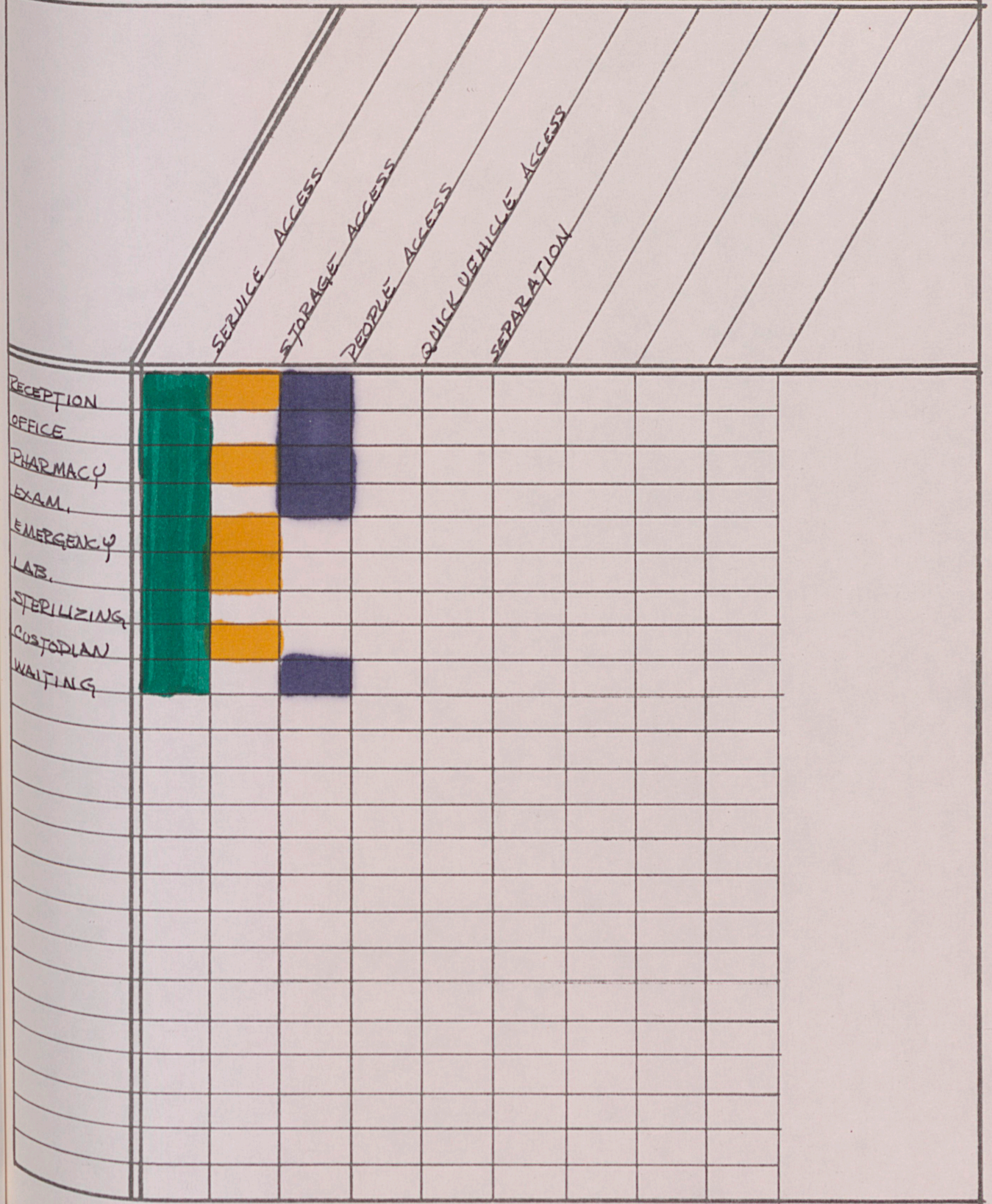
There would be personnel operating on a system like this or under another which the person in control considers the best. There would be a full-time registered nurse during the daytime when the school is in operation. A nurse's aid who would preferably be a member of one of the adult families on the school site, such as an instructor's wife, etc., would provide help which might be needed at times of the day after the school-operating hours. One of the

INFIRMARY -- continued

local doctors will make scheduled rounds to the school to handle ailments above the nurse's jurisdiction.

INFIRMARY

SPACE NEEDS



INFIRMARY -- 1,031 SQ. FT.

AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT.AREA SQ.FT.
WAITING ROOM				Assume 10 x 13	130
	seating/12	40	46		
	low tables	24			
	mag. racks	8			
	coat closet	12			
RECEPTION					30
	file cab.	5	5		
	type stand	2			
	table	10			
	counter	8			
SMALL PHARMACY & DRUG STORAGE				5 x 10	50
	shelving	20	35		
	counter for filing pre-scriptions	10			
	dispensing counter	5			
EXAMINATION ROOMS (4)				10 x 10 ea.	400
	padded tables				
	cabinets				
	sinks				
SMALL LAB				10 x 13	130
	lab table				
	sink				
	water				
	gas				
	cabinets				
	chemical strg.				
TOILETS (2)	sinks	8		5 x 5 ea.	50
	toilets	10			
MECHANICAL SPACE					
	pumps				
	air handling blowers				
CUSTODIAN				5 x 5	25
	sink				
	shelving				
	equip. strg.				
EMERGENCY OUTSIDE ENTRANCE				12 x 12	144
	exam table				
	cabinets				
	oxygen bottles				
	machines				
STERILIZATION ROOM				6 x 12	72
	pressure cooker				
	strg. racks				
	wash racks & carts				
	2 sinks				

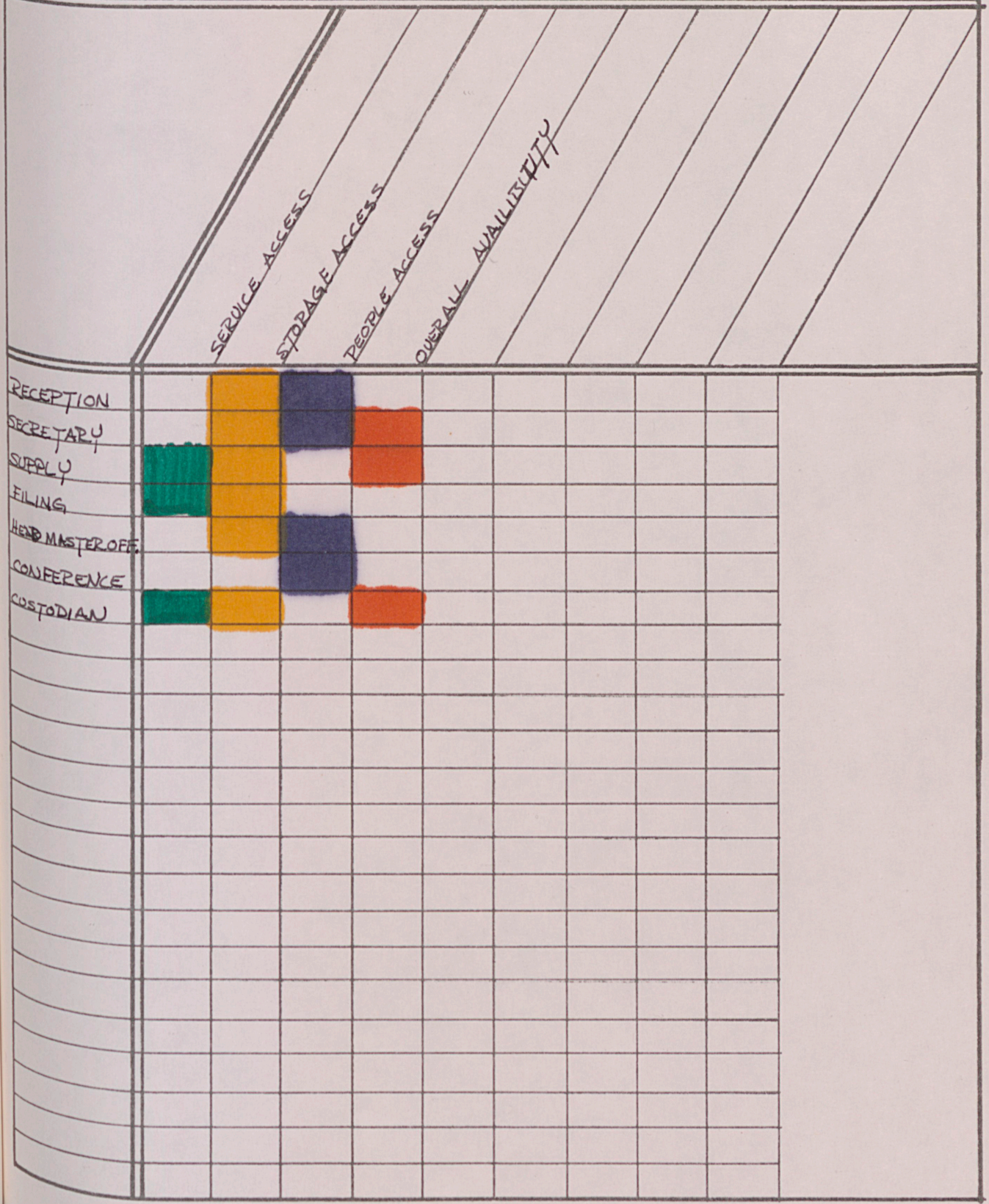
ADMINISTRATION --

In most systems there is a coordinator who sets up the general program of the way things are run.

For a coordinator to get things set up, he must devote much time and also have the technical assistance to get things done. This usually calls for an area which can accommodate the procedure taken by the head of the system to produce solutions into media for the school personnel and outside concerns.

ADMINISTRATION

SPACE NEEDS



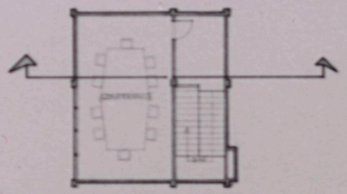
ADMINISTRATION -- 1,630 SQ. FT.

AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ. FT.	DIMENSIONS	TOT. AREA SQ. FT.
HEADMASTER'S OFFICE				Assume 10 x 15	150
	lrg. desk	18	84		
	chair	5			
	couch	15			
	book shelves				
	2 stuffed chrs.	18			
	coffee tble	10			
RECEPTION AREA			72.5	Assume 10 x 16	160
	desk	12.5			
	seating/8	50			
	mag. racks	8			
	file cab.	5			
	type stnd.	2			
	coffee tble	10			
SECRETARY			97.5	10 x 15	150
	desk	12.5			
	chair	3			
	2 file cab.	10			
	type stnd.	2			
	work table	18			
	extra tble				
	(student help)	7			
CONFERENCE ROOM			305	20 x 30	600
	large table	120			
	seating	150			
	2 sec. tble	25			
FILING STORAGE			164	15 x 20	300
	file cab. banks	100			
	2 tables	30			
	chairs	6			
MACHINE ROOM			105	10 x 14	140
	copy machine	4			
	mimeo	4			
	paper strg.	10			
	supplies	10			
	table	7			
COAT ROOM			50	10 x 6	60
	hat rack & coat hanging bar	10			
BATHROOMS					
Men's	sink	4	24	5 x 7	35
	toilet	5			
	mirror	2			
Women's	sink	4	24	5 x 7	35
	toilet	5			
	mirror	2			

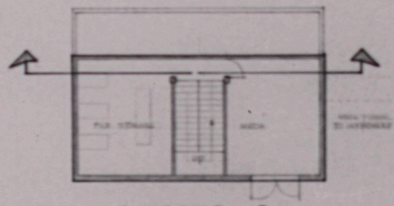


INFIRMARY ADMINISTRATION

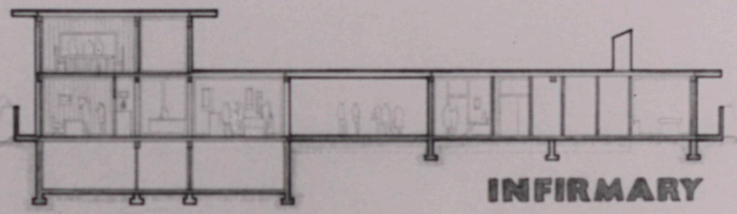
ELEVATION AT ENTRANCE



LEVEL 3

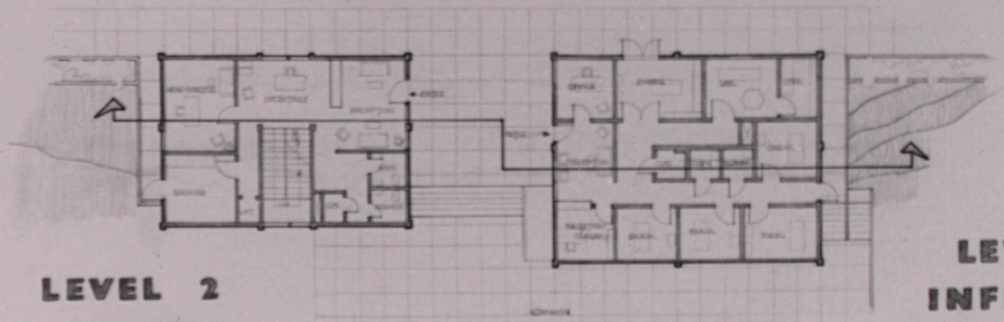


LEVEL 1

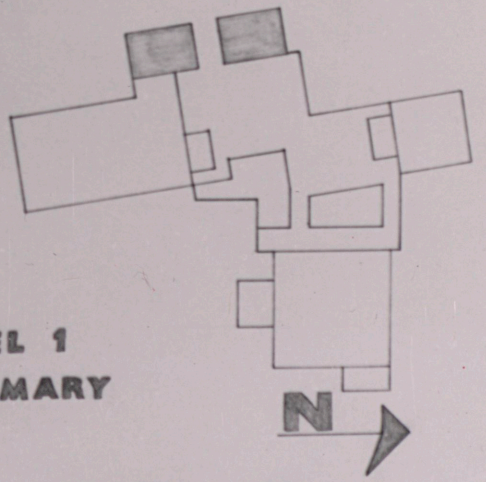


ADMIN. INFIRMARY

SECTION



LEVEL 2
ADMIN.



LEVEL 1
INFIRMARY

N

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KEY

ADMINISTRATION & INFIRMARY

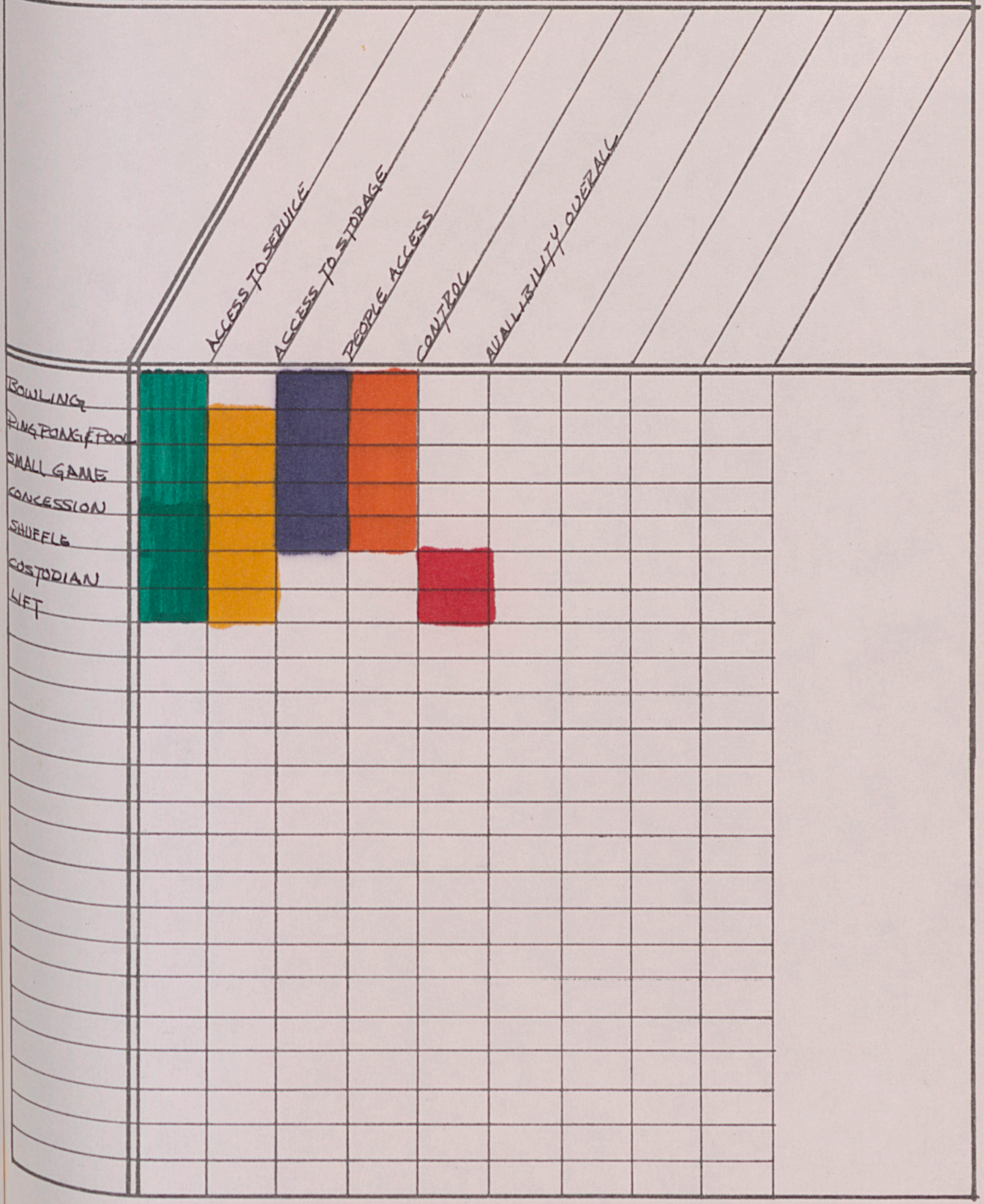
GAME AREA --

The school must provide a tool which will lend itself to fulfilling a need for the persons of this school to relax and entertain themselves.

There is probably no universal tool which will satisfy the countless ways in which people have thoughts of letting off steam or killing time. There are however some accepted "games" for the enjoyment of the people in the school which must be provided. This area is also open to outside people; however, there will be a fee for these people to use the facility.

GAMEROOM

SPACE NEEDS

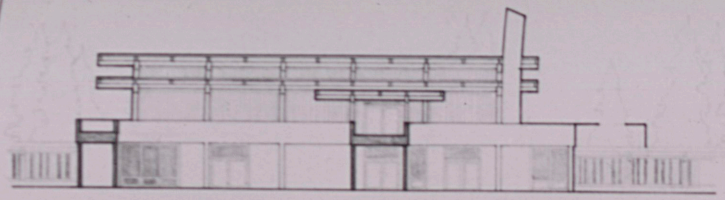


GAME AREA -- 11,000 SQ. FT.

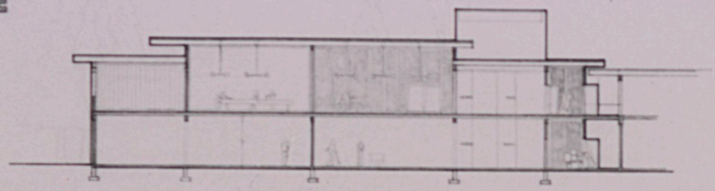
AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ.FT.
BOWLING					3,000
	3 lanes @ 1,000	3,000			
POOL					180
	4 tables @ 45	180			
SHUFFLEBOARD					1,040
	shuffleboard courts (2)	1,040			
TABLE TENNIS					125
	3 tables	125			
STORAGE					1,000
CASHIER					300
	register	300			
VENDING MACHINES	4 machines	30			30
TOTAL OPEN SPACE			5,325		

BOOKSTORE --

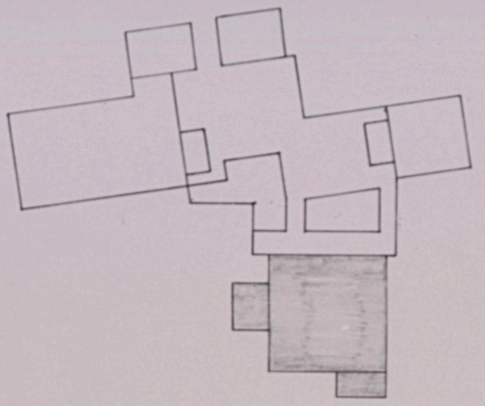
The location of the academy is such that there must be a unit provided in the total operation which will replenish the people of the school with circulating commodities. The store will be the supply house for the people who live at the school and who run out of accepted necessities of social acceptance (mouth freshener, deodorant, etc.). Also, the teaching material which the students come into contact with might require an assortment of supplies.

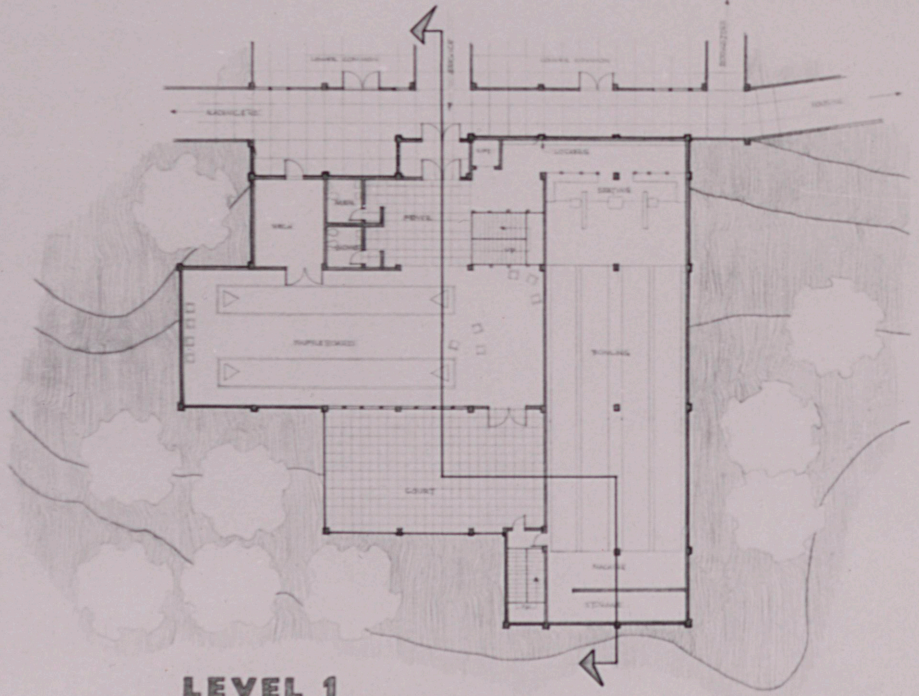


ELEVATION AT ENTRANCE

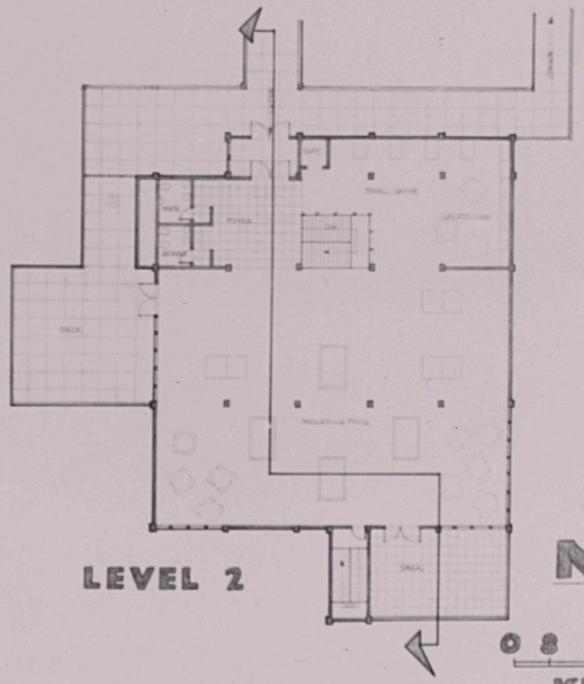


SECTION





LEVEL 1



LEVEL 2

N

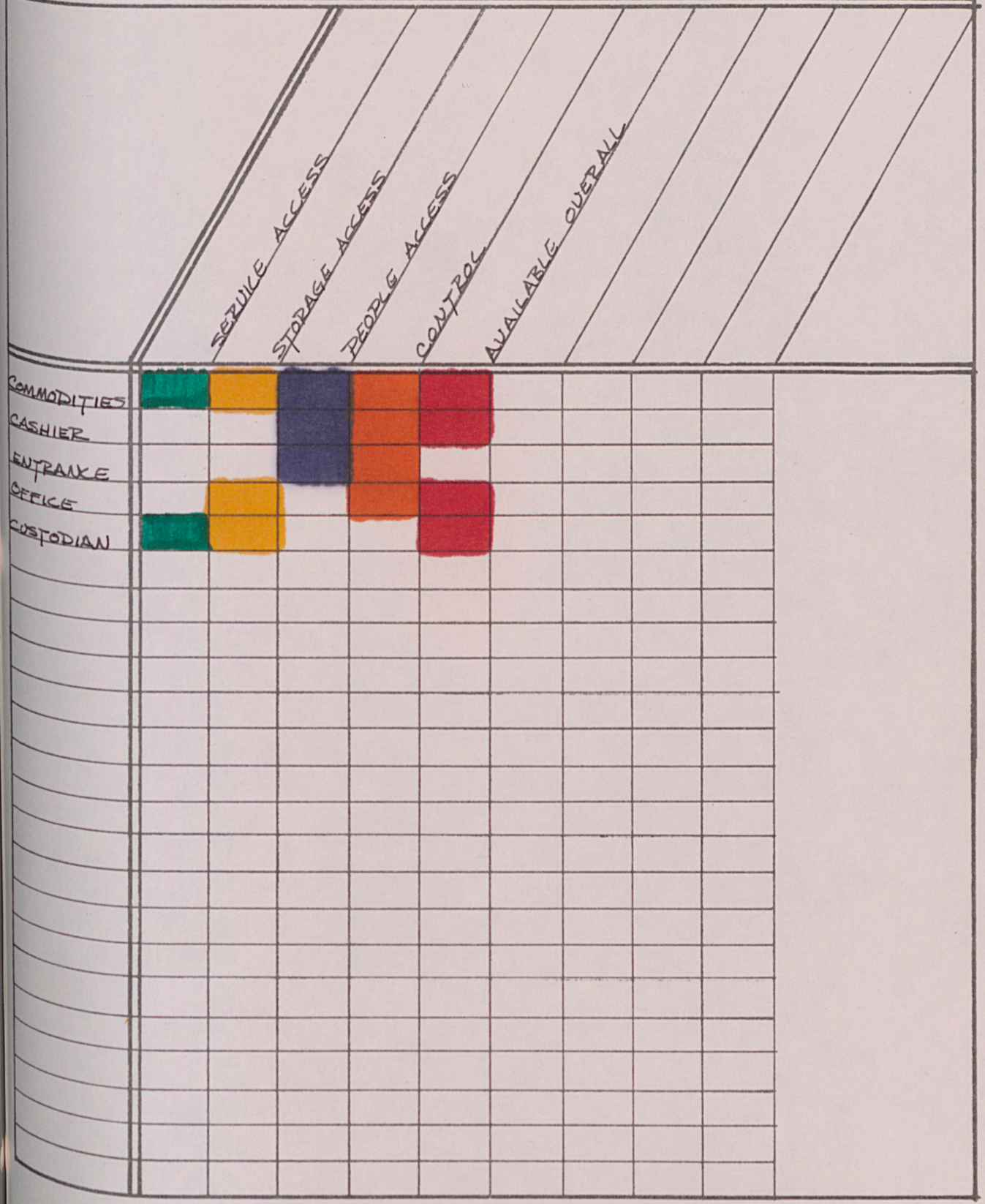
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KEY

GAME HALL

BOOKSTORE

SPACE NEEDS



BOOK STORE —

PROVIDE GOODS FOR PEOPLE → SUPPLIES

MUST GET SUPPLIES FROM OUTSIDE SCHOOL → DELIVERIES

PEOPLE COMING TO GET SUPPLIES → MUST GET THEM OUT

PEOPLE NOT THERE TO HAVE A CUP OF TEA → NO TIME TO LOITER

NO NEED FOR OUTSIDE EXPOSURE → PEOPLE TO TOSS

SERVICE MEANS TRUCK LOADS → STORAGE OF SAID STORAGE OF MATERIALS

GET MANY SUPPLIES FROM STORAGE TO STORE → CARTS NO STAIRS OR RAMPS

CAN BE SUNK IN GROUND → NO EXPOSURE REMEMBER

KEPT STORAGE TO STORE ROUTE LEVEL OR PROVIDE ELEV.

DAY TIME USE

BOOKSTORE -- 3,234 SQ. FT.

AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ.FT.
ENTRANCE			200	Assume 20 x 13	260
	shelves	10			
	cash registors	50			
COMMODITIES				40 x 50	2000
	shelves	480	4' wide aisles		
	coolers	60			
STORAGE					830
	shelves	500			
	cold strg.	80			
	bulk strg.	250			
	unloading dock				
SMALL OFFICE					144
	desk	12	120		
	chair	6			
	file cab.	6			

HANGOUT --

The school has the possibility of becoming an island in the Gallatin Canyon. To try and combat this happening a facility must be provided to accommodate persons outside the school population. A small hangout would be an appropriate solution to this problem, since this area of the Canyon is being developed mainly for use and entertainment by and for older people.

RECREATION HALL

SPACE NEEDS



RECREATION ROOM -- 1,200 SQ. FT.

AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ.FT.
BAR					80
	8 stools @ 10	80			
FOOD SERVICE					570
	18 chairs & tables @ 25	450			
	5 booths @ 24	120			
SHORT ORDER KITCHEN					200
	grill				
	deep fryer				
	steam table				
	sandwich unit				
	counter				
	toaster				
	sink				
STORAGE					120
ENTRANCE					30
coat check					
cashier					
TOILETS					
Men's	sink	4			100
	toilet	5			
Women's	sink	4			100
	toilet	5			

RECREATION HALL ☐

PURPOSE –

TO PROVIDE AN OPPORTUNITY FOR OUTSIDE YOUTHS ETC. TO COME INTO THE COMPLEX DURING THE NONE FONCTIONING OF THE SCHOOLS OTHER FACILITIES. THIS GIVES THE PEOPLE OF THE SCHOOL INTERACTION WITH PEOPLE OUTSIDE THE SCHOOL.

ENTRER HANGOUT — DA.DA. → FUN — MUSIC — EXCHANGE OF MONEY?

PEOPLE TALKING – SHOUTING – HUSTLING — DATES —

KIDS ARE ALWAYS HUNGRY!? → SNACK FOODS

WASTE FROM FOOD PREP

SEPARATION FROM GAMEROOM?

MORE DELIVERIES → ALSO BOOKSTORE

ELIMINATES POSSIBILITY OF WRECKING A EXPENSIVE POOL TABLE

CAFETERIA IS FOR EVERYDAY MEALS NOT FEASIBLE TO KEEP BIG OPERATION FOR SNACKS

GAMEROOM MORE FOR SCHOOL POPULATION THAN OTHERS

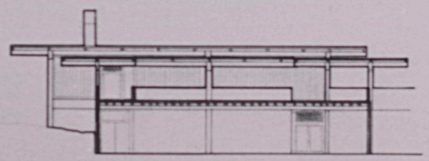
USED MOSTLY AT NIGHT → VIEW ISN'T REALLY THERE

LOCATED TO EXPOSE OUTSIDE PEOPLE TO SCHOOL → GET THEM INTO IT.

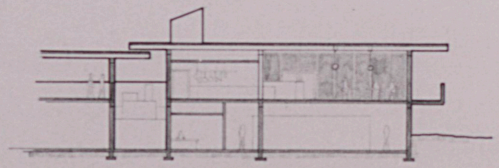
NIGHT USE SUN DOESN'T REALLY BENIFIT PEOPLE USING

ENTRANCE POINT DIFFERENT FROM BOOKSTORE → NO NEED FOR PEOPLE TO KNOW WHERE IT IS

KIDS FROM SCHOOL REPORT SOMEONE WHO IS GETTING INTO SOMETHING

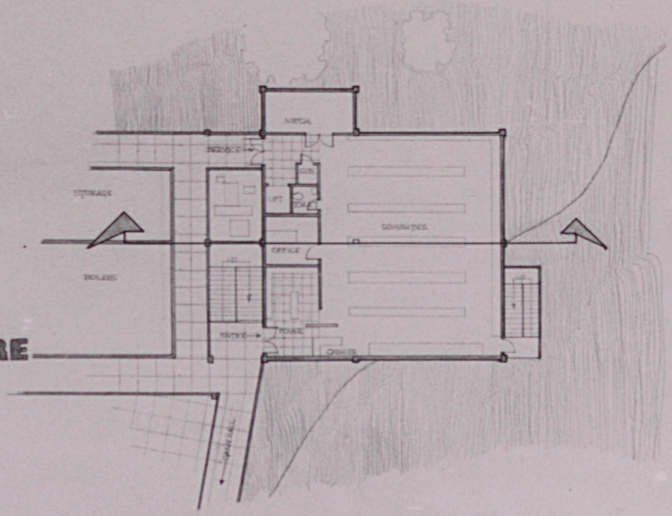


ELEVATION AT
ENTRANCE

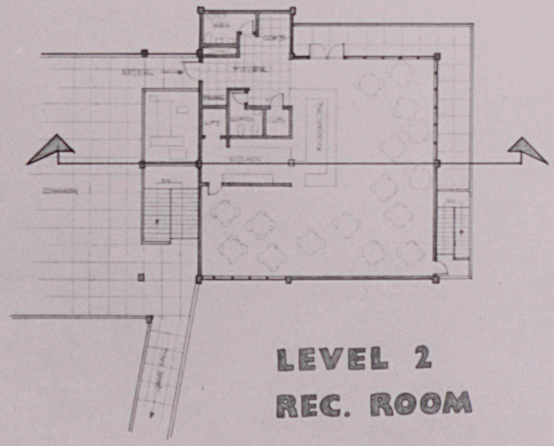


SECTION





LEVEL 1
BOOKSTORE



LEVEL 2
REC. ROOM

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KEY

BOOKSTORE & RECREATION ROOM

CAFETERIA --

The atmosphere of this facility will have the most effect on the inhabitants of the school.

This will be an area in which everybody will get together three times a day. The cafeteria will provide food for the students three times a day and will have a program similar to the one used by Elgin Academy at Elgin, Illinois.[12]

The instructors will be required to have meals with the students. Families of the resident instructors are invited to have meals at the cafeteria also unless a home meal is preferred. Each instructor and/or family will act as a head of the table. Non-resident instructors must also have breakfast and noon meals with the students. The evening meal is optional. The families of the non-resident instructors are allowed to eat at the cafeteria at evening meals and at the weekend noon and evening meals.

The cafeteria will also be a place for formal affairs and other functions requiring massive food service. The enclosure of such a space should be appropriate to the occasion which it is handling at the time. Activities, such as dances and banquets, are examples of some of the formal affairs which might take place here.

The location of this facility must be convenient to the living spaces as well as to the academic facilities. The area must also be in a

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[12] Elgin Academy Instructor's Handbook.

position to acquire foodstuffs easily as well as to dispose of the waste products of the preparation processes.

This cafeteria will be to this school as the kitchen or dining room table is to the home.

The students will also alternate in serving the tables as one of their duties. The instructor shall have the option of the time which each dish is served. Every student shall take his turn in this duty.[13]

The hiring of personnel to prepare the food will be an employment opportunity for those seeking employment. The persons could be anyone wishing to work there and would be paid accordingly. Thus, there is a possibility of a person outside of the school coming and going from the site; therefore, parking or transportation should be supplied.

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[13] Elgin Academy Instructor's Handbook.

CAFETERIA

SPACE NEEDS



CAFETERIA -- 5,056 SQ. FT.

AREA	GEN. FURN.	APPROX. SQ.FT./FURN	OPEN AREA SQ.FT.	DIMENSIONS	TOT.AREA SQ.FT.
KITCHEN				Assume 22 x 40	880
	fuel supply				
	hot & cold water				
	bake & roast oven	15			
	top cooking range	9			
	grills				
	griddles				
	fryer	7			
	rotisserie				
	barbecue broiler				
	vegetable & pot-washing sink	5			
	refrigerator	12			
	refrig. strg. room	100			
	dry strg.				
	dishwasher & dryer	10			
	waste deposits				
	waste disposal				
	deep fryer				
	utensil strg.				
	pots/pans strg.				
	dish strg.				
	linen strg.				
	cabinets				
	counter work areas				
	meat cutting block				
UNLOADING AREA					
	loading dock				
	large door				
SERVING AREA				30 x 10	300
	counter				
	tray/utensil dispensers				
	beverage dispenser				
	warming pits in counter				
	shelves				
	glass racks				
LOBBY & COAT ROOM			110	15 x 20	300
	coat hooks	75			
	book shelves				
	couches	60			
	chairs	25			
	coffee tables	30			
RESTROOMS			95	10 x 7 ea.	140
	3 urinals	12			
	2 toilets	10			
	3 sinks	12			
	mirrors	10			
	towel/hand dryers	1			

CAFETERIA -- CONTINUED

AREA	GEN. FURN.	APPROX./ SQ.FT./FURN.	OPEN AREA SQ. FT.	DIMENSIONS	TOT.AREA SQ.FT.
CUSTODIAN				6 x 6	36
	sink	5	19		
	equip. strg.	10			
	utensil strg.	2			
DINING AREA				Variable Shape	3,400
	36 tables	756	1,812		
	216 chairs	712			
	storage	120			

CAFETERIA

PEOPLE COMING TO EAT ⇒ 3 TIMES/DAY

GET FOOD TO KITCHEN → GET FOOD FROM KITCHEN TO PEOPLE

GET REFUGE FROM WASTE DEPOSIT TO SANITARY DISPOSAL

INSTRUCTORS EAT WITH STUDENTS — STUDENTS ALSO WORK IN KITCHEN

GIVE PEOPLE EATING OPPORTUNITY FOR VIEW

PEOPLE MUST LEAVE AREA → COULD BE OTHER PEOPLE COMING IN AT SAME TIME
→ TRY TO SEPARATE

MECHANICAL SYSTEMS CONFINED TO ONE AREA.
ENVIRONMENT SYSTEMS → HEAT, LIGHT, SPRINKLER SYSTEM

FIRE ESCAPES FOR THE FOLKS

MAKE A FEELING OF A MEAL WITHIN A FAMILIAR GROUP
DON'T MAKE IT A GRAND EXPERIENCE, BUT A NICE EXPERIENCE
THIS IS A BREAK FROM WORK OR WHATEVER

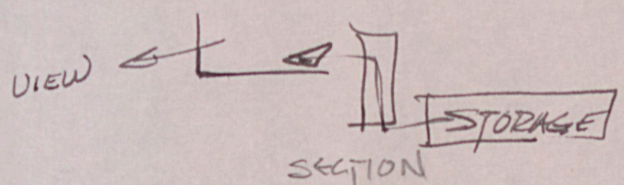
STUDENTS & TEACHERS WILL POSSIBLY HAVE COATS TO DEPOSIT
MUST BE ABLE TO DROP OFF AND PICK UP EASILY

CAFETERIA IS A BUILDING WHICH WILL NEED SERVICE REGULARLY

CAFETERIA IS A INCENTIVE TO USE COVERED WALKWAY.

LARGE FOOD PRODUCTION → NEEDS STORAGE FOR FOOD STUFFS
COLD + DRY

GET STUFFS FROM STORAGE TO KITCHEN → NO STAIRS OR RAMPS
ELEV. →



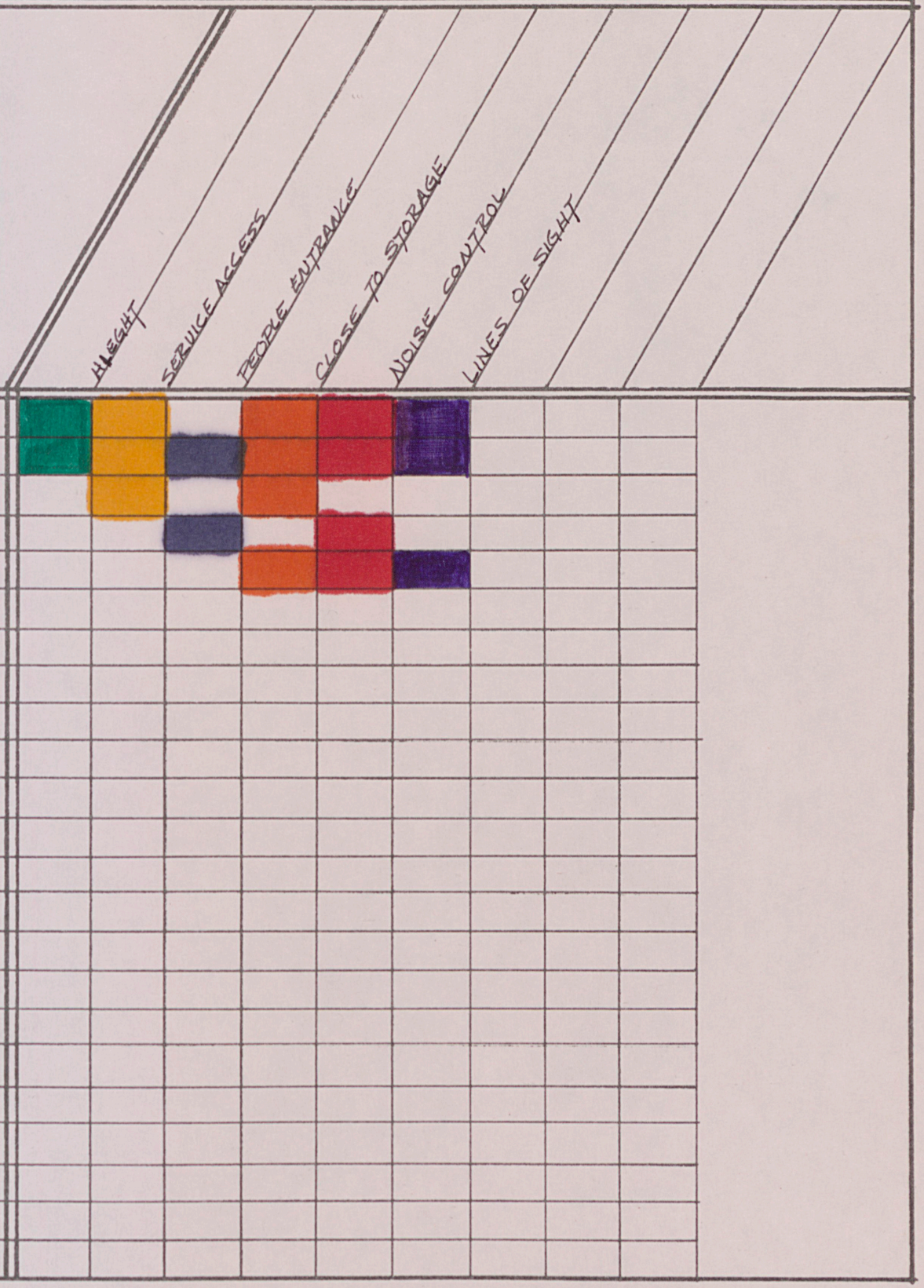
SECTION

BALLROOM --

The school provides functions to honor achievements, dances, etc. A facility should be provided for these events. The ballroom will be a worthwhile function of the school if incorporated to another function such as the cafeteria.

AUDITORIUM – MULTI-PURPOSE

SPACE NEEDS



BALLROOM -- 5,200 SQ. FT.

AREA	GEN. FURN.	APPROX./ SQ. FT./FURN	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ. FT.
STAGE (PORTABLE)					1,200
	table & chr. strg. for 200 people	400			
	coat check	120			
ASSEMBLY					4,000

AUDITORIUM—

SPECIAL SHOWS → APPARATUS FOR SHOWS → PLACE CLOSE TO EXIT

BALL ROOM → DON'T WANT IN CAFETERIA SINCE MANY ARE DINER THEN FORMAL AFFAIR

EASY FOR PEOPLE TO COME IN AFTER SHOW TO HANDLE SEATING

SHOWS MANY TIMES HAVE TIME SCHEDULES TO MEET

NO NEED FOR OUTSIDE EXPOSURE
CAN BE SUNK IN GROUND

NEED EMERGENCY ESCAPES

CAN BE MORE THAN ONE EXIT ENTRANCE
ONE COVERED
ONE OPEN
ETC. → PROVIDE OPPORTUNITY

MUST MAKE ROOM SUITABLE FOR BALLS & SHOWS & LECTURES (MOODS)

IDEA → GIVE EVERYTHING HERE A DRAMATIC AIR
↳ FLEXIBLE FINISH → WOOD CONCRETE DRAPES

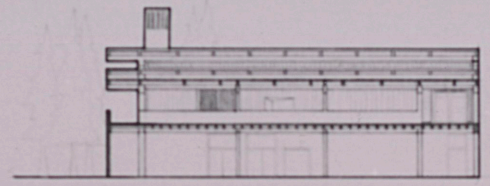
PROVIDE ACOUSTIC & ELECTRONIC SOUND CONTROL

EVERY BODY CAN SEE → RAISE STAGE → CLEAR SPAN → HIGH CEILI

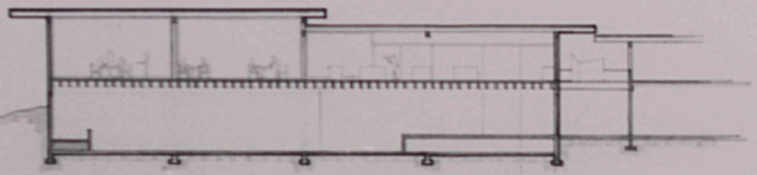
SOUND CONTROL FROM OUTSIDE — HEAVY WALLS

HEATING, LIGHTING, SPRINKLERS
FLOOR FOR DANCING → MUST ALSO BE KEPT

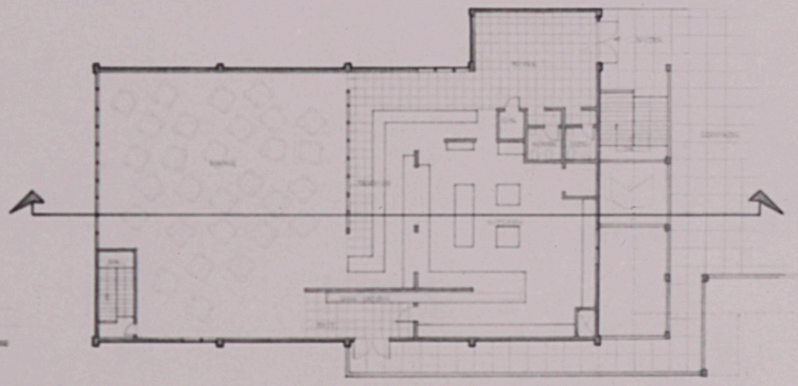
MANY FUNCTIONS REQUIRE STORAGE FOR EQUIPMENT NOT IN USE



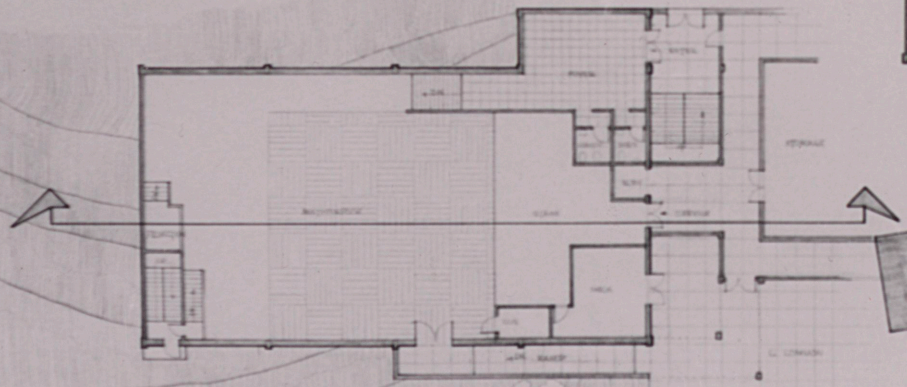
ELEVATION AT ENTRANCE



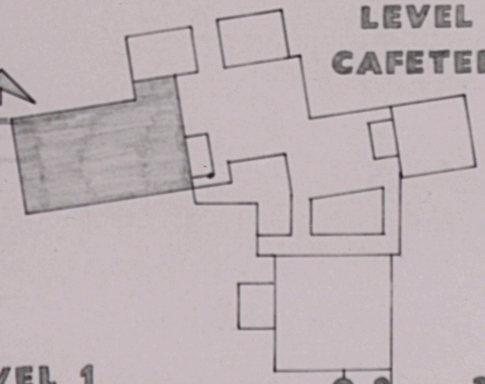
SECTION

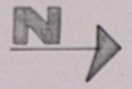


LEVEL 2 CAFETERIA



LEVEL 1 MULTI-PURPOSE





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KEY

CAFETERIA & MULTI-PURPOSE

INSTRUCTORS' LIVING SPACES --

Since the instructors are in a multi-role position in the school's capacity and function, it is pertinent that these persons be exposed to student behavior as much as possible.

There are different forms which instructors can take outside of being human. The living space must pertain to as many of these forms as possible.

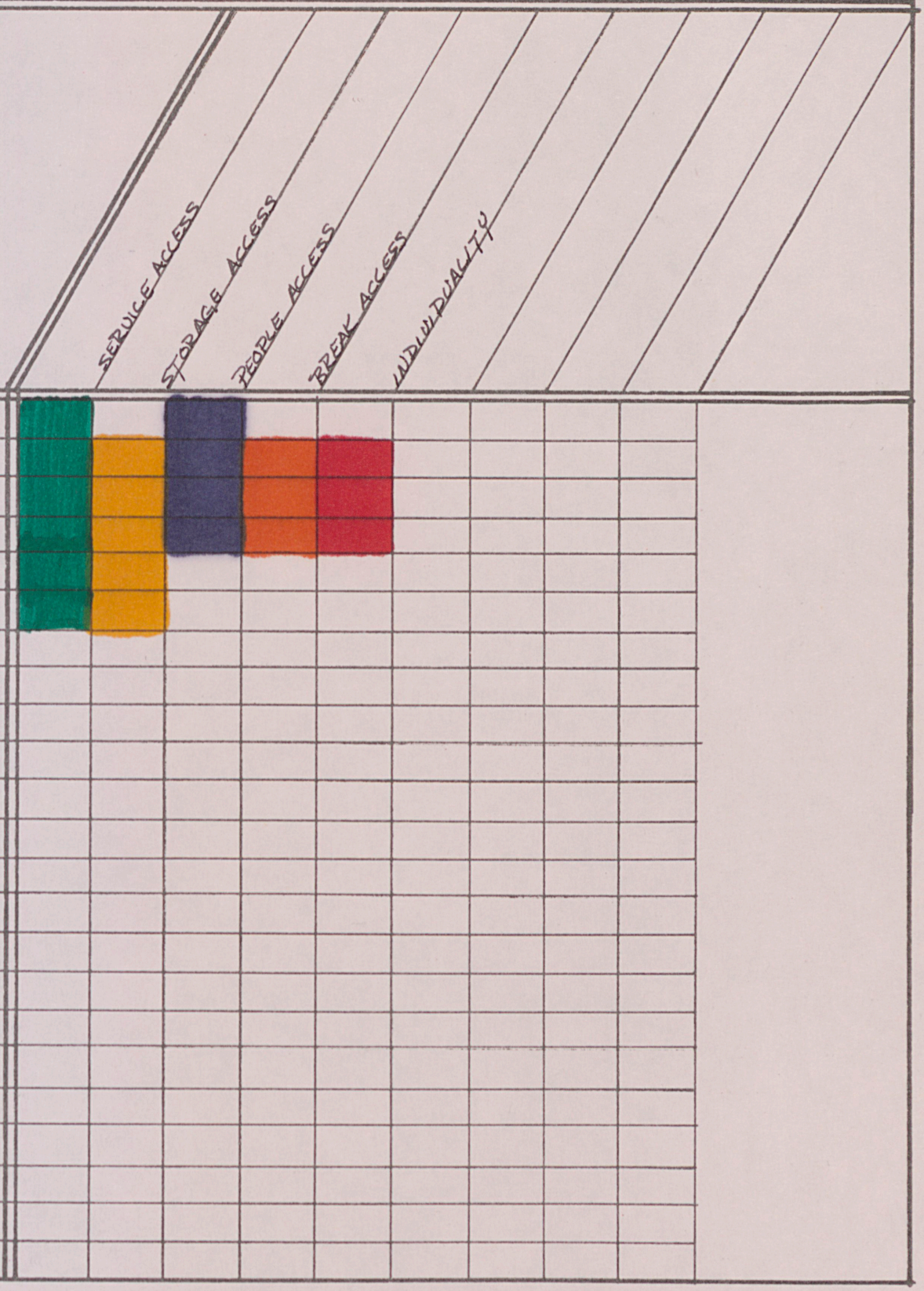
The categories which I feel must be considered are the single instructor, both male and female, and the instructor with a family. The family ranges from husband and wife to parents with two children. Instructors with large families who cannot fit into a three-bedroom space will have to find other housing outside the site of the school.

I feel extremely sure that the school administration will handle mono-sex marriages or roommates of the opposite sex by instructors.

Another point is the living spaces are a more permanent residence.

HOUSING

SPACE NEEDS



SINGLE BED SPACE (INSTRUCTOR) -- 550 SQ. FT. (MAXIMUM 2 PERSONS)

AREA	GEN. FURN.	APPROX. SQ. FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ. FT.
KITCHENETTE				Assume	60
	refrig.	4	24	6 x 10	
	range	4			
	sink	4			
	counter	12			
	cupboards	12			
HYGIENIC AREA				Assume	63
	tub & shower	13	23	9 x 7	
	toilet	5			
	sink	4			
	counter	18			
SLEEPING AREA				Assume	120
	1 dbl bed or 2 sngls &		38	10 x 12	
	nght. stnd.	46			
	closet sp.	20			
	drsg. tble	6			
	dresser	in closet			
	shelving	10			
DINING AREA				Assume	
	tble & chrs.	16	42	8 x 8	64
	buffet or hutch	6			
LIVING SPACE				Shape	180
	sofa	18	126	Variable	
	2 chairs	18			
	shelving				
	coffee tble.	8			
	cabinet, TV				
	stereo,etc.	10			
STORAGE SPACE				Assume	54
	linen clos.	2		9 x 6	
	coat closet	12			
	bulk strg.	40			
UTILITY SPACE					9
	washer & dryer	9			

2-Bed Space (instructor) -- 680 sq. ft. (maximum 4 persons)

AREA	GEN. FURN.	APPROX. SQ/FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ. FT.
KITCHEN				Assume	49
	refrig.	6	21	7 x 7	
	range	6			
	sink	4			
	counter	12			
	cupboards				
HYGIENIC AREA				Assume	56
	tub & shwr.	13	20	7 x 8	
	toilet	5			
	sink	4			
	counter	14			
SLEEPING AREA					
Master Bedroom				Assume	
				10 x 12	120
	dble bed & 2 nght stnds	46	38		
	closet sp.	20			
	drsg. tble	6			
	dresser	in closet			
	shelving	10			
Minor Bedroom				Assume	110
	1 sngle or bunk beds	18	56	10 x 11	
	closet	20			
	sm. desk	6			
	dresser	in closet			
	shelving	10			
DINING AREA				Assume	90
	tble & chrs.	30	51	9 x 10	
	china clos.	9			
LIVING AREA			106	Shape	160
	sofa & end tables	20		Variable	
	TV or stereo	8			
	2 easy chrs.	18			
	coffee tble	8			
	shelving				
STORAGE AREA				Assume	60
	coat closet	8	10	6 x 10	
	linen clos.	6			
	bulk strg.	36			
UTILITY AREA				Assume	35
	washer & dryer	10	15	7 x 5	
	folding cntr.	6			
	clothes bin	4			

3-Bed Space (instructor) -- 967 sq. ft. (maximum 6 persons)

AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ.FT.
KITCHEN				Assume	100
	refrig.	6	52	10 x 10	
	range	6			
	sink	4			
	dishwasher	4			
	counter	12			
	cupboards	16			
HYGIENIC AREA				Assume	77
	tub & shower	13	33	7 x 11	
	toilet	5			
	2 sinks	8			
	counter	14			
	cabinet	4			
SLEEPING AREA					
Master Bedroom				Assume 10 x 12	120
	dbl bed & 2 nght stnd	46	38		
	closet sp.	20			
	drsg. tble	6			
	dresser	in closet			
	shelving	10			
Minor Bedroom				Assume 10 x 11	110
	sngl or bunk bed	18	56		
	closet sp.	20			
	sm. desk	6			
	dresser	in closet			
	shelving	10			
Minor Bedroom				Assume	110
	sngl or bunk bed	18	56	10 x 11	
	closet sp.	20			
	sm. desk	6			
	dresser	in closet			
	shelving	10			
DINING AREA				Assume	120
	table (lrg)	24	59	10 x 12	
	chairs	18			
	china clos.	9			
	counter	10			
LIVING AREA				Variable Division	180
	sofa & end tables	20	116		
	2 easy chrs.	18			
	TV/ stereo	8			
	coffee tble	8			
	shelving				
STORAGE AREA			60	10 x 11	110
	coat clos.	8			
	linen clos.	6			
	bulk strg.	36			
UTILITY AREA			15	4 x 10	40
	washer & dryer	10			
	counter	6			
	clothes bin	4			
	iron. brd.	5			

STUDENTS' LIVING SPACES --

I am proposing living spaces for the students which are based on one person per space or three persons per space. With three persons in a unit, I feel that there should be a division of functions in the space. This is to say, there should be a sleeping area, a hygienic area and a general purpose area. I want the living space to be this and not just a space with a closet, a bed and a desk which reflects the sole purpose for being at the school.

The single occupant space will be less divisional in distinction of the areas in a three-occupant space. The person who is independent enough to be singular will more than likely be able to cope and conquer this difference.

With a system such as this, I feel that there would be no need for a separation of spaces with regard to sex. Living in a group in these spaces would be similar to living in an urban apartment building where there is no discrimination to a next-door neighbor with regard to sex.

Supervision of the students would be accomplished by dispersing the living spaces of the resident instructors into the living spaces of the students.

SINGLE BED SPACE (STUDENT) -- 140 SQ. FT.

AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ.FT.
SLEEPING AREA					30
	bed	20			
	closet	10			
HYGIENIC AREA					35
	sink	4	13		
	toilet	5			
	shower	13			
GENERAL PURPOSE					75
	desk & chair	15	39		
	shelves	14			
	easy chr.	7			

3-Bed Space (student) -- 399 sq. ft.

AREA	GEN. FURN.	APPROX./ SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT.AREA SQ.FT.
SLEEPING AREA				Variable	180
	3 beds @ 22'	66	90	Division	
	3 closets @ 8'	24			
HYGIENIC AREA				Assume	49
	shwr. & tub	13	18	7 x 7	
	toilet	5			
	2 sinks	8			
	mirror	3			
	linen strg.	2			
GENERAL PURPOSE				Variable	170
	3 desks & 3 chrs. @ 15	45	103.5	Division	
	shelving	wall length			
	3 easy chrs @ 7 1/2	22.5			

SING

MAIN CONCEPT — BREAK AREAS — NODES IN MAIN WALKWAY

PEOPLE IN SPACES PEOPLE TO GET FROM SPACES TO ALL SCHOOL FUNCTIONS

PEOPLE IN FUNCTIONS TO GET ~~TO~~ SPACES

PEOPLE ~~AT~~ IN SPACES TO BE GIVEN ASSEMBLY AREAS

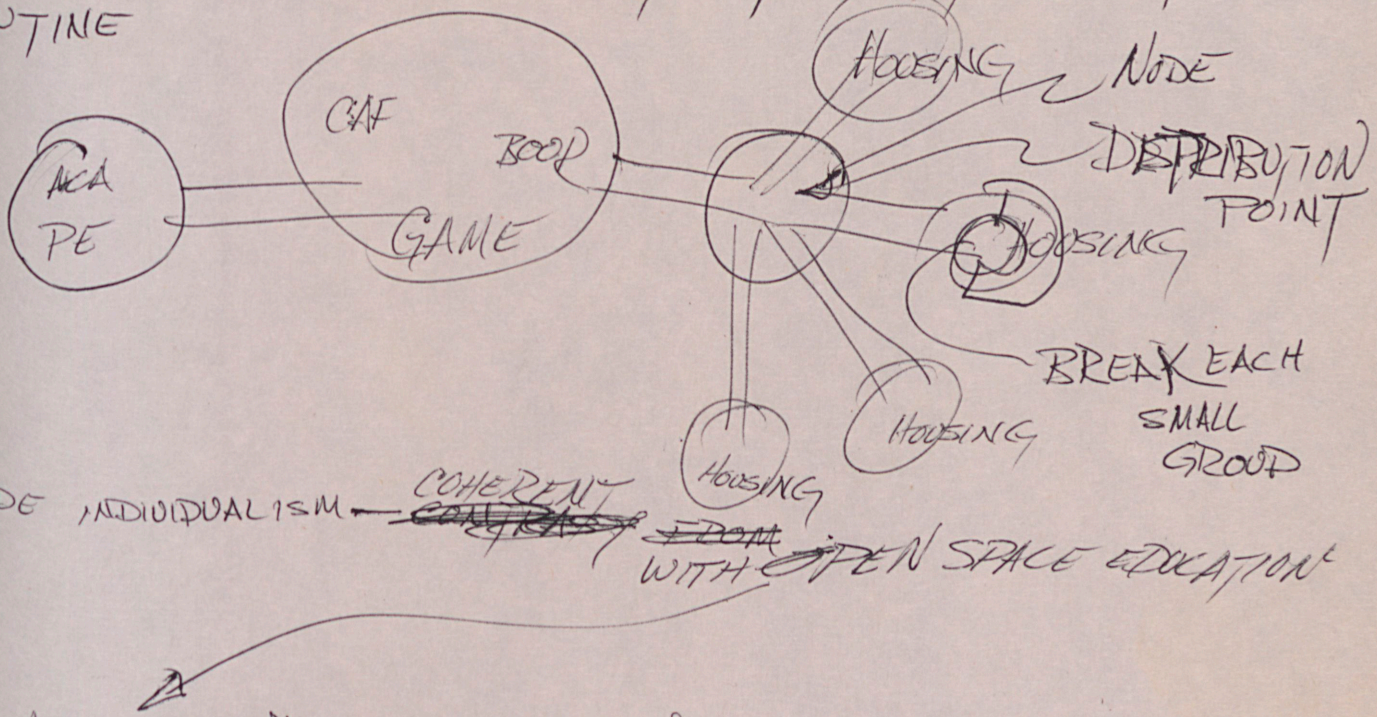
COMMONS FOR ORGANIZATION OF FLOW

PLACE FOR SERVICES TO BE DISTRIBUTED

PLACE FOR REFUGE TO BE PICKED UP

THE IDEA IS TO ~~P~~PROVIDE AN AREA FOR PEOPLE TO COME TOGETHER FROM THE SPACES.

IN THE SCHOOL EVERYBODY IS TOGETHER — COME TOGETHER IS IN SMALL ~~GROORS~~ → CONTRAST FROM THE DAILY ROUTINE

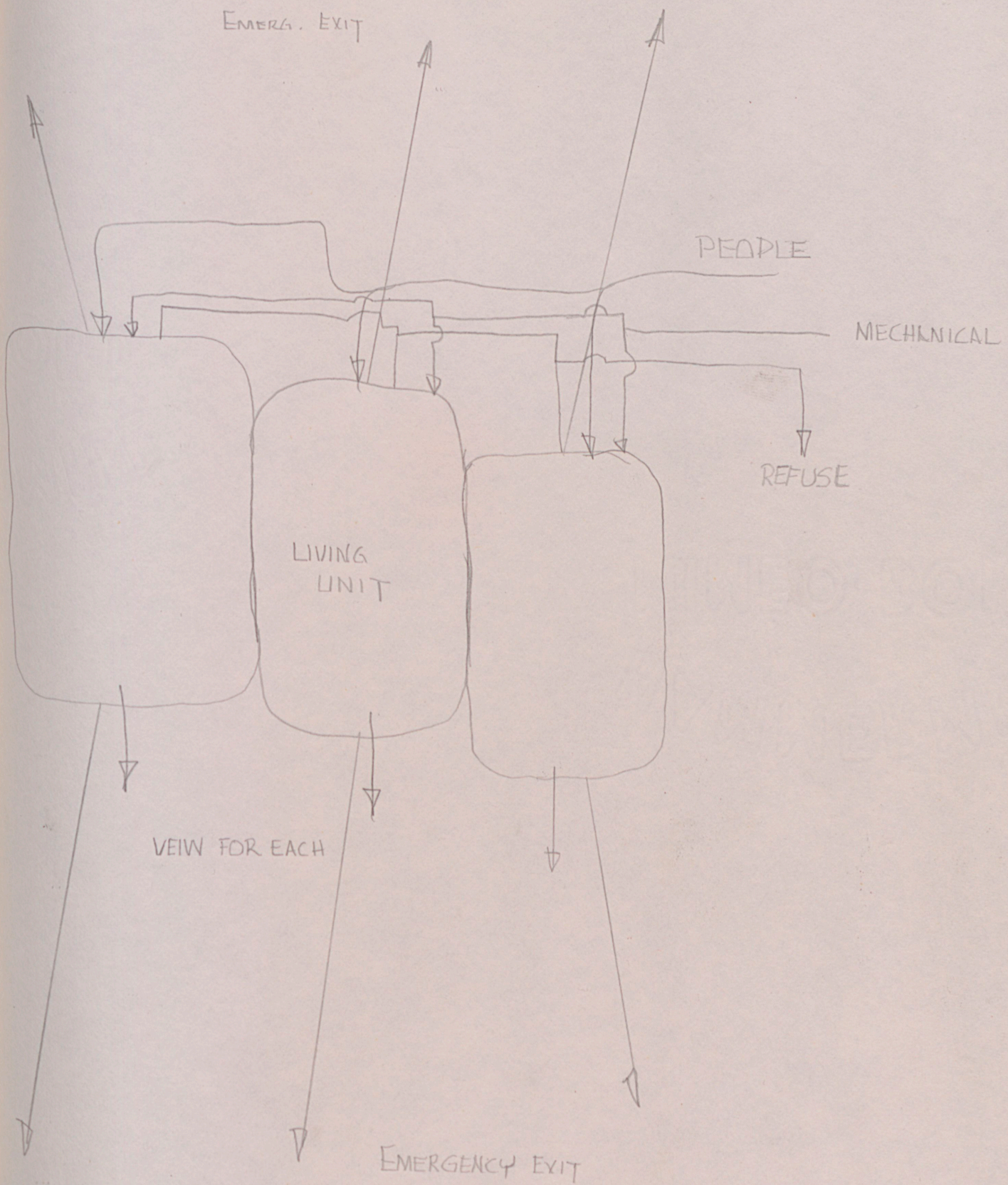


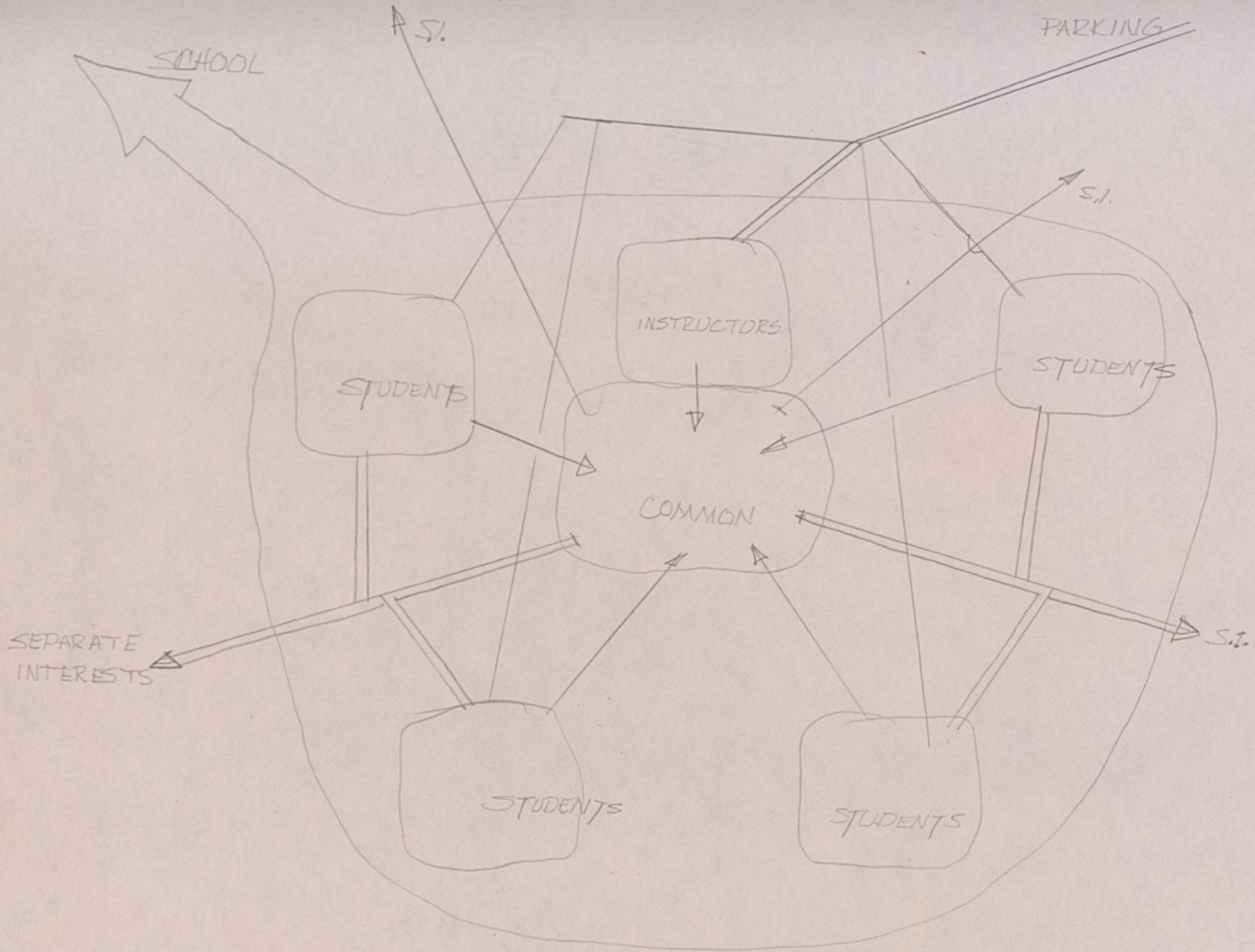
PROVIDE INDIVIDUALISM — ~~CONTRAST~~ COHERENT ~~FROM~~ WITH OPEN SPACE EDUCATION

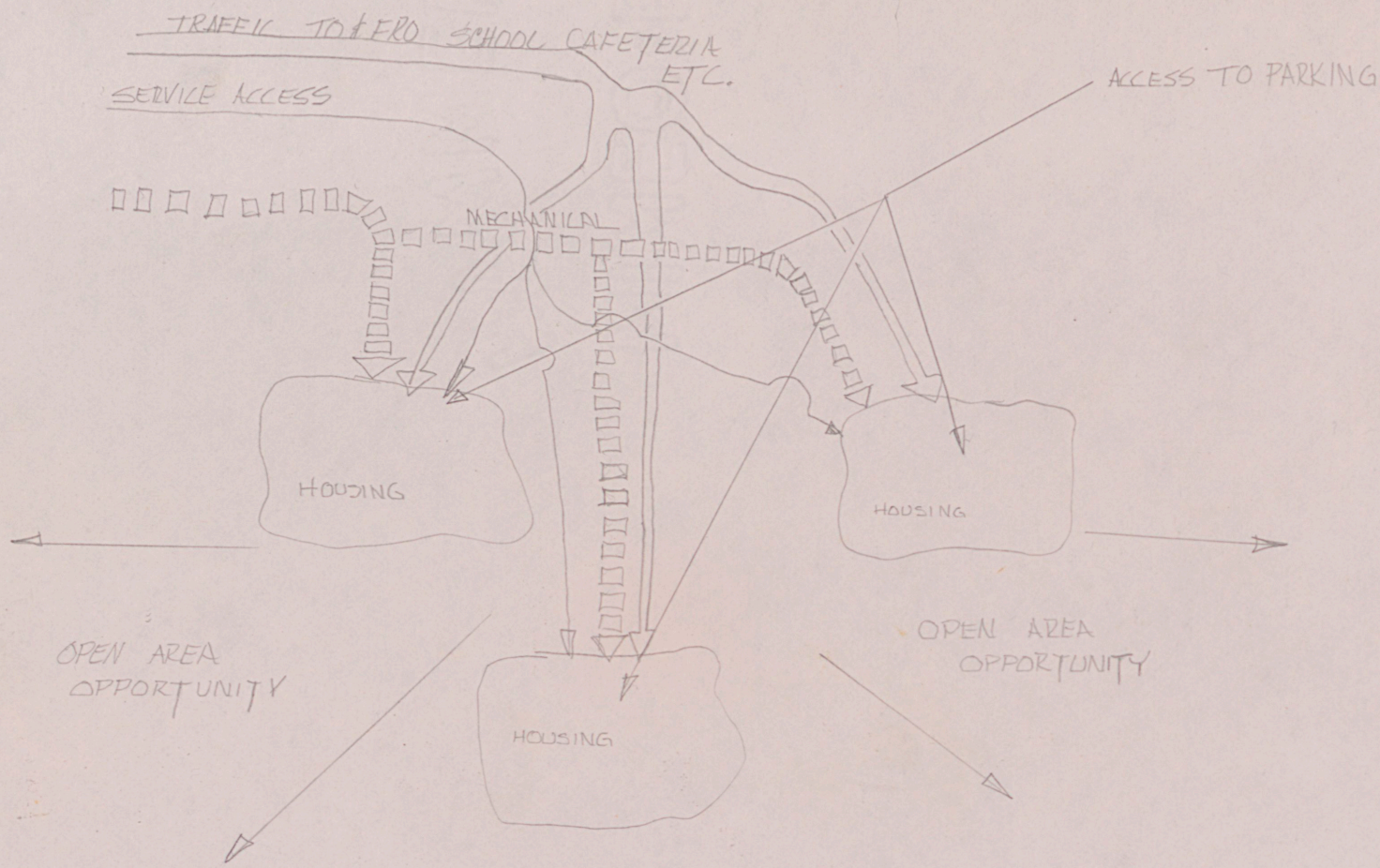
ALSO COHERENT WITH P.E. → YOU ARE ONLY AS GOOD AS YOU WANT TO BE!! → TO BE GOOD IN SPORT

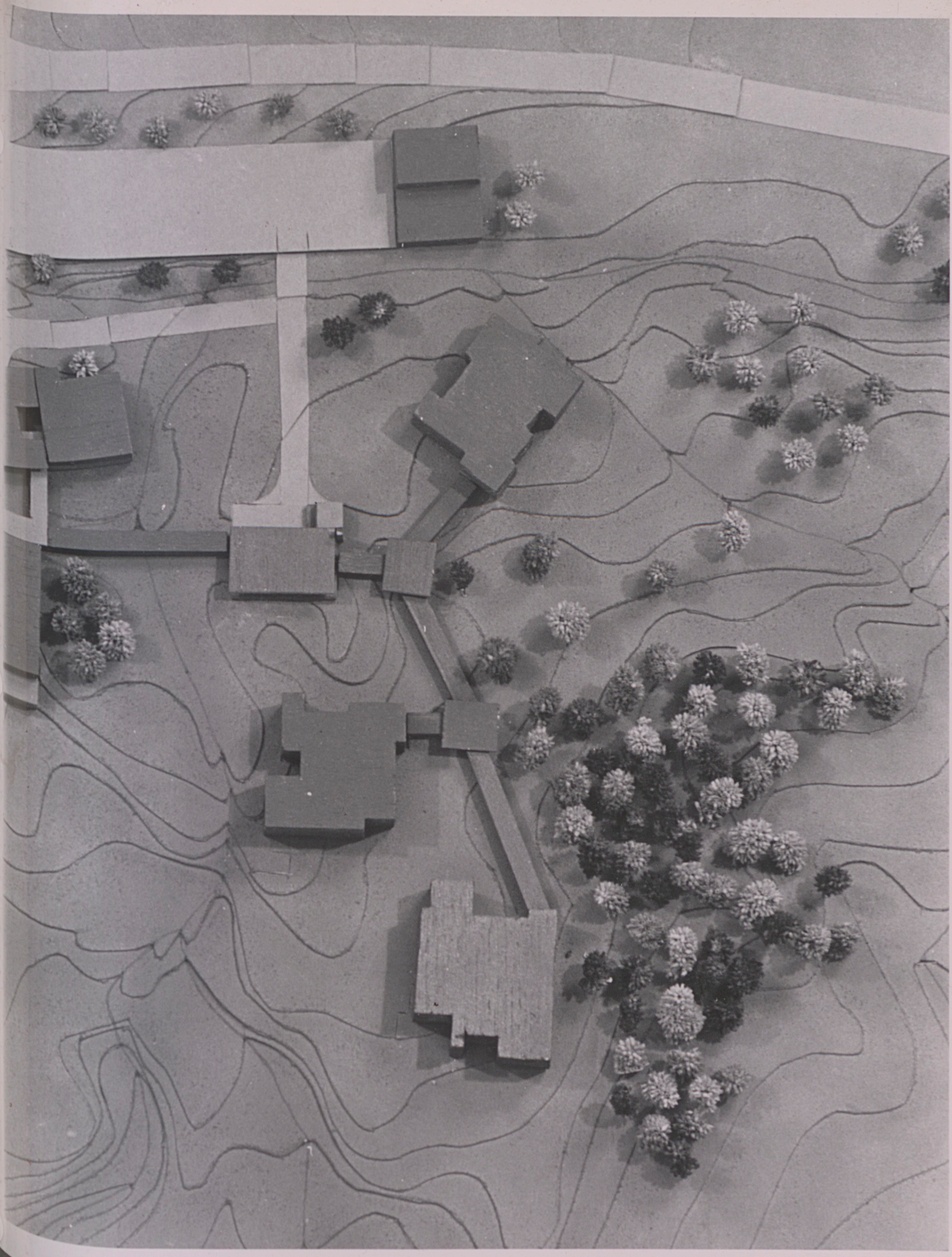
TRY TO LET SPACES GIVE PEOPLE SOME IDENITY → THEIR SPACE

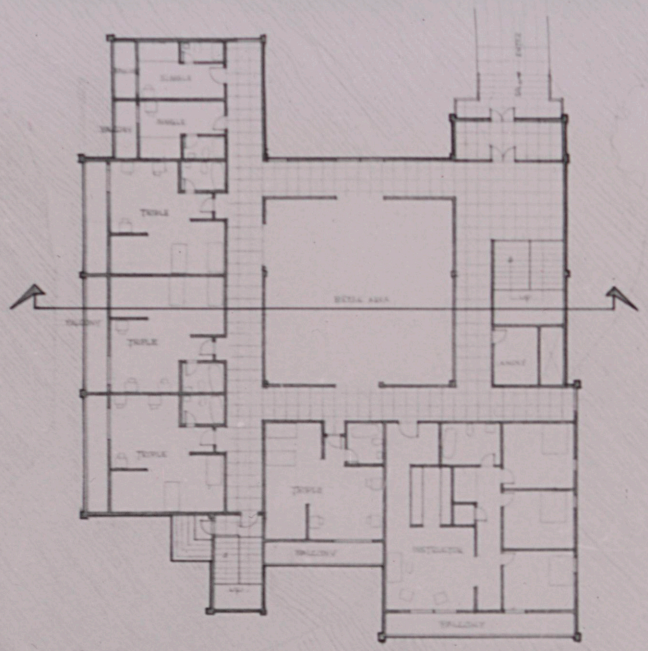
PROVIDE ~~SOMETHING~~ A BREAK FROM SPACE


EMERG. EXIT
PEOPLE
MECHANICAL
REFUSE
LIVING UNIT
VEIW FOR EACH
EMERGENCY EXIT

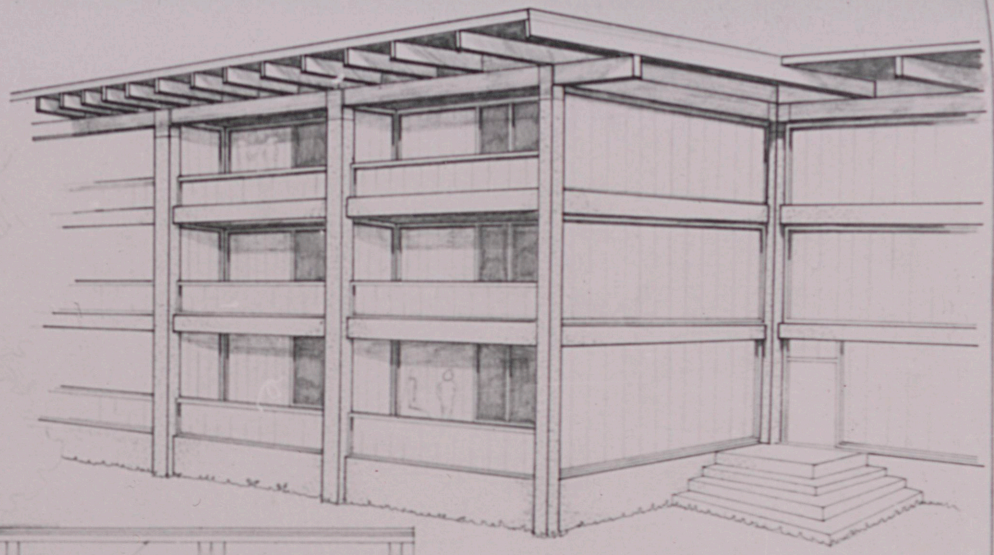

SCHOOL
S.I.
PARKING
S.I.
INSTRUCTORS
STUDENTS
STUDENTS
COMMON
SEPARATE
INTERESTS
S.I.
STUDENTS
STUDENTS

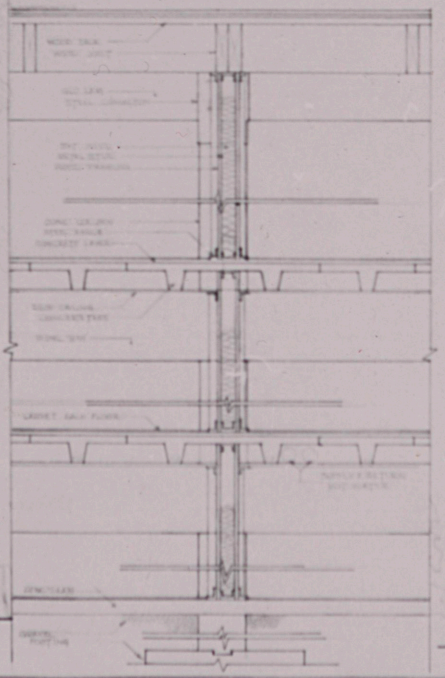

TRAFFIC TO FRO SCHOOL CAFETERIA ETC.
SERVICE ACCESS
ACCESS TO PARKING
MECHANICAL
HOUSING
HOUSING
HOUSING
OPEN AREA OPPORTUNITY
OPEN AREA OPPORTUNITY



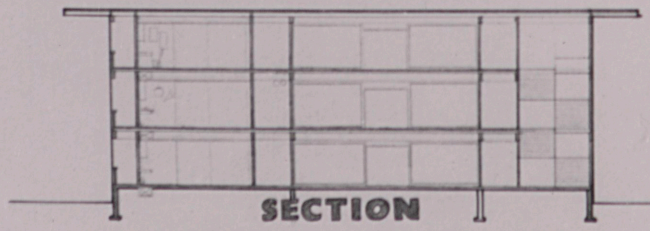


TYPICAL FLOOR PLAN



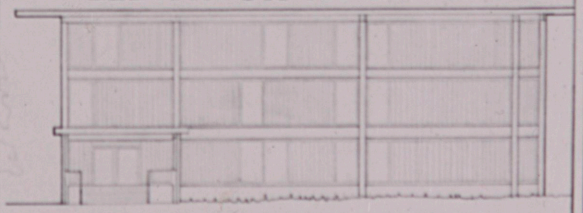




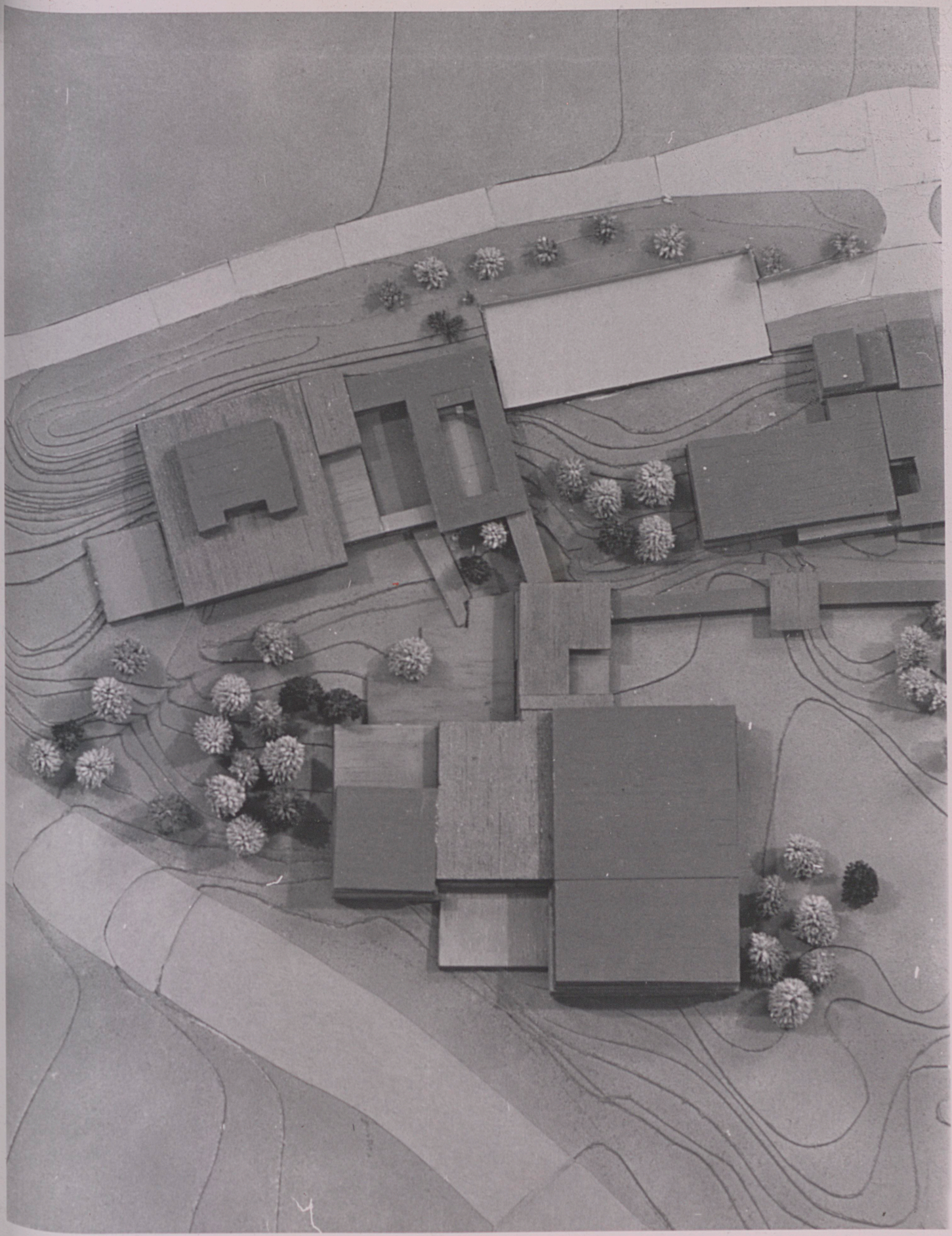


SECTION

ELEVATION AT ENTRANCE

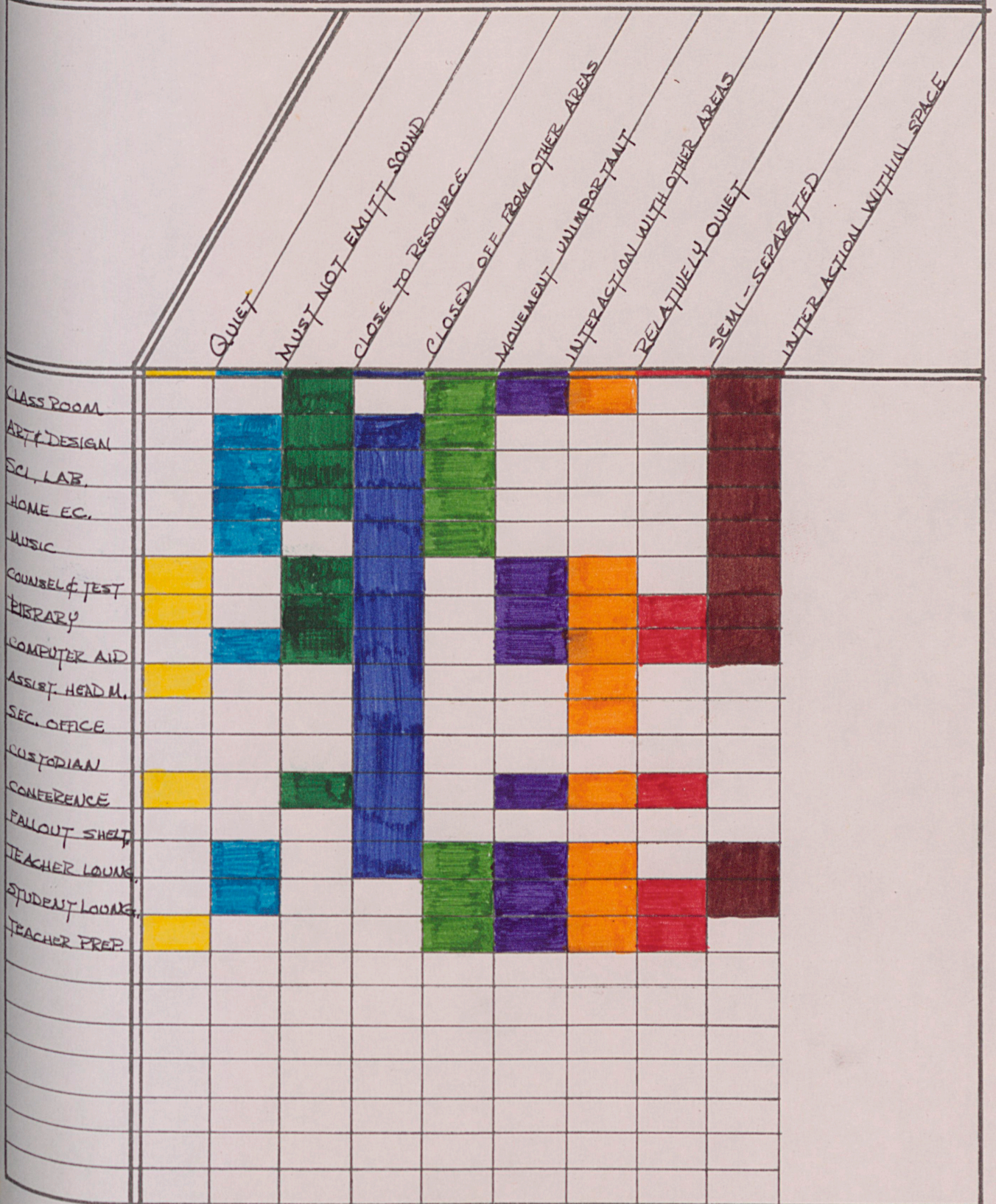


HOUSING UNIT



ACADEMIC AREA

SPACE NEEDS

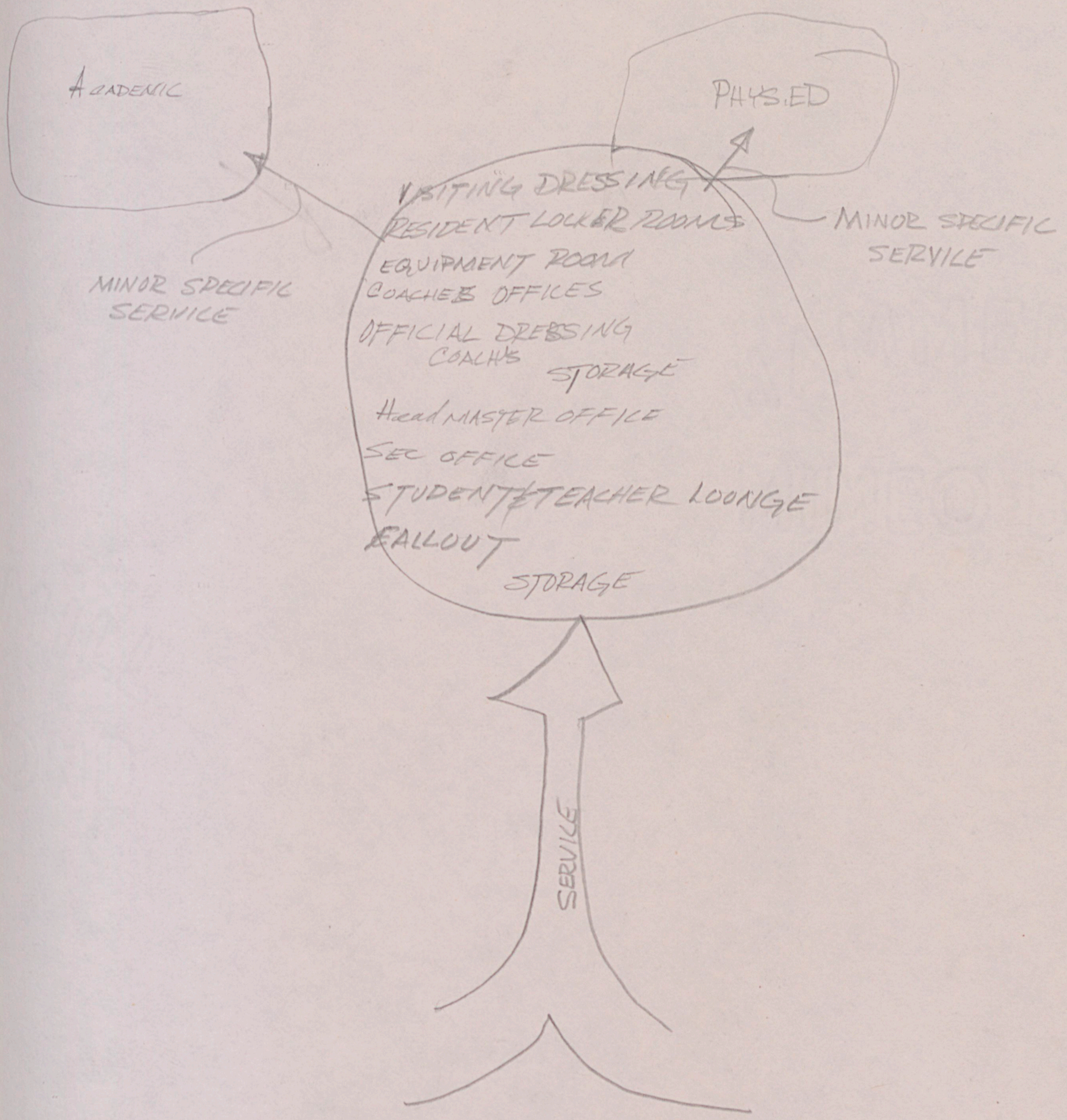


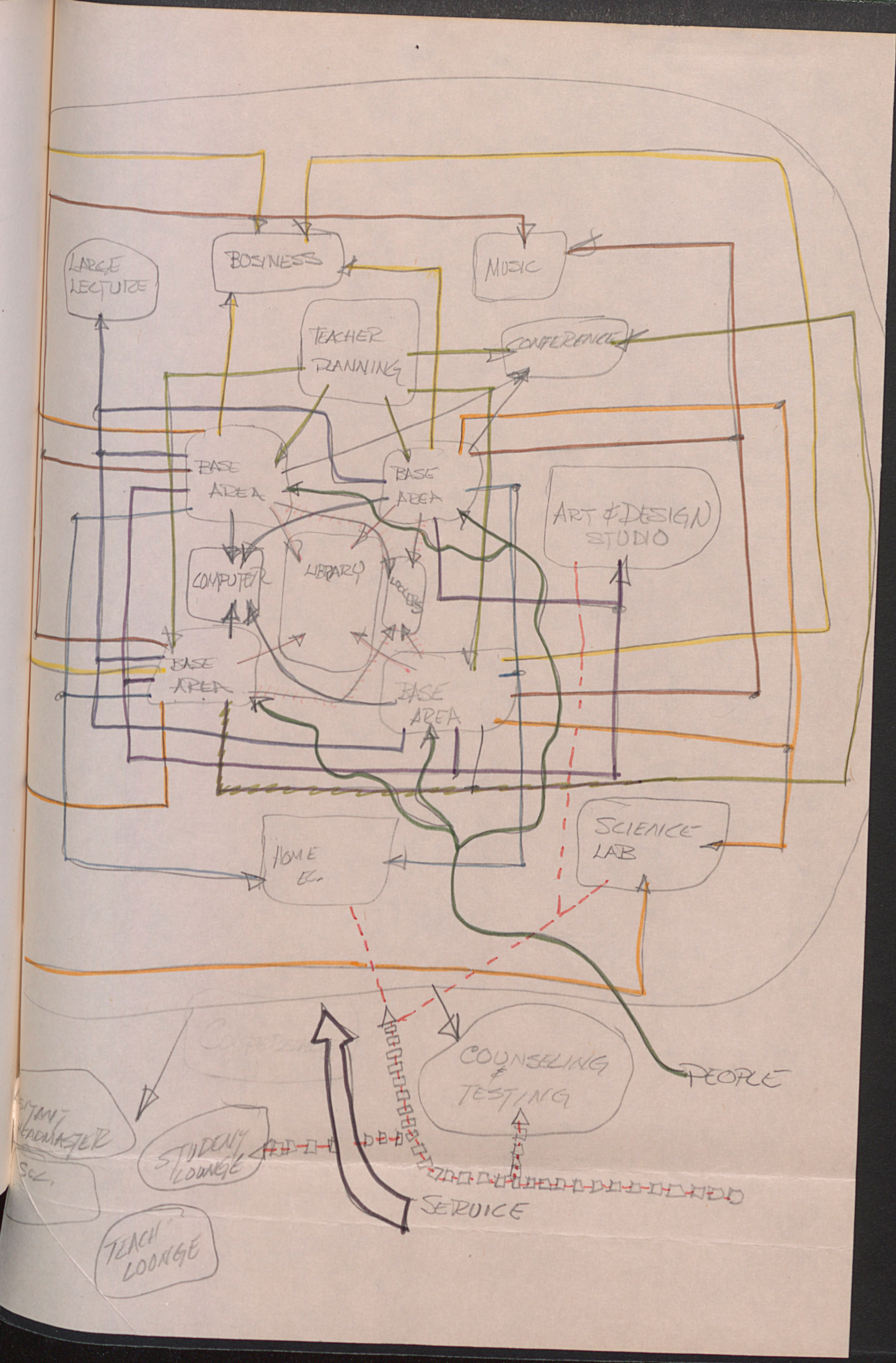
ACADEMIC BUILDING -- 18,550 SQ. FT.

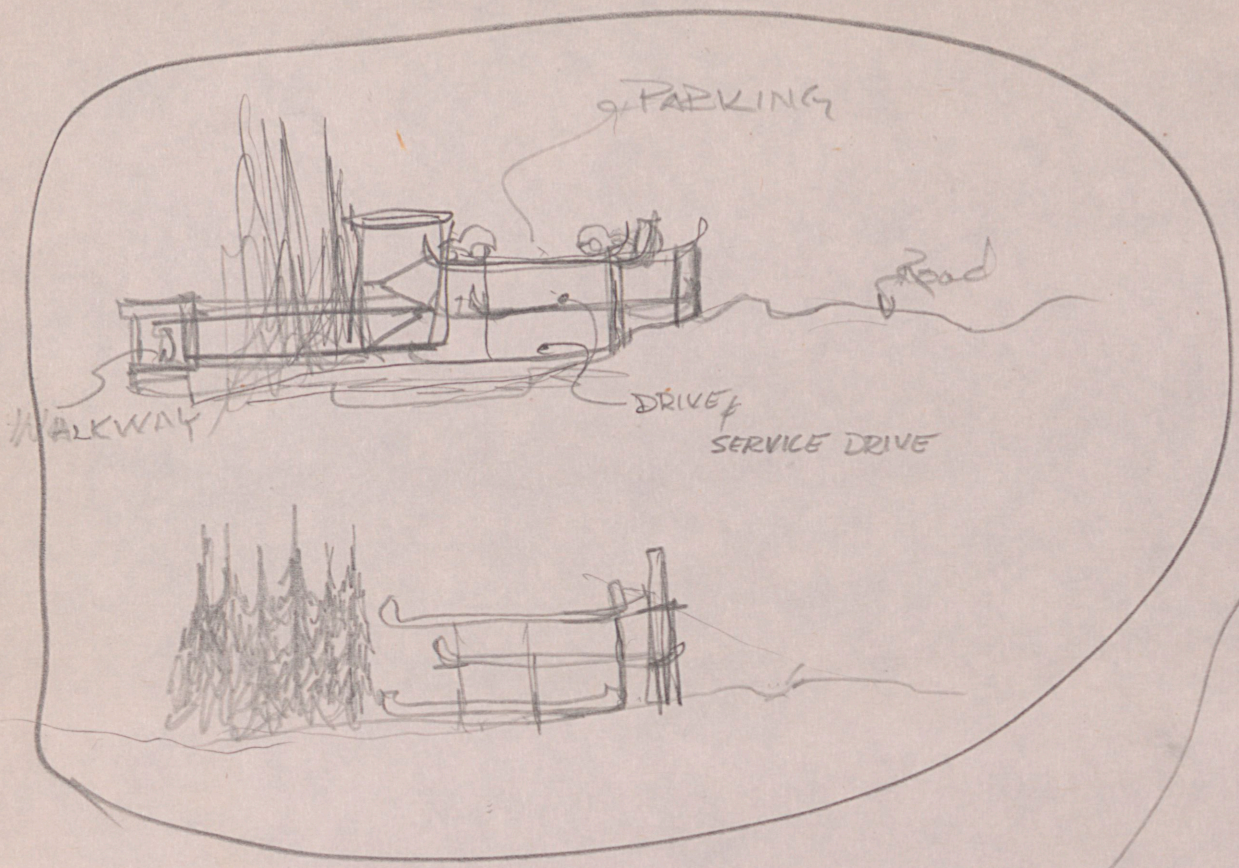
AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ. FT.	DIMENSIONS	TOT. AREA SQ. FT.
DESIGN					1,280
	4 tables	84			
	24 chairs	60			
	cabinets				
	5 sinks	37.5			
	shelving				
ART					1,280
	4 tables	84			
	24 chairs	60			
	5 sinks	37.5			
	shelving				
	cabinets				
SCIENCE LAB					1,440
	4 lab tbles.	84			
	24 stools	48			
	5 sinks	37.5			
	shelving				
	cabinets				
HOME EC					1,440
Kitchen	4 tables	84			
	24 chairs	60			
	4 sinks	16			
	refrig.	6			
	4 ranges	24			
	cabinets				
	counters				
Sewing Room	3 tables	63			
	7 sewing machines				
MUSIC ROOMS (5)					1,200
	10 chairs	25			
	5 music stnds.	10			
CONFERENCE ROOM	table	24			300
	8 chairs	20			
COUNSELING & TESTING					300
	2 tables	42			
	16 chairs	46			
COMPUTER AID					720
	4 tables	84			
	24 chairs	60			
	computer				
LARGE GROUP INSTRUCTION					1,000
	50 desks	200			
	1 teachers desk	15			
BUSINESS					520
	15 desks	60			
	teacher's desk	15			
	typewriters				
STUDENT LOCKERS					150
	150 lockers	150			

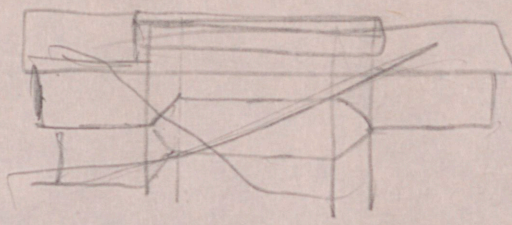
ACADEMIC BUILDING -- CONTINUED

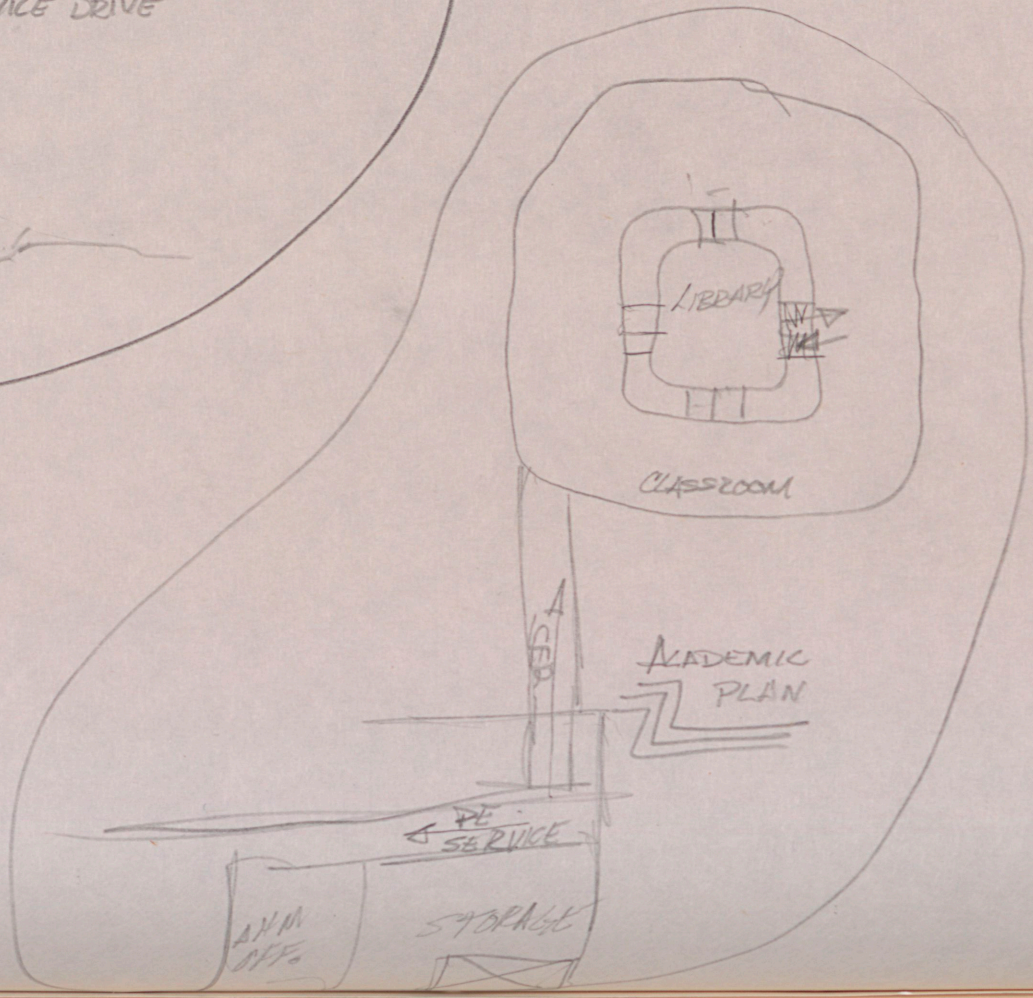
AREA	GEN. FURN.	APPROX./ SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ. FT.
TEACHER PREP.					480
	2 tables	42			
	16 chairs	46			
LIBRARY					1,020
	book shelves				
	check out desk	18			
	5 tables	160			
HEADMASTER'S OFFICE					120
	desk & chr.	18			
	sofa/end tble.	20			
	coffee table	8			
	easy chair	9			
	book shelves				
SECRETARY'S OFFICE					120
	desk & chr.	15			
	file cab.	10			
	type stnd.	2			
STUDENT LOUNGE					600
	32 chairs	80			
	3 sofas	48			
	8 tables	32			
TEACHER'S LOUNGE					480
	2 sofas	20			
	4 easy chrs.	36			
	coffee tble	8			
	coffee pot				
STORAGE & MACHINE ROOM					1,600
	shelving				
	work table	21			
	mimeo	4			
TOTAL OPEN SPACE			4,500		

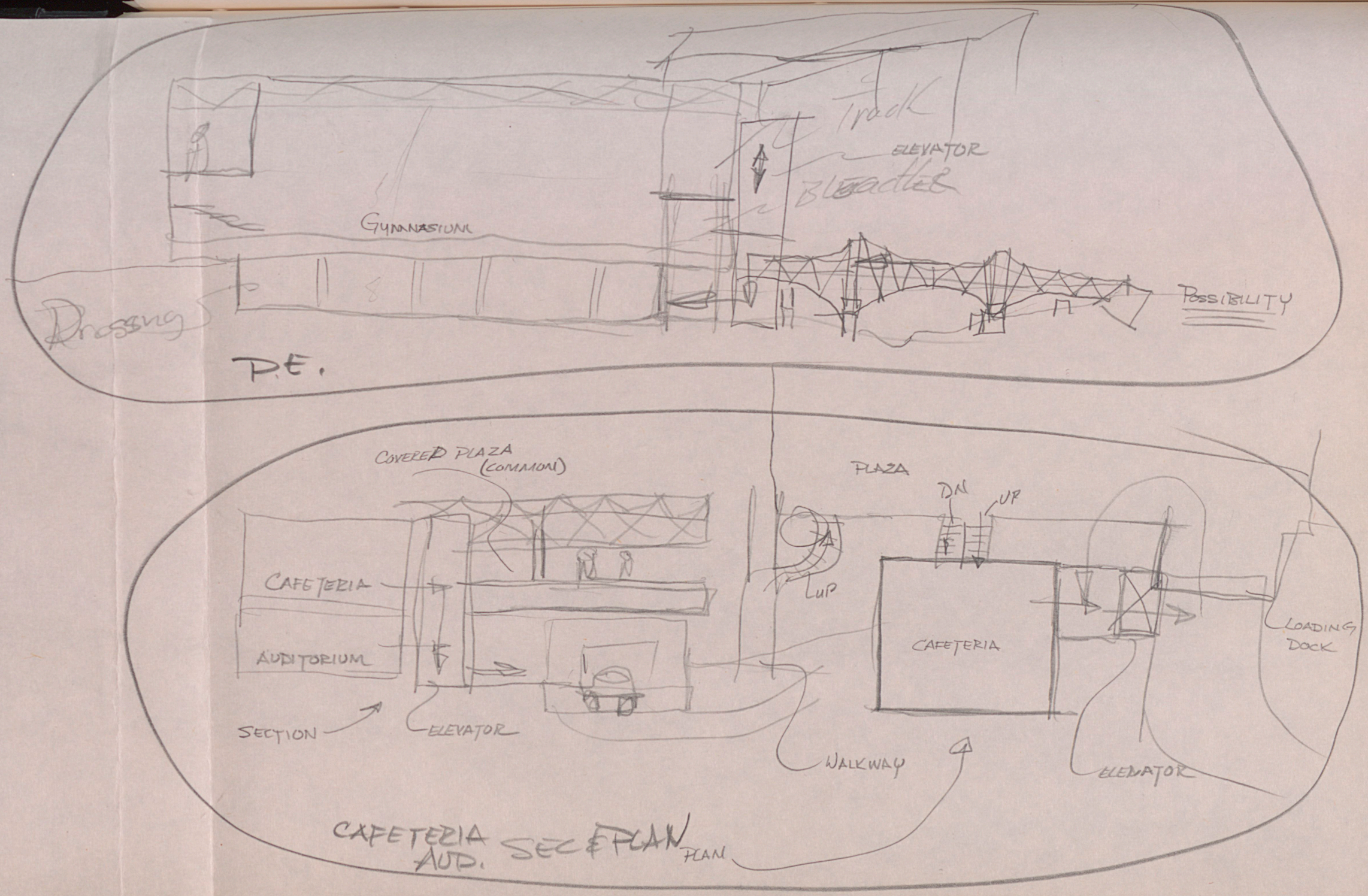

ACADEMIC
PHYS.ED
VISITING DRESSING
RESIDENT LOCKER ROOMS
EQUIPMENT ROOM
COACHES OFFICES
OFFICIAL DRESSING
COACHES
STORAGE
HEAD MASTER OFFICE
SEC OFFICE
STUDENT/TEACHER LOUNGE
FALLOUT
STORAGE
MINOR SPECIFIC SERVICE
MINOR SPECIFIC SERVICE
SERVICE

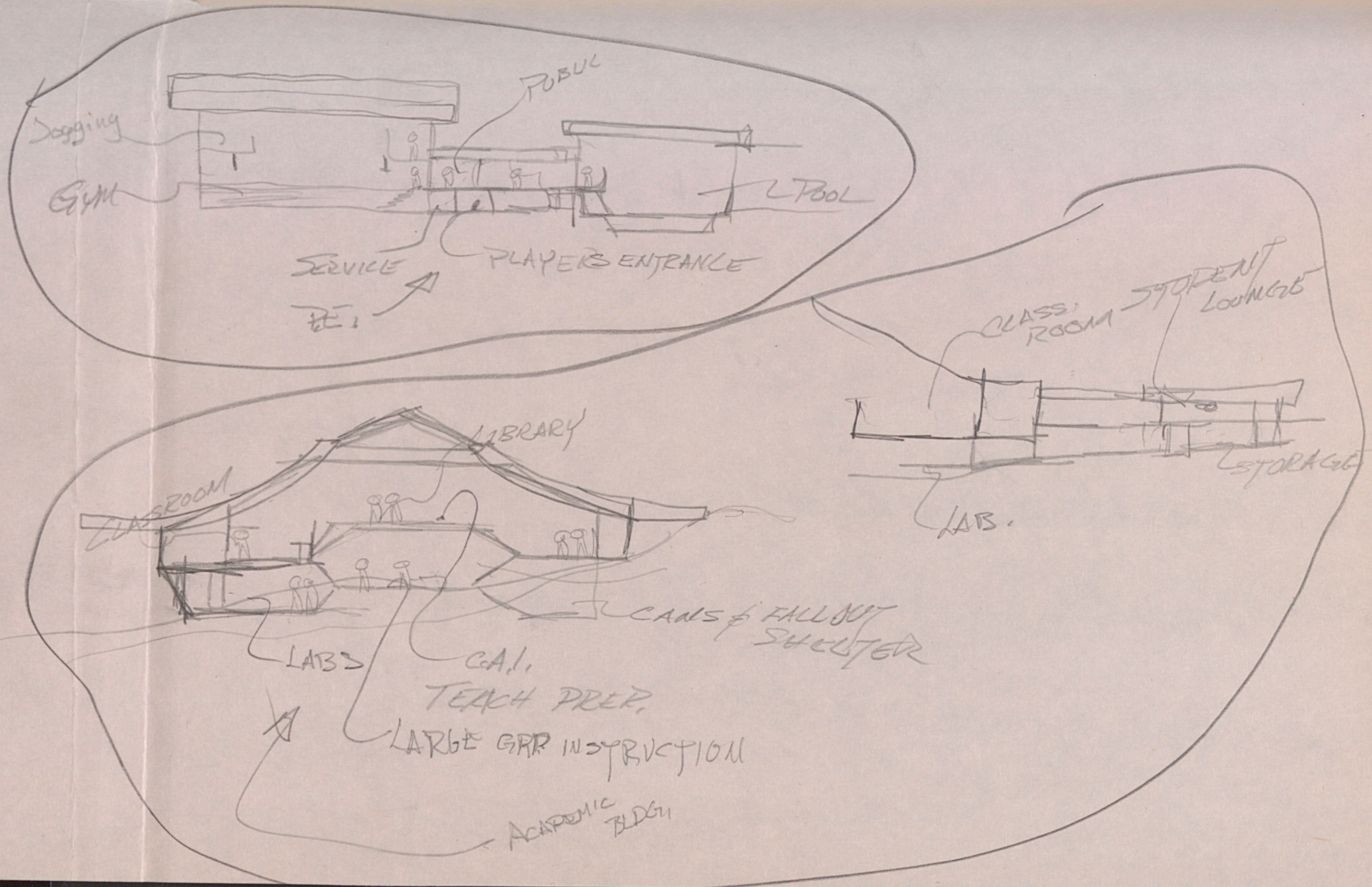

LARGE LECTURE
BOSINESS
MUSIC
TEACHER RANNING
CONFERENCE
BASE AREA
BASE AREA
ART & DESIGN STUDIO
COMPUTER
LIBRARY
LOCKERS
BASE AREA
BASE AREA
HOME EC.
SCIENCE LAB
COUNSELING & TESTING
PEOPLE
STUDENT LOUNGE
SERVICE
TEACH LOUNGE


PARKING
Road
WALKWAY
DRIVE &
SERVICE DRIVE




LIBRARY
CLASSROOM
ACADEMIC
PLAN
SERVICE
STORAGE


Track
ELEVATOR
Bleachers
GYMNASIUM
Dressing
POSSIBILITY
P.E.
COVERED PLAZA (COMMON)
CAFETERIA
AUDITORIUM
SECTION
ELEVATOR
UP
WALKWAY
PLAZA
DN
UP
CAFETERIA
LOADING DOCK
ELEVATOR
CAFETERIA AUD. SEC & PLAN
PLAN


Dogging
GYM
PUBUC
L POOL
SERVICE
PLAYERS ENTRANCE
CLASS ROOM
STUDENT LOUNGE
STORAGE
LAB.
LIBRARY
CLASSROOM
CAFE & FALLOUT SHELTER
LABS
C.A.I. TEACH PREP.
LARGE GRP INSTRUCTION
ACADEMIC BLDG

ACADEMIC BUILDING –

INDEPENDENT STUDY

PEOPLE CLOSE TO RESOURCE AREA → LIBRARY & COMPUTER

AREA FOR QUIET INTENSE STUDY → LIBRARY → PROVIDE CUBICLES

AREA FOR GROUP DISCUSSION → CONFERENCE ROOMS

STUDENT TEACHER DISCUSSION → CONFERENCE ROOMS

STUDENT & TEACHER ABLE TO RELAX → LOUNGES → BREAK

TEACHER & STUDENT WORKING TOGETHER → OPEN SPACE SYSTEM
TEACH PLANNING

TEACHER COMES TO STUDENTS

GROUPS WORKING TOGETHER → INTERACTION

DIFFERENT SUBJECTS RELATING → EDUCATION BECOMES WHOLE AND NOT SEPARATE AREAS

COMPUTER ASSISTANCE – CLOSE TO ALL – NOISE?

STUDIOS – REQUIRE CAPABILITIES TO HANDLE MESSY PROJECTS
CAN BE NOISE – CAN BE QUIET

TOO UNSTABLE TO BE IN TOTAL OPEN
GOT TO FROM ALL BASE AREAS

HOME EC – MESS – NOISE – SPECIAL FURNISHINGS
GOT TO ALL BASE AREA

SCIENCE LAB – NOISE – SMELL – SPECIAL EQUIPMENT
BOTH LECTURE & LAB WORK
GOT TO FROM ALL BASE AREAS

COMPUTER ROOM – NOISE – PEOPLE – WORKING ON SPECIAL ASSIGNMENT
PROVIDES RESOURCE MATERIAL
GOT TO FROM ALL BASE AREAS

BUSINESS – SPECIAL EQUIPMENT – NOISE – LECTURES

MUSIC – NOISE ! ! !
GOT TO FROM ALL BASE AREAS

GETTING TO AN AREA FROM BASE AREAS DOES NOT MEAN DIRECT ACCESS A SHORT BREAK OF WALKING THROUGH A HALL SHOULD BE RELAXING AND GIVE A PERSON TIME TO CONTEMPLATE WHAT HE JUST HEARD

HEATING, LIGHTING, SPRINKLER

ACADEMIC BUILDING—

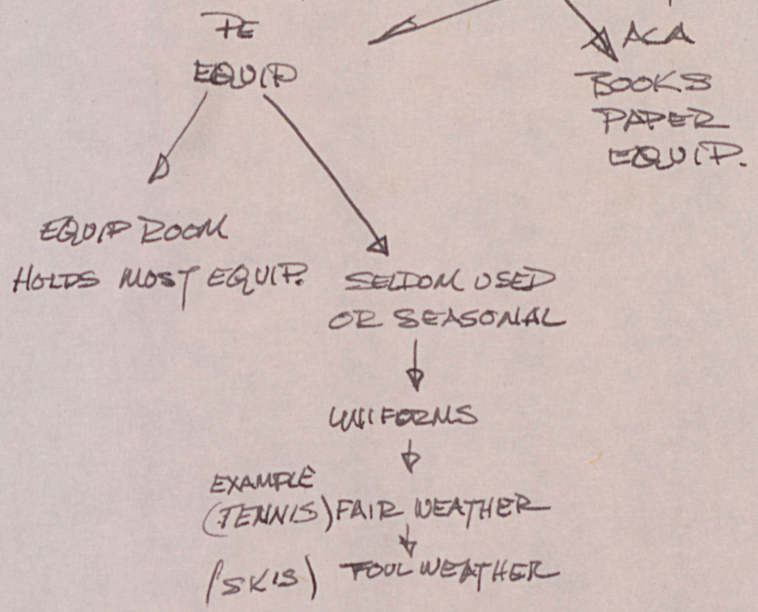
LINKED TO REST OF SCHOOL FACILITIES
COVERED WALKWAY COMES TO SCHOOL
SERVICE TO ACADEMIC SAME AS TO THE P.E. BLDGS.
STORAGE OF BOTH BLDGS. ARE AT SAME SPOT.
MOST SERVICABLE AREAS OF SCHOOL CLOSE TO STORAGE & RECEIVING

SHOULD SEPARATE ADMINISTRATION FROM REST OF SCHOOL
COUNSELING SHOULD BE SOMEWHAT SEPARATE

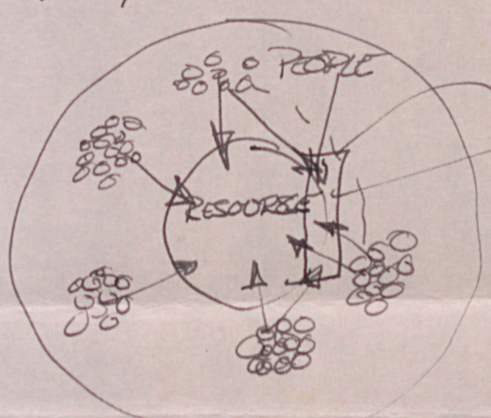
→ ADMINISTRATOR SHOULD NOT BE ALOOF FROM STUDENTS & OTHER INSTRUCTORS
COUNSELOR DEFINATELY SHOULD NOT BE CONNECTED WITH ADMINISTRATOR

LARGE GROUP INSTRUCTION → STEPPED SEATS → HIGHER CEILING
PROJECTION SYSTEM → SCREEN AT OPPOSITE WALL

→ STORAGE (PE & ACA) IN BOTH AREAS → DRY STORAGE



PEOPLE WORKING TOGETHER → PEOPLE WORKING INDEPENDENTLY
ALL PERSONS → INDEPENDENT STUDY → RESOURCE
GROUPS TOGETHER ONCE IN A WHILE

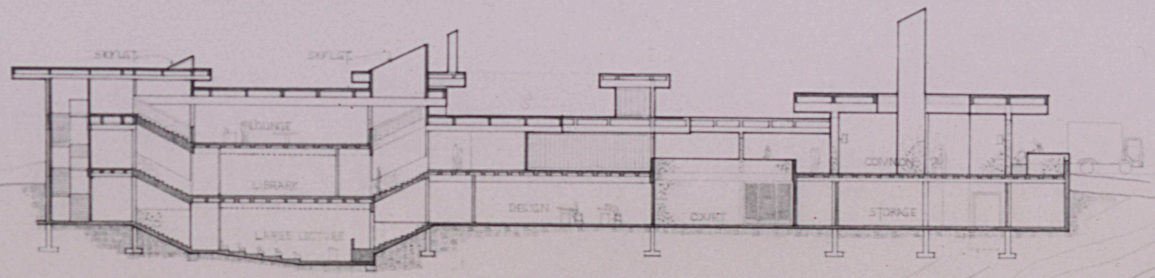


THIS IS AN OCCASSIONAL THING

COMPUTER

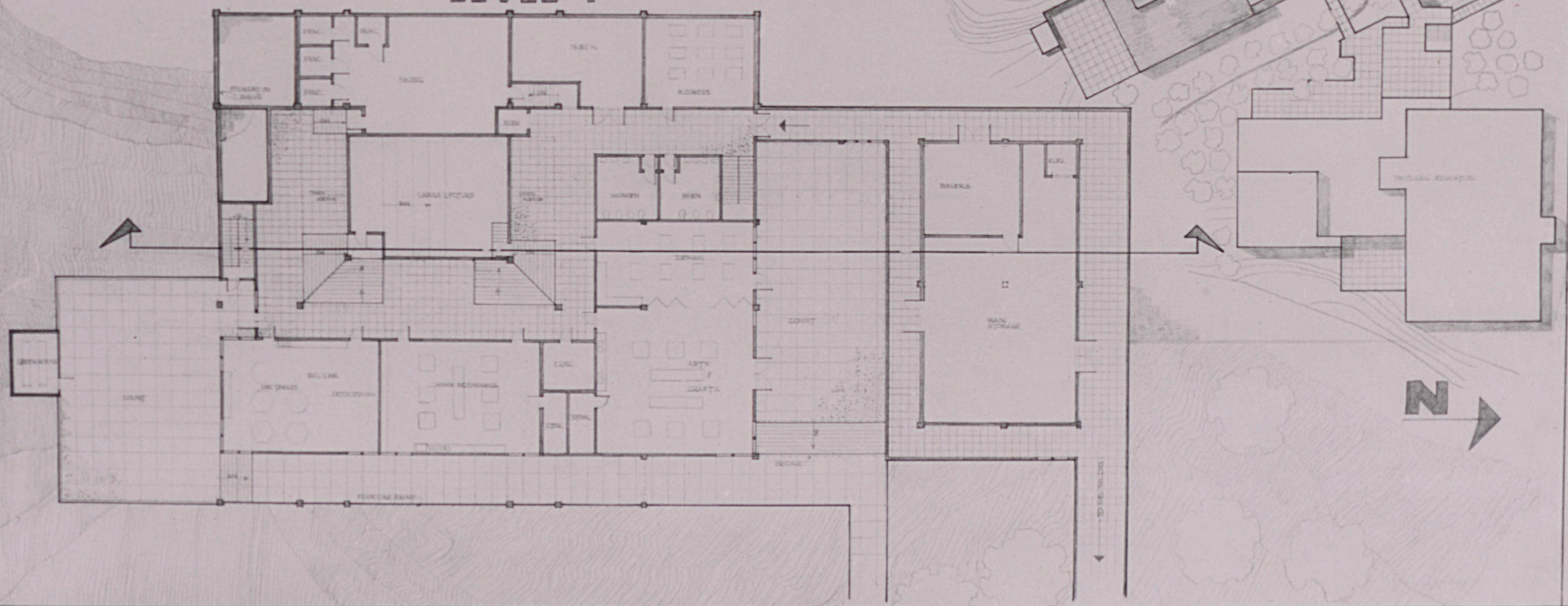
COMPOTER IS A RESOURCE AS WELL AS TEACHING AID

STUDENT LOCKERS → BASE AREAS

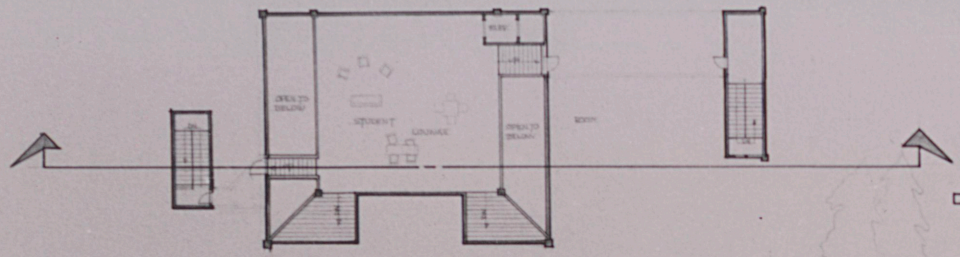


SECTION

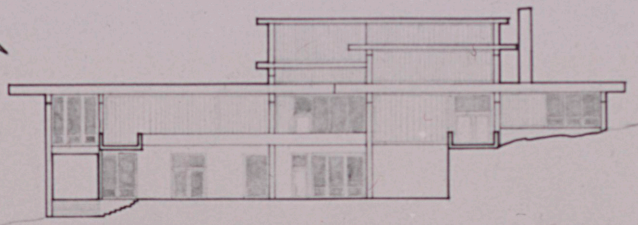
LEVEL 1



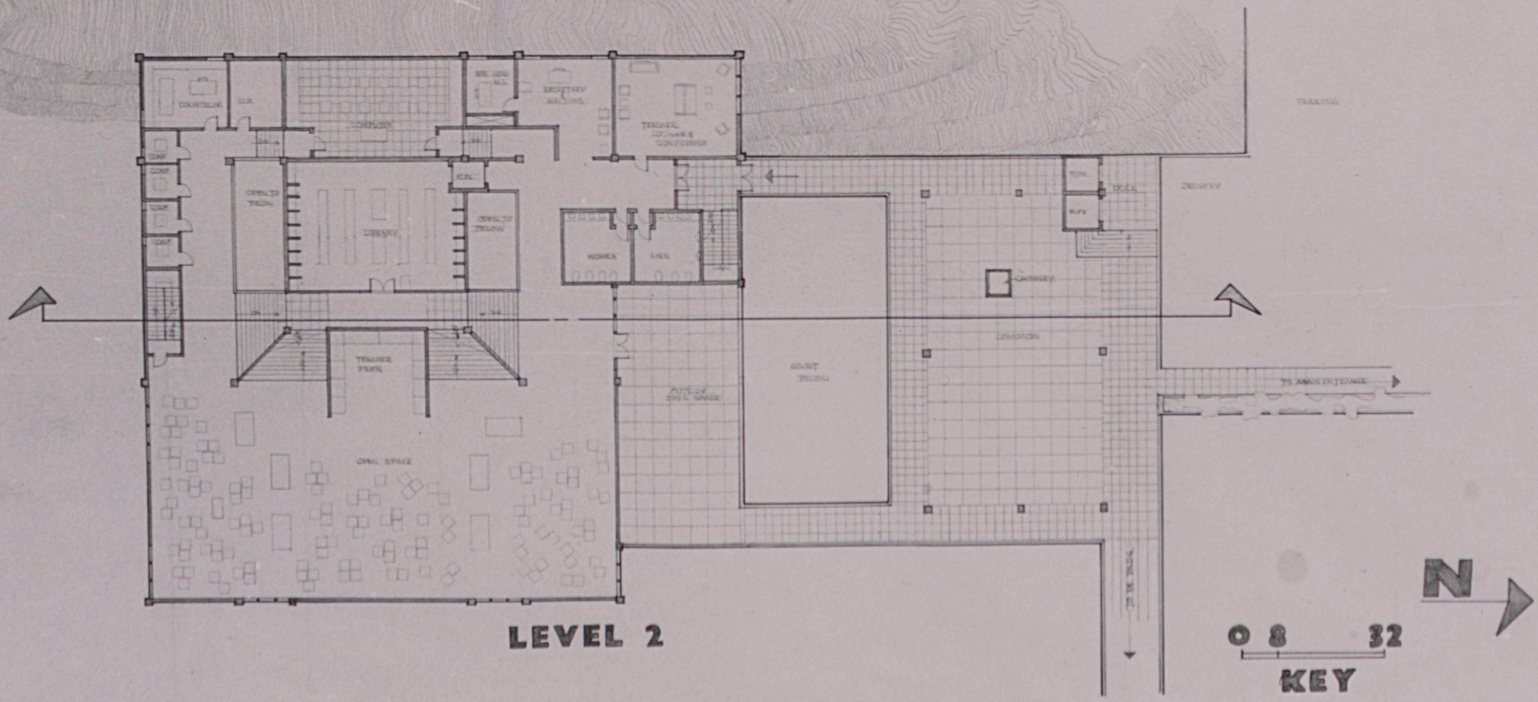
ACADEMIC BUILDING



LEVEL 3



ELEVATION AT ENTRANCE



LEVEL 2

N

0 8 32

KEY

ACADEMIC BUILDING

PHYSICAL EDUCATION AREA

SPACE NEEDS

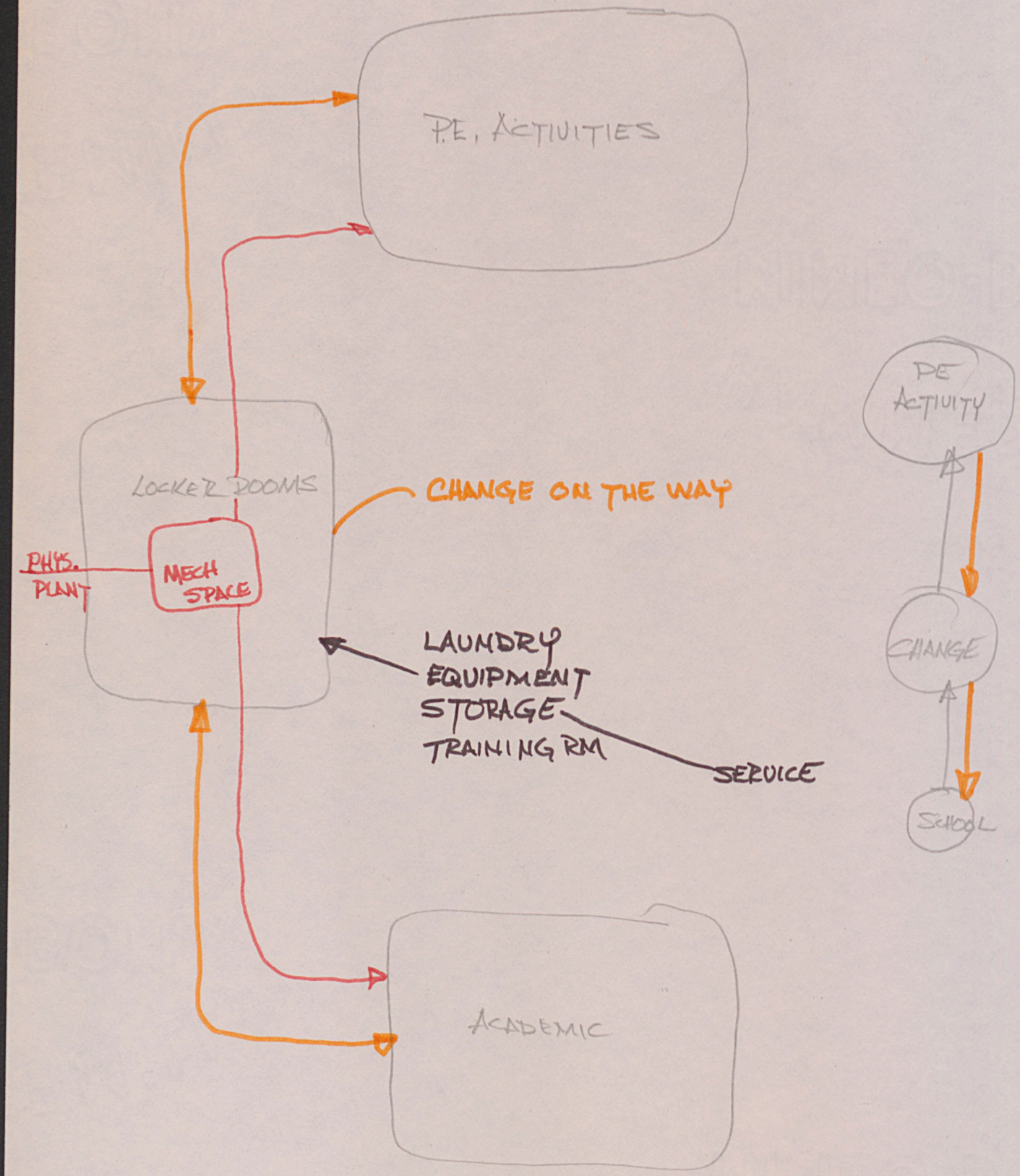


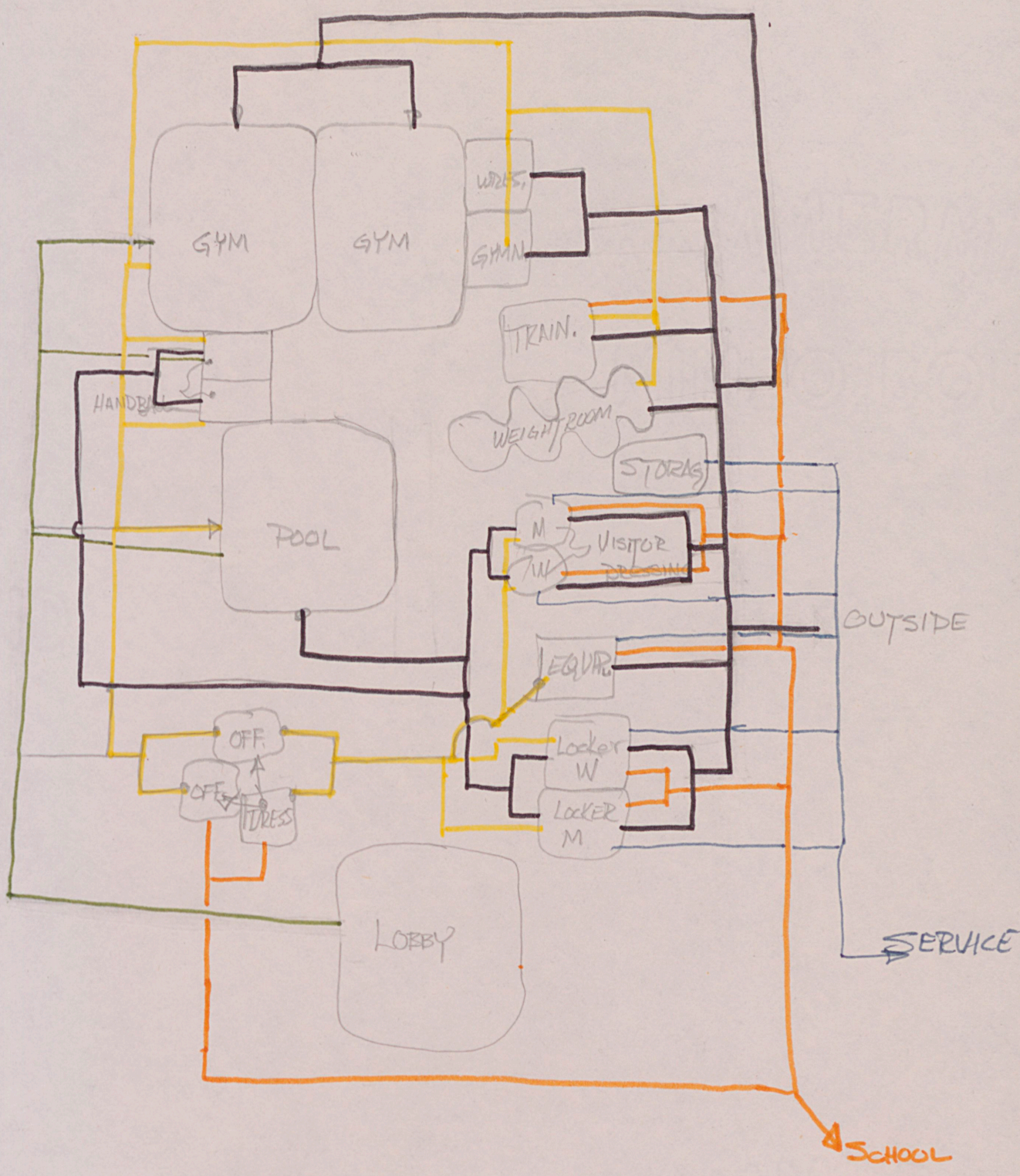
PHYSICAL EDUCATION BUILDING -- 33,809 SQ. FT.

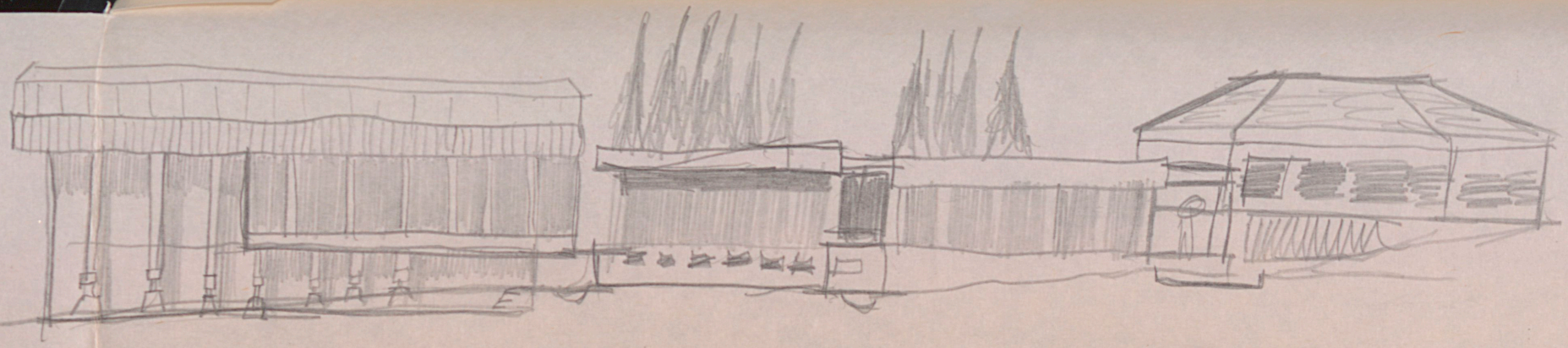
AREA	GEN. FURN.	APPROX. SQ. FT./FURN	OPEN AREA SQ. FT.	DIMENSIONS	TOT. AREA SQ. FT.
MAIN FLOOR					8,080
	bleachers	3,830	4,250		
AUXILIARY FLOOR					6,666
	bleachers	2,416	4,250		
WRESTLING					1,600
	mat	1,600			
GYMNASTICS					1,600
	parallel bars balance beam ropes rings mats				
MEN'S LOCKER ROOM			3' aisles	20 x 21	420
	75 lockers (stacked) cover 33' wall space				
	bench & hanging hooks				
	8 showers	162			
	3 urinals, 2 water closets, 3 sinks	156			
WOMEN'S LOCKER ROOM			3' aisles	20 x 21	420
	75 lockers (stacked) 33' wall space				
	bench & hanging hooks				
	8 showers	162			
	3 toilets, 3 sinks, 2 full mirrors	156			
EQUIPMENT ROOM			76	25 x 20	500
	towel strg.	24			
	equip. strg.	400			
WEIGHT ROOM					470
	universal gym	156	open area included with furnishings		
	weights	250			
	spec. machines	64			
TRAINING ROOM				24 x 10	240
	whirlpool	36	101		
	2 taping tbles.	63			
	cabinets & counters	20			
	treatment machines	20			
2 COACHES OFFICES			76 ea.	10 x 10 ea.	200
	2 desks	12			
	2 chairs	6			
	shelving & files	6			
LOBBY			2,100	Variable	2,506
	ticket sales	36			
	coat check	200			
	concessions	150			
	trophy case	20			

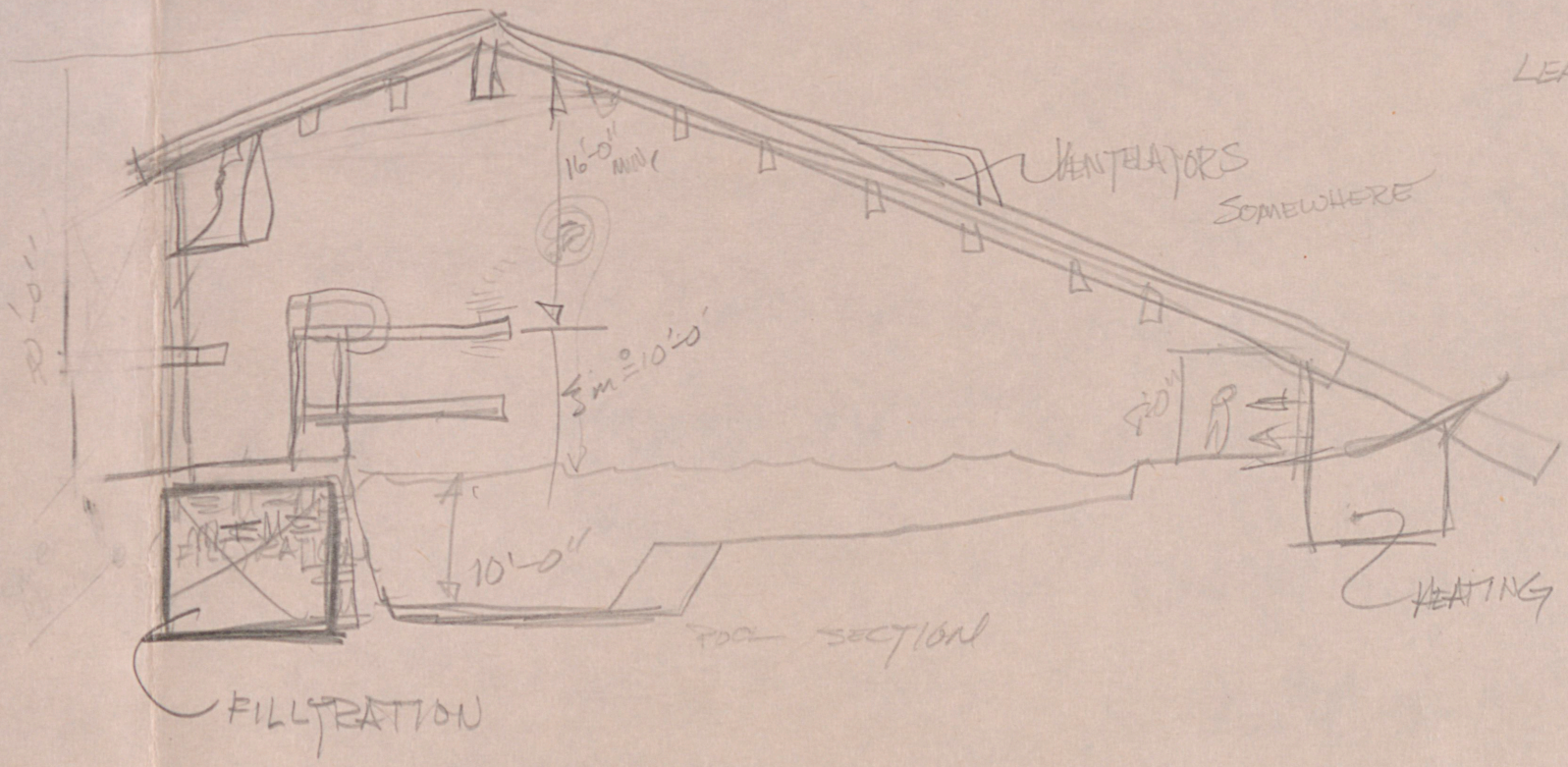
PHYSICAL EDUCATION BUILDING -- CONTINUED

AREA	GEN. FURN.	APPROX. SQ.FT./FURN.	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ.FT.
LOBBY					
Men's Toilet	8 urinals	40	224	15 x 20	300
	4 toilets	20			
	4 sinks	16			
Women's Toilet	10 toilets	50	222	15 x 20	300
	4 sinks	16			
	4 mirrors	12			
VISITOR LOCKER ROOMS					
Men's				15 x 20	300
	4 showers	100			
	2 urinals	80			
	1 toilet	5			
	2 sinks	8			
Dressing					124
Women's	4 showers	100		15 x 20	300
	3 toilets				
	2 sinks	80			
	2 mirrors				
Dressing					124
COACHES & OFFICIALS DRESSING ROOM				10 x 10	100
	shower	12			
	3 lockers	3			
	counter & cabinets	20			
SWIMMING POOL					8,751
	8' perimeter walk		2,176		
	filtration system	200			
	pool	3,375			
HANDBALL COURTS (2)				20 x 40 ea.	1,600
JOGGING TRACK			6' wide		

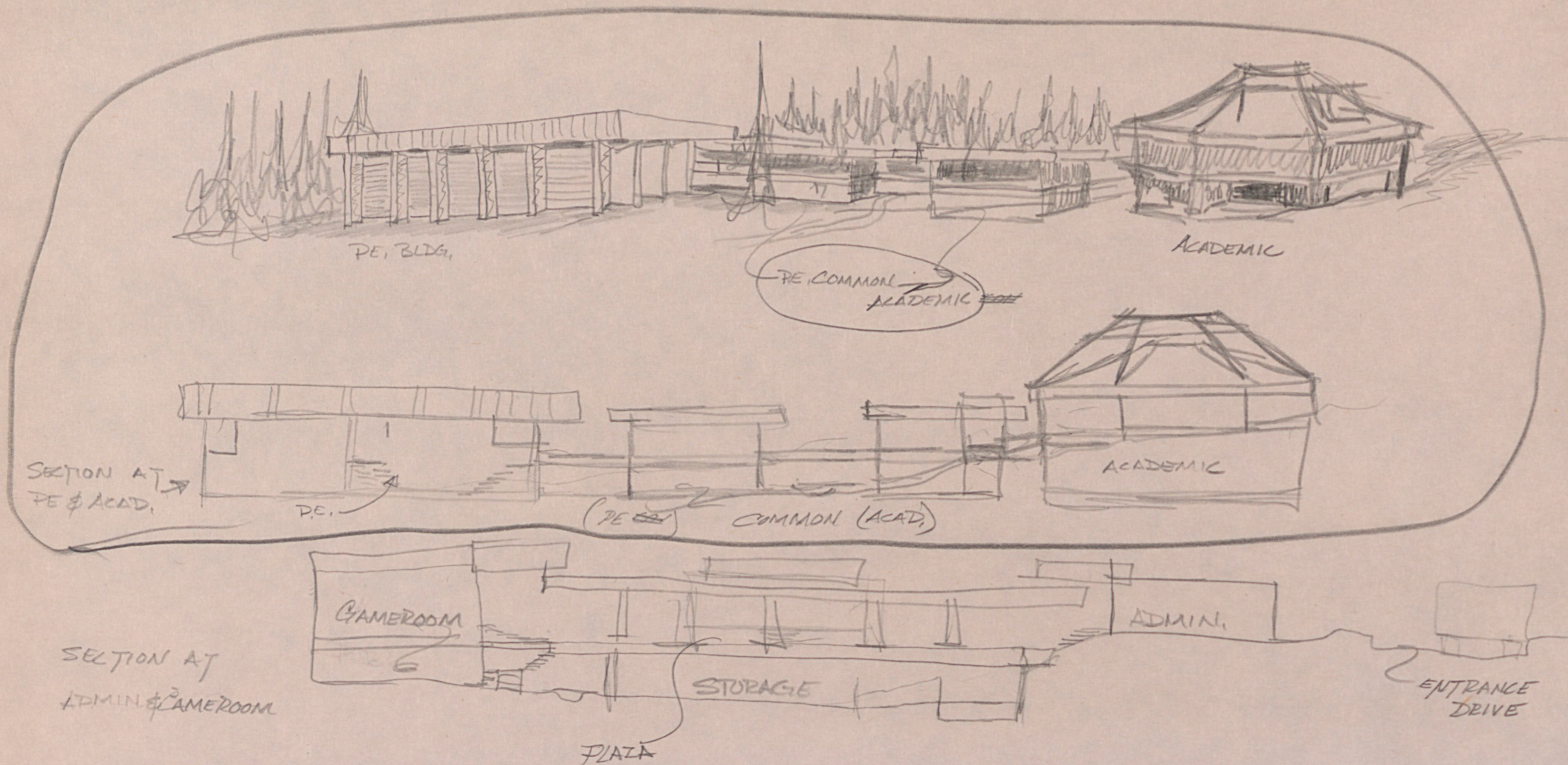

P.E. ACTIVITIES
LOCKER ROOMS
CHANGE ON THE WAY
PHYS. PLANT
MECH SPACE
LAUNDRY
EQUIPMENT
STORAGE
TRAINING RM
SERVICE
ACADEMIC
PE ACTIVITY
CHANGE
SCHOOL


GYM
GYM
WRES.
GYMN
TRAIN.
WEIGHT ROOM
STORAG
POOL
M
VISITOR
OUTSIDE
EQUIP
OFF.
OFF.
LOCKER W
LOCKER M
LOBBY
SERVICE
SCHOOL
STUDENTS
PUBLIC
COACHES

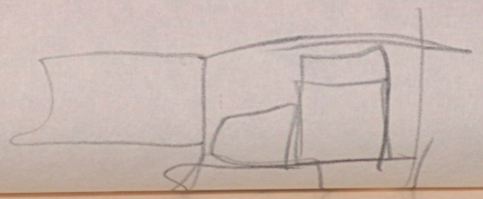


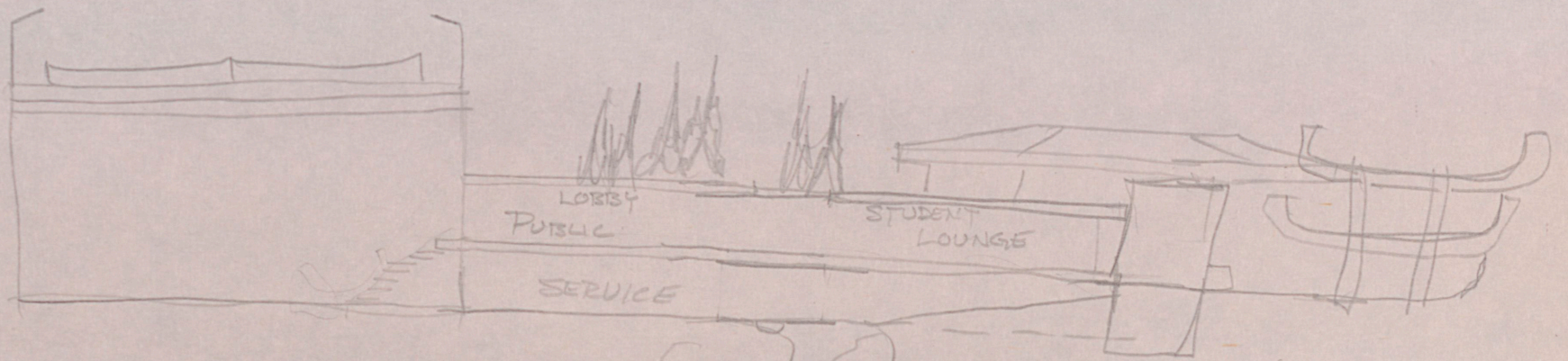


LEAVE NO WINDOWS IN POOL
REASONS—
STEAMED UP
IF OPENING ALLOWS DUST TO ENTER → MORE FOR FILTRATION
CONSTANT INTERIOR HUMIDITY KEPT ON WOOD BEAMS →
ELIMINATES ROT!



SECTION AT ADMIN & GAMEROOM





SECTION PE & COMMON



UPPER LEVEL PE & COMMON

P.E. BUILDING

GET SERVICE TO BUILDING —

UTILIZE BREAK IDEA

DON'T CONFLICT WITH PEOPLE WALKING

SERVICE ACADEMIC AS WELL AS P.E.

SERVICE USUALLY AT DIFFERENT TIME OF DAY THAN ACTIVITY

THE PEOPLE WHO WILL BE USING THIS AREA MOST ARE FROM THE SCHOOL

THEY WILL BE AWARE THAT THERE IS SERVICE REQUIREMENTS

THIS ISN'T A PUBLIC SCHOOL IN AN URBAN SETTING WITH LARGE DAILY TURNOVER OF PEOPLE

GET PEOPLE TO ACTIVITIES =

LINK TO COVERED WALK WAY

SERVICE OF BOTH ACADEMIC & P.E. IMPLIES NODE OF WALKWAY

LINK TO ACADEMIC

MOVE PEOPLE IN BUILDING =

MOST PEOPLE WILL START FROM COMMON NODE

BRING PLAYERS TO LOCKERS → THEN TO ACTIVITY

BRING SPECTATORS TO BLEACHERS — FIRE

MECHANICAL =

MECHANICAL TO PROVIDE

HEAT, VENTALATION, WASTE, LIGHTING, POOL WATER

RETURN FOR MECHANICAL → STAIR WELL SERVES AS OPEN SHAFT TO ALL FLOO

LOCATE MECH ROOM NEAR BASE OF STAIR WELL

TEM. OF ACTIVE BODIES IS HIGHER THAN SPECTATORS — BOTH SHOULD BE COMFORTABLE

STRUCTURE =

DIFFERENT SPACES WITH DIFFERENT SPANS & HIEGHTS

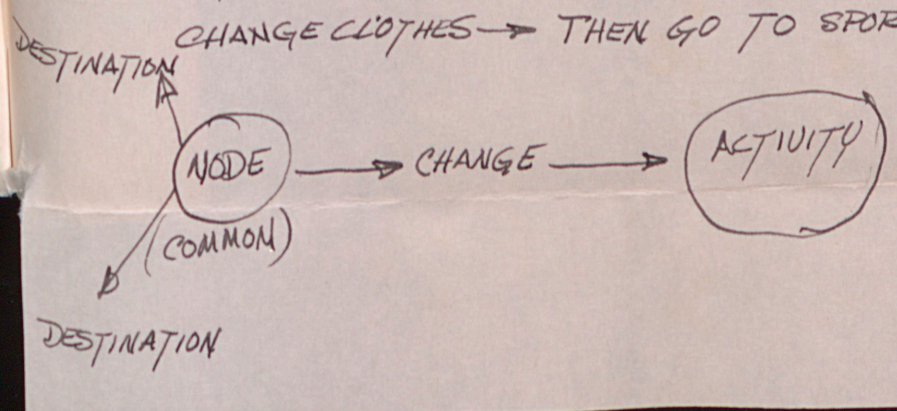
DESIGN SPACES BASED ON SIZE REGULATIONS FOR GAME OR SPORT

MUST USE A SYSTEM WHICH IS FLEXIBLE TO HANDLE DIFFERENT SPORTS

STUDENTS AS PARTICIPANTS — CLASSES

STUDENT ENTERS BUILDING → BEFORE ACTIVITY OR WHATEVER MOST

CHANGE CLOTHES → THEN GO TO SPORT OR EXERCISE



SINCE LOCKER ROOMS ARE A TRANSISTION BETWEEN ONE ACTIVITY TO ANOTHER THEY SHOULD BE BEFORE ACTIVITY

THIS AREA (LOCKER ROOMS) WILL ALSO REQUIRE THE MOST FREQUENT SERVICE TOWELS, LITTER WILL HAVE TO BE TAKEN TO DISTRIBUTION POINT TO BE PICKED UP FOR LAUNDRY

TRANING ROOM — MUST USUALLY CHANGE CLOTHES BEFORE USING — LOCKER
MUST REPLACE TAPE, TOWELS, ETC.

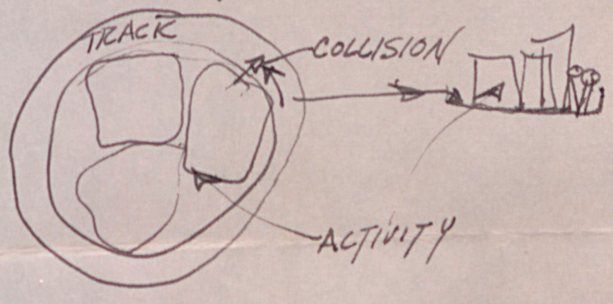
EQUIPMENT ROOM — RECEIVES ALL ACTIVITIES EQUIPMENT i.E. SUPPLIES REQUIRED OF THEE SPORT
WRESTLING MATS, GYM HORSES, SPACE SUPPLIED FOR IT
STUDENTS CAN PICK UP EQUIPMENT ON WAY TO ACTIVITY
PICK UP TOWEL WHEN RETURNING EQUIPMENT

SINCE MOST AREAS FOR ACTIVITY ENTER ON LOWER FLOOR THE PARTICIPANTS SHOULD BE AT THAT LEVEL → LOWER FLOOR BECAUSE SERVICE
FOLKS ALSO GO OUTSIDE

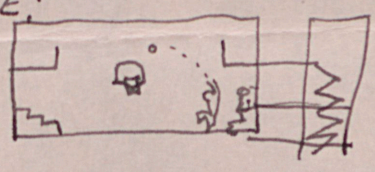
SPECTATORS — PUBLIC & STUDENTS

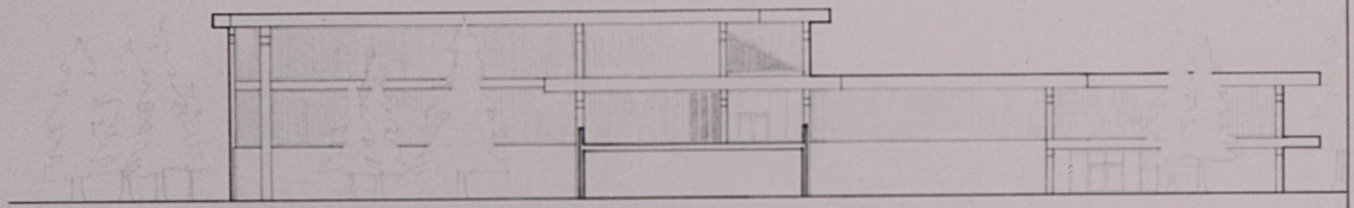
ENTER OTHER THAN THE PARTICIPANTS TO ACTIVITIES
MOST OTHER ACTIVITIES ARE NOT GOING WHEN A PUBLIC AFFAIR IS TAKING PLACE → REMEMBER ONLY 150 STUDENTS
TRY TO SEPARATE THEM FROM PARTICIPANTS
BLEACHERS ARE A LEVEL SEPARATION FOR SPECTATORS & PARTICIPANTS
NEED A VERTICAL LINK BETWEEN LOWER LOCKERS & ACTION ABOVE
SPECTATORS NEED MILL AROUND SPACE ADJACENT TO ACTION AREAS
PROVIDE EMERGENCY ESCAPE

PARTICIPANTS — JOGGERS
NEED AN AREA WHICH CAN MAKE A PERIMETER CORRIDOR
AREA INSIDE MUST HAVE USE
HOWEVER DON'T WANT INTERSECTION WITH WALKING PERSONS OR SPECTATORS → MAKE VERTICAL DEFINITION OF PEOPLE AGAIN

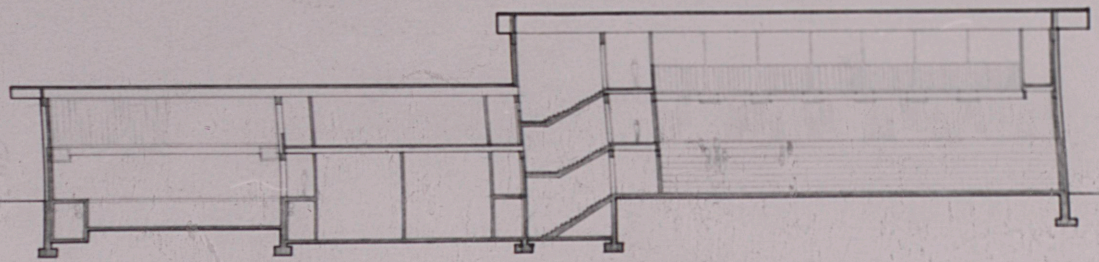


WITH ACTIVITY REQUIRING HIGH CEIL
CAN PUT TRACK ABOVE
EXAMPLE:

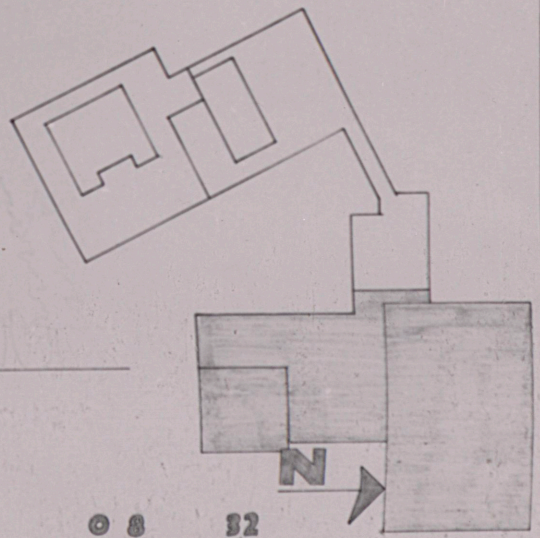




ELEVATION AT ENTRANCE

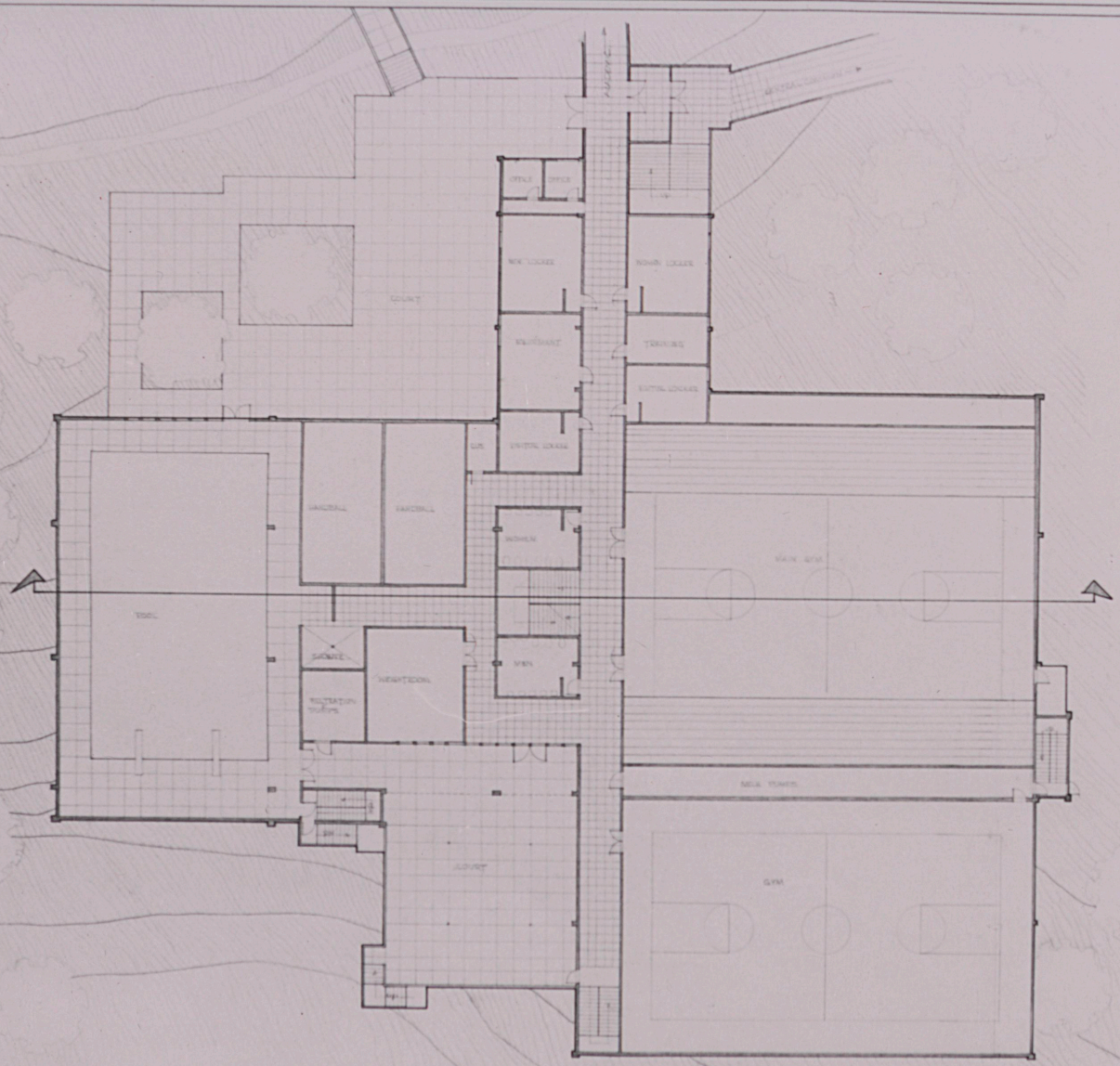


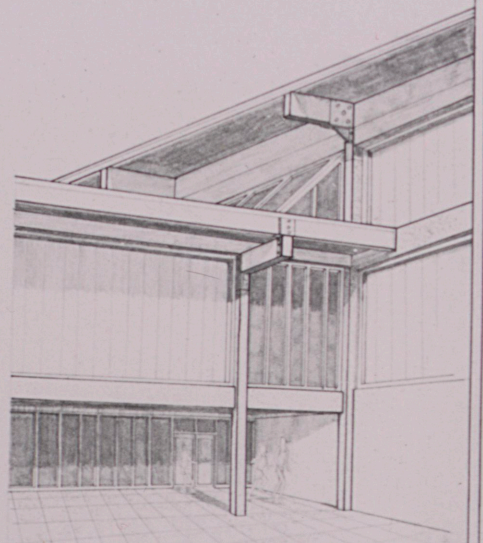
SECTION



KEY

PHYSICAL EDUCATION BUILDING





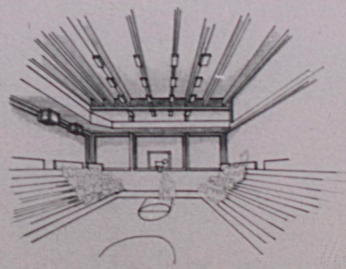
LEVEL 1

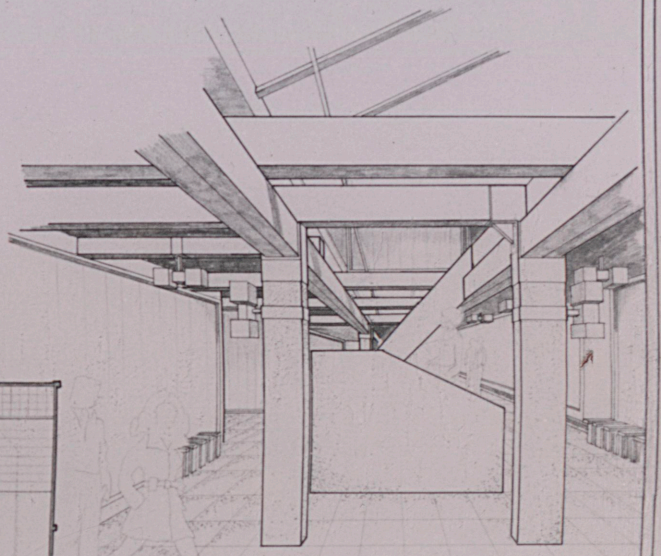
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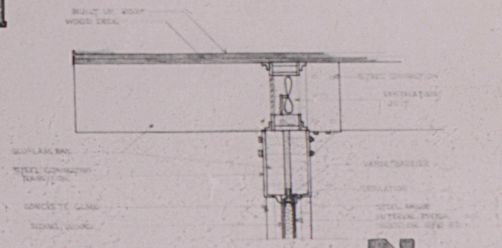
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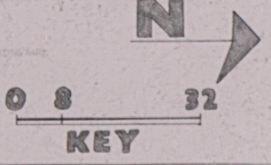
KEY

PHYSICAL EDUCATION BUILDING









PHYSICAL EDUCATION BUILDING

MAINTENANCE --

There must be a provision for the maintenance of a project like this so that it won't be necessary to call in someone from a near-by town.

With a location such as this, the use of full-time maintenance person(s) is more efficient. The person(s) would make minor repairs to buildings and other repairs that a jack of all trades can do. He (they) will also keep the academy vehicles in running order.

MAINTENANCE SHOP -- GARAGE -- 6,604 SQ. FT.

AREA	GEN. FURN.	APPROX. SQ. FT./FURN	OPEN AREA SQ.FT.	DIMENSIONS	TOT. AREA SQ.FT.
WORKING AREA					1,200
	tools				
	work bench				
	cabinets				
	welder				
PARTS STORAGE					1,500
	shelving	500	1,000		
PARKING					1,200
	3 vehicles @ 200	600	100		
	1 sm. bus	500			
BULK STORAGE					2,500
RESTROOM	sink	4	32	5 x 8	40
	toilet	5			
ENTRANCE			40		64
	4 chrs. @ 6	24			
OFFICE			52		100
	desk	24			
	2 chairs	12			
	filing	12			

PARKING --

Since there will be people commuting to and from the school there is a need for the day-to-day parking of cars. The school also holds events that are open to the public and this will also cause a need for parking.

The students themselves will not be allowed to have cars at the school but the instructors who will live on-campus will possibly have them. There will, however, be a motor pool which will be provided for the off-campus functions. These autos will be used for small group activities.

The parking which will be provided on the site will handle the daily requirements which the school will have.

PARKING

PROVIDED FOR THE PEOPLE WHO WORK THERE AND EXTRAS FOR NIGHT PEOPLE
(LOCALS COMING TO USE GAMEROOM & STUFF)

SOME PEOPLE THERE DURING THE DAY WILL LEAVE AT NIGHT

- 6 SCHOOL VEHICLES NEED PARKING
- 8 ~~INS~~INSTRUCTORS NEED PARKING → INSTRUCTORS WHO LIVE THERE
- 1 FULL TIME MAINTAINANCE MAN

→ FULL TIME PARKING → 24 hr.

8 INSTRUCTORS & CUSTODIAN & SEC. DAY TIME

- PEOPLE WHO WORK IN THE BOOKSTORE, CAFETERIA, GAMEROOM
- PARKING FOR DOCTOR & NURSE
- DAY MAINTAINCE PEOPLE

→ THIS NUMBER IS A PROJECTED NUMBER → 10 PERSONS

VISITORS WHICH ~~WHILE~~ COME TO SCHOOL
COULD RUN AS HIGH AT MODE IN TIME
SPECIAL SHOWS ETC.
PROBABLE DAY VISITORS → 30 cars

TOTAL PROJECTED TO SERVE THE SCHOOL THE MAJORITY OF TIME
63 cars

THIS NUMBER IS THE ~~POSSIBLE~~ NUMBER WHICH WOULD SUPPLY THE GENERAL DAILY REQUIREMENTS

THIS IS A DIFFERENT ~~PROJECT~~ PROJECTION THAN BEFORE
THE FIRST WAS TO HANDLE THE INFLUX WHICH WOULD TAKE PLACE AT BASKETBALL GAMES CONCERTS ETC.
THE COST OF SUCH A PROVISION IS NOT JUSTIFIED SINCE THE MAJORITY OF THE TIME 3/4 OF PARKING SPACES WOULD BE EMPTY.
THE ADDITIONAL PARKING WHICH IS NOT FOR DAILY USE WOULD BE ON LAWN AND WOULD BE EXPECTED.
DAILY PARKING IS PROVIDED AND IS PAVED.

LAUNDRY --

The matter of individual clothes washing will be handled by the students themselves in a facility which is adjacent to the living spaces. These will be considered under this heading.

There is a matter of taking care of the laundry of the school as a whole. The infirmary requires cleanliness of the materials which they use more than once. Also the bedding of the living spaces could be easier taken care of on a bulk process rather than each student handling their own.

Another consideration would be to have a central laundry to handle anything which might arise rather than having a separate laundry for the towels in physical education classes and athletic uniforms.

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Schools - Real - Providing Background Information:

Augustana Academy: Canton, South Dakota
Colorado Springs School: Colorado Springs, Colorado
Elgin Academy: Elgin, Illinois
National Music Camp and InterLochen Arts Academy: InterLochen, Michigan

Schools - Real - Providing Background Information:

Wasatch Academy: Mount Pleasant, Utah
Wayland Academy: Beaver Dam, Wisconsin
Woodstock Country School: South Woodstock, Vermont

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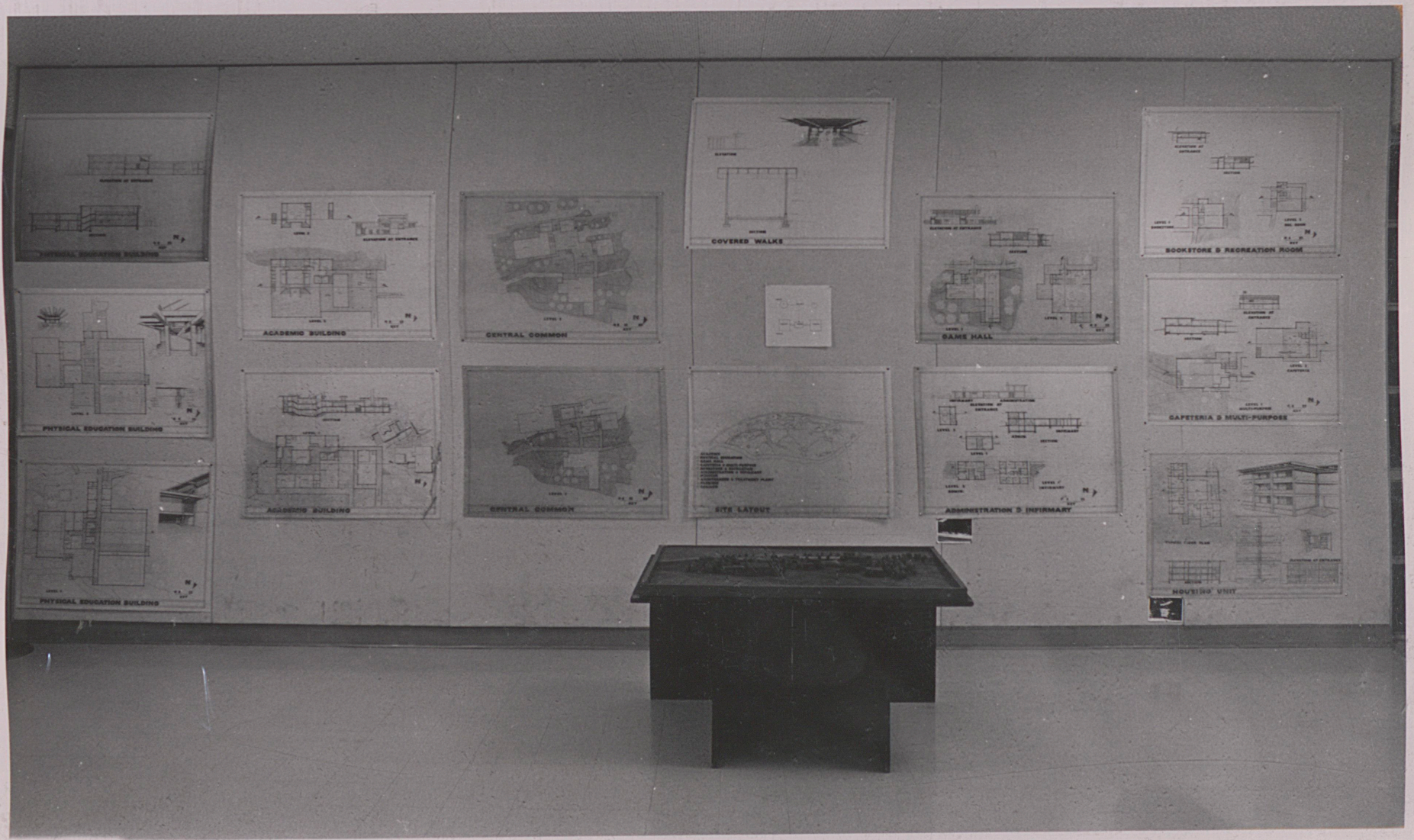
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Interviews:

Ron Aasheim, Graduate Student, M.S.U.
Chuck Karnop, Head Athletic Trainer, M.S.U.
Gordon Kelly, Physical Plant, M.S.U.
Dr. John Kohl, Education Dept., M.S.U.
Dr. Jerry Neilson, Plant & Soils Dept., M.S.U.
Dr. Robert Sanks, Civil Engineering Dept., M.S.U.
Dr. George Shroyer, Physical Education Dept., M.S.U.
Dr. Robert Van Woert, Teaching Certification, M.S.U.

Note: Information gained was given based on the data which I provided for these people.


PHYSICAL EDUCATION BUILDING
ACADEMIC BUILDING
CENTRAL COMMON
COVERED WALKS
GAME HALL
BOOKSTORE & RECREATION ROOM
PHYSICAL EDUCATION BUILDING
CAFETERIA & MULTI-PURPOSE
ACADEMIC BUILDING
CENTRAL COMMON
SITE LAYOUT
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