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An International Cooperation Center

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at
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CONDITIONS

CREATING

A NEED

The rapid change of better international communication systems such as a via satellite television system, jet air-line flying from coast to coast, inter-continental telephone and telegraph systems, and etc. became the source of human awareness of present position in the world's community. An International Cooperation Center was established at Montana State University, which was the first of its kind in the nation. The general aims in 1956 was to establish a central location to channel the international contact of the campus and to provide inter-cultural communication for those preparing an international service to other nations.

At present, the office for the International Cooperation Center is located in the right wing of Bridger Hall of Montana State University. It assumed responsibility for five programs, namely: Foreign Student Program, Hosting Short-term Visitors Programs, Inter-cultural Study Program, Peace Corps Training Programs and Overseas Development Assistance Programs.

1.0 The Foreign Student Program

1.1 It provides information to foreign students about Montana State University.

1.2 It holds different kinds of activities to foster a better understanding between nations.

1.3 It does some advising of foreign students in regard to academic and social fields.

1.4 It does public relations and work with Montana communities to increase their understanding and support to programs of an international nature.

In order to know more about the foreign students in Montana State University, see Figure 1 and Figure 2 below.

Years	Number of Students	Number of Country
1946	19	9
1947	26	9
1955	53	20
1966	140	29
1967	158	29

Figure 1. The table shows increase in foreign students in Montana State University

Country	Number of Students	Number of Students living in the dormitory
Canada	79	30
India	17	2
China	15	7
Hong Kong	5	None
Korea	4	1
Norway	4	None
Philippines	4	None
Others	30	7
Totals	158	47

Figure 2. The table shows the number of foreign students by country and living in the dormitory

2.0 The Hosting Short-term Visitors Program

The Center acts as host for the visitors that come to Montana State University for instruction in agriculture and other fields of the Applied Science.²

3.0 Inter-Cultural Study Program

This program was known as the International Technical Training Program, consisting of two components; one composed of courses leading to a Master's or a Doctor's Degree in a

technical field, and another consisting of courses and experiences in order those students for cross-cultural communication.

During the five year's period, 27 individuals took this educational program. Among them, 17 received Master's degrees and four were awarded the Doctorate. Now 22 of the 27 have had inter-cultural experience in overseas positions.

Finances for the International Technical Program come from Fulbright Scholarship Program, and the Carnegie Corporation (which responded with a grant of \$90,000 in 1958 and \$78,000 in 1961), and through the cooperation with the UNESCO-sponsored Center de Educacion Fundamental para el Desarrollo de la Comunidad en America Latina (CREFAL) at Patzuaro.²

4.0 Peace Corps Training Programs

The program consists of ten components: namely, Spanish language, Technical Studies, Ecuadorian Studies, American Culture, World Affairs and Communism, Cross-Cultural Communication, Health Training, Physical Fitness, Outdoor Living, and Peace Corps Orientation. During the five summers, between 1962 and 1966, Montana State University trained 200 volunteers and served with the Agriculture Extension and Forestry Services.² (see Figure 3 below)

<u>Groups</u>	<u>Year</u>	<u>Area</u>
1	1962	Puerto Rico
2	1963	Mexico
3	1964	Mexico
4	1965	Ecuador
5	1966	Ecuador
6	1967	Ecuador
7	1968	Ecuador

Figure 3. The table shows the years and destinations of the Peace Corps from Montana State University

5.0 Overseas Development Assistance Programs

There have been two of these programs, the first was in the Hashemile kingdom of Jordan and the second was in the Republic of Paraguay. The first Jordan contract was to provide technical assistance in agriculture and home economics. The second contract was for assistance to the College of Agriculture and Veterinary Science of the National University of Acuncion in Paraguay. Both financed by the agency of International Development and its predecessors.²

The present International Cooperation Center's building is too small to accommodate the tremendous programs, hence the activities of the foreign students always held at the Wesley House, the Student Union Building and some other lecture rooms. Aside from this deficiency, there is no running water available and the building is completely made out of lumber which is a fire hazard. (See the floor plan in Figure 4).²

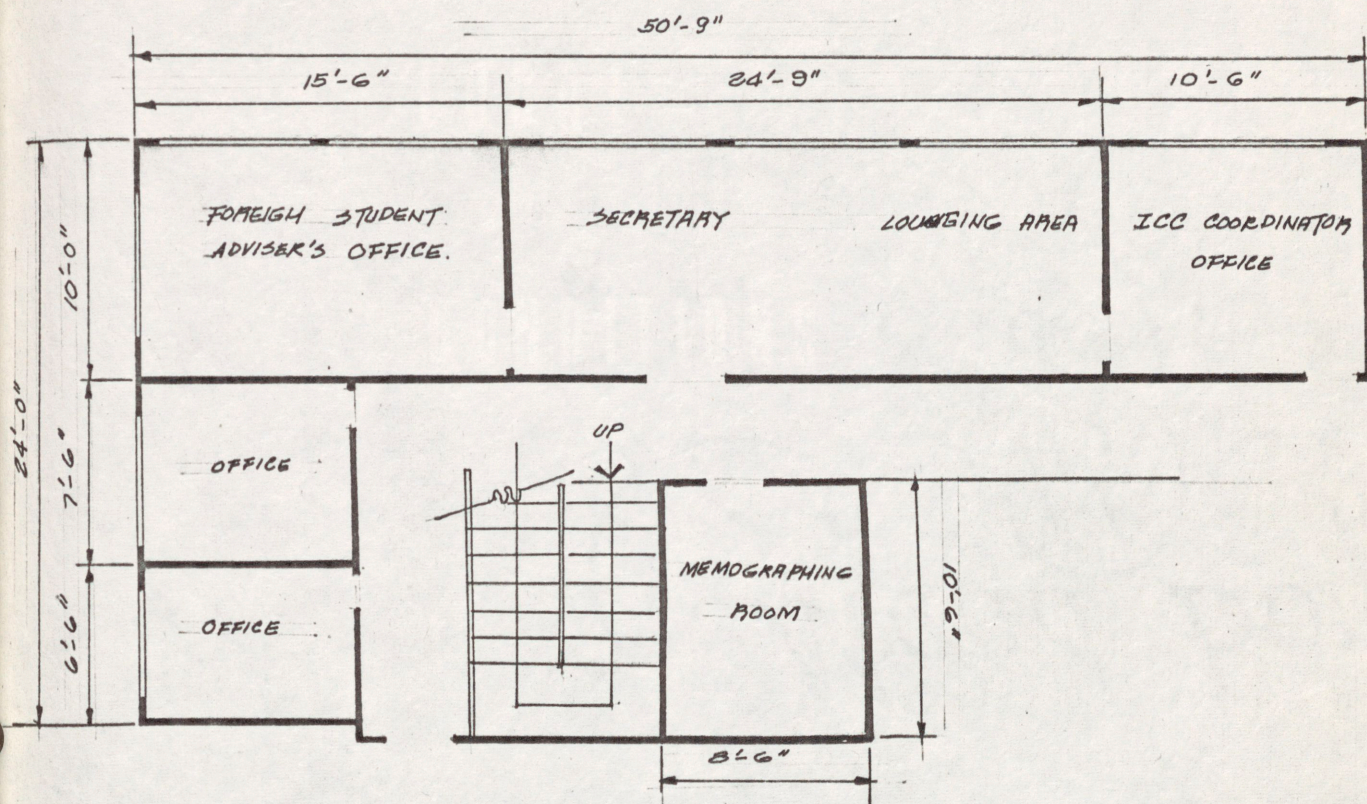


FIGURE 4 THE INTERNATIONAL COOPERATION CENTER'S BUILDING PLAN

LOCAL

CONDITIONS

GEOGRAPHIC

Bozeman, Montana, with a population of 15,000 is located in the plain of Gallatin Valley, immediately surrounded by high mountains in three different sides. The latitude is 45 degrees 42 minutes and the longitude is 111 degrees 3 minutes, at an elevation of 4,950 feet. The mountain peaks are over 9,000 feet above sea level.

There are two major highway routes connecting Bozeman to many interesting places and cities around it: U.S. 10 or Interstate 90, a major east-west artery and U.S. 191, a north-south artery.

The following are the distances of Bozeman in relation to various cities and geographical interests in Montana:

- 100 miles southeast of Helena
- 142 miles west of Billings
- 195 miles south of Great Falls
- 7 miles east of Gallatin River
- 30 miles southeast of the beginning of the Missouri River
- 15 miles to the east of the Bridger Mountains
- 25 miles southwest of the Gallatin Mountain Ranges

CLIMATE

The climate in Bozeman is unpredictable in temperature change, especially during winter. Summers in Bozeman are warm with occasional high temperatures. Humid conditions seldom occur with 65 degrees of average mean of temperature. The winters are cold with an average of 25 degrees in tem-

perature and occasional lows of 30 degrees below zero. The snow falls from the early part of November to March with an average of 30 to 50 inches of snowfall. Figure 8 shows the average rainfall in Bozeman.

<u>Month</u>	<u>Mean Temperature</u>	<u>Precipitation</u>
January	20.2	.92 inches
February	25.2	.76 inches
March	27.8	1.55 inches
April	42.5	2.34 inches
May	51.1	3.06 inches
June	57.3	1.08 inches
July	66.4	1.12 inches
August	64.9	1.65 inches
September	55.8	1.45 inches
October	46.0	1.07 inches
November	32.1	1.30 inches
December	24.8	.91 inches

Annual Temperature - 42.90 degrees
Annual Precipitation - 17.62 inches

Figure 8. Average rainfall in Bozeman

SUN ANGLES

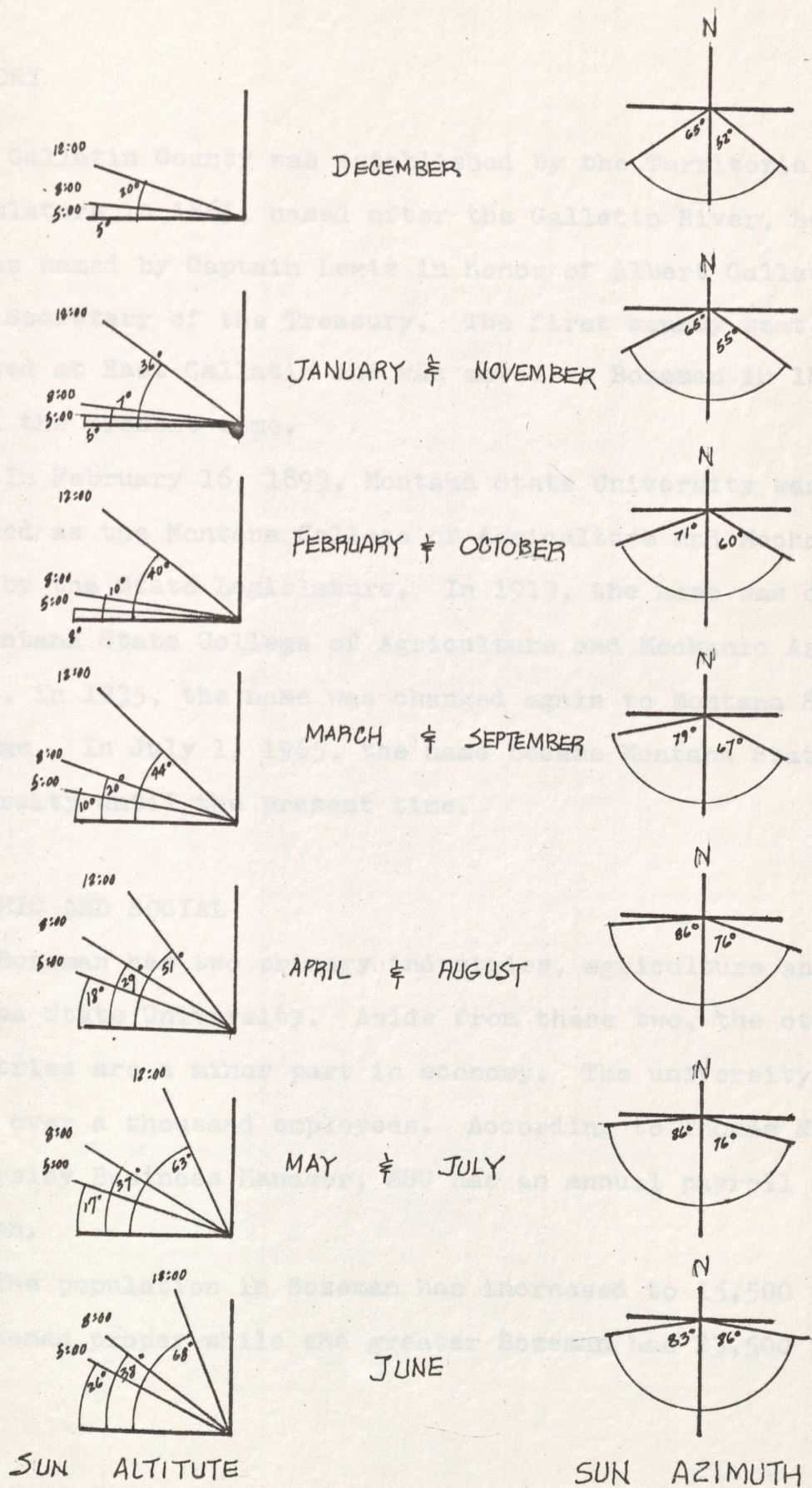


FIGURE 9 SUN ANGLES IN BOZEMAN, MONTANA

HISTORY

Gallatin County was established by the Territorial Legislature in 1865, named after the Gallatin River, hence it was named by Captain Lewis in honor of Albert Gallatin, U.S. Secretary of the Treasury. The first county seat was located at East Gallatin and was moved to Bozeman in 1868 until the present time.

In February 16, 1893, Montana State University was erected as the Montana College of Agriculture and Mechanic Arts by the State Legislature. In 1913, the name was changed to Montana State College of Agriculture and Mechanic Arts. Later, in 1935, the name was changed again to Montana State College. In July 1, 1965, the name became Montana State University until the present time.

ECONOMIC AND SOCIAL

Bozeman has two primary industries, agriculture and Montana State University. Aside from these two, the other industries are a minor part in economy. The university alone hires over a thousand employees. According to Thomas Nopper, university Business Manager, MSU has an annual payroll of 7½ million.

The population in Bozeman has increased to 15,500 people in Bozeman proper while the greater Bozeman has 23,500 people.

Four Year University Students and Graduate Students	June	'63 to	June '64	June	'64 to	June '65	June	'65 to	Dec. 1, 1965
	Men	Women	Total	Men	Women	Total	Men	Women	Total
College of Agriculture	529	11	540	571	11	582	572	14	586
College of Education	351	474	825	348	536	884	-	-	-
College of Engineering	1154	2	1156	1188	2	1190	1193	7	1200
College of Letters and Science	989	379	1368	1092	431	1523	1153	443	1596
College of Professional Schools	582	911	1493	730	962	1692	1035	1518	2553
Total - Autumn, Winter, Spring Quarters	3605	1777	5382	3929	1942	5871	3953	1982	5935
Summer Quarter	904	622	1526	980	674	1654	875	612	1487
Less Duplicate	376	263	639	400	246	646	390	270	660
Total Summer Qtr. Only	528	359	887	580	428	1008	485	342	807
Total Less Duplicate	4133	2136	6269	4509	2370	6879	4438	2324	6762
Other Programs									
Continuing Education	595	803	1398	849	787	1636	327	293	670
Total Other Programs	595	803	1398	849	787	1636	327	293	670
Grand Total	4728	2959	7667	5358	3157	8515	4765	2617	7382

Figure 10. Summary of Registration

S I T E

C O N D I T I O N S

LOCATION AND ORIENTATION

The proposed building for the International Cooperation Center will be located on the Montana State University campus. The south would face Greek Way, the east, Third Avenue, the westnorth, southwest, and the north are bounded by vacant lots.

The site has a total area of 47,383 square feet. The length on the south side of the lot is 155.4 square feet, the east is 165.5 square feet, the north is 235.0 square feet, the northwest is 106.7 square feet, the southwest is 203.5 square feet.⁷

Adjacent environments and distant views.

The adjacent environment, immediate and distant views can be seen in Figure 5.

Orientation	Adjacent Environment & immediate views	Distant View
North		Residential House
South	None	Gallatin Mountains
East	Thompson's Sub- division	Thompson's Subdivision
Southwest	Kappa Delta Sorority House	None
Northwest	None	Fieldhouse Heating Plant

Figure 5. Adjacent Environment and distant views as seen from the proposed site

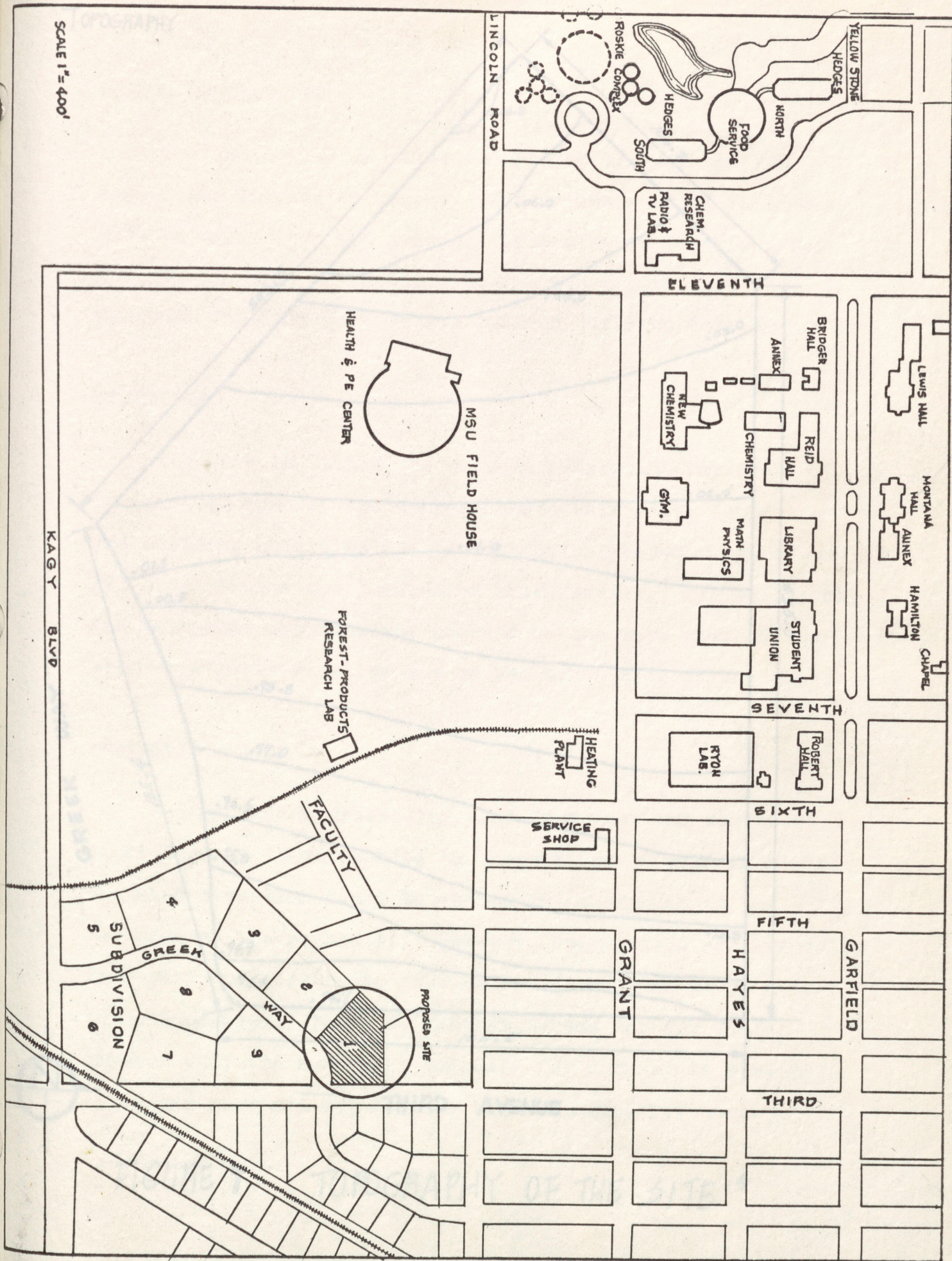


FIGURE 6 LOCATION OF THE SITE

TOPOGRAPHY

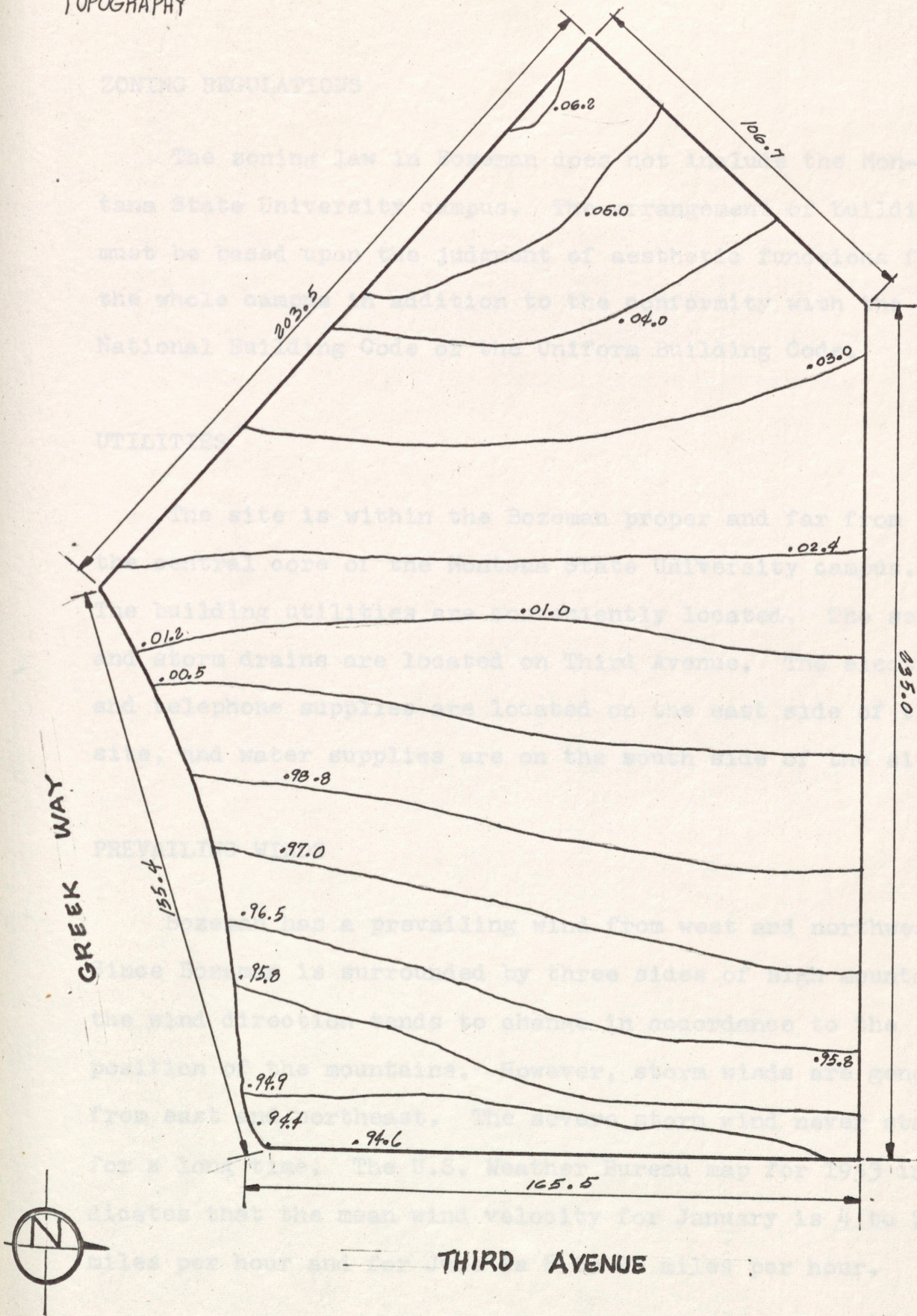


FIGURE 7 TOPOGRAPHY OF THE SITE 4

ZONING REGULATIONS

The zoning law in Bozeman does not include the Montana State University campus. The arrangement of buildings must be based upon the judgment of aesthetic functions for the whole campus in addition to the conformity with the National Building Code or the Uniform Building Code.

UTILITIES

The site is within the Bozeman proper and far from the central core of the Montana State University campus. The building utilities are conveniently located. The sewers and storm drains are located on Third Avenue. The electrical and telephone supplies are located on the east side of the site, and water supplies are on the south side of the site.

PREVAILING WINDS

Bozeman has a prevailing wind from west and northwest. Since Bozeman is surrounded by three sides of high mountains, the wind direction tends to change in accordance to the position of the mountains. However, storm winds are generally from east and northeast. The severe storm wind never stays for a long time. The U.S. Weather Bureau map for 1953 indicates that the mean wind velocity for January is 4 to 7 miles per hour and for June is 8 to 12 miles per hour.

TRAFFIC PATTERN

The east of the lot faces Third Avenue, which is not a major artery in Bozeman. The south is facing Greek Way, an artery that connects the Third Avenue and Kagy Boulevard, which will serve the fraternities and sororities around the street.

PROPOSED

SITE



NORTH (RIGHT SIDE)



NORTH EAST



NORTH (LEFT SIDE)



SOUTH



SOUTH EAST



SOUTHWEST



WEST



NORTH WEST

ADJACENT

ENVIRONMENT



NORTH



NORTH EAST



EAST



SOUTH EAST



SOUTH



SOUTH WEST



WEST



NORTH WEST

F U N C T I O N

o f

B U I L D I N G

The building outline of the International Cooperation Center will be grouped into two parts. The first is the main purpose of the building and includes housing the Foreign Student Program, the International Study Program, the Hosting Short-term Visitors Program, the Peace Corps Training Programs and the Overseas Development Program. The second part is a housing unit for the foreign and American students of Montana State University. The living units are divided into two groups, the men's living unit of approximately 30 student capacity and women's living units of approximately 20 student capacity.

LOUNGE AREA AND EXHIBITION HALL

The lounge area and exhibition hall will be located near the main entrance of the building and incorporated as a single area. However, the exhibition hall will be recognizable by having a ceiling higher than the lounge area's ceiling, in order to allow the natural light to penetrate directly to the exhibits, and the size of the area will be approximately 1,200 square feet.

The idea behind the scheme is to attract attention for the people sitting in the lounge as well as the people entering the building. The area of the lounge will be approximately 1,000 square feet, in order to accommodate approximately 40 to 50 people. The arrangement of the lounge's chairs and tables will be directly facing the exhibition area. The lounge

will not be divided by any permanent barrier but will allow a movable partition to separate the people from the exhibition hall. The selection of good acoustical material to reduce noise will be an essential part of the design.

ADMINISTRATION OFFICE

The administration office composed of two general offices: one dealing with the International Foreign Student Program, two separate offices of approximately 150 square feet each for the director and his assistant. The latter will deal with the Hosting Short-term Visitors Program, International Study Program, Peace Corps Training Programs, and Overseas Development Program. The four programs will require an area approximately 600 square feet with movable partitions to create a flexible space. A secretary's office of 150 square feet in counter form will serve the whole office.

LIBRARY

The library will occupy an approximate area of 1200 square feet to serve 120 people. All the books and articles related to the Center will be kept in the library and serve as information sources. Foreign magazines and newspapers will be circulated in the library. At the same time, the place will serve as a study area for students studying foreign languages. The library will be used for conference purposes in one particular section.

LECTURE HALL

The lecture hall will occupy an approximate area of 3,000 square feet to serve approximately 300 to 400 people. The hall will function conveniently as a movie house and slide presentation, aside from the ultimate purpose as lecture room. The acoustical treatment of the room will be the main concern, so as to create a delightful sound effect in over-all parts of the room. The ceiling of the hall will be in random treatment of plastic material in order to help the effect equal distribution of sound in the room. The flat-form will be a little higher than the floor level, so as to insure a clear view to the audiences. The flooring will be of rubber material.

MEAL FACILITIES

The meal facilities for the International Cooperation Center that serve the living units will be divided into three basic areas: namely, the kitchen, the dining area and the snack lounge.

THE KITCHEN

The kitchen area will be approximately 1,500 square feet in floor area. The facilities will consist from the following:

1. Food to serve 100 people, cafeteria style
2. Food to serve 100 people, banquet style
3. Food preparation
4. Food storage
5. Food receiving
6. An office
7. Employee wash room
8. Dishwashing
9. Storage
10. Maintenance

THE DINING AREA

The dining area will be approximately 2,500 square feet, in order to serve 100 to 150 people. The area can be separated by movable screen if a banquet for small group is prepared. Acoustical treatment between the kitchen and dining area must be well-studied and designed. The chairs and tables will be light and easily moved. Active activities such as dancing and the mixer party will be conducted in this area.

SNACK LOUNGE

The snack lounge will be approximately 500 square feet, located near the lecture hall and directly below the living units and adjacent to the kitchen and dining area, in order to serve the people from the lecture hall and living unit, effectively.

RECREATION AREA

The recreation area can be divided into two basic areas: outdoor recreational area and indoor recreational area.

OUTDOOR RECREATIONAL AREA

The outdoor recreational area will occupy an outdoor area for a basketball court, a tennis court and a heated swimming pool.

INDOOR RECREATIONAL AREA

The indoor recreational area will occupy approximately 2,000 square feet, then sub-divided into three groups. The active game will compose of two billiard tables and two table tennis tables. The less active game will have an area of adjustable barriers, suitable for bridge games, chess and other table games. The third group will provide facilities for showers, steam bath, lockers and flush water-closets.

LIVING ACCOMMODATION

The living units of the International Cooperation Center will have a separate function from the main Center. The living quarter will consist of single and double rooms for foreign and American students. The area for each of the single rooms will approximately be 150 square feet and the area of the double rooms will be approximately 250 square feet. The men's quarters will be separated from the women's quarters in a different building. There will be 10 double rooms and 10 single rooms for men and 7 double rooms and 6 single rooms for women. A receptionist and director's office will serve the living units. Showers and baths will be available in every floor for the living units.

MISCELLANEOUS AREAS

A mechanical room of 200 square feet will be furnished for utility and equipment storage. Service unit for housing units will be required for washing, drying and ironing clothes.

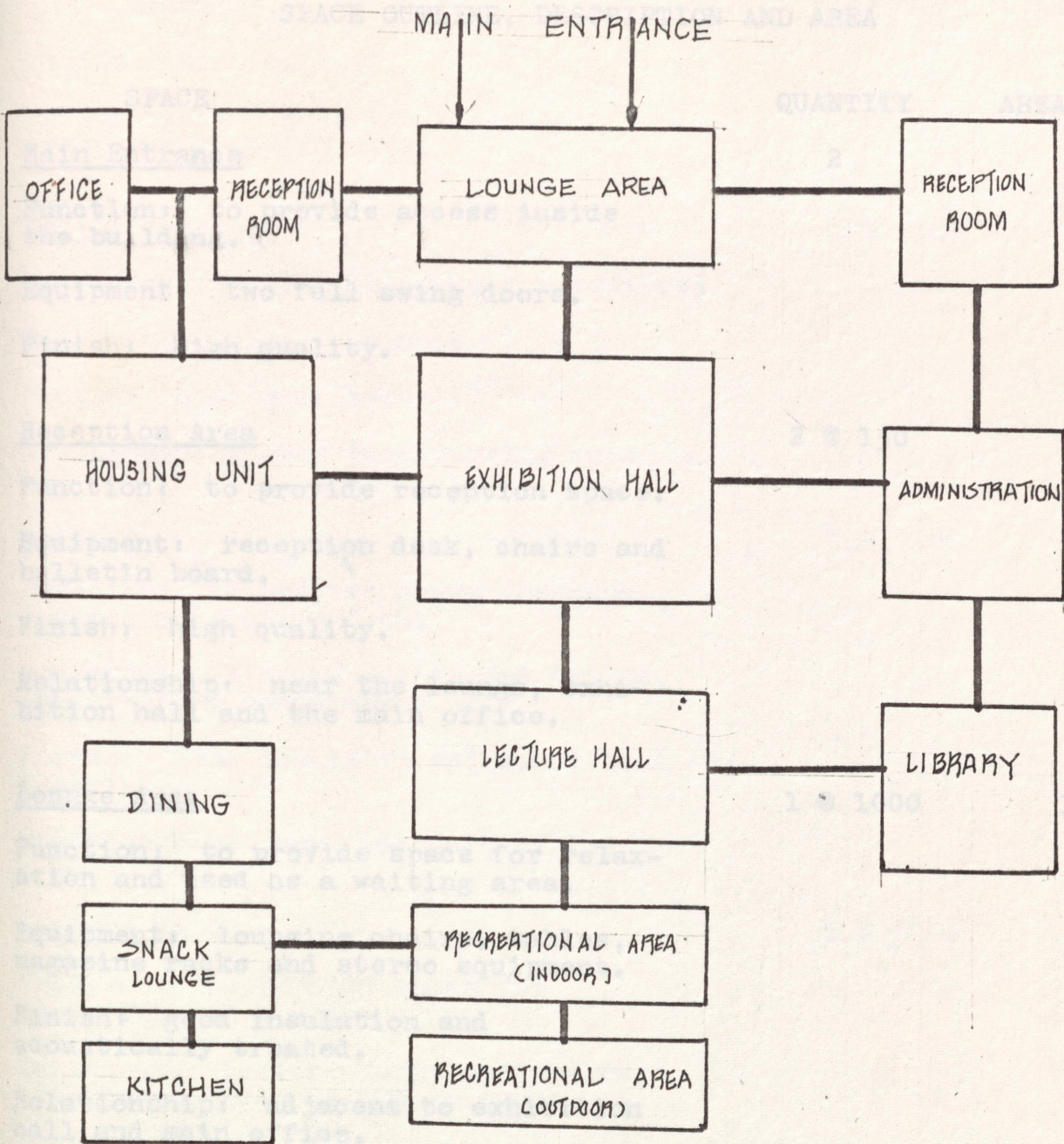


FIGURE 11 FLOOR DIAGRAM OF INTERNATIONAL COOPERATION CENTER

SPACE OUTLINE, DESCRIPTION AND AREA

SPACE	QUANTITY	AREA REQUIRED
<u>Main Entrance</u> Function: to provide access inside the building. Equipment: two full swing doors. Finish: high quality.	2	1200
<u>Reception Area</u> Function: to provide reception space. Equipment: reception desk, chairs and bulletin board. Finish: high quality.	2 @ 150	150
<u>Lounge Area</u> Function: to provide space for relaxation and used as a waiting area. Equipment: lounging chairs, tables, magazine racks and stereo equipment. Finish: good insulation and acoustically treated.	1 @ 1000	1000
<u>Main Office</u> Function: to provide space for administering the International Cooperation Center Equipment: intercom, desks, chairs and cabinets	1 @ 1500	1500

SPACE

QUANTITY

AREA REQUIRED

Finish: high quality.

Relationship: near the reception area, and lounging area.

Exhibition Hall

1 @ 1200

1200

Function: to provide space for exhibits.

Equipment: glass cabinets.

Finish: high quality.

Relationship: near the lounging area

Library

1 @ 1200

1200

Function: to provide space for news sources and information.

Equipment: library chairs and tables, cabinets and bookshelves.

Finish: Good insulated and acoustical material.

Relationship: near the main office

Lecture Hall

1 @ 3000

3000

Function: to provide space for lecturing and speech.

Equipment: lecture table and chairs, blackboard, speaker and cabinets.

Finish: acoustically treated.

Relationship: near the recreational area.

Recreational Area

1 @ 2000

2000

Function: to provide space for table tennis and billiards

Equipment: table tennis tables and billiard tables.

SPACE	QUANTITY	AREA REQUIRED
Finish: Good quality.		
Relationship: near the snack lounge, lecture hall.		
<u>Dining Area</u>	1 @ 2500	2500
Function: to provide a space for dining and dancing.		
Equipment: tables and chairs.		
Finish: durable and high quality.		
Relationship: adjacent to kitchen and snack lounge.		
<u>Snack Lounge</u>	1 @ 500	500
Function: to provide space for light snacks.		
Equipment: snack counter, stools, tables and chairs.		
Finish: durable and high quality.		
Relationship: adjacent to kitchen and dining area.		
<u>Kitchen</u>	1 @ 1500	1500
Function: to provide space for cooking preparation.		
Equipment: cooler, ranges, ovens, refrigerator, sinks, grill and kitchen equipment.		
Finish: Durable, washable and good quality.		
Relationship: adjacent to snack lounge, dining area and storage.		

SPACE

QUANTITY

AREA REQUIRED

Serving Area

1 @ 400

400

Function: to provide space for cafeteria.

Equipment: Water and beverage servers, food warmers and cashier's machine.

Finish: durable and washable.

Relationship: adjacent to kitchen, snack lounge and dining area.

Dishwashing Area

1 @ 250

250

Function: to provide space for cleaning kitchen wares.

Equipment: Dishwashers, dishdryer, garbage sinks.

Finish: durable and washable.

Relationship: adjacent to kitchen and dining area.

Storage Area

1 @ 200

200

Function: to provide space for food and kitchen items.

Finish: durable and rough.

Relationship: adjacent to kitchen.

Garbage Area

1 @ 200

200

Function: to provide space for garbage disposal.

Equipment: water outlets.

Finish: Rough and washable.

Relationship: adjacent to kitchen and outdoor service area.

SPACE	QUANTITY	AREA REQUIRED
<u>Kitchen Office</u> Function: to provide space to manage the kitchen. Equipment: desks and chairs and file cabinets. Finish: good quality. Relationship: near kitchen.	1 @ 200	200
<u>Employee Dressing Room</u> Function: to provide space for kitchen employees. Equipment: lockers, lavatory, toilet, table, chairs and water closet. Finish: good quality. Relationship: near the kitchen.	1 @ 400	400
<u>Living Quarters (single)</u> Function: to provide space for studying and sleeping. Equipment: a table, bed, chair and closet. Finish: high quality. Relationship: adjacent to other living quarters.	16 @ 150	150
<u>Living Quarters (double)</u> Function: to provide space for studying and sleeping. Equipment: chairs, tables, beds and closets. Finish: high quality. Relationship: Adjacent to other quarters.	17 @ 250	250

SPACE	QUANTITY	AREA REQUIRED
<u>Equipment Storage</u> Function: to provide space for custodian's equipment. Equipment: Finish: rough Relationship: adjacent to the living quarter.	1 @ 200	200
<u>Service Area for Living Quarter</u> Function: to provide space for clothes washing. Equipment: washers and dryers, tables and chairs. Finish: good quality. Relationship: near the living quarters.	2 @ 300	300
<u>Bath and Toilet</u> Function: to provide space for washing. Equipment: flush water closets, lavatories, showers and bathtub. Finish: durable, washable and waterproof. Relationship: near the living quarters.	4 @ 300	300
<u>Table Game Area</u> Function: to provide space for games as bridge, chess and other card games. Equipment: tables and chairs. Relationship: near the active game.	1 @ 300	300

SPACE

QUANTITY

AREA REQUIRED

Outdoor Recreational Area

1

Function: to provide space for recreation.

Equipment: tennis court, basketball court, and a heated swimming pool.

Finish: good quality.

Relationship: adjacent to the Center.

A E S T H E T I C

C O N S I D E R A T I O N S

The aesthetic consideration of the International Cooperation Center will be conceived with the following relationships:

1. Relation to the whole community
2. Relation to the function
3. Relation to the building type
4. Relation to the natural environment
5. Relation to the strength of material
6. Ornamental treatment and structural consideration of the building
7. Overall massing and balance of building's composition

RELATION TO THE WHOLE COMMUNITY

The International Cooperation Center will be built on the Montana State University campus; therefore, it will be considered as part of the campus. By realizing the current existing buildings on the campus, we can make a conclusion that the designs are toward a more modern building. The best example is the library in contrast to the Montana Hall. Aside from this example, there are many buildings inside the campus tried to express individually which lack the sense of unity and harmony in the whole relationship of the buildings; hence, the buildings are built as if without the consideration of the adjacent buildings. This is mostly the result of different tastes of the architects in regard to the design of the building. The architects try to keep up with the current trend in architecture that incidentally neglects the importance of the adjoining building design.

The International Cooperation Center will be located in Greek Way with surrounding sorority and fraternity houses. At the present time, there is only one existing sorority house. The Center, although slightly different in function from the neighborhood houses, will not compete for attention, rather will conform to fit the surroundings. In doing so, the Center will consider the existing sorority house into its overall study of the design.

RELATION TO THE FUNCTION

The most important factor that dictates the form, shape, and appearance of the building is the function of the building. Since the function of the Center is somewhat different from its surrounding buildings, its appearance will conform to the functions, rather than the surrounding. Above all, the welfare of the occupants will be the prime concern of the building rather than pure aesthetics approached.

RELATION TO THE BUILDING TYPE

The types of building within the campus can be classified into three distinct groups, namely, classical, contemporary and modern. The International Cooperation Center will be built into a modern building, because of the available modern construction technique, as well as the general acceptance of the public toward the new design approaches in building.

The most important in modern building design is, we can express freely as to the form, treatment, and material of the building; in other words, there is no definite pattern to follow. This gives us an opportunity to express our utmost aesthetic feelings.

RELATION TO NATURAL ENVIRONMENT

Building mainly build to shelter human activities from natural elements such as rain, sun, snow and etc.; therefore, nature plays a considerable factor in architectural design. Furthermore, it dictates the type of building; for example, in tropical areas buildings mostly differ from sub-tropical areas. Sun buffles or screens are widely used and the location of rooms are based in sun orientation. However, in the climate like Bozeman, cold weather will be the major factor to consider in design aside from other minor elements. The building will be more compact in appearance than tropical buildings, heat-loss will be carefully studied and no direct access between the interior and exterior of building on the overall design.

RELATION TO STRENGTH OF MATERIAL

In designing a building, the life expectancy of the building must be carefully studied, so as to insure safety for the occupants. Material selection must be judged, aside from aesthetic point of view, on its strength in relation to economic used.

ORNAMENTAL TREATMENT AND STRUCTURAL CONSIDERATION OF THE BUILDING

Ornamental treatment in the facade of the building is favored more in the past than present system of design. Buildings now emphasize more to the interior decoration than exterior decoration. However, the exposed structure of the building particularly the beams and columns are replacing the ornamental treatment. Hence wood will be widely used in the International Cooperation Center's building. The ornamental treatment that shows a certain character of a nation will be expressed in the interior part of the building in order to create a unique environmental atmosphere of international flavors inside the building. This idea will be the prime objective of the building design.

OVERALL MASSING AND BALANCE OF THE BUILDING'S COMPOSITION

A building can be aesthetic in many forms and shapes if the right massing and balance of the building's composition are achieved. By doing so, a central attention point of the building must be treated so as not to confuse the people. Like arts, the right composition of the building must be created not imitated from other sources. In other words, it is the inner feeling of the architect that expresses through his experience and personal belief.

ECONOMIC

CONDITIONS

The cost of the International Cooperation Center will depend on the size of the building. The building, in turn, is financed by the number of the foreign students on the campus. At present there are approximately 160 foreign students on the campus. However, there is no way to relate the American student, who will be interested, to the size of the floor space of the building.

The major economic consideration is how to obtain the building fund. Interview with Dr. Dunbar, Professor of History and Coordinator of International Programs, stated that the Center will not be supported by the State and University funds; instead a grant by a foundation and individual donation would be the source of finance.

There are four general methods in building cost estimate for the early design stage: The square foot cost method, the cubic foot method, the segregated cost method and the per capita cost method.

1. The square foot cost method - This method determines the building cost by estimating the dollars per square foot of the floor area.
2. The cubic foot method - this method determines the building cost by estimating the dollars per cubic foot of the total volume.
3. The segregated cost method - this is the most accurate of the four methods. All parts of the building are

calculated separately in accordance to their specific prices. This can only be achieved if the types of materials are determined. This method is considered the most accurate process in estimating the building cost.

4. The per capita cost method - This is a rough estimate of building cost in relating the per capita income to the local population; in other words, this method is estimated in dollars per person.

CONSTRUCTION COST OF THE INTERNATIONAL COOPERATION CENTER

At the present time, there is no way to determine the actual final cost of the building. Furthermore, the specifications are still not conceived. However, a very rough estimate can be used without facts and figures. Since the building will be built of high quality material, a new International Cooperation Center can cost approximately 18.00 for square foot. An additional 2 dollars for overhead costs must be necessary. The Center has an area of 20,050 square feet. The building will cost \$360,900. However, this sum is very basic and general. An increased and decreased of the cost will depend on the structure, materials and size of the final building.

According to the book called Marshall Evaluation Service,⁵ published by the Marshall and Stevens Company, the construction cost of administration building for 20 dollars per square foot

will include the following items:

1. Type of building - Excellent modern.
2. Exterior wall - Best brick, cut stone veneer, glass panel, shakes, tile, concrete.
3. Interior wall - Best plaster, ornamental detail, fine carpet, terrazzo, slate.
4. Lighting and plumbing - special fixtures.
5. Heat - Warm and cool air.

OVERHEAD COSTS

Aside from the construction cost of the building, there are minor expenses which must be faced in a certain construction job. These expenses are called Overhead Costs. Examples of a few are: job office, watching, guarding, supervising, signs, temporary structures, etc. These examples will affect the construction cost slightly.

SITE IMPROVEMENT COST

Since the International Cooperation Center site belongs to the university, no expense is required for the site, but a considerable sum must be set aside for landscaping, parking areas, cost of roads and sidewalks. According to Marshall Evaluation Service,⁵ site preparation will cost 0.05 dollars per square foot; sidewalk will cost 0.60 dollars per square foot; and the paved asphalt road and parking will cost 0.30 dollars per square foot.

OPERATION AND MAINTENANCE COST

The maintenance cost and repair often are overlooked by the architect in specifying the quality of the materials. Economic consideration must not only be based on construction expense of the building. In other words, building material must be specified according to its need, so as to reduce the maintenance cost and repair.

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AN INTERNATIONAL COOPERATION CENTER

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AN INTERNATIONAL COOPERATION CENTER

The plan of the building for the International Cooperation Center will be divided into two major parts. The first is the administration area includes offices for; THE FOREIGN STUDENT PROGRAM, THE INTERNATIONAL STUDY PROGRAM, THE HOSTING SHORT-TERM VISITORS PROGRAM, THE PEACE CORPS TRAINING PROGRAMS, AND THE OVERSEAS DEVELOPMENT PROGRAM. In addition, there will be an exhibition hall, a snack lounge, a lecture room, a waiting area, a lounge, a library, a storage, a recreational room, a mechanical room, and toilets. The second part is the dormitory for the foreign and American students. It includes the housing units for men and women, a dining room, a kitchen, a manager office, a director office, a reception counter, a waiting area, a lounge in every floor, the baths and toilets rooms, two laundry rooms, costodian's equipment room, and a mechanical room.

The principal functions for the administration building will be as follows;

The administration office composes of two general offices, one dealing with the foreign students in the campus, the other deals with the four programs mentioned above. The total areas for the offices combined is 800 square feet. A reception counter of 95 square feet will be located near the office.

The exhibition hall will display the arts and crafts of the foreign countries with an area of 800 square feet.

The lecture room will serve as a place for lecturers, slide show, dancing performances, and other similar nature. The area will accommodate 105 peoples.

The library will have variety of foreign books, magazines, and newspapers, to serve American students who are studying foreign language and foreign student as well. The library will accommodate a minimum of 12 peoples.

The snack lounge is so located in order to serve the visitors and the students, especially those from the exhibition hall and lecture room. This small enterprise will be managed by the dormitory's manager. The area is 550 square feet.

The recreational room is located in the basement of the building, composed the spaces for table tennis table, billiard table, and game room, and occupy an area of 1000 square feet.

The principal functions of areas in the dormitory are as follows;

In 1967 there are 158 foreign students enrolled in M.S.U., however, with that number, only 47 foreign students lived in the dormitories. But the new ICC dormitory will accept the American students.

The living units are divided into two parts, the men's living-unit can accommodate 72 peoples while the women's living unit accommodate 48 peoples.

The kitchen has an area of 1000 square feet that serves the peoples in the snack lounge and the dining room. The dining will accommodate a minimum of 96 peoples.

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