It is the intent of this project to design a General Classroom Building for Ball State University. The building was designed specifically to house a number of the social science departments, particularly the departments of Anthropology, History, Philosophy, Political Science, Sociology, Social Work, and the Urban Studies Institute. Consideration was also given to the housing of the Dean of the College of Science and Humanities.

The primary concern was that of trying to satisfy the needs of the students. The faculty and staff act as support functions for the needs of the students. Because of the University's building which is a dormitory, a design was for only a limited extent incorporated into the design. This is accomplished systems in the building from below. Alterations of structures are an integral part of the design of the building. The building is designed with the needs of the students in mind. The design is to provide facilities for the students. The design is a comprehensive layout that caters to the various needs of the students, individual.
faculty offices are grouped around the perimeter of each bay. This grouping of the offices results from a need for each faculty member to relate to a smaller group, provide a common space among a group of offices, and create a spatial transition between the offices and the large secretarial area. The center portion of each office bay is the secretarial area in which all of the secretaries are located in order to lessen duplication of equipment and personnel.

Each classroom bay is centered around an entry point. The seminar and lab spaces are located furthest from the entry point because they have no class changes and a lesser student volume. The classrooms are designed so that a number of seating arrangements. A flexible unit is located in one corner of the room which can be a lecture, a student, a projection screen, etc.

The building is designed so that a large number of students other than those having class in the building will pass through it. This is because the number of people in the building will pass through it. Those people in the building housed in the building are "people oriented," and we feel that the building will become a living room. The building is a multi-story interior court allowing the building as a whole to be a large open area, the atrium of the building.
SOCIAL SCIENCE BUILDING FOR BALL STATE UNIVERSITY

THESIS PROPOSAL

College of Architecture and Planning

Ball State University

Mark Mattox

September 30, 1970
The thesis proposal of this student is to design a social science building for Ball State University. This building will be a classroom-office facility with supporting functions. The disciplines to be housed in the proposed building are sociology, anthropology, history, political science, economics, philosophy, methods, and possibly psychology. Since the social sciences are studied by almost every student during his academic career, this structure must be integrated with the campus as a whole.

This project has been under study by a committee who were appointed by President Pruis in 1968. Due to the fact that the realization of this project will not occur for another five years, the project is dormant at present. A preliminary program has been developed. No site has been selected to date. A tentative budget and square footage requirement have been established at $5,000,000 and 150,000 square feet, respectively.

This student feels that it is very important to work on a real problem. The interest shown by those involved in the project should insure this student of an abundant amount of information.

Due to the rapid growth of Ball State in the past few years, there is an ever increasing need for more classroom and office space. Since the University intends to construct this structure in the near future, the appropriateness of this problem as a thesis project is quite valid.

[Signature]
SOCIAL SCIENCE BUILDING FOR BALL STATE UNIVERSITY

Thesis Program

College of Architecture and Planning

Ball State University

Mark Mattox

October 9, 1970
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<thead>
<tr>
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</tr>
</tbody>
</table>
The Social Science Building will be designed to house classrooms, offices, and specialized facilities for the social sciences. The social science departments (which are: sociology, anthropology, political science, philosophy, and history) are a part of the College of Sciences and Humanities. The Dean of this College will also be housed in the Social Science Building.

Because the social sciences are a study of people—past, present, and future; the design of this building with regard to its users is of utmost concern. Since every student will study at least one of the social sciences during his academic career, the case for a "people oriented" building is further strengthened.

Due to economic and priority considerations, this building will probably be phased. Each phase must be designed with a great deal of flexibility, since this is to be a "people oriented" building. (People's needs are always changing.)

It is also important not to think of this building as a single structure. Its relationship to the rest of the campus must be of primary concern to the designer. Consideration must also be given to the Master Plan concerning the anticipated total environment.
The Present Situation:

In 1964-65 the various disciplines comprising the social sciences were administered as a single Social Science Department, offed chiefly in the Arts Building (with some overflow staff in North Hall) and most classes were conducted in the Arts Building with scattered classes in the English and Music Buildings. A total of 5313 students were enrolled in social science classes in the autumn of 1964, out of a student body of 10,066 students. Total staff consisted of 38 full-time instructors and 3 part-time instructors and teaching fellows.

While the student body increased from 10,066 in the autumn of 1964, to 15,007 in the autumn of 1968 (34%); total enrollments in the six social science disciplines increased from 5313 to 8948 (67%). More specifically, increases by disciplines during this three year period were: History 21%, Social Science Methods 39%, Economics 68%, Philosophy 200%, Anthropology 137%, Sociology 168%, and Political Science 300%. Classes for these disciplines are now conducted in 9 different buildings; and total social science faculty consisting of 84 full-time and 34 part-time instructors, office in 15 different buildings. Both classroom and office space available in the Arts Building to the social sciences has been reduced by approximately one-third during 1968 in favor of the expansion of the Art Department.

While the doctoral program in Social Science and Social Science Education has expanded vigorously within the past four years (with some 47 doctoral candidates currently in residence); new undergraduate majors in Urban and Regional Planning, professional social work, and a minor in Religious Studies have grown with equal rapidity along with the regular undergraduate and master level programs of these several disciplines. Additional space for the specialized activities required by all of these programs is sorely lacking. Furthermore, a substantial inter-disciplinary element prevails among a number of these programs which is more difficult to sustain effectively for both staff and students, with the present wide dispersal of classes and offices.

The current academic year has seen a reorganization of the social sciences. The department of Economics has left the social sciences to
become a department in the College of Business. Even so, it is assumed that some Economics courses will be conducted in conjunction with the social sciences. The department of Sociology and Anthropology has been divided to form two departments. The same thing has occurred in the department of Political Science and Philosophy, forming a department of Political Science and a department of Philosophy. This makes a total of five departments under the heading of the Social Sciences.

Anticipated Future Needs:

While current university enrollment projections call for a further increase in students of approximately 60% during the next decade and only slight increases thereafter through 1985, there is every reason to assume that enrollment in the social sciences will continue to grow at a significantly faster rate than university enrollments as a whole. The ratio of social science enrollments to total student body size in the autumn of 1964 was 1:1.93. In 1965 it was 1:1.76; in 1966 it was 1:1.61; in 1967 it was 1:1.51; and in 1968 it was 1:1.39.

A projected total social science enrollment for 1980 will approximate 23,948, representing a ratio of approximately 1:1 if current university enrollment projections are viewed as dependable (whereas, to date they have generally been conservative). It is this figure of 23,948 total social science enrollments, and their projected distribution among the several involved disciplines by 1980, which is used as a basis for projecting classrooms and office space needs in a new Social Science Building.

In summary, the space needs for the social sciences call for classrooms and lecture halls containing approximately 3,000 seats (each seat to serve an average of eight enrollees daily), offices to house 205 regular faculty and 176 doctoral fellows and graduate assistants, administrative facilities for five departments plus social science methods, and space for auxiliary activities essential to the specialized instructional and service programs of these expanding programs.
At present, all classroom buildings at Ball State are constructed with funds received from the sale of bonds. Bonding power is granted to the University by the state legislature. The University presents a request of needed funds to the legislature before its biennial meeting. The legislature then evaluates the University's need and grants the University bonding power accordingly. Bonds are now used to raise funds to construct new university buildings because the state can no longer afford to make cash appropriations.

The University hopes to establish a precedent by requesting enough funds from the forthcoming meeting of the legislature to pay for the architect's and engineer's fees needed to design a Social Science Building. The amount to be requested is $352,000 and probably will be a cash appropriation.

Once the building is designed, a more accurate construction cost can be determined. Even so, an estimate of $8,800,000 has been made. All of this amount must be raised from the sale of bonds once the legislature has granted the bonding power for the amount requested.

The amount of bonds sold by the University can not exceed the amount specified by the legislature. But the amount of bonding, granted every two years, can be built up over a period of four years but then it must be committed to a specific project.

The bonds are generally bought by a syndicate which in turn sells them to a bank, lending institution, etc. Since the interest on the bonds, which is generally 4% to 6%, is tax free, there is little trouble in selling the bonds. It is interesting to note that bonds are never sold before the project is bid. This insures that the proper amount of money is raised.

The bonds are retured from student fees. At present, $16 of each quarter's student fees is used to reture the bonds. A request has been made to the legislature to help replace the student fees. The bonds are generally retired over a period of twenty-seven to thirty years.

Even though the state grants the University the power to sell bonds, it can not be held responsible if the University should default.
Although other sources of revenue exist, it is unlikely that they will be a source of funds for this project. The Higher Educational Facilities Act has provided matching funds for past projects, but not in the last few years. Since the University is rather young, it seems unlikely that any funds can be expected from alumni.
All University buildings are subject to the Indiana State Building Code and the National Building Code. Although the state code controls, many of the architects employed by the University use the National Building Code. This is due to the fact that the national code is much more extensive than the state code. Local building codes do not apply to any University buildings because they are state property.

Local zoning ordinances and regulations do not apply to the University for the same reasons that the codes do not. And since the state does not have any zoning regulations, the University is left on its own in determining setbacks and building separation. The University has followed the local zoning regulations if they do not severely hinder the University's plans. When this occurs, the University exercises "good" judgment in determining the setbacks and the distances between buildings.
Department of Anthropology

Proposed Space Needs for 1980

1. Departmental Service Areas
   a. Department office  380
   b. Chairman          160
   c. Workroom, storage 240
   d. Conference room, kitchen 300
   **total: 1080**

2. Faculty Offices
   a. Fifteen single offices 100
   b. Two double offices    150
   c. Three typing and reception areas 150
   **total: 450**
   **Total: 2250**

3. Classrooms
   a. 1 with 100 seats 1140
   b. 3 with 30-35 seats 450
   c. 1 seminar room with 20 seats 300
   **Total: 2790**

4. Special Facilities
   a. Archaeological laboratory (and Classroom) 570
   b. Physical Anthropology lab (and Classroom) 570
   c. Draft room 96
   d. Darkroom 60
   e. Dead storage for Arch. materials, equipment 600
   f. Display area (workroom adjacent) 500
   **Total: 2416**

5. Summary for Department
   a. Departmental Service Areas 1080
   b. Faculty Offices 2250
   c. Classrooms 2790
   d. Special Facilities 2416
   **Total: 8536**
Department of History
Proposed Space Needs for 1980

1. Departmental Service Areas
   a. Department office
      Sq. Ft.  500
   b. Chairman
      180
   c. Administrative assistant
      120
   d. Workroom, storage
      1000
   e. Conference room, kitchen
      300
   **Total:** 2100

2. Faculty Offices
   a. 160 single offices
      Sq. Ft.  100
      Total 16000
   b. 15 typing and reception areas
      150
      **Total:** 18250

3. Classrooms
   a. 2 lecture halls with 200 seats
      Sq. Ft.  3000
      Total 6000
   b. 35 with 30-35 seats
      450
      15750
   c. 3 seminar rooms with 20 seats
      300
      **Total:** 22650

4. Special Facilities
   a. Editorial reference room
      400
   b. Learning center
      300
   **Total:** 700

5. Summary for Department
   a. Departmental Service Areas
      2100
   b. Faculty Offices
      18250
   c. Classrooms
      22650
   d. Special Facilities
      **Total:** 700
   **Total:** 43700
Department of Philosophy
Proposed Space Needs for 1980

1. Departmental Service Areas
   a. Department office
   b. Chairman
   c. Workroom, storage
   d. Conference room, kitchen
      Total: 1130

2. Faculty Offices
   a. Fifteen single offices
   b. Two double offices
   c. Three typing and reception
      Total: 2250

3. Classrooms
   a. 1 with 100 seats
   b. 2 with 30-35 seats
   c. 2 seminar rooms with 20 seats
      Total: 2640

4. Special Facilities
   a. Teaching materials center
      Total: 200

5. Summary for Department
   a. Departmental Service Areas
   b. Faculty Offices
   c. Classrooms
   d. Special Facilities
      Total: 6220
Department of Political Science
Proposed Space Needs for 1980

1. Departmental Service Areas
   a. Department office 380
   b. Chairman 160
   c. Administrative assistant 120
   d. Workroom, storage 240
   e. Conference room, kitchen 350
   Total: 1250

2. Faculty Offices
   a. Thirty-five single offices 100 3500
   b. Five double offices 150 750
   c. Seven typing and reception 150 1150
   Total: 5400

3. Classrooms
   a. 1 lecture hall with 200 seats 3000 3000
   b. 2 with 100 seats 1140 2280
   c. 6 with 30-35 seats 450 2700
   d. 1 seminar room with 20 seats 300 300
   Total: 8280

4. Special Facilities
   a. Government research center 400
   b. Teaching materials center 200
   c. Statistical center (used jointly with other departments) See Sociology
   Total: 600

5. Summary for Department
   a. Departmental Service Areas 1250
   b. Faculty Offices 5400
   c. Classrooms 8280
   d. Special Facilities 600
   Total: 15530
Department of Sociology  
Proposed Space Needs for 1980

1. **Departmental Service Areas**
   a. Department office 500
   b. Chairman (2) 320
   c. Administrative assistant 120
   d. Workroom, storage (2) 500
   e. Conference room, kitchen 350
   **Total:** 1790

2. **Faculty Offices**
   a. Thirty-five single offices 100 3500
   b. Five double offices 150 750
   c. Five typing and reception areas 150 750
   **Total:** 5000

3. **Classrooms**
   a. 1 lecture hall with 200 seats 3000 3000
   b. 1 with 100 seats 1140 1140
   c. 6 with 30-35 seats 450 2700
   d. 1 seminar room with 20 seats 300 300
   **Total:** 7140

4. **Special Facilities**
   a. Small group lab & observation room 400
   b. Community research laboratory 520
   c. Statistical laboratory (share with Pol. Sc.) 200
   **Total:** 1120

5. **Summary for Department**
   a. Departmental Service Areas 1790
   b. Faculty Offices 5000
   c. Classrooms 7140
   d. Special Facilities 1120
   **Total:** 15050
Non-Departmental Facilities
Proposed Space Needs for 1980

1. Dean's Office (College of Sciences and Humanities) Sq. Ft.
   a. Dean's Office 250
   b. Two associate or assistant deans 320
   c. Conference room 400
   d. Restroom 50
   e. Workroom, storage 350
   f. Secretarial-reception area 700
          Total: 2070

2. Urban Studies Institute (Interdisciplinary)
   a. Director 160
   b. Secretarial-reception area 200
   c. Workroom, storage 150
   d. Urban Studies Center 500
          Total: 1010

3. Faculty Reading Room 1200

4. Student Lounge 1500

5. Summary for Non-Departmental Facilities
   a. Dean's Office 2070
   b. Urban Studies Institute 1010
   c. Faculty Reading Room 1200
   d. Student Lounge 1500
          Total: 5780
### Summary of Proposed Spaces

<table>
<thead>
<tr>
<th>Type of Space</th>
<th>Number</th>
<th>Sq. Ft.</th>
<th>Total</th>
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<tr>
<td></td>
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<td>Chairman</td>
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<td>Community research lab</td>
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<td>Statistical lab</td>
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<td>Editorial reference room</td>
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<td>Learning center</td>
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### Summary of Proposed Spaces

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<th>Number</th>
<th>Sq. Ft.</th>
<th>Total</th>
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<tbody>
<tr>
<td>Associate Dean</td>
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<tr>
<td>Restroom</td>
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<td>Secretarial-reception</td>
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<td>Director</td>
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<td>Urban Studies Center</td>
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<tr>
<td>Faculty reading room</td>
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<td>Student Lounge</td>
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**Total:** 94816

### University space standards:
- Lecture hall: 15 sq. ft. per student
- Classroom: 12 sq. ft. per student
- Classroom with tables: 15 sq. ft. per student
- Seminar room: 15 sq. ft. per student
- Faculty office: 100 sq. ft.
- Double faculty office: 120 sq. ft.
- Department Chairman: 160 sq. ft.
## Summary by Department

<table>
<thead>
<tr>
<th>Department</th>
<th>Square Footage</th>
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<td>Sociology</td>
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<td>Philosophy</td>
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<td>History</td>
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<td>Non-Departmental Facilities</td>
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<td>Unassignable space (halls, service, mechanical, walls, etc.)</td>
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TOTAL BUILDING SQUARE FOOTAGE: 132,742
DEPARTMENT OFFICE

USE: Typing and reception area for department as a whole.
Keep records, filing information—clearing center,
mall distribution, place orders.

EQUIPMENT: Desks and chairs, typing areas. File cabinets,
lounge chairs (reception).

AREA: 380 sq. ft. - 500 sq. ft.

CHAIRMAN

USE: Prepare for class, interview prospective faculty, make
out schedules, determine budget, determine supply needs,
correspondence, 50% of time spent in meetings, department
head is tangent to everything other than students.
Elected by faculty privacy student faculty problems.

EQUIPMENT: Desk and chair, bookshelves, files, guest chairs (3-5).

AREA: 160 sq. ft.-180 sq. ft.

ADMINISTRATIVE ASSISTANT (PART-TIME)

USE: Assists chairman in all of his duties, prepares for class.
Reading and writing, research, counseling, review student
work, filing, typing, administrative planning, material
selection, socializing.

EQUIPMENT: Desk and chair, bookshelves, files, guest chairs (2)

AREA: 120 sq. ft.
WORKROOM, STORAGE

USE: To reproduce and store materials and records for the department.

EQUIPMENT: Ditto machine, copy machine, work tables, chairs, files, storage shelves.

AREA: 240 sq. ft., 250 sq. ft., 350 sq. ft., 1,000 sq. ft.

CONFERENCE ROOM KITCHEN:

USE: Informal meeting of faculty committees, small groups discussion, large groups of visitors. Graduate exams, prepare coffee, snacks.

EQUIPMENT: Large table, chairs, work surface (food preparation) sink, storage cabinets.

AREA: 300 sq. ft. - 350 sq. ft.

CONFERENCE ROOM

USE: Meetings of department heads, other meetings called by the dean.

EQUIPMENT: Large table, chairs.

AREA: 400 sq. ft.
SINGLE OFFICES

USG: Private space to prepare for class, reading and writing, research, counseling, review student work, filing, typing, administrative planning, material selection, socializing.

EQUIPMENT: Desk and chair, guest chairs (2), bookshelves, files.

AREA: 100 sq. ft.

DOUBLE OFFICES

USG: Space for graduate assistant and doctoral fellow to prepare for class. Study research, writing, reading, counseling, review student work, socializing, filing, typing.

EQUIPMENT: Desks and chairs, bookshelves, file, guest chairs.

AREA: 150 sq. ft.

TYPING AND RECEPTION AREA

USG: Typing and reception area for some of faculty offices, errands, research, filing, counseling.

EQUIPMENT: Desks and chairs, typing areas, lounge chairs (reception) supply storage.

AREA: 150 sq. ft.
200 SEAT LECTURE HALL

USE: Faculty lectures, student feedback (depends on faculty), student testing and note-taking. Visual contact important; extensive use of visual aids.

EQUIPMENT: Projection room, screen, T.V., sound system (two-way?), blackboard, lectern, armchairs.

AREA: 3000 sq. ft.

100 SEAT CLASSROOM

USE: Faculty lectures, student feedback (depends on faculty), student testing and note-taking. Visual contact important; extensive use of visual aids.

EQUIPMENT: Projection room, screen, T.V., sound system (two-way?), blackboard, lectern, armchairs.

AREA: 1140 sq. ft.

30-35 SEAT CLASSROOM

USE: Lecture, testing, note-taking, discussion, student reports, movies and other visual aids.

EQUIPMENT: Blackboard, armchairs, desk, lectern, chair.

AREA: 450 sq. ft.
20 SEAT SEMINAR ROOM

USE: Faculty moderator of discussion, students present reports, minimal lecture. Use of visual aids should be considered, demonstrations.

EQUIPMENT: Tables, chairs, blackboards(?).

AREA: 300 sq. ft.

TEACHING MATERIAL CENTER

USE: Storage of visual aids, texts, government reports, and other equipment used by faculty.

EQUIPMENT: Storage shelves.

AREA: 200 sq. ft.

SMALL GROUPS LAB

USE: Observation by means of one-way mirror, note-taking.

EQUIPMENT: Table-chairs, one-way mirror, sound system.

AREA: 400 sq. ft.
COMMUNITY RESEARCH LAB

USE: Control center for sociological studies of the community. Data review, editing, tabulation and preparation.

EQUIPMENT: Tables and chairs, bookshelves, computer terminals(?)

AREA:

STATISTICAL LAB

USE: Tabulation of data collected and related problems.

EQUIPMENT: Computer terminals, tables, chairs.

AREA:

EDITORIAL REFERENCE ROOM

USE: Faculty members edit several publications, research, writing, reading.

EQUIPMENT: Tables, chairs, bookshelves, files.

AREA: 400 sq. ft.
LEARNING CENTER

USE: Supplement student study, programmed instruction.

EQUIPMENT: Teaching machines, chairs, workspace.

AREA: 300 sq. ft.

GOVERNMENT RESEARCH CENTER

USE: Tabulation and research center for government projects.

EQUIPMENT: Tables, chairs, bookshelves, computer terminals (?).

AREA: 400 sq. ft.

ARCHAEOLOGICAL LAB

USE: Classroom for demonstration of cleaning, describing, and storing archaeological "finds".

EQUIPMENT: Tables, chairs, work tables, storage spaces, sink.

AREA: 570 sq. ft.
PHYSICAL ANTHROPOLOGY LAB

USE: Classroom for demonstration of cleaning, describing, and storing bones of animals and humans.

EQUIPMENT: Tables, chairs, work tables, storage spaces, sink.

AREA: 570 sq. ft.

DRAFTING ROOM

USE: To draft maps and plans of archaeological significance.

EQUIPMENT: Drafting table, chair, drawing storage.

AREA: 96 sq. ft.

DARKROOM

USE: Develop photographs.

EQUIPMENT: Sink, work tables, controlled lighting.

AREA: 80 sq. ft.
DEAD STORAGE FOR ARCHAEOLOGY

USE: Storage of equipment and finds.

EQUIPMENT: Storage shelves.

AREA: 500 sq. ft.

DISPLAY AREA

USE: Public exhibition of arch. finds.

EQUIPMENT: Display cases.

AREA: 500 sq. ft.

FACULTY READING ROOM

USE: Faculty lounge for study and informal socializing.

EQUIPMENT: Lounge chairs, end tables, lamps.

AREA: 1200 sq. ft.
STUDENT LOUNGE

USE: Student study and informal socializing, smack area.

EQUIPMENT: Lounge chairs, end tables, lamps, tables and chairs, study carrels, vending machines.

AREA: 1500 sq. ft.
The primary purpose of this building is to serve the students. Even though faculty and staff will also use this building; their primary purpose is also to serve the students. Since projected enrollment figures show that every student will have at least one class in this building; the importance of this building as a student service becomes apparent.

Since the primary purpose of this building is to serve the students, priorities should be given to student needs. Special consideration should be given to the students concerning their feelings of what a social science building should be and do. Consideration should also be given to faculty and staff needs so that they can serve the students in a desirable atmosphere.

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<th>Staff</th>
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</thead>
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Student figures based on number of students served per hour.
Total figure based on eight class periods per day.
The College of Sciences and Humanities provides courses and programs for either a liberal education or for specialized and professional curricula.

The liberal arts programs permit the student to elect more freely and to explore the "idea" subject matter. By definition, a liberal arts education should free man from ignorance by providing him an intelligent grasp of the experiences of the past and an understanding of the interrelationship of branches of knowledge. The individual is educated to think objectively, critically, and creatively. The liberal arts include the study of foreign languages, the physical and social environment, the evolution of Western civilization, the foundations of modern science, and the classical works of man.

The wide range of courses offered by the College of Sciences and Humanities provides the basis for specialized and professional curricula—offered both within the college and in the other colleges requiring service courses.

Within the college preprofessional programs are specified for medicine, dentistry, engineering, and law. A variety of specialist programs is offered, including medical technology, regional and urban planning, social work, international area studies, and natural resources. Also, the departments within the college have programs designed for those planning graduate study in the field of their choice.

The college includes the following: Biology; Chemistry; English; Foreign Languages (French, German, Greek, Latin, Portuguese, Russian, Spanish); Geography and Geology; History; Center for Journalism; Mathematics; Physics; Physiology and Health Science; Political Science; Philosophy; Center for Radio and Television; Sociology; Anthropology; and Speech.
ANTHROPOLOGY:

Anthropology is scarcely a hundred years old as a formal academic discipline. Its origins are in the nineteenth century's growing awareness of non-European societies, the revelation that man's social past is of great antiquity, and the discovery by Charles Darwin of the biological mechanisms which have produced the human species. From these several awakenings has emerged a field which, as developed in this country, is neither a biological nor a social science, but is uniquely both. It is, in fact, the singular amalgamation of the two areas which is responsible for the name of the field, the Study of Man.

Although the anthropologist, as a practicing scholar, develops a limited specialty, the field itself remains convinced that man is a socio-biological whole and must finally be studied as such. This belief places a certain burden on the anthropologist and the student by requiring, for professional competence, a very wide range of content areas.

In physical anthropology, for example, attention is commonly focused on such topics as the nature of the evolutionary process which is responsible, through the action of natural selection, hybridization, genetic drift and artificial selection, for the development of the large-tail-less, terrestrial, bipedal, orthograde primate which man is. Course work is commonly devoted to the fossil evidence of man's recent evolution, especially during the Pleistocene period.

Without doubt, that aspect of physical anthropology which has the greatest potential contribution to make to man's self-understanding, and the aspect likeliest to be of practical application, is the study of contemporary varieties, or races, of man. There is no subject about which men seem to have the most fundamental convictions, and commonly there is none in which the unfortunate effects of total ignorance are more clearly seen. The anthropologist is deeply involved in all phases of this study, from the determination of the nature of the phenomenon itself, through the eventual genetic classification of races, to the delicate and vexing questions having to do with the
significance of race differences. The pursuit of truth is the goal of the scientist. But the application of knowledge which has been secured through the scientific method is hardly avoidable.

Much of cultural anthropology is closely related to history and no branch illustrates this fact more clearly than archaeology. Courses in this area provide the student with techniques which enable many of the limitations of conventional historiography to be overcome, with the result that we now possess knowledge of human behavior during times antedating writing by sometimes hundreds of thousands of years. Of course, this knowledge is rarely of the detailed and specific sort sought by the historian.

But although he is commonly deprived of historical personalities, the archaeologist has the compensation of seeing the great sweep of human affairs with perhaps greater clarity. The archaeologist reminds the student that it was during prehistoric times that most of the great steps in human progress were made: the development of technology, the creation of forms of government, kinship, religion, philosophy, and art. The archaeologist also reminds the student through appropriate courses of the long and fruitful cooperation between the historian and the prehistorian, which has been responsible for the bulk of our knowledge of the ancient world of classical times, including Egypt, the Near East, Greece, Crete, and early Rome.

Preparation in anthropology customarily involves some work in the field of linguistics. This is a most highly specialized area, and thorough preparation through detailed courses is less common than in the other areas. But introduction to the broad subdivisions of descriptive and historical linguistics helps to acquaint the student with more than a mere modicum of knowledge about the techniques and history of human communication, which is the most distinctive characteristic of the human animal, setting him apart, as no other single fact does, from infra-humans. It is linguistics which, in recent years has begun to make students aware the talking in more than simply a method of communicating ideas between speakers of the same language; it is the vehicle of thought itself, and it provides the speaker not only with categories of expression, but also with the means at once of perceiving and of ordering his universe. At this point linguistics is very close to cultural anthropology.

Modern cultural anthropology has grown out of the nineteenth
century's interest in the accounts by travelers, explorers, missionaries, merchants, and soldiers of the frequently astonishing and sometimes hostile people whom they had met. Much of the work of the cultural anthropologist, or ethnologist, has been the gathering of accurate information about the work's nonliterate peoples. Modern ethnology, it should be noted, places little stress on the word "primitive," having been driven by the data to the conclusion that it does not separate categories of men very efficiently. But from this early interest in different societies has developed anthropology's increasingly sophisticated analysis of culture, that amorphous yet systematic mass of learned behavior patterns which provides human societies with the means to survival. Much comparative work has been done, and courses in anthropology departments reflect this, in cross-cultural studies of religion, kinship and family systems, governments, technologies, value and belief systems, literatures, modes of aesthetic expression in song, dance, and the graphic and plastic arts, among other institutions. Anthropology wrestles with countless unsolved problems in the area of relations between personalities and the social milieus in which they occur and in the area of cultural dynamics. The possibilities of practical application are numerous, and are, increasingly, being exploited.

These several areas, and others which may develop, are all related through anthropology's constant emphasis on the "wholeness" of man.
HISTORY:

By definition, history is the record of past actions of mankind based upon surviving evidence. Thus, mankind's accumulated experience, the memory of the human race, is called history. Its study, which should lead to understanding and wisdom, indicates that all problems and patterns are the result of complex processes of growth. By shedding light on these processes, history provides a vehicle for profiting from human experience. Without a knowledge of his past, man would have no landmarks, no points of reference, and no foundations on which to build a modern world.

History may be studied vicariously. Man's unique ability to utilize not only his own past experiences but also the experiences of other men and women of this and other generations sets him above the lower animals and envolves him to better understand the present in order to prepare himself for the future. By studying the problems that have confronted men in the past and their attempted solutions, man also gains in tolerance, appreciation, and understanding of other people's ideas and institutions.

Man's system of government, the frontiers of his country and its economy, and many other factors of direct concern to his entire existence are meaningful because of history. In the age of the hydrogen bomb, atomic propulsion, and global interdependence, to neglect history would be more than folly—it could be pure suicide. As we appreciate that history is a story of constant change, we live more intelligently in a world that is constantly changing.

History may also be studied as literature. For over two thousand years, written history has stood as a major literary form. This vast and complex story is built upon the hopes and aspirations, the struggles, the triumphs, and also the failures of man. Effectively presented, history ranks with great novels and epic poetry. Perhaps "the supreme purpose of history is a better world."

The history major may be undertaken to attain professional, academic, or cultural objectives, including preparation for graduate study and advanced degrees, teaching licenses, and proficiency for appointments as specialists in business, government, and in cultural institutions, or as a hobby.
Courses in history are designed to meet the needs of students in several fields of study. The department offers a broad selection of courses in the general studies program. It offers introductory and advanced courses for students majoring in education or in liberal arts in other departments of the University. It also presents courses designed to give a broad and thorough training in the various history programs.

The graduate programs are built on the foundation of undergraduate preparation. Students intending to do graduate work in history are urged to take the Bachelor of Arts degree. The master’s and doctoral degrees require intensive directed study in history aimed at depth of understanding.
PHILOSOPHY:

One of the earliest definitions of philosophy encountered by the beginning student is one that says it is the "love of wisdom." And it should be noted that this love of wisdom is not confined to any one field; indeed, most anything is grist for the philosopher's mill!

Historically speaking, the above definition has resulted ever since the time of Plato in the general agreement that the traditional role of philosophy is one of synthesis and system building. To put the matter another way, the philosopher was seen to be one who knew something about each area of man's experience as a result of either native genius or exhaustive investigation after which he was supposed to sit down with all his knowledge and, by weaving such knowledge into a consistent and coherent whole, give to mankind a unified picture of his universe and himself. This general agreement about the role of philosophy both within and without the university produced about twenty or more centuries of some of the most magnificent albeit meaningless cogitations ever produced by the mind of man. This is not to say that these vast systems were or are without some value. As purely intellectual exercises they have their place. But surely the student has a right to note that on the assumption that synthesis is the main business of philosophy, here we are many centuries after Plato still bemused by his problems and showing very little evidence that we are any closer to solving them. Is it possible that they are not "problems" at all?

In the past thirty years the role of philosophy has been changing, although not without some dire warnings as to its future if the present trend continues. Analysis has now replaced synthesis as the main job of the philosopher in his role as a member of a university faculty. This is not to say that analysis has not always been with us, philosophically speaking, but in the past it has always been subordinated to the activity known as synthesis. It is generally agreed now that the scope of man's knowledge is too large in our own century for any philosopher to pretend that he can
carry on the time-honored function of philosophy described above. Perhaps this was possible in the small world in which Plato lived; it is not possible now.

Given this change, then, just what is the role of philosophy and the philosopher in a modern university now? It is twofold, one relative to the other academic discipline, and one relative to the students who pass through his classroom. Relative to the other academic disciplines on the campus, the philosopher can function in his role of critical analyst as a sort of catalytic agent by insisting that his colleagues constantly look to the meaningfulness of their ideas. Indeed, perhaps his greatest service is that of helping others make their ideas clear regardless of the nature of their academic discipline.

Relative to the students exposed to him in the university, the philosopher and philosophy can serve in several ways. Philosophy can serve by equipping the student with the attitude that all facets of life need examination if we are to get ahead with the business of living. Philosophy can serve by equipping the student with the attitude that all facets of life need examination if we are to get ahead with this business of living. Philosophy can serve by equipping the student with the attitude that all of his values and beliefs would never have come to be except that men in the past were not afraid to question those that were then held, and that in all probability the same fate awaits values and beliefs held now. And lastly, philosophy can serve by showing the student that this succession is indeed a good thing. The alternative is stagnation.

These two roles for philosophy have given rise on most university campuses to certain basic courses in philosophy designed to be of help to groups of students. The usual Introduction to Philosophy course is one of general interest which serves to do what its title implies. In this course the student becomes aware of the basic problems philosophers deal with as well as some of their answers. Logic, the study of deductive and inductive reasoning and the rule thereto, can be invaluable for prelaw students, math majors, and any other persons who must reason correctly. Ethics is a course of particular interest to anyone concerned in any way with man's relationship to man. For those occupied with the
history of ideas, the three courses in the history of ancient, medieval and modern philosophy are most valuable. These are the core courses in philosophy and form the necessary foundation for the more specialized courses which usually follow.
POLITICAL SCIENCE:

Political science is the study of legal governments and man's relation thereto. Political science has been a subject of formal intellectual inquiry since classical antiquity. Protagoras, Gorgias, Socrates, and Plato developed the fundamental questions which continue to form the core of the discipline. They observed that all societies have political systems, that politics differ in form and functions, that the relationship of individuals to the state differ from one society to another, and that differences among politics lead to war. These observations led them to ask: What is the nature of man (which makes government inevitable and affects the nature of the political system)? What is the nature of the state (legal political system)? What is the nature of the relationship between man and the state? The only substantial aspect added later was relationships among states (international relations). These questions are at once the basis for political theory and construction for the mass of speculative and empirical data which has been accumulated through the centuries.

The primary goals of political science are (1) transmission of established knowledge through lectures, discussion, scholarly writing, textbooks, and commentary and (2) research. These goals assume a scientific study of available data and a continuous testing and evaluation of relevant social norms. Political science does not seek to give students values, but to develop their talents for valuation. Since comprehension of available knowledge is fundamental to intelligent valuation, emphasis must be given to the teaching and learning and to the continued accumulation and teaching of knowledge.

The principal utilities of political science are intellectual, civic, and vocational. The first two, hopefully, are universal in that serious study of the discipline results in a more informed populace. The last is more particular in that it applies chiefly to those in occupations involving a degree of expertise derived from study and experience in the discipline. Teachers of civics, government, and political science at all school levels constitute a major group utilizing the peculiar contributions of political science. The growing numbers of government officers and employees constitute another. Increasing pro-
fessionalism in government service and the gradual passing of Jacksonian standards for public service have increased the demand for knowledge of political science. Among the numerous related occupations which draw heavily on the discipline are law, journalism, business, economics, medicine, agriculture, and labor.

The political science program at Ball State University is designed to facilitate pursuit of the primary goals of the discipline and realization of its principal utilities. The basic course is an introduction to national government, upon which all the other courses are based. The total pattern of courses is organized into the sub-areas generally recognized by the discipline, viz., political theory; American government; public law; public administration; parties, politics, and the political process; foreign and comparative government; and international law and diplomacy.

Political science courses are available to students on the following basis: general education, departmental major or minor in political science, teacher certification programs, urban and regional planning, as a cognate field in the social science doctoral program, and at both the undergraduate and graduate level for students in other departments.
SOCIAL WORK:

Social work is truly a twentieth-century profession. Before 1900 there were no professional schools of social work, graduate or undergraduate, for the training of social workers. The rapidly changing industrial society of the United States, accompanied by the increasing number and variety of complex social problems, has contributed to the dramatic growth of the profession in recent decades. Social work is both an art and a science. Its art is the development of special skills used in working with people, either individually, in groups, or through community programs. Its science is the body of knowledge—derived from sociology, psychology, and psychiatry—about people and communities.

Social workers are concerned with helping people solve their social problems in order to achieve more satisfying ways of living. They practice in a wide variety of settings. Some work with individuals in family service, child welfare, and public welfare agencies; in courts as probation officers for juveniles as well as adults; in hospitals, both medical and mental; in child guidance clinics; in schools; and with handicapped persons. Some work with groups in the Y's, Boys' Clubs, Scouts, and community centers, as well as with street gangs and poverty programs. And some work in community organizations such as United Funds, Community Chests, and Community Welfare Councils, where their skills are used in planning for social services. All social workers serve the needy, or the young, or the aged, or the handicapped in public or voluntary agencies.

The undergraduate program in social work at Ball State University provides for the needs of three groups of students: those who wish to qualify for first-level social work positions upon graduation; those who wish to continue their education in graduate schools of social work; and those who wish to prepare themselves for roles in community leadership as organization board members, in labor union leadership, in industrial social welfare relationships.

After the basic two-year general studies program at Ball State, students begin their specialization in social work within the sociology major. Specific social work courses acquaint them with the philosophy, development, and methods of social work. Field trips in conjunction with these courses enable the students to visit places in which
social work is practiced. Seniors with proper qualifications who have definitely chosen social work as a career enroll in a course in basic social work methods. In the classroom they learn the theory of social work methods of casework, group work, and community organization; practical experience is gained in field observation. Each student is assigned to a social agency for a half day each week where he works with individuals or groups under expert supervision.
SOCIOLOGY:

Sociology is among the youngest of the social sciences. Although introduced into a handful of universities before the close of the nineteenth century, its development as a recognized academic discipline has occurred chiefly within the past few decades; and especially in the period since World War II, its widened inclusion in patterns of general education has resulted in exceptionally rapid growth of undergraduate enrollments. Simultaneously, rapidly expanding research activities have vastly extended the body of sociological knowledge; and the concepts of the discipline are rapidly becoming a part of "everyman's vocabulary." Increasingly, these concepts as well as an understanding of the sociological perspective are being introduced at the high school level.

In the early years of this century, a number of persons interested in the field of sociology saw it primarily as a tool for ameliorating the various ills and problems of the society, and especially for helping groups and individuals with special needs in "adjusting" to the surrounding social order. Gradually this emphasis has come to be more identified with the special field of social work (see below), with sociology as an academic discipline being perceived more as a "pure" rather than an "applied" science. Even so, the findings of sociology per se continue to be assessed by the general public, at least, largely in terms of their applicability to the range of problems relating to "group problems" and the stability of the social order.

As one of the related group of social sciences, sociology focuses upon, and seeks to develop dependable generalizations about, the social life of man as an interacting participant in groups. This involves identifying, classifying, and interpreting observable regularities in human interaction and resultant patterns of social organization. An understanding of the bases for and influences of such regularities in the forms of human association is fundamental to a student's knowledge about himself and others as participants in structures group life, and

As a liberal discipline, sociology contributes to the student's
broadened perspective of the sociocultural environment which surrounds him and his own relationship to it, thus liberating him from provincialism and the limitations of untested folk mythology. Attention to observed regularities in social structures, as well as in the processes of social change, facilitates in appreciation of the nature, functions, and limits of the social order. As a science, sociology employs the canons of empiricism, objectivity, and ethical neutrality in its search for predictive relationships. The findings derived from such investigations may serve as guidelines for intelligent social action in the pursuit of shared human objectives.

The methods and concerns of sociology are functionally related to those of the other social sciences as well as to a wide range of arts (teaching, medical, expressive, correctional, etc.) which involve interactions among persons performing varied roles. The discipline of sociology thus has a significant contribution to make in the area of general (liberal) education and in professional education of widely diverse emphases, along with the preparation of scholars, to expand and transmit the body of sociological knowledge itself.
SITE ANALYSIS
The character of the building will be determined to a large
degree by that of the surrounding buildings. Since this structure will
be completely surrounded by University buildings, its character should
be consistent with its predecessors.

All of the buildings on campus, with the exception of one, have
used brick as their primary facade material. The roofs or the building,
those not of the Gothic Style, are primarily flat. The height of the
buildings in the immediate vicinity is approximately four stories.
Proposed buildings for the immediate vicinity have violated the height
precedent, but they still are of a low-key nature as opposed to high-rise.

Topography will have little if any influence since the site and
surrounding area is rather flat. It is important to note some of the
proposed buildings are developing some topographical changes.

At present the site is very open, but this is not expected to last
because of the University's extensive building program destined for
this area. Although there are a considerable number of trees in the area,
they are young and undeveloped. As time goes on they will become key
elements in the character of the area.

Careful consideration must be given to known and anticipated
circulation systems in the area. The new buildings in the area should
also be studied to determine how they will affect the circulation
systems. Pedestrian flow is a major concern on a college campus; thus,
accessibility to and through the building is essential.

A thorough study of the proposed buildings must also be done. The
plans of these buildings show much more articulation than earlier
examples. These buildings also seem to have a more open character.
Although these buildings are more than four stories in height, the
massing varies. This creates a progression while maintaining visual
continuity with regard to a four story height.

Because this structure will not be built for some time, special
consideration must be given to the Master Plan. It is assumed that the
University expects this plan to be utilized by the designers of all
its new buildings. The recommended concept for this area envisions the
creation of a major space defined by surrounding building. The building
development must be of a unified character. The building envelope should be visually four stories in height. This does not eliminate height variations, but it does indicate that the four story limitation is important to visual continuity. The plan also calls for the buildings to be a contiguous development around the prime space.

The buildings or building complex developed from this concept must be responsive to both internal and external circulation patterns. Flexibility and choice of route should be provide by means of through-building routes as well as routes across the open spaces. It should be possible to walk completely around the space while being enclosed. Vertical traffic should be kept to a minimum where it is a part of a major circulation route. Major circulation routes should be closely related to existing building and surface grades.

It is hoped that the major space be developed so that it is of a contrasting texture to that of the buildings. It is suggestion of the plan that the space be thought of as a landscaped area with scattered paved areas where needed as opposed to the idea of a paved area with scattered pieces of landscaping.
VIEWS:

The possible views from this building will be limited in every direction by university buildings. Only the distance a person will be able to look across will vary, before it is interrupted by a building. These distances can be determined from the following plan.

Additional view limitations may result from trees, vehicles, etc. These things may limit the view or cause unwanted distraction, but they may also enhance the view.

All in all, the view from this building should be exciting. One will experience a diverse field of depth, enhanced by landscaping and an almost continuous panorama of people. Surely the activity generated by people is a most interesting spectacle. And since this is a "people oriented" building, what could be more enjoyable for those within than to view people.
View east thru site.

View west thru site.

View south thru site.
(library site.)
View north thru site.

View southeast from site. (Proposed parking garage site.)

View southwest thru site.
Architecture building northwest of site.
NOISE:

Noise is an important consideration in designing an academic building. Since this building will be surrounded by other university buildings, and in turn the university is surrounded primarily by residences, there is very little noise of any magnitude generated.

The primary noise generators in the immediate area are vehicular traffic and people. The automobile is undoubtedly the biggest noise producer. Since the building will be located away from streets and with the possible closing of McKinley and Seely Avenues, the noise of the automobile will be greatly reduced.

People also create a great deal of noise. This is particularly true when they gather in large numbers. But since they are outside, a great deal of this noise will be dissipated.

Wind noise could be a problem since the building will be very vulnerable due to the open space to the west. Therefore, special consideration must be given so that the possibility of noise is reduced.
Traffic Department Muncie Indiana
Traffic Court Summary Sheet  
Count taken by F. DENNY  
Tabulated by J. McKINLEY

**Date:** 12-16-69  **Day of Week:** Tuesday

**Location:** UNIVERSITY  

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</tr>
<tr>
<td>Total</td>
<td>626</td>
<td>476</td>
<td>626</td>
<td>377</td>
<td>523</td>
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</table>

**Grand Total:**

<table>
<thead>
<tr>
<th>E-W N-S</th>
<th>Total</th>
<th>N-S Total</th>
<th>E-W Total</th>
<th>N-S Total</th>
<th>E-W Total</th>
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<tr>
<td>Traffic Entering From North and going W.</td>
<td>200</td>
<td>153</td>
<td>213</td>
<td>155</td>
<td>95</td>
</tr>
<tr>
<td>Traffic Entering From South and going E.</td>
<td>118</td>
<td>97</td>
<td>69</td>
<td>46</td>
<td>71</td>
</tr>
<tr>
<td>Traffic Entering From East and going N.</td>
<td>118</td>
<td>97</td>
<td>69</td>
<td>46</td>
<td>71</td>
</tr>
<tr>
<td>Traffic Entering From West and going S.</td>
<td>200</td>
<td>153</td>
<td>213</td>
<td>155</td>
<td>95</td>
</tr>
<tr>
<td>Total</td>
<td>626</td>
<td>476</td>
<td>626</td>
<td>377</td>
<td>523</td>
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</tbody>
</table>

**Totals:**

<table>
<thead>
<tr>
<th>E-W N-S</th>
<th>Total</th>
<th>N-S Total</th>
<th>E-W Total</th>
<th>N-S Total</th>
<th>E-W Total</th>
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<tr>
<td>Traffic Entering From North and going W.</td>
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<td>Traffic Entering From South and going E.</td>
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<td>Traffic Entering From East and going N.</td>
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<td>69</td>
<td>46</td>
<td>71</td>
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<td>Traffic Entering From West and going S.</td>
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<td>213</td>
<td>155</td>
<td>95</td>
</tr>
<tr>
<td>Total</td>
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<td>476</td>
<td>626</td>
<td>377</td>
<td>523</td>
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<td>Period</td>
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<td>Traffic Entering From North and Going East</td>
<td>Traffic Entering From West and Going South</td>
<td>Traffic Entering From West and Going North</td>
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</tr>
<tr>
<td>0-6 AM</td>
<td>23</td>
<td>16</td>
<td>29</td>
<td>28</td>
<td>117</td>
</tr>
<tr>
<td>6-12 AM</td>
<td>17</td>
<td>7</td>
<td>2</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>12-6 PM</td>
<td>22</td>
<td>10</td>
<td>22</td>
<td>13</td>
<td>24</td>
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<tr>
<td>6-12 PM</td>
<td>11</td>
<td>3</td>
<td>5</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>12-6 AM</td>
<td>27</td>
<td>7</td>
<td>23</td>
<td>125</td>
<td>34</td>
</tr>
<tr>
<td>6-12 AM</td>
<td>15</td>
<td>5</td>
<td>5</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>12-6 PM</td>
<td>27</td>
<td>12</td>
<td>27</td>
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<tr>
<td>6-12 PM</td>
<td>21</td>
<td>7</td>
<td>24</td>
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<td>26</td>
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<tr>
<td>12-6 AM</td>
<td>45</td>
<td>10</td>
<td>22</td>
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<td>6-12 AM</td>
<td>23</td>
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<tr>
<td>Period</td>
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<td>Traffic Entering West and Going</td>
<td>Total Major Street</td>
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<tr>
<td>7:45 AM</td>
<td>42</td>
<td>74</td>
<td>30</td>
<td>125</td>
<td>31</td>
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<tr>
<td>8:00 AM</td>
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<td>60</td>
<td>12</td>
<td>94</td>
<td>19</td>
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<tr>
<td>8:15 AM</td>
<td>53</td>
<td>14</td>
<td>12</td>
<td>78</td>
<td>20</td>
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<tr>
<td>8:30 AM</td>
<td>28</td>
<td>61</td>
<td>18</td>
<td>95</td>
<td>13</td>
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<tr>
<td>8:45 AM</td>
<td>39</td>
<td>14</td>
<td>34</td>
<td>23</td>
<td>14</td>
</tr>
</tbody>
</table>

**Totals**: 505 | 156 | 76 | 457 | 180 | 353 | 460 | 285 | 430 | 152 | 386 | 112 | 463 | 2645 | 2024 | 597
### Traffic Department Muncie Indiana

#### Traffic Count Summary Sheet

**Date:** 12-18-69  **Day:** Week Thursday  **Count Taken by:**  **Tabulated by:**

**Location:** McKinley & Veely

| Period | Traffic Entering From North and Going | Traffic Entering From South and Going | Traffic Entering From East and Going | Traffic Entering From West and Going | Total Highways Major Street Approx. | Pedestrian
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8-24 A</td>
<td>W 52-4 20 229 67 120 6 193</td>
<td>E 18 20 3 71</td>
<td>N 4 3 17 64 422 155</td>
<td>52 3 19 45 439 139</td>
<td>52 3 19 45 439 139</td>
<td>52 3 19 45 439 139</td>
</tr>
<tr>
<td>9-10 A</td>
<td>4 93 125</td>
<td>47 15 2 114</td>
<td>33 24 3 94</td>
<td>11 25 9 45 439 139</td>
<td>11 25 9 45 439 139</td>
<td>11 25 9 45 439 139</td>
</tr>
<tr>
<td>10-11 A</td>
<td>11 109 27 147</td>
<td>16 151 10 236</td>
<td>52 3 4 39 125</td>
<td>9 36 17 58 377 83</td>
<td>9 36 17 58 377 83</td>
<td>9 36 17 58 377 83</td>
</tr>
<tr>
<td>11-11 M</td>
<td>19 144 17 180</td>
<td>66 178 21 265</td>
<td>58 4 6 71 175</td>
<td>11 35 27 73 445 248</td>
<td>11 35 27 73 445 248</td>
<td>11 35 27 73 445 248</td>
</tr>
<tr>
<td>11-12 M</td>
<td>13 269 25 238</td>
<td>82 171 13 266</td>
<td>44 46 7 41 164</td>
<td>12 46 19 7 9 504 243</td>
<td>12 46 19 7 9 504 243</td>
<td>12 46 19 7 9 504 243</td>
</tr>
<tr>
<td>12-1 P</td>
<td>12 212 33 257</td>
<td>102 159 11 272</td>
<td>47 49 7 6 8 16 5 27 98 529 266</td>
<td>16 5 27 98 529 266</td>
<td>16 5 27 98 529 266</td>
<td>16 5 27 98 529 266</td>
</tr>
<tr>
<td>1-2 P</td>
<td>2 23 57 308</td>
<td>92 206 6 314</td>
<td>60 53 16 219</td>
<td>14 4 7 24 8 5 622 299</td>
<td>14 4 7 24 8 5 622 299</td>
<td>14 4 7 24 8 5 622 299</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>85 111 220 7 148 4 525 1050 7 94 154 3 2 272 427 1011 3 71 8 11 6 522 8 98 15 93 4 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Signal Timing:**
- McKinley: 65%
- Veely: 35%

**A.D.T.:** 699
732B-1 (Upland) Blout Silt Loam
2%-6% Slope
1 Degree Erosion

3338A-C (Flood Plain) Sebewa Silty Clay Loam
0%-2% Slope
0 Degree Erosion
**BRIEF SOIL DESCRIPTION:** The Blount series consists of deep, somewhat poorly drained soils that have a medium textured surface layer and moderately fine or fine textured subsoil. They developed in glacial till and occupy nearly level and gently sloping areas in the uplands. The native vegetation was mainly mixed hardwood trees. Blount soils are medium in organic matter and have a high available moisture capacity. They have slow permeability and runoff is very slow or slow.

**INTERPRETATIONS FOR CROPLAND, PASTURE, AND WOODLAND**

| Cropland - general and speciality farm crops | Well suited for growing corn, soybeans, small grain and grasses and legumes for hay and pasture when drained. |
| Pasture | Suited for growing birdsfoot trefoil, alsike clover, ladino clover, tall fescue, orchard grass, bromes grass and Red canary grass. |
| Woodland | Important wood crops: sugar maple, upland oak, tulip poplar. Well suited for planting: white pine, red maple, white ash. |

**Land capability unit and yield predictions:**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>A</td>
<td>80</td>
<td>115</td>
<td>30</td>
<td>45</td>
<td>35 50</td>
<td>55 86</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>B</td>
<td>80</td>
<td>115</td>
<td>30</td>
<td>45</td>
<td>35 50</td>
<td>55 86</td>
</tr>
</tbody>
</table>

**LIMITATIONS FOR WILDLIFE**

- **Openland wildlife:** SLIGHT
  - Moderate - somewhat poorly drained; limitations - moderate for grasses and legumes; slight for wild herbaceous upland plants and hardwood woody plants; severe for coniferous woody plants.

- **Woodland wildlife:** MODERATE - 0 to 2 percent slopes; somewhat poorly drained. Limitations - moderate for wetland food and cover plants; severe for wetland and upland plants. SEVERE - 2 to 6 percent slopes; somewhat poorly drained. Limitations - severe for wetland food and cover plants; severe for wetland and upland plants. Moderate for upland plants.

- **Wetland wildlife:** MODERATE - 0 to 2 percent slopes; somewhat poorly drained. Limitations - moderate for wetland food and cover plants; severe for wetland and upland plants. SEVERE - 2 to 6 percent slopes; somewhat poorly drained. Limitations - severe for wetland food and cover plants; severe for wetland and upland plants. Moderate for upland plants.

**LIMITATIONS FOR RECREATION**

- **Cottages and utility buildings:** MODERATE to SEVERE - seasonal high water table.
- **Tent and camp trailer sites:** MODERATE to SEVERE - somewhat poorly drained.
- **Picnic areas, parks and extensive play areas:** MODERATE to SEVERE - somewhat poorly drained.
- **Playground, athletic field and intensive play areas:** MODERATE to SEVERE - somewhat poorly drained; slow permeability.
- **Bridle paths, nature and hiking trails:** MODERATE - somewhat poorly drained; seasonal high water table.
- **Golf course fairways:** MODERATE - somewhat poorly drained; seasonal high water table.
### Topsoil Properties

<table>
<thead>
<tr>
<th>Classification</th>
<th>USDA Texture</th>
<th>Unified</th>
<th>AASHTO</th>
<th>% of material passing given size</th>
<th>Permeability inches per hour</th>
<th>Available water capacity in./in.</th>
<th>Soil reaction pH</th>
<th>Shrink-swell potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface layer 0 to 9 inches; all loam</td>
<td>CL or CH</td>
<td>A-4</td>
<td>100</td>
<td>90-100</td>
<td>85-95</td>
<td>0.61 - 2.00</td>
<td>0.17 - 0.20</td>
<td>6.1-6.5</td>
</tr>
<tr>
<td>Subsoil 9 to 12 inches; silty clay loam or silty clay</td>
<td>CL or CH</td>
<td>A-6 or A-7</td>
<td>100</td>
<td>95-100</td>
<td>80-90</td>
<td>0.06 - 0.20</td>
<td>0.19 - 0.21</td>
<td>5.5-6.0</td>
</tr>
<tr>
<td>Underlying 27 to 60 inches; material; silty clay loam or clay loam</td>
<td>CL</td>
<td>A-7</td>
<td>100</td>
<td>90-100</td>
<td>75-90</td>
<td>0.06 - 0.20</td>
<td>0.19 - 0.21</td>
<td>Calcareous</td>
</tr>
</tbody>
</table>

### Interpretations of Engineering Properties

- **Suitability as a source of:**
  - Topsoil: Suitable for general purposes.
  - Subsoil: Good for general purposes. Not suitable for swamp areas.
  - Clayey soil: Unsuitable for most purposes.

- **Soil features affecting use:**
  - Topsoil: Suitable for general purposes.
  - Subsoil: Good for general purposes. Not suitable for swamp areas.
  - Clayey soil: Unsuitable for most purposes.

### Limitations for Some Urban Uses

<table>
<thead>
<tr>
<th>Use</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential development with public sewer</td>
<td>Moderate - Seasonal high water table at 2 to 6 feet; moderate shrink-swell; medium to high permeability; fair shear strength.</td>
</tr>
<tr>
<td>Residential development without public sewer</td>
<td>Severe - Seasonal high water table; slow permeability. Estimated percolation rate slower than 75 millimeters per hour.</td>
</tr>
<tr>
<td>Buildings for light industrial, commercial, and public use</td>
<td>Moderate - Seasonal high water table at 2 to 6 feet; medium to high permeability; fair shear strength; moderate shrink-swell.</td>
</tr>
</tbody>
</table>

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The soil is evaluated only to a depth of 3 feet or less. Soils are rated on the basis of four classes of soil limitations: Slight - relatively few of limitations are easily overcome; Moderate - limitations need to be recognized, but can be overcome with good management and careful design; Severe - limitations are severe enough to make use questionable; Very Severe - extreme measures are needed to overcome the limitations and usage generally is unsound or not practical.
BRIEF SOIL DESCRIPTION: The Zeke series consists of deep, poorly and very poorly drained soils that have a medium or moderately fine textured surface layer and a mostly gravelly, moderately fine textured subsoil. They develop in glacial outwash deposits on nearly level flats and depressions in terraces and outwash plains. These soils are underlain at depths of 20 to 40 inches by gravel and sand. The native vegetation was mainly water-tolerant hardwood species. Zeke series soils are high in organic matter and have a low or moderate available moisture capacity. They have moderate permeability and runoff is very slow or ponded.

INTERPRETATIONS FOR CROPLAND, PASTURE, AND WOODLAND

<table>
<thead>
<tr>
<th>Cropland - general and specialty farm crops</th>
<th>Well suited for growing corn, soybeans, small grain and grasses and legumes when drained. During years of below normal rainfall or poor rainfall distribution, crops are subject to damage from drought.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasture</td>
<td>Suited for growing alfalfa, alsike clover, lespine clover, red clover, brome grass and orchard grass. Selection of legumes depends on completeness of drainage.</td>
</tr>
<tr>
<td>Woodland</td>
<td>Important woodland crops: wetland oaks. Well suited for growing: red maple, white ash, pin oak.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>A</td>
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<td>65</td>
<td>105</td>
<td>25</td>
<td>40</td>
<td>30</td>
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</tbody>
</table>

LIMITATIONS FOR WILDLIFE

<table>
<thead>
<tr>
<th>Opanland wildlife</th>
<th>SEVERE - poorly and very poorly drained; limitations: very severe for growing need and grain crops; severe for grasses and legumes and wild barleys; upland plants; slight for hardwood species.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woodland wildlife</td>
<td>SLIGHT</td>
</tr>
<tr>
<td>Wetland wildlife</td>
<td>SLIGHT</td>
</tr>
</tbody>
</table>

LIMITATIONS FOR RECREATION

<table>
<thead>
<tr>
<th>Cottage and utility buildings</th>
<th>SEVERE - poorly and very poorly drained; high water table; subject to ponding.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tent and camp trailer sites</td>
<td>SEVERE - poorly and very poorly drained; subject to ponding.</td>
</tr>
<tr>
<td>Picnic areas, parks and extensive play areas</td>
<td>SEVERE - poorly and very poorly drained; subject to ponding.</td>
</tr>
<tr>
<td>Playground, athletic field and intensive play areas</td>
<td>SEVERE - poorly and very poorly drained; subject to ponding.</td>
</tr>
<tr>
<td>Brule paths, nature and hiking trails</td>
<td>SEVERE - poorly and very poorly drained; high water table.</td>
</tr>
<tr>
<td>Golf course fairways</td>
<td>SEVERE - poorly and very poorly drained; high water table.</td>
</tr>
</tbody>
</table>
### ESTIMATED PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Classification</th>
<th>Unified</th>
<th>AARHO</th>
<th>No. 10, 2.0 mm</th>
<th>No. 40, .05 mm</th>
<th>No. 200, .0075 mm</th>
<th>Permeability inches per hour</th>
<th>Available water capacity in./sq. ft.</th>
<th>Soil reaction pH</th>
<th>Shrink-swell potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface layer 0 to 1/2 inches; loam or silty clay loam</td>
<td>CL or CH</td>
<td>A-5 or A-7</td>
<td>70-80</td>
<td>60-75</td>
<td>50-65</td>
<td>0.63 - 2.0</td>
<td>0.17 - 0.25</td>
<td>5.6 - 6.4</td>
<td>Moderate</td>
</tr>
<tr>
<td>Subsoil 1/8 to 36 inches; gravelly clay loam or gravelly loam</td>
<td>CL</td>
<td>A-5 or A-7</td>
<td>70-80</td>
<td>60-75</td>
<td>50-65</td>
<td>0.63 - 2.0</td>
<td>0.17 - 0.25</td>
<td>5.6 - 6.4</td>
<td>Moderate</td>
</tr>
<tr>
<td>Underlying material 36 to 60 inches; gravel and sand</td>
<td>EN-SP</td>
<td>CH-CH</td>
<td>50-70</td>
<td>15-30</td>
<td>5-10</td>
<td>&gt; 20.00</td>
<td>&lt; 0.08</td>
<td>Calciremn</td>
<td>Low</td>
</tr>
</tbody>
</table>

### INTERPRETATIONS OF ENGINEERING PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topsoil</td>
<td>Surface: good or fair. Subsoil: poor; high water table; clayey.</td>
</tr>
<tr>
<td>Sand and gravel</td>
<td>Good below 20 to 40 inches; poorly or very poorly drained; high water table.</td>
</tr>
<tr>
<td>Bed underdrain and highway fills</td>
<td>Subsoil: poor - seasonal high water table; moderate shrink-swell; fair to good stability and compaction; fair shear strength. Substratum: very good - fair to good shear strength; slight compressibility; fair to good penetration; fair to poor stability.</td>
</tr>
<tr>
<td>Highway location</td>
<td>High water table; subject to frost heave.</td>
</tr>
<tr>
<td>Foundations for low buildings</td>
<td>Very poorly drained; high water table; subject to ponding.</td>
</tr>
<tr>
<td>Pond reservoir areas</td>
<td>High water table; substratum has rapid seepage rate.</td>
</tr>
<tr>
<td>Dams, dikes, levees and embankments</td>
<td>Subsoil: fair to good stability and compaction; low permeability when compacted; medium to high compressibility; good resistance to piping; moderate shrink-swell; fair shear strength. Substratum: fair to poor stability; fair to good compaction; high to moderate permeability when compacted; slight compressibility; fair to good resistance to piping; good to fair shear strength.</td>
</tr>
<tr>
<td>Waterways</td>
<td>Not needed; high water table and nearly level or depressional.</td>
</tr>
<tr>
<td>Agricultural drainage</td>
<td>High water table; sand and gravel substratum at 20 to 40 inches.</td>
</tr>
<tr>
<td>Terraces and diversion</td>
<td>Not needed; level relief and high water table.</td>
</tr>
</tbody>
</table>

### LIMITATIONS FOR SOME URBAN USES

<table>
<thead>
<tr>
<th>Use</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential development with public sewer</td>
<td>SEVERE - poorly or very poorly drained; high water table; subject to ponding.</td>
</tr>
<tr>
<td>Residential development without public sewer</td>
<td>SEVERE - poorly or very poorly drained; high water table; subject to ponding; estimated percolation rate faster than 0.5 inches/inch.</td>
</tr>
<tr>
<td>Buildings for light industrial, commercial and public use</td>
<td>SEVERE - poorly or very poorly drained; high water table; subject to ponding.</td>
</tr>
</tbody>
</table>

*The soil is evaluated only to a depth of 5 feet or less. Soils are rated on the basis of four classes of soil limitations: Slight - relatively few of limitations or limitations are easily overcome; Moderate - limitations need to be recognized, but can be overcome with good management and careful design; Severe - limitations are severe enough to make use questionable; Very Severe - extreme measures are needed to overcome the limitations and usage generally is unceoned or not practical.*

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CLIMATIC CONDITIONS