Civil Service Council May Be Formed by Fall

Civil service staff members throughout the University may be electing representatives to a Civil Service Council by fall.

A proposed constitution was to be presented to a Regents' committee for discussion May 11 (after Report went to press). Before the Regents act on the constitution, they will hold an open hearing for staff members, perhaps in June. The constitution calls for elections in November.

Central officers of the University have already given their endorsement to the proposal, which was drawn up by a task force chaired by Carol Flynn, senior executive secretary in Conferences and Institutes.

"We need to be recognized as a part of the University community, and this is a step in that direction," Mrs. Flynn said.

OBJECTIVES—The Council would provide "a two-way medium for the exchange of information between the University and its employees relative to problems of mutual concern," the constitution says.

Administrators and Regents could seek the advice of the Council on policy matters affecting civil service staff members, or the Council could initiate discussions with administrators on such issues, or staff members could request that discussions be held.

Organization of the Council would "in no way affect the right of University employees to belong to other organized groups of their choice," the constitution says.

ORGANIZATION—The Council would represent civil service staff members at all campuses and branch stations of the University.

Representation would be on the basis of administrative units. One representative would be elected for each 100 staff members or portion thereof from administrative units with 20 employees or more. Units with fewer than 20 staff (continued on page 2)

Faculty Groups Like Retirement Plan

Second of a Series

A retirement plan is "only as good as people believe it is," says Harold Bernard, director of Insurance and Retirement at the University.

By that test, the University's faculty retirement plan has been strengthened in recent months—not because any of its provisions have been changed, but because one faculty group after another has been studying the plan and recommending that it be kept in its present form.

The most intensive study was conducted last fall by a 12-member Advisory Committee on Insurance and Retirement chaired by Dean William B. Lockhart of the Law School. This group recommended no changes in the retirement plan, although some questions were left open for future study.

Support for the present retirement plan has also come from the Senate Committee on Faculty Affairs and the Twin Cities, Duluth, and Morris chapters of the American Association of University Professors. All four groups reviewed the report of the Advisory Committee and expressed approval both of the study methods used by the committee and of the retirement plan itself.

One change in the retirement plan was proposed by the Faculty Affairs committee chaired by Dean Isabel Harris of the School of Nursing. The proposed change will be discussed later in this article.

OBJECTIVE OF THE PLAN—A first step in setting up a retirement plan is to determine the desired objective, the Lockhart report says. "In an inflationary economy this should be in terms of a percentage of salary on or near retirement, rather than a predetermined dollar amount."

The committee recommended the following objective as the "normal result for the average faculty member":

"A retirement income, including social security, in the range of 50 to 60 percent of his average salary over the last five years of employment for a faculty member retiring at age 65 after 30 years of service."

Providing a retirement income of 50 to 60 percent of average salary over the last five years is a "common objective" in the pension field, the report says.

Faculty members who serve more than 30 years or retire later than age 65 would receive higher retirement benefits and faculty members who serve less than 30 years or retire earlier than age 65 would receive lower benefits than those described as the "normal result."

HOW OBJECTIVE IS MET—The next question is to determine what contribution formula will "fairly produce" the 50 to 60 percent benefit objective, the report says. (continued on page 3)
Planning Director Takes First Look at Campus

Clinton N. Hewitt, the new director of physical planning at the University, has some first impressions of the Minneapolis campus.

"The complex problem of automobile circulation is obvious to anyone who comes to the campus. The high percentage of commuters to this campus apparently accounts for much of the problem," said Hewitt, who has had wide experience in campus planning.

"I was amazed at coming to the office last night and having to search for a parking place at that time," he said in an interview less than a week after he arrived on campus.

Hewitt said he is "quite impressed with the planning methods and feedback data that have been employed for the development of the long-range plan for the St. Paul campus.

"My real feeling about long-range planning is that ultimately you have to involve every unit, no matter how large or how small, in the decision-making process," he said.

"You have to maximize the use of space in a continuing and flexible plan that can accommodate frequent changes resulting from revised assumptions about campus growth," he said.

Hewitt was named April 14 by the Regents to succeed Hugh Peacock, who was promoted in December to the position of assistant vice president for physical planning.

Hewitt came to Minnesota from the University of Michigan in Ann Arbor where he was assistant university planner for four years.

Before that, he was superintendent for campus grounds development and an instructor in architecture and horticulture at Southern University in Baton Rouge, La. He has also been serving as a campus planning consultant to Bowie State College in Maryland.

"I think the obvious goal of the physical planning has to be the accommodation of the planned academic growth of the University," Hewitt said. "Architecture and physical design should relate to the present user but be flexible enough to accommodate changing needs."

Hewitt said universities should be places for architectural innovation and experimentation, but the use of public funds often inhibits decisions to construct facilities that haven't been tried before.

"It could be very difficult for the University, especially during this period, to explain to the public that a major facility didn't work because we were experimenting with new designs and materials in the construction. We should, however, pursue the goal of experimentation," Hewitt said.

Hewitt, who was chairman of the City Planning Commission in Ann Arbor, said much can be done to tie together the appearance of a campus through landscape design, using trees and lawns to improve the tone of open spaces.

"I like the impressions I get when I walk," he said. "The life and vitality of a campus is experienced as one moves along the paths that connect the various functions, and we should search for ways to improve the visual qualities of open spaces," he said.

Hewitt, who is black, is chairman of a nationwide task force of the American Society of Landscape Architects to recruit more members of minority groups into the profession.

"There are only nine blacks in the Society and probably less than 20 involved in the practice of landscape architecture in the country," Hewitt said.

"The Society has recognized that the most effective approach to solving some of the environmental and social problems facing the country is the involvement of all citizens in the search for solutions."

"It has been difficult for many designers to relate to different ethnic groups and, therefore, they resort to guessing the needs of the people. This approach, in most cases, results in solutions that reflect the background and values of the designer," Hewitt said.

He said this situation can be improved through greater participation by the user in design decisions. In this way, Hewitt said, designers can cross their cultural backgrounds to better understand the problems and desires of other ethnic groups.

Civil Service Council

(continued from page 1) members would choose the unit with which they wanted to be associated.

All civil service employees who average 75 percent time or more would be eligible to vote, and all who have been on the payroll six months or more would be eligible to serve on the Council.

Members would be elected to two-year terms. In the first election, half would be elected to one-year terms.

Ten student civil service employees would also be elected to membership in the Council, in an election conducted by the Department of Civil Service Personnel. These ten would elect one member to the Advisory Committee.

ADVISORY COMMITTEE--The Council would elect from its membership a chairman and an advisory committee of eleven (ten elected plus one student representative). The chairman of the Council would also preside over the advisory committee.

The advisory committee would conduct the business of the Council, act as liaison between the Council and central administration, and communicate Council actions to central administration. The committee would not be empowered to make decisions on matters of policy.

MEETINGS--The Council would meet at least once each quarter and more often if required.

Members of the Council would be excused from work without loss of pay in order to attend the meetings.
duluth campus
university of minnesota
master plan

---

tactical report
an outline of the planning process

---

march, 1972
physical planning office

---

hugh g. s. peacock
assistant vice president
physical planning

david r. licht
assistant
director of planning

kenneth r. stebbins
consultant planner
April 4, 1972

TO: Faculty, Students and Staff  
   University of Minnesota - Duluth

This letter is attached to the Duluth Master Plan Tactical Study which outlines the process to be followed in developing the University of Minnesota - Duluth Master Plan. This report was prepared by Mr. Kenneth Stebbins and the University Office of Physical Planning with the assistance of the University of Minnesota - Duluth, Planning Advisory Committee.

The significance of this report cannot be overstated. The Duluth Master Plan Tactical Study sets the course of action and defines the products for the work which will establish the future development framework for the University of Minnesota - Duluth Campus. As a consequence of the far reaching impact of the campus master plan, it is important that the members of the Duluth Campus Community as well as the greater Duluth Community understand and participate in the planning work which lies ahead. This report provides the basis of the understanding which will facilitate participation. We, therefore, urge your detailed review of this report and solicit your questions and comments.

Sincerely,

David R. Licht  
Assistant Director  
Chairman, Duluth Planning  
Advisory Committee

DRL: rvo
15 March 1972

David R. Licht
Chairman, Duluth Planning Advisory Committee
and Assistant Director, Office of Physical Planning
503 Morrill Hall
University of Minnesota
Minneapolis, Minnesota  55455

Dear Mr. Licht:

The accompanying Tactical Report is submitted as the first in a series of reports comprising the UMD Long Range Master Plan.

The Tactical Report is an outline of the planning process used in developing the master plan. The report has been written in an effort to make the planning process understandable to those participating in the planning for UMD.

It should be considered a working document which states the basic issues involved in planning for UMD and the existing situation relative to those issues. Additional issues and changes may occur as the planning process continues.

I would value any further comments concerning the report and the planning process.

Sincerely,

Kenneth R. Stebbins
Consultant Planner - UMD

cc: Vice President James Brinkerhoff
    Assistant Vice President Hugh Peacock
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>i</td>
</tr>
<tr>
<td>Summary</td>
<td>iii</td>
</tr>
<tr>
<td><strong>The Technical Report</strong></td>
<td></td>
</tr>
<tr>
<td>Purpose</td>
<td>3</td>
</tr>
<tr>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>The Study</td>
<td>3</td>
</tr>
<tr>
<td>Function</td>
<td>5</td>
</tr>
<tr>
<td>Problems as Issues</td>
<td>5</td>
</tr>
<tr>
<td><strong>Issues</strong></td>
<td></td>
</tr>
<tr>
<td>Administrative Issues</td>
<td>9</td>
</tr>
<tr>
<td>Physical Planning Issues</td>
<td>17</td>
</tr>
<tr>
<td><strong>Methods and Conclusion</strong></td>
<td></td>
</tr>
<tr>
<td>Planning Methodology</td>
<td>33</td>
</tr>
<tr>
<td>Conclusion</td>
<td>33</td>
</tr>
<tr>
<td><strong>Appendix</strong></td>
<td></td>
</tr>
<tr>
<td>The Long Range Development Plan</td>
<td>39</td>
</tr>
<tr>
<td>Implementation and Monitoring Structure</td>
<td>39</td>
</tr>
<tr>
<td>Project Control</td>
<td>40</td>
</tr>
<tr>
<td>Content of the Plan</td>
<td>41</td>
</tr>
<tr>
<td>Sources of Information</td>
<td>44</td>
</tr>
</tbody>
</table>
- All inventory studies should be described graphically to aid in physical planning and development.

A planning methodology diagram has been constructed which portrays the sequence in which the above recommendations should be carried out, as well as the interrelationships among them. The diagram indicates which agency, the university administration or the planning office, has responsibility for which tasks, and shows the time span for each planning phase. This diagram is the main monitoring tool for the planning process.

It is strongly urged that the above recommendations be carried out by the university and that the planning methodology diagram be followed. In this way effective physical planning for the University of Minnesota, Duluth, can be carried out.
The campus of the University of Minnesota, Duluth (UMD), is greatly in need of upgrading its physical plan, so that its future growth will meet the needs of the students, faculty, staff, and the surrounding community. In order to plan effectively, however, the planning process must be outlined so that issues can be identified and resolved within a set time using a specific methodological approach. This Tactical Report is a guide for this planning process, and is preliminary to several other reports, which will comprise a long range plan for UMD.

The method of issue analysis, which was utilized in St. Paul Campus planning study, has been used to identify and make recommendations for solving various administrative and physical planning problems that are basic to any future planning. The advantages of issue analysis are:

- It is a means of testing and questioning all points of contention or agreement, which often leads to quick resolution of problems and establishment of planning policies.

- It generates alternative solutions through the questioning process, enabling wiser decisions to be made.

- It enables more participants to become involved in the planning process, resulting in greater communication among all interest groups.

Using issue analysis, basic administrative recommendations have been made which should be followed if rational physical planning is to occur at UMD. These recommendations are:

- The university should clearly define its future role for UMD within the university system and describe possible future programs, teaching methods, and academic and administrative structures.

- The university should develop accurate enrollment projections.

- The university should develop accurate space needs projections.

- The university should continue to investigate the adoption of a Program Planning and Budgeting System (PPBS).

- The university should identify and communicate with all internal and external interest groups and planning agencies.
- The university should try to predict all future financial resources that will be available for development of physical facilities.

- The university should adopt coordinated procedures that will process all planning through a similar set of guidelines.

The following recommendations for physical planning have also been made:

- The master plan should establish guidelines and principles for future planning, provide design criteria, and provide development options.

- A set of planning ranges or stages should be set up to establish building priorities.

- Planning at UMD should be coordinated with that of the local city planning agency.

- A thorough inventory and development study of land utilization should be made before any building program is begun.

- Future buildings at UMD should be designed so that they are flexible and adaptable for a number of uses.

- An inventory of housing needs and desires should be taken before any new housing is built by the university. In addition, the university should re-evaluate its current housing policies.

- An inventory of social, recreational, and commercial facility needs and desires should be taken before any new facilities of this type are constructed by the university.

- Future utility and service demands should be projected before any building program is begun. Total energy demands should be a part of the Long Range Plan.

- Movement studies should be made before future vehicular and pedestrian circulation systems are planned.

- Climatic, ecological, and geological information should be surveyed before any new physical planning is begun.
The Tactical Report
purpose

The campus of the University of Minnesota, Duluth (UMD), must be carefully planned, so that its growth will be orderly, efficient, and conducive to the educational process. Random, undirected development of this institution can only be detrimental to the students and faculty, the surrounding community, and the entire university system. The purpose of this report is to outline the planning process that will be used to generate a master plan for the development of UMD.

history

In order to understand the planning process completely, a knowledge of the university system and its relationship with UMD is necessary. The University of Minnesota has developed into a state-wide system, with campuses at Minneapolis, St. Paul, Duluth, Morris, Crookston, and Waseca. Also part of this system is the Rosemount Agricultural Research Center and Agricultural Branch Stations at Crookston, Morris, Duluth, Waseca, Grand Rapids, Itasca, Excelsior, Cloquet, Lamberton, and Rosemount.

The Duluth Campus was established in 1947 through an act of the Minnesota Legislature, which transferred the facilities of the Old Duluth State Teachers College to the University of Minnesota. The campus at that time consisted of four buildings sited on 11 acres, plus two residences serving as classroom buildings. The enrollment at that time consisted of 1,432 undergraduate students, the majority of which were enrolled in two- and four-year teacher preparation programs, with the remainder enrolled in a traditional four-year liberal arts program. These facilities comprise what is now the "old campus."

By 1949 the old campus was entirely inadequate, and the existing tract of over 200 acres was established as the new university campus. Since 1949 all new construction has taken place on this tract of land. Existing programs are liberal arts-oriented, with 5,203 students enrolled as of Fall quarter, 1971.

the study

Although the growth of UMD was relatively rapid no fully comprehensive long range plan for development had been adopted. However, the need for such a plan has been recognized. This Tactical Report is the first of a series of reports that will comprise the Long Range Development Plan for UMD.
The Tactical Report will not only outline issues and problems as they relate to UMD, but will also outline the planning process relative to a set time framework, and adopt the planning methodology established for the St. Paul Campus Master Plan Study which was recently completed.

The Consultant will be responsible for developing a long range development plan for physical development, and will only be involved in other areas when necessary to accomplish some task or resolve specific problems relating to the master plan.
function

This report will serve three basic functions:

- It will state the nature, extent, and direction of the work to be accomplished, and will break the planning effort down into its components, describing the technical resources necessary to perform the planning tasks and outlining how the tasks are coordinated.

- It will identify basic planning issues and the areas where necessary data is lacking. In addition, it will order existing planning information, policies, and assumptions, so as to form an immediate base from which to make preliminary decisions before a comprehensive set of base data is available.

- It will outline the methods used to generate a plan, as well as the processes the plan will use to generate and implement specific building forms.

For the resultant plan to be successful, however, it must be formulated to operate within the university administrative structure. It will also require a wide participation by all interested parties, as well as a significant commitment by the university and all others concerned with UMD's development.

problems as issues

A previous study for the University of Minnesota, the St. Paul Master Plan, identified issue analysis as the key to master planning for a university campus. Issue analysis involves the restating of a problem in planning as an issue, so that it can be resolved by a logical sequencing of tasks. By stating the problems as issues, information relating to the problem is clarified to the point that it is understandable to everyone concerned. A common ground for discussion is then formed, resulting in more intelligent decisions regarding the resolution of the problems. (See figure 1)
The basic advantages of issue analysis as a planning tool are:

- It is a means of testing and questioning all points of contention or agreement, which often leads to quick resolution of problems and establishment of planning policies.

- It generates new alternative solutions through the questioning process, enabling more intelligent decisions to be made.

- It enables more participants to become involved in the planning process, which is highly beneficial, since it results in greater communication among all interest groups.

Once the issues are stated and the conflicts resolved, policies can be formulated based on these resolutions. Policies then become the major planning criteria, enabling decisive development to occur.

Many issues in this Tactical Report are restatements of issues found in previous university planning studies. However, these issues are relevant to the planning process at UMD and must be considered if the future master plan is to be valid. The following pages will outline the major administrative and physical planning issues to be considered. More issues should evolve as the planning process continues.
There are several areas of administrative concern, i.e., administrative (academic) issues, which must be identified, analyzed, and processed before any physical planning at UMD can take place. These issues involve the establishment of basic university goals, the need for basic data, administrative procedures, and finances necessary to accomplish the master plan.

The issues are stated briefly, along with comments on the existing situation and policies, with further clarifying comments and recommendations for future changes.

**ISSUE 1**

Has the university established and stated its future intentions in the following areas, in a manner which can be used as a meaningful basis for physical planning?

- Forecasts of future programs.
- Forecasts of teaching methods.
- Forecasts of future academic and administrative structures.
- Definition of any special role for UMD, in the University system.
- Definition of UMD's role in relation to the total educational structure in Minnesota.
- Definition of UMD's non-educational role in relation to the community.

**CURRENT ASSUMPTION/POLICY/SITUATION**

An initial attempt at making reasonable forecasts has been made in the Long Range Academic Plan, but this document is very generalized in its scope and content.

The Regents of the University of Minnesota have suggested that UMD become a "university center", fulfilling the needs for higher education in the northern section of the state.

**COMMENTS AND RECOMMENDATIONS**

Before any responsible physical planning can take place, the university must decide what should be planned for. That is, precisely what new programs,

* Issue numbers do not indicate a priority listing. They are for reference only.
teaching methods, and academic and administrative structures will exist in the future. However, a detailed analysis of these intentions and needs will require much work with many outside agencies, as well as within the university itself. Therefore, an interim definition must be formulated. This, too, may prove to be difficult, since there is no single agency now in existance that has the responsibility for formulating these types of goals.

A diagram showing the existing planning framework utilized in making future predictions and policy decisions at UMD, and how they fit into the total university planning framework, must be constructed in order to help formulate preliminary policies concerning the areas outlined above. These preliminary policies can then be used to generate reasonable forecasts (in ranges) of enrollments and space needs.

**ISSUE 2**

Has UMD developed its enrollment projections and student profile predictions sufficiently to be used as meaningful inputs to the physical planning process?

**CURRENT ASSUMPTION/POLICY/SITUATION**

Current documents have predicted a 1985 enrollment at UMD of 11,000 to 12,000 students, but this is regarded by UMD as too high. A more realistic prediction of 8,000, with the majority of students coming from outside the Duluth-Superior nine-county area, has been made. The quality of enrollment predictions needs further examination.

No single individual or group at the university presently accepts responsibility for enrollment predictions. However, some information is available from the Minnesota Higher Education Coordinating Committee. This committee bases its projections on demographic data, on higher education group projections based on percentage of population, and on the assumption that the future higher education profile will be one-third lower division, one-third upper division, and one-third graduate.
COMMENTS AND RECOMMENDATIONS

Accurate enrollment projections (stated in ranges) should be developed for UMD, so that more accurate space predictions and the resulting physical planning can proceed logically and intelligently.

ISSUE 3

Does the University have adequate space management capability in the areas of space planning standards, space utilization policies, and space allocation techniques, so that meaningful space need predictions may be made for the use of physical planners?

CURRENT ASSUMPTION/POLICY/SITUATION

Space planning standards and departmental space allocation are the responsibility of the Office of Space Management, which is a department of the Office of Physical Planning. The space projection manual, which was written by the Office of Space Allocation for the St. Paul planning study, sets standards for various types of spaces in the university, and these standards can be applied to planning at UMD.

Presently, space assignments originate at UMD, and records of these assignments are sent to the Minneapolis campus, where they are entered into a card system covering all spaces in the university system. Building layouts are marked up to show the space allocated to various departments.

Certain space planning standards are now used in the programming of buildings.

COMMENTS AND RECOMMENDATIONS

Current space planning standards, (the Bareither method is used when applicable), space utilization policies, and space allocation techniques used by the university are assumed to be effective and appropriate. If any further criteria or methods are subsequently developed, the recommendations and directives of the long range plan should be changed accordingly.

Future space predictions must be carefully prepared, for without accurate predictions, even the best space standards, policies, and allocation techniques are useless. Also important are efficient scheduling and allocation techniques for the space once it is provided.
ISSUE 4

Is the university intending to move toward the adoption of a Program Planning and Budgeting System (PPBS)?

CURRENT ASSUMPTION/POLICY/SITUATION

It was stated in the St. Paul Tactical Study that the University was then evaluating the implications of adopting some form of PPBS. Due to the length of time that it takes to implement such a system, little progress has been made towards implementation. There still is much interest in the capabilities of PPBS and it is still under consideration and study by the Office of Budget Planning and Information Services. No central university planning budget base exists, although independent internal moves toward a similar system, such as that adopted by the Agricultural Extension Service of the Institute of Agriculture, illustrates the need for the establishment of an overall policy.

The State of Minnesota intends to adopt PPBS by 1973-74, as outlined in the document "Program Budgeting in Minnesota."

COMMENTS AND RECOMMENDATIONS

The planning study for the St. Paul Campus noted that to develop an efficient management system for the university, the following steps would be involved:

- Establishment of objectives and projected programs.
- Rationalization of the administrative structure.
- Development of a management information system.
- Development of a PPBS.
- Development of a simulation capacity.
- Integration of management information system, PPBS, and simulation.
- Formalization of the ongoing review structure.

With the state adopting a form of PPBS in the future, it is seemingly logical that the university adopt a compatible system of program management because of the eventual coordination of the university's financial structure with state financial agencies.
During the main planning studies, the consultant will be recommending a process of physical planning rather than just a physical plan. The process will assume a capacity on the part of the university to continuously re-examine and restate its objectives and programs, in order to respond flexibly to changed circumstances. Some form of a PPBS imposes on all sectors of the university the necessity of thinking in terms of objectives and programs, and of constantly re-evaluating their effectiveness. Therefore, a PPBS is essential if the plan is to be vital instead of static.

communications and issue analysis

ISSUE 5

How will different groups both within and without the university make their needs known, and how will conflicts be resolved?

CURRENT ASSUMPTION/POLICY/SITUATION

Various planning projects at the university have pointed out that a clear channel of communication between interest groups and the university does not exist. "Interest groups" is defined as any individual or group which will: have needs which will be provided for by the plan (e.g., faculty, staff, and student users); administer the implementation of the plan (e.g., administration, Office of Physical Planning); have responsibility in areas affected by the plan (e.g., planning agencies, specialist consultants; or be physically, economically, or socially affected by the plan (e.g., surrounding communities, faculty, staff, and student groups).

UMD is not immune to communication problems. Many committees exist which represent different interests and groups on campus. The committees are responsible for providing solutions and recommendations for immediate problems which are then submitted to the administration for approval. However, committees do not represent the wide range of interests and actually affected by policy decisions. It becomes very difficult for less influential interest groups to be heard because of communication barriers that do exist.

COMMENTS AND RECOMMENDATIONS

In order to make intelligent planning decisions, the needs of all interest groups must be heard, evaluated, and reviewed against predictive and evaluative data. Once the needs and concerns of interest groups are identified, there should be wide agreement on overall goals, after which plans for implementing and fulfilling the goals can be prepared.
If any interest groups decide that the plan contains implications that they do not want, they should re-state their objectives rather than redo the plan. However, the university has the ultimate responsibility to make decisions, even when full consensus is not obtainable.

**financial predictions**

**ISSUE 6**

What are the total financial resources likely to be available for the development of physical facilities from government and all other sources?

**CURRENT ASSUMPTION/POLICY/SITUATION**

To predict accurately the financial expenditures for UMD is difficult, because there is no immediately available information regarding future spending programs for this institution. Although requests for funding are submitted biennially to the legislature, the actual amount of funds allocated is subject to legislative decision.

**COMMENTS AND RECOMMENDATIONS**

Any future building programs are dependent upon the funds available. A recommendation of the St. Paul study was that the university proceed to make predictions based on annual expenditures, within reasonable tolerances, to assist in master planning. It will be assumed that such information will also be available for UMD planning. In turn, the UMD master planning documents can be helpful tools in assisting in making legislative requests in the future.

**planning implementation**

**ISSUE 7**

Does the university have the capability to implement a physical master planning process in each of the following areas?

- The supervision of the continuous evolution and refinement of the master planning studies.

- The programming, design, and construction of individual projects.

- The provision of ongoing physical elements, such as graphics and landscape.
- The service and maintenance of new facilities.

CURRENT ASSUMPTION/POLICY/SITUATION

In 1970, David H. Scott Consultants Ltd. was retained by the University of Minnesota to analyze the procedures and processes the university had been using for planning work. The results of their study, along with recommendations, were documented in a report entitled, "Physical Planning and Design Department Procedural Guidelines". The recommendations have been informally adopted for current and future planning projects. In addition, the structure of the Office of Physical Planning was reorganized as indicated in the following diagram. (Figure 2).

figure 2  
physical planning office organization

COMMENTS AND RECOMMENDATIONS

It would be fruitless to attempt any planning without an efficient means of implementing the comprehensive and physical planning processes. Therefore, it is imperative that the university continue vigorously
to pursue the suggestions outlined in the St. Paul study, establishing a well-coordinated set of planning implementation procedures, so that all planning is processed through a similar set of guidelines.

It is assumed that the university realizes the necessity for such procedures in light of the amount of planning currently underway, and that steps are being taken to adopt procedural guidelines for all comprehensive and physical planning.
The following issues relate directly to physical planning. It should be noted that many additional and more specific issues will arise during the planning process.

** ISSUE 8 **

What should be the scope of the planning process, and who should participate?

** CURRENT ASSUMPTION/POLICY/SITUATION **

The development of the St. Paul Master Plan has done much to identify areas of reorganization that were necessary to make master planning for the university system rational and cohesive. The direction, scope, and outcome of the St. Paul study will be followed closely during UMD master planning, and its recommendations will be utilized where applicable.

** COMMENTS AND RECOMMENDATIONS **

The development of a long range plan should not give a prediction of what the future physical form of the campus should be. Rather, it should establish guidelines and principles for future planning, provide design criteria, and provide development options. All of these guidelines are subject to continuous review and updating in response to changes as they take place.

The scope of the planning project should include the larger community as well as the campus as a whole or in part. In this study, the state and national area, the Duluth metropolitan area, and areas influenced by specific buildings or programs will all be considered in the appropriate context. In this way participants from many different levels will become involved in the planning process.

** ISSUE 9 **

What are the most useful planning stages for the university to have?

** CURRENT ASSUMPTION/POLICY/SITUATION **

Most planning at UMD is related to legislative requests, which are based on a ten-year framework of two-year increments. Projects are aligned within the time framework according to urgency of need.
Through legislative appropriations for specific university projects, a beginning set of planning stages has begun to develop. Money is appropriated for three types of requests:

- Master planning, to ensure orderly long range development.

- Building planning, to program and plan future facilities.

- Building requests, for developing working drawings and construction.

COMMENTS AND RECOMMENDATIONS

The longer the projection range for a project, the less reliable the forecast becomes. It is necessary, therefore, to establish a set of planning stages with which to work, which will reflect the different state of certainty and generality for each project. These planning stages are:

- Crisis planning, which indicates those responses necessary to accommodate sudden pressures for planning decisions which are not a normal outcome of the planning process. This could be created by a sudden shift in attitudes or needs. It is also a useful category in which to place present construction efforts that are not yet part of a long range plan. The objective in crisis planning is to move projects from this category as fast as possible into the rational planning process.

- Current planning, which indicates a coordination of those projects that are currently in the programming, building committee, or implementation stages. They can be fairly specifically quantified, and together they form the predictable stage of up to three years.

- Framework planning, which indicates the main coordinative thrust of the planning, as opposed to the implementation, effort. At this scale, land use is determined and circulation is organized, and it forms the reservoir from which individual projects spin off and into which they fit. This is the planned stage, with a time scale of up to ten years.

- Options planning, which indicates a co-ordination of long term goals, and the consideration of options, flexibility, change, and growth. These are considered stages, with a time scale of over ten years.
With a set of ranges or stages established, planning considerations can be ranked in order of their time of implementation. By establishing these time categories, planning projects will naturally sort themselves out relative to their urgency of need. As work progresses, it will be necessary to know when planning projects move from one category to another as they come closer to implementation.

ISSUE 10

What are the interrelationships between UMD and the surrounding community? What cross-use of facilities can be achieved?

CURRENT ASSUMPTION/POLICY/SITUATION

Because of its present size, UMD is quite compatible with the surrounding community. However, as the campus expands, the impact of UMD on the surrounding community will become greater and more apparent, which will necessitate consideration of the following areas of concern:

- University-community use of facilities.

  At the present time, UMD shares the city sports arena for hockey practice and conference games, and makes use of city bus lines to transport students to the campus. Special routes have been established to accomplish the latter task.

- Relationship with other institutions and planning agencies.

  The new medical education and dental hygiene programs will utilize the community hospitals and city dental facilities, and will be co-ordinating courses with the College of St. Scholastica, located west of the UMD campus.

  The city planning office is very concerned and interested in the planning work being done for UMD, and they are willing to co-ordinate their planning with the work being done by the consultants. Their greatest concerns are relative to increased traffic problems when the campus grows in student population. However, to date, comprehensive coordination has taken place between UMD planning and city planning officials.
- Direct contribution to community needs by means of continuing education and extension.

There is relatively little opportunity for continuing education at UMD. Only a few programs are open and by no means do they cover a wide enough scope to appeal to a large number of Duluth residents.

- Relationship with neighboring community groups.

There are no officially designated community groups within the neighborhoods that surround the campus. However, if a problem is of great enough concern, the people do come together to voice their opinions. The relationship between these people and UMD has been relatively good.

COMMENTS AND RECOMMENDATIONS

Although some problems exist in these areas, the present situation is satisfactory. However, since UMD's impact on the community will increase proportionately with its growth, it will be of prime importance that the planning process include the input of the local city planning agency. This will assure that the growth of the university will be compatible with the surrounding community, particularly with regard to the reliance on city services and the sharing of local facilities. In addition, it is imperative that UMD become a valuable asset to the community by being available not only to the students who attend the school but also to everyone who has a need for the programs UMD offers. Only then will the university become a viable part of the city.

growth and change of role

ISSUE 11

How will the UMD campus incorporate a major increase in students, as well as improve the quality and comprehensiveness of course offerings, while maintaining the character and advantages of the present programs and campus?

CURRENT ASSUMPTION/POLICY/SITUATION

The Regents have suggested that UMD become a university center, a goal which is approaching reality with the development of new programs at this campus. However, UMD officials apparently do not understand what the role of this institution is to be in the total university system, and as a result, little decision-making in determining the future of UMD has taken place.
COMMENTS AND RECOMMENDATIONS

A greater effort must be made by UMD administration, faculty, and staff in determining their goals and aspirations, so that a role for UMD within the university system can be determined.

It is certain, however, that the changing role of UMD in any direction will mean an increased building program. The master plan must guide the expansion of the campus while retaining the presently beneficial aspects of the existing campus.

Therefore, the following recommendations should be considered in planning and expansion:

- The university should develop a method of assigning priority to use. Buildings with historic or other special characteristics should be considered a valuable asset, as should desirable natural features. Areas considered low in value should then be selected for higher-density development or major changes in land use. In this way, desirable existing features of the campus can be maintained.

- A survey and inventory of the best use of land areas should be made, which will enable future development to proceed where it is most needed.

- The character of existing sites should be considered when establishing academic or residential densities.

- UMD planning should be co-ordinated with city planning efforts, so that the impact of growth on surrounding communities is controlled.

****

ISSUE 12

In a period of increasingly scarce resources, should it be university policy that buildings be designed to be flexible for a number of purposes, and/or be used by a variety of users?

CURRENT ASSUMPTION/POLICY/SITUATION

Past planning for UMD has provided individual facilities for the different academic divisions and departments. Included within these facilities has been a significant percentage of general
purpose classroom space. However, with the increasing uncertainty as to future programs offered at UMD, the major emphasis may be on general purpose space. The university has recognized the need for adaptable buildings that allow growth and change without making existing facilities obsolete.

COMMENTS AND RECOMMENDATIONS

The St. Paul study stated that flexibility of building space is desirable because changes in population growth, types of activities, or space standards occur much faster than significant physical alterations can be effected. Therefore, the ability of a structure to adapt to various needs determines its ultimate usefulness. However, a flexible building should be just as carefully planned as a more conventional structure to prevent the arrangement of nebulous barn-like areas that fit the needs of no one. Instead, different types of spaces should be distributed logically and efficiently over the entire area. This will also help to prevent over-assigning of space to any one facility or department.

Certain types of educational needs, such as medical education, need more specialized structures, but the majority of academic departments can and should utilize flexible space.

Existing space utilization data should be used to help develop and investigate new types of structural and service systems for particular activities and spaces. In addition, various building systems should be investigated for technological development, ease of construction, and economy.

housing

ISSUE 13

What should be the role of UMD in the provision of housing for students, faculty, and staff?

CURRENT ASSUMPTION/POLICY/STAFF

UMD provides for 26 percent (1377 students) of the student housing. Single students are housed in the Village Apartments (300), high rise (397), Griggs Hall (396), Burntside Hall (113), and Vermillion Hall (60) on the main campus. On the old campus, single students are housed in Washburn Hall (43).
and Torrance Hall (68). There is no housing provided for married students, and fraternity and sorority housing is minimal. Private developers are currently constructing apartments west of the campus on College Avenue on the old gravel pit site. Housing at UMD is 97% occupied, and provides a limited variety of housing types.

Statistics show that UMD has had no problem in filling on campus residences. However, there is presently a hold on university funded housing. If this policy continues it could seriously hamper the growth of UMD.

COMMENTS AND RECOMMENDATIONS

In the future, students and faculty will be attracted to the UMD campus mainly through the types and reputation of the courses offered. However, the availability and variety of accommodations will also create the desire to come to UMD. If these facilities are inadequate or unavailable on campus or within 20 minutes walking distance, then the student is reliant on convenient access by transit or by automobile (requiring convenient parking).

As UMD grows, the increase in enrollment will be drawn from areas outside the immediate nine-county area. This will create a shift from a commuter oriented campus to a resident campus. The supply of housing for these prospective new students will become a problem of major proportions.

If the present university policy on housing continues, UMD must begin to investigate seriously the possibility of having private developers fill the housing demand. In any case, housing may be the key issue to the growth of UMD.

Therefore, if housing is to become one of the determinants in drawing students to UMD, the following should be done:

- A survey of housing information, including present available units, deficiencies, and requirements, should be correlated with data on patterns of movement; trip times and modes; use of social, recreational, and commercial facilities on and off campus; and academic facilities.

- Projections of numerical demand for housing should be made, with likely types of units (e.g., transferred, new, and existing units) phased out over specific time spans. The projections should determine numbers and types of people to be
housed (and in what types of housing) on or near the campus, in order to make the campus viable. The priority of groups to be supplied with housing should be established, in case it is not possible to supply all groups at once.

- Inventories and projections should be based on the abilities and desires of neighboring communities to supply housing.

- Ways to utilize any new housing year-round should be established.

ISSUE 14

What should be the role of UMD in the provision of social, recreational, and commercial facilities?

CURRENT ASSUMPTION/POLICY/SITUATION

The majority of social facilities are centrally located in Kirby Student Center, with additional space in the Village Service Center. Kirby Center offers student dining areas, the Campus Club, a ballroom, and additional recreational facilities. Other recreational space is currently under construction in the basement areas. Vending machines are located in the basement of the education building. The center also includes student organization offices, a game room, and an information desk. Retail shopping is provided by the bookstore located in the upper concourse.

A new student food service area, and other student-oriented facilities, are under construction at a location between Kirby Center and Vermillion and Burntside Halls. A new performing arts building is also under construction on the north side of Ordean Court.

COMMENTS AND RECOMMENDATIONS

At the present time UMD serves the students fairly well in these areas. Some commercial establishments not located on campus are located in two shopping areas, Mount Royal Shopping Center and Town and Country Shopping Center, which are adjacent to the campus. Universities have not traditionally involved themselves with the provision of retail and commercial facilities. However, as UMD grows in population, it
will demand more in terms of variety and choice. The demand can be fulfilled only partially by the surrounding community, since major shopping areas are located some distance from the campus (i.e., downtown, Target shopping area). However, traditional policies need redefining, since the nature and the degree of the social, recreational, and commercial facilities provided will be another major determinant in the success or failure of UMD in establishing itself as a university center. Long-term commercial, social, and recreational facilities, open in the evening, will help provide a continuous vitality to the life of the campus.

To help in planning for these types of facilities, the following should be undertaken:

- A survey of needed facilities that are not now provided should be made.

- An inventory of facilities available in surrounding neighborhoods should be made, as well as a survey of attitudes on the part of the communities toward providing more facilities.

- Using these surveys, it should be determined what facilities should and could be provided on campus, considering both existing and projected activities, housing, and needs.

- Any campus plans should be coordinated with city planning policies and recommendations relating to surrounding communities.

**movement: people, goods and services**

ISSUE 15

How can the university best provide for the movement of people, goods, and messages to the campuses from the surrounding region, between and within the campus?

CURRENT ASSUMPTION/POLICY/SITUATION

There is a convenient intercampus bus line serving both campuses, as well as the student community immediately adjacent to the old campus. The city bus routes also serve the main campus.

The major problem at this time is the volume of campus-generated traffic diverted to local streets that were not designed as major arteries.
The city planning office is presently studying and re-evaluating the entire city traffic system.

COMMENTS AND RECOMMENDATIONS

UMD should develop a coordinated series of circulation studies, relating them to city planning studies. These should document the existing situation, patterns, and relationships in terms of:

- Access to the university by foot, private vehicle, and public transit.

- Desired and actual available routes taken to the university related to quantities, distances, convenience, and route capacities.

- Traffic generators (housing, commercial, gathering points, etc.).

- Desired routes, desired times and actual movement flows across the UMD campus area.

- An inventory of present facilities devoted to movement.

- Service facilities, requirements, and routes.

- The role of electronic communication in relation to the physical movement.

Possible projections of the above factors should then be made, including differences related to the availability of housing, followed by the development of performance standards for future design of vehicle and pedestrian circulation plans.

ISSUE 16

What service and utility facilities and systems does UMD need?

CURRENT ASSUMPTION/POLICY/SITUATION

UMD built its utilities and services as needs arose over the years, resulting in a chaotic network of lines and ducts. However, with the physical interconnection of most buildings, recently, utility lines have been routed through the lower levels of the buildings, keeping them and services away from future building sites. This new type of routing is the basis of a system that can be easily expanded for the entire campus.
The electrical distribution system is currently under conversion to a higher capacity. However, the portion leading from the transformer station to the built up area is inadequate and badly in need of conversion.

COMMENTS AND RECOMMENDATIONS

The layout of utility and service systems tends to determine future options for building and/or landscaping, and they are often in need of expansion and updating. It is important, therefore, that their layout be considered in terms of the future change of systems, the ability to plug in new buildings, and the accommodation of a broad variety of future possible plans.

A study is being made of the existing network, its capacity, and its usefulness for present and predicted needs. A projection of the demands of the future enrollment should be made, and an implementation plan should be drawn up in coordination with the Long Range Development Plan.

landscape

ISSUE 17

To what extent should climate, topography, natural systems, and landscape material affect the planning of UMD?

CURRENT ASSUMPTION/POLICY/SITUATION

While the planning of buildings at UMD in the past has taken climate and landscape features into account, these are not considered as major determinants of the planning process. Covered walkways do exist between most buildings, and there are many wooded areas of outstanding beauty, such as the Rock Hill area. The academic area has several intimate courtyard spaces, but little has been done to take advantage of exterior spaces. Many buildings do take advantage of the view towards the lake.

COMMENTS AND RECOMMENDATIONS

There is much micro-climatic, ecological, and geological information that UMD has not assembled into useful data for planning, although this information is fundamental to the planning process. Therefore, the following should be done in order to better utilize landscape and climate as planning tools:
- Assemble existing and generate new climatic, ecological, and geological information, including a thorough inventory of the situation and the development of planning determinants to mold future built form.

- Investigate the possibility of a system of architectural infill between existing buildings, to promote as compact an academic complex as possible.

- Investigate the compatibility of building systems with natural systems and whether, by judicious planning, this compatibility may be made greater.

**inventories**

**ISSUE 18**

What inventories does the university need to provide adequate information on its existing situation, and how should this situation affect physical planning?

**CURRENT ASSUMPTION/POLICY/SITUATION**

UMD does not currently have a comprehensive and coordinated set of graphic inventories organized to be clearly and easily understood.

**COMMENTS AND RECOMMENDATIONS**

A university is a complex organization of amenities, resources, and facilities. Any decision made about one facet of its physical development has far-reaching repercussions on others. Therefore, any device available to administrators and planners that can increase understanding of these repercussions will enhance their ability to make proper decisions. A comprehensive set of inventories of the following existing features on the campus, graphically displayed on transparent overlays so that unforeseen relationships can be recognized, would be an invaluable tool, and should be developed immediately.

- Detailed and consolidated mapping of the ground level situation on all campus and university holdings, including land contours, entrance and ground floor levels of all buildings, outside services, trees, and other physical features. The present use of the facilities, land, and other features should be noted.

- Related floor elevations of all existing and proposed buildings on campus.
- Land use and landscape characteristics, with the potential best use of built-up and open land, and a cross-referencing system between campuses to establish limitations and advantages of cross-use or interchangeability. This should include a tree inventory and ecological, visual, climatic, geological, and hydrological factors.

- Present movements (circulation and transportation systems).

- Existing services and utilities.

- The location and relationship of all programs, university services and offerings at UMD.

- The cross-use of facilities and other social-economic relationship between the university and surrounding communities.

- Building coverage, densities and intensities of use.

- Aerial photographs.
planning methodology

methodology diagram

Issue analysis is the main component of this report, but the report would not be complete without a discussion of planning methodology, which enables issue analysis to occur in an orderly fashion.

The planning methodology diagram portrays the sequence in which the tasks and products resulting from issue analysis should occur during the planning process, and how they are interrelated (see figure 3).

The diagram is divided into two basic parts: functions which are relative to UMD and University of Minnesota central administrations, and functions which are the responsibility of the Office of Physical Planning and the consultant. Each part can be expanded into further tasks if necessary. Time spans are indicated for each planning phase.

The vertical arrows indicate points where minor and major presentations of results will occur, ending the various steps in the planning process. It must be emphasized that the planning process does not stop at the end of the project time period. Rather, it is an ongoing process, and it is the responsibility of UMD administration, university central administration, and the Office of Physical Planning to keep the process alive and functioning. Each phase of the process should be in a continuous state of update and review, so that any new information can be added to further help in making future planning decisions.

The methodology diagram should, therefore, be the main monitoring tool for the planning process and it, too, should be continuously revised as changes take place and additional information or issue areas are brought to light.

conclusion

It is strongly recommended that UMD carefully consider the above presented issues and planning methodology. A master plan is of no value unless it can be easily implemented within the university structure and be adapted easily to future changes that occur with the advancement of education. To accomplish these tasks, there must be a strong commitment from UMD and the university central administration to see that future planning is carried out intelligently and efficiently within the guidelines established by the master plan.
This appendix will give preliminary information on future planning documents that will comprise the master plan for UMD.

The second major portion of the master plan for UMD will be the Long Range Development Plan. The plan will contain strategies, design criteria, and development options for physical planning. The strategies, criteria and options will be related to a series of time stages and to a system of wide user participation (e.g., issue analysis). Early schematic studies of development options will be produced relative to a basic planning and organizational framework. These schematics are only to show possible areas and directions of development. Actual physical forms should be considered only at the time of implementation of specific building projects. The attempt, then, will be to keep the plan and its options as open as possible, within the context and restraints of present conditions, allowing for the adaptation to unforeseen changes.

Three interim planning reports will be submitted following this report and before the final presentation of the Long Range Development Plan. The first will be the Planning Base. It will consist of a consolidation of the physical inventory data, academic programming data (e.g., space utilization, space predictions, and enrollment predictions), and the results of issue analysis. The second is the planning policy document, which will outline the policies, options, and criteria to be utilized in the development of the master plan, based on the results of the planning base data. The third report will be the graphic display and schematic test of the planning policies relative to the planning stages. (Possible variations of an actual physical plan will be studied relative to planning stages, however, there will not be a definite physical plan). The aim is to build one upon the other, ultimately resulting in the Long Range Development Plan itself. Recycling occurs continuously throughout the process as new information is relayed through feedback.

The third portion of the master plan is the monitoring structure. This is an internal self-evaluating planning structure that will integrate
The administration functions of the Office of Finance, Planning and Operations, with the implementation of the physical plan. It will include the evaluation of the physical implications of future academic policy decisions, the means of integrating the design of specific projects with the intent of the Long Range Plan, tactics for continuously up-dating the Long Range Plan in the light of feedback and new information and content and task sequencing controls for all planning and construction activities.

project control

There are three levels of project control that must be implemented during the planning process. The first involves periodic major presentations to the UMD administration through the Duluth Planning Advisory Committee. The committee serves as a review board for all work done by the consultant before the work is finally approved as part of the master plan. The committee will be chaired by a representative from the Physical Planning Office, but will consist mainly of representatives for various planning committees at UMD. The present members of the committee are: Robert L. Heller, Assistant Provost; Robert W. Bridges, Vice Provost-Business Administration; Robert Pierce, Chairman-Physical Facilities committee; Cliff Alexander, Chairman-Goals and Facilities committee; Norman Rick, Plant Services; Alvin Ollenger, Chairman-Purpose and Scope committee; Duane Anderson, Member-Physical Facilities; William T. McNally, student representative - Physical Facilities committee; Stanley Kegler, Associate Vice President-Coordinate Campuses and Educational Relations; and David R. Licht, Assistant Director-Office of Physical Planning. The presentations to this committee will be open to anyone interested in attending.

The second level of control is represented by regular interviews with the Office of Physical Planning personnel and by the consultant’s representation on the Duluth Long Range Planning Committees. An open line of communication between the consultant and various committees at Duluth facilitates a continuous means of review input as the project develops.

A third level of control takes place through periodic self-review on the part of the consultant, staff, and others with special involvement relating to specific areas of interest.
The three levels of control will continue through the duration of the project, with communication between groups taking place through minutes of meetings and correspondence.

The following diagram (see figure 4) groups the planning factors by broad areas of content. It is to serve as a checklist as to what areas are to be investigated during the planning process.

The list is to be added to and subtracted from as issue analysis indicates further areas of concern. They all interrelate, and are therefore not shown in such a way as to indicate any direct relationships between parts.
souces of information

ISSUE 1
- Toward 1985 and Beyond, SCRAP Committee Report, June, 1971
- Meeting with Darland, Heller, Vose, Kellogg, Bridges, and Licht, November 16, 1971
- St. Paul Tactical Study, John Andrews Architects, September, 1970
- Regents Statement of Higher Education in Minnesota-Draft, August 19, 1970

ISSUE 2
- Toward 1985 and Beyond, SCRAP Committee Report, June, 1971
- St. Paul Tactical Study, John Andrews Architects, September, 1970
- Office of Space Programming and Management - Office of Physical Planning, University of Minnesota

ISSUE 3
- A study of building space needs in 1980 at the Duluth Campus, University of Minnesota, Lois White Cooper
- St. Paul Tactical Study, John Andrews Architects, September, 1970
- Office of Space Programming and Management - Department of Physical Planning, University of Minnesota

ISSUE 4
- St. Paul Tactical Study, John Andrews Architects, September, 1970
- Meeting with Dave Berg, Director of Budget Planning and Information Services, University of Minnesota, November 15, 1971
- University of Guelph, Physical Planning Manual, David Scott Consultants, Ltd.
- Toward 1985 and Beyond, SCRAP Committee, June, 1971

ISSUE 5
- St. Paul Tactical Study, John Andrews Architects, September, 1970
- Meeting with Bob Bridges, Vice Provost for Business Affairs, UMD, November 30, 1971
- Various informal discussions with UMD faculty members
ISSUE 6

- Meeting with Robert Bridges, Vice Provost for Business Affairs, UMD, November 2, 1971
- St. Paul Tactical Study, John Andrews Architects, September, 1970

ISSUE 7

- Office of Physical Planning, University of Minnesota
- St. Paul Tactical Study, John Andrews Architects, September, 1970
- Physical Planning and Design Department Procedural Guidelines, David H. Scott Consultants Limited, January, 1971
- University of Guelph Physical Planning Manual, David H. Scott Consultants Ltd.

ISSUE 8

- Discussions with Robert Bridges, Vice Provost for Business Affairs, UMD
- St. Paul Tactical Study, John Andrews Architects, September, 1970

ISSUE 9

- A study of Building Space Needs in 1980 at the Duluth Campus, University of Minnesota, Lois White Cooper
- 1971 Building Requests: Regents Report to Legislative Building Commission
- St. Paul Tactical Study, John Andrews Architects, September, 1970
- Towards 1985 and Beyond, SCRAP Committee, June, 1971

ISSUE 10

- Meeting with Richard Isle, Duluth City Planning Office, October 7, 1971
- Meeting with R.E. Carter, Dean - Medical Education, UMD, November 2, 1971
- Meeting with R.A. Romano, Director - Department of Athletics, UMD, November 23, 1971
- Meeting with Robert Heller, Assistant Provost, UMD, September 1, 1971
- Meeting with R. Johnson, Librarian, UMD, November 30, 1971
- St. Paul Tactical Study, John Andrews Architects, September, 1970
ISSUE 11
- Discussions with UMD administrators, faculty, and city government planning agencies
- Toward 1985 and Beyond, SCRAP Committee, June, 1971
- Regents Statement of Higher Education in Minnesota - Draft, August 19, 1970

ISSUE 12
- St. Paul Tactical Study, John Andrews Architects, September, 1970
- Discussions with UMD administration and faculty

ISSUE 13
- Meeting with Ted Kellogg, Vice Provost for Student Affairs, UMD, November 2, 1971
- Meeting with Bob Bridges, Vice Provost for Business Affairs, UMD, November 2, 1971
- Craig Peterson, Housing, Office of Student Affairs, UMD
- Study of Existing Land Use - July 1968 - Duluth-Superior Metro Area Planning and Transportation Study
- St. Paul Tactical Study, John Andrews Architects, September, 1970

ISSUE 14
- Meetings with UMD administrators and faculty members
- UMD Statesman
- Study Analysis of Existing Land Use - July 1968 - Transportation Study
- St. Paul Tactical Study, John Andrews Architects, September, 1970

ISSUE 15
- Dick Isle, Duluth City Planning Office
- Meetings with Robert Bridges, Vice Provost, of Business Affairs, UMD, Norm Rick, Superintendent - Plant Services, UMD, Ole Wendfeldt, Sargeant Campus Police
- St. Paul Tactical Study, John Andrews Architects, September, 1970
ISSUE 16

- Atlas check set of prints showing basic utilities
- Summary of utility lines, drawing prepared by Office of Physical Planning, Engineering and Construction Department
- Meetings with Norm Rick, UMD Plant Services, Dave Kerkow, Evan Merz, and Jerry Nelson, University of Minnesota, Engineering and Construction Department

ISSUE 17

- Design with Climate, Victor Olgyay, Princeton University Press, 1963
- Design with Nature, Ian McHarg, Natural History Press
- Local Climatological Data, 1968, U.S. Department of Commerce, Environmental Science Services and Administration
- U.S. Geological Survey

ISSUE 18

- Various check sets, base maps and aerial surveys
- St. Paul Tactical Study, John Andrews Architects, September, 1970
u.m.d. - planning methodology