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**progress report on planning  
university of minnesota  
february, 1976**

**submitted pursuant to  
chapter 8, section 18 of the  
1967 legislative session laws**



UNIVERSITY OF MINNESOTA

Office of the President  
202 Morrill Hall  
Minneapolis, Minnesota 55455

January 22, 1976

Senator Norbert Arnold  
Chairman  
Senate Finance Committee

Representative Fred C. Norton  
Chairman  
House Appropriations Committee

Dear Senator Arnold and Representative Norton:

This report from the University of Minnesota is submitted pursuant to Chapter 8, Section 18, of the 1967 Legislative Session Laws.

Copies are available for all members of your committees. We shall be pleased to respond to any questions you may have.

Cordially,

A handwritten signature in cursive script, appearing to read 'C. Peter Magrath'.

C. Peter Magrath  
President

CPM:s1

## C O N T E N T S

Twin Cities Campus	1
Duluth Campus	13
Morris Campus	15
Crookston Campus	16
Waseca Campus	18
Research & Experiment Stations	19

## TWIN CITIES CAMPUS

### MASTER PLANNING

The major thrust of planning activity over the last two years and particularly the last year has culminated in the recently completed Long Range Development Plan Framework for the Twin Cities Campus, Minneapolis. While concerned with the Minneapolis Campus, this development plan affects the Twin Cities Campus as a whole, especially in such matters as transportation and parking.

The Planning Framework is one of a series of planning reports which together form the Long Range Development Plan for the Minneapolis Campus. The purpose of a Long Range Development Plan is to ensure that the physical environment, both natural and man-made, will suit the needs of its inhabitants, enable institutional goals and decisions to be realized, and help people to function easily in their surroundings. The plan is the vehicle to get things built or grown, maintained or preserved.

In broad terms the plan calls for:

1. Continued improvement of academic space through extensive renovation and some new construction coordinated with social, commercial, and common space facilities;
2. Development of passive and active recreational components of a consolidated open space system;
3. Full implementation of the parking, transit, auto movement, and circulation aspects of a recommended vehicular system plan.

Some specific aspects of the Planning Framework germane to this report are as follows:

Housing -- It appears that there is now a demand for student housing not evidenced during the past several years. As a first step towards the realization of an increased campus housing capability, a profile of avail-

able campus housing documenting the magnitude, type, age, and demand should be initiated to highlight student housing needs.

Transportation -- Automotive traffic, mass transit, parking, and bicycle traffic constitute major concerns of the transportation segment of the Planning Framework. Following are a few of the more specific concepts:

- Development of an East Bank ring road and construction of a bridge connection between the East River Road and hospital emergency facilities;
- Development of Remote Intercept Parking coupled with an extension of the campus transit system;
- Establishment of Right of Way and development of an exclusive transit-way between the East Bank and St. Paul Campuses;
- Development of pedestrian and transit malls on University-controlled streets and along Washington Avenue;
- A bicycle system which includes bikeways, parking and prohibited thoroughfare zones.

Not specifically addressed in the Long Range Development Plan Framework for the Twin Cities Campus, Minneapolis, but part of the general planning matrix for the entire Twin Cities Campus are the following:

Lighting, Signage, and Graphics -- Programs for improved signage, lighting, and graphics have been developed, with prototype installations occurring where funds have been available. These preliminary installations have led to the standardization of signage, lighting, and graphic elements for general utilization on the Twin Cities and Coordinate Campuses.

In particular, the graphics and signage programs have been documented in the "Graphics and Signage Standardization Program for the University of

Minnesota." This publication is intended to serve as a basic guideline for work occurring in both new construction and remodeling. It is particularly intended for use by consultant designers and architects to facilitate design programs compatible with established University design standards.

The positive aspects of unifying and upgrading the various elements of visual communications on campus have already been demonstrated. It is anticipated that these standards for signage, graphics, and lighting shall continue to perpetuate a unified and orderly appearance on the campuses of the University.

Aid to the Physically Handicapped -- An on-going program of making older buildings accessible to the physically handicapped has been in progress for some time. Curb cuts, ramps to entrances, special lavatory facilities, and wider doors are a few of the improvements. In 1973 the Legislature appropriated \$300,000 to continue these efforts. These funds have been committed to the removal of other existing architectural barriers, and thirty buildings on the Twin Cities Campus have been made either totally or partially accessible to the physically handicapped.

Facilities Utilization Study -- In response to a Legislative request that a study be made of the allocation and utilization of Minneapolis Campus facilities, the University engaged the consulting firm of Lester Gorsline Associates/Arthur D. Little, Inc. This study has been completed and the final report distributed.

Energy Conservation -- The on-going effort to conserve energy resources continues to make substantial progress. During the fiscal year 1974 - 1975, a further reduction of 2.5 percent in the consumption of heat and electrical energy was achieved in existing buildings on the Twin Cities Campus. This brings the total reduction in energy consumption to 16.1 percent when compared to the base year of 1972 - 1973.

The Physical Plant Department will continue its efforts to operate space at the lowest temperatures feasible (68<sup>o</sup> during the heating season) dur-

ing periods of occupancy and also operate at temperatures reduced to a minimum during nights and weekends. Ventilation will be curtailed during non-scheduled hours by the building systems automation center located in the Shops Building.

The Twin Cities Campus Energy Committee meets regularly to receive recommendations and make suggestions on achieving energy conservation. Efforts to educate the University community through user-awareness campaigns has met considerable success in the past and continues to elicit a favorable response.

Planning for the Health Sciences, first initiated on a concerted basis in 1966, continues. The Health Sciences Planning Committee meets on a regular basis to review all decisions and actions which relate to the continuing planning program. The Office of Physical Planning's Health Science Planning Office handles a broad spectrum of activities ranging from assistance in the preparation of state legislative requests and federal grant applications at the onset of projects to overseeing the completion of construction and the occupancy of newly constructed and remodeled facilities.

Based upon the 1969 Legislative support of the University's plan to increase health manpower education, planning has continued for the physical facilities which will accommodate the Health Sciences program expansion. Five major new units are involved in this program expansion, together with remodeling of existing areas to accommodate Basic Sciences departments, the School of Public Health, the Medical School, and University Hospitals:

Unit A, which has been completed and occupied, houses the School of Dentistry and provides some space for the Basic Sciences, the Medical School, and the School of Public Health.

Unit B/C will provide space for the Medical School clinical program, the Hospital Outpatient Department, and other supporting areas.

Unit K/E, the new Cardio-Vascular Research Center and the receiving

and storage facility for the Health Sciences Complex, has been completed and occupied.

Unit F will be occupied by the College of Pharmacy and the School of Nursing. Approval for funding has been received from NIH, and with Legislative funding construction would begin in May, 1976.

The Basic Sciences Remodeling of the Jackson-Owre-Millard and Lyons Complex relates closely to the increase in health manpower education and has received NIH approval for funding.

In December, 1972, the Board of Regents adopted the Long Range Development Plan for the Twin Cities Campus, St. Paul. Since 1972, the University's Office of Physical Planning has been detailing and implementing the development of strategies outlined in the Long Range Development Plan and updating the data base on which the plan is founded.

As part of the implementation of the St. Paul Campus L.R.D.P., the Office of Physical Planning is in the process of working out details for maximum use of the parking resources at the State Fairgrounds, adjacent to the Campus. The parking plan, when implemented, will allow the University to reduce the amount of on-campus land area required for auto parking, while responding to the community desires to reorient campus access and parking to the east as recommended in the master plan.

A study on the development potentials of the University of Minnesota property at Shoreview was prepared as part of a continuing effort to place this property in a long range development context. The Office of Physical Planning is in the process of developing a site analysis study indicating general physical features, zoning, and utilities, as well as recording and analyzing the natural features and aesthetic factors.



## COMMUNITY RELATIONS

Community involvement and participation is integral to University planning activity. Because of the University's substantial long range planning program over the last year, this involvement was necessarily intensified and expanded.

Community participation in University planning for the Twin Cities Campus, Minneapolis embraces three areas:

- The four residential neighborhoods of Cedar/Riverside, Motley/Prospect Park, U.D.I.A., and Como.
- The private institutions located adjacent to the West Bank Campus, Augsburg College, St. Mary's Hospital, and Fairview Hospital.
- The various public agencies and jurisdictions which must necessarily be involved in University planning efforts. Some of these are the City of Minneapolis, the Metropolitan Transit Commission, the Metropolitan Council, State and County Highway Departments, and the Minneapolis Department of Education.

Two community organizations adjacent to or in the vicinity of the University campus in St. Paul are the St. Anthony Park Association and the South St. Anthony Park Project Area Committee. The University maintains contact with both groups, the former through the citizen committees and officers, and the latter primarily through the professional staff. In addition, the Physical Planning staff meets with the University Grove Association, a residential group, to discuss various concerns.

The University staff maintains contact with various student housing agencies such as the Commonwealth Terrace Cooperative, a 500-unit housing complex on the St. Paul Campus, and the residents of the newly constructed Como Avenue housing in Minneapolis.

The University's Office of Physical Planning maintains communications with a number of public agencies with which University operations interact and, conversely, whose activities may impact on the St. Paul Campus.

Since the St. Paul Campus lies primarily within the City of Falcon Heights, University staff maintain contact with the administration and the planning departments of the City. Similarly, the City of Roseville maintains relations with the University staff, primarily in the area of utilities. Drainage patterns in the area are such that storm sewer connections overlap many districts.

The Roseville School District operates the schools in Lauderdale and Falcon Heights. University and School District staff exchange data and maintain communication in areas where change may have an impact on either institution.

A portion of the St. Paul Campus lies within the City of St. Paul. Frequent contact between staff, citizens, and City administrators occurs since development affects patterns of movement, drainage, water supply, and other matters of common interest.

The St. Paul Campus lies within Ramsey County which maintains two of the three main thoroughfares which serve the campus. Improvements and development along these routes impact both the University and the County, and the University maintains communication with appropriate County departments.

The State Fair shares a common boundary with the St. Paul Campus. As neighbors for over a century, both institutions recognize their common concerns such as traffic, land areas, and parking resources.

## PROJECT PLANNING AND CONSTRUCTION

### Minneapolis, Projects Completed:

HEALTH SCIENCES PARKING RAMP: This 2,000 car parking ramp was completed in the spring of 1975.

COMO HOUSING: This housing project for married students was completed in August, 1975, and all 276 units have been occupied.

### Minneapolis, Projects in Progress:

WEST BANK UNION: The project has been reprogrammed at a substantial reduction in area and cost. Consultants have been selected to complete the schematic design phase.

MUSIC BUILDING: Pursuant to a \$100,000 Legislative appropriation in 1973, a building program and cost estimate have been prepared, forming the basis for the 1975/1976 Legislative Capital Improvements Request for working drawing funds. A site on the West Bank Campus adjacent to the Rarig Center has been recommended by the Office of Physical Planning.

LAW SCHOOL: The new Law School, to be located adjacent to the Auditorium-Classroom Building on the West Bank, will house classrooms, the law library, faculty offices, courtrooms, and public service areas. In addition to Legislative appropriations in 1969 and 1975, one million dollars has been raised by private donations. Construction will begin in January, 1976.

UPGRADING FOR THE PHYSICALLY HANDICAPPED: A building-by-building survey has been conducted of the Twin Cities Campus and a map condensing this information has been prepared and distributed. Such improvements as access ramps to buildings, sidewalk modifications, and various modifications in bathroom facilities have been effected. An elevator is currently being added to Nicholson Hall.

COFFMAN MEMORIAL UNION REMODELING: Major remodeling of entrances, alterations to bring the building up to current code requirements, rehabilitation of elevators, remodeling of the central kitchen, dining areas, lounges, and student organization office space is currently underway. It is anticipated that work will be completed by the spring of 1976.

COOKE HALL/NORRIS GYMNASIUM REMODELING: Construction is complete on all phases of this project except for the south exit stair in Cooke Hall and the repair and rehabilitation of skylights which is scheduled for the summer of 1976 concurrent with reroofing the building.

EAST BANK BOOKSTORE/ADMISSIONS AND RECORDS FACILITY: This project is presently under construction with completion scheduled for the fall of 1976. A Federal grant to study energy conservation in underground structures has been received. This project received a 1975 national award from Progressive Architecture and the American Society of Landscape Architects. Application for another Federal grant to erect a solar collector on the roof of the building was submitted and preliminary funding for engineering work has been granted.

PRIMARY ELECTRIC, PHASE V: Work is proceeding satisfactorily with cable splicing 75% complete. The system will be on line for Zone 1 by mid-February with residual work completed by May, 1976. Completion of work for Zones 2, 3, 4 is anticipated by July, 1976.

HEALTH SCIENCES UNIT B/C: Funding has been established, construction has begun on the excavation phase, and steel has been purchased for this 15-story structure which will serve primarily the Medical School and Hospital Outpatient facilities. Completion and occupancy are scheduled for September, 1977.

HEALTH SCIENCES UNIT F: Funds were appropriated by the Legislature in 1969 and 1971, and NIH approval of funding for this building has been received. Construction funds are being requested from the 1976 Legislature. Completion and occupancy are presently scheduled for December, 1978.

BASIC SCIENCES REMODELING: The planning phase has been completed and the design work by consultants will be initiated shortly. This project will be financed with Federal grant and proposed State appropriations.

RENAL DIALYSIS UNIT, SOUTHEAST COURT: Construction on this project is nearing completion with over 90% of the work done. The facility will provide an efficient and adequately sized acute dialysis unit for patients admitted to the kidney transplant program.

MAYO - NUTRITION REMODELING: The planning phase is under way for remodeling required to accommodate an improved food service system for the University Hospitals. It is estimated that the project will cost approximately 1.5 million dollars and will be completed in the fall of 1976.

MAYO - STATIONS 60, 61, 7TH AND 8th FLOOR AIR CONDITIONING: This project is currently being designed. The total project is expected to cost approximately \$700,000 and will provide air conditioning for two psychiatric nursing stations as well as the rehabilitation center.

LAUDERDALE COMPUTER CENTER: Remodeling of this building, which also houses the Minnesota Educational Computing Consortium, is expected to be completed by the end of January, 1976.

St. Paul, Projects Completed:

ANIMAL SCIENCE/VETERINARY MEDICINE, PHASE I: This facility contains two auditoriums, classrooms, teaching and research laboratories, offices, and large animal holding facilities for the Department of Animal Science and the College of Veterinary Medicine. Construction was completed and the building occupied in December, 1975.

St. Paul, Projects in Progress:

CONTINUING EDUCATION BUILDING: This facility will contain meeting rooms,

food service, and office space for Continuing Education. It will also provide the initial link in the development of the enclosed pedestrian street connecting the proposed Fairground parking lot with the Campus as recommended in the St. Paul Long Range Development Plan. The project is currently in the working drawing phase; construction is expected to be completed in the summer of 1977.

GREEN HALL ADDITION: The schematic design for the Green Hall Addition, containing an auditorium, laboratories, offices, student lounge space, and an underground link to the Forest Products Building, is complete and forms the basis for the 1975/1976 Legislative Capital Improvements Request for working drawing funds.

HOME ECONOMICS: Construction is complete on the addition to the Food Science and Nutrition Building and the remodeling of Old Horticulture and the Dining Center. Phase II construction began in October, 1974 on the new in-fill building between McNeal and the Old Horticulture Building. Completion is expected in the spring of 1976 with occupancy scheduled for June, 1976.

VETERINARY MEDICINE, PHASE II: This project has been funded by the 1971 and 1973 Legislatures to complete planning through preparation of working drawings. Veterinary Medicine Phase II will be required to complete the physical plant expansion necessary to increase veterinary enrollment from 60 students per class to 120 per class. Facilities will include new construction, major and minor remodeling. Schematic design has been completed. A programmatic review has been initiated by the Administration.

LEARNING RESOURCES CENTER, PHASE I: The schematic design phase of this project has been completed, and funds to complete the structure are being requested from the 1976 Legislature. The facility will provide additional study stations, stack area, and new accommodations for the Instructional Resource Center currently occupying Temporary South of Coffey.

ADDITION TO ST. PAUL STUDENT CENTER: The Building Advisory Committee is

currently working with the architect on the development of the schematic design phase. At this time, a major portion of the building expansion is planned to occur underground linking the Student Center with Coffey Hall.

NUMBER SIX BOILER AND BUILDING ADDITION: As part of the Pollution Control appropriation from the 1973 Legislature, construction has begun on an addition to the #6 Boiler Building. Installation of a new boiler will be coordinated with the general construction work. Completion is expected in October, 1976.

ANIMAL HOLDING FACILITY: Foundation block walls and interior back filling have been completed; some bearing walls have been erected. Progress is satisfactory and completion is expected by July, 1976.

PRIMARY ELECTRIC, PHASE III: Cable has been pulled, and 9 of 19 transformers are presently in use. Strikes have caused delays but completion is estimated for May, 1976.

## DULUTH CAMPUS

### MASTER PLANNING

A major planning program similar to the one in St. Paul was initiated for Duluth in September, 1971. A Planning Advisory Committee was appointed and has held numerous meetings with neighborhood groups and public agencies such as the Head of Lakes Council, the City Planning Commission, and the State Highway Department. Faculty and students have also participated in these meetings.

In May, 1973, the Long Range Development Plan was presented to the Advisory Committee for review and comment. Two related reports -- the "Facilities Utilization Study" and the "Central Entrance Proposal" -- have been completed. A revised L.R.D.P. will be completed and presented to the Central Administration and the Board of Regents.

### COMMUNITY RELATIONS

In conjunction with efforts by the Duluth Campus administration, the Office of Physical Planning continues to maintain communication with city and neighborhood groups, including the Duluth City Planning Office, the Duluth-Superior Council of Government, the Duluth Transit Authority, the U.S. Department of Agriculture, and the Duluth Area District Office of the Minnesota Highway Department.

Relationships with all groups has been extremely good in implementing projects of mutual concern such as the City Fire Hall and the Junction Avenue Roadway projects.



## PROJECT PLANNING AND CONSTRUCTION

The following projects have been completed, are under construction, or are being planned:

**PHYSICAL EDUCATION FIELD HOUSE:** This building, which adds some 45,000 square feet to the physical education facilities on campus, including a 1/10 mile running track and an "infield" suitable for tennis, basketball, volleyball, and so forth, was completed in March, 1975. The building was the recipient of a 1975 Design Award from the Minnesota Society of Architects.

**CENTRAL ENTRANCE STUDY:** A study on the development of a major entrance to the Campus has been completed. Funding for the construction of the first phase is included in the 1975/1976 Legislative Capital Improvements Request.

**HEALTH SCIENCES LIBRARY ADDITION:** This project progressed through the schematic design phase, received approval by the Board of Regents, and was submitted in the fall of 1974 to the Minnesota Legislature under Section 7, Laws of 1973, for approval. Approval was granted in July, 1975, but the project is now being trimmed because of inflationary cost increases incurred during delay of the project. The current schedule calls for a construction start in the summer of 1976.

**BASIC MEDICAL SCIENCES BUILDING:** Schematic designs and design development documents have been completed. The project is scheduled to be completed in the summer of 1978.

**SOPHIE DUFRESNE CONCOURSE:** This project is designed to provide an enclosed concourse between Griggs, Burnside, Vermilion Halls and the Dining Center, with emphasis on handicapped access. This link will create an enclosed walkway between the dormitories and the academic buildings. Construction is scheduled to be completed during the spring of 1976.

## MORRIS CAMPUS

### MASTER PLANNING

Previous planning studies done for the University of Minnesota at Morris have provided useful background data for developing plans for specific areas of the campus. They will also be useful for developing updated planning documents consistent with the policies established for overall long range development planning and general University objectives.

### COMMUNITY RELATIONS

A number of community and regional issues in the past have required supportive assistance from the Office of Physical Planning in the Morris area. Highway plans for by-passing the developed portions of the community have required cooperation and communication between the Morris Campus administration and the Office of Physical Planning and the City of Morris, Stevens County officials, and the District Highway Department Office. In the course of general planning, on-going discussions between the City staff, elected officials, and University staff have been held. On occasion, the Morris Campus administration and the Office of Physical Planning staff have also made formal presentations to the Morris Planning Commission regarding campus plans and projects. Discussions have been held between the University and City representatives regarding the cooperative use and maintenance of the Morris Campus intramural fields.

### PROJECT PLANNING AND CONSTRUCTION

Since the 1975 Progress Report on Planning the remodeling of the Social Science Building has been completed, except for minor finishing work, and the building occupied.

## CROOKSTON CAMPUS

### MASTER PLANNING

An initial long range planning study for the University of Minnesota Technical College and Agricultural Experiment Station at Crookston was completed in 1971. To date, a data inventory has been formulated and reviewed by all interested participants. Work on specific areas of the campus continues as funding is made available. One of the primary planning concerns at the Technical College is housing, the demand for which exceeds present availability. Discussions have been and continue to be held with private developers regarding alternative solutions, but no action has yet been taken.

### COMMUNITY RELATIONS

A design-framework plan was completed for the Technical College and Experiment Station. Efforts are now being made to coordinate and inform the community of Crookston on the work and plans which have been done and to relate future developments and needs of the community and University. The College participates in a number of organizations such as the Crookston Joint Powers Committee, which is composed of the School District, City Council, City staff and the College. Although the Crookston administration retains the prime responsibility for exchange with the community, the Office of Physical Planning has assisted the Crookston Campus administration when required.

### PROJECT PLANNING AND CONSTRUCTION

The following projects have been completed, are under construction, or are being planned:

ENERGY CONSERVATION - DOWELL HALL: The initial work in Dowell Hall for energy conservation has been completed. This involved the installation of time clocks to control the large fan units operating on the air exchange system.

HANDICAPPED ENTRANCE - SELVIG HALL: A handicapped entrance on the west side of Selvig Hall has been planned; construction will be completed by Plant Services in early summer, 1976.

HOUSING STUDY: A study has been completed that identifies the demand and need for additional student housing units on the Campus.

## WASECA CAMPUS

### MASTER PLANNING

In 1971 a physical framework plan was developed for the University of Minnesota Technical College and Southern Experiment Station at Waseca to assist in the siting of additional facilities. This physical framework plan is a working document that requires continual re-evaluation and updating.

### COMMUNITY RELATIONS

A design-framework plan for the Waseca Campus and Experiment Station has been completed. Further development of the Experiment Station plans have been discussed with area representatives, however. The Waseca Campus administration is actively engaged in informing and coordinating campus development with the City of Waseca's plans and needs. The Office of Physical Planning lends support to this effort by providing staff and materials as needed. In addition, the Administration holds annual "neighborhood meetings" with adjacent property owners and residents to discuss common concerns.

### PROJECT PLANNING AND CONSTRUCTION

A housing study has been completed to identify the need for additional single student housing for the Campus.

## RESEARCH & EXPERIMENT STATIONS

### MASTER PLANNING

Planning at Research and Experiment Stations is organized differently from the Coordinate Campuses. There is a planning coordinator for the Research and Experiment Stations who serves as a liaison between their activities and the Office of Physical Planning. The goal of the Office of Physical Planning is to develop long range framework plans at each of the Stations for land use, circulation, and facilities development.

As the St. Paul Campus has developed, the Rosemount Agricultural Experiment Station has become increasingly important as a working arm of the St. Paul Campus, especially in the area of Animal Science and Veterinary Medicine. Departments having sites on the Rosemount Agricultural Experiment Station are Agronomy and Genetics, Animal Science, Agricultural Engineering, Plant Pathology, Soil Science, and the College of Forestry. Departments engaged in cooperative research include Horticultural Science, Agriculture and Applied Economics, and Entomology-Fisheries-Wildlife.

Because Rosemount is a valuable University facility conveniently close to the metropolitan area and possessing soil suitable for agricultural research, and because of its size and relationship to expanding communities south of the metropolitan area, it became apparent that master planning was necessary for the University to insure wisest use of this facility. The Office of Physical Planning is nearing completion of a Long Range Development Guide for the Rosemount property. The study is projected for completion in the spring of 1976. It has involved participation by University staff, faculty and students, public agencies, interest groups, private individuals, Regents, and consultants.

### COMMUNITY RELATIONS

University-Community relation activities at the research and experiment

stations are the primary responsibility of the respective campus administrations. The Office of Physical Planning, however, plays a supportive role providing technical expertise and assistance as required. The liaison between the campuses and experimental stations and the local communities and government agencies is quite extensive and involves program concerns as well as physical planning.

#### PROJECT PLANNING AND CONSTRUCTION

The following projects have been completed, are under construction, or are being planned:

Agricultural Experiment Station, Rosemount -- All projects reported in the 1975 Progress Report have been completed. These have involved remodeling of the dairy area electric service, completion of the electric service for grain drying research, installation of evaporative coolers in the Turkey Research facilities, replacement of wall furnaces at five locations, conversion of the dairy heating system from steam to hot water, completion of electric service to Agricultural Engineering, painting of the elevator leg and crop dryer, and reroofing of the Dairy Barn on the Veterinary Medicine Farm.

Northwest Experiment Station, Crookston -- Runoff Control of Animal Feedlots is scheduled for construction in the spring of 1976.

Sheep Facilities -- Work has been started by the Experiment Station crew after two years of planning for the Sheep Management Research Project. The approach is toward inexpensive housing. The minor buildings necessary to this research have been approved by the Board of Regents and reviewed by the Legislature.

North Central Experiment Station, Grand Rapids -- A second herdsman's residence, authorized in 1973, has been completed.

Bituminous surfacing of the East Entrance road has been completed.

West Central Experiment Station, Morris -- Construction of the Horticultural Soils & Agronomy Building has been completed, as has a bunker silo.

Heating systems have been replaced in the Swine Farrow & Finishing buildings.

Southern Experiment Station, Waseca -- New heating units have been installed in Swine Farrowing.

Bituminous surfacing of additional areas has been done, and a contract for tile laterals installation has been let.

Southwest Experiment Station, Lamberton -- New overhead doors in the Shop and Garage have been completed.

Cloquet Forestry Center -- Improved campus roads, surfacing, and lighting are scheduled for construction in 1976.

Remodeling of Cabin #40 has been completed.

Contracts have been let for the remodeling to update the sewage treatment plant. Completion is scheduled for 1976.

Lake Itasca Forestry and Biological Station -- The structural shell for a student cabin has been completed.

New heating systems in Cabins 1, 2, 3, 4 and Building #43 have been completed.

A contract has been let for the bituminous surfacing of roads.

Cedar Creek Natural History Area, Bethel -- A new electric service has been completed.



Sand Plains Irrigation Research and Demonstration Farm, Becker -- Construction of an equipment storage building has been completed.

Horticultural Research Center, Excelsior -- Negotiations are underway with the City of Chanhassen for connection of the sewer to the Metropolitan Sewer System.

Construction of six wild rice paddies has been completed, and the greenhouse has been reglazed.

Landscape Arboretum, Chaska -- Greenhouse and Headhouse facilities have been completed, and a hoop type greenhouse is under construction.