

INTRODUCTION

Contained herein is a summary of planning recommendations for the long term growth of the Oakland University Campus in Rochester, Michigan. These thoughts represent many hours of discussions with University officials and students, as well as testing in the field as building projects were developed during the last three years. Although adjustments will be necessary, we feel this plan offers a clear and basic physical expansion framework. The cooperation and patience of the many people involved in this effort is greatly appreciated and hopefully it will serve as a continuing reference for making wise planning decisions in the future.

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Johnson, Johnson & Roy, Inc.

"Creating and maintaining an effective community of learning" is a statement included in Oakland University's goals. The gift of a beautiful parcel of land in 1957 by Mr. & Mrs. Alfred G. Wilson has proved to be a significant contribution to the idea of an "effective community of learning". The quality of our environment appears to have a definite relationship to the quality of learning. The beauty of the natural land that captures the attention of students and instructors alike at Oakland is outstanding and unique. Every effort should be made to provide an orderly framework for efficient university expansion while at the same time protecting and utilizing the qualities of this natural landscape. Accordingly, the study represented by this report has attempted to illustrate how Oakland University can efficiently and effectively grow while taking advantage of the inherent beauty of its site.

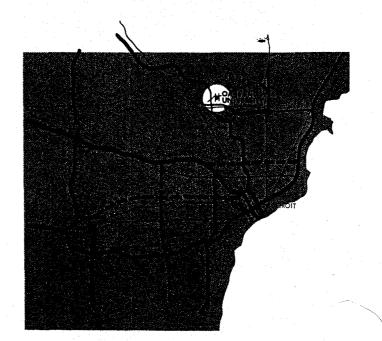
Oakland University has become a study in contrasts, from rural meadows to an intensive academic center accommodating the commuting student with his car and the resident student in his "home away from home". The University entices the theater goer and the concert lover, as well as the naturalist and the sports fan. Its very existence draws to its edges new commercial and residential development marking a consistent shift from a rural landscape to an urban scene. The expansion of a university is in a larger sense the growth of a community. As time goes by it will be increasingly difficult to distinguish the physical problems and quantitative needs of Oakland University from those of the community as a whole.

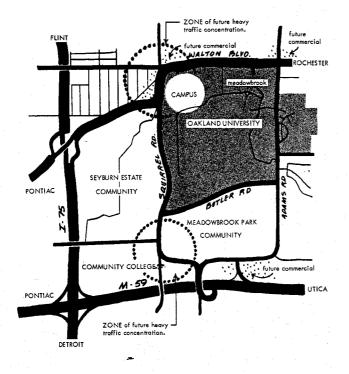
EXISTING SITUATION

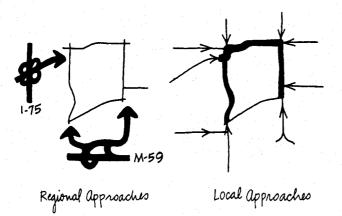
REGION

Oakland University is located near Rochester, Michigan in the northern growth corridor of the Detroit metropolitan area. Extensive urban development is predicted for this corridor by Planners studying future land use patterns for all of southeastern Michigan. Over 4.5 million people now reside within the metropolitan area with the figure expected to nearly double by 1990. The campus is located within a distinctive regional recreation belt of great natural beauty and can be readily linked to the region through the proper development of this recreational opportunity. The Meadow Brook Theatre and Baldwin Pavilion on the campus draw visitors from throughout the region.

The regional transportation system orients to Detroit, Pontiac and Flint with the main arteries in the vicinity of the campus being 1-75 and M-59. No other regional routes having a direct bearing on campus traffic are contemplated by State or local highway engineers in the immediate future.







COMMUNITY CONSIDERATIONS

Land adjacent to the Oakland University Campus will very likely be developed in a manner compatible with the interests of the University. Totally planned communities complete with low to medium density housing, commercial plazas and recreational facilities are proposed for land to the west and south of the campus. Land to the east and north is zoned principally for single family residences, with a shopping center planned for the northeast corner of Walton Boulevard and Adams Road. Two parcels of University property have special meaning to adjacent land areas in the influence which the University can exert on the uses assigned to these areas; these parcels are the thirty-three acres west of Squirrel Road, and the somewhat isolated southwest corner of the campus.

The majority of motorists bound for the University or surrounding communities enter the campus area from the west, over University Drive from 1-75. Major improvements proposed for roads surrounding the University will allow motorists not destined for the campus to travel around it with minimum interruption. New alignments for certain key routes in the vicinity of University Drive and Squirrel Road may be necessary, however, to alleviate expected traffic congestion in this area.

SOILS

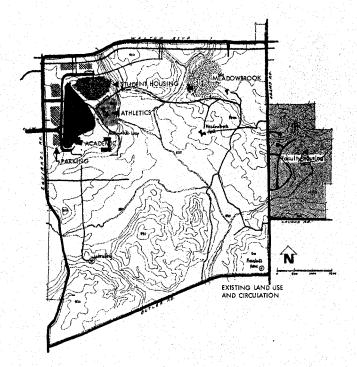
Seventy percent of the site is a high, rolling, well drained moraine with soils varying from loams to sandy loams, well suited for development. Another sixteen percent of the site occurs as long, narrow strips of level land lying between the hills and creek bed on the outlet drainageways near Butler Road. These areas consist of droughty, sandy and gravelly soils, also with excellent development characteristics. Soils in the bottom of ravines and portions of the central basin consist of stratified sands, gravel and silt deposited by glacial and flood waters. Adequate drainage and flood protection are necessary if these areas are to be given intensive use. Five percent of University property is comprised of muck, having a low bearing capacity and presenting an impediment to construction. Muck is almost always removed before construction begins, unless filled over with clay soils for recreation areas.

EXISTING LAND USES & CIRCULATION

Initial campus planning studies centered the original campus development on plateau A in the northwest quadrant of the site. Academic buildings occupy the center of the plateau with the library on the highest point. Housing and Athletics occur to the north and east respectively. Present parking areas are concentrated along Squirrel Road and Walton Boulevard effectively allowing automobiles to be parked before reaching the pedestrian campus. Interconnecting the parking lots is a campus service avenue paralleling the north and west campus edges.

The pattern is a simple one and a sound one. A major inconsistency is the continuation of an automobile loop across the campus plateau. It causes dangerous interruption in the pedestrian flow to and from housing areas on the north. Every effort should be made to avoid this kind of automobile mix with the internal campus.

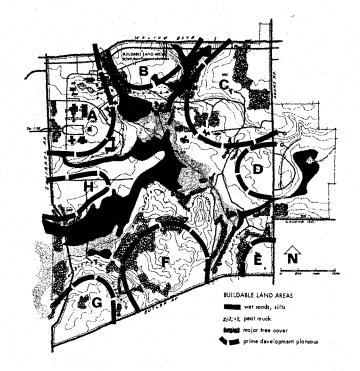
The Meadow Brook arts and cultural area occurs on plateau C at the northeast corner of the site. It contains Baldwin Pavilion, home of the Meadow Brook Festival and Meadow Brook Hall, former home of the Wilson Family. The President's residence is located on plateau E, while the Charles F. Kettering Magnetics Laboratory is located on the slopes of plateau G. The remainder of the site other than a 10 acre private holding is not yet committed to any particular use.



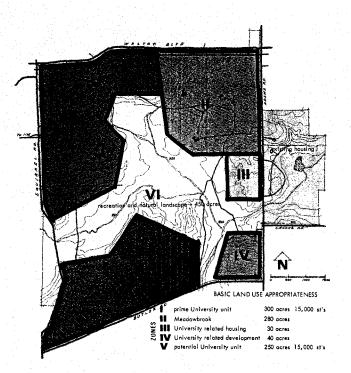
THE SITE

Topography divides this 1600 acre site into several distinct and recognizable hilltops and valleys. The character of the land area is particularly marked by rolling hills and magnificent views. Only two hundred acres fall outside of the four major community avenues which bound the site and this occurs to the east of Adams Road. Prime building zones A-G are the upland plateaus and range in size from 30 to 250 acres.

Red and white oaks dominate the scattered upland wooded areas. The valley floor features willows and thick groves of wetland shrubs and grasses. Years of farming activity has introduced patches of fruit trees, hawthorne, elm and maple. The Galloway Creek Valley has recreational and educational use value but presents two hazards: 1) water quality is unsuitable for water contact and 2) flooding may occur during particularly wet seasons. It is possible that one or more carefully located dams could bring more flood control to high water seasons while creating small lakes for recreational and educational use. Stream control measures will change the ecology of an area and the ramifications should be carefully measured before any impoundment is considered.



LAND USE APPROPRIATENESS



Considering natural land characteristics and certain land use commitments, following are some basic implications on long range land use developments:

Zone 1. Already the prime University campus unit, this zone is composed of plateaus A, B & H. Consisting of approximately 300 acres it can accommodate approximately 20,000 students as a total working unit, assuming significant increases in building density. Beyond 20,000 students, auto circulation needs, parking demands and building density implications would call for extensive adjustments in several aspects of institutional development, i.e. multi-level parking, inter-connected buildings and higher-rise structures.

Zone II. The Meadow Brook Festival and concepts of future related developments ought to take form on plateau C, an area of great natural and manmade beauty. It is important that future development here relate strongly to the natural beauty of the Galloway Creek valley, Zone VI.

Zone III. This land area could well contain housing accommodations for faculty and married students along the lines of apartments and townhouses. It could serve well the residential needs of Meadow Brook.

Zone IV. The most separable of all land units, this zone suggests a distinctive or particularly unique University related function.

Zone V. Potentially, a second major campus development unit similar in capacity to Zone I. Special care should be taken not to pre-empt this potential by spotty and premature University development.

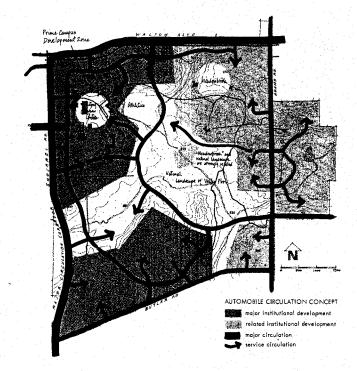
Zone VI. Largely wetlands and poor soils this is a land area calling for particularly sensitive development due to its delicate ecological balance and great value as a natural preserve. Beyond the recreation uses already committed, special study should be made of the natural forces at work in this valley prior to any further development intrusion.

AUTO CIRCULATION CONCEPT

The bulk of acreage available for long-range development occurs on the western half of the site and a simple interior loop road is shown embracing this major buildable area. It extends from the loop pattern already implemented in the northwest corner. Such an interior loop road allows good access to all edges of the development plateaus without traversing through them. Major community circulation can then occur separately on the circumferential streets: Squirrel Road; Walton Boulevard; Adams Road; Butler Road.

Interconnections between the inner loop road and the outer circumferential community streets should occur frequently. Two major ones interconnect both legs of the interior loop as well. Crooks Road is shown extending westward to connect with the inner loop.

For the prime campus development zone in the north-west quadrant of the site a simple loop system is shown which can be extended into the larger system when and if needed. Any future roadway development in the interior should be preceded by a study of pedestrian/bicycle circulation needs and natural resources needing protection.



BASIC PLAN CONCEPT

Three particular factors, 1) future program projections, 2) characteristics of the land and 3) patterns already developed, combine to suggest guidelines for Oakland University's long range physical development.

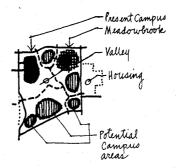
Projections show an increasing enrollment of up to 25,000 students, mostly undergraduate, with one parking space for every other student. One-half of the students may also live on campus taking advantage of the cultural and recreational attributes built into a University community. Such development will pull with it other related private and public investments of no small magnitude on the edges of the University i.e. shops, theaters, churches, offices and related research, as well as capacity increases in streets, sewers and other community services.

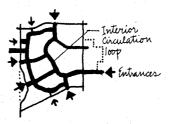
A careful assessment of land characteristics reveals an inherent beauty that is especially in accord with Oakland University's concept of a learning environment. But expansion threatens the very beauty that helped to draw it here in the beginning. That threat can be greatly lessened by first bringing attention to the natural patterns of the land and then developing roads and buildings in accordance with those patterns. Careful campus development can retain the trees, slopes, streams, bogs and wildlife inherent on this beautiful land.

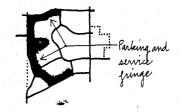
Development patterns to date have already suggested a concept of unitized campus development in relationship to the many natural units of land. "Precincts" or "neighborhoods" of University development should be carried into the future because they not only respond to the natural landscape but help a large institution to seem smaller and more easily comprehended by an individual.

To prepare for increasing use of the automobile, university traffic should be sorted out as a distinctive system from that of the general community. A parking system should allow the inner campus to be free of pedestrian conflicts. A surface parking system should be convertible to a multi-level system without major changes in campus land use patterns. These plan characteristics have basically been established in development thus far on the campus and seem adaptable to further expansion.

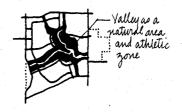
How far can one be expected to walk in ten minutes? This capability should be a strong consideration in limiting the spread of buildings over the land-scape. But generally in campus development it has been difficult to achieve a compact campus and a lot easier to allow a campus to spread out. At Oakland the major land units fit comfortably within a ten minute walking radius. Every effort should be made to bring about more efficient building density, thereby increasing capacity in a more compact building area.

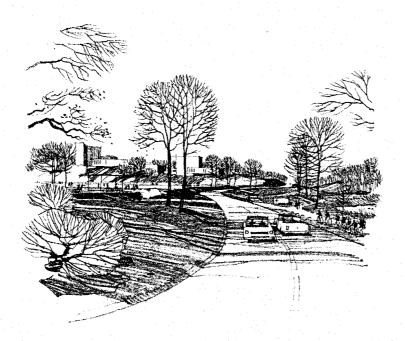










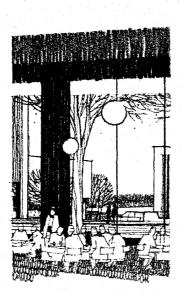


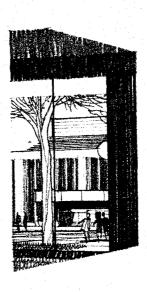
CAMPUS CHARACTER

Future campus development patterns will be urban-like for Oakland University. And yet it can feature the natural character inherent in its land if care is taken. Two illustrations on this page express the high-contrast character: one looking out from a highly developed, compact building area to glimpses of natural landscapes beyond and another from the valley looking back at a developed plateau.

Open space areas in the future will include carefully maintained landscapes for recreation and walkways but also included should be a carefully protected fabric of existing stream edges, bogs and wooded slopes. Here native local wildlife and a great variety of native shrubs, vines and flowers can continue to enhance a necessarily urbanizing area. It will take a special planning and development discipline to effectively retain a natural landscape within such a high density university development.

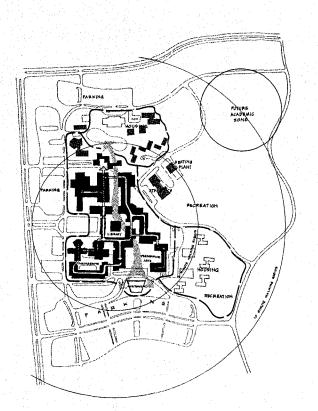








PLAN CHARACTERISTICS



The focus of development over the next few years will be an expansion and consolidation of the north-west quadrant into a complete campus unit of as many as 20,000 students. This includes development of the small northeast plateau sometimes referred to as "north campus". The plan diagram illustrates the nature of a tighter-knit campus development needed to accommodate the projected enrollment. Note that the plan suggests interconnecting buildings to the point that they may contain portions of the pedestrian circulation system. However, due to separate programming and budgeting, as well as different construction timing of functional units in the future, it may not be possible to join buildings as positively as shown. But every effort should be made to maximize the usefulness of excessive open space between separate buildings on campus and bring future buildings closer together in a carefully designed and unified way.

The plan also illustrates a major pedestrian corridor running north and south through the major academic functions. It need not be a large open space throughout but should feature an occasional larger area developed in the spirit of an urban plaza. Occasionally the pedestrian way may even be bridged by enclosed connections between buildings. The north terminus is the existing pond which centers in the housing area and the south terminus is proposed as a large plaza surrounded by future additions to Engineering, the Library and the Performing Arts Center including a major auditorium.

Additional housing occurs on the southeastern slopes of the plateau with an active recreation area immediately adjacent to the east.

Major athletic fields are shown in the valley floor expanding to the east. It is felt that a future major athletic events building and/or stadium would best occur to the south near the more extensive parking facilities.

The parking system follows the ring road and a major penetrator route on the south. The parking shown accommodates approximately 7,000 cars. Note that the only road removal is that portion of road that now cuts across campus between the pond area and the Physical Education building.

Central power facilities are shown located just to the northeast of the Physical Education building. It is a central location allowing for an efficient extension of service lines throughout the campus.



Looking east, a cross-section of the major parking lot to the south shows an auditorium on the far left as well as the upper approach drive to the Performing Arts Plaza. The trees mark a major pedestrian walkway moving north-south through the parking lot along the auditorium and into the campus to the left.



STATISTICAL SUMMARY

The following figures pertain to the proposed development plan for the northwest plateau together with projections for the land immediately to the east of this plateau. Parking lots along Walton Boulevard and Squirrel Road can be effectively softened from the driver's view if the earth is raised slightly and planted with a combination of flowering trees and shade trees. Special up-lighting at key points could enhance nighttime effect and filter the harshness of parking lot lighting.

PROJECTED ENROLLMENT, F.T.E. STUDENTS	20,000
ACADEMIC ZONE Approximate area, acres	77
Gross floor area, square feet Floor area per student, square feet Floor area ratio (F.A.R.)	3,800,000 190 1.13
Ground area coverage, square feet (assumes average building height of four floors) Ground area coverage (G.A.C.)	950,000
PARKING Land area, acres Total number of surface spaces Spaces as percent of enrollment	60 7,200 36%
SINGLE STUDENT HOUSING ZONES Approximate area, acres Average number of students to be housed per acre Total number of students to be housed Percentage of enrollment	70 110 7,700 38%
Gross floor area , square feet Floor area per student , square feet Floor area ratio (F.A.R.)	1,850,000 240 .61

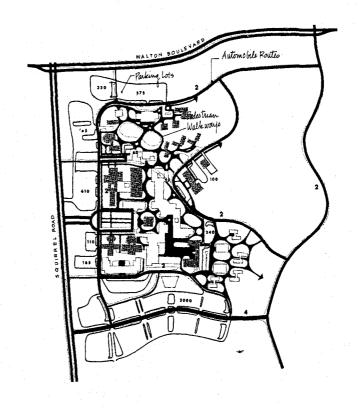
BASIC CIRCULATION NETWORK

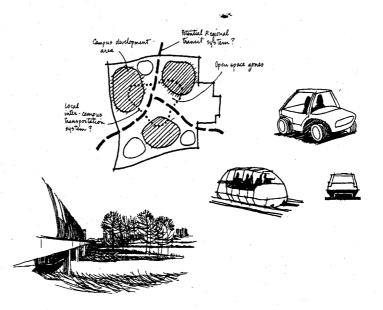
Automobile routes and parking. Indicated on the diagram at left is the basic circulation system needed to serve this quadrant of University development. Development beyond this point will very probably call for roadway extensions as indicated. Number of lanes are also indicated. Existing and proposed parking areas are indicated with the number of cars in each. The large area to the south constitutes one of the few generally level areas that is not prime development area. It is likely that this lot will provide for storage parking needs. Eventual stages of development may call for the covering of the smaller lots with 2 or 3 decks of additional parking in relation to unforeseen building densities.

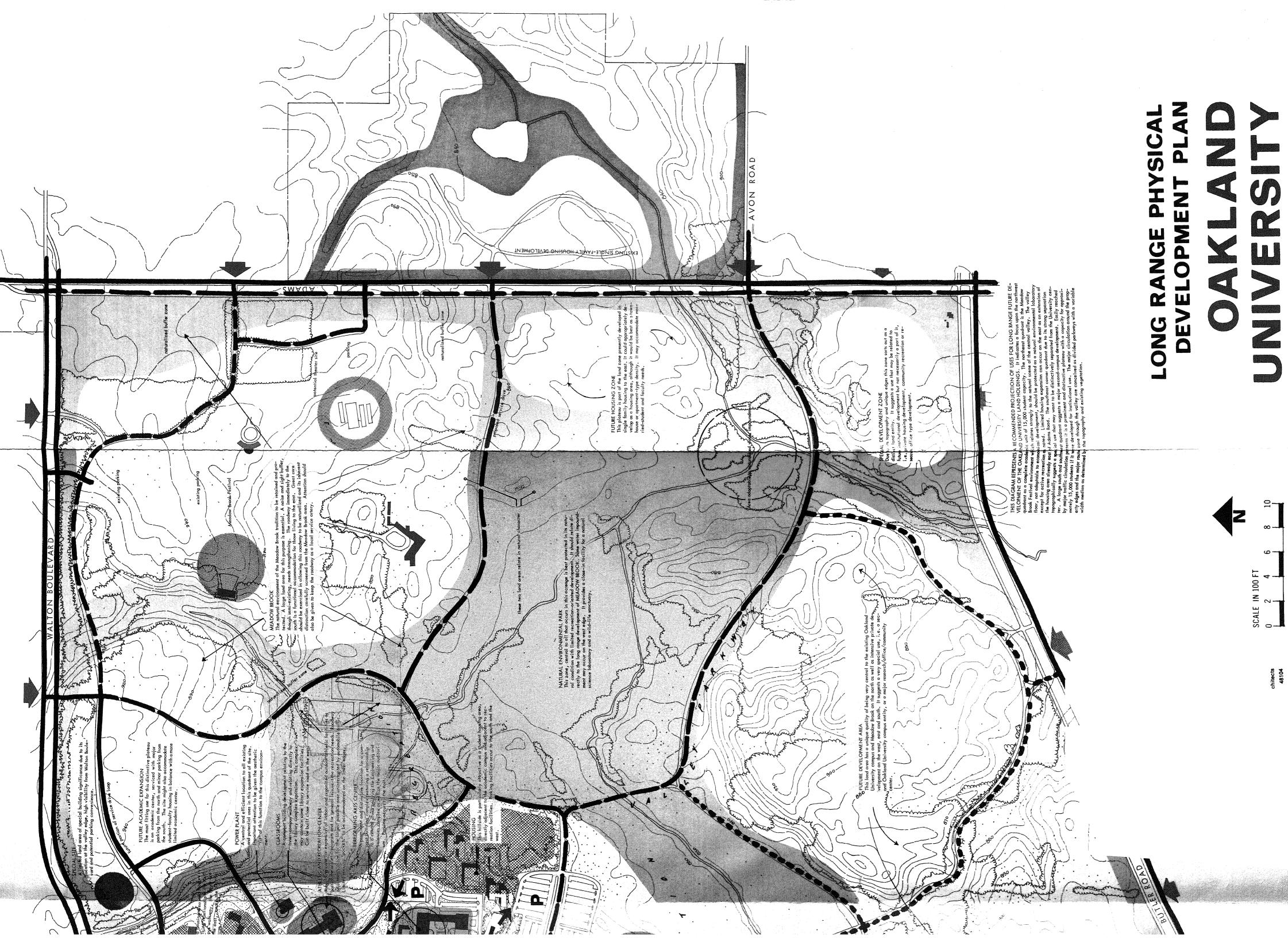
Pedestrian routes and bicycle paths. Summarized also on the diagram is the major pedestrian system for daily University function as well as points of extension into recreation trails. Bicycle paths parallel these walks normally but would need separate and special marking.

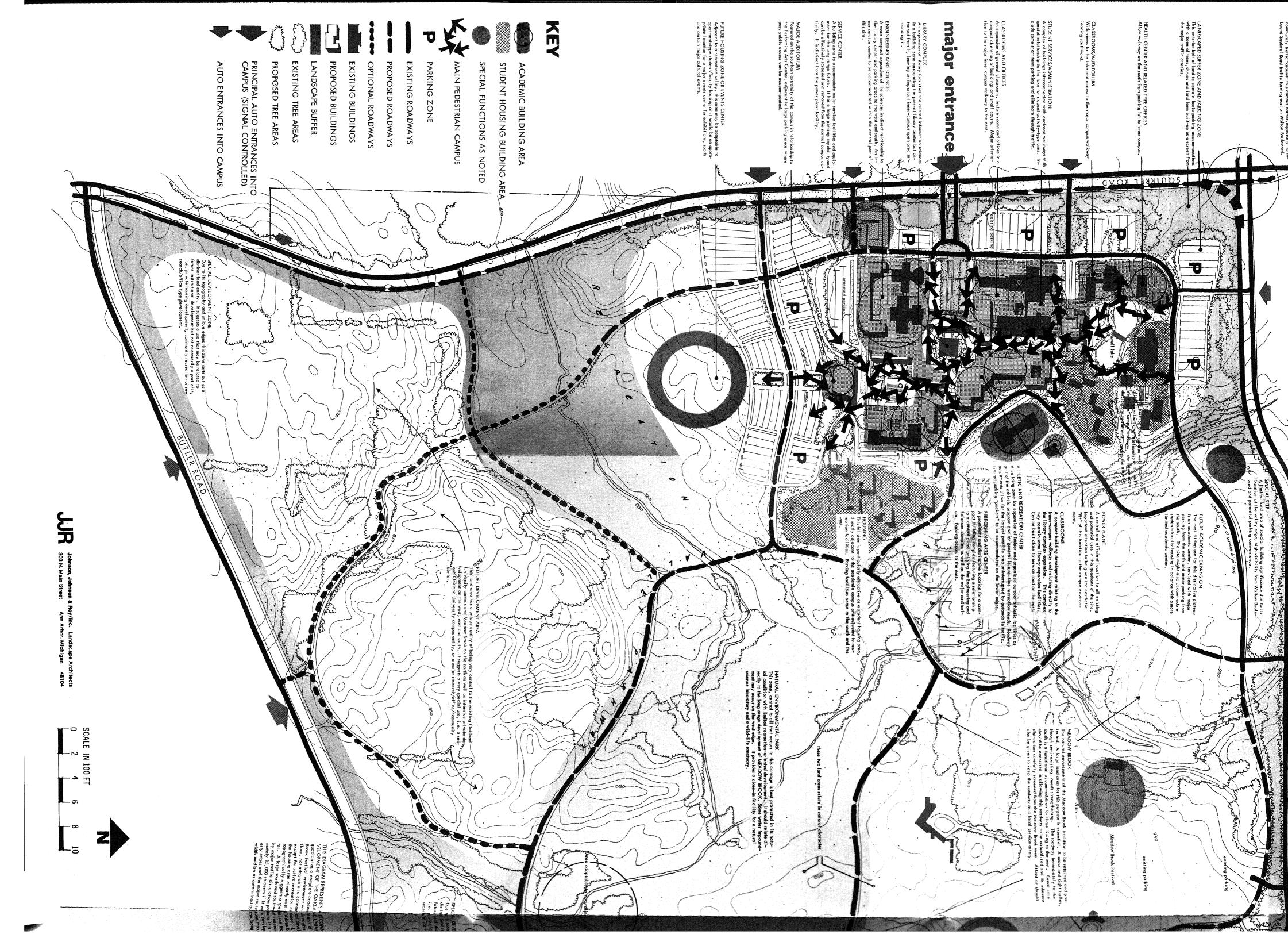
Other transportation modes. In the relatively near future there will emerge a growing variety of transportation systems some of which will probably meet the needs of the large University and its extended campus. They will be quiet, flexible and economically feasible. Interconnecting a campus development of 1500 acres with a frequent, rapid and high capacity linkage would be a likely task for such a device. If so, the open space system in this projected plan could conceivably accommodate such an inter-campus transportation device.

At another scale, interconnecting communities, universities and business districts in a regional dimension is a need that may be relieved by rapid transit devices. Again, it is conceivable that the central open spaces inherent in this particular campus plan could allow such a regional transportation system to effectively serve Oakland University.









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