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CAMPUS MASTERPLAN

For the State of Iowa

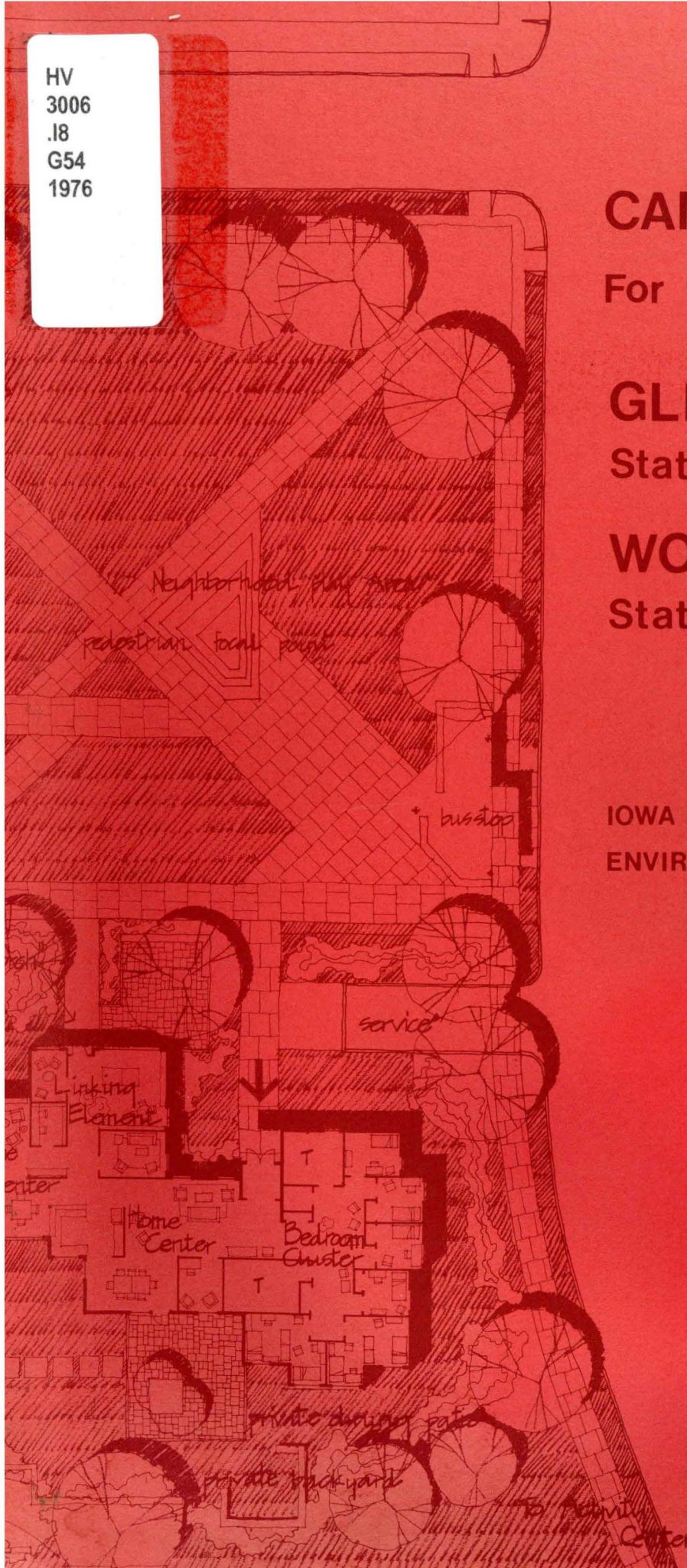
GLENWOOD

State Hospital School

WOODWARD

State Hospital School

IOWA DEPARTMENT OF SOCIAL SERVICES
ENVIRONMENTAL DESIGN GROUP



CAMPUS MASTERPLANS

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14 Arrow Street, Cambridge, Massachusetts 02138

Foreword

The following pages describe events which are allowing Iowa to participate in Title XIX, a federal program which promises major new support for retardation services which can be brought up to a strict level of federal standards. The story focuses on Glenwood and Woodward, the state's two Hospital Schools and the ways in which developments there are being coordinated with plans for a full array of state and community-based facilities. Architects have already begun work on the first of many campus improvements outlined in this document -- construction of 10 new residential-scale living units on each campus.

These campus masterplans must be read in the context of two other documents which describe steps the Department of Social Services has taken to bring a broad range of facilities into the Title XIX program. Statewide Policy Planning documents statewide coordination of Title XIX by a Policy Planning Group. Model District Planning (DSS/EDG) describes a major step forward in implementation of a community network of retardation services -- preparation of District level plans coordinating development of all retardation services within the area.

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PROJECT STAFF

Campus masterplanning was carried out as part of a larger project, by the Environmental Design Group, Inc., Cambridge, Massachusetts (Gerald Robinson, Director) aimed at statewide coordination of Iowa's entry into the Title XIX program.

Work presented in this document was carried out by Linos Dounias and Richard Krauss, Project Managers, and Gary Davis, Curt Lamb and Charles Norris, Project Architects and Masterplanners.

Environmental Design Group^{Inc.}

14 Arrow Street, Cambridge, Massachusetts 02138 • 617-868-6850

May 28, 1976

Kevin J. Burns
Iowa Department of Social Services
Lucas State Office Building
Des Moines, Iowa 50300

Dear Commissioner Burns:

This report documents an ongoing process of campus improvement designed to qualify state services for participation in the Title XIX Medicaid program. Its first section, "Statewide Policy Planning", describes how campus improvements are related to system-wide issues of deinstitutionalization, service access and quality of care. A second section, "Campus Planning", describes how decisions concerning the ultimate size of the campus and the kinds of persons it will be serving impact campus development. Sections on "Campus Design", and "Residential Environments" then translate these inputs into comprehensive campus masterplans which coordinate new construction, renovation of existing buildings, and improvements to campus landscaping and organization. The first step called for in the Masterplan, construction of new housing for 160 residents on each campus, has already begun. It is hoped that the analysis and guidelines presented here will help inform the process by which further improvements are charted and carried out.

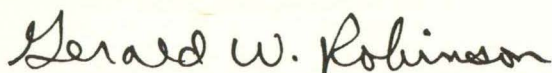
These Masterplans are the product of many hands. Thanks go first to the countless participants in state, district and local planning efforts whose attention to state policy and the development of community services set an appropriate context for improvements on the state school campuses. (Results of these efforts are documented in companion reports.)

Most important to the quality of these Masterplans was the high quality of ongoing planning efforts at Glenwood and Woodward, the State's two Hospital Schools. Campus administrators, program directors, engineering staff, and direct care workers at both campuses gave selflessly of their time and insight during the masterplanning process. Thanks go, as well, to the residents, parents, support staff, and catchment area representatives involved in the "Ecologue", design outreach process.

Dedicated backup by the Department of Social Services was essential to successful completion of campus masterplanning. Especially important were efforts by the Central Office ICF/MR Task Force; Nicholas Grunzweig, Director Division of Mental Health Resources, and the Office of Architecture and Engineering Services.

Material in this report documents completion of masterplanning and campus design tasks outlined in Sections 4.2 and 4.4 of the Environmental Design Group's contract amendment and extension with the Department relating to the Iowa State Medical Assistance Program.

Sincerely,



Gerald W. Robinson
Project Director

GWR:jw

How to Use This Document

for policy setting

The next few years will see much debate concerning the future of Iowa's Hospital Schools for the retarded. At issue will be the size of these facilities, the kinds of persons they will be asked to serve, and the relationship of activities there to a hopefully growing network of community based programs. This document describes how the State has arrived at a first set of decisions concerning these issues -- who was involved, what points of view were put forward, what background analysis was undertaken, which issues were closed, and which left open for later decision. Those elected officials, public employees and private citizens involved in the ongoing process of deciding these issues will find Section I, "Statewide Policy Planning," and Section II, "Campus Planning," of special interest.

for campus design

Title XIX will enable major physical improvements at Iowa's State Hospital Schools. Architects have already been hired to begin a process of change that will be going on for many years. This document describes a great many suggestions concerning campus layout, residential siting, new residential construction, building re-use, and landscaping that will be of interest to persons involved in the ongoing improvement process. Of special interest in this regard are Sections III, "Campus Design," and IV, "Residential Environments."

for information on
future developments
at the state hospital
schools

The changes going on at Glenwood and Woodward will affect the lives of a great many people -- residents, parents and friends, staff, prospective employees, affiliated professionals. Although constantly shifting political, economic and legal developments keep the future well veiled, this document describes the best thinking at present about physical improvements that will take place on the two campuses over the next several years. The Table of Contents will help direct interested observers to sections of special interest to them.

PART I.

STATEWIDE POLICY PLANNING

INTRODUCTION

Planning major improvements at the State Hospital Schools raises many questions about state retardation services more broadly: will Glenwood and Woodward be serving more or fewer persons in the future? Will the 5,100 persons now receiving residential services off campus benefit from Title XIX as well? Should the state undertake new construction or rely on renovation of existing structures?

The first part of this chapter discusses issues such as these which the state faces in bringing its two State Schools into the Title XIX program, and describes decisions already taken to shape developments in appropriate ways. Later sections describe the decision-making process set up to deal with these issues on an ongoing basis.

Issues in Statewide System Planning

community/campus
balance

The State Hospital Schools are one among many services available to Iowa's retarded citizens. In addition to the many educational programs now being offered by the state's Area Education Agencies, there are foster families, nursing homes, county care facilities and private programs which offer residential care. The State has committed itself to balanced growth among these various sectors.

Early in its deliberations, a statewide mental retardation planning group set up by the Department (see next section) recommended that Iowa undertake the development of a comprehensive, statewide mental retardation care system as a part of its Title XIX ICF/MR program. In response to this request, the Department began a concentrated mental retardation planning process at the community level to assist in development of community-based services throughout the state. Planning was grounded in demonstration models, now completed by two of the state's 16 Social Service districts. The planning had two goals: 1) integrating viewpoints of state planners and financial decision-makers with those of local groups responsible for program implementation; and 2) preparation of systematic seven-year plans for each district to define steps necessary to implement a coordinated system of retardation services.

Two further Departmental initiatives will help keep campus and community developments in balance. A Committee on Licensure and Certification, including representatives from the private sector, county government, and appropriate state agencies, has been convened to recommend standards for admitting local public and private facilities into Title XIX, analyze the difficulties private vendors face in the development process, and suggest ways the state can provide technical assistance to potential service providers. Following the submission of this committee's report, the Commissioners of Social Services and Public Health established an inter-agency committee to turn its recommendations into departmental guidelines and regulations.

The Department has taken steps to analyze the fiscal implications of broader participation in the Title XIX

program. Strategies have been developed which utilize existing sources of support to keep state involvement from escalating at an unacceptable rate. The target population needing ICF/MR residential services has been identified, thus setting a finite and manageable limit on expansion of the program. Mechanisms are now being sought to allow federal support to be added to existing funding with a minimum of additional expenditure. Project approval points such as those provided by Health Agency reviews (1122) and the Departmental District Plans will help keep development orderly. While Districts have been asked to plan comprehensively, they have been told not to count on increased state support before fiscal year 1978.

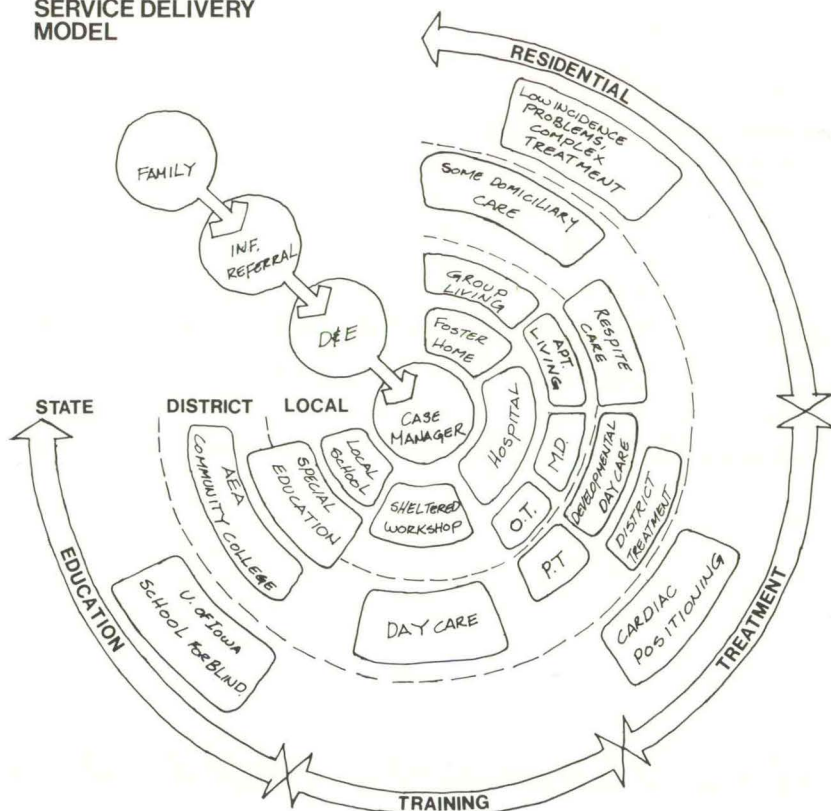
The issue of campus/community balance is not a new one for the State Hospital Schools. Both Glenwood and Woodward have taken steps to improve the quality of services throughout their respective catchment areas. Woodward, for example, has set assistance of community program development as one of its major policy goals, including

- increase in parent training
- increase in technical assistance to program operators
- increase in training of community MR facility staff
- increase in selected direct services to mentally retarded persons in the community.

Woodward's relatively low population is due, in part, to an aggressive policy of community placement. Its short-term care unit, presently located in the Medical Center building, is a model of how a state school can help community services by dealing with unusual training and educational problems on a short term basis. Glenwood's strong followup on discharged residents helps monitor program standards in its catchment area by providing the highest possible standards of care. Glenwood staff feel they can set a high level of "minimum acceptability" for community facilities. Programs that do not offer services equal to those at the State Hospital School will be hard pressed to compete for clients. Glenwood also provides a wide variety of in-service training opportunities for community-based staff.

Advocates of community-based services have their own perspective on the balance of campus and community-based services. The ideal model from their point of view is one that places responsibility for client intake and case management at the District level. Services would be local and generic where possible.

**LOCAL, GENERIC
SERVICE DELIVERY
MODEL**



The State Schools would have an important, but limited, role in this system -- responsibility for persons with low incidence problems needing complex and specialized treatment. Community representatives recognize the valuable services they are receiving from the State Schools -- high quality diagnosis and evaluation, emergency care of cases too difficult for local programs to handle, and ongoing residential services for those in need. At the same time, they point out, when local programs are desperately in need of encouragement and financial support, the State Hospital Schools will receive the total appropriation for fiscal year '77 and all of the first wave of Title XIX reimbursements. There is a concern that overly rapid improvement of campus facilities and programs will keep community programs from taking a leading role in a statewide network of services.

The ultimate balance between community and campus programs will be a complex one. The task of structuring that balance has just begun. Key questions remain unanswered. Which sector will receive priority in funding over the next few years? How much will the State Hospital Schools be involved in developing, managing and monitoring community services? Will a state-mandated placement policy help guide program development in the

campus and community sector?

It is easy to make plans for the future, much harder to ground those plans in a strategy for funding improvements in a sustained way. The masterplans presented here should be understood as one part of a larger plan to bring Iowa into the Title XIX program, an important new source of money to support quality retardation services for the state.

funding of improvements

Title XIX, better known as Medicaid or the Iowa Medical Assistance Program, is part of the Social Security Act. The source of the current attention is a 1972 Amendment which permits the Federal Government to reimburse states for services provided in Intermediate Care Facilities for the Mentally Retarded. The programmatic strength of Title XIX ICF/MR is that it requires each mentally retarded person to be in an appropriate program with an individually tailored plan of treatment. The fiscal strength of the program is that it allows states and qualified private facilities to claim 57% reimbursement for cost of eligible services.

The Department has long desired to include the Hospital Schools in the Title XIX State Plan, thus permitting federal federal funds to be used to help the Hospital Schools reach accreditation level. Until recently, this has not been possible, primarily because of the substantial increase in state appropriations that would be required to meet the Title XIX standards. Early federal regulations called for "maintenance of effort": in order to claim reimbursement, the state's contribution to a program had to exceed its existing appropriation. In other words, new state dollars had to be put into the program before reimbursement was possible.

In January, 1975, the maintenance of effort requirement expired,affording the state the opportunity to go for certification of the Hospital Schools within the existing budget. Other changes in federal legislation occurred: liberalization of SSI eligibility to include the mentally retarded, potential decertification of existing intermediate care facilities retaining inappropriately placed mentally retarded persons, and broadening of the regulations to remove the upper limit on payments to the mentally retarded. These changes prompted the Department to reconsider the potential of Title XIX and conclude that with an all out effort, Title XIX funds could be obtained to support the operation of the Hospital Schools at accreditation level.

When this concept was presented to the legislature, the Appropriations Committee of the 65th General Assembly

responded with a directive that the Department move toward certification. Further legislative support was contained in House File 989 (See Appendix 2) which created the "Hospital Schools revolving fund" to be "used for projects at Glenwood and Woodward Hospital Schools... (to) bring the Hospital Schools into compliance with federal and state standards relating to physical facilities in order to have approved mental retardation Intermediate Care Facilities as authorized under Title XIX of the United States Social Security Act."

On June 12, the Commissioner issued a memorandum assuring total Departmental cooperation for the project and officially designating the Title XIX Task Force. Since that time, all Divisions of the Department have mobilized to conduct evaluations of the institutions, determine patient eligibility and develop a community component. Contacts have been made with public and private agencies to assure statewide coordination of all mental retardation resources. The Department contracted for technical assistance with Environmental Design Group of Cambridge, Massachusetts, a consulting organization which helped Massachusetts become one of the first states in the country to obtain Title XIX certification.

The process of certification required the identification of deficiencies at the institutions and development of a technical plan of correction which indicated how and when the state would bring services and the physical plants up to Title XIX standards. During the fall of 1975, technical plans were prepared for each campus and submitted to the Kansas City Regional Office of Health Education and Welfare. Subsequent approval of these plans has begun the flow of new monies into the state care system.

While the major thrust of Title XIX has been the improvement of the state institution, of equal importance is the community component which opens up an additional source of funding for community-based services. Most community-based residential facilities for the mentally retarded, with the addition of some services, can qualify as Medicaid vendors and also receive federal reimbursement. With Title XIX funds paying for the care of the persons living in these facilities, part of the local and county funds now supporting these programs can be diverted to other services for the mentally retarded.

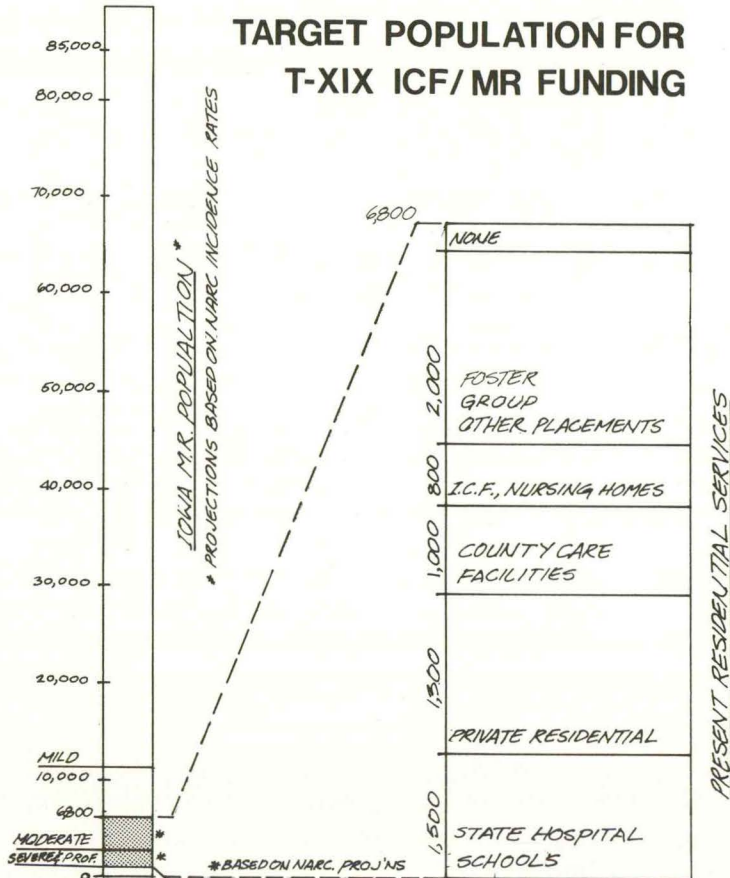
Concern for meeting standards set out in the Title XIX legislation stands behind many of the decisions recorded in these masterplans. The mix of new construction and renovation, for example, was dictated primarily by demands written into the legislation. Construction and process schedules are all based on stringent deadlines

set by the Title XIX schedule:

- November 1, 1975: Submission of Technical Plan of Compliance for Glenwood and Woodward to the Regional Office of HEW.
- January 1, 1976: Regional Office review and approval of Technical Plan of Compliance required for Iowa to be eligible to receive federal funds.
- March 18, 1977: Glenwood and Woodward must meet all staffing and service requirements and certain physical environment standards in order to continue receiving federal funds beyond this date.
- January 1, 1978: Glenwood and Woodward must meet all physical plant requirements.

Glenwood and Woodward presently serve approximately 1,500 of the 6,000 persons receiving residential services in the State of Iowa (see chart). Serving the re-

campus size



maining 5,100 persons are foster and group home placements, nursing homes, county care facilities, and private agencies.

Recent years have seen a steady decline in the resident populations at Glenwood and Woodward. The Department feels this trend is desirable. The statewide Policy Planning Group strongly supported the principle that the retarded should be cared for in as normal an environment as possible and that the State Hospital Schools should help communities develop a network of local, generic support services for retarded persons. If this network can develop, further reductions in the populations of the two State Hospital Schools are anticipated. Present Departmental planning calls for the following reductions in populations at the Hospital Schools: Woodward, presently 680, to 631 by March, 1977, and to 576 by January, 1978; Glenwood, presently 851, to 744 by March, 1977, and to 711 by January, 1978. Even lower populations than these would be consistent with departmental policy and the masterplans presented here. Campus development patterns will be presented later which describe target populations of 432 and 576 for Woodward, and 550 and 710 for Glenwood. Many factors will play a role in setting the actual rate of population decline: availability of money for program and capital improvements, the rate at which appropriate community placements can be found or developed for those presently institutionalized, and unanticipated demands for new kinds of programs which only the State Schools could offer.

In recent years, the capacity to offer alternatives to State Hospital School treatment was limited. Glenwood, for example, had an in-resident population of 2,000 shortly after World War II. Since that time, technical and professional capability to offer services has become more widespread and populations have declined considerably. Glenwood now serves about 850 persons. Some feel that the reduction process is reaching a natural limit, that quality in many kinds of retardation services requires a "critical mass" of resident population to attract high quality staff and specialized programs. From this point of view, the large size of the state hospital schools is an asset, not a liability. Others feel that the problem of critical mass can be solved in normalized community settings through aggregation of specialized services at the District and State level.

build new or renovate

Federal Title XIX strikes a bargain with participating states. It will pay 57% of service costs for qualifying clients if the service (and its physical facility) meet a stringent set of standards. Complying with these standards is costly in terms of staff and capital invest-

ment. The Department has carefully planned its program of physical improvements to receive maximum benefit from money invested.

Both Glenwood and Woodward have large stocks of existing buildings, most of them multi-story, fire-resistive structures with time-worn mechanical and electrical systems. The state investigated carefully whether these buildings could be renovated to provide the kind of residential settings specified in the legislation. Among the requirements established in PL92-223 and Federal Regulations 249.12 and 249.13 are

- no more than 4 persons per bedroom in outside, fully ventilated rooms
- 100 square feet per person in single bedrooms, 80 square feet in multiple bedrooms
- full conformance with the national Life Safety Code (most stairs, corridors, and doors in existing buildings do not conform)
- compliance with ANSI standards for access by the handicapped (many upper-floor areas of existing buildings are not accessible).

Building by building analysis indicated that in most instances, meeting these standards through renovation of existing buildings would be more expensive than new construction. New, single-story structures could incorporate all the features required by Title XIX, yet benefit from the economies of domestic construction techniques.

Another problem was involved. The State Schools could not give all residents 80 square feet of bedroom space in existing structures without seriously reducing the amount of program space available for the developmental services required by federal legislation.

The most cost effective solution was thus to provide less expensive residential settings through new construction and house educational and developmental programs in existing buildings. This approach has the added benefit of keeping open the issue of campus size. New residences would be constructed in a series of phases allowing time for development of community alternatives to campus placements.

In years past, mental retarded persons and the epileptic were admitted to Iowa's State Hospital Schools with little attention to the appropriateness of care they would receive there. As program standards improved, it was necessary to define carefully the kinds of people served at the schools and the nature of services appro-

resident mix

priate for them. With this accomplished, individual programs of care could be established which provided each resident with the programs and physical facilities needed for his own growth and development.

Both Glenwood and Woodward are now organized into "Areas" defined by resident "functional level". Populations at both campuses range from multiply handicapped, profoundly retarded persons, primarily in need of physical habitation, to high functioning, mildly retarded persons who need vocational and social-skill training. The precise mix of residents on each campus is important for a number of reasons. The programs appropriate for each group differ widely. Campus layout and residential construction are affected by resident mix as well. Resident mobility and handicap level are important factors in designing resident housing and program space. It is important not to overplay resident type in planning improvements, however. Flexibility is important to effective programming as well. If space is too closely tailored to resident type, it is difficult to move residents and programs from place to place as dictated by demands of the future.

Many factors will affect the resident mix to be expected at each campus. As new community services are developed, certain types of residents will be less available for care at the State Hospital Schools. State policy-makers are now considering promulgation of concerted admissions and discharge policies for the State Schools which will help order this relationship. Non-Hospital School services differ in effectiveness throughout the state. Because they often serve as a "residence of last resort," the State Schools are necessarily affected by the quality of these services. It is impossible to predict what demands might be placed on the state schools in the future. Some feel, for example, that they could play a stronger role in caring for developmental disabilities more broadly, e.g., cerebral palsy.

In the following chapter we discuss the assumptions concerning resident mix which the state is using to plan for the future. In the short run, planning for the present resident mix seems the most prudent policy. From a longer perspective, it seems wise to plan for a number of possible developments, especially a future in which the campus population consists of more severely handicapped and retarded persons than at present. Hence, the planning analysis described in this document shows a number of possible futures. It shows ways of building campuses aiming at a variety of sizes and accommodating people with a variety of problems. A major outcome of the planning process (carried out with important policy options

yet undecided) has been to describe these campus features and select a first construction phase that will accommodate the full range of options.

The Planning Process

Events on the State School campuses have ramifications throughout the system of care for the retarded. Prudent planning required that all the political, economic and social interests affected by events on campus contribute to decision-making in appropriate ways. The "Campus Planning Process" chart on the following page shows the activities involved in formation of masterplans presented here.

campus planning

Central to ongoing decision-making concerning the State Hospital Schools were the Superintendents and administrative staff at each campus. It was these persons who orchestrated the many tasks required to bring the schools into the Title XIX program -- preparation of resident evaluations and plans of care, completion of technical plans of correction, program and personnel planning, capital budgeting, and physical planning. Engineering staff at each campus worked closely with masterplanners and architects to set construction budgets and priorities. A number of early improvements are being carried out by in-house engineering and maintenance staff, with savings in time and money to the state. Separate architectural programs for new residential construction were drafted for each of the functional areas on campus. Area Directors participated in this process directly and are continuing to guide execution of the program on an ongoing basis.

Campus business managers have provided the experience and expertise necessary to give Title XIX planning a sound economic base. Each fiscal quarter, a complex equation involving resident eligibility, reimbursement level, payroll costs, and capital expenditures must be balanced and projected into the future.

In November, 1975, a week long design outreach process (Ecologue) solicited ideas about campus planning and design from parents, direct care workers, program professionals, residents and support staff at each campus. The results of this process are described in some detail later in this report.

CAMPUS PLANNING PROCESS

Overall policy concerning Title XIX has been coordinated at the state level through the Title XIX Task Force, the statewide Policy Planning Group and the Departments of Social Services and Public Health. At the interface between these agencies and campus administrators, issues are resolved such as campus size, technical plan strategies, construction budgets and the like. As indicated in the campus planning chart, each year brings a new set of issues for decision. The next set, to be decided in late summer, 1976, include

- revision of technical plans of correction on the basis of new data on costs, funding and construction schedules
- decision concerning the size of a second phase of construction
- determination of the appropriate resident mix for the target campus size.

ICF/MR Task Force Early in 1975, the Department of Social Services established an ICF/MR Task Force to coordinate and direct the Departmental efforts to enter the Title XIX program. Included in the group were representatives from each of the State Hospital Schools and the Department's Division of Mental Health Resources and Medical Services Bureau.

In twice weekly meetings since that time, the Task Force has directed the State's effort to plan for improvement of programs and facilities for the retarded. The Task Force's underlying philosophy of respect for the rights of Iowa's mentally retarded citizens is outlined in a June 20, 1975, proclamation issued by Commissioner Burns. A major principle of the Task Force's work has been that developments at the two State Schools must move in concert with those in the community realm, where a large number of providers -- private and public -- are already offering services to the retarded and anticipating increased resources through the Title XIX program.

Policy Planning Group In order to promote coordinated development in all realms of service delivery, the Task Force convened an ICF/MR Statewide Policy Planning Group in July, 1975. The group consisted of 26 individuals representing the full array of interests affected by Title XIX. Included were representatives of the Department of Social Services, delegates from the Glenwood and Woodward State Hospital Schools, the Divisions of Special Education and Rehabilitation Education Services

of the Department of Public Instruction, the Department of Health, the Office of Developmental Disabilities, the State Health Planning Agency, the Iowa Association for Retarded Citizens, the Iowa State Association of Counties and representatives of private residential facilities for the mentally retarded. The mandate to the Advisory Committee was to recommend policy to the Department of Social Services on the overall state care system for the mentally retarded to ensure that planning for Title XIX eligibility would complement the further development of the statewide system.

The Advisory Committee met for 35 hours of concentrated planning work during early August, 1975, and has continued to meet on a regular basis since that time. It recommended a strong role for the two State Hospital Schools in a statewide care system.

"In the comprehensive array of mental retardation services the present State Hospital Schools shall function as specialized resource centers providing:

- Direct Services

- a. for low incidence mental retardation problems
- b. for complex, or multifaceted treatment needs
- c. for short-term or transitional care for those who by choice or necessity cannot receive adequate services elsewhere.

- Indirect Services

- a. education and training of mental retardation professional and other mental retardation service personnel including follow-up and support
- b. program consultation and technical assistance to mental retardation service providers
- c. research
- d. demonstration projects
- e. support and monitoring of diagnostic and evaluative services to the District and local county level."

In regular meetings since the initial policy sessions the Policy Planning Group has dealt with ongoing issues

in Title XIX implementation -- technical plan strategies, legislative appropriations to begin capital improvements, licensure and certification of community-based ICF/MR's, model district planning, program costs, funding mechanisms, and resident placement policies.

The kinds and numbers of clients served at the State Hospital Schools is directly related to the availability of other forms of service. Recent years have seen movement in two directions, mostly from the campuses out to community facilities, but some in other directions as well, from inappropriate community placements back to campus.

clients/services
interface

As community programs grow in number, the State Schools will play an important role as "resource centers" to local facilities. These efforts will include sharing of diagnosis and evaluation skills, staff training, short-term treatment on a referral basis, and program management consultation.

To begin coordinated development of campus and community services, two Social Service Districts, Dubuque and Sioux City, were selected for intensive community-based planning of mental retardation services. The purpose of this planning process was to provide the districts with an opportunity to plan for a service delivery system responsive to their area's specific needs. It was also intended that planning would provide the specific context necessary for successful implementation of Title XIX ICF/MR programs in the communities. Thus, the districts were given virtually a free hand to create the service delivery systems which were needed and supported by the respective communities. The districts were given ready access to the tools necessary to accomplish this task -- planning expertise (the EDG consultants) and MR/DD expertise (the staff task force).

district and community
planning

Each of the model districts produced the following results:

- Needs Assessment An analysis of the number of people who will need MR/DD services within the district, taking into account severity of disability, age, and residential location. Also included were the number and characteristics of people currently receiving services.
- Functional Model A graphic representation of the services available in the community, the way the client moves through them, and the way services should be related to best meet client needs.
- Administrative Model A description of the legal and organizational relationships among services.

The administrative model fixes responsibility, authority, and accountability for funding and programs.

- Constraints and Strategies The barriers (financial, political, organizational, etc.) which prevent the implementation of the ideal model and the steps to be taken to overcome them.
- Priorities The goals, objectives, or activities which are either more important or must occur before others can be developed.
- Cost Analysis A description of the approximate cost of units of service and the number of units required.
- Seven Year Master Plan A projection of the numbers of persons to be served and additional funding required for each service over the next seven years.

11

ACTIVITY CENTER



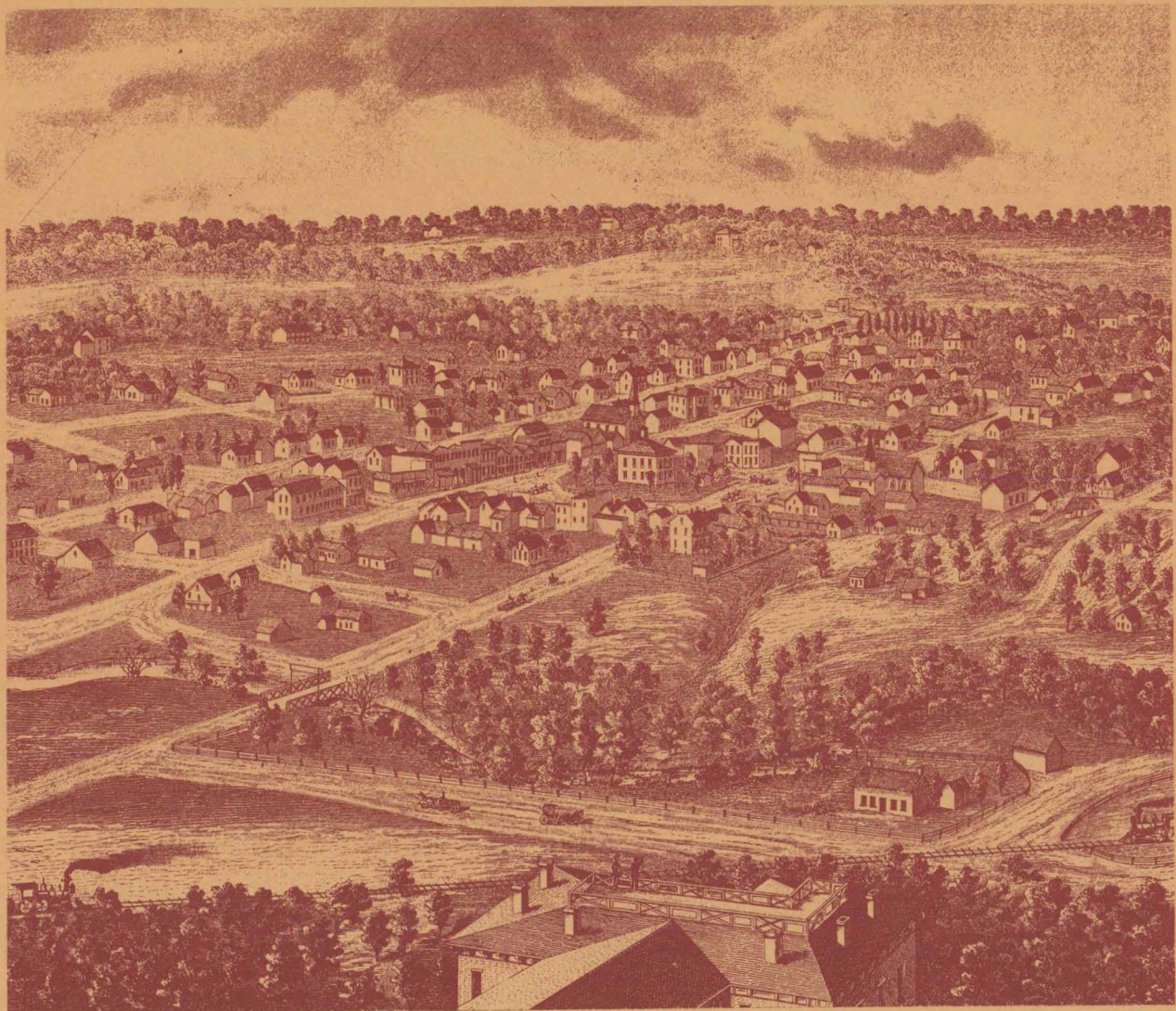
PART II.

CAMPUS PLANNING

INTRODUCTION

Ten 16-person houses are now being designed for each of the State Hospital Schools as the first phase of a major physical improvement program. A development of this magnitude raised two campus planning issues for the State: 1) for what type of residents were the new houses to be designed, and 2) what would a first phase of construction imply about overall campus growth? This chapter describes how the State answered these questions and thus set parameters for its first phase of new construction. It concludes with an overall schedule of physical improvements and the specific instructions given architects to begin work. The planning approach described here will be of direct interest to those making decisions about further phases of construction on campus and how they relate to overall campus growth.

CAMPUS PLANNING:



ON HOUSE.

BETTS HOUSE.

M.E. CHURCH.
COURT HOUSE
ORPHANS' HOME.

CONGREGATIONAL CHURCH.

CHRISTIAN CHURCH.
BAPTIST CHURCH.

GLENW.

GLENWOOD 1875. MILLS CO. IOWA.

---VIEW FROM ORPHANS' HOME.---

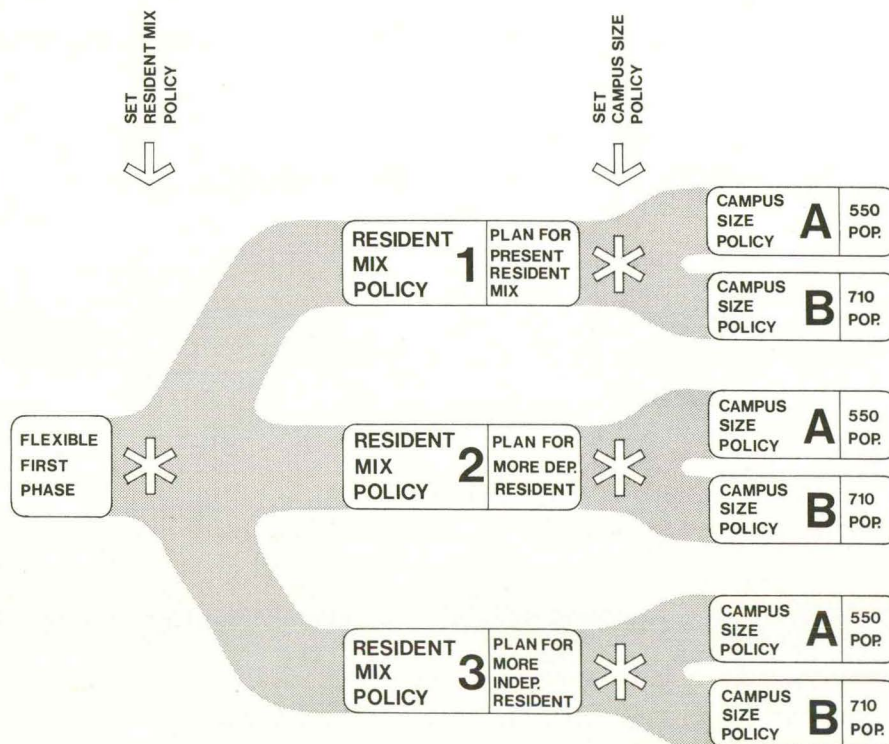
THE TOWN OF GLENWOOD, 1875. VIEW FROM ORPHANS' HOME ON SITE OF PRESENT CAMPUS.

GLENWOOD

Issues in Campus Development

The "policy tree" presented below describes the sequence of decisions facing Glenwood in planning new residential construction.

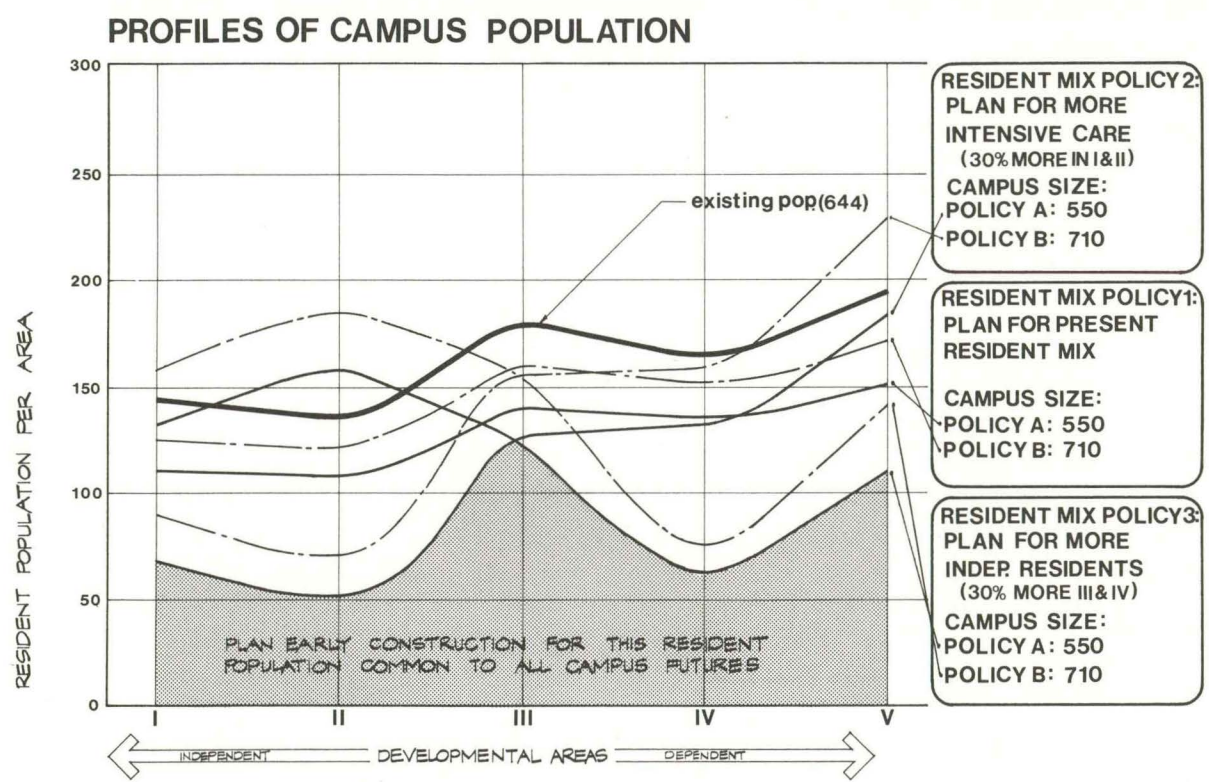
The most immediate issue is resident type. Each phase of construction, including the one presently underway, carries with it an architectural program and siting plan based on the type of resident to be served. At issue in the longer run is the nature of Glenwood itself, whether the campus will be serving a predominantly dependent population, or one which mirrors the present mix of resident types.



A second policy question, one with important implications for statewide policy, is the total number of people to be served on campus. At issue here is whether the recent downward trend in campus population will continue, be accelerated, or reversed. (See Part I for an analysis of resident mix and campus size from the policy point of view).

Campus Population Profiles A graph which profiles campus populations resulting from different policy assumptions has been included to show the combined impact of campus size and resident mix on campus planning.

The dark line indicates the present distribution of residents by functional area. The three medium weight lines indicate distribution of a smaller campus population (550) with more dependent residents, with more independent residents and with the mix of residents now prevailing on campus. The dotted lines indicate the distributions of a larger campus (710) at the same resident mix alternatives. All the future campus populations described



on the chart include at least some residents from each functional area (the shaded portion under all the curves). It is safe, therefore, to direct short-term planning toward these persons until more concrete decisions can be made concerning campus development. This was the approach taken in establishing the "first phase architectural programs" to be described at the end of this chapter.

Patterns of Campus Development

The following pages present three different campus development patterns. Each set of three campus phasing maps indicates how the campus might develop given certain assumptions concerning resident mix and campus size. The patterns are governed by an analysis of the most favorable place to locate housing for residents of different types.

Glenwood is presently divided into five Residential Areas:

- Area I serves approximately 150 residents of both sexes who have evidenced some potential for independent living. They range in age from 5 to 25. There are three distinct levels of programming: the Early Childhood Unit, Adolescents, and Young Adults.
- Area II serves approximately 150 residents of both sexes who may be referred to as "high functional" and are beyond the age served in Area I. They continue in residence because of poor behavior, mental health problems, lack of adequate community programs or because they were admitted later in life than Area I residents.
- Area III serves approximately 175 residents of both sexes between the ages of 4 and 26. Residents are at a lower functional level than the children in Area I and need Special Education, self help training, and prevocational programs.
- Area IV serves approximately 150 residents of both sexes. Most of these are young and older adults who require a great deal of assistance in their daily routines. Some have behavior problems and some have a variety of special medical needs.
- Area V serves approximately 175 residents from all ages and both sexes. Most residents have serious medical needs which require that they be in or very near medical and/or physical rehabilitation programs.

Residents from the same area are presently housed as closely together as possible in order to facilitate efficient staffing of living units. Some flexibility in assigning residents to living areas is important for several reasons as well, however:

- to keep handicapped residents from being segregated on the basis of handicap alone
- to allow the number of residents in each area to expand and contract as needed
- to help lower functioning residents learn skills through daily contact with higher functioning residents.

The next step in analyzing where residents of different types should be housed was a series of topographic and engineering studies which located all buildable sites in the near campus area. It was a frustrating search. Many areas were rejected because of their terrain or distance from campus. Existing buildings were found to occupy most of the favorable areas (hilltop sites) although further study indicated that many farm and maintenance buildings were no longer essential to campus life. A final list of buildable sites was presented to Area Directors who were asked to note which of these sites were best, and which second best, for the type of resident they served. It was found that independent residents (Area I) would benefit from living at some distance from the campus. The area along the ridge to the east of campus was selected as the best site for this group. The ridge, a strong natural feature of the local terrain, presented many advantages -- good orientation, pleasing views, easy link-up with road and utility work already in place. Many saw this area's distance from campus as a virtue, especially for more independent residents who would benefit from the long walk to programs and activities and physical separation from the institution. Physical separation of residential and work areas was advocated as a natural extension of "normalized" living patterns. Other sites felt favorable for Area I residents were C2, C3 and D1, all clustered near town on the north side of campus. Making the link to site D1, located on the town side of the Chicago, Burlington & Quincy tracks was felt especially important. This area, already connected to campus by a footbridge, is a natural half-way point between campus and town.

Area II residents, older but relatively high functioning, were seen as best located on sites B1 and B4, flanking the road leading east from Mogridge Hall. The ridge site, C1, was seen as a possibility for these persons as well. Areas closer to program and activity space (site B4

and 106 Central) were seen as preferable for Area III residents, younger and lower in functional level than those of Area I. Sites B1 and B4, closer to campus than the ridge, yet separated from it by clear boundaries, seemed ideal for Area IV residents, many of whom require a great deal of assistance in daily routines. Finally, because Area V residents are unable to walk on their own, sites A1 and B3 were selected for them, near the medical and physical rehabilitation programs they use on a regular basis.

These site selection criteria generated three patterns of campus development. (The final decision concerning implementation of these plans is discussed in the next section).

Plan for the Present Resident Mix The chart to the upper left of the first campus development display describes how new houses would be sited assuming that the present mix of resident types continues into the future. As indicated in the first of the three campus phasing plans, initial construction would be concentrated on the ridge and the area between the campus and the ridge. A second wave of construction (nine houses) would locate independent residents on the site across the tracks, and dependent residents in new houses close to 710 Lacey. If construction halted here, as suggested by size policy A, the campus would house 550 residents. Enlarging the campus to 710 would require locating more houses on sites B3 and B4 as indicated in the third campus phasing plan.

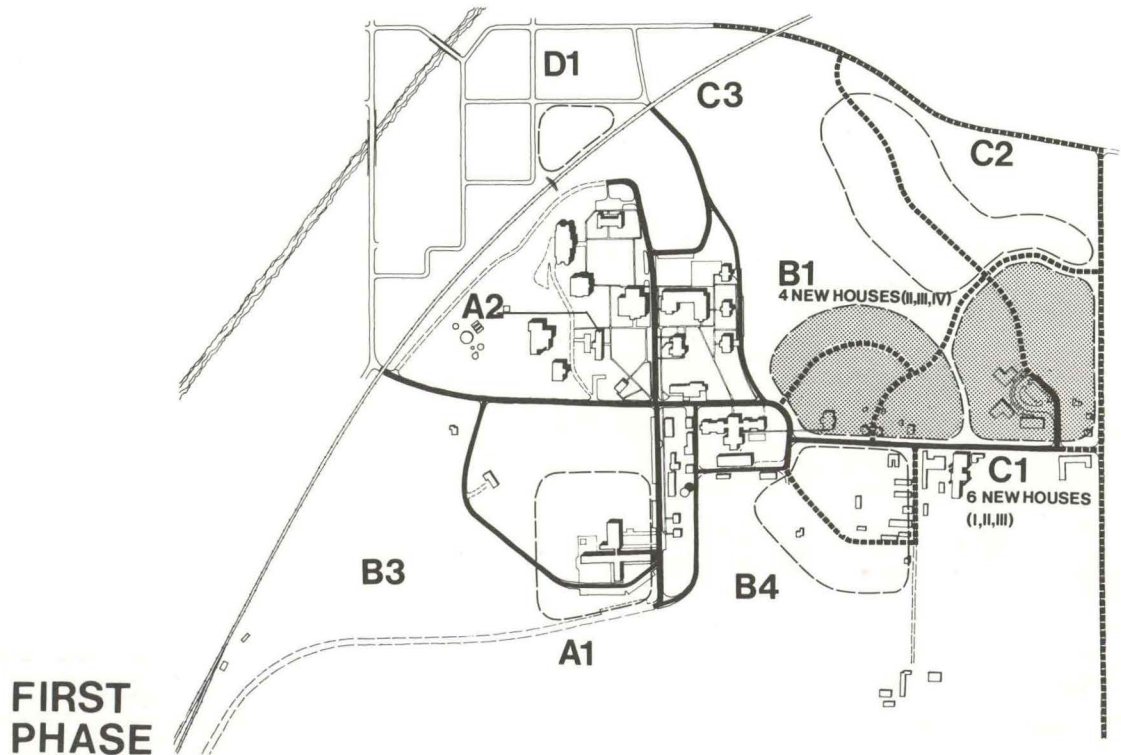
Plan for More Dependent Residents If present trends continue, Glenwood will be asked to serve an increasingly dependent resident population. The second campus development pattern indicates how houses might be located to deal with this eventuality. The first phase of construction would be the same as that for all three development patterns. This is possible if the first houses are planned for that minimum mix of resident types common to all campus futures. Compared to the first pattern, this one locates more houses closer to campus and in the area surrounding 710 Lacey. The sites near town, D1, C2 and C3, are not utilized, even in the larger campus resulting from size policy B.

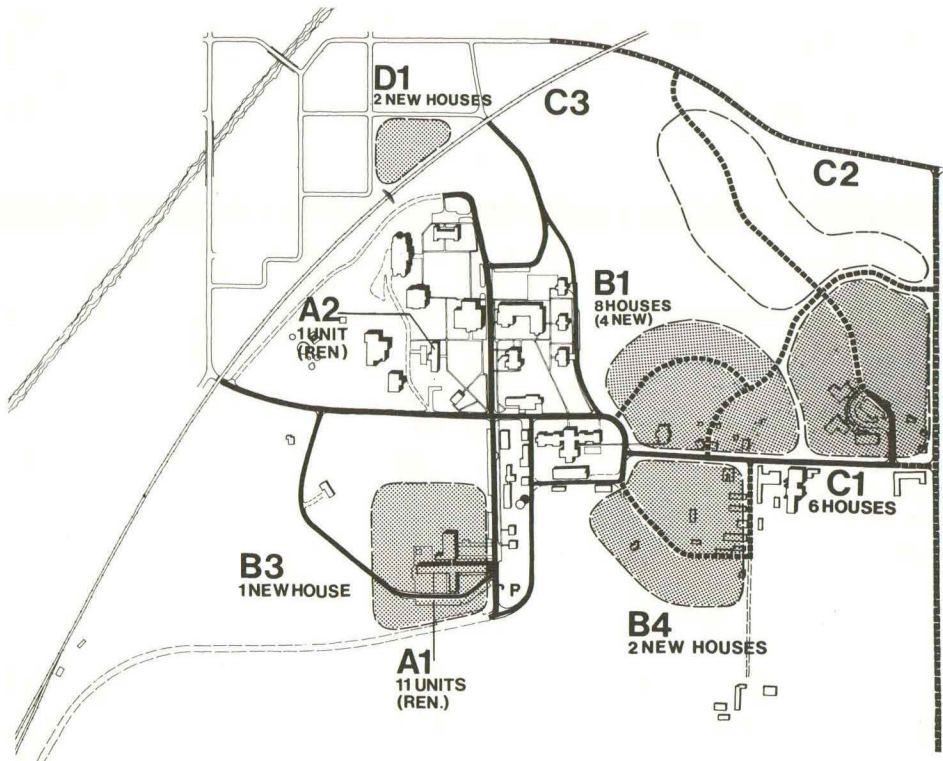
Plan for More Independent Residents The third set of campus development maps indicate how the campus might evolve if it were to serve an increasingly independent population. Sites further north on the ridge and across the C, B & Q tracks would be filled in during the second phase of construction. With no significant increase in multiply handicapped residents, present bed space in Lacey would not require augmentation through new construction, even if the campus were to stabilize at the larger 710 population.

CAMPUS DEVELOPMENT PATTERN

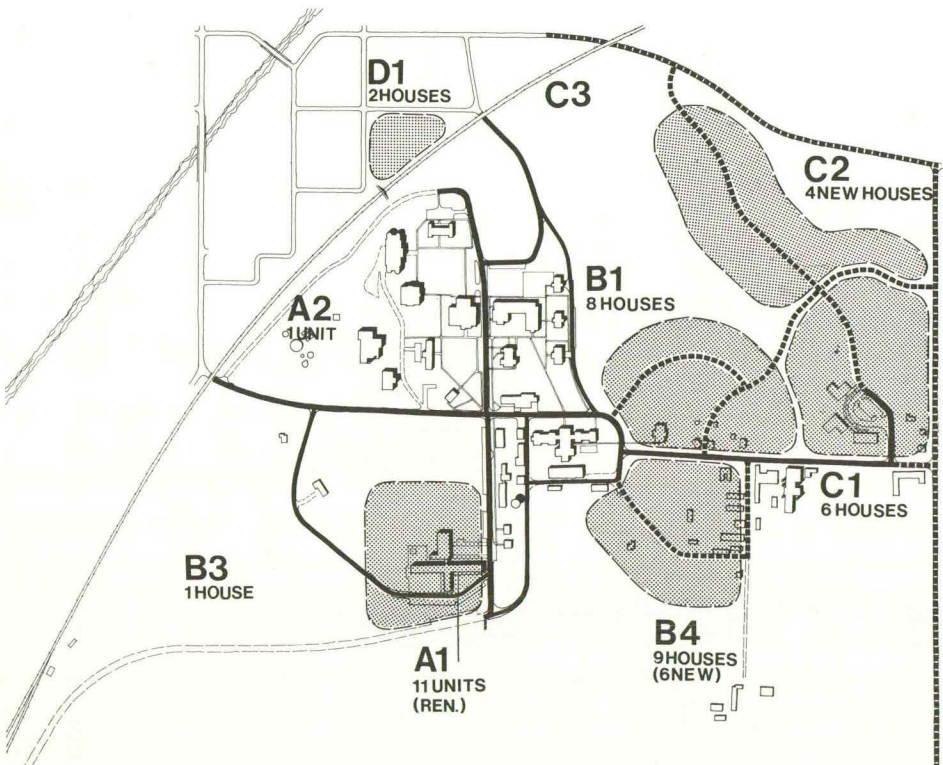
RESIDENT MIX POLICY **1** PLAN FOR PRESENT RESIDENT MIX

PRESENT DEV. LEVEL	PRESENT POP.	NEW HOUSES			PROGRAM TYPE OF NEW HOUSES		
		SITES		PROG. TYPE	FIRST PHASE	SIZE POLICY A 550 POP.	SIZE POLICY B 710 POP.
		1ST choice	2ND choice				
AREA I	145	C1	C2 C3,D1	I	2		3
AREA II	136	B1 B4	C1	II	3	2	2
AREA III	180	A2 B4	B3 C1	IIIA IIIB	2	3	2
AREA IV	164	B1 B4		IV	3	3	3
AREA V	195	A1	B3	V		1	
TOTALS	820				10	9	10





SIZE POLICY A 550 POP.



SIZE POLICY B 710 POP.

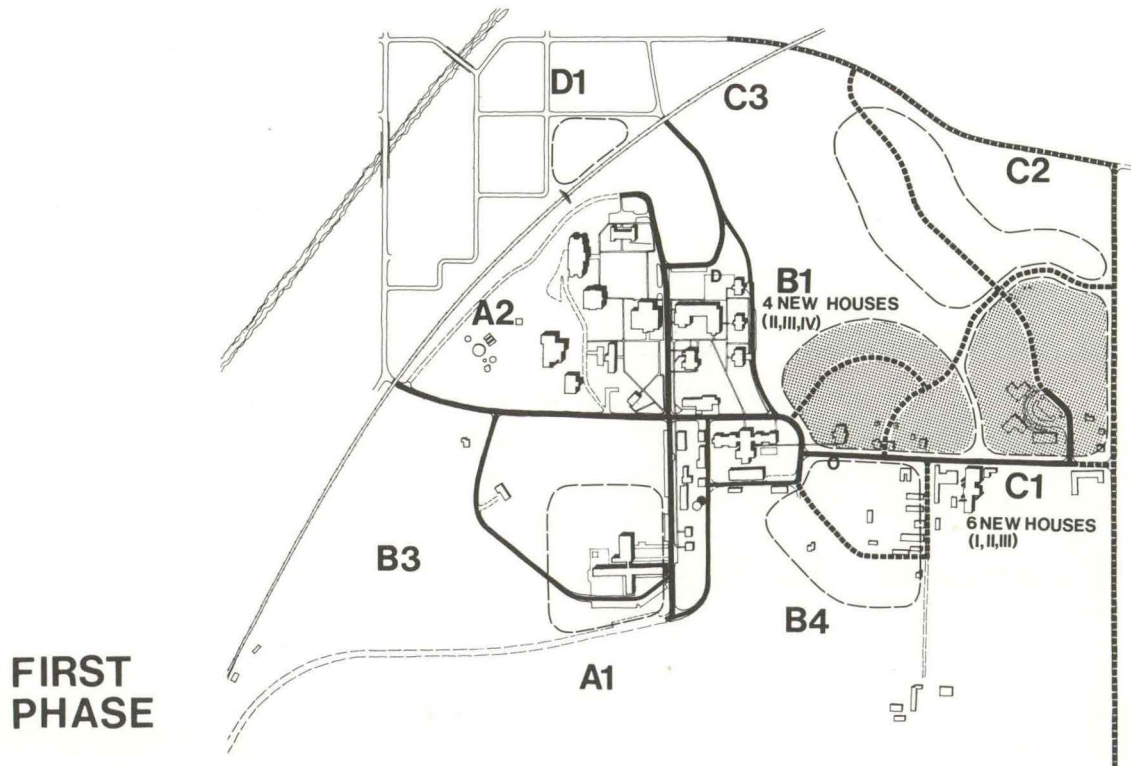
CAMPUS DEVELOPMENT PATTERN

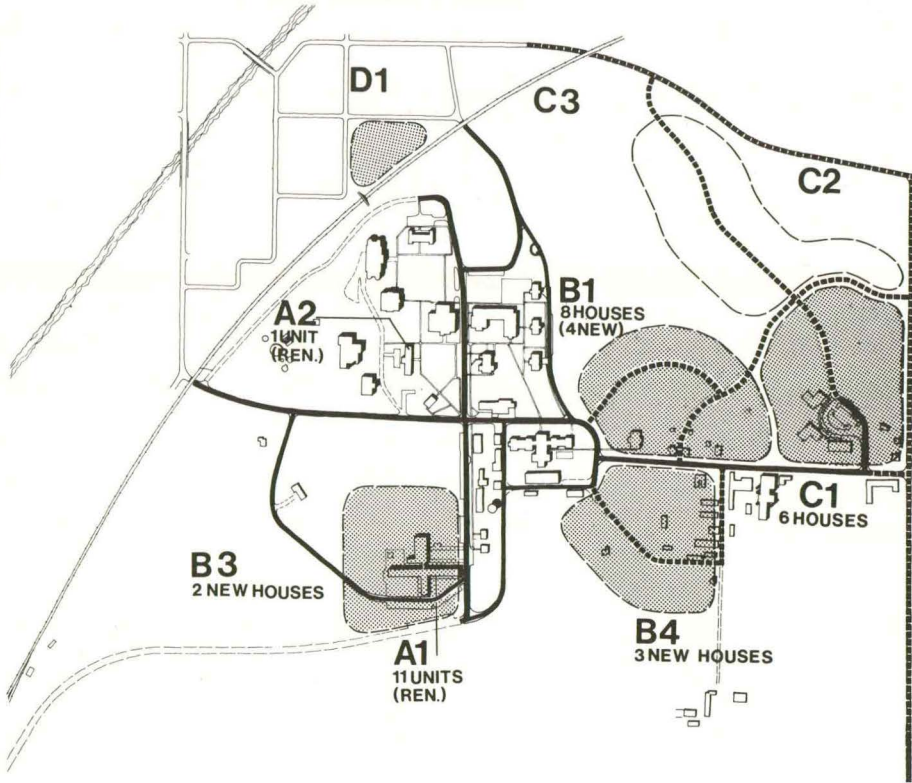
RESIDENT MIX POLICY

2

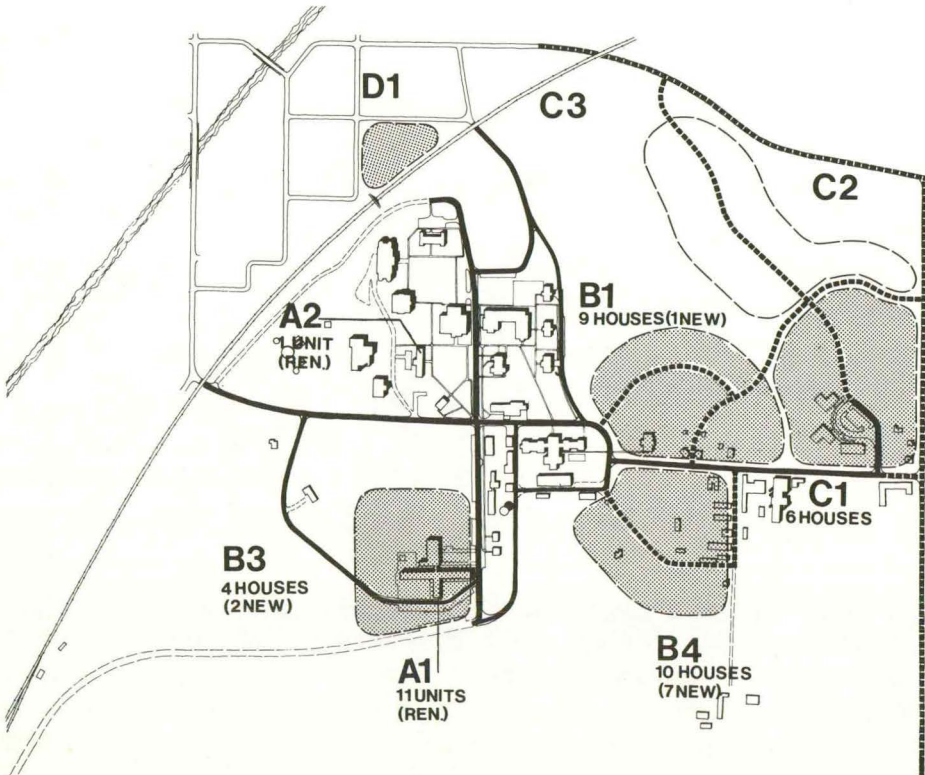
PLAN FOR MORE DEPENDENT RESIDENTS

PRESENT DEV. LEVEL	PRESENT POP.	NEW HOUSES			PROGRAM TYPE OF NEW HOUSES		
		SITES		PROG. TYPE	FIRST PHASE	SIZE POLICY A 550 POP.	SIZE POLICY B 710 POP.
		1ST choice	2ND choice				
AREA I	145	C1	C2 C3,D1	I	2		1
AREA II	136	B1 B4	C1	II	3	2	1
AREA III	180	A2 B4	B3 C1	IIIA IIIB	2	2	3
AREA IV	164	B1 B4		IV	3	3	3
AREA V	195	A1	B3	V		2	2
TOTALS	820				10	9	10





SIZE POLICY A 550 POP.



SIZE POLICY B 710 POP.

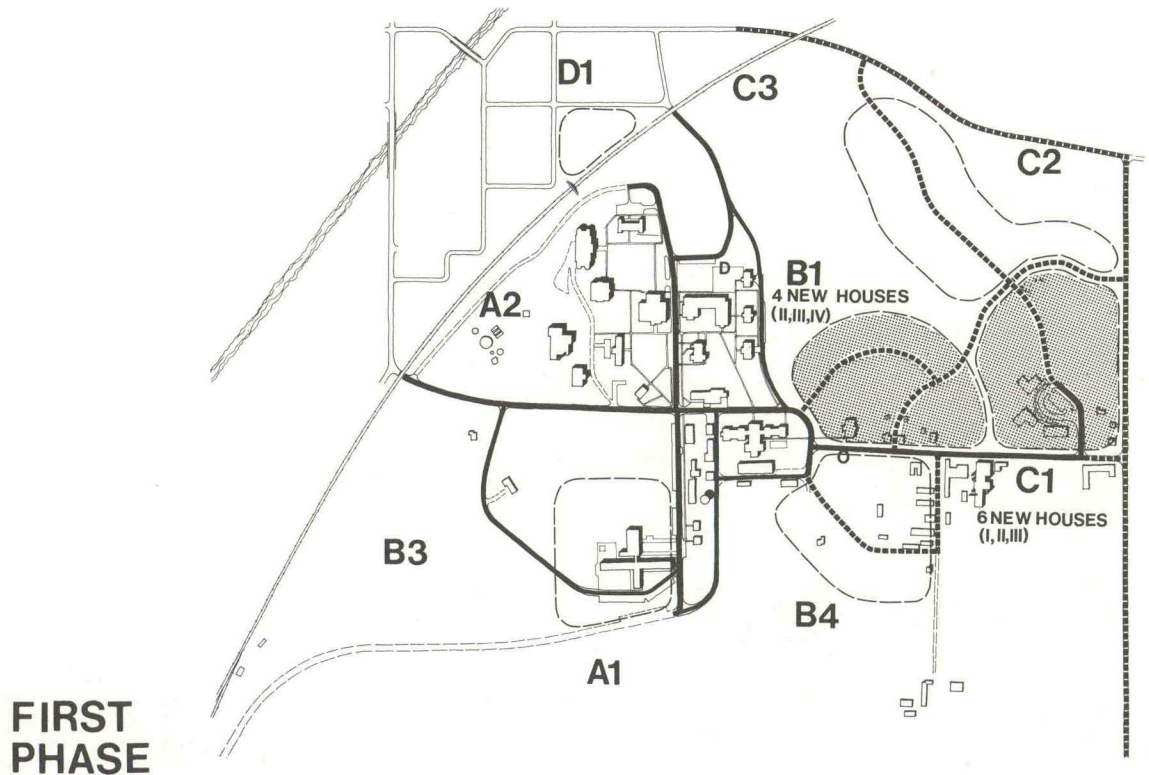
CAMPUS DEVELOPMENT PATTERN

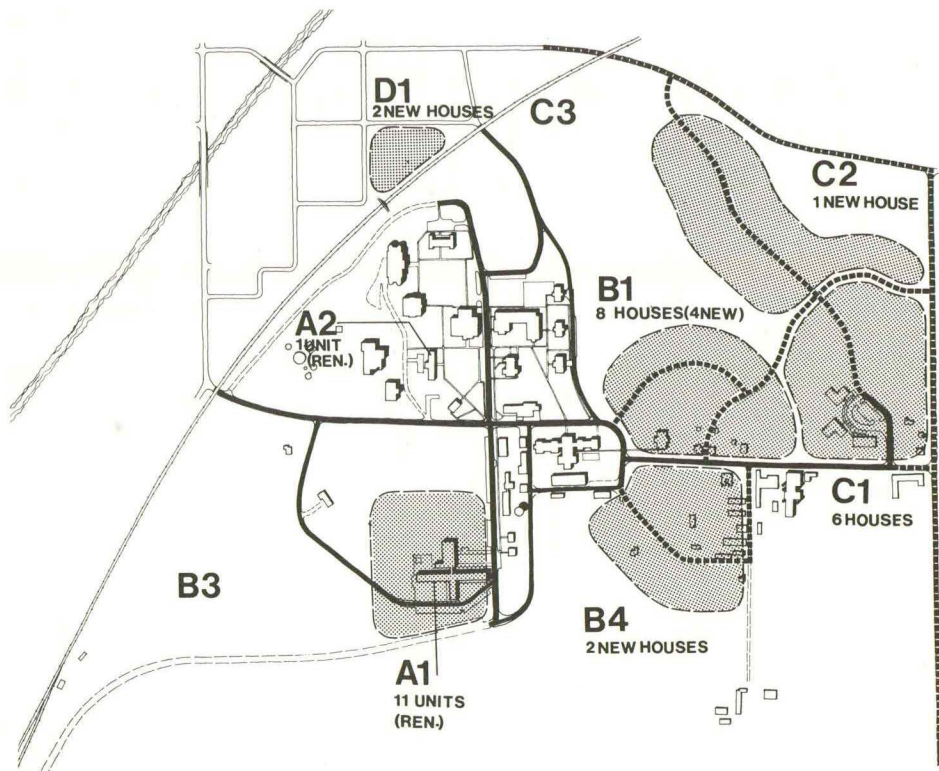
RESIDENT MIX POLICY

3

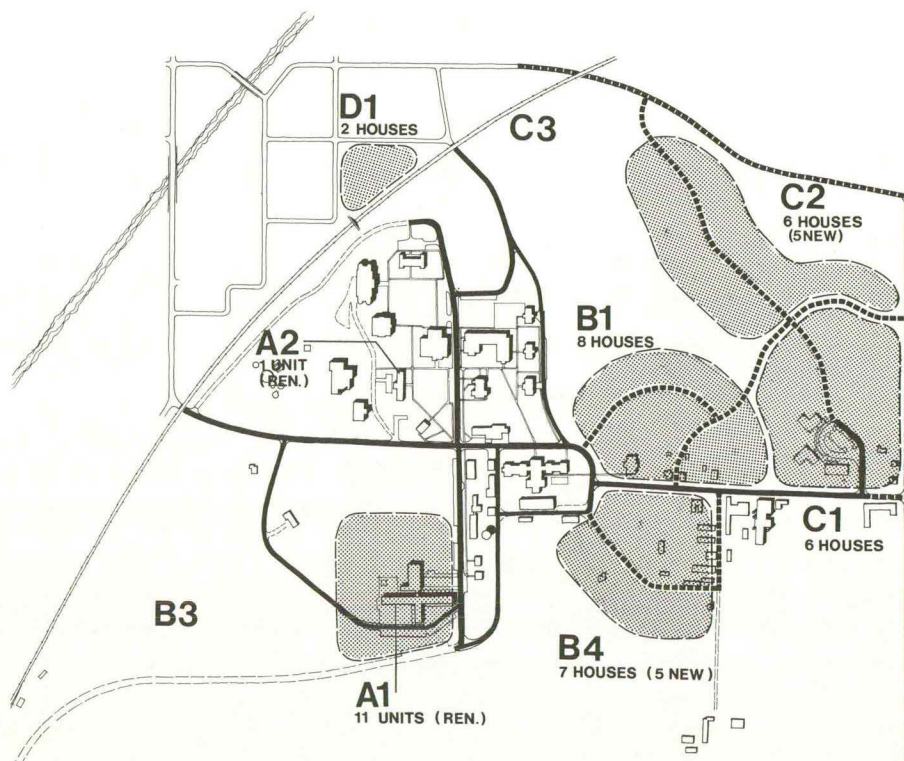
PLAN FOR MORE SHORT-TERM-INDEP. RESIDENTS

PRESENT DEV. LEVEL	PRESENT POP.	NEW HOUSES			PROGRAM TYPE OF NEW HOUSES		
		SITES		PROG. TYPE	FIRST PHASE	SIZE POLICY A 432 POP.	SIZE POLICY B 576 POP.
		1ST choice	2ND choice				
AREA I	145	C1	C2 C3,D1	I	2	1	3
AREA II	136	B1 B4	C1	II	3	3	3
AREA III	180	A2 B4	B3 C1	IIIA IIIB	2	3	2
AREA IV	164	B1 B4		IV	3	2	2
AREA V	195	A1	B3	V			
TOTALS	820				10	9	10





SIZE POLICY A 550 POP.



SIZE POLICY B 710 POP.

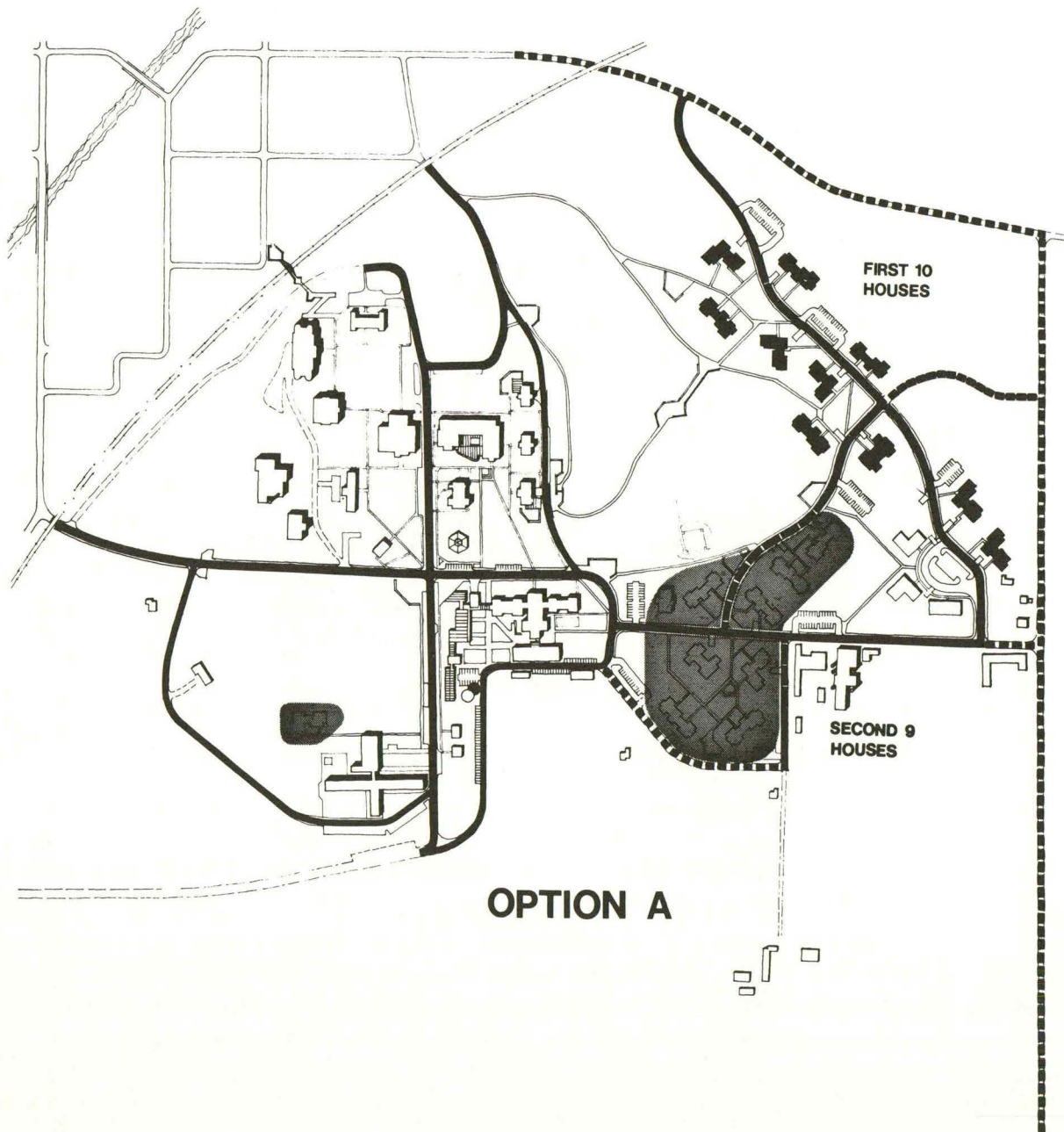
Decisions Concerning First Phase of Campus Construction

The analysis of campus development patterns presented above was considered at length by campus administrators, departmental advisors, and the statewide Policy Planning Group. Several changes in emphasis emerged in these discussions.

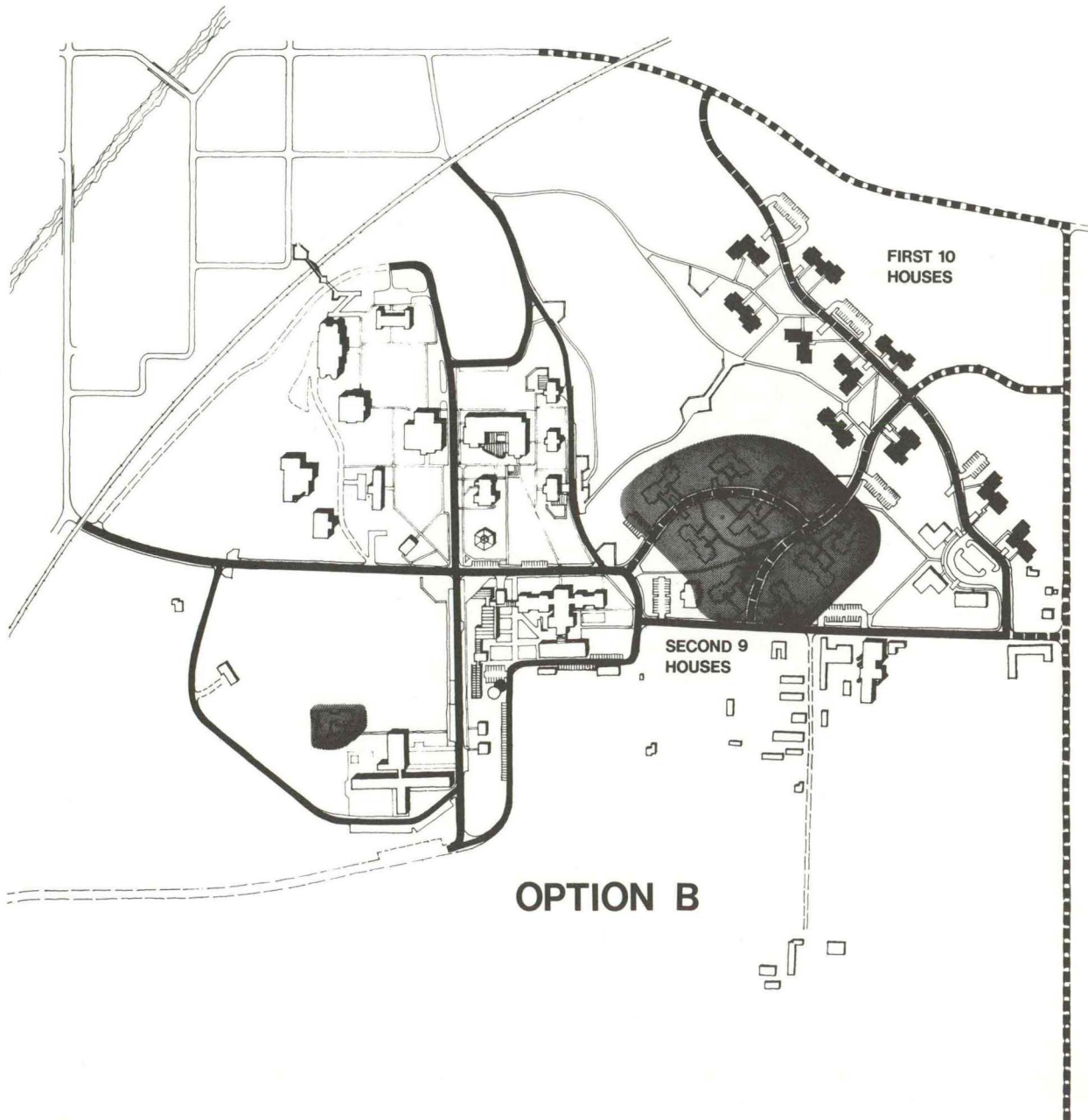
The ridge site, previously felt suitable primarily for independent residents, came to be seen as a good location for a wider spectrum of resident types. Although this site requires a longer walk to program areas, some now saw this as an asset. Decentralization of dining will reduce the number of walking trips in the Glenwood resident's typical day. A long, but manageable walk to and from campus programs could help compensate for the smaller number of daily excursions. Keeping the inner ridge site available for recreational use emerged as a high priority in these further discussions. The Glenwood terrain offers few other areas where the baseball games, track meets and pony rides which take place here could be relocated.

The two residential siting plans included here, Option A and Option B, describe the impact of these new emphases on decisions concerning first phase house sites. These maps should be read as an indication of where housing will be sited given the present mix of residents and a campus population of 550. Both options, A and B, include a first phase of ten houses constructed on the ridge site, (2 for Area I, 3 for Area II, 2 for Area III, and 3 for Area IV).

Two different ways of adding the second nine houses needed to bring the campus up to a 550 population are shown. The first, Option A, locates these houses in an area between the campus and the ridge, some on sites now occupied by small staff houses, some on sites to the south of Main Street. The second, Option B utilizes the recreation field for housing by continuing a new road from the ridge to the junction of Independence and Main. Option B requires that recreational activities be relocated from Site B1 to an area east of the old farm road, or to open space within the campus proper. New housing can then be located on Site B1, ideal because



OPTION A



OPTION B

it is separate from campus yet close enough to allow frequent daily trips between home and program areas. Option B has the added advantage of opening up four extra sites at an intermediate distance from campus. It is likely that the distribution of campus resident types will warrant use of these additional locations. Location of further houses required to bring Option A or B to a final population of 710 would depend on the mix of residents being accommodated. An increase in dependent residents would suggest construction of more houses in the area around 710 Lacey while an increase in independent residents would argue for sites more distant from campus and closer to town. See previous phasing charts for detailed suggestions concerning the 710 campus. If the resident mix maintains its present contours, the best plan would be to fill in house sites at an intermediate distance from campus, especially those south of Main Street between 119 Buckner and the farm.

Schedule of Physical Improvements

Title XIX will bring many long-needed physical improvements to the Glenwood campus. Improvements will be funded from the "State Hospital School Revolving Fund", set up by House File 989 to underwrite costs incurred in bringing the state schools into the Title XIX program. Once the legislature has loaned this fund enough money to get started, ongoing support will be provided by reimbursements generated through Title XIX payments. As indicated on the accompanying Schedule of Physical Improvements, initial state loans to the fund will be paid back out of reimbursements as well.

New Residences The major physical improvement promised in Glenwood's Technical Plan of Correction is construction of new residential units. A first phase of ten houses is already underway. Nine more houses would bring the campus target population to 550 (Size Policy A). Further construction of ten more houses would increase the target population to 710 (Size Policy B). The state is presently aiming towards certification for the number of people in size policy B, but is planning in such a way that if good alternative facilities become available elsewhere, the campus could function well at the smaller size (Policy A).

physical improvements
in the Technical Plan
of Correction

The Glenwood campus plan described in this report includes a number of key improvements to program and activity space. (Detailed description of these improvements, including illustrative plans, will be found in Part III). Among the changes fundamental to high quality educational and developmental programming on campus are:

- creation of a new activity center, including a pool, in an area focussing on Mogridge Hall, 119 Buckner, and the Fire Station.
- Enlargement of hospital facilities presently crowded into the South wing of the first floor of 710 Lacey.
- Renovation of 212, 213 and 214 Independence to serve as expansion space for the school.
- Improvements creating a community resource center in 102, or 103 Central.
- Construction and upgrading of programmed outdoor space.

interim residential
renovations

The Technical Plan of Correction is based on the assumption that all residents (except those in 710 Lacey and 106 Central) will be housed in new residential construction. It is hoped that existing structures will be vacated for residential use by January, 1978. Because the safety problems in these buildings are acute, however, it was necessary to undertake a series of "interim renovations" which would render them safe for short-term occupation. Typical of these improvements are: a comprehensive fire detection and alarm system for resident living areas, fire protection for hazardous building areas; lighted exit signs and emergency exit lighting; improvements in personal furnishings for residents; alteration of some toilet facilities for the handicapped; firestopping chutes; improvements to office space; provision of selected new exits and stair towers; fire corrections in medical areas; and selected general repair.

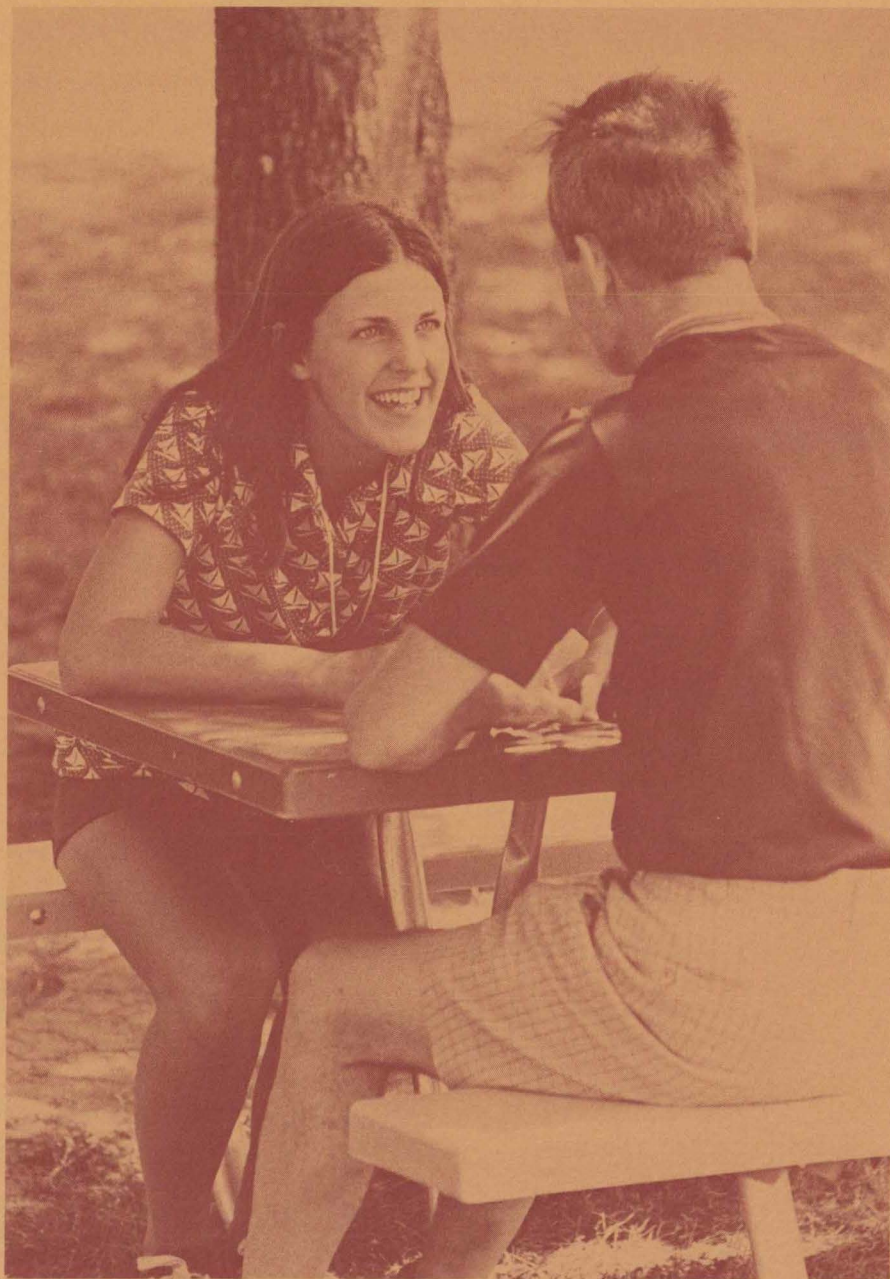
The campus Architect will be responsible for coordinating agencies involved in carrying out interim renovations; DSS Central Office, DSS Architecture-Engineering, general contractor; mechanical contractor; campus administrators and engineering staff; work crews on each campus; and equipment suppliers. The architect will provide contract documents for competitive bid, purchase orders, and work directives as appropriate for particular renovations, and aid the Hospital Schools in documenting "good faith effort" to bring their schools up to Title XIX standards.

GLENWOOD

**SCHEDULE OF PHYSICAL
IMPROVEMENTS**

WOODWARD

CAMPUS PLANNING:



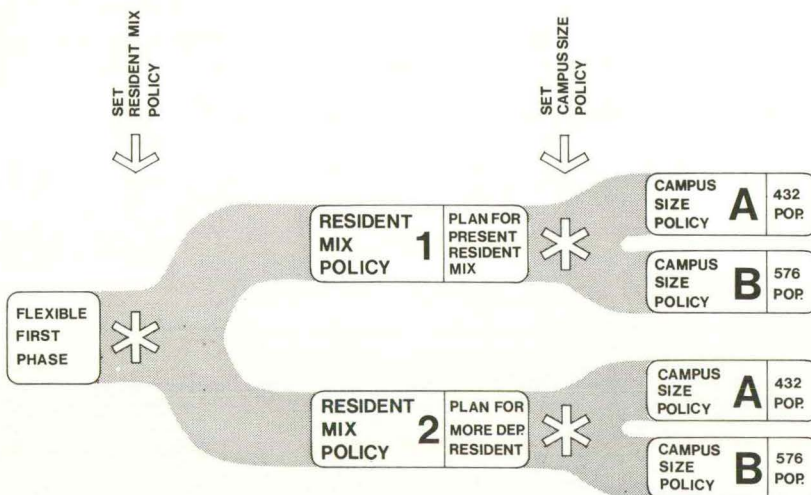
WOODWARD

Issues in Campus Development

The "policy tree" presented below describes the sequence of decisions facing Woodward in planning new residential construction.

The most immediate issue is resident type. Each phase of construction, including the one presently underway, carries with it an architectural program and siting plan based on the type of resident to be served. In the longer run, decisions concerning resident mix will determine the nature of Woodward itself - whether the campus will be serving a predominantly dependent population, a predominantly independent population, or one which mirrors the present spectrum of resident types.

Recent years have brought more and more multiply handicapped dependent residents to Woodward. Campus administrators feel that this trend is likely to continue, but that for the near future, the safest policy is to plan for the present mix of resident types. Because of campus efforts to return independent residents to the community, it was not felt necessary to consider a future in which an increased number of independent residents would be living at Woodward.



A second issue, one with important implications for statewide systems planning, is the total number of people to be served on campus. Recent years have seen a steady reduction in campus population from a high of 2,000 fifteen years ago, to the present population of approximately 680. At issue is whether this trend will continue, be accelerated, or reversed. Woodward is actively promoting the development of community services in its catchment area through technical assistance, community education, training of community MR facility staff, and provision of selected services to residents of community facilities. To the degree that these and other efforts to develop community programs are successful, campus administrators expect further significant reductions in campus population to a hoped-for size of 432.

Campus population profiles A graph which profiles campus populations which result from a variety of policy assumptions has been included to show the combined impact of campus size and resident mix on campus planning. The dark line indicates the present distribution of residents by functional area. The three medium weight lines indicate distributions of a campus population of 432 with more dependent residents, with more independent residents, and with the mix of residents now prevailing on campus. The dotted lines indicate the distribution of campus populations at the Size Policy B population of 576.

All the future campus populations described on the chart include at least some residents from each functional area (the shaded portion under all the curves). It is safe, therefore, to direct short-term planning toward these persons until more concrete decisions can be made concerning campus development. This was the approach taken in establishing the "first phase architectural programs" to be described at the end of this chapter.

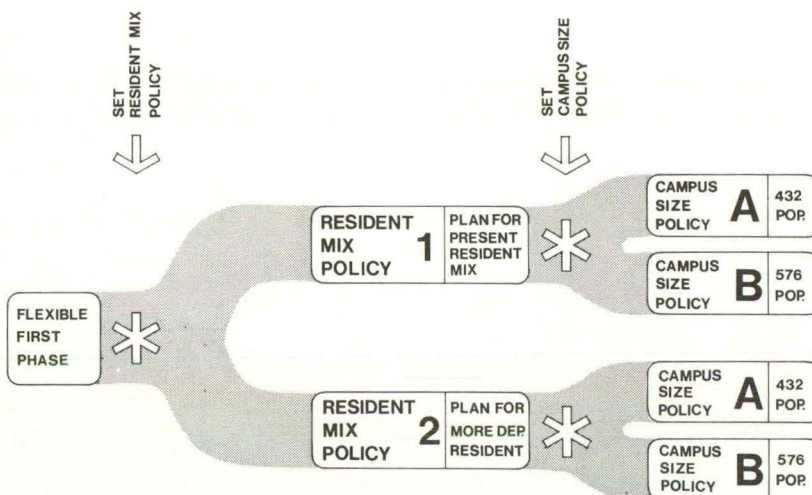
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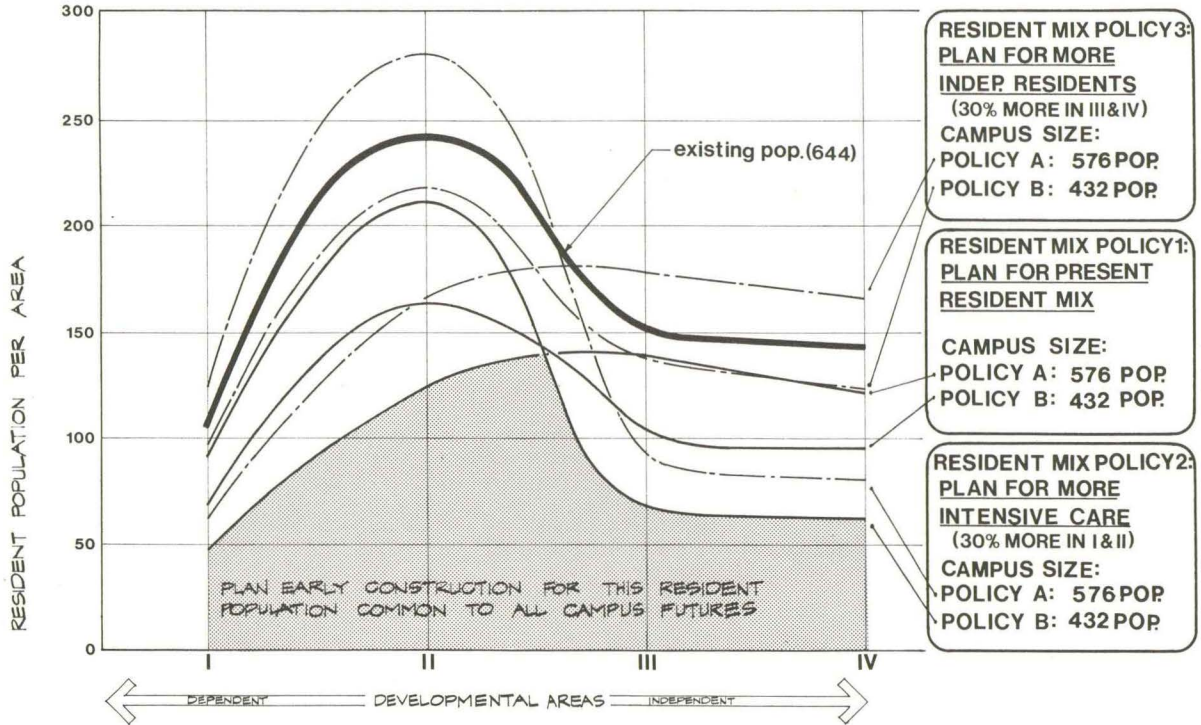


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PROFILES OF CAMPUS POPULATION



Patterns of Campus Development

The following pages present three different campus development patterns. Each set of three campus phasing maps indicates how the campus might develop given certain assumptions concerning resident mix and campus size. The patterns are governed by an analysis of the most favorable place to locate housing for residents of different types.

Woodward is presently divided into four Residential Areas.

Area I lower functioning, multiply handicapped residents primarily in need of physical habilitation services.

Area II lower functioning residents with fewer handicaps, mostly adult, in need of self-help and socialization skills.

Area III higher functioning residents, predominantly younger adolescents and children in need of educational services.

Area IV higher functioning residents, mostly adult, in need of vocational services.

Residents from the same area are presently housed as closely together as possible in order to facilitate efficient staffing of living units. Some flexibility in assigning residents to living areas is important for several reasons as well, however:

- to keep handicapped residents from being segregated on the basis of handicap alone.
- to allow the number of residents in each area to expand and contract as needed.
- to help lower functioning residents learn skills through daily contact with higher functioning residents.

Whether to cluster new housing by Area or mix resident types throughout a new development was the subject of much discussion in campus planning sessions. Clustering

each Area's houses would facilitate cross-staffing and the provision of area-specific programs. Because Area populations tend to be defined by mobility as well as developmental level, it seemed possible to match an appropriate location on campus with each Area.

There are many benefits to be gained from mixing resident types as well, however. It was feared that some neighborhoods in a "segregated" campus would be stereotyped as less favorable than others - a phenomenon the campus had already experienced. Mixing residents was seen as a more normal housing pattern-less "institutional" than assigning residents to a neighborhood on the basis of their developmental level. In early phases of construction, resident mobility seemed less an issue because all houses would be located within relatively easy walking distance of program and activity centers. After weighing all the factors, campus administrators opted for a policy which filled each house with residents from the same Area, but did not cluster houses from the same Area into one neighborhood. Because Areas contain residents of different mobility levels, some of each Area's units would be located close to campus program centers and others further away.

There was general agreement that the walk from the Employees cottage to Linden Center (800 feet) was acceptable for most residents but that walking from the Administration building to Linden Court (1600 feet) was difficult for many (See Campus Organization Plan in Part III). Area administrators were asked how many of their residents would "require" being located within 800 feet of their program and activity center and how many additional "would benefit" from such location. The results were: Area I: 50% require, no more would benefit; Area II: 14% would require, 50% more would benefit; Area III: 20% would require, 20% more would benefit; Area IV: none would benefit.

The next step in analyzing where new resident housing should be located was identification of buildable sites in the near-campus area. Although Woodward presents none of the topographic problems found on the Glenwood campus, a surprising number of sites were rejected for a variety of reasons. Sites south of campus were preferred over those to the north because it was possible to enter them from town without passing through the "old" campus.

The presence of a sewage treatment plant added to the difficulties of building to the north. A high pressure gas main right-of-way eliminated several areas. Sites in the area between the end of the boulevard and town were studied carefully but rejected because they would

necessitate extensive busing of residents between residential and program areas. Although this area's proximity to town was valued, it was pointed out that few Woodward residents could negotiate the trip to town on their own. Many of the independent residents who could benefit from the trip were enrolled in short-term training programs at Woodward precisely because they could not cope with "town life" in their regular homes. Two further siting issues were discussed: the advisability of building within the limits of the old campus, and the possibility that some units could be oriented toward pedestrian paths rather than vehicular streets. (Results of this analysis are presented in the chapter on campus design.)

Once the full range of favorable sites had been identified, it was decided to fill these in from the center of campus out to keep as many residents as possible within walking distance of program centers. The ten houses of phase one were allocated to Areas II and III, presently crowded into several of the oldest buildings on campus. Administrators of these two Areas then decided which of the ten house sites should be assigned to which Area. Both felt that some of their residents should be located quite close to campus program centers while others could be located at a greater distance.

These site selection criteria generated the two patterns of campus development included here.

Plan for present resident mix The chart to the upper left of the first campus development display describes how new houses would be allocated between Areas assuming that the present mix of resident types continues into the future. Initial construction (see first Campus Phasing Plan) would concentrate on site B1 south of the Linden Court complex. Of ten new houses, six would be designed for Area II residents & 4 for Area III. Houses to the east of Orchard Road would be sited along a pedestrian pathway leading to Maple Lodge. In order to bring the campus to a population of 432 (Size Policy A), 17 new houses would be added, creating a new residential neighborhood connecting the School/Larches area with the Linden Court Complex. Nine additional houses would bring the campus population to 576 (Size Policy B). As indicated in the third Campus Phasing Plan, this policy would require the construction of 9 additional houses in an area extending southward toward town.

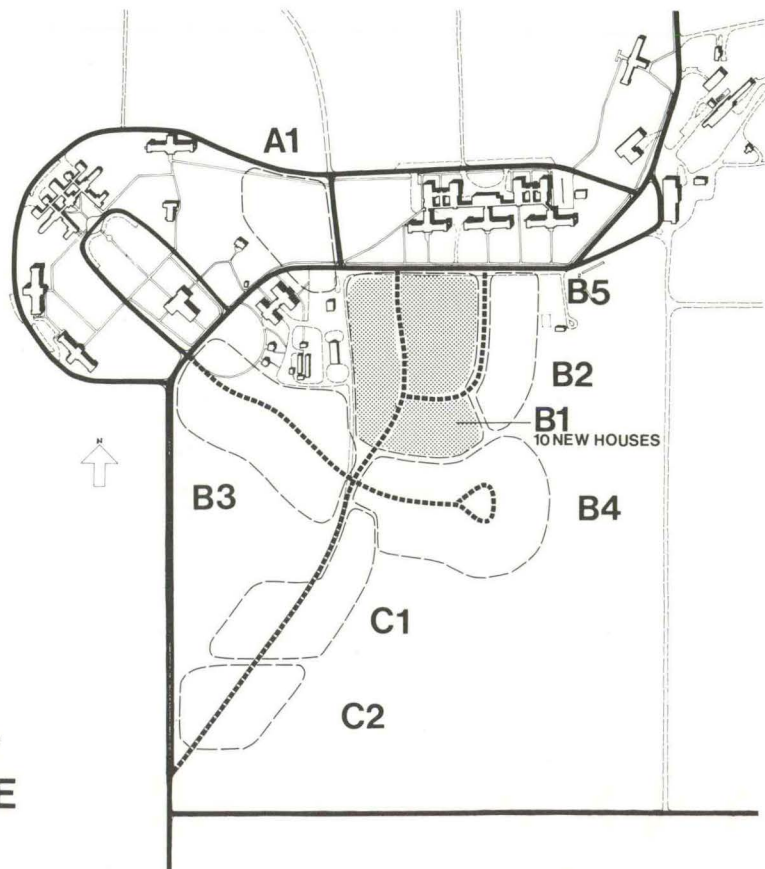
Plan for More Dependent Residents The second set of Campus Phasing Plans describes how the campus might evolve if it were to serve an increasingly dependent population. The first phase of construction would be the same as that in the first development pattern. This is possible because first houses are planned for that mix of resident types common to all campus futures. In succeeding phases of this pattern, however, houses are located closer to the developmental and medical centers which provide programming for more dependent residents. Sites A1, between Linden Center and Hemlock, and B5, south of the Medical Center across Cedar Street, are both ideal from this point of view. Locating several houses on the present athletic field is an option, as well.

CAMPUS DEVELOPMENT PATTERN

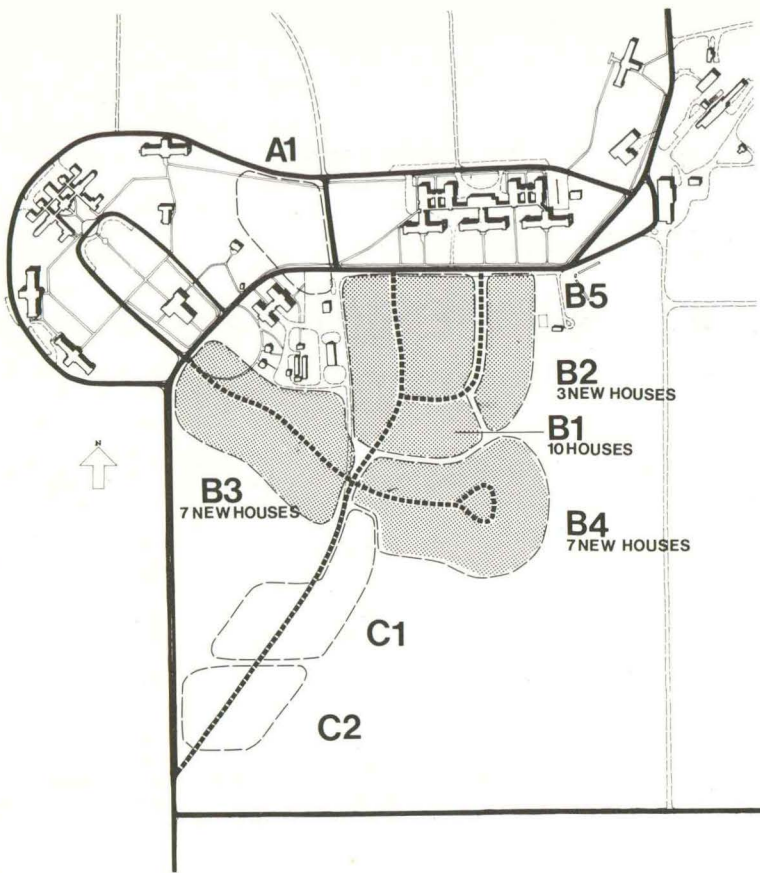
RESIDENT MIX POLICY **1**

PLAN FOR PRESENT RESIDENT MIX

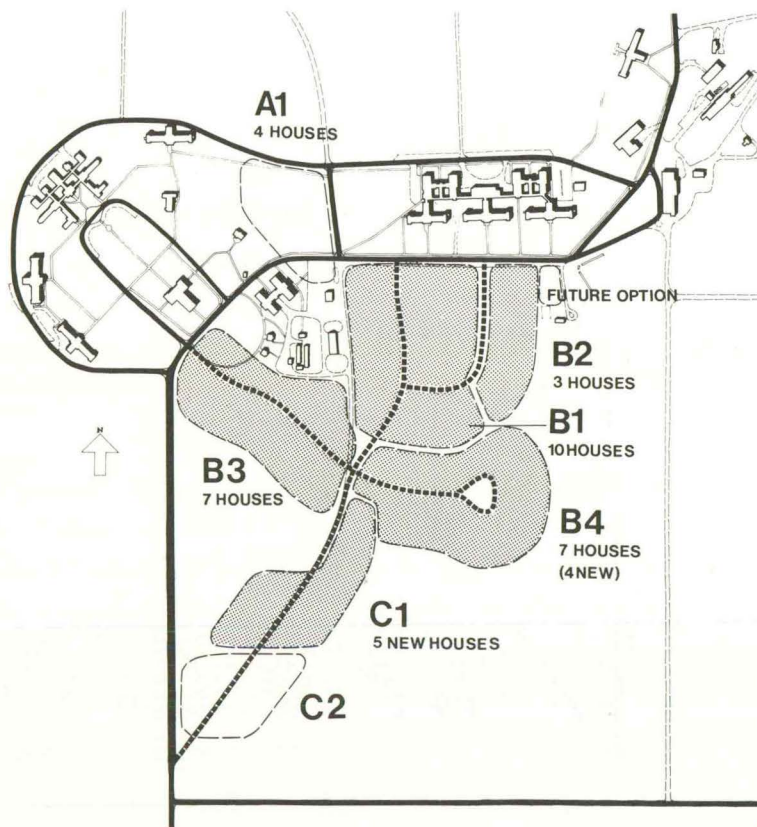
PRESENT DEV. LEVEL	PRESENT POP.	NEW HOUSES		PROG. TYPE	FIRST PHASE	PROGRAM TYPE OF NEW HOUSES	
		SITES				SIZE POLICY A 432 POP.	SIZE POLICY B 576 POP.
		1ST choice	2ND choice				
AREA I	105	SEE SECTION ON RESIDENTIAL SITING		I		5	2
AREA II	244		II	6	4	3	
AREA III	152		III	4	3	2	
AREA IV	143		IV		5	2	
TOTALS	644					10	17



FIRST PHASE



SIZE POLICY A 432 POP.



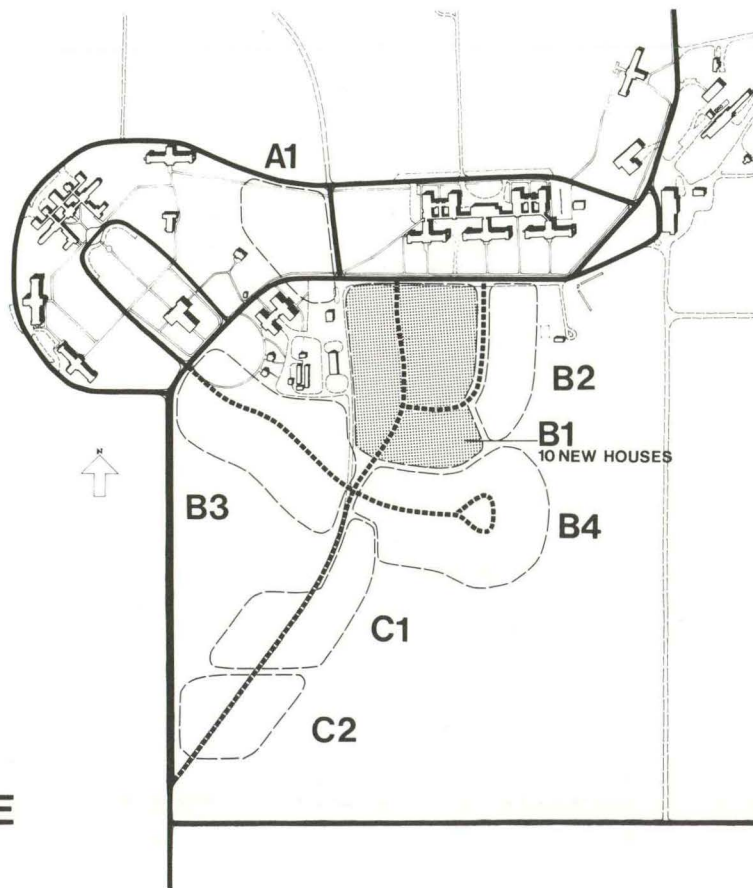
SIZE POLICY B 576 POP.

CAMPUS DEVELOPMENT PATTERN

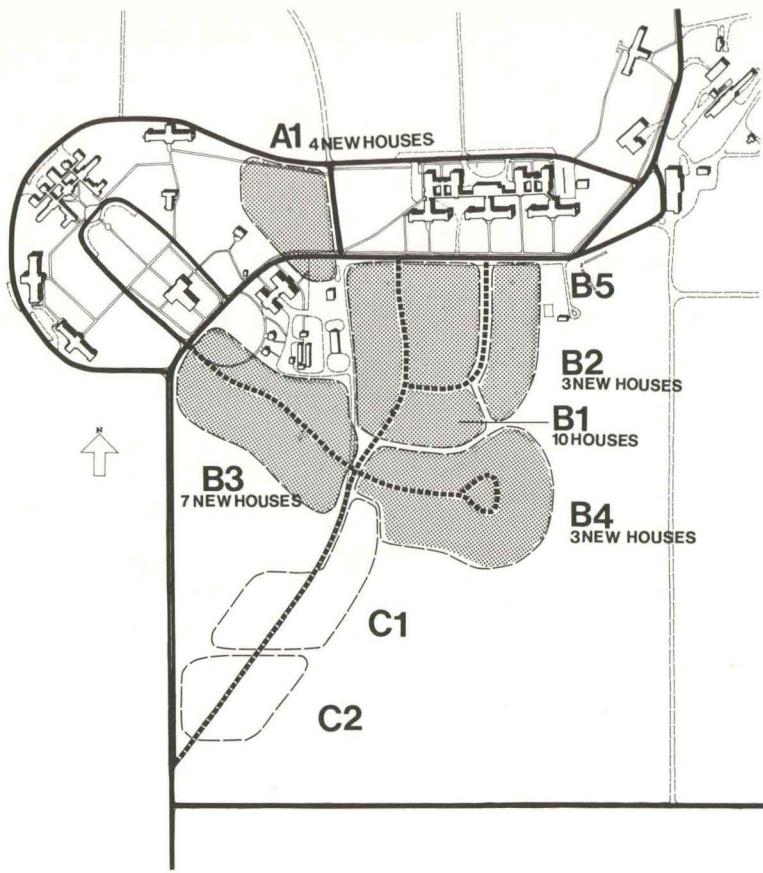
RESIDENT MIX POLICY **2**

PLAN FOR MORE DEPENDENT RESIDENTS

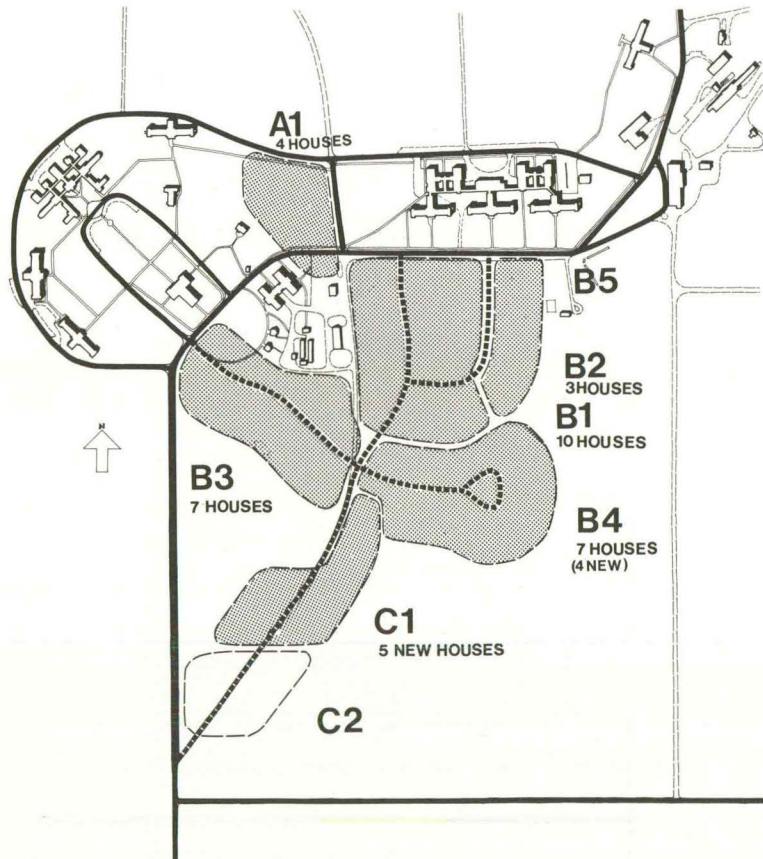
PRESENT DEV. LEVEL	PRESENT POP.	NEW HOUSES		PROG. TYPE	FIRST PHASE	PROGRAM TYPE OF NEW HOUSES	
		SITES				SIZE POLICY A <small>432 POP.</small>	SIZE POLICY B <small>576 POP.</small>
		1ST choice	2ND choice				
AREA I	105	SEE SECTION ON RESIDENTIAL SITING		I		6	2
AREA II	244		II	6	5	4	
AREA III	152		III	4	1	2	
AREA IV	143		IV		5	1	
TOTALS	644				10	17	9



FIRST PHASE



SIZE POLICY A 432 POP.



SIZE POLICY B 576 POP.

Schedule of Physical Improvements

Title XIX will bring many long-needed physical improvements to the Woodward campus. Improvements will be funded from the "State Hospital School Revolving Fund", set up by House File 989 to underwrite costs incurred in bringing the state schools into the Title XIX program. Once the legislature has loaned this fund enough money to get started, ongoing support will be provided by reimbursements generated through Title XIX payments. As indicated on the accompanying Schedule of Physical Improvements, initial state loans to the fund will be paid back out of reimbursements as well.

physical improvements
pledged in the
Technical Plan of
Correction

New Residences The major physical improvement promised in Woodward's Technical Plan of Correction is construction of new residential units. A first phase of ten houses, serving 16 residents each, is already underway. Seventeen more houses would bring the campus population to 432 (Size Policy A), and an additional 9 would increase the target population its 576 (Size Policy B).

program and
activity improvements

The Woodward Masterplan presented in this report includes a number of key improvements to program and activity space (a more detailed description of these improvements will be found in the Chapter on campus design). Among the changes fundamental to high quality educational and developmental programming on campus are:

- creation of a new education and developmental center in the Linden complex (Linden A, B, C, and D, Elmcrest, Maple and the Medical Center)
- improvements to the School and Larches
- improvements to the Medical Center
- new activity and recreation center
- creation of a Program Resource Center and improvements to administrative offices in Hemlock and Westwood
- creation of programmed outdoor areas.

WOODWARD

**SCHEDULE OF PHYSICAL
IMPROVEMENTS**





ECOLOGUE PARTICIPANT DESCRIBES A MODEL OF AN "IDEAL CAMPUS."

PART III.

CAMPUS DESIGN

Introduction

In this chapter are presented the design recommendations of the campus masterplans. The first section describes results of a week-long participatory design process at each campus which produced a great many suggestions for improvements in the campus physical environment. Separate sections on each campus then describe detailed design recommendations in three areas:

- overall campus plan
- campus organization,
- program and activity space

Campus Design Input

A variety of techniques have been used in gathering material on which to base campus masterplans. Administrative reports by in-house campus planning staff have set many design parameters. Topics covered included:

- program and activity space needs
- space use studies of selected buildings
- analysis of building deficiencies vis a vis OSHA and JCAH requirements.
- reports from Area Directors describing how new houses would be used from a staffing and program point of view.

Added to these reports were outreach and design activities of the Environmental Design Group, including:

- building by building surveys of code deficiencies
- cost effectiveness studies of major options in building renovation and new construction,
- projection of campus development patterns resulting from alternative policy assumptions
- schematic design studies of new residential housing
- residential and program space usage studies
- architectural analysis of selected program and residential renovations
- campus zoning analysis
- systems analysis of technical plan strategies.

the Ecologue process

One of the early steps in campus design outreach was an "Ecologue" process in which a wide variety of persons were asked what changes they would recommend for the campus physical environment. The process was organized into a four meeting sequence.

MEETING 1: Superintendent's introduction, description of political and bureaucratic context, introduction of participants through discussion of personal histories of contact with the campus and brief description of "favourite places" on and off campus.

ACTIVITY 1: Questionnaire concerning things liked and disliked about campus.

MEETING 2: Small group discussion of existing campus image; collective maps of campus strengths and weaknesses.

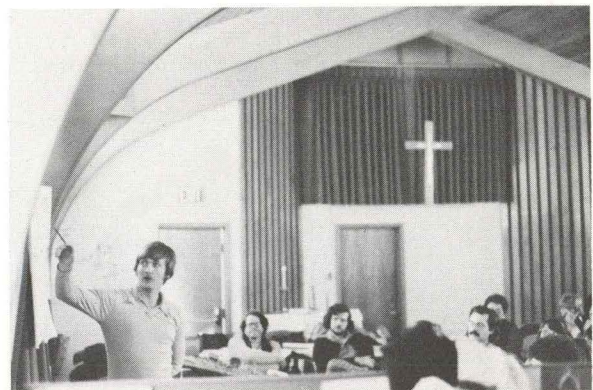
ACTIVITY 2: "Typical Day Tour", participants travel the day of a typical campus resident, noting "high points" and "low points".

ACTIVITY 3: Participants write short descriptions of a place which has qualities that should be found on campus.

MEETING 3: Summarize thinking on problems and possibilities: begin preparation of ideal campus plans.

ACTIVITY 4: Develop some aspect of ideal campus plan in detail.

MEETING 4: Small groups present ideal campus plans to each other: discussion of constraints and priorities: summary statements by EDG and Superintendent.



Ecologue at Glenwood

There are as many perspectives on Glenwood as there are people who come in contact with the campus. In order to include a broad range of these perspectives, Ecologue participants were selected and organized into "affinity groups" by the nature of their relationship to the campus. Included were parents, catchment area representatives, support and maintenance staff, program operators, team professionals, direct care staff for more independent residents, direct care staff for more dependent residents, and residents themselves.

participants

The major purpose of the Ecologue process was to open campus design to the ideas of those who experience the campus on a daily basis.

special ideas

The many ideas and proposals on the following pages should not be considered campus policy. Each of the eight Ecologue groups was asked to develop an "ideal campus plan", filled with its best thoughts concerning the campus future. How these many ideas were analyzed and sifted into a single campus masterplan is the topic of succeeding chapters.

Not all the ideas which emerged were new. Many proved unfeasible for a variety of reasons. A sampling of these ideas - big and small, practical and idealistic - is included here, however, as a prompting to those who will be guiding campus growth over the next few years:

- normalize the campus by developing facilities for non-mentally retarded persons, e.g. housing for the elderly, medical facilities, or town recreation.
- convert 710 Lacey into a city hospital or regional medical office complex.
- create a program resource center on campus - part university campus, part conference center, part research institute
- turn existing staff housing into resident housing
- establish a community college on campus

- build a "motel for parents" with a camp-ground for recreation vehicles and apartment facilities
- link campus areas with covered pedestrian walkways
- create a "town square" on campus, perhaps along Main Street where it meets Lacey Street. Include a covered courtyard, a branch post office, a branch bank, a campus library, a cafe and discotheque, a store for "convenience foods," a pin-ball arcade, a five and dime, a laundromat, campus dental and doctors offices, churches
- create a more positive entry into campus by improving the underpass with a protected pedestrian passageway, establishing a small park to the left of the main entrance, and locating a small information center near the entrance area
- establish recreation and park areas on campus and a small zoo which might attract townspeople to campus
- build a small outdoor amphitheater on campus
- turn Main Street into a "boulevard" with arcaded sidewalks and plantings
- create small "farm-residences" on the Iowa model which locate a number of resident homes around a farm area where residents can participate in real and symbolic ways in the chores necessary to keep their household going. Each farm residence complex would include front and back yards, gardens, "country kitchens", animal pens, etc.
- provide apartments for married residents
- build a visitor's center
- remove all buildings presently on campus and recreate an entirely new town with its own square, residential areas, schools, neighborhood parks, etc.
- make Glenwood a "little town" in order to normalize its physical environment. Include as many town functions as possible
- integrate the campus into surrounding town areas by building housing across the C, B & Q tracks, opening up new vehicular entrances from I 34, and improving pedestrian access to town along the northern border of the campus.

Campus planning would be an effortless process if it meant simply adding up all positive suggestions for change. Most frequently, however, unanticipated economic, political and bureaucratic forces intervene to set real timetables for progress. Sometimes, as well, two equally positive recommendations will be in conflict with each other. The Ecologue progress helped identify a number of areas where further analysis and understanding are required to resolve conflicting approaches to campus development. Some of these conflicting alternatives are:

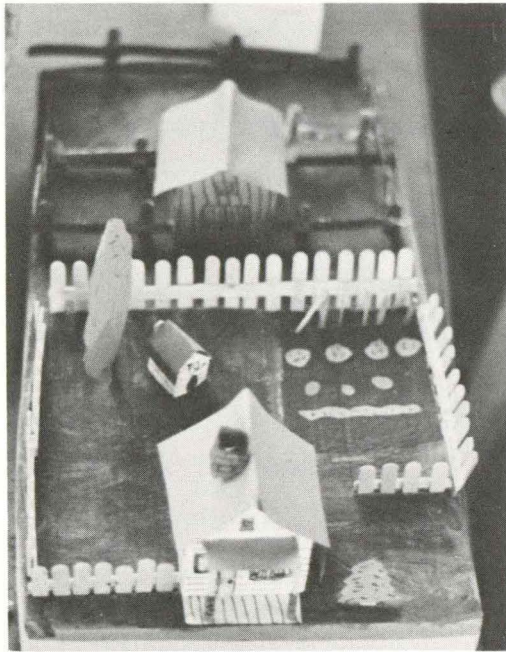
- create a "little town" on campus or promote integration of campus into the existing town fabric
- bring more cars and people onto campus or restrict hazardous through-traffic and contact with strangers
- build on the charm, history and spaciousness of existing buildings, or build new, contemporary structures which will give the campus a "new image".
- link housing to town or link housing to campus program areas
- strive for optimum-sized spaces and high quality construction and landscaping or strive for minimum-sized spaces and lowest possible costs.
- emphasize residential improvements exclusively, or include selected program space improvements as priority items
- build residences for 8 to 12 persons or as specialized residential homes for the retarded
- emphasize efficiency in services (accessible parking areas, centralized food preparation, efficient support services) or emphasize program and therapeutic needs (accessible play and pedestrian areas, de-centralized food services, resident participation in support services).

direct care staff for
more independent
residents

Members of this group felt they could make more creative suggestions by assuming they had been given the present campus site, with no buildings on it, and been asked to create a new campus from scratch. Group members built a clay model of the site and added miniature program and residential buildings to complete their plan. The scheme was organized around a "town center" which included medical storefront offices, clothing, crafts and tool stores (as extensions of existing support activities); a motel for visitors; a "city hall" with offices for social workers and administrative officials; a church; a recreation center; a laundromat, etc. Outward from this town center, residences would be organized into neighborhoods by a traditional street pattern.

At the fringe of town would be located "farm/city" residences which allowed housefuls of people to live and work together, each person making some contribution to the common good. The campus would be designed to change constantly, according to the seasons, the annual schedule of holidays, and the whims of staff and residents. Residential construction would pay careful attention to the need for personalized private space for each resident - my room, my bed, my closet, my door.





MODEL OF A "FARM RESIDENCE" FOR
RETARDED PERSONS

Each resident would be given a living environment that is responsive at the appropriate scale - for non-ambulatory residents this means a responsive bedside and room area; for less ambulatory residents this means a responsive house and yard area; for community-ready residents this means a number of steps would improve outdoor landscaping:

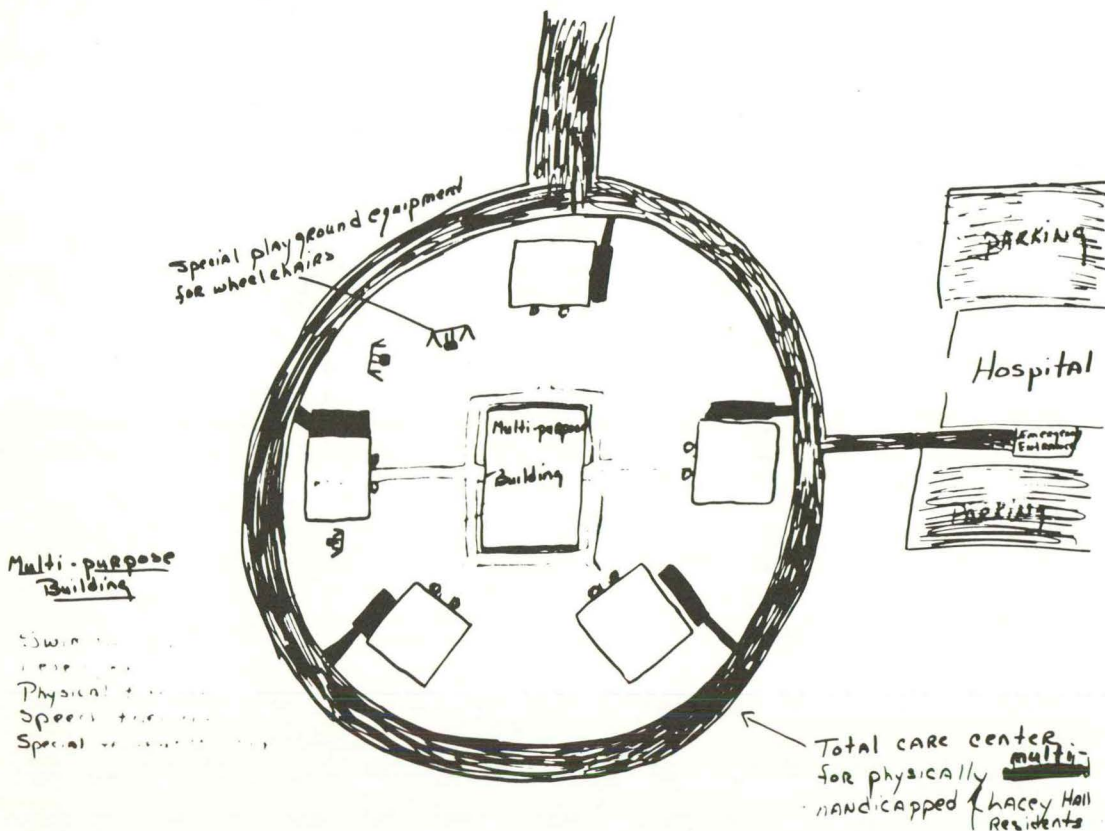
- creation of "backyards" for resident homes where people could play, relax, or just get away from things.
- formation of a park in the triangular area to the southwest of the corner of Lacey and Main streets
- humanization of the entrance to campus through park-like improvements such as a duck pond and more formal landscaping
- new sidewalks along Main Street
- addition of fountains and sculpture in pedestrian areas of the campus

Catchment area representatives felt that Glenwood should serve as a center for the development of district and local facilities. In this capacity it could provide medical and dental expertise concerning care for the retarded, create specialized programs in mental health and behaviour disorders; provide high quality diagnosis and evaluation services, give specialized short-term treatment, and help monitor standards in community facilities.

catchment area representatives

Training could take place on campus for parents and community groups, travelling medical service teams, university-based projects, etc. Finally, the campus would provide a "residence of last resort" for persons unable to find treatment elsewhere in the catchment area. The ideal plan prepared by this group included:

- a new campus main street, passing to the east of Mogridge Hall, connecting the northern access to town with I 34.
- remodelling of Mogridge Hall into a "Mall" with private sector facilities providing goods and services to staff, residents and the community



SKETCH FOR A "RESIDENTIAL / PROGRAM" CENTER FOR DEPENDENT RESIDENTS

- improvements to Lacey Hall (including new construction and renovation) to turn it into the Glenwood City Hospital
- Organization of residential areas into small enclaves of housing in the "planned unit development" model.

support staff

Support staff workers considered ways in which the services they represented (laundry, clothing repair, food preparation, maintenance of buildings and grounds) could enhance opportunities for vocational training and improve the quality of life on campus generally. In searching for ways to make Glenwood a better place to work and live, the group suggested the following changes:

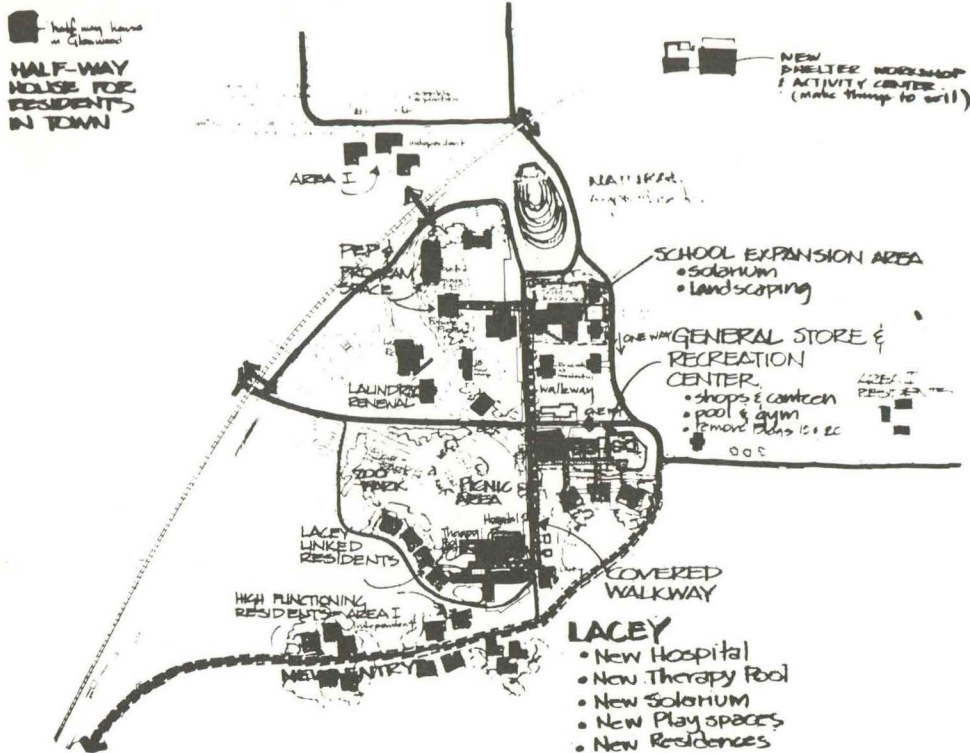
- establish "stores" related to campus services: a small commercial laundry, a baked-goods outlet, a restaurant, a giftshop
- improve working conditions in the laundry where many residents now work
- draw support services, and related public outlets, into a "support center" with qualities of a town center as opposed to a maintenance area.

program operators

Program operators consulted in the Ecologue process prepared an ideal campus plan including the following features:

- retiring buildings 102, 103, 119, and 120 from residential use
- improvement of traffic patterns and conflict of pedestrian and vehicular circulation at "confusion corner", the junction of Lacey and Main Streets

"IDEAL CAMPUS" PLAN BY PROGRAM OPERATORS GROUP



- creation of a new recreation activity center
- four kinds of new residential construction
 - Lacey related, with connections to hospital and physical rehabilitation programs
 - recreation center related, for less independent residents
 - street related, for more independent residents
 - town related (across the tracks or in Glenwood proper), for community ready residents
- new recreation center including a "general store" to replace 119, 20, the Fire Station and the store-room building
- a new hospital in front of the Lacey clinical wing
- covered and heated walkways connecting Lacey, a new recreation building, the school, and the administration building

direct care staff for
more independent
residents

Ideas put forward by direct care workers for more dependent residents were especially sensitive to the needs of the less mobile population that Glenwood is serving in ever-larger numbers. Their "ideal campus plan" included

- new residential areas located close to program and medical support areas, including units in "courtyard houses" attached to Lacey, conversion of staff residences to houses for more independent residents, and remodelling of buildings 3, 12, 13, 14, 15, 18 and the employees' cottage
- creation of a shopping mall along Lacey Street incorporating existing buildings in that area.
- improvements in hospital and clinical space
- renovation of 119 Buckner as a recreation center, and demolition of Mogridge Hall.
- conversion of 102 Central to a PEP and vocational training center
- creation of a less structured, leisure-time center on campus, especially one accessible to less mobile residents

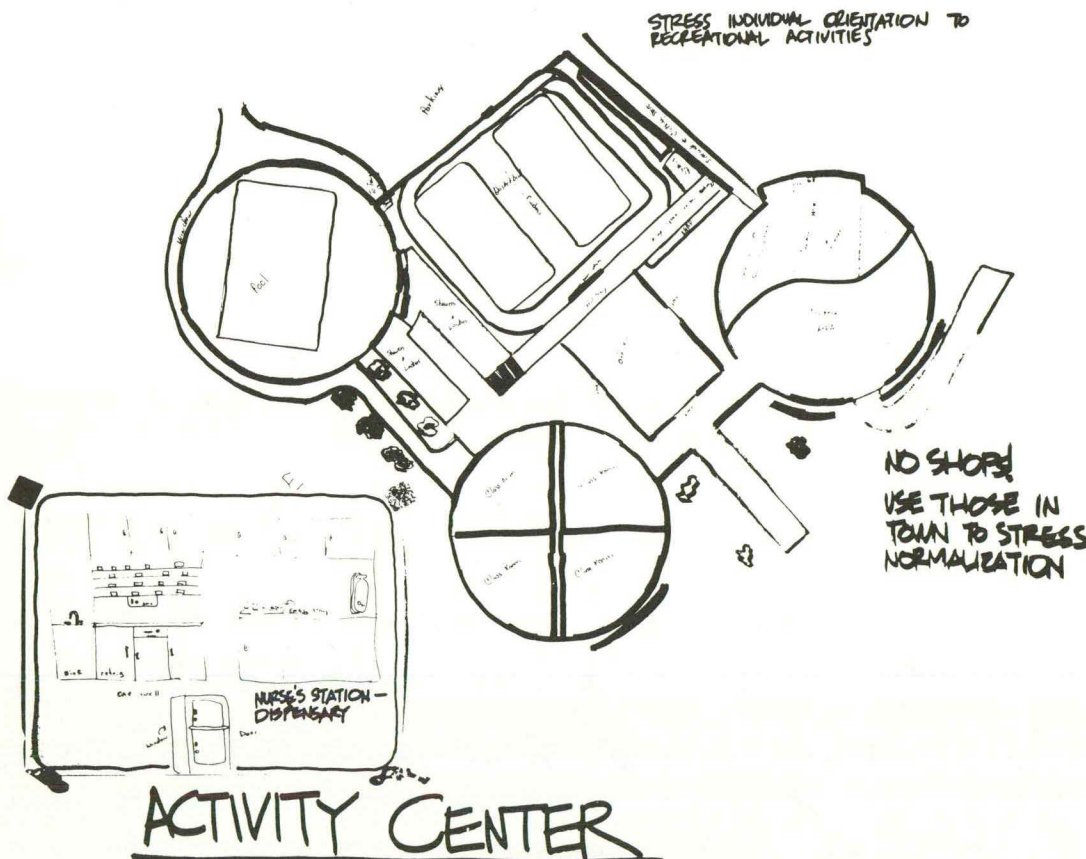
residents

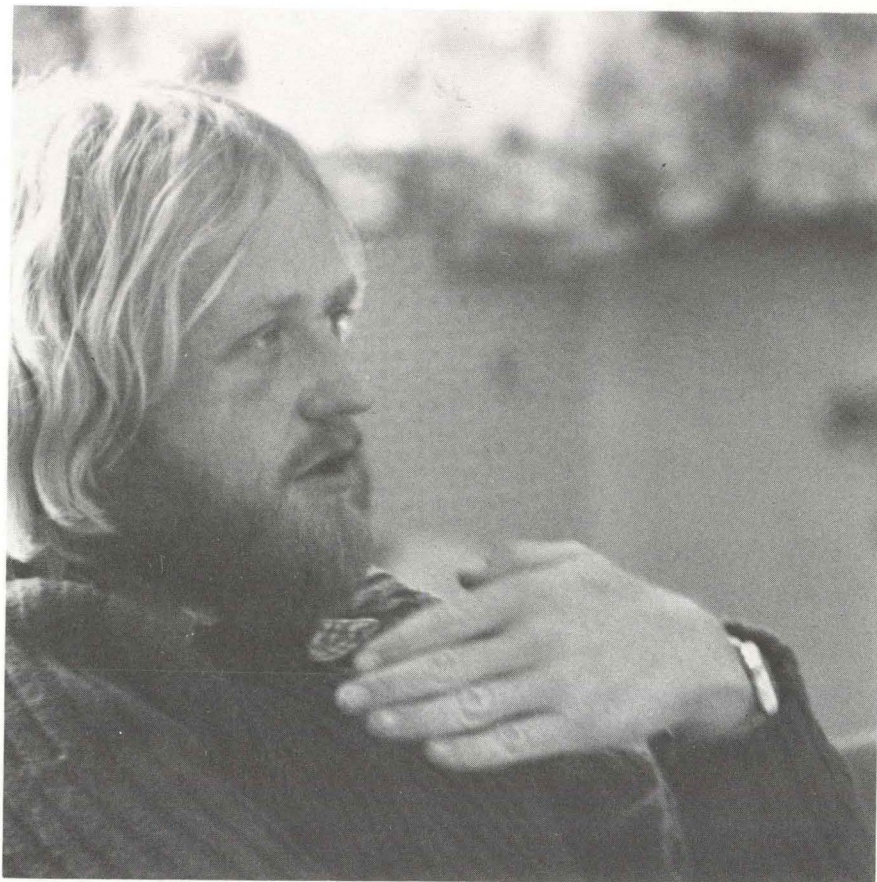
Several sessions with campus residents sought to understand how the campus felt to those living there on a long term basis. A number of places were consistently mentioned as favorites; the canteen, gym and cafeteria, buildings 15 and 17, the farm. Several places were described in negative terms by some: the laundry, building 102, and overcrowded areas of 120 Main. Residents expressed a desire for rooms of their own where they could keep personal possessions, be alone when they wanted to, have friends in to visit, and cook their own meals. Some expressed a desire to plan and organize their activities more independently, including when and where to eat, whom to visit, when to get up and go to sleep, and how much money to spend. Activities "off the hill" were spoken of fondly: trips to wrestling matches, roller skating, movies, shopping, restaurants, etc.

- relocation of service buildings to a zone east of campus
- creation of a community and professional resource center adjacent to Lacey to include research facilities, community activity and information space and a mental health center.

Team professionals sought "de-institutionalization" of the campus as a primary goal. In terms of programs, this meant emphasis on skills necessary to success in community living. In terms of environment, this meant not making the campus a "little town", but increasing use of facilities already available in surrounding towns and cities. Included in the ideal plan drawn up by team professionals were:

- new residential construction in 12 person modules, each containing living room, dining room, kitchen (with potential for laundry), and activity spaces. Modules for higher functioning residents would be completely independent; those for lower functioning residents linked to each other by walkways
- a multi-use activity complex (canteen, school, pool, gym) in place of Mogridge Hall.





Ecologue at Woodward

participants

In order to cover a variety of perspectives on the future of Woodward, participants in the Ecologue process were recruited from a number of groups: parents, catchment area representatives, support staff, direct care and program staff for dependent and independent residents, and residents themselves

special ideas

The major purpose of the Ecologue process was to open campus design to the ideas of those who experience the campus on a daily basis. Not all the ideas which emerged were new. Many proved unfeasible for a variety of

reasons. A sampling of these ideas - big and small, practical and idealistic - is included here, however, as a prompting to those who will be guiding campus growth over the next few years.

- create new home-like residential environments
- establish resident "home gardens"
- preserve open, green areas on the existing campus
- convert the administration building into an activity/community center
- replace Elmcrest with an outdoor court for the Linden center area
- change the names of existing buildings to conform to normal street addresses
- create a new program/activity center, including a new pool, in the center of the campus
- create a lake and intensively landscaped park/picnic area on campus
- build new residences close to town
- build some residences with weatherproof links to program and medical areas
- restore the Iowa grid to the campus street system
- use present employees' house for residents
- design new residences to serve persons from different functional levels in the same house
- renovate some existing buildings into apartment-like buildings
- bring town-like activities to campus: shopping facilities, recreation areas etc.
- link housing for more dependent residents with a new program and activity center.

conflicts

Planning for campus improvements would be an effortless process if it meant simply adding up all positive suggestions for change. Most frequently, however, it is outside economic, political and bureaucratic factors which set the real timetable for progress. Sometimes, as well, two equally positive recommendations will be in conflict with each other. The Ecologue process helped identify a number of areas where further analysis and understanding will be required to resolve conflicting approaches to campus development. Some of these conflicting alternatives were:

- relate new residences to town or relate new residences to existing campus buildings
- plan for pedestrian access or rely on busing of residents
- provide weatherproof access to program space or preserve the open space feel of the existing campus
- build new residences to specific functional levels or provide multi-level capability in all residences
- 12 to 16 persons per residential unit or 8 to 12 residents per residential unit
- strive for optimum-sized spaces and high quality construction and landscaping or strive for minimum-sized spaces and lowest possible costs.

catchment area
representatives

The Ecologue group made up of representatives from Woodward's catchment area concentrated on ways to "deinstitutionalize" the campus physical and social environment. From a program point of view this meant converting the campus to a short-term care facility which would help retarded persons gain the skills necessary to live in the community. Included in the "ideal campus plan" prepared by this group were:

- a new suburban neighborhood, located adjacent to town, which would contain all new resident housing. This new development would be planned as an extension of the existing town, with street, parking and neighborhood amenities planned accordingly.
- informal landscaping, to counter the institutional feel of existing open areas, especially the boulevard entrance to campus.



SHORT-
TERM
RESIDENTIAL
COMMUNITY

SKETCH OF A RESIDENTIAL
NEIGHBORHOOD FOR RETARDED
PERSONS BY THE CATCHMENT
AREA ECOLOGUE GROUP

- conversion of Linden Court into a school/development center.
- programmed outdoor areas: a lake, picnic areas, a bicycle path, a campground, vegetable and flower gardens.

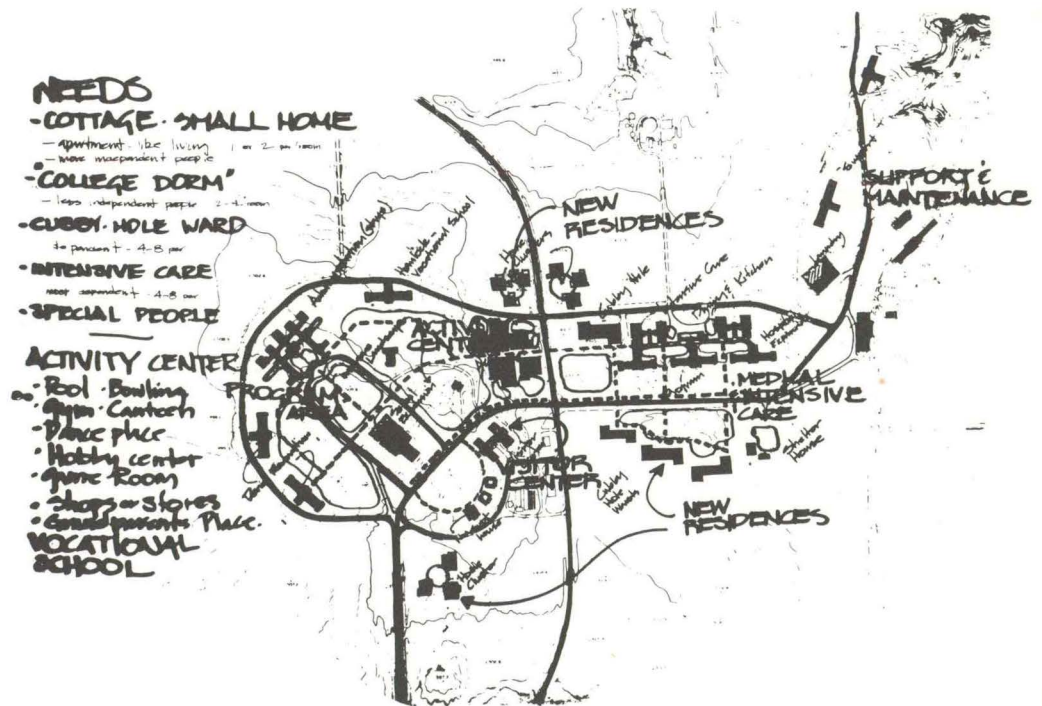
Direct care workers for more independent residents outlined a campus in which each functional area would have housing designed for its special needs. Housing for more independent residents would be located along the boulevard, across from a new "shopping mall." Residents from Areas II and III would be located north of campus in new houses close to the programs and activities they frequent on a daily basis. Area I residents would live in renovated portions of the Linden Court complex. A new park area, including a lake, would be located in the area surrounding the existing campground.

direct care staff
for independent
residents

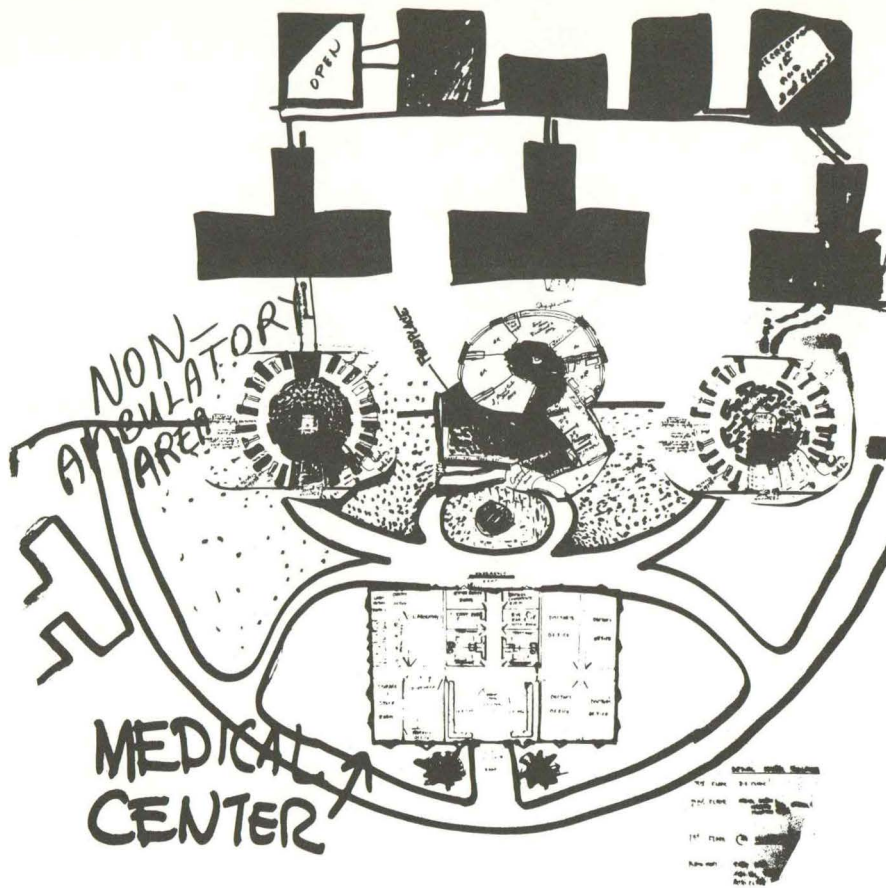
parents

Given highest priority by parents was the creation of pleasant residential environments. A variety of approaches to new housing were described -- "cluster houses" located along the entrance boulevard, new "cubby hole ward" buildings to be constructed near Linden Center, dormitory apartments to be located in Westwood or Larches, and intensive care centers to be located in renovated portions of Linden Center and Maple Lodge. The ideal plan prepared by the parent group included:

- a visitors center for parents, students and visiting trainees in E Home
- an expanded medical center
- an activity center with a pool, canteen, shops, recreation facilities and a foster-grandparent center located in the area east of the Superintendent's house
- elimination of central dining
- expansion of the present school building.



"IDEAL CAMPUS" PLAN BY PARENTS ECOLOGUE GROUP



RENOVATIONS AND ADDITIONS
TO LINDEN CENTER BY THE
DIRECT CARE STAFF GROUP

Because they work with less mobile residents on a daily basis, members of this group suggested a number of ways to improve the campus for use by the severely handicapped:

direct care staff
for dependent
residents

- creation of a new residential area to the north of campus. Units would be connected to each other by weatherproof links. Those closer to medical facilities would be assigned to residents needing total care, those further away to lower functioning residents. An activity center, accessible under cover from all units, would be located in the center of the development.
- renovation of Larches and Westwood as expansion space for the school
- expansion of library facilities
- creation of a "mall-like" area with an enlarged canteen, shops, and separate stores for clothing and other convenience goods
- an outdoor program area for gardening and animal projects
- expansion of hospital and physical therapy programs.

program staff for
more dependent
residents

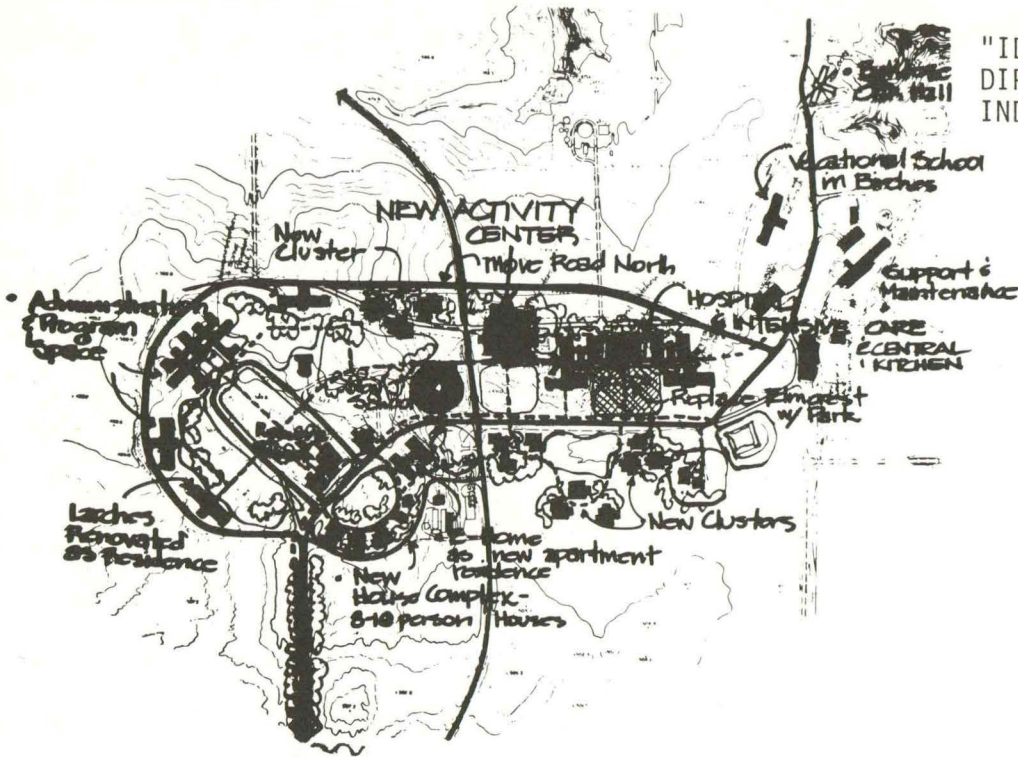
Members of this group felt that open space in the central campus area should be preserved, but that new sub-centers could be designed to greatly improve the campus environment. The first of these, located at the end of the boulevard close to town, would contain housing for higher functioning residents and an activity center. This area would function as a self-contained "community-ready complex" and include apartment-style living opportunities for a portion of residents. A renovated Linden Court would provide a second sub-center. Included in it would be a greatly enlarged developmental center, specialized residences for more dependent residents, psychology labs, and administrative offices for the entire campus. The Hospital would be moved from its present quarters to a new structure south of Linden court, near new housing for those in need of medically-oriented care. The existing administration building would form a third sub-center, a mall-like area devoted to less strictly programmed activities. Included might be shops, game and activity rooms, a restaurant, bakery, TV and radio repair shop, etc. A final sub-center would be created in the area north of the administration building. Here would be located cluster housing with each group of units serving a variety of functional levels.

direct care staff
for independent
residents

Members of this group designed a campus which kept walking distances to a minimum, yet provided a wide variety of normal social and educational experiences. Included in their plans were:

- a new activity center located to the west of Linden Court
- housing in a variety of "in-campus" areas -- east of Hemlock, south of Linden Court, and in the area around the Employees Home
- relocation of the road along the northern edge of campus to bring more buildable area within the campus center
- demolition of Oak Hall, Elmcrest and the school building
- creation of a new school to the north of the Employees Home

"IDEAL CAMPUS" PLAN BY
DIRECT CARE STAFF FOR
INDEPENDENT RESIDENTS



Support staff workers emphasized full utilization of existing buildings in any plans for expansion. Consistent with this viewpoint, they stressed preservation of pleasant open areas of the existing campus and improvement of intra-campus transportation to make existing buildings more accessible. Many existing buildings could be renovated for residential use, they felt, especially Larches, Westwood and Hemlock. With the addition of a swimming pool, Birches could form the nucleus of a new activity and recreation center. Linden Court could be greatly improved through

support staff

GOOD

GOING TO SCHOOL

Watch meal brought in.

- Room available for parents visiting. - good.

- Suggestion

Activity Center @ School
to guide observe them &
guide them in play activities

- Sorting colors / fork knife / puzzle.
- does poorly.

NOTES FROM AN ECOLOGUE POSTER

BAD

Ward

Bathroom

Bad colors

Locked door

(separate problem groups.)

Time out rooms.

Activity center missing.

more play area in the ward.

- Bad smell in Bathroom.

- Bad acoustics - Confusing instructions
to kids

- Bad staff toilets - in closets.

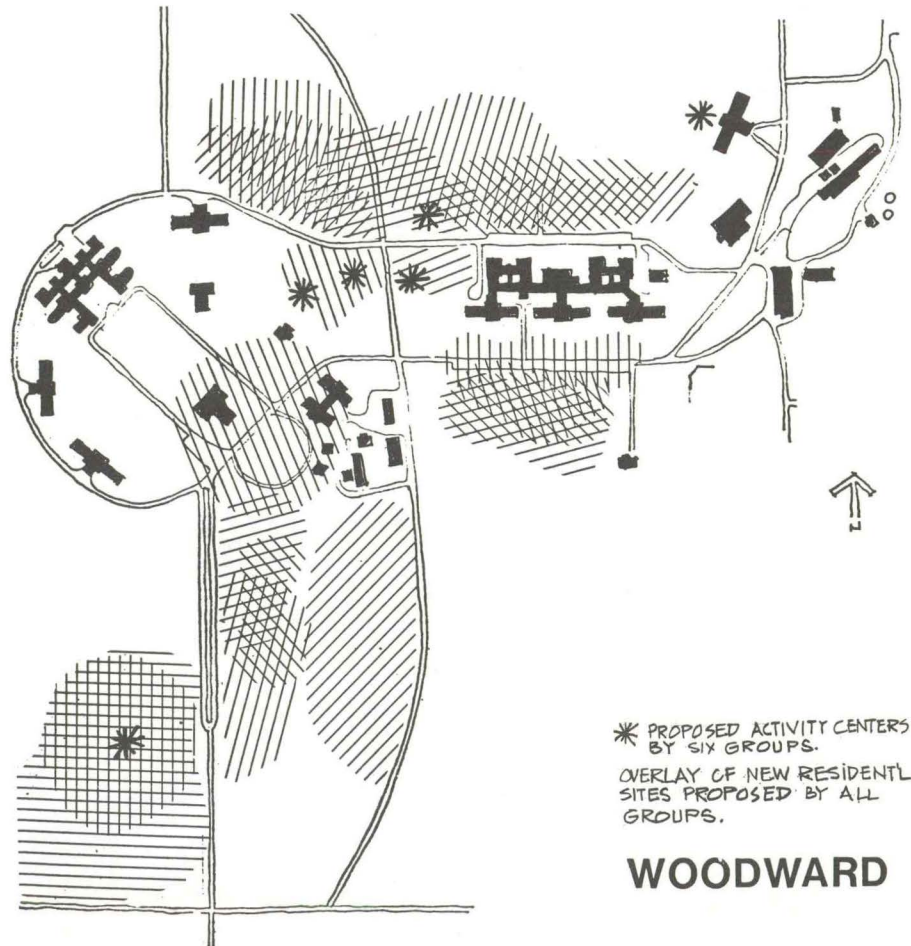
- Lack of clothes room space

renovations including conversion of interior courts into all weather activity areas. New residential construction should be based on modules of 12 residents with each module containing a kitchen and laundry for personal articles and weekend use.

summary map

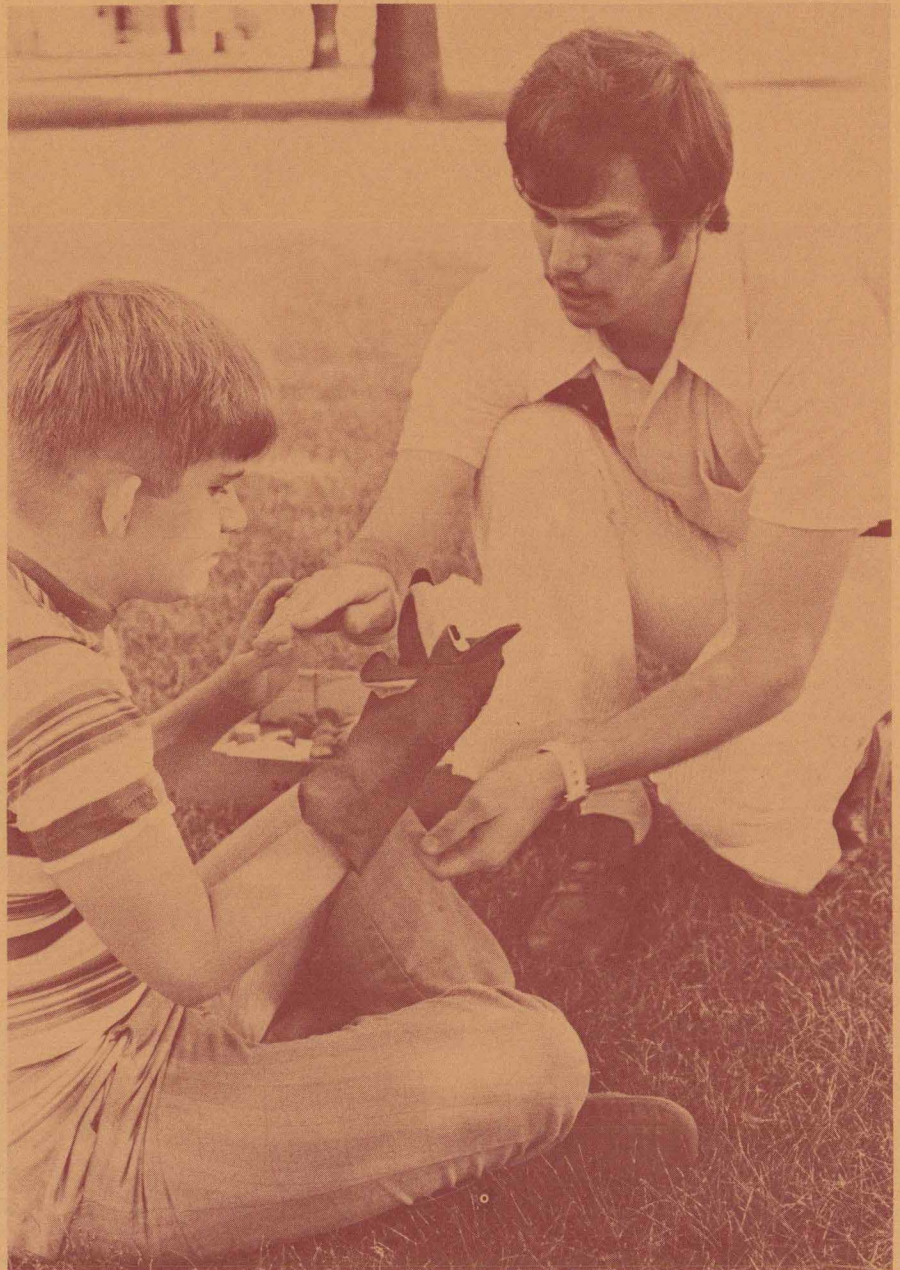
A map summarizing two important dimensions of the Ecologue group recommendations has been included. Shaded areas indicate the sites which the groups pointed to as suitable for new residential construction. Few groups looked to the inner campus area for such sites. Most popular were the areas to the north of campus, along the boulevard, and to the south of the Linden Complex. Also indicated on the map are sites suggested for a new activity center complex, with the area between Hemlock and Linden Center getting the largest number of votes.

Sections on campus design and residential environments to follow will indicate how this many suggestions of participants in this Ecologue process helped form recommendations contained in the Masterplans.



WOODWARD

CAMPUS DESIGN:



WOODWARD

Design Goals

The mandate concerning campus design which emerged from outreach to those concerned with events of Woodward can be summarized in a small number of goals:

- create "home-like" residential environments for all residents
- revitalize older buildings on campus
- enliven the campus landscape
- create a campus environment which promotes social interaction, informal learning, and joyful play
- promote vitality through variety in landscape, architecture, and activities
- give Linden Court a new identity
- create a campus which is economical to staff and maintain
- ground suggestions for change in realistic plans for implementation.

Campus Plan

On the facing page is a plan indicating goals of a five year improvement program for the Woodward campus. The following pages will describe the elements of the plan -- its approach to campus organization, its suggestions for improvement in program and activity space and some of the building renovations on which it is based. In the next chapter, we will describe how the improvements it suggests in residential environments might be implemented.

It is important to understand the Campus Plan in the context of earlier discussions concerning campus size and resident mix. The plan indicates only one of several options for campus development. Specifically, the rendered portion of the plan indicates how the campus would appear assuming the present mix of resident types and a total population of 432 (see Part II for a detailed discussion of campus development options).

WOODWARD

CAMPUS PLAN

Campus Organization

The organizational plan on the opposite page summarizes the underlying framework which unifies the specific suggestions to follow.

Establish distinct zones for major campus activities.

recommendation

Slow but steady shifts in philosophy concerning care of the retarded have eroded most of the meaning in Woodward's original plan. The campus was perhaps most effectively organized when it consisted of one building only, the informal collection of pleasantly scaled spaces now used as administrative offices. The location of the next building, 4,500 feet away, was a sure sign that things would not be going well for campus organization. Over the years, more structures were added between the first two, but none broke down the overly long distances between buildings now marked off by residents three times a day in trips to the dining hall. With the exception of a small school, present campus organization makes no provision for program space. Most residential buildings look more like schools than homes, although they were designed for the latter purpose. Support functions tend to be clustered to the east of campus, but there are exceptions, like the garage and storage sheds to the east of the Employees Home and the gas pumping station to the west of Larches. The overall effect conveyed by the present campus organization is that of a large institution, with one large purpose -- long-term care of many similar people.

The goal of the new organization proposed here is the creation of a differentiated, yet well ordered, entity, more like a small town than a large facility. The first step in reordering campus functions is the creation of a residential zone, much like a traditional subdivision in appearance. As indicated in the Campus Organization plan, this zone is located on the town side of campus and linked to it symbolically by a new residential entrance road toward which the zone faces. The site connects the two major program centers planned for the campus at Linden Court and the School/Larches area. It is hoped that the new pattern of environment and activity which this area symbolizes will help bring a new era of home-like care to the campus.

A second step in reordering campus functions is the creation of a new program and activity centers. The campus organization plan indicates three of these. Linden Complex, ideal because of its size and the variety of its spaces, becomes the primary campus program center (the following section contains detailed suggestions for space use and renovation in this area). A new activity and recreation center, containing much needed gym space and a swimming pool, will complete this area.

A second optional program center focuses on the school building and Larches, the two buildings on the upper campus closest to the new residential zone. A final program area, including the administration building Westwood and Hemlock, would be used for administrative offices and headquarters for a "Program Resource Center" whose activities would take place throughout the campus.

The campus plan shows little change in the large open area surrounded by the buildings of the upper campus area. Many spoke favorably of this campus feature during the Ecologue process. As the campus grows more town-like in its organization, this area might become the "campus green" where public celebrations and activities take place.

Support and maintenance activities should be clustered in buildings to the east of campus. The present garage and storage shed in the center of campus are out of place. It will be appropriate to relocate these to the support area when this can be accomplished with a minimum of cost. Needed expansion of maintenance activities should take place in Oak and Birches, less favorable for residential use because of their location, age and state of disrepair.

recommendation

Establish campus focal points.

The present campus was not designed to include focal points of campus activity. Streets are carefully laid out to provide efficient "back door" access to all buildings and keep staff out of the landscaped area to the front. The result is a beautiful, but formal campus, with little sense of life along the long walks required to move from building to building. A well planned town, by contrast, has points where activity and life concentrate, places where paths cross naturally and people expect to see many familiar "faces. In some cultures, people come to these areas for a "promenade" during evenings or holidays. In America the pattern is more informal, with the same function being filled by a town square, a corner drugstore, the county courthouse or a shopping mall.

The organization proposed for Woodward includes a number of campus focal points. Perhaps the most important of

WOODWARD

CAMPUS ORGANIZATION

these is the area just west of the Linden complex. When new housing has been completed, this area will become a major circulation point for persons walking to meals at the dining hall, attending educational or activity programs in the Linden Center or moving between lower and upper campus areas. Location of a new activity/recreation center here will bring yet more activity and allow a careful structuring of the space to include surfaced play areas, landscaped walks, places to sit and talk, and perhaps a small fountain or mini-amphitheater.

The second campus focal point noted on the campus organization plan is located in front of the present school. It is hoped that this could become a major crossroads for activities taking place on the "upper campus." The point lies on the major pedestrian path between the upper campus and Linden Court, opens onto the campus green, and forms the outdoor focus for activities taking place in a potential School/Larches program center.

complimenting these major campus focal points would be a number of neighborhood- and building-related outdoor areas forming a network of programmed outdoor space (see following section).

Improve campus vehicular circulation.

recommendation

Separating campus activities into zones allows a natural reorganization of campus traffic. Service vehicles may enter directly into the support zone on the service road east of the athletic field. Traffic destined for campus administration or program areas would continue to use Independence Boulevard. Important to the success of the overall plan is upgrading Orchard Road to a major new entrance connecting directly from town into the campus residential area. This new entrance will allow staff and visitors to participate in home activities of residents without having to pass through the older, more institutional parts of campus. A residentially-scaled entrance road would provide an important counterbalance to the formality of Independence Boulevard. Establishing Orchard Road as a new campus entrance will require that it be paved along its full length early in the improvement program. The ten houses presently under construction would benefit greatly from this step. Residential roads have been planned to discourage through movement. Slower traffic is important in creating a protected zone where residents can learn to cope with normal street and pedestrian activity. A four-way stop at the corner of Magnolia and Orchard would slow down cars and encourage through traffic to take another route.

The present parking area to the west of Linden Court should be enlarged to meet the demands of a renovated Linden Program Center and new activity/recreation building. Additional parking has been suggested for the area near the school. In general, it is better to locate parking at the center of things (near front doors rather than back) so that cars and activities associated with them will form a more integral part of campus life. Fortunately, there is more than enough room at Woodward to lay out and landscape parking so that it forms a pleasant, active feature of the campus.

recommendation

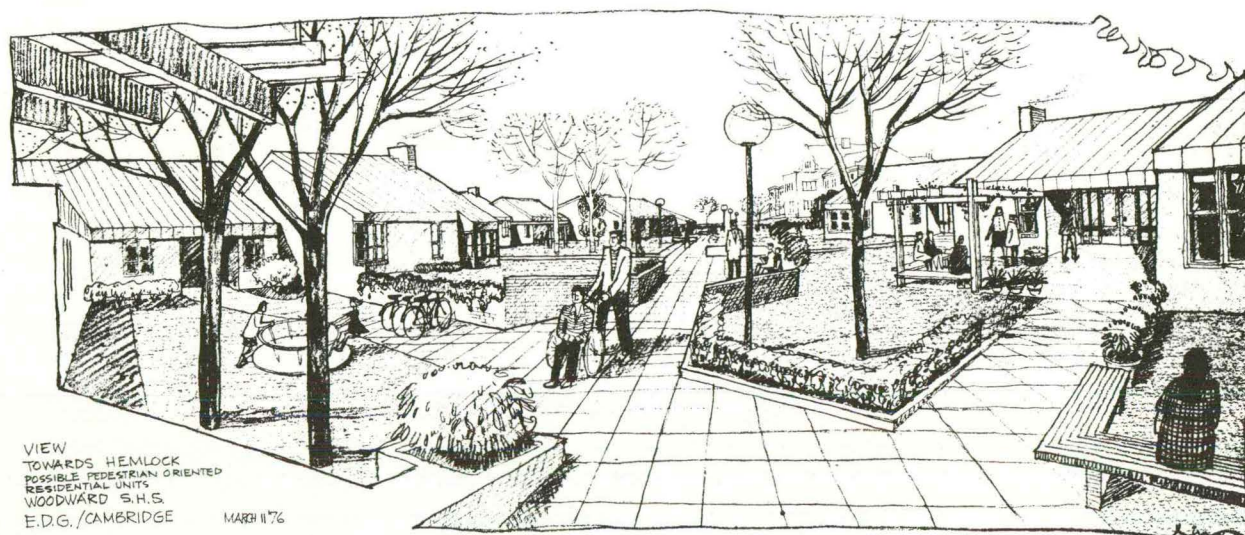
Improve pedestrian access to campus program and activity space.

There is presently a mix of bus and pedestrian movement on campus. The majority of residents walk to meals at Linden Court three times a day (least ambulatory residents are fed in their residential areas). Less mobile residents are frequently bused, however, as are most residents on especially cold or stormy days. Busing has some positive aspects. It can be a pleasant activity. During the summer months, open-air bus rides are a regular feature of campus recreation. It is a mode of transportation that many residents will encounter in community-based programs. There are negative aspects to busing as well, however. It is expensive and difficult to administer. For stops poorly placed on the route, even short connections may require making the entire bus route. Although bus travel is enjoyed by some residents, the staff who accompany residents on these trips find the time unproductive. The problem will grow more critical as structured programming increases to the 300 minutes per day required by Title XIX. Long, uncertain travel times between program segments will force sequential scheduling of all programs in a five hour block. Although this is a normal school or work day pattern, there are many scheduling advantages if residents live within walking distance of the programs:

- individual days can be programmed more flexibly, including, for example, early morning and late afternoon activities on the same day, rest periods at home in the middle of the day, and noon lunches at home
- minor schedule changes are less disruptive (a resident's desire to go home in the middle of the day, a cancelled program, joint scheduling of related programs).

Conversations with campus staff indicated that the walk from Linden Court to the Employees Home (800 feet) was an easy one, while that from Linden Court to the Administration Building (1600 feet) was unpleasantly long. Administrators from Areas I, II and III suggested that about half of their residents would benefit from being located within the shorter radius (distance is much less a problem for the independent residents of Area IV).

Three approaches to designing the campus for resident circulation were analyzed at Woodward. The first, Alternative 1, located all new residences within the 800-foot radius, mostly along a new pedestrian pathway linking the upper and lower campuses. A sketch illustrating how this pathway might feel is included. (Discussion of the principles behind pedestrian- versus street-oriented siting occurs in the chapter on residential environments). Although Alternative 1 solves many circulation problems, it has major difficulties. Many felt that a major break with the past was essential to the success of new improvements -- that new buildings would be "compromised" by location within the old, institutional Woodward. There was an especially strong reaction to placing new buildings near Linden Court, seen as the most institutional building on campus. Some saw the pedestrian campus created by Alternative 1 as an institutional rather than town-like place, not typical of the environments that residents will be encountering in community settings.



Alternative 3, by contrast, placed new houses in a suburban setting between campus and town. This scheme had the advantage of clearly separating the old campus from the new, but it forced a great deal of busing between residential and program areas, with all the difficulties that involves. Campus officials had to weigh the benefits it gave to the small minority who could easily travel into town against the difficulties created in administering a far-flung campus. Some felt it was inappropriate to ask the town to support strong integration of campus and community when there is already near-saturation of the town's ability to participate in campus-related activities.

The campus masterplan presented here is a variant of Alternative 2, a compromise between the centralized and decentralized development patterns. It has good pedestrian access, 70% of phase 1 houses and 55% of those required for a campus population of 432, are within the 800-foot radius. The area is distinct from the old campus yet not distant from it. It is accessible directly from town via a road all its own. Finally, it leaves options for further development open. Houses can be added within the old campus if a more dependent population makes this appropriate. Expansion towards town is always possible if busing proves easier than expected or if the campus is asked to serve a more independent population.

Program and Activity Space

recommendation

Convert vacated residential buildings to program usage.

There is a critical need for program and activity space on the Woodward campus. The accompanying "Program Space Needs" chart indicates the dimensions of the problem. There is a need for some 170,000 square feet of program space for educational activities, work skills (vocational habilitation, work activities, sheltered workshop, and work evaluation), a developmental center, clinical services, and activity/recreation programs (library, recreation space, phys. ed., a pool, gymnasium, auditorium, and storage). There are, at present, 47,000 square feet of program space in use. Most future needs can be met through re-use of vacated residential space (158,000 square feet). Construction of a limited amount of special purpose program space would fill in the gap and bring educational and program facilities up to Title XIX standards.

PRESENT	AFTER FIRST PHASE OF CONSTRUCTION	AFTER SECOND PHASE OF CONSTRUCTION
MEDCTR. 12,000		
SCHOOL 15,000		
PARTS OF EXISTING BUILDING 20,000		
47,000 SQ. FT.	ELMCREST 19,000	LARCHES 14,000
	66,000 SQ. FT.	HEMLOCK 14,000
	(oak hall & birches not suitable for program space)	WESTWOOD 15,000
		MAPLE 9,000
		LINDEN 40,000
		158,000 SQ. FT.

SPACE AVAILABLE

SCHOOL 35,000		
WORK SKILLS 21,000		
DEVCTR. 20,000		
CLINICAL 20,000		
ACTIVITY/ RECREATION 74,000		
170,000 SQ. FT.	170,000 SQ. FT.	170,000 SQ. FT.

SPACE NEEDS

Convert Linden Court into the major program center on campus.

recommendation

The Linden Complex (including Maple, Elmcrest and the Medical Center) has much to recommend it as an important new program center on campus. Its sheer size, 105,000 square feet of usable space, is its biggest asset. Weather-proof connections between all spaces ease integrated scheduling of a great many programs. It is served by the major dining facility on campus, useful for the many residents who will be taking noon meals at the program center. Although the area is presently quite distant from residential buildings (only 1 of 5 lies within the 800-foot radius), this will be changed with the construction of new housing in the immediate area.

Linden Court has problems as well. Many describe it as the most "insitutional" building on campus. It is repetitive -- four identical newer wings lined up beside three identical older buildings. It is connected by an uninterrupted, 630-foot corridor characteristic of the worst in institutional architecture. Second floor areas are isolated from each other, making access difficult, especially for the handicapped. Although the complex gains scale from articulation into subunits, it remains an inward-

looking building, raised 3 feet off the ground, unconded to the "leftover" outdoor space around it.

State allocation studies by campus planning staff indicate that the building is large enough to become a major program center. The space might be allocated as follows:

- Maple Lodge School

1st floor: conference, staff and supply room, pre-school, deaf education, Area I and II

2nd floor: class rooms and programs for the emotionally disturbed and multiply handicapped

- Linden A and B

basement: work activity area, vocational counseling, conference, offices, clerical

1st floor: resident and staff library, music room, audio-visual areas, canteen, multi-purpose recreation area

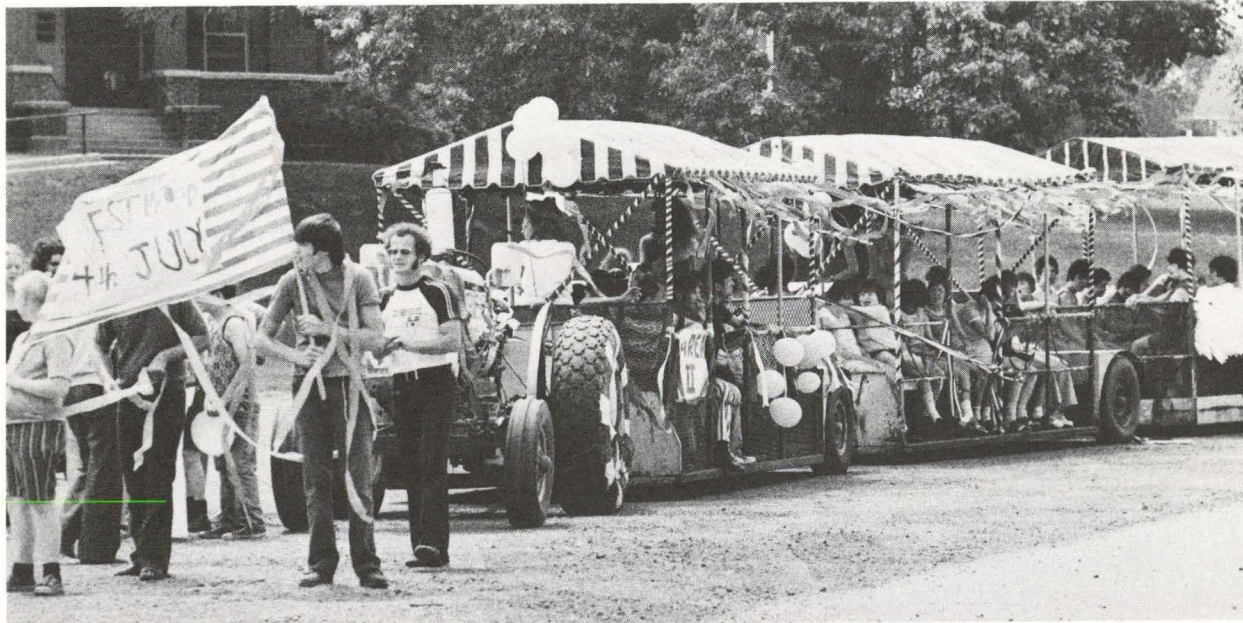
2nd floor: school -- blind and deaf/blind program, art, temporary classrooms, developmental school, home ec., support areas

- Elmcrest

1st and 2nd floors: Developmental Center

- Medical Center

1st and 2nd floors: medical and clinical programs



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**CAMPUS PROGRAM & ACTIVITY
SPACE**

- Linden C and D

basement: sheltered workshop, work evaluation, offices

1st floor: shop, ceramics, cooking, sewing and handicrafts, lounge, physical fitness, multi-purpose recreation, counseling, storage, showers.

2nd floor: medical and clinical programs

Renovation of Linden Court should include a number of improvements to ease building circulation. In order of priority, these are:

1. An elevator in Elmcrest, preferably located near the long corridor as part of an indoor-outdoor "porch" (see following section).
2. Second floor connections between Maple and Linden A and B, and between the Medical Center and Linden D and C. Programming the west end of the building as a school and the east end as a medical center requires easy access between nearby second as well as first floor areas.
3. Elevator at west entrance to long corridor. A new entry structure at the west end of the Linden Complex would improve circulation, and relate the building more openly to the new activity/recreation center area.
4. Second floor connections along the entire corridor. Demands on existing elevators could be reduced by providing second floor access between all buildings. This access could be designed in a way that complemented improvements to corridor spaces beneath.

Creation of two new kinds of interior spaces would greatly improve the feel of the Linden Complex:

- "Interior Porches"

The outdoor courtyards on the south side of the long corridor are ideally scaled and oriented for outdoor play (one of them is already used for this purpose). New structures which emphasized this indoor link would provide a new kind of recreation space for the program center and greatly mitigate the stifling effect of the monotonous corridor. Such a structure could incorporate vertical circulation needed for Elmcrest and a widening of the corridor near the dining area. Indoor porch areas would link directly to outdoor patios on the same level play yards. Interior space could be programmed

for dining, structured recreation, or relaxation between scheduled activities.

- Covered Courts

Courtyards to the north of the long corridor have great potential for forming a second kind of indoor-outdoor space which links the corridor inward to other rooms within the building. Covering these courtyards would create pleasant stopping points along the corridor where activities could be observed without being joined. These areas could be programmed in a number of ways. One courtyard might be a covered eating place linked to the canteen or dining area. One might be a resource center which displayed books and other media in an open area while connecting to quieter reading and audio-visual rooms behind. Yet a third might be a bank/post office/check-out area which connected to food and clothing sales areas behind.

Further work on renovation of the Linden Complex would have to consider egress and fire safety requirements for activity areas and flexible interior treatments to accommodate a wide variety of program needs.

recommendation

Construct a new activity/recreation center to the west of Linden Court.

Existing buildings on campus are not adequate for a number of critical program needs. A new recreation/activity center containing a gymnasium, pool and related services is proposed to complete the Linden Program Center. The gymnasium should be a large general-purpose room designed for general group activities. It should be adequate for the streamlined recreation and physical education programs which will be developed in the new comprehensive training program of the institution. The gym should be designed with fold-away seating for athletic events which would allow more floor space for recreation and physical development activities when not in use for athletic events. Activities that might take place in a gym include wrestling, weight lifting, calisthenics, and other exercise for physical fitness. It could also be used for shuffleboard, tennis, table tennis, volleyball, badminton, and other activities which will stimulate social and physical development. Construction of a new gymnasium would permit renovation of the smaller school gym into an auditorium for movies, presentations to staff and residents, staff meetings, tours, and resident stage performances.

An indoor swimming pool is another key need. The Hospital School staff has been utilizing community facilities for swimming programs during the past few years and is planning to continue this as the major source of recreational swim-

ming. There is, however, a critical need for a small training pool to help prepare residents for use of community pools, and to carry out special training and therapy programs for the deaf, blind, and physically handicapped.

Create a network of programmed outdoor space.

recommendation

Outdoor spaces at Iowa's State Hospital Schools were not designed for active use, but as campus "grounds" which would knit overly large residential and service buildings into an institutional whole. It is time for a change. Personalized resident care and programming demands a personalized campus. We propose that a network of programmed outdoor areas be created on the campus which will reinforce and articulate the liveliness and variety of campus programming. Because most movement on campus will be by foot, many of these spaces are located along a central pedestrian path. Passing by a variety of outdoor activities will help enliven the many walks to and from programs that residents will be taking each day. Outdoor activities, in turn, will be reinforced by attention from those passing by. If this network begins to succeed, staff and residents will naturally prefer it to other, parallel routes. Special events that involve movement -- hikes, pony rides, bicycle events, Easter-egg hunts -- will naturally take place along its route. Bright night lighting, especially of key stopping points, will promote evening use.

Three kinds of outdoor spaces are located on the program and activity space map: campus-wide, neighborhood-related, and house-related.

A. Campus-wide Special Purpose Areas

Several campus "focal points" have already been described. Added to these might be a number of other special purpose areas:

- shelterhouse park

The old shelterhouse area will find its character changed with the construction of new housing in its neighborhood. It would be natural for it to become a neighborhood activity center, programmed by direct care staff, as well as an outdoor campout area for the campus as a whole.

- bicycle path

A bicycle path is shown turning off Independence Boulevard, winding through a new park, crossing Orchard Road, and continuing behind house yards to the shelterhouse and athletic field. The path thus described complements the normal sidewalk network

GLENWOOD

CAMPUS DESIGN:



GLENWOOD

Design Goals

Outreach to administrators, staff and friends of Glenwood resulted in a design mandate summarized in the following goals:

- create home-like residential environments for all residents.
- create a place on campus with qualities of a "town center."
- enliven the landscape through the use of programmed outdoor areas, plantings, and natural and manmade features.
- create a campus activity/recreation center.
- de-centralize dining.
- remove handicap barriers.
- solve conflicts between pedestrians and vehicles.
- create a campus that most residents can use easily by foot.
- create a regional center on the campus.
- improve medical services at 710 Lacey.
- base recommendations in realistic plans for implementation.

Campus Plan

On the facing page is a plan indicating goals of a five year improvement program for the Glenwood campus. The following pages will describe the elements of the plan - its approach to campus organization, its suggestions for improvement in program and activity space, and some of the building renovations on which it is based. In the next chapter we will describe how the improvements it suggests in residential environments might be implemented.

It is important to understand the Campus Plan in the context of earlier discussions concerning campus size and resident mix. The plan indicates only one of several options for campus development. Specifically, the rendered portion of the plan indicates how the campus would appear if the present mix of resident types continues into the future and the campus population levels off at 550.
(See Part II for a detailed discussion of campus development options.)

GLENWOOD

CAMPUS PLAN

Campus Organization

The diagram-plan on the opposite page summarizes recommendations concerning improvements in campus organization.

Cluster Campus Functions Into Distinct Areas

recommendation

Zoning of campus functions has not been a major factor in the evolution of Glenwood's physical plan. With new demands for a wider spectrum of "normalized" programs and activities, it is important that campus organization gain in variety and focus.

In many ways, the present campus organization is turned inside out. Those entering the campus by car must pass the sewage treatment plant, the laundry, the boiler plant, the storage building and the grounds and maintenance shops before finding any signs of resident life. Phasing out of the sewage treatment and its replacement by a recreation area will help reorder this sequence. In a much more distant future, a new connector to Route 34 at the east end of campus would create another campus entrance through the new resident areas.

We recommend that storage, shops, garage and other support functions be moved from their present locations to new support zones, one located to the west of 102, 103 and 106 Central, the other in the farm complex.

Two program centers are suggested for the new campus. The first is an educational and administrative center including the school, administration building, 115 Lacey, and 112, 113 and 114 Independence. The second program center would house less structured recreation and activity programs including a new pool. It would center on Mogridge but include 119 Buckner, the Fire Station and the Greenhouse as well (in the next section we will describe these program centers in more detail).

Surrounding these program centers would be two smaller, special purpose zones: an intensive care center at Lacey including new houses and improvements to the clinic, and a regional resource center, including 102 and 103 Central and the Employees Cottage, for training and outreach to service professionals and parents in the larger catchment area.

Because of the higher cost of renovation over new construction to achieve Title XIX standards, neighborhoods containing new houses will form a broad arc around the central activity areas.

A variety of sites are included, all within walking distance of the campus center. Some of the sites are closer-in, to serve people for whom longer walks would be difficult.

A few sites have been located on campus property across the Chicago Burlington and Quincy tracks where they can relate more to town than to campus.

recommendation

Create a New Campus Green as the Central Open Space on Campus

Removal of the storage building at 121 Main will create a large open area at the heart of campus where all pedestrian paths converge. On three sides, this Campus Green, modeled after town squares like those of Glenwood proper, will be bordered by major campus program, activity and office buildings. On the fourth it will frame a view of the major new campus residential area. One corner of the space will touch the main campus street intersection, the "arrival point" for most incoming traffic. A bandstand will symbolize the area's new identity to those entering the campus or passing by on the way to programs and activities. The Campus Green will be a natural location for outdoor activities of all sorts from carnivals and pony rides to graduations and concerts.

recommendation

Improve the Intersection of Lacey and Main

The intersection of Glenwood's two main streets was dubbed "confusion corner" by participants in the Ecologue process. The campus master-plans presented here include a number of suggestions to upgrade this intersection - the cross-road of campus life. Removal of the storage

GLENWOOD

CAMPUS ORGANIZATION

building to create the Campus Green discussed above will open up the northeast corner of the intersection. On the southeast corner, an entry court to a new swimming pool will welcome visitors and residents into a new Activity Corner. A small overlook to the southwest will help establish a sense of place on the lower side of the intersection.

Provide More Links Between Campus and Town

recommendation

Integrating the Glenwood campus into the town and region is not a simple problem. Many social and political trends have operated to keep town and campus strongly separated. An elevated railroad track separates all town neighborhoods from the campus. Vehicular access is indirect. Entry into the campus proper is dramatically marked by long, cramped tunnels underneath the tracks. Pedestrian movement through these tunnels is extremely hazardous. The center of town is a very long walk from campus. Town housing near the campus is old and poorly maintained. It seems impossible to effect any full "merging" of the campus with nearby town neighborhoods.

Yet the impetus to build new links between campus and town remains, and our masterplan includes a number of features which will help. Housing on the new ridge area is more closely linked to town than present campus housing. It can be approached without passing through the campus at all. If the campus were to be linked to I-34 by a new connector, it would be more appropriate for it to extend to this part of the campus than to Lacey, as previously proposed. The new plan emphasizes upgrading of pedestrian links to town. A major pedestrian path moves along the west side of the ridge to the present car tunnel to the north of campus. It is recommended that the present pedestrian bridge over the tracks be improved for use by the handicapped. Finally, the masterplan includes a suggestion to locate new housing on campus owned property across the tracks. This would place at least a few more independent residents in an environment where they would feel attached to their own neighborhood as strongly as they did to the campus across the tracks where they worked or attended school.

Some approach the issue of links to the community from another perspective, noting that the forced separation of campus and town has brought advantages as well as problems.

In many ways, the isolation of campus from town is counterbalanced by a strong integration and focusing of activity on the campus proper. There is a liveliness about Glenwood. Residents and staff are almost always in evidence, as are the sounds of outdoor movement and play. The special quality of life at Glenwood has been generated from inside, not outside.

Too easy an access between campus and town could create new hazards. There is always a delicate balance between challenging residents to real world problems and providing them with special protection to encourage growth. Plans to connect the campus directly with Route 34 were opposed by campus administrators to avoid through traffic. When all cars on campus can be trusted to know about the special problems of driving in the area, residents can be given much freer access to the campus environment. Finally, it is unrealistic to expect too much of plans to integrate campus and town. With increases in staff anticipated through Title XIX, there will probably be more persons working at the Glenwood Campus than there are in town. Under such conditions it seems misplaced to look to the community for much real help in shaping the day-by-day experience of residents.

Consistent with the virtue (and necessity) of keeping some distinction between campus and town are suggestions for bringing town-like activities to the campus.

Some are less realistic: turn Lacey into the Glenwood City Hospital, bring elderly housing to campus. Others are more feasible: construction of a campus swimming pool, locate "main-street" activities (a bank, post office, furniture store, restaurant, bakery, etc.) in a mall-like setting. More domestic-market housing on the campus would be a welcome addition. It is hoped that efforts by campus administrators to overcome the legal and bureaucratic problems involved will be successful. The Campus Green described earlier is an effort to bring a town-like atmosphere to the campus. Its effect will be especially important in the future when new housing disperses residents and the activity they create over a much wider area.

Maintain Pedestrian Access to Program and Activity Space

recommendation

Most residents presently live within easy walking distance of the programs they attend each day. When busing is used, it is primarily to transport residents to off-campus events. The campus masterplan attempts to minimize on-campus busing between housing and program areas.

Busing is not inherently negative. It has been suggested that the campus bus route include travel through town to give residents the kind of bus experience they will be facing in community programs.

Extensive on-campus busing brings problems, as well, however. It is expensive, difficult to administer, and time consuming. To travel time must be added time spent waiting (to be sure and catch the scheduled stop), and time spent in lengthy pick-ups and drop-offs of handicapped persons at intermediate points. For stops poorly placed on the route, even short connections may require making the entire bus route. Although bus travel may be enjoyed by some residents, the staff who accompany residents generally find the time unproductive. The problem will grow more critical as structured programming increases to the 300 minutes per day required by Title XIX. Long, uncertain travel times between program segments will force sequential scheduling of all programs in a five hour block. Although this is a normal school or work day pattern, there are many scheduling advantages to be gained when residents live within walking distance of program buildings.

- More residents will get to more programs if travel arrangements are simple, not complicated.
- Fewer days must be regularized by lowest common denominator schedules. Special events such as movies, athletic games, dances, etc. are easier to plan.
- Individual days can be programmed more flexibly, including, for example, early morning and late afternoon activities on the same day, rest periods at home in the middle of the day, and noon lunches at home.
- Minor schedule changes are less disruptive (a resident's desire to go home in the middle of the day, a cancelled program, joint scheduling of related programs).

Most of the house sites indicated in the campus master-plan are within walking distance of the campus center so the campus can be either bus or pedestrian oriented. The radius drawn on the campus organization plan measures 1200', a long, but manageable walk for most residents. Conversations with staff indicated that having a number of sites closer than this might be advantageous. Whether additional housing is built closer-in or further-out depends on a number of factors: how successful the first phase locations area, what kind of resident the campus is planning for, and whether or not close-in existing buildings are vacated.



Program and Activity Space

recommendation

Convert Vacated Residential Buildings to Program Use

Present buildings will not provide enough space for the 300 minutes per day of structured programs required by Title XIX. There are now approximately 103,000 square feet of program space on campus,



most of it in the school building. Some 74,000 square feet of additional space will be needed to house expansion of existing programs. As indicated on the Program Space Needs chart included below, 38,000 square feet of first floor area will be vacated upon completion of the first 10 houses, and 32,000 square feet upon completion of the next nine (Second floor areas are less suitable for program use because of egress problems and inaccessibility to the handicapped). With the completion of two phases of new construction, campus program needs and available space will be brought into equilibrium.

Create a New Activity Center in Mogridge Hall

recommendation

Mogridge Hall is one of the largest, most "institutional" structures on campus. Several characteristics, however, recommend it for renovation as a new campus Activity Center. It is centrally located to old program buildings and to new residential areas. It has a wide variety of spaces under one roof. There is enough ground space nearby for parking and service access. Although the building is large, it is articulated into smaller parts which give it a more pleasant scale and form a series of semi-protected outdoor spaces.

The plans included below indicate how the building might be converted to its new use. A new structure linking Mogridge with 119 Buckner is proposed containing an elevator to provide access to upper floors of both buildings for the handicapped. The first floor of Mogridge is planned as a resident activity/recreation center. The West Wing contains an interconnected set of activity rooms for ping pong, pool, music, quiet reading and relaxation. A clothing and notions store is found in the East Wing, opening to

SPACE AVAILABLE	PRESENT	AFTER FIRST PHASE OF CONSTRUCTION	AFTER SECOND PHASE OF CONSTRUCTION
PEP WKSHR 7,500			
PEP 4,000			
ACT/REC 5,000			
DEV THERAPY 3,000			
PHY THERAPY 4,000			
LANGUAGE DEV 1,000			
SCHOOL 78,000			
		BLDGS: 115 LACEY 101 IOWA 103 CENTRAL 317 MAIN 119 BUCKNER 214 INDEPEN 38,000	BLDGS: 120 MAIN 107 CENTRAL 212 INDEPEN 219 INDEPEN 32,000*
		141,000 SQ. FT.*	32,000*
			173,000 SQ. FT.

* includes first floor only, upper floors generally inaccessible to handicapped.

SPACE NEEDS			
PEP WRKSHR 15,000			
PEP 8,000			
ACT/REC 20,000			
DEV THERAPY 12,000			
PHY THERAPY 16,000			
LANGUAGE DEV 3,000			
SCHOOL 118,000			
	192,000 SQ. FT.	192,000 SQ. FT.	192,000 SQ. FT.

a clothing repair shop behind. The South Wing contains a canteen and lounge opening onto an outdoor dining deck to the west. The second floor of Mogridge, and all floors of 119 Buckner, are renovated for a variety of workshop and program functions with accompanying office, counseling and support areas. An enclosed bridge at the first floor level of Mogridge connects the Activity Center with a Teen Center in the Fire Station and a new swimming pool located on the site presently occupied by the maintenance/PEP building. The bridge culminates in a lookout to the West and turns to form a raised walkway along the top of the pool enclosure. The pool itself is covered by a sloping glass roof which allows the western sun into the swimming area and through the structure to the courtyard behind. The complex includes a low, glass-enclosed entry courtyard whose welcoming form would help give a new identity to the intersection of Main and Lacey. The present greenhouse buildings, perhaps enlarged to create a "nature center" would extend the Activity Center south on Lacey. With removal of the single-story structures in the near area, the inner courtyard created between the pool and Mogridge would open out generously to the South and West horizons from the highest point on campus.

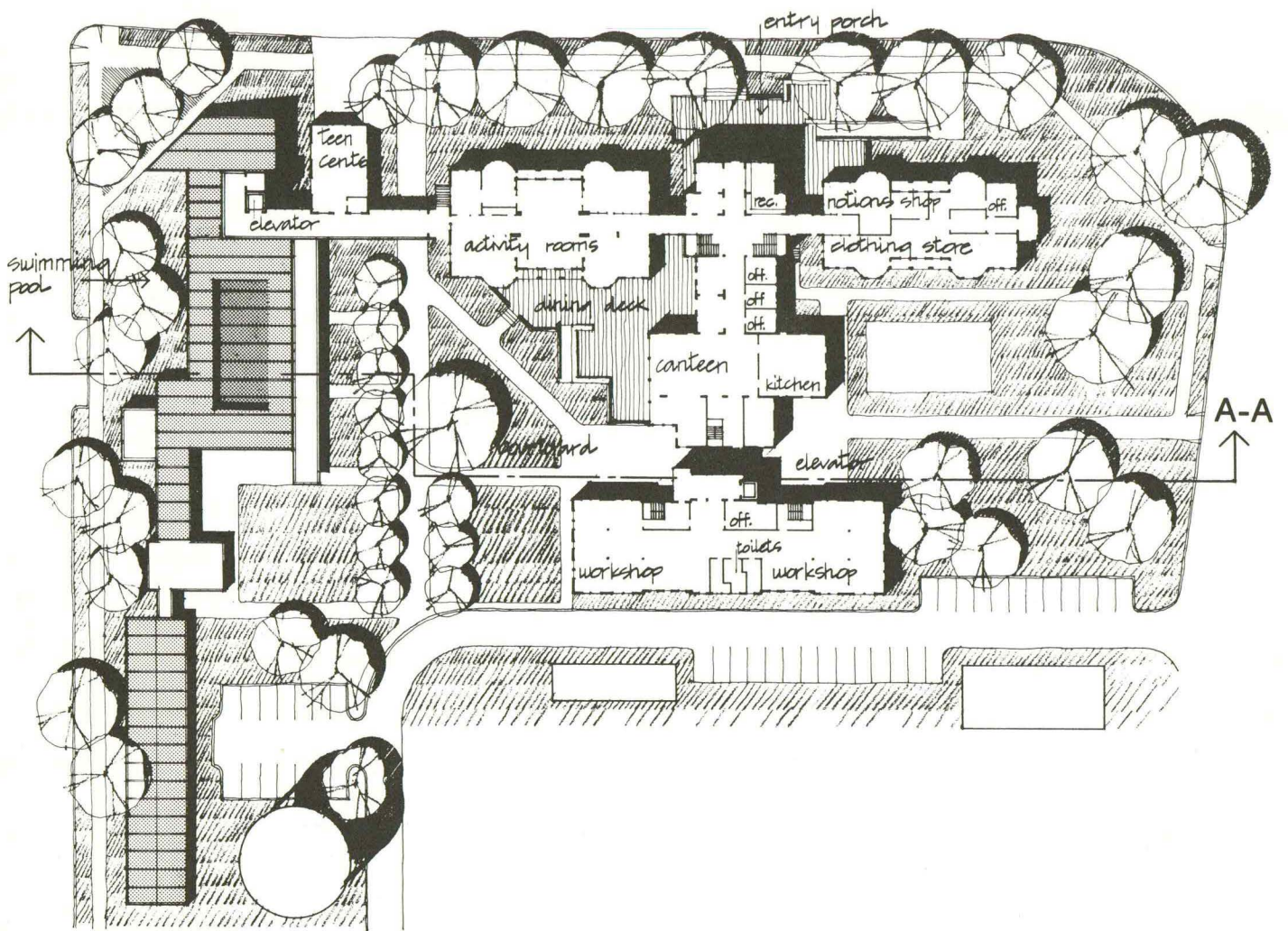
Enlarge the Present School into a Campus Program Center

School activities are now cramped for space. When nearby buildings are vacated for residential use, it will be possible to add these structures to the school and create a larger center for campus educational and developmental programs. The old hospital (115 Lacey) forms a natural part of this complex, as do 112, 113 and 114 Independence. Because of the expense involved in renovating the old Hospital building for resident use, it would be an appropriate place to house expansion of administrative offices. Indicated on the Campus Plan is a new covered activity area on the south side of the school building. This area would help unify the Program Center and provide a focal point for activities on the Campus Green.

recommendation

Create a Network of Programmed Outdoor Space

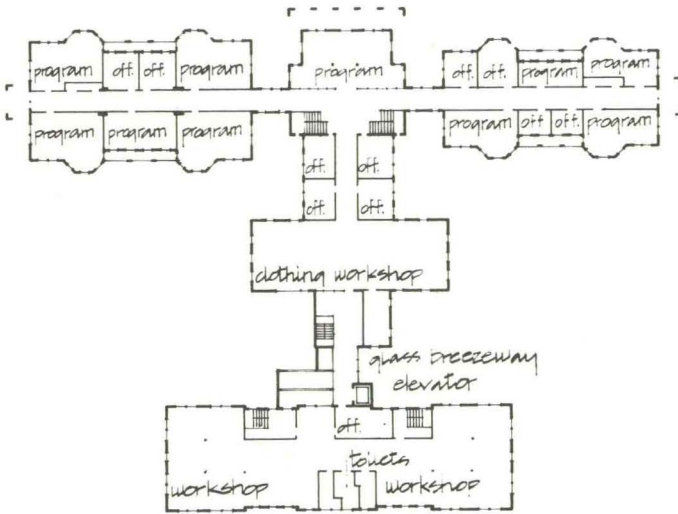
Personalized resident care demands a personalized campus. We propose that a network of programmed outdoor areas be created on the campus which will reinforce and articulate the liveliness and variety of



pool complex
roof plan

First Floor Plan

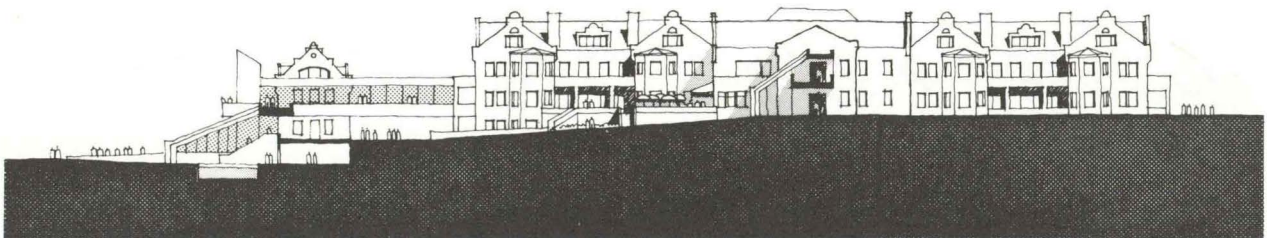
MOGRIDGE ACTIVITY CENTER RENOVATION



Second Floor Plan



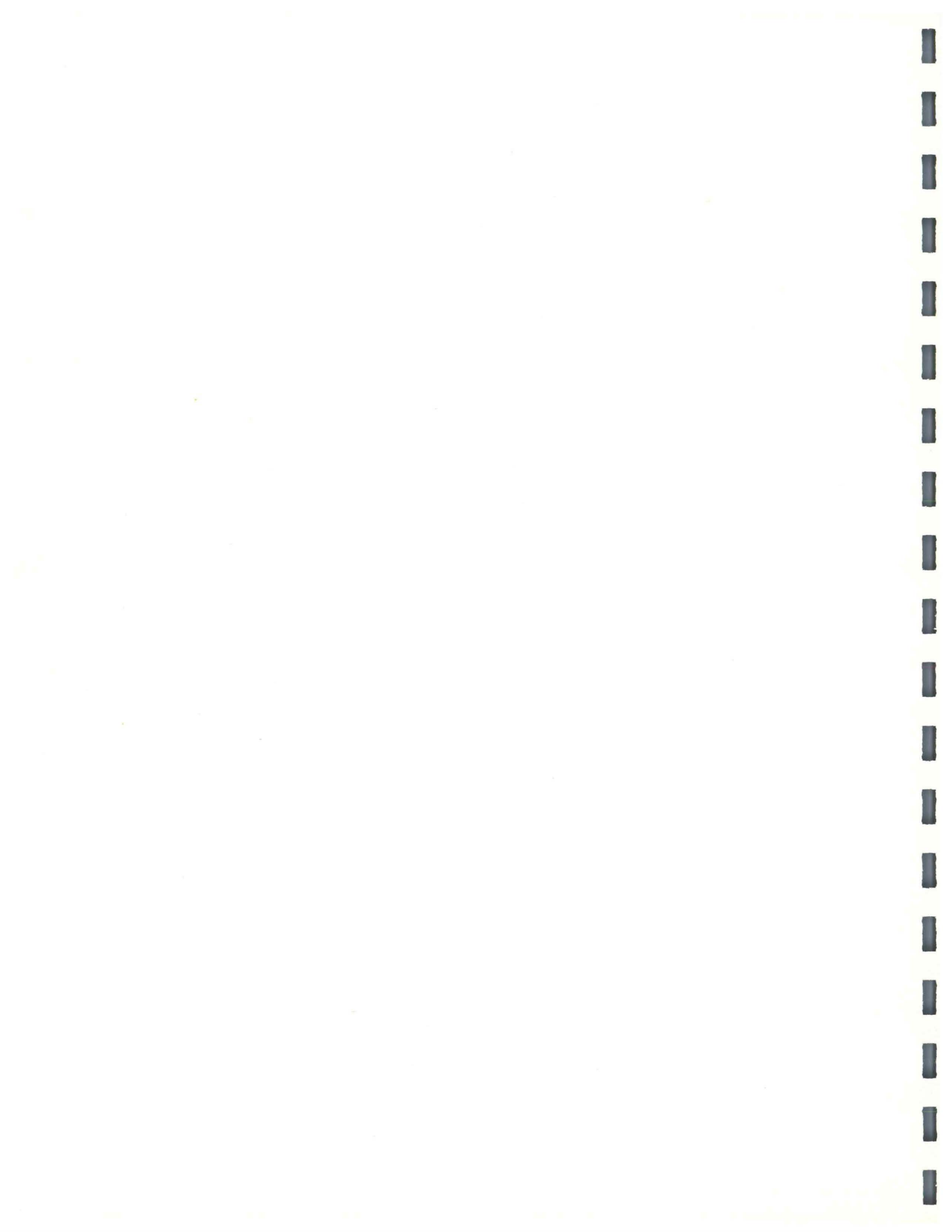
Front Elevation



A-A Section-Elevation

GLENWOOD

**CAMPUS PROGRAM & ACTIVITY
SPACE**



campus programming. Because most movement on campus will be by foot, many of these spaces are located along pedestrian paths. Passing by a variety of outdoor activities will help enliven the many walks to and from programs that residents will be taking each day. Outdoor activities, in turn, will be reinforced by attention from those passing by. If this network begins to succeed, staff and residents will naturally prefer it to other, parallel routes. Special events that involve movement: parades, hikes, pony rides, bicycle events, easter egg hunts - will naturally take place along its route. Bright night lighting, especially of key stopping points, will promote evening use.

Three kinds of outdoor spaces are located on the program and activity space map: campus wide special purpose areas, neighborhood focal points, and house-related outdoor areas.

A. Campus-wide special purpose areas

We have already discussed creation of a Campus Green in the area between Mogridge and the School. One of the most consistent suggestions by participants in the Ecologue outreach process was the creation of outdoor park areas for structures and informal use by residents and staff. Included in such parks might be: adventure playgrounds appropriate to a variety of developmental levels, a "blind garden," nature paths, a wading pool, open protected picnic areas, resident "victory gardens," bicycle paths, resident camping facilities, landscaped recreation fields, flower arbors, wheelchair trails, seasonal animal pens, etc.

Three areas on the Glenwood campus would make ideal sites for outdoor activities such as these. With removal of the Sewage Treatment Plant, the campus area just north of the main entrance will become an ideal place for outdoor activities. A second area, southwest of the intersection of Lacey and Main was frequently suggested as a site for picnics and other outdoor activities. Creation of an overlook at the intersection above this area will help define it. Ramped access from that point for those in wheelchairs would be appropriate as well. With construction of new housing on the ridge, wooded areas to the north and east of campus will become an appropriate area for outdoor activities. With minimal improvements, the natural bowl near the corner of Lacey and Iowa Streets could become an outdoor amphitheater for campus meetings and events.

B. Neighborhood-scale programmed outdoor areas

Location of a variety of neighborhood related outdoor areas has been indicated on the Program and Activity Space plan.

- Residential courtyards New houses can be sited in ways which create neighborhood play and activity centers throughout new residential areas. These centers would help create an "accessible-sphere" which residents could master on their own, before facing the challenge of vehicular traffic in cross-campus walks. Some of these courtyards could take their identity from special features such as a water-play area, a lilac garden, or a playground. Some areas would be designed for adult activities, with quiet seating areas, outdoor tables and heavy plantings. Others would be designed for children, with hard-surface play areas, sandboxes, play structures and the like.
- Bus stops The points at which residents will be picked up by bus will make natural neighborhood focal points. It seems best if each of these serves two to four houses, to shorten the number of route stops, and to approximate the normal, bus-stop-on-the-corner pattern. It is also important, however, that bus stops be visible from the front doors of all houses served so residents can wait indoors during bad weather. Bus stops should be appropriately designed and located to serve as neighborhood focal points. A covered shelter where 8 or 10 people could stand or sit would be appropriate. Planting, paving, and access to nearby parking and outdoor activity areas should be designed to make the bus stop a pleasant place to spend a few minutes of the day.
- Overlooks Siting new housing on the Glenwood terrain will require extensive land moving. Careful preplanning will allow creation of "overlooks" at interesting points along the pedestrian paths linking houses with each other and the central campus. One might look over the baseball field, another into the nature park area, and yet another might open to the South, toward I-34.

C. House-Related Outdoor Areas

In the next section on residential environments we will discuss several kinds of programmed outdoor space appropriate to campus housing.



Residential Renovation

Included in the Technical Plans of Correction submitted to HEW are renovations of two Glenwood buildings for long-term residential use - 710 Lacey and 106 Central.

710 Lacey

Lacey is presently used as a clinical and residential center for intensive care of multiply handicapped residents. Nearly all of its occupants move about only with the aid of adaptive wheel chairs. Campus architects will soon be asked to renovate the building

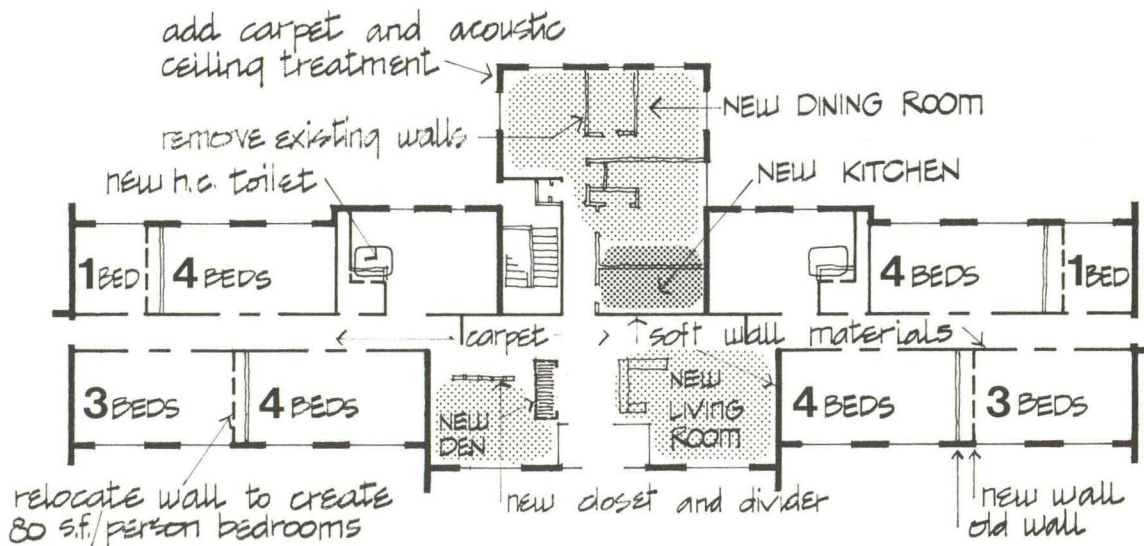
106 Central

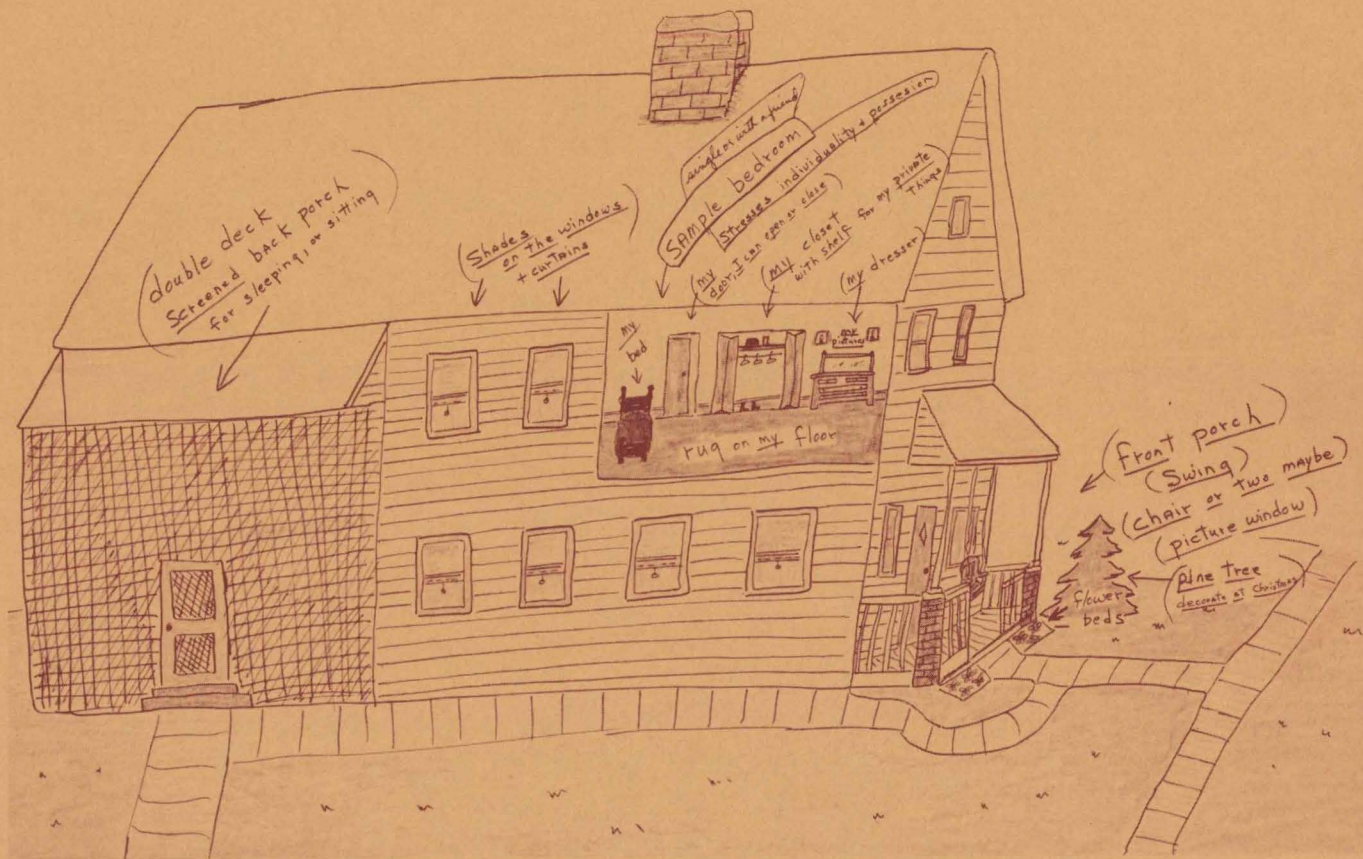
Architects are presently surveying 106 Central to detail corrections needed to bring it up to Title XIX standards.

The sketch plan included here describes a number of additional improvements that would create the kind of house-like environment in 106 that is being sought in new residential construction:

- create a living room and den in the present entry lobby. Soft materials and appropriately designed furnishings can personalize this space and create a "home-center" for residents living in the building.
- create a dining-room kitchen area in the short wing of the building.
- create two 12-person bedroom wings with a variety of bedroom sizes. Personalize larger bedrooms through use of interior finishes and modular room subdividers.
- add a handicap toilet to each wing.

106 CENTRAL





PART IV.

RESIDENTIAL ENVIRONMENTS

Introduction

Designing a home environment for retarded persons which responds to the needs of those who live in it, those who work in it and those who manage it is a challenging problem in communication. There are many people and groups whose insights deserve careful attention in the design process. Unfortunately, few of them speak the same language. In designing residences for Iowa's State Hospital Schools, it was important to distinguish between three kinds of people with important contributions to make: residents, family and direct care workers, program staff and campus administrators, and design professionals.

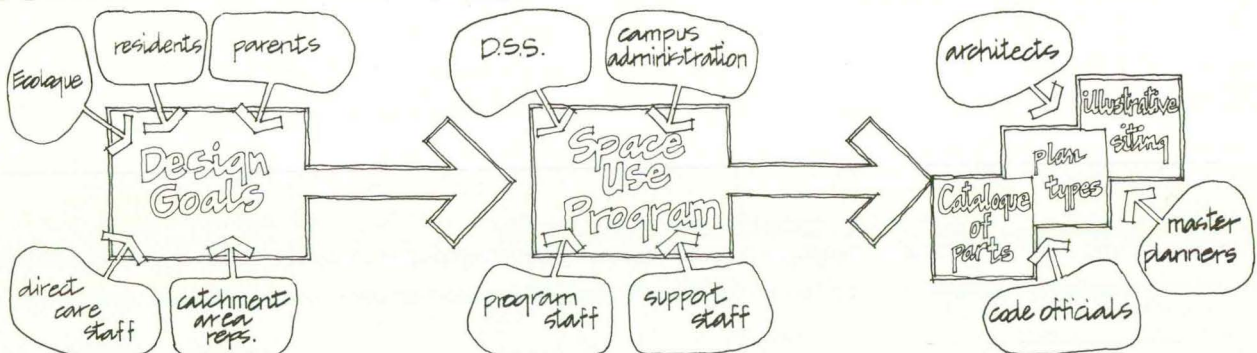
Residents and their families spoke to us in the everyday language of home life, expressing the feeling that the residences should be "normal" places with colorful furnishings, friendly kitchens, and nice yards. In communicating with these people it was important to ask thoughtful questions and then listen carefully so that deeper associations, hopes and fears could emerge and play a part in setting design goals.

THE DESIGN PROCESS

resident, family, direct care workers considerations

program and administrative considerations

design considerations



Program staff and campus administrators supported this perspective as a starting point, but added concerns of their own. Would new homes be efficient to staff? Would they provide space for a variety of personalized programs? What about costs? Communication on these issues required careful background analysis and structured group problem solving. Input from this group culminated in preparation of a Space Use Program to guide architects in designing the first set of new campus houses.

Design professionals brought yet a third perspective to the problem. It was their role to refine the building layouts and forms appropriate to all the needs expressed, and then match these against the technical constraints of code compliance, site restrictions and construction costs.

The remaining sections of this chapter can be read as a series of "translations" from the language of one of these groups to that of the next. The first step involves sorting the diverse input from residents, their families, and direct care workers into a set of explicit design goals. With additional input from program staff and campus administrators, these goals are then translated into a detailed Space Use Program. Finally, this program is translated into a "dictionary" of physical forms from which plan types and site layouts appropriate to a wide variety of situations can be composed. The goal throughout the process was to keep communications clear so that work at each level would be solidly grounded in prior goals and objectives.

The plans and site layouts presented in this chapter are not those which will be built on the State School Campuses. Our role was not to design and build campus housing (Kirkham Michael and Associates of Omaha, Nebraska have been hired for this task), but to translate campus goals into schematic designs which would help inform the design process. The ideas and conclusions of the following pages emerged from in-depth conversations with campus staff and architects and represents the best thinking on design issues up to this point. Further developments will undoubtedly affect the final outcome, however. Site engineering issues remain to be analyzed in depth. Changes necessitated by costs may change layouts considerably. Building elevations and landscaping remain to be designed. Hopefully, this chapter will help clarify the dialogue over these, and future issues which will arise in planning for major residential improvements at Iowa's State Hospital Schools.

Resident Family and Direct Care Worker Considerations

Those most in touch with the lived reality of campus housing - residents, their families and friends, and direct care workers - had strong feelings about the design of new residences. Among the goals they expressed were:

Create Home-like Environments

New residences should provide the support, security and challenges for growth expected in the place where a person sleeps, eats, plays, and learns about basic personal and social life patterns. Younger residents have the same need for a safe, warm, comfortable, and responsive setting as a normal child growing up with his family. For older residents, the home should provide the privacy, relaxation, social life, and round of daily housekeeping experienced by adults when they live with a group of friends.

goal

The experience of the unit as a home by others - staff, visitors and neighbors - is also necessary to provide a supportive setting for residents. Direct care workers must feel that they too are a part of the home, although they have families elsewhere. Participation by residents in housekeeping such as cooking, keeping rooms neat, and personalizing spaces will contribute to a family feeling. The design of units should encourage the sense of a small, interdependent family, and support a broad range of family activity.

Front Door Area The front door is one of the key symbols of home and should be clearly recognizable as one approaches the residence. Once inside, the entry area should orient a person to places within the home by introducing circulation spaces and main living areas. From the entry it should be possible to move easily into the living room and dining area, or go privately to bedrooms, without disrupting living areas. The front door area should help the resident grasp the relationship of his residence to the surrounding community. Convenient to the entry area should be a visual con-

nection to the outdoors, to help a resident know what outdoor clothes to wear, to look outside for the bus, or just to watch outdoor activity. The entry area should include storage for outdoor garments, and provide room for putting them on in a warm and comfortable space.

Hallways Movement through the residence should help residents understand the organization and purpose of the house as a whole, while avoiding the disorienting and threatening character of long, undifferentiated corridors. The organization of circulation should stimulate socializing in the living space by its visual connection to them, but should be designed not to disrupt activities or force people to be involved unwillingly.

Dining Room Dining is one of the most communal activities in the residents' day, the only time everyone gets together regularly. It is an opportunity for shared activity and for interaction and conversation with others. Dining is also one of the most pleasure-filled events of the day, for food is one of the basic means of reinforcement. The environment should accommodate a comfortable, unhurried meal and provide a family style dining setting that feels warm, quiet and friendly. There should be pleasant views to the outside - and perhaps direct access to the outside for possible outdoor dining in good weather.

Bedrooms Bedrooms are the most personal reference point for residents. If a person does not feel at home in his bedroom, it is unlikely he will feel at home anywhere. Bedrooms should be far enough away from the central activity area to be quiet, but close enough to be easily accessible. In between should be a transitional area where the resident can mix with his immediate neighbors on the way to other parts of the house, engage in small scale activities, or just stop for a word on the way to the bedroom.

The bed, in addition to being a place of sleep, is also the point from which the outside is contemplated and observed, and self-identity is questioned and verified through territory and possessions. Everyone must have a separate place to keep his clothes. Sense of self is developed through experimentation in dressing and grooming, and is eased by having storage that can be understood and used easily.

Territorial ownership is further reaffirmed when residents can invite someone in to play cards, listen to the radio, or just talk. The room should allow residents to move furniture and array things as they wish; walls should accommodate picture hanging, color changing, or shelf adjusting.

Living Rooms Living rooms are the symbolic centers of homes for most families. In it, they greet and entertain outsiders, gather as families, and display their proudest possessions. A resident should be able to feel that being there he is being "at home".

Common living areas should have varied sizes and be made up of subareas -- like fireplace nooks and window bays -- where several small group activities, such as one-on-one activity, reading, or quiet talking, can take place simultaneously without one group dominating or disturbing the others.

The living room should connect to the street, and entrance, and be a prominent architectural feature of the house. It should be furnished in a way that can reinforce the residents' growing identities -- with personal possession and pictures that mean something to them -- and which welcome and identify themselves to guests.

Kitchen Meals, eating, food preparation are so much assumed in daily living that it is difficult to keep track of how fundamentally they define a way of life. There are few more graphic images of normal life than a family kitchen -- and few more graphic images of institutionalization than an industrial kitchen for a cafeteria to serve 200. To understand how groceries become meals, to know the person who makes dinner, to share in preparing the food are important in developing a sense of identity and place.

For the more independent retarded, plans of care are likely to require learning the skills involved in preparing food. For the more dependent, involvement in the tasks of food preparation is minimal, but the meal itself is significant. When there are limited ways of communicating with a person, food is commonly used for positive reinforcement. Meals become one of the most basic ways to understand oneself and relationships to others. Family-style cooking and dining are necessary if the relationships to be learned are those characteristic of a normal home. The kitchen, with its unique potential for sensory stimulation and association with food, can be grasped

as a special place. The goal is to make the kitchen visible, accessible and understandable as part of the center of life in the home.

The kitchen should also be large enough to allow small groups to watch or work together preparing food. It cannot be designed solely for the efficiency of food transfer; it must function as a place for training and some socializing. It should not in any way lose its domestic scale to accommodate this.

Bathrooms The bathrooms must provide adequate accommodation of normal bathroom functions - toileting, bathing, washing, grooming, and other personal hygiene activities - and should provide an environment with fixtures and arrangement as close to the normal residential bathroom as possible.

Of great importance is the development of the resident's self-identity and awareness of body. This occurs in part through increasing ability to care for one's self. It also involves awareness of self-image in the lavatory mirror, becoming concerned for how one looks, and having and caring for one's own personal hygiene and grooming articles. Privacy in the performance of toileting activities and in access to the bathroom, and respect for the privacy of others in the bathroom, are basic aspects of identity development.

Bathrooms should be conveniently accessible to bedrooms, living spaces, and nearby outdoor spaces. Bathrooms should relate to a specific bedroom cluster, to provide residents with a more residential bathroom relationship, and help develop a sense of care and maintenance for one's own bathroom space.

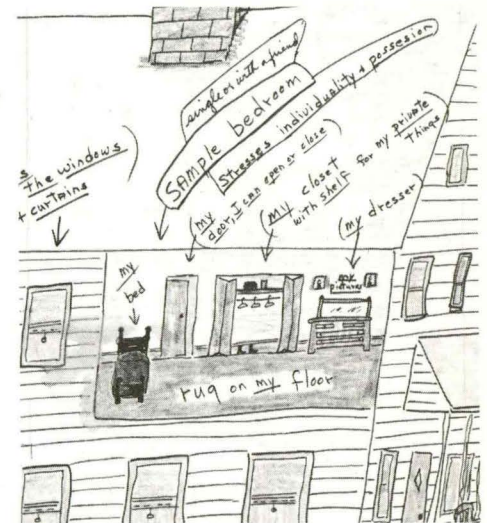
Support and Service The goal in designing support and service functions should be to enable resident involvement in these activities to the extent their developmental levels allow. The environment should provide adequate and useable storage and service elements, known and accessible to residents wherever possible. These should include storage for personal clothing and possessions, both for daily and seasonal items, for outerwear, group possessions, equipment and materials, linens, basic maintenance items, and laundry facilities for the care of residents' clothing.

Training in care and respect for group possessions,

and in discriminating between one's own and others' in common storage, are key parts of resident involvement in support functions.

Create Homes that Encourage Personalization, and Help Residents Develop a Private, Inner World

The drawing by a direct care worker of an "ideal resident's bedroom" included below captures the spirit of personalization and privacy that residents seek in their homes. The goal is a sense that this is "my bedroom," with "my door" where "my friends" come to see me in "my world." Personalization is aided by places where possessions can be kept and displayed - open shelves, broad sills, window seats, and wall surfaces for hanging pictures, tacking mementoes or painting. Bedrooms for more than one person should not be allowed to compromise each individual's sense of private space. Variety in color, texture and form can help residents feel that their room is not like everyone else's.



goal

goal

Make All New Houses Different. Fill Them with a Variety of Colors, Textures, Room Shapes and Outdoor Spaces

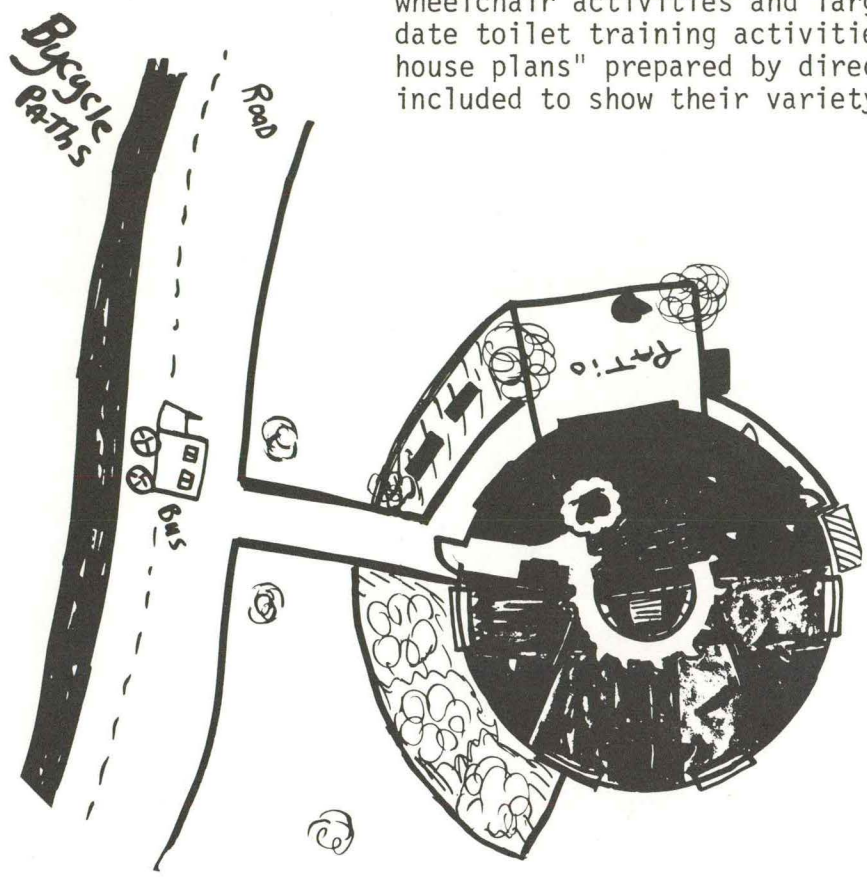
In reaction to the sameness of existing campus housing, there was unanimous agreement that new housing must be characterized by variety of all kinds. When we asked people to bring in pictures of what new housing should be like, we received a flood of bright, colorful images of contemporary house styles and interiors: slanting ceilings, color-filled kitchens and bedrooms, home greenhouses, walls of exposed wood, outdoor patios, hexagonal floor plans, etc.

Tailor Residences to the Particular Needs of Each Resident Group

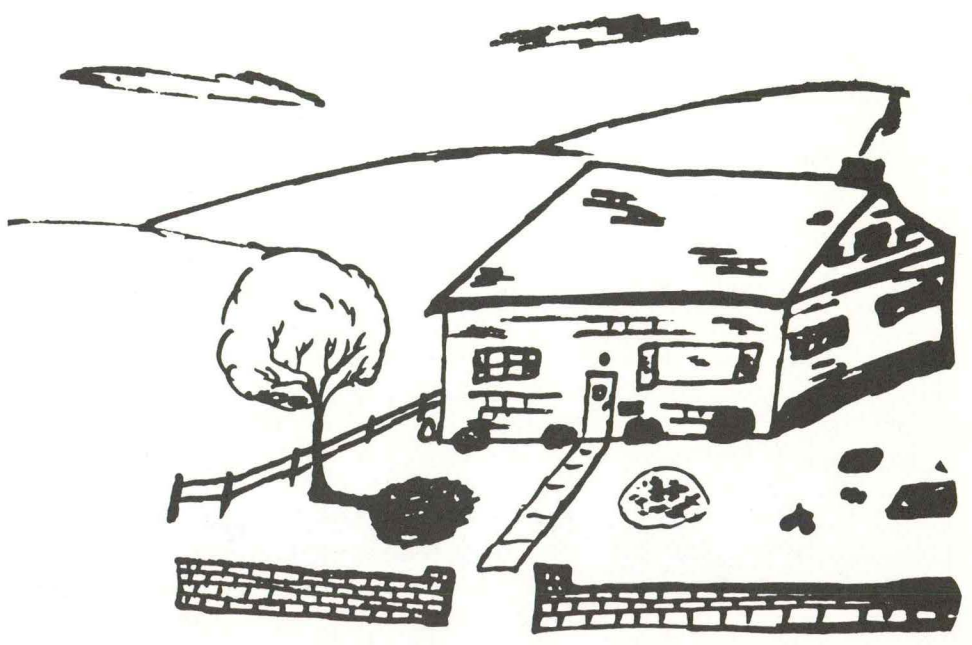
Because they attend to residents on a daily basis, Direct Care Workers were especially sensitive to the particular needs of each resident group. It was suggested, for example, that some of the more independent residents would benefit from living in an apartment-like building or a place resembling a contemporary condominium development. Some suggested building a neighborhood teen center, or incorporating its functions into selected houses. It was felt that single bedrooms were more appropriate for this group

goal

than for other kinds of residents. Direct Care Workers for the more dependent residents came up with a different list of specific suggestions involving easy night-time surveillance of residents, open areas for wheelchair activities and large bedrooms to accommodate toilet training activities. A number of "ideal house plans" prepared by direct care workers are included to show their variety.



- Living Room
- Family + Dining Areas
- Kitchen, ≡ Furnace
- ♥ Fireplace + grill
- Laundry
- Storage + Closets
- Bed Rooms
- Baths
- ▨ Garbage
- ▭ Windows
- ▬ Glass Doors



Program and Administrative Considerations

Although campus administrators and program staff did not disagree with the perspectives outlined to this point, they added concerns of their own and, most importantly, began to make the hard decisions between conflicting values necessary to formulate a concrete architectural program.

Campus administrators emphasized the need for flexibility in unit design. In contrast to direct care workers, who supported careful tailoring of houses to resident type, they urged that units have enough in common to allow reshuffling of residents and staff as required.

Program staff raised questions concerning the appropriateness of home spaces for more structured program use. In-home training activities, they said, are intended only as a supplement to primary programmed activities taking place outside the home. House design should, however, provide for the teaching, learning and practicing of a variety of skills at home - to meet the need for constructive evening and weekend activities, and to provide an opportunity to learn skills that may not fit into an individual's day program.

Providing space for these special functions should not be allowed to create an excessively large and un-home-like environment. These spaces should not be special or removed from other activity places. Instead, they should be integrated with and overlap as much as possible the general living spaces and should be generally accessible to the residents at all times. Three kinds of structured activities deserve mention:

Gross Motor Activities

Indoor Gross Motor Activities provide residents with opportunities to develop physical strength, coordination and mobility. They may deal with serious skill deficits, as for the totally dependent, physically handicapped and neurologically impaired, or may provide enjoyable use of leisure time and opportunities for self-motivated skill

improvement for other residents. Activities include such things as physical therapy, exercise, crawling, tumbling, ball playing, dancing and development of self-body concept through mirror play. Gross Motor areas need to be ample, open spaces where residents can be rambunctious with minimal concern for furnishings.

Fine Motor Activities

Fine Motor Activities are designed to develop manual dexterity and strength, eye-hand coordination, and general perceptual motor skills. Sample activities include learning to respond to and manipulate such materials as form-boards, crayons, puzzles, crafts, and finger painting, and to interact with others involved in these events. Fine Motor areas require quiet for concentration, and table-top areas for games and crafts, working with messy materials and leaving activities such as puzzles set up without interfering with other necessary activities.

Special Teaching Activities

Special Teaching Activities are those that offer particularly strong opportunity and reinforcement for learning a difficult task - a task that requires individual or small group construction, special materials, sensory structure and a "task oriented" teaching environment. Activities will vary by individual needs, and could include training to attend to stimuli, learning to tie shoes, speech stimulation, language training, etc.

Also of concern to administrators was designing for work efficiency. Existing campus wards tend to develop places (an office, med room or employee lounge) where staff spend a great deal of time. If these places are separated from resident living areas, care suffers. Campus administrators thus considered where staff and residents would tend to "hang out" in new residences.

Would residents and staff congregate in the "home center" of each unit (see description in following sections), or in the common space between units? In the same vein, campus administrators debated whether staff offices should be designed as pleasant retreats or as minimal work-oriented spaces which did not encourage extended use. The following Space Use Program synthesizes the response of campus administrators to all of the issues involved in the design of new campus housing. The Program is now forming the basis for construction of 10 new houses on each of the State Hospital School campuses.

Space Use Program

When KMA Inc. was hired to begin work on the first 10 new houses at each campus they were given the following information as an architectural program to guide their work. It represents the synthesis of input from users, direct care workers, program professionals and campus administrators concerning design of new, on-campus housing for the residents of Woodward and Glenwood.

grouping and organization of living units

The basic unit configuration is a "double home": two identifiable resident "homes" for 8 persons each, linked by a service core. Each of the 8 person wings will have its own living and activity space, front door, and programmed outdoor space. Two (and in a few instances three) 8-person houses will be joined by a common service core including a kitchen and office area. Some 8-person wings will be joined by a common social space as well. Where two 8-person wings are linked by a common social space, this space will not substitute for living rooms in each wing but provide an additional space for socializing between residents of each wing. Within this basic framework will occur variances in room size and configuration, pattern of access and servicing, linkage to other program buildings, and siting required by the the overall architectural program.

Adapting residences on campus to the functional level of the people they are designed to serve should provide a wide variety of residence types. It is expected that careful design of the residences will result in substantial differences in massing, unit configuration, color, materials, and landscape treatment, and thus create a meaningful variety of residential areas on campus.

At the same time, residences should be flexible enough to permit future changes in resident profile and not preclude usage by a wide variety of campus residents.

The gross area of units shall vary from approximately 325 sq. feet per resident for high functioning levels to approximately 375 sq. feet per resident for total care.

DESIGN CRITERIA
Private Spaces

Sleeping areas should be modeled after normal residential settings. Bedrooms will be the primary areas which residents can personalize and mold to their own needs and preferences. Multiple bedrooms shall be designed for auditory and visual surveillance yet arranged so that each resident has his own "turf" within the larger area. Four person bedrooms shall be designed so their entries allow easy division into two 2-person bedrooms. Multiple bedrooms shall be subdivided by partitions consistent with Federal Title XIX requirements. Bedroom area allocations should be increased where individuals with mobility handicaps will be accommodated. Each room should be bright and well ventilated with windows that residents may operate. Windows should be of sufficient size to permit outside views by residents in wheelchairs or confined to bed. Individualized storage should be provided for current and seasonal clothing and equipment. (Area for built-in storage is outside the standard room area allocation.)

Bathrooms should generally be accessible from each bedroom via a non-private area (i.e. hall) and should be compartmentalized to afford greatest privacy and use potential.

Storage for individual residents' toiletries should be provided as well as for clean and soiled towels. The summary specifies three types of bathrooms: normal, handicap, and training. Training toilets consist of an enclosed w.c. space with room for two chairs and a small table. Glenwood, however, required additional space in the typical bathroom adjacent to the w.c. for placement of portable units. Bathrooms for handicapped residents will be specifically designed according to national standards. Each bathroom area should contain at least two lavatories, one bathing unit and one water closet. Where training toilets are required, an extra compartmented water closet should be provided. There should also be an additional toilet with a lavatory and water closet accessible to the activity space and entry.

Activity/common space will be organized into a number of rooms. Each 8-person home will have a living room for normal relaxation and socializing, a dining room for resident meals, and a den for private parent visiting, counselling or one-on-one training activities. Where possible, a family/recreation room should be provided as well for noisy, more active play. In some instances this room will be shared between two adjoining 8-person homes.

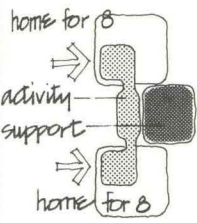
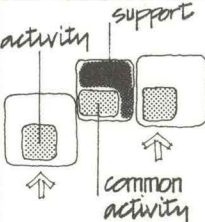
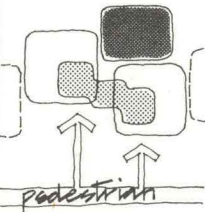
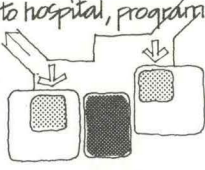
The variety of activity zones should be independent and distinct enough to provide suitable visual and acoustic separation without sacrificing supervision and accessibility.

Food service will be based on maintenance of the central kitchen, development of a food cart distribution, and the possibility of preparing meals with residents participation at the "home" level. Kitchens will be used for setting up meals from central kitchen, for preparation of some meals, snacks and convenience foods, and training.

They should look and function like home kitchens, and will be provided with the full array of residential equipment and utensils found in any home. For most residents, except the lowest functioning, noon meals will typically be taken at central dining.

Dining rooms should approximate normal home conditions as much as possible. Four person tables are preferred. Dining areas for people being trained to eat shall be large enough for an instructor to help with training. Dining areas for the more dependent shall be designed to help staff feed the residents. Most dining rooms should be easily converted to activity space and located so that they are accessible and identifiable as

















PROGRAM TYPES WOODWARD

RESIDENT FUNCTIONAL LEVEL	RESIDENT PROFILE	NEW HOUSE SITES	RESIDENTIAL CHARACTER
IV	<p>highest functioning primarily older needs vocational training & work programs 10% handicapped</p>	C	 <p>most normal home-like setting 2/3 of houses located near town one house all singles built to lodging house standards less activity space plan for resident participation in housekeeping all with some area common to both rights</p>
III	<p>adolescent and preadolescent needs educational programs fewer handicaps 20% handicapped</p>	B	 <p>street or cul-de-sac related siting spaces designed for use by adolescents and pre-adolescents provide children's active play area all with some area common to both rights</p>
II	<p>primarily adult need self help & socialization skills fewer handicaps 20% handicapped</p>	A	 <p>site along pedestrian link to program spaces designed for use by older persons design interiors for hardest use provide a variety of noisy/quiet, open/restricted space all with common area</p>
I	<p>lowest functioning need physical habilitation programs multiple handicaps 100% handicapped</p>	D	 <p>design for higher staffing provide links to programs and hospital design for 100% handicapped continuous nursing care easy access to protected outdoor area</p>

such. Storage must include space for dining linen as well as the equipment for its activity function.

Service Core

Each "double home" shall contain a service core (office, kitchen, and support facilities) that serves both 8-person wings. The staff office should be located near the entries of the two wings and accessible from both. It should be no greater in area than the minimum required for records storage and charting (three persons at one time), private telephone consultation, medicine storage, and storage of staff personal effects. It should be designed to prevent them from becoming a staff refuge; therefore, it is unadvisable to allow

SOCIAL SPACES food service			PRIVATE SPACES bedrooms			bathrooms			
KIT. AREA/ RES. (S.F.)	NO. / DINING ROOM	D.R. AREA/ RES. (S.F.)	TYPE	NO. OF THIS TYPE OF BR.	AREA/ RES. (S.F.)	TYPE	NO. OF RES/ BATHROOM	AREA/ RES. (S.F.)	
13	8	25		4	100		2	4	25
				6	80				
				15					
			<i>including house studs.</i>			<i>use tub-shwr for normal use hdcp. shwr for hdcp. bath</i>			
13	8	30		4	100		2	4	25
				6	80				
									
						<i>use tub-shwr for normal use hdcp. shwr for hdcp. bath</i>			
10	8	35		4	100		1	4	25
				6	80				
									
						<i>use tub-shwr for normal use hdcp. shwr for hdcp. bath</i>			
8	8	30		2	100		4	4	35
				2	80				
				2	80				
						<i>use elevated tub</i>			
						N Normal H Handicapped T Training			

resident activities to be overseen from this office.

A counselling room of about 70 square feet should be located near the staff office.

A laundry space consisting of storage areas for clean linen (received from central laundry) and soiled linen (pick up by central laundry), and separate area for a washer and dryer (domestic size) shall be provided. The washer and dryer will be used by residents for convenience washing of some personal clothing and/or for training.

Custodial space shall be provided for each bed wing. In the case of higher functioning area,

PROGRAM TYPES GLENWOOD

RESIDENT FUNCTIONAL LEVEL	RESIDENT PROFILE	NEW HOUSE SITES	RESIDENTIAL CHARACTER
I	highest functioning ages 5 to 25 programming early childhood unit young adults adolescent educational programs 20% handicapped		most home-like living room for B variety of activity sizes and location spaces designed for younger group most mobile group
II	ages over 25 higher functioning adults possible behavior or m.h. problems work programs and vocational trng. 30% handicapped		larger living room smaller common space greater variety and separation of spaces spaces designed for adults
III	adolescents special education self help training habilitation prevocational training 30% handicapped		utilization of activity spaces for program use stronger need for prox- imity to program and activity spaces strongly distinguishable zones
IIIa	early childhood special program- ming and train- ing for Area III need training in self help skills 30% handicapped		larger common; smaller living room continual use of activity space for programs; flexible divisions possible third B person house
IV	young adults and adults needs assistance in daily routines and self help needs access to medical 50% handicapped		larger living room; smaller central common desirable primary access to campus activity, pro- gram and other units
V	most dependent needs physical habilitation for residents w/ med- ical problems only, see Type II 100% handicapped		primarily central common smaller living room greatest proximity to training & habilitation, link to hospital observation capability

a central service sink is adequate. In the case of lower functioning, service sinks should be provided at each bed wing as well.













Storage should be provided at three levels:

Recreation, training and education equipment and games adjacent to activity space.

Central space for occasional use equipment, supplies, and resident prosthetic devices.

Seasonal outdoor storage.

A storm cellar or tornado-proof room within the building core shall be considered for all residences.

SOCIAL SPACES food service			PRIVATE SPACES bedrooms			bathrooms			
KIT. AREA/ RES. (S.F.)	NO. / DINING ROOM	DR. AREA/ RES (S.F.)	TYPE	NO. OF THIS TYPE OF BR.	AREA/ RES (S.F.)	TYPE	NO.	NO. OF RES/ BATHROOM	AREA/ RES (S.F.)
13	8	25		2	100	N	3	4	25
				7	80	H	1	4	30
13	8	25		2	100	N	2	4	25
				1	80	H	1	4	30
				1	80	T	1	4	35
10	8	30		4	100	N	1	4	25
				6	80	H	2	4	30
						T	1	4	35
10	8	30		2	80	T	4	4	35
10	8	35		4	100	T	4	4	35
				6	80				
8	8	30		4	80	T	4	4	35

use tub/shwr
 use hcptd shwr
 use tub/shwr
 use hcptd shwr
 use tub/shwr
 use tub/shwr
 use hcptd shwr
 use tub/shwr
 use 3 tub/shwrs
 use 1 hcptd shwr
 use 3 tub/shwrs
 use 1 hcptd shwr
 use elevated tub or slab
 N Normal
 H Handicapped
 T Training

Design Considerations

The following pages indicate how the Space Use Program developed by campus administrators might be translated into viable house plans and site layouts. The goal is to make the final translation from the many inputs recorded above to an architecture responsive to the full range of client needs.

The sources of variability are many:

Resident Type: Each campus prepared different space use programs for each of their four or five resident types which included variations in bedroom size, bathroom size and layout, living room size, and provision for common activity space.

Type of siting: Some houses are sited one-by-one along streets in the typical suburban pattern. Others are clustered in groups of two or three around a courtyard, still others are sited along pedestrian pathways. Each of these sitings suggests a different approach to massing, front door location and servicing.

Unit Servicing: The kitchens and laundry rooms of some units are serviced from the rear, others from the front.

One, two or three different building plans are not enough to capture the complexity of these program needs. Closer to the mark would be a different plan for each new building on campus - an approach prohibitive because of cost. The following pages propose that the problem is best solved through disaggregation - by finding the subparts from which the full variety of house types required can be created. Careful definition of a "catalogue" of building parts will permit construction savings through standardization of building details yet allow campus administrators to achieve the precise variety of plans and siting demanded by the Space Use Program. The foldout on the opposite page indicates the underlying approach.

CATALOGUE OF PARTS

At the top of the page is summarized the major recommendation we received from residents, their families and direct care workers: create a normal, home-like environment - a place with a front door, private bedrooms and baths, a kitchen, a living room, a dining room, a pleasant front yard, a side yard for projects, and a back yard for play.

input from program
staff and campus
administrators

On the next level down are noted inputs from program staff and campus administrators. Perhaps most important was their determination that, although 6-10 residents is the most appropriate home size, a unit population of 16 is required for effective staffing and management. The result of this logic is the "twin 8" pattern (described in the Space Use Program) which establishes two "home centers" joined by a common "linking element." A number of management and service functions are placed in the linking area: staff office space, a common recreation, food preparation area, a counselling room, laundry and maintenance. Unfortunately, with all of these functions, the one linking element threatens to supercede the two home centers as the focal point of the entire unit. Especially difficult is the location of the kitchen there. Family and direct care workers frequently expressed the hope that new homes would center around an open-plan "country kitchen" and its activities. A central task left to designers was creation of a kitchen located in neither home, yet contributing to the vitality of both. Parking, servicing and street access form part of the same problem. All will tend to focus on the linking element where food preparation and staff functions are located. Care must be taken, through placement of parking and pedestrian access, to insure that front doors to home centers are in fact the most used entrances to residential areas. It is possible to reinforce front door use by servicing the unit from this point. Resident life would benefit from vicarious participation in food and laundry delivery, arrivals and departures of staff, furniture and equipment delivery, etc. With 16 person units, these services will tend to take place at a domestic scale which is not dangerous to residents. Because support services are managed by the institution, those who conduct them are pre-screened for sensitivity to the special problems of working with retarded persons. Other residents will often be assisting with food delivery and other services, adding the benefits of this friendly interaction and

family and direct
care worker input

the role-modelling it provides into the equation. A number of different servicing patterns are shown in illustrative sitings at the end of this section: front door, front service entrance, and rear service entrance.

Other inputs by campus administrators and program staff included specification that bathrooms be designed for those with handicaps and training needs and that a "den" be added to the home center for the one programmed activity, training in fine motor skills, not easily accomodated in a normal house. The "home center" was given added meaning by campus administrators as the place where it was hoped that residents and staff would "hang out" during non-scheduled periods.

Part of the solution was to create a "focal point," within the home center, from which it is possible to keep track of activities in the living room, dining room and entry area simultaneously. This point, located at the heart of resident home life, thus becomes the most likely, and most appropriate, place for residents and staff to "hang out" when there is no scheduled place for them to be.

input from
designers

Design analysis indicated that program needs were best served by a catalogue containing four building sub-parts: bedroom clusters, linking elements, home centers, and landscape elements. Three bedroom clusters are shown on the enclosed charts; one with outdoor access at the end of a "U" shaped hall, a second with a short hall which places all bedrooms within twenty feet of an egress point, and a third with outdoor access opposite the cluster entry. An attempt has been made to cluster bedrooms and bathrooms to allow easy identification of one's personal bathroom area. Hallways are short and varied including, where possible, free wall and floor area which forms a small nook for informal conversations, table games and the like. Home centers are designed to include the focal point described above from which staff can observe activities in a number of areas simultaneously. Linking elements are designed to favor indirect access between home centers and common recreation and office spaces, and direct access between dining rooms and the central kitchen. Landscape elements (planting, paving, outdoor architecture, earth forms, and outdoor lighting) are directed toward a number of key purposes:

- windbreak Particularly at Woodward, where the terrain is flat and undifferentiated, there is a need to define the limits of the home area and protect it against strong fall and winter winds. A wind-

break, not unlike that which defines farm-yards in the surrounding area, is a good solution. A "rough" of uncut grass between the windbreak and cultivated fields will help contain and define the area as well.

- ground forms First phase house sites at both Glenwood and Woodward will require earthmoving. The opportunity should be taken to use appropriately designed berms and dished areas to define and enliven other landscape features: play yards, house boundaries, pedestrian pathways, overlooks, etc.
- shaded play yards At least half of each yard's play area should be designed to provide summer shade.
- reference points to contain bedroom yards Bedroom clusters are located at the ends of each residential building. Most resident bedrooms will thus look out onto the yard space between units. Although it is not necessary to divide the space up rigidly between units, some "reference points" to contain the area and give it seasonal interest would be appropriate, e.g. a fruit tree or cluster of flowering bushes and small trees.
- front porch/observation area Front doors of units should be planned to open directly onto a pedestrian path or street link. A small "observation porch" (an enlarged entry stoop) will help define this area and give it interest. Appropriate paving, planting, outdoor furniture, and lighting are needed.
- dining patio Connecting the two home centers, along either the front or back of the unit, will be the house dining rooms and a common kitchen. It is natural for these to be accompanied by a paved outdoor area for recreation and picnics. The area should be well defined, barrier-free, and shaded. In units for more independent residents, an outdoor bar-b-que might be added.
- common outdoor play area Units containing larger common recreation areas should provide for extensions of activities outdoors. In some units, this area could open to a common pedestrian pathway and thus take on some qualities of a neighborhood center.
- tree-line streets or sidewalks Among Iowa's most beautiful public ways are those graced

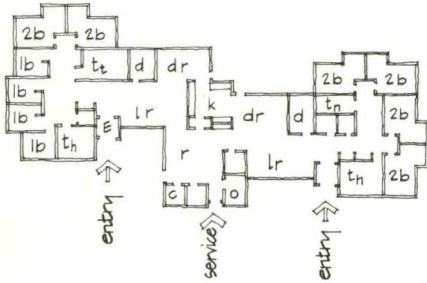
by gently arching shade trees. Although this graciousness can not be achieved overnight, there is no reason for landscaping not to aim toward this goal. It would be in keeping with the generous spirit which has guided landscaping at the two state schools for over one hundred years.

- special features Activity programming in new residences will emphasize sensory awareness and development. It is fitting that landscaping make its own contribution to this goal. One unit might be given a small garden atop a wall at wheelchair height, another an apple tree, yet another a Japanese maple which turns red in the spring and green in the fall.

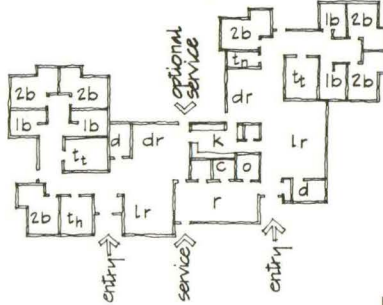
Plan Types

Bedroom clusters, home centers and linking elements combine to form a number of basic "twin-8" plan types. Emphasized in the display of plan types included below are differences in massing and access to common areas. All "L"-shaped plans, for example, have bedroom clusters located perpendicularly to each other, while in some, access to front doors and common areas is from inside the "I," and in others, from outside the "L." "I"-shaped plans locate all elements in a single line. "H" shapes place bedroom clusters perpendicular to linking elements. The variety of plans thus created is essential in making the final translation from plan type to specific location within the campus fabric.

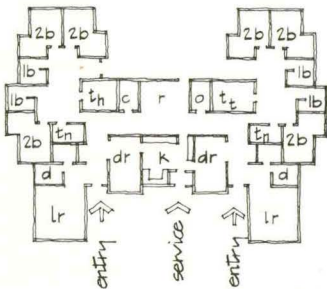
Plan Types



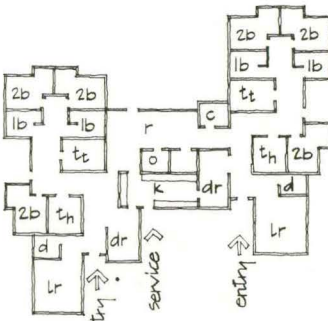
I



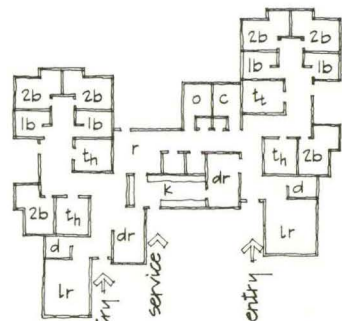
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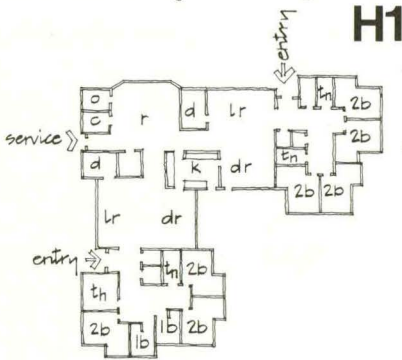
H1



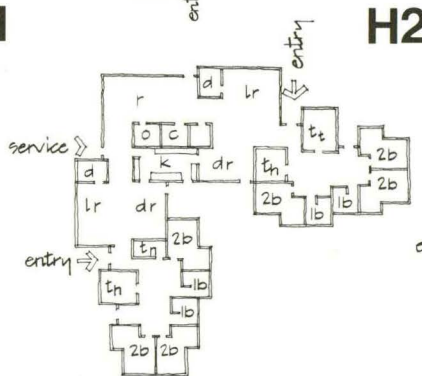
H2



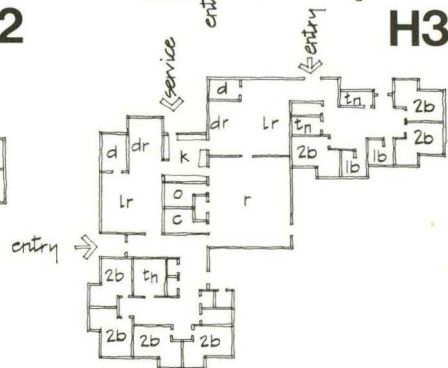
H3



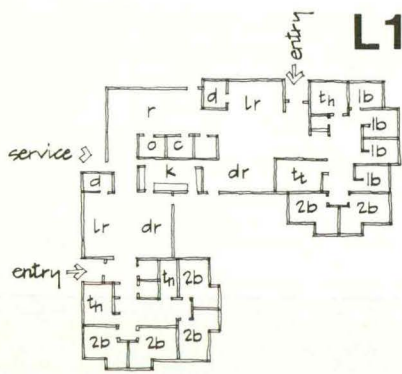
L1



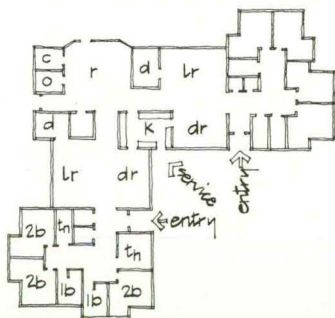
L2



L3



L4

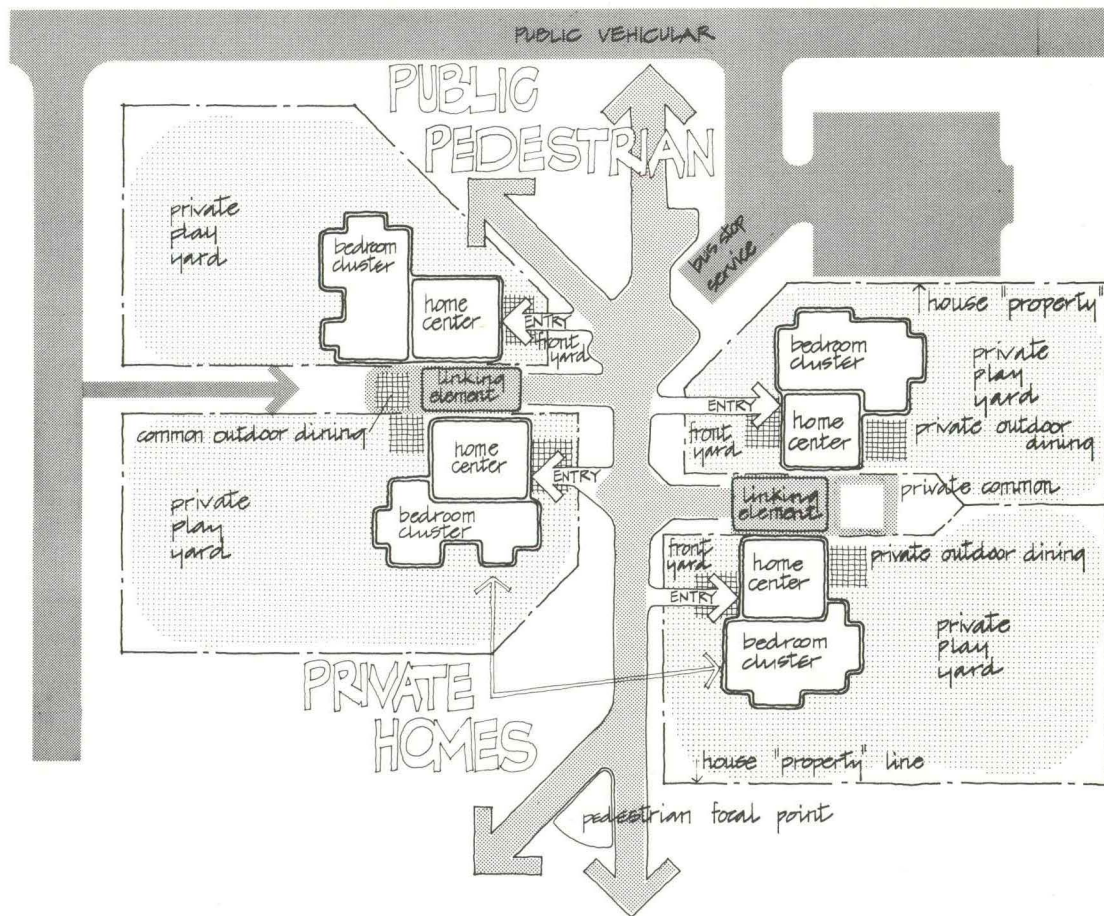


L5

Illustrative Siting: Woodward

The foldout to the right indicates how two of the "twin-8" house plans might be sited in the first phase of construction on the Woodward campus. A "J" and an "I" plan were selected as most appropriate for this site location - along a major pedestrian pathway moving south from the Linden Complex. Two means of servicing are shown, "front door" for the unit to the left; and "rear" for the unit to the right. The organizational plan below describes the hierarchy of public and private space sought in the design.

ORGANIZATION



WOODWARD

ILLUSTRATIVE SITING

