

A METHODOLOGY FOR THE DECENTRALIZATION OF THE
MENTAL HEALTH DELIVERY SYSTEM
IN MANITOBA

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A dissertation submitted to the Faculty of Graduate Studies of
the University of Manitoba in partial fulfillment of the requirements
of the degree of

MASTER OF ARCHITECTURE

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"MADNESS IS A SANE RESPONSE TO AN INSANE WORD."

DR. R.D. LAING.

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INTRODUCTION

The Royal Commission on Health Services in Canada under the Chairmanship of Mr. Justice Emmett M. Hall made a survey and did a study of mental health facilities in Canada. In 1964 they published their findings in a volume titled Psychiatric Care in Canada: Extent and Results. Along with the volume just mentioned they also published in 1964 another book titled Trends in Psychiatric Care.

The conclusions reached in the former volume indicated that the proportion of the population in mental hospitals had been decreasing for some years. As far back as 1964, the publications by The Royal Commission on Health Services in Canada were recommending the expansion of community mental health services that would further reduce the needs for hospital care. In the latter volume, Trends in Psychiatric Care, the Royal Commission recognized a special problem of mental health service delivery in Manitoba.

Manitoba has the unique problem of organizing psychiatric services in a large area which is dominated by one city containing half of the Province's population. Winnipeg is located in the south-east angle of Manitoba's fertile triangle, which contains more than 90 per cent of the population in less than 30 per cent of the province's area. This poses two quite different problems: (a) how to provide psychiatric services for a city of 500,000 and (b) how to provide regular services for another 50,000 people scattered over 250,000 sq. miles. This study will concern itself with the latter.

The four provincial institutions for the care of the mentally disordered include (a) the Selkirk Hospital for Mental Diseases which was opened in 1886, (b) the Brandon Mental Hospital for Mental Diseases opened in 1891, (c) the Winnipeg Psychiatric Institute opened in 1919, and (d) the Eden Mental Health Center at Winkler opened in 1967.

In the early sixties many leaders in the province's health field began looking for alternative methods of providing psychiatric care. The Department of Health and Social Development and voluntary agencies had worked out plans for developing acute facilities in general hospitals that might one day replace the acute treatment services that the mental hospital provided.

In 1972-73 two important papers were published regarding the distribution of mental health services in Manitoba. The government of Manitoba commissioned an independent consultant from Alberta to do a survey and make recommendations on the provincial mental health delivery system. A second publication, a White Paper on health policy, also made recommendations on changes to the existing mental health delivery system. Both the Clarkson Report and the White Paper on Health Policy described an inequitable distribution of mental health services and proposed a more equitable distribution. Both documents recommended, amongst other things, that the province be broken into seven operationally distinct regions from which health services could be delivered.

In 1972 the Department of Health and Social Development produced a paper titled Mental Health in Manitoba, a Five Year Plan. This paper spelled out principles that should be followed to make the existing mental health delivery system more responsive and appropriate to present conditions. The five year plan proposed suggested ways in which community-oriented mental health services could be redistributed throughout the province.

The Five Year Plan, and another unpublished report by the Department of Health and Social Development are the base of the study of a decentralization model which is the topic of my thesis. For the purpose of the thesis study, I will accept the basic principles in the two papers

from the Department of Health and Social Development. One important way in which I will deviate from the above papers is in the emphasis which it will place on the inpatient population. The inpatient population will be considered an integral part of the decentralization model. The thesis will address itself to the problem of how the existing delivery system from the complex at Brandon depletes as the delivery system proposed in this thesis comes into being.

The concern of the thesis will be on examining the implications inherent in the depletion of the existing organism¹ and the implementation of the proposed organism. For the purpose of the study, it will be assumed that operational problems, such as recruiting personnel, can be solved, and need not be dwelt upon as part of this study.

Decentralization will take place from two mental hospitals, one at Brandon and one at Selkirk. This study will concern itself with that part of the decentralization that would result from the rearrangement of services presently being delivered from the Brandon Mental Hospital.

1. A word used to describe the mental health delivery system as the delivery system can be thought of and examined as if it were a living entity.

CHAPTER ONE: MENTAL HEALTH IN MANITOBA.

1. INPATIENT CARE.	2
2. OUTPATIENT CARE.	5
3. PROFESSIONAL EDUCATION AND TRAINING.	5

MENTAL HEALTH IN MANITOBA, HISTORICAL DEVELOPMENTS

The first portion of the study will be a general description of the existing mental health delivery system in the province in terms of in-patient and outpatient care, and the education and training of practitioners. The existing mental health delivery system was called and will be called throughout this study the Existing Organism. Chapter Two will examine further what is described in Chapter One.

MENTAL HEALTH IN MANITOBA:

1. INPATIENT CARE.

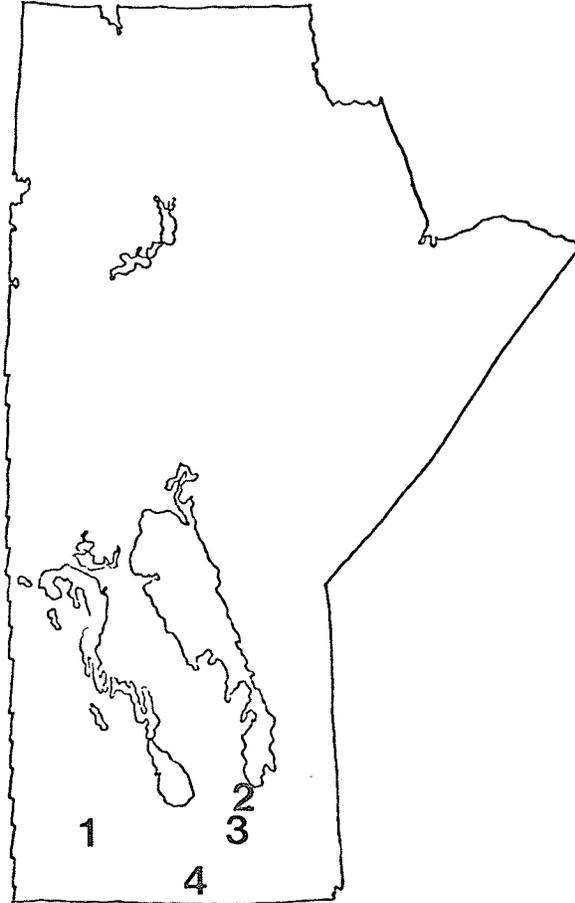
Up until the late 1950's, there were few places in the province where people with emotional problems could go to receive treatment or counselling. (See Figure 1-1, Page 4, for the location of these facilities.) The three provincially operated institutions at Brandon, Selkirk, and Winnipeg were the only treatment alternatives, aside from a few psychiatrists in private practice, which were open to a person with behavioral or emotional difficulties. A fourth institution at Winkler was opened in 1967. Prior to 1960, the treatment emphasis was primarily on inpatient care. The daily patient population of the provincially operated institutions reached a peak of over 3,000 in 1958. Since that time, there has been a marked reduction in the daily inpatient population of the four institutions (see following table). Although the daily inpatient population has dropped considerably, outpatient contacts have shown a remarkable increase.

TABLE 1-1 AVERAGE DAILY CENSUS AND OUTPATIENT CONTACTS - PROVINCIAL INSTITUTIONS 1962-77 *

YEAR	INPATIENTS	OUTPATIENT CONTACTS
1962	2,596	16,497
1967	1,870	35,654
1972'	1,150	111,000
1977'	890	181,000

' PROJECTIONS

* Department of Health and Social Development.



DISTRIBUTION OF MENTAL HEALTH SERVICES IN THE PROVINCE. FIGURE 1-1
THE EXISTING SYSTEM

1. Brandon Mental Hospital
2. Selkirk Mental Hospital
3. Winnipeg
 - St. Boniface
 - Winnipeg General Hospital
 - Children's Hospital
 - Misericordia Hospital
 - Grace Hospital
 - Victoria General Hospital
4. Eden Hospital at Winkler

MENTAL HEALTH IN MANITOBA:

2. OUTPATIENT CARE.

As can be seen on Table 1-1, Page 3, while the inpatient population of the provincially operated institutions was declining, the number of outpatient contacts was increasing markedly. Initially these outpatient contacts were almost entirely with the patient only. In recognition of the prevalence of such problems, and of the importance of the influence of a person's social system or community on his emotional and behavioral problems, increasing emphasis has been placed on contacts with members of the family as well as with other community institutions and professionals such as teachers, social workers and physicians.

MENTAL HEALTH IN MANITOBA:

3. PROFESSIONAL EDUCATION AND TRAINING.

The responsibility for training psychiatric nurses in Manitoba has always resided with the schools of nursing in the mental hospitals. There are courses being taught at Brandon University and at the University of Winnipeg, and the probabilities are high that training programs will be established at Brandon University and at Red River Community College which will be combined with a new postgraduate training program in psychiatric nursing.

The psychiatric residency program has expanded considerably, and although there are no residents at Brandon or Selkirk, there are more psychiatrists graduating now than at any point in the past.

A Ph.D. program in clinical psychology has been set up at the University of Manitoba and is graduating clinical specialists.

In addition, the extended Bachelor of Social Work program at the University of Manitoba will be a source of large numbers of trained social workers.

CHAPTER TWO: EXISTING ORGANISM.

1. A CHANGE IN STRATEGY.....7
2. INADEQUACIES OF PRESENT SYSTEM.8

AN AWARENESS OF THE PROBLEM

EXISTING ORGANISM:

This chapter deals with a fundamental re-examination and re-thinking that has come about in the mental health field. As a result of questioning basic mores in handling of mental health problems, new concepts in treatment have come into the limelight. It is not the intention of this thesis to question these new concepts, but rather to examine some of the consequences in initiating them.

EXISTING ORGANISM:

1. A CHANGE IN STRATEGY.

Over the last several years there has been a fundamental shift in the strategy in handling mental illness. Historically, the preferred, or most often used, solution has been to separate the mentally ill person from his family and community. It is being seen now that society has contributed to the person's difficulties and that it is up to society to help him resolve these difficulties. Mental disorder is not simply the private misery of an individual. Although some mental disorders seem to be attributable to biochemical factors, they more often grow out of and contribute to the breakdown of normal forces of social support and understanding, especially the family. It is not just the individual who has faltered. The social system in which he is embedded, through family, school, job, religious affiliations, or friendship, has failed to sustain him as an effective participant. From this point of view behavioral and emotional disorders are rooted in the social systems in which the troubled person participates.

This social system perspective requires a fundamental re-examination of current methods of dealing with these emotional and behavioral problems.

The concept of the hospital as the locus for treatment has to be examined and questioned. As a result, alternative and complementary programs must be developed which explicitly acknowledge the far-reaching significance of social system factors in the genesis and the treatment of these disorders.

EXISTING ORGANISM:

2. THE INADEQUACIES OF THE PRESENT SYSTEM

The delivery of mental health services in the province of Manitoba is presently concentrated in four major centers in the province, Brandon, Selkirk, Winnipeg and Winkler. The Department of Health and Social Development recognizes limitations and inadequacies in the present delivery system, and has spelled them out in a document which will be referred to as the Hull Report.¹ A brief description of the inadequacies of the present system as described by Hull follows:

- (i) The existing delivery system does not recognize that a patient is a part of a social system and a community, and that his family, friends and job can be involved in his treatment process.
- (ii) Mental health facilities are not delivered in association with other community facilities and personnel.
- (iii) Not enough emphasis is placed on the prevention and primary intervention to ease problems which develop in the early stages before they become more serious.

1. After the author of the report, John Hull, from the Department of Health and Social Development, Research and Planning Department.

- (iv) The existing system does not recognize alternatives to inpatient care which would allow a person to maintain maximum community ties. Some will continue to require inpatient treatment, but others can be served by partial care programs, home care programs, and community residences.
- (v) General hospital facilities are not developed so that they could be a part of the delivery system.
- (vi) Until the present time, mental health professionals did not generally act as consultants to other professionals. Present emphasis on treatment is the one-to-one office situation. The approaches to be instituted must emphasize group and community approaches.
- (vii) Training programs for professionals do not reflect the emphasis that must be placed on community and group approaches.
- (viii) There exists a scarcity of resources in the mental health area, and presently the resources are not allocated in an optimal fashion. That is, they are not spread throughout the province but are concentrated in a few communities in a limited area in the province.

Basically, the Hull Report says that the existing mental health delivery system in Manitoba in no way reflects present approaches and treatment philosophies. The existing system is based on invalidated beliefs of the causes and treatment of mental illness. People working within the existing system also recognize the above inadequacies.

Chapter Three will describe how these inadequacies can be overcome as well as suggest a framework within which this can happen.

CHAPTER THREE: PROPOSED ORGANISM.

1. A STATEMENT OF PRINCIPALS12

2. PREVENTION AND THE SOCIAL SYSTEM APPROACH.13

3. THE PROVISION OF MENTAL HEALTH SERVICES.....18

 Level 1 Consultation Services.

 Level 2 Crisis Intervention Services.

 Level 3 Formal Outpatient Therapy.

 Level 4 Day Care and Workshops.

 Level 5 Hostel or Community Residence.

 Level 6 Inpatient Care.

4. SERVICES IN THE REGIONS.25

The Hull Report goes beyond merely detailing the shortcomings of the existing system and indicates what the delivery of mental health services should be like and what it should accomplish. It lists principles which inculcate new knowledge and which define new ways to provide mental health services.

PROPOSED ORGANISM:

1. STATEMENT OF PRINCIPLES.

- (i) Wherever possible, people should be treated in their community of residence to enable them to maintain contact with their family, job and friends.
- (ii) As far as possible, mental health services should be delivered in association with other community facilities and personnel.
- (iii) Increased emphasis must be placed on the prevention of serious emotional and behavioral disorders and on primary intervention techniques.
- (iv) Services should be decentralized so as to treat people in their community and to develop alternatives to in-patient care which will permit persons to maintain maximum community ties.
- (v) General hospital facilities should be developed to the point where they can provide a complete service spectrum, so that they will be able to assume almost total responsibility for patient care within a particular service area.
- (vi) There should be a redistribution of professionals to ensure that the

accessibility of mental health services is equitably distributed throughout the province.

- (vii) There is an increasing necessity for mental health professionals to act as consultants to other professionals. Group processes must be emphasized over one-to-one office treatment.
- (viii) The training of professionals must reflect this emphasis on community and group approaches.
- (ix) Because of the scarcity of resources in the mental health area, it is essential that these resources be allocated in an optimal fashion.¹

The Department of Health and Social Development calls this approach, for dealing with emotional and behavioral problems, "The Social Systems Approach". The Hull Report is very positive in its statement that the concept of the hospital as the locus of treatment (which currently uses 80¢ out of the mental health dollar) must be carefully re-examined. It also goes on to say that alternate programs which acknowledge the social system approach must be developed.

PROPOSED ORGANISM:

2. PREVENTION AND THE SOCIAL SYSTEM APPROACH.

The following is a list of factors that the development of a social system perspective and its relationship to primary prevention would involve. The list is taken directly from the Hull Report.

1. Department of Health and Social Development, Research and Planning. MENTAL HEALTH IN MANITOBA, A FIVE YEAR PLAN. Winnipeg, 1972.

- (i) The recognition of the extent to which human behavior is shaped by the environment, especially the human environment, through those consistent patterned interactions which compromise the social structure (Parsons, 1949; Williams, 1951; Porter, 1965).
- (ii) The recognition of the inverse relationship between social class (measured in terms of income and education) and the frequency of deviant behavior and subjective distress (Srole, Langner, Michael, Opler and Rennie, 1962; Hollingstead and Redlich, 1958; Gurin, Veroff and Feld, 1960; Plunkett and Gordon, 1960). In almost all studies of these relationships, the frequency of these problems increases as one descends the social class scale.
- (iii) The increased number of studies which demonstrates the relationship between the occurrence of certain kinds of social and environmental stresses and the development of behavioral disorders and/or subjective distress (Langner and Michael, 1963; Dohrenwend and Dohrenwend, 1969; Meyers, Lindenthal, Pepper and Ostrander, 1972). Surveys have indicated rather conclusively that the incidence of emotional and behavioral problems is much greater than we have anticipated and that only a small fraction ever come to the attention of mental health professionals. Most of these problems are not defined as mental illness by the persons involved and tend to be transitory in

nature, disappearing in response to the elimination of the sources of stress.

- (iv) The discovery that the level of social disorganization in a community can significantly affect the frequency of behavioral and emotional disorders (Leighton, Harding, Macklin, MacMillan and Leighton, 1963; Kaplan, Leighton, Murphy and Freyberg, 1971). Among the factors which have been identified as being related to the frequency of such disorders are: (1) a recent history of economic or other disasters affecting the basic means of livelihood; (2) widespread ill health; (3) extensive poverty; (4) a confusion of cultural backgrounds with little or no synthesis of different cultural values occurring; (5) weakening of membership in religious groups with consequent secularization of the inhabitants; (6) extensive migration of new groups; and (7) rapid social change affecting many of the traditional patterns of community life.
- (v) The structure of the community can also affect the form the problem takes (Opler, 1969; Barry, 1969; Naroll, 1969). For example, in Northern communities there is a high frequency of problem drinking among men and depressions among women. It may well be more effective to look for solutions to these problems on a social structure rather than on an individual level.
- (vi) Still other studies point out the differences in the incidence and prevalence of various kinds of behavioral and emotional disorders in various ethnic groups (Madsen,

1969; Crawford, 1969; Kitano, 1969). Ethnic differences in culturally defined situations for the appropriate use of alcohol, for example, are related to the frequency and severity of drinking problems in various cultures (Pittman and Snyder, 1962).

- (vii) As we make more explicit our attempt to assist people to return to the community and to carry out their social roles in the community, it becomes more apparent that it is virtually impossible to separate the vast majority of "mental health" problems from other kinds of problems in living which people in our society experience. Moreover, for many persons who manifest the more severe and bizarre problems, the disappearance of these problems still leaves them with skills which are inadequate to obtain the kinds of gratifications, economic and other, that our society has to offer.

It is apparent that it is much more desirable to prevent the development of emotional and behavioral problems than to treat them after they have already developed and created havoc in the lives of those directly affected as well as their family and friends. The preventive services, although not directly linked with and provided for in the mental health delivery system, are a part of the total scheme. Most of the preventive services will be provided by other persons in the community. It is enough to mention them and to note further that they must be universally accessible. The following is a list of the nine preventive oriented services indicated in the "Hull Report".

- (i) Day care and pre-school services for young children and infants.
- (ii) Homemakers and nursing home care services.
- (iii) Some form of information and educational programs dealing with money management, and legal and family matters.
- (iv) Family life education, family planning and genetic counselling programs.
- (v) Leisure time facilities and programs.
- (vi) Services to protect the individual from his family or to protect the family from one of its members.
- (vii) Access to preventive medical care, especially pre- and post-natal care in view of their importance with respect to mental retardation, prematurity, brain damage and a variety of other difficulties.
- (viii) Assurance of adequate nutrition, especially for young children in view of evidence relating this to mental retardation, underfunctioning (which can lead to other emotional and behavioral problems) and possibly even more severe behavioral disorders.
- (ix) Vocational and personal counselling.

The above are services which are not normally regarded or provided by mental health services, but when mental health problems are thought of as problems in living, these services become inextricably bound up in the entire treatment process.

PROPOSED ORGANISM:

3. PROVISION OF MENTAL HEALTH SERVICES.

When prevention has not been successful and a disturbance develops, it is necessary to provide services to assist the person and his family to cope with the situation. Provision of services is no longer simply a choice between inpatient and outpatient services. There is a range of alternatives in terms of the amount of care and support which is provided. The alternatives are defined as six basic levels of care (see diagram below).

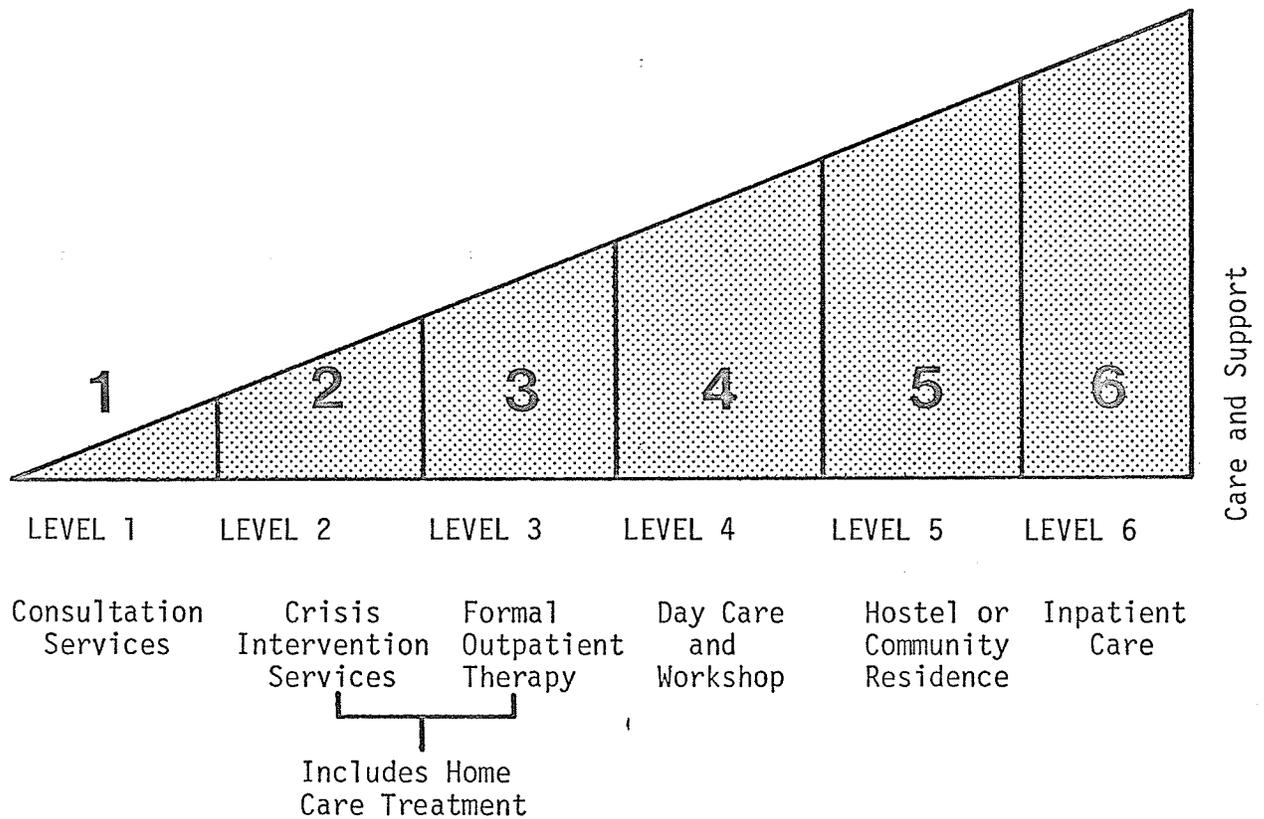


FIGURE 3-1 PROVISION OF MENTAL HEALTH SERVICES

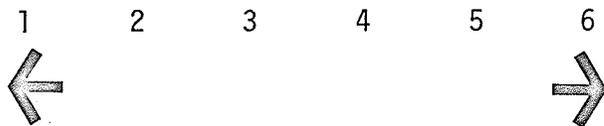
There are three factors which determine the treatment locus for any patient: one: adequacy of care; two: minimum cost; and three: maximum patient autonomy.

The arrows in the diagrams below indicate the optimum with respect to the condition described. In terms of adequacy of care, the optimum is that level of care that suits the person's problems, and thus can be at any level of care which corresponds with the person's needs.

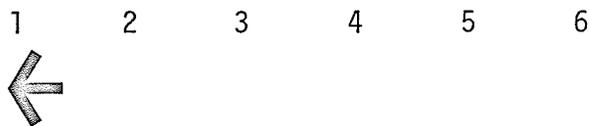
The minimum cost of treatment is at the lower levels of care. Thus, level one treatment is the least expensive in terms of cost and strain on mental health resources.

Patient autonomy increases as the level of care decreases. There is relatively little patient autonomy in Level 6, while patients in Level 1, at the other end of the treatment continuum, are allowed relatively complete autonomy.

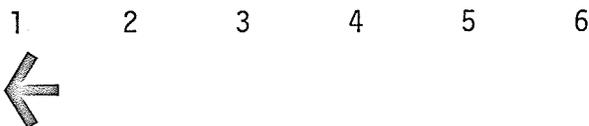
one: adequacy of care (depends on patient's apparent need)



two: minimum cost (depends on level of treatment)



three: maximum patient autonomy (lowest level of care has maximum patient autonomy)



The goal is to provide a range of services so that each individual is assigned to his appropriate level of care. The minimal, effective intervention is the treatment of choice. This emphasis on a continuum of types of care requires regionally based personnel and facilities if service delivery is to be effective.

LEVEL 1: CONSULTATION SERVICES

- psychiatrists, social workers and nurses will be available at particular development crisis points.
- in a community approach, there will be more emphasis on assisting other community agencies, such as schools, clergy, public health nurses, general practitioners, etc.
- many of these problems are not the responsibilities of mental health professionals, but they are intimately linked to mental health.
- this argues a close linkage between mental health and other service personnel in the community.

LEVEL 2: CRISIS INTERVENTION SERVICES

- many acute psychiatric problems are of such a nature that an immediate (within 24 hours or less), intensive, but brief treatment intervention can restore the person or family to an equilibrium which will allow them to resume normal functioning.
- crisis service cannot be provided from Winnipeg, Selkirk, and Brandon to the remainder of the province or the only form that it will take, as in the past, will be hospital admission.

- there are studies which indicate that an alternative treatment approach (family crisis therapy) was at least as effective, if not more effective, than hospital treatment. (Langsley D.G., and Kaplan, D.M. "The Treatment of Families in Crisis").
- first hospitalization should be avoided since this both labels the patient and sets a precedent for the handling of subsequent crises.
- a crisis team of this nature would have to be on 24 hour call, and within one hour road travel.
- with district based teams, it would not be unreasonable to supply this care to the 90-95% of the population of Manitoba which do not live in extremely isolated areas.

LEVEL 3: FORMAL OUTPATIENT THERAPY

- outpatient and home care programs.
- many problems for which hospitalization was previously thought to be necessary can be adequately dealt with by providing more intensive outpatient and home care programs.
- it is necessary to beware of transferring the burden of care from public facilities to the family, as this may have deleterious consequences, not only for the person who is experiencing difficulties, but for other members of his family.
- more extensive treatment involvement will sometimes be necessary, not only for the immediate treatment of that person who is designated as the patient, but

for the prevention of problems in other family members.

LEVEL 4: DAY CARE AND WORKSHOPS

- some mental health problems can be handled on a short term basis. Others require longer term efforts aimed at assisting people to develop the skills and competence which will enable them to assume their social roles.
- for some, this may be re-socialization, while others may never have acquired the necessary skills and behaviors.
- successful functioning is due in large part to the way that people learn to approach problems and to the practice that they obtain through experience and training.
- persons with problems frequently lack information, skills, and abilities that are important in adapting to community life.
- the idea of the neighborhood service centre offering job advice, health and legal assistance, social service and other informational help is based on a similar assumption - that many of the difficulties which people experience are a result of deficiencies in skills and the information necessary to seek redress of their problems.
- successful social functioning requires some ability to act as one's own agent.
- an educational model is likely to encourage higher expectations concerning personal responsibility and initiative, and since its goals are specific and

directly relevant to the problems that the person faces, they are more acceptable to him.

- such centers should offer a variety of activities, focusing primarily on life skills training, and should include a workshop setting for work skills training.
- they should provide courses in applied problem solving which would assist persons in those areas in which they have problems. The program would include the teaching of interpersonal and social skills, the use of public and private services, vocational guidance, family counselling, and sheltered workshop facilities.
- for many persons the emphasis in day care programs should be on an attempt to develop either specific work habits, or specific work skills or both.
- these day care and workshop programs can serve three functions:
 1. an alternative to hospitalization.
 2. a transitional facility for persons who have been hospitalized.
 3. a long term resource for persons with limited capacity for independent functioning.

LEVEL 5: HOSTEL OR COMMUNITY RESIDENCE

- in the delivery of mental health services, provision also must be made for those persons who do not require the intensive care provided by an acute hospital, but who may not be able, for various reasons, to live with

their families at a given time. For such persons, short term hostel arrangements might be much more desirable than continued residence in the hospital.

- in this way, we would be providing more opportunity for people to practice the skills which will be required of them in the community, thus enabling them to make the transition to the community in a much more gradual way, and preventing the loss of existing skills.
- residents of such facilities may be either working in regular employment or attending a day care center or workshop.
- such residences can serve as an alternative to hospitals as a temporary transitional facility.

LEVEL 6: INPATIENT CARE

- there are some circumstances in which hospitalization is the appropriate action.
- hospitalization should be as brief as possible, and it should take place in the patient's community of residence, whenever possible.
- general hospital psychiatric units are admitting and dealing successfully with acute psychiatric disturbances.

PROPOSED ORGANISM:

4. SERVICES IN THE REGIONS

The province has been divided into seven regions by the government of Manitoba, as outlined in the White Paper on health policy, 1972: Norman Region, Parkland Region, Interlake Region, Westman Region, Central Region, Winnipeg Region, and Eastman Region (see Figure 3-2, Page 26). Each of these regions can be thought of as having its own autonomous, service delivery network. Each region can be broken down further into sub-system areas based on catchment areas which are defined by minimum population groups of 40,000 people.

The province with a population approximating 1,000,000 people can be broken down into 25 separate, service delivery networks each having a base population of 40,000. Each of these networks or units of delivery would provide a full range of services (see Figure 3-2, Page 26). Winnipeg, with a population of around 500,000 accounts for 12 and 1/2 of these units of delivery (say 13 with the urban growth factor), leaving the remainder of the province broken into 12 complete units of delivery.

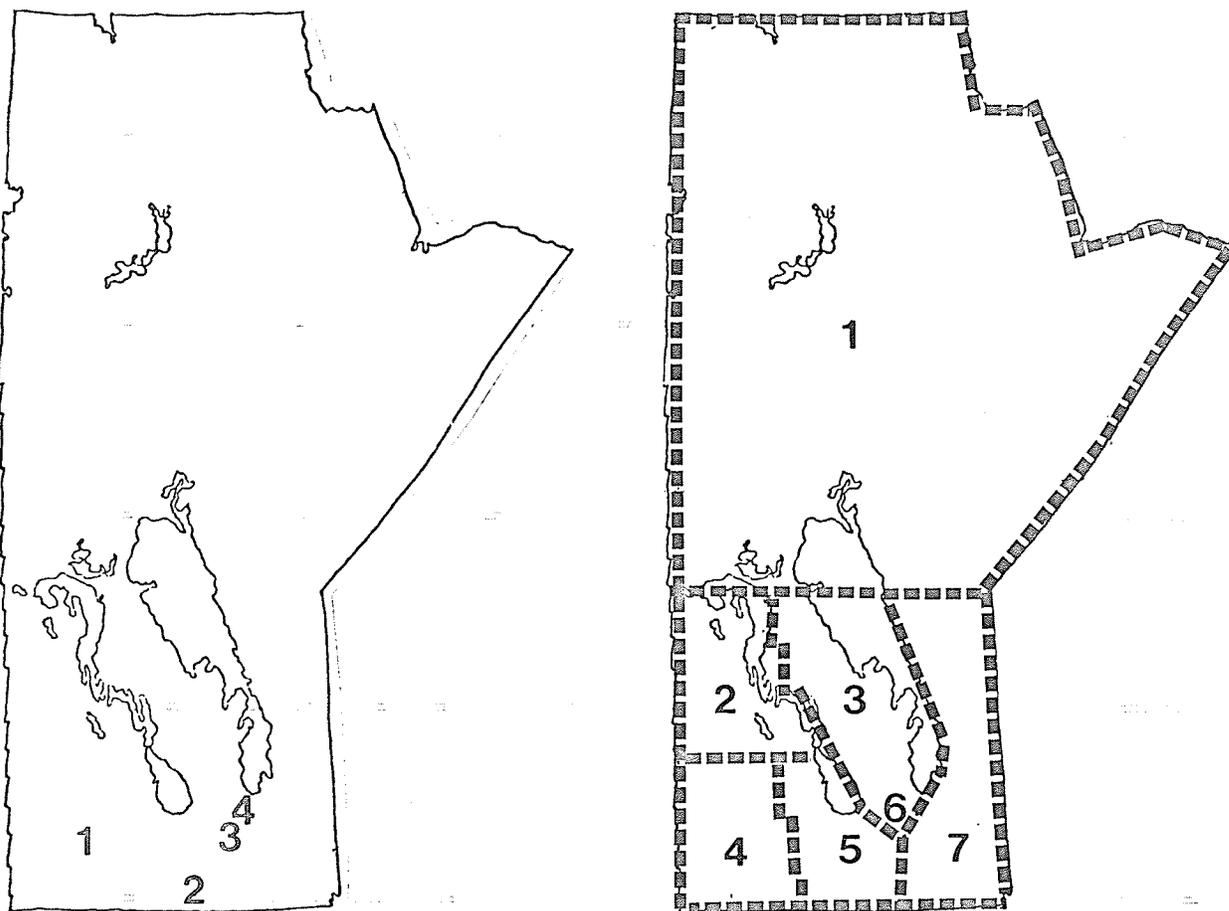


FIGURE 3-2

EXISTING DISTRIBUTION

1. Brandon
2. Winkler
3. Winnipeg
4. Selkirk

PROPOSED DISTRIBUTION

1. Norman Region 1.9 Cells
2. Parkland Region 1.3 Cells
3. Interlake Region 2.0 Cells
4. Westman Region 3.0 Cells
5. Central Region 2.25 Cells
6. Winnipeg Region 13.0 Cells
7. Eastman Region 2.0 Cells

The previously mentioned breakdown of the province into 25 units of delivery is the basis of further examination of this new mental health model. This examination will only concern itself however, with the patient population presently being served from the Brandon Mental Hospital, which would constitute 8 of the 25 units of delivery. The diagrams in Figure 5-1, Page 48, indicate this proposed 8 cell breakdown in the Brandon catchment area.

CHAPTER FOUR: A NEED FOR A MODEL.

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Chapter Four describes in greater detail the existing delivery system and mentions some of its shortcomings in terms of contemporary treatment approaches. It goes further in describing the organizational structure of the proposed delivery system. A major problem is indicated, the transition from the old to the new delivery system. A transition model is proposed that could help to facilitate the transition. The model is a fairly complex structure of relationships so only a portion of it is examined, using the assumption that if an understanding of a part can be demonstrated, the other parts can also be understood.

A NEED FOR A MODEL:

1. EXISTING ORGANISM.

The existing mental health delivery system in Manitoba, as well as the rest of Canada, suffers from five major shortcomings: first, as it now exists, it is medically oriented; second, there is a very inequitable distribution of services throughout the province; third, the existing physical plants do not reflect contemporary therapeutic techniques; fourth, treatment facilities are cut off from the community in which they are located; and fifth, the choice of treatment is no longer just between inpatient and outpatient, there is a range of treatment options available. These five inadequacies are recognized by people involved in the present delivery system. They are quite responsive to the thought of change, but are not sure how it can take place. The Government of Manitoba has recognized the inadequacies mentioned above in a report from the Department of Health and Social Development called "The Hull Report".

One of the basic premises of the Hull Report is that non-medical personnel can do much of the work presently done by medical personnel. The report points out that psychologists can handle mental health problems at least as well as psychiatrists, with the help of psychiatrists. For the purpose of my thesis, I am working on the assumption that such a situation is possible as well as probable. A visit to Dr. Lambert, the psychiatrist in charge of the Health Sciences Psychiatric Ward, revealed that he was handling problems on the ward via a nurse by telephone. Though Dr. Lambert objected to the use of non medical people dealing with the problems, he was, in fact, acting within that specific structure himself. Dr. Lambert finally did concede that it would be possible to use non medical personnel, but stated that the psychiatrist in charge would have to be of high calibre.

He felt that such personnel might be hard to entice from their private practices. As previously mentioned, I am assuming that the personnel will be made available.

Another problem with the existing system is its inequitable distribution throughout the province. At present the province is serviced from four major centers: Winnipeg, Selkirk, Winkler and Brandon. If it is accepted that social factors have contributed to the dysfunction of the individual and that it is up to the social system to assist his recovery, then delivering mental health services 400 miles away from the person's home is not acceptable. One might expect a person requiring relatively complicated surgery to travel great distance for it, but to travel from Thompson to Winnipeg for relatively simple treatment seems quite ludicrous! Coupled with the inequity of service distribution is the fact that the facilities from which the services are delivered in no way reflect modern treatment philosophies. This is not surprising if one considers when the hospitals were built. The Selkirk Hospital was opened in 1886, the Brandon Hospital in 1891, and the Winnipeg Psychiatric Institute in 1919. There have been recent developments in new psychiatric wards in the city of Winnipeg, but for the most part, the institutions at Brandon and Selkirk have undergone little functional change since the time of their opening.

Their relation to the rest of the community parallels their custodial, jail-type manifestation. The hospital at Selkirk is in the north-west end of the town and is surrounded by a high wire fence, either to protect the public from the inmates or to protect the inmates from the public. The hospital at Brandon is more subtle in its aloofness, separated from the community by only a river, a hill, and a forest. It is virtually impossible to see the

hospital buildings until you enter the road that leads you into the complex. In both cases, special pains were taken to keep the hospital away from the community, for in the past, all disturbed people were thought to be dangerous.

The existing delivery system utilizes the hospital as the locus of treatment. The Hull Report emphasizes the creation of a broader range of services to deal with mental health problems. It lists six basic areas of treatment and nine areas of prevention. It changes the locus of treatment from the hospital to the facility providing the level of care required by the patient's specific problems (see Figure 4-1, Page 33).

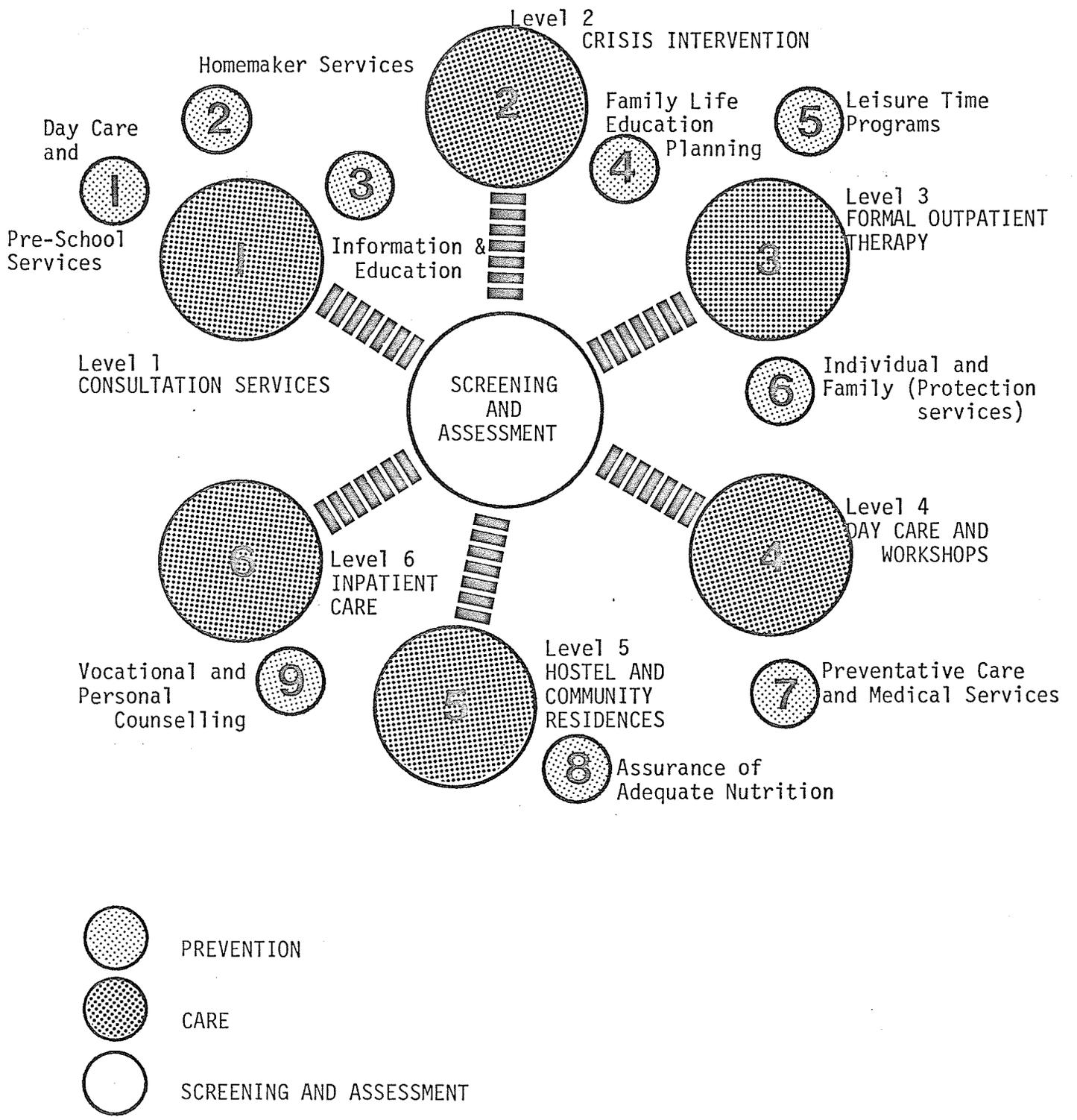
A NEED FOR A MODEL:

2. PROPOSED ORGANISM.

What the proposed delivery system or organism attempts to do is to rectify the inadequacies of the existing organism.

The new system will have a new organizational structure with non-medical personnel playing important roles which have medical back-up capabilities. The proposed organism also envisions on-the-job training as an important aspect of the system. The administrative organization is one that I assume to be acceptable, possible, and probable for the purpose of this paper.

An important part of the proposed system is its distribution of services throughout the province. Basically, it suggests a decentralization of all services throughout the province to make the system more responsive to the environment of which the patient is a part. This decentralization process concurs with the philosophy of the "Social System Approach" for dealing with emotional and behavioral problems. A new distribution pattern for service delivery means that a great number of new facilities will



PROPOSED ORGANISM

FIGURE 4-1

be built throughout the province.

The new facilities, recognizing the new philosophies in mental health treatment will no longer be of just the hospital type. The nature of the milieu of treatment facility would be the hospital or acute care facility. With the introduction of drugs as a therapeutic tool, the screaming, destructive psychotic who seems to have precipitated the construction of jails for the mentally ill is not the typical patient (I doubt if he ever was). New designs should reflect contemporary attitudes in treatment. An example of a change in design philosophy is indicated by the psychiatric wing at the Grace General Hospital in Winnipeg. It is much less formal than previous hospitals. It fosters a family or community feeling among patients and staff.

The next generic type of facility would be the office type. aspects of the new delivery system need only offices, especially in the nine levels of prevention and also in the consultation services. This aspect of the delivery system emphasizes the involvement of the mental health personnel with other professionals in the community.

The last of the generic types of treatment milieu is emphasized in a residential type setting. These residence settings have three main, characteristic differences between them. They can be an alternative to a larger institution, a transitional facility from or to the hospital and a permanent residence where contact with the system occurs in a time of crisis, or they can be day care and workshop facilities.

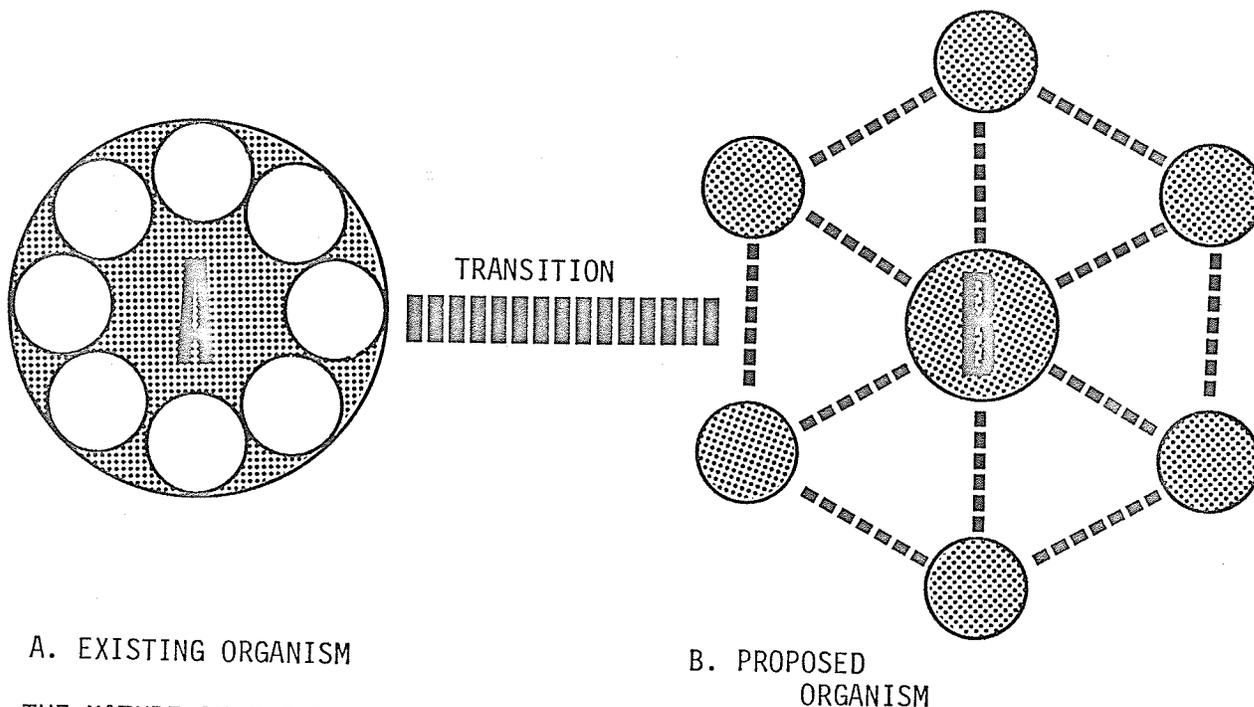
An important aspect of the new delivery system is its relationship to the community (see Figure 5-28, Page 90). The existing delivery system, as previously mentioned, has little or no contact with the community in which it is located. The proposed delivery system will make a conscious

effort to be a part of the community. This is done partially by locating new facilities close to existing social educational and institutional facilities in the community. The idea here is to keep the mentally ill person in contact with the social system rather than isolate him from it. It is thought that the system has made the person falter and that it is up to the system to help him on the road to normal functioning. Contact with the community can have another benefit. It can help to erase the stigma attached to mental illness through constant contact between two systems, the social system and the mental health delivery system .

A NEED FOR A MODEL:

3. THE TRANSITION.

It is quite apparent that there is an inappropriate mental health delivery system in Manitoba. It is also quite apparent what the new delivery system should be like. The problem is how to get from one system to the other (see Figure 4-2 Page 36). It is probably wrong to look at one and forget the other. That is, it is not enough to provide a new system of delivery while ignoring what is happening to the existing one. Each step or stage in implementing the new delivery system has an effect on the present system. Decentralization of mental health services is not basically providing a new range of services, though that is part of it, but rather it is the reorganization or rearrangement of what presently exists. When describing the 6 levels, Health and Social Development is not inventing new levels of intervention, but rather categorizing present types of intervention. It is not the philosophies of the system that are inappropriate,

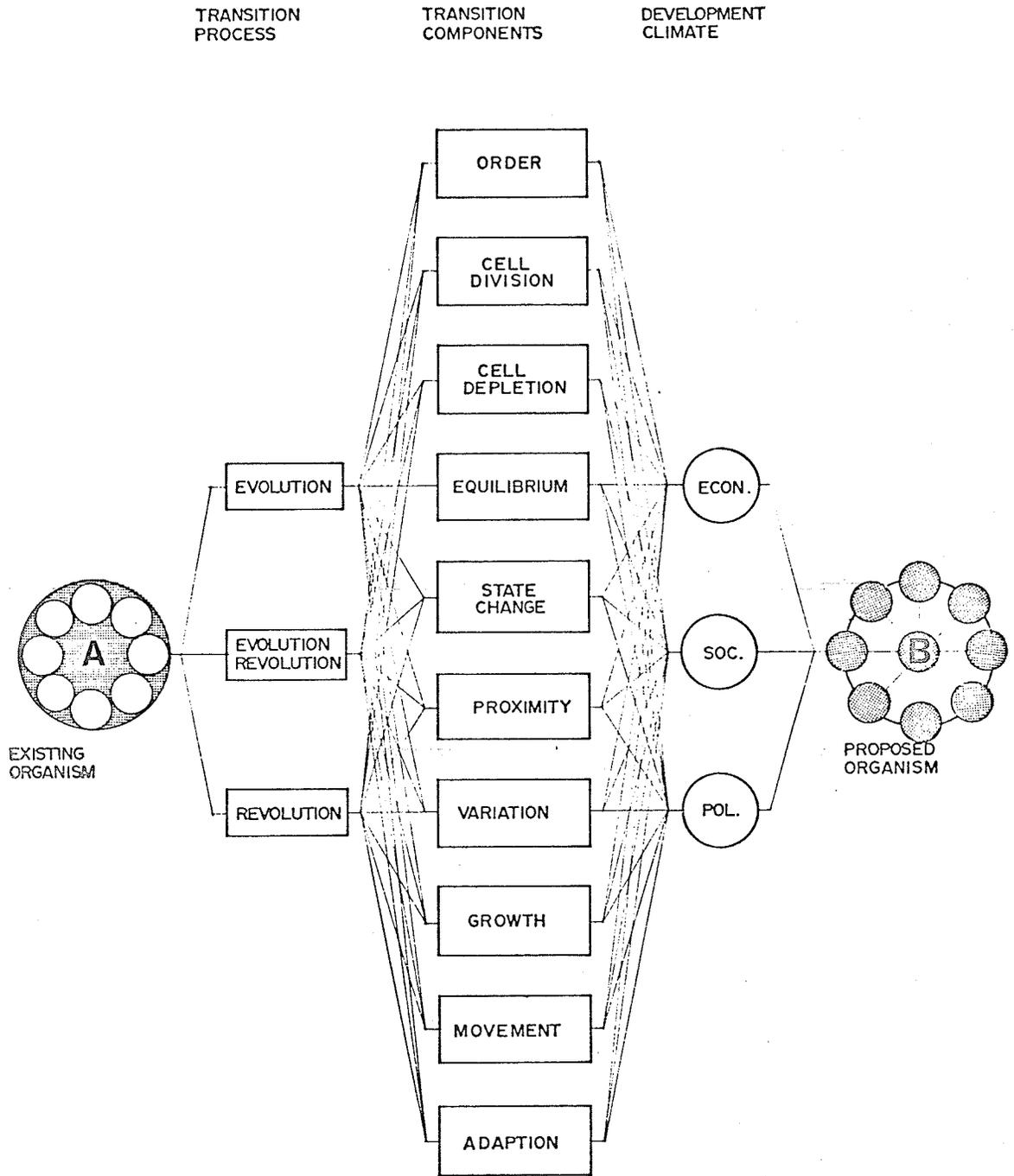


THE NATURE OF THE PROBLEM. FIGURE 4-2

but the facilities through which the contemporary philosophies in treatment are delivered. The rearrangement of facilities is what is to be examined. The problem is, how these new facilities are to be distributed throughout the province. What are some of the problems that will have to be solved?

To help solve the problem of transition or transformation, a model will be proposed. A structure can be developed to facilitate the transformation or transition from A, the existing organism, to B, the proposed organism. The model or structure can be thought of as operating on three general levels: one, the transition process; two, the transition components; and three, the development climate. (See Figure 4-3, 4-4, pages 37 and 39, for a diagram of the model structure).

The transition process can at one extreme be evolutionary in nature, or at the other extreme it can be revolutionary in nature. The process can also involve aspects of both evolution and revolution, or either of these



STRUCTURE OF THE MODEL

FIGURE 4-3

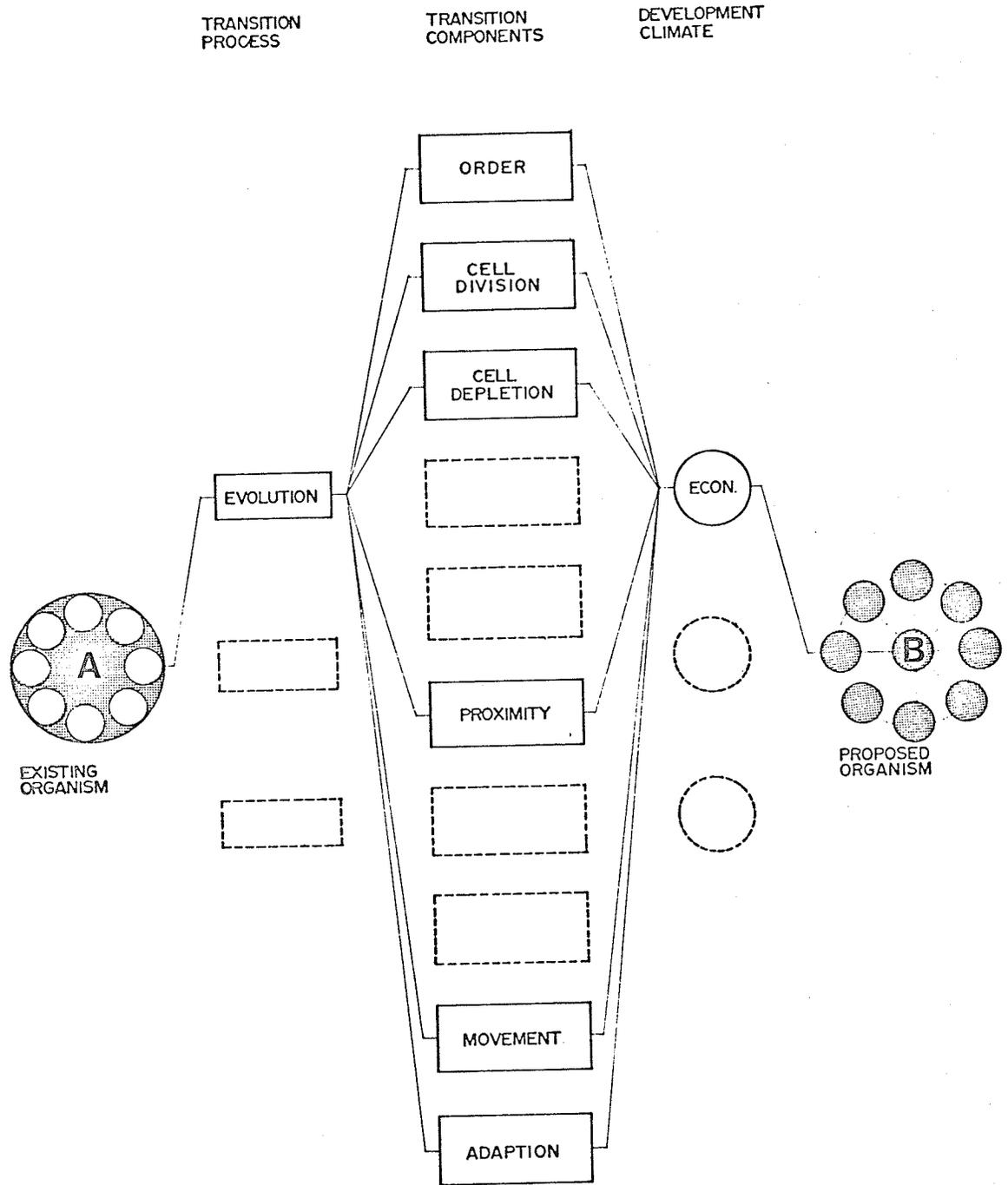
processes can be regulated to involve aspects at either extreme and between the two extremes. Regulation can be the key to whatever process is used. For any adapting organism, regulation becomes important, for this is how changes occur and where evaluations can be made. The transition process has a series of components that effect the transformation.

The transition components are actually a series of elemental relationships that generate rules by which the transition process can take place. There is a large array of transition components available, such as order, cell division, cell depletion, equilibrium, change of state, proximity, variation, growth, movement and adaption. These elements of change must go through what I term a development climate.

The development climate includes the economic, political and social spheres of influence in which the development of the transitional process takes place. The economic spectrum determines the capability of the transformation. Nothing can happen unless monies are available with which to initiate the process. The political spectrum is where the decisions are made and the implementability of the process is determined. The social spectrum is the area in which the acceptability of the process is measured.

The above mentioned structure is a complex one which can be simplified in order to make a manageable yet appropriate examination of the problem.

Limits can be set on the three levels of the model in order to simplify it. A closer examination of the transition process reveals that the evolutionary aspect can be regulated to encompass revolution and areas between revolution and evolution. Limits can also be set on the transformation components as well as on the development climate. Figure 4-4, Page 39, shows in diagrammatic form a simplification which the



LIMITING THE MODEL

FIGURE 4-4

transformation can take if some limits are imposed on the transition process, the transition components, and the development climate.

A NEED FOR A MODEL:

4. PURPOSE OF THE MODEL.

The model, as proposed, will be examining the decentralization problem at two levels: one, a basic planning of distribution throughout the province; two, a general planning strategy for the facilities to be provided.

In the first instance, the model will indicate the relationships of the parts in the new delivery system. That is, it will indicate how the parts act with each other and how they act as a whole. Some general rules can be established. These rules can be examined to determine inherent strengths and weaknesses. After the general distribution has been looked at, it will be profitable to look at another level of programming.

An examination of particular facility implementation will indicate some of the problems that will be confronted in terms of physical building when realizing new programs. This can be thought of as the concrete manifestation of an abstract idea.

A NEED FOR A MODEL:

5. AREA OF CONCERN.

Since the problems of decentralization are more dramatic in the non-urban areas, and because these are the areas of the least equitable distribution of services in the present system, this is the area that will be examined. The physical plant at Brandon presently handles about one third of the mental health patient population of the province. This will be the point of departure for the study. That is, it will examine

the areas that would be serviced from the Brandon Mental Hospital when the proposed distribution is put into action.

A NEED FOR A MODEL:

6. PROJECTED TRENDS IN PATIENT CARE.

Projected trends in the emphasis in patient care indicate two main changes. One is a drop of about 30% in the actual inpatient load at the Brandon Mental Hospital by 1977. The second change is that, while the inpatient population is decreased, the outpatient population doubles. The charts on Figure 4-5, Page 42, show this shift in graphical form. At present, information regarding the shift in terms of specific levels is not available, so for the purpose of the thesis, it is assumed that the outpatient population will double at all levels.

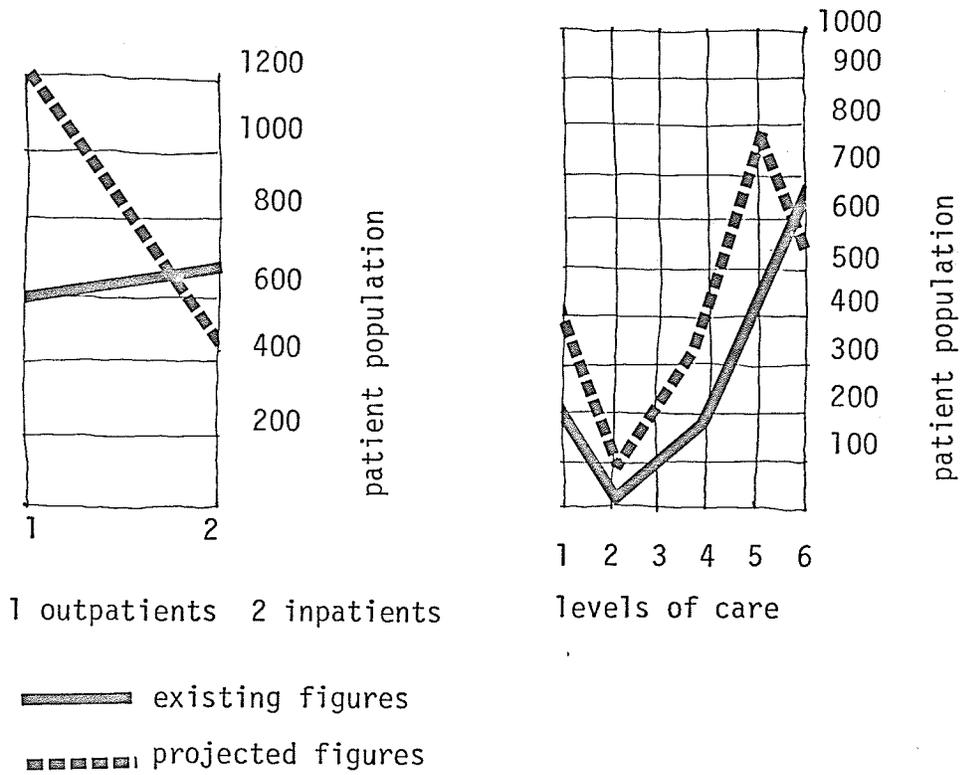


FIGURE 4-5 TRENDS IN PATIENT POPULATION

* From statistical information contained in the Hull Report. Mental Health in Manitoba, A Five Year Plan, Appendix II - Outpatients.

This chapter has dealt with the general description of what the author termed a developmental model. Its apparent complexity is indicated in diagrammatic form (see Figure 4-3, Page 37) and a specific path within the model flow is chosen to further examine (see Figure 4-4, Page 39).

The following chapter deals, in detail, with an examination of the parts within a chosen flow. The flow can be thought of as those parts of the model chosen to examine movement from the existing organism to the proposed organism.

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TRANSITION PATTERNS.

I thought of the problem in terms of a changing organism. The branch of science that deals with organisms is biology. The science of biology has recognized patterns which organisms exhibit. The specific problem that I had to face was how to translate biological patterns into some meaningful tool that could be applied to the mental health delivery organism.

TRANSITION PATTERNS:

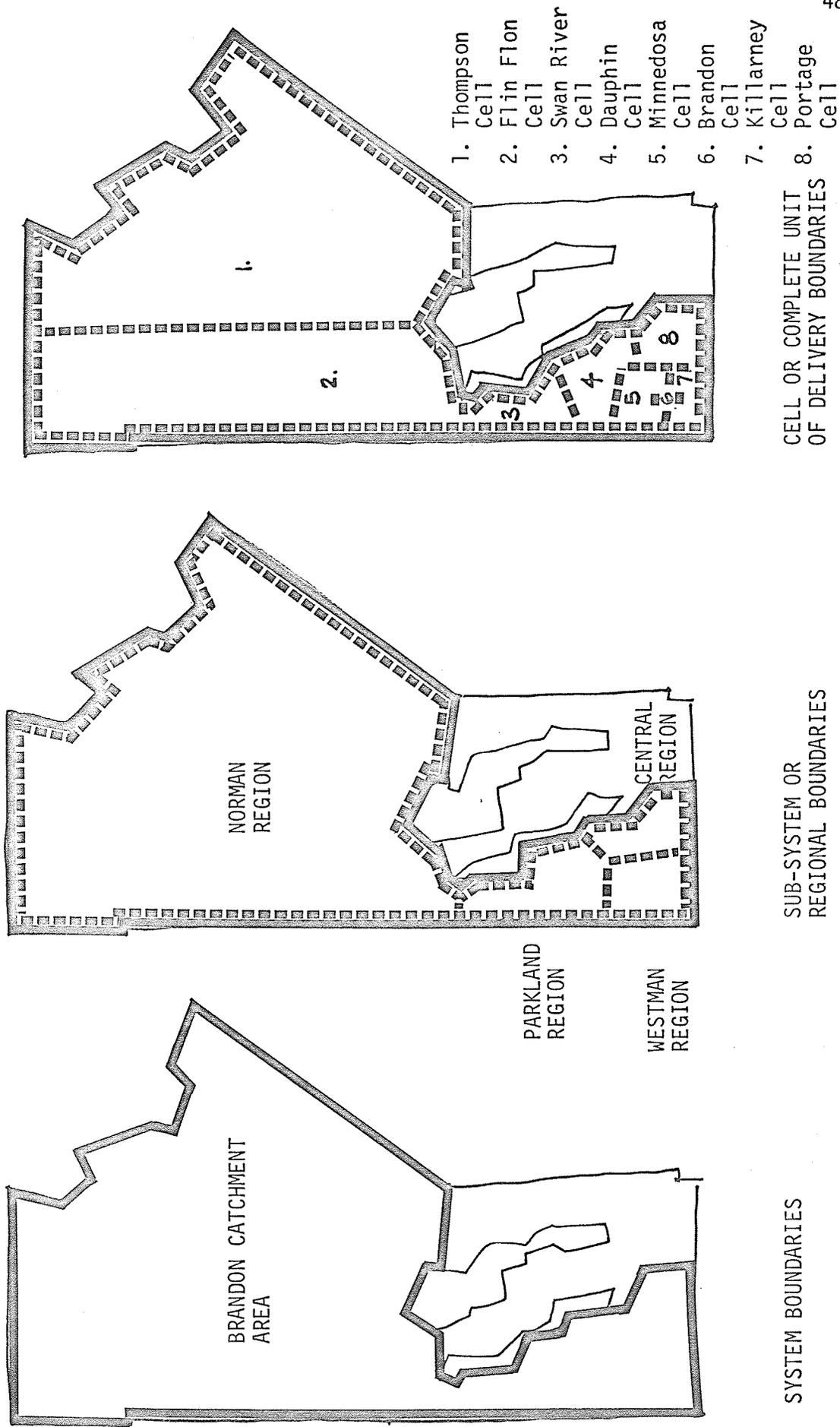
1. THE TRANSITION.

As previously mentioned, the decentralization of mental health services in Manitoba can be thought of as a problem of transition or transformation. There is the aspect of how this transformation must take place and by which criteria its course will be chosen. There are three general areas or ways in which the transformation can take place; one, by an evolutionary process; two, by a revolutionary process; and three, by a combination or relationship process between the first two. The selection should be made with broad objectives in mind. The avenue of selection should yield the maximum amount of options and checks during the transformation.

The reason that the options and checks are so important is the inherent shortcomings of a planning process. Planning processes are far from exact sciences, and because of the large variety of possible and unpredictable elements acting upon the process, it is quite impossible to predict an exact outcome. Thus it can be assumed that a process that optimizes the number of possible checks on the system could be a good tool to use.

The organism, the mental health delivery system, can be thought of

FIGURE 5-1 SYSTEM, SUB-SYSTEM, AND CELL BOUNDARIES



as a system made up of a series of sub-systems. Figure 5-1, Page 48, indicates in diagrammatic form the basic sub-systems that make up the mental health delivery system in Manitoba. The diagram indicates geographic sub-systems only.

The revolutionary aspect of cell development is that of cell division (Figure 5-3 Page 54). The concept of cell division is a growth concept. The system within which this particular transformation takes place does not have a relative growth potential in it.¹ For this reason, along with others that will become apparent, cell division is considered less appropriate than cell depletion. Specific areas within the system (ie. Winnipeg) where growth does occur, however, would be looked at with regard to cell division.

At the other extreme of the transformation model is the evolutionary aspect or what can be termed cell depletion. An examination of cell depletions will reveal that transformation can be both revolutionary and evolutionary in nature. It can be regulated to either extreme of the scale. If it can embody characteristics at both extremes, then it can be argued that it will be able to deal with the points in between.

The evolutionary aspect has the potential then to embrace aspects of all three processes, and for this reason, it was the process used to examine the transformation.

1. Statistics from Information Canada indicate that the Province of Manitoba is growing. Figures on the last ten years show that the growth is largely confined to the greater Winnipeg area. In fact, in some year, the growth in the province is less than the growth in Winnipeg, indicating a reduction in the rural areas.

There are seven components of transformation that will be examined: one, cell division, two; cell depletion, three; proximity; four, order; five, variation; six, movement; and seven, adaption. These components act within what I termed the transformation climate in which political, social and economic spectrums are the factors.² These three spectrums must be working in harmony for the proposed delivery system to be implemented, and for the purpose of the thesis, it will be assumed that they will be working in favour of implementation.

TRANSITION PATTERNS:

2. DETERMINING THE NUMBER OF STEPS.

The mental hospital at Brandon presently handles about 34% of the provincial mental health load. Units of delivery or cells within the mental health delivery system are equated to a catchment area population of 40,000.³ Dividing this catchment area into the provincial population of 1,000,000 results in 25 units of delivery or cells in the province. Brandon handles 34% of these twenty-five units, and simple computations show Brandon servicing eight cells.

-
2. The economic spectrum represents the capabilities of the system, the social or ideological spectrum the acceptability of the system, and the political spectrum the power to implement the system.
 3. This figure is based on a figure provided in the "Hull Report", and also is based on a service population catchment for a Single Unit Delivery System facility.

From the preceding it can be seen that the decentralization of the services presently provided at the Brandon Mental Hospital (Figure 5-2, Page 51) could occur within eight cells within the Brandon service area.

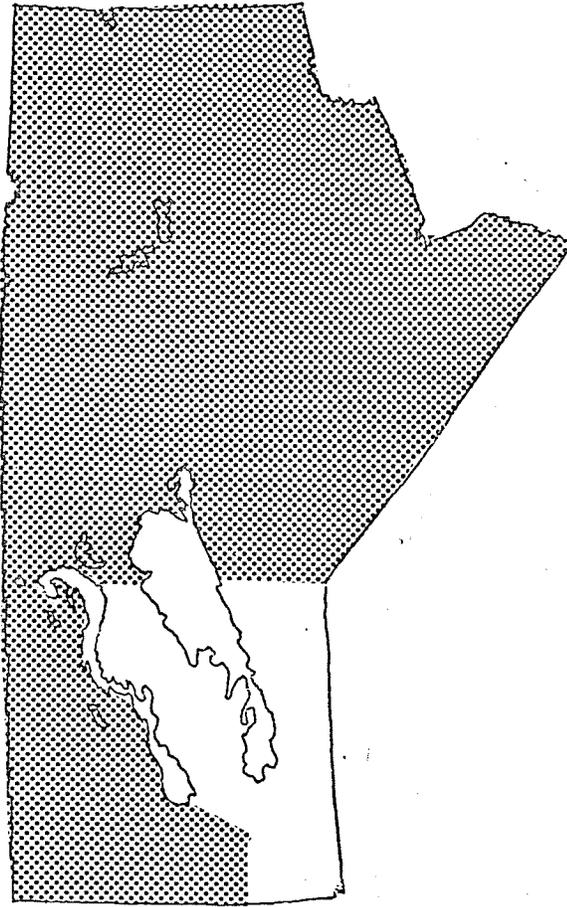


FIGURE 5-2 BRANDON CATCHMENT AREA

TRANSITION PATTERNS:

3. THE COMPONENTS.

As previously mentioned in an attempt to understand the nature of the transition or transformation, biological factors of evolution were found to yield a number of possible components that could be examined. It was thought that the rules to implement this transition would lie within the biological branch of science.

The transition was viewed as a living evolutionary process, a very fundamental evolutionary process. A fundamental, biological element is the simple cell. Thus simple cells became the point of departure for the transformation study. A set of seven components was chosen (these seven not being an exhaustive number) that I thought would yield enough clues to give an understanding of the process involved in transforming the existing mental health delivery system into the proposed system (see Figure 4-4 Page 39).

3. THE COMPONENTS:

(i) CELL DIVISION

The component, "cell division", indicated a growth potential, a rapid growth potential. It would take three steps of division for the existing organism, Brandon Mental Hospital, to be broken into eight cells. At any step, the amount of divided cells would always be equal to the existing organism, in terms of patients, staff, services, and facilities. This implies that facilities in a previous step would either be used because of growth demand or be used outside the system.

Cell division would be an inappropriate tool in the area of concern because the area has no foreseeable growth potential.^{4 5} If the model was to look at the entire province, especially the Winnipeg catchment area, cell division would be a more appropriate choice for further examination.

4. Present Brandon Mental Hospital catchment area see Figure 5-2 Page 51
A PROVINCIAL DISTRIBUTION.

5. As indicated from Information Canada statistics.

A. CASE ONE: THREE SIMILAR DIVISIONS:

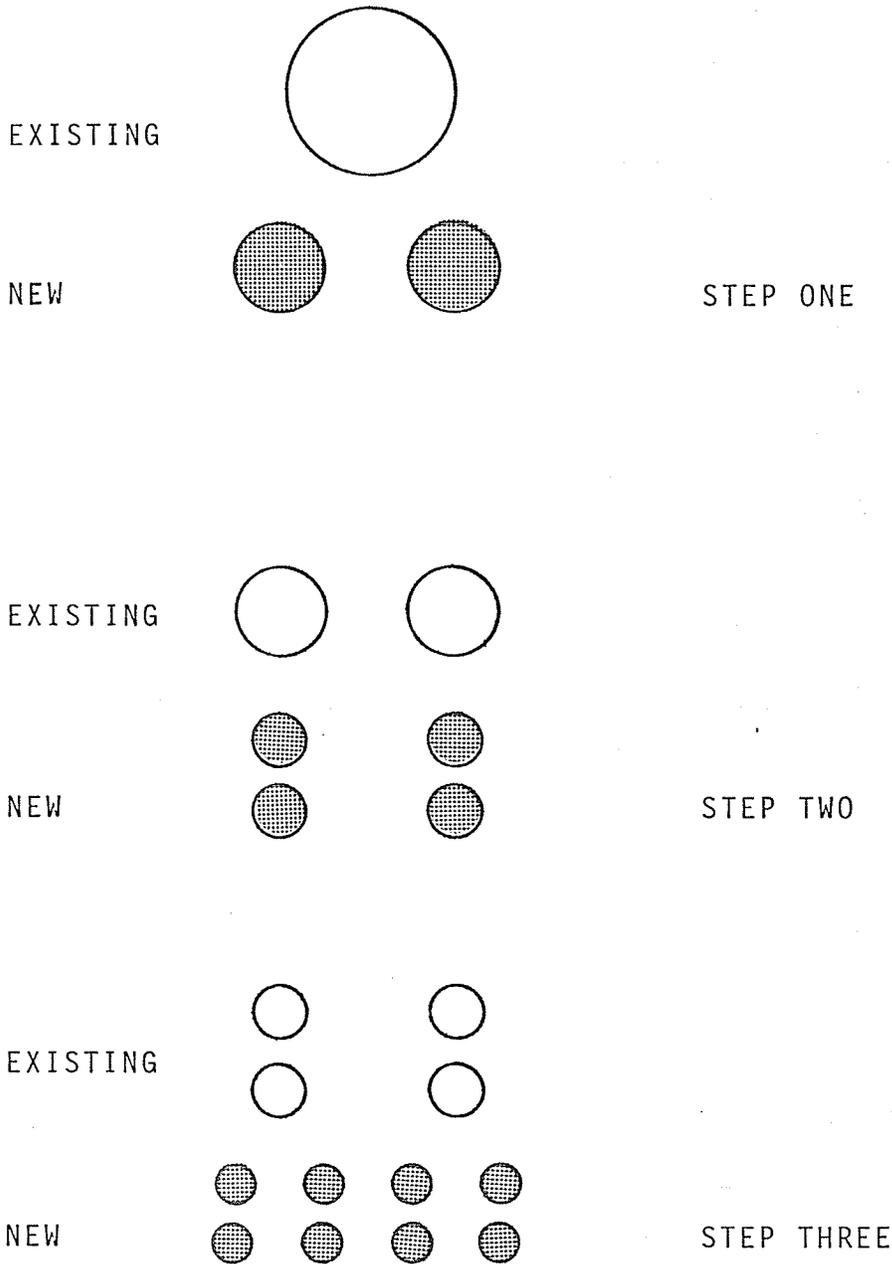


FIGURE 5-3

STEP ONE

- existing organism divides into two cells, each being of similar composition.
- problem is that in time, because of size and location the two new cells become almost as inappropriate as the existing organism, ie. large in size with few locations.

STEP TWO

- two cells from Step One divide to form four new cells, each being of similar composition.
- now we have the problem of dealing with the two cells created in Step One.
- we examine the shortcomings of Steps One and Two before proceeding to Step Three.
- there are problems in dealing with the increased number of cells and with the complex relations between new cells which are analogous to the difference between addition and multiplication.

STEP THREE

- four cells from Step Two divide to form eight new cells each being of similar composition.
- again the problem arises of dealing with the four cells created in Step Two.
- problems are created in dealing with the numbers of cells and new relationships that arise.

CONCLUSIONS

- new cells are created in one step, only to become inappropriate in the next step, if they can be thought of as relatively appropriate in a final step.
- there is a high probability of duplicating major facilities and services in earlier steps.
- the first step would be relatively dramatic.

B. CASE TWO: THREE PARTIAL DIVISIONS:

Cell Division can be accommodated by utilizing only half of the cells created in each step of division. Thus the growth potential can be regarded. There are, however, other problems that cannot be dealt with which will become apparent in later component studies.

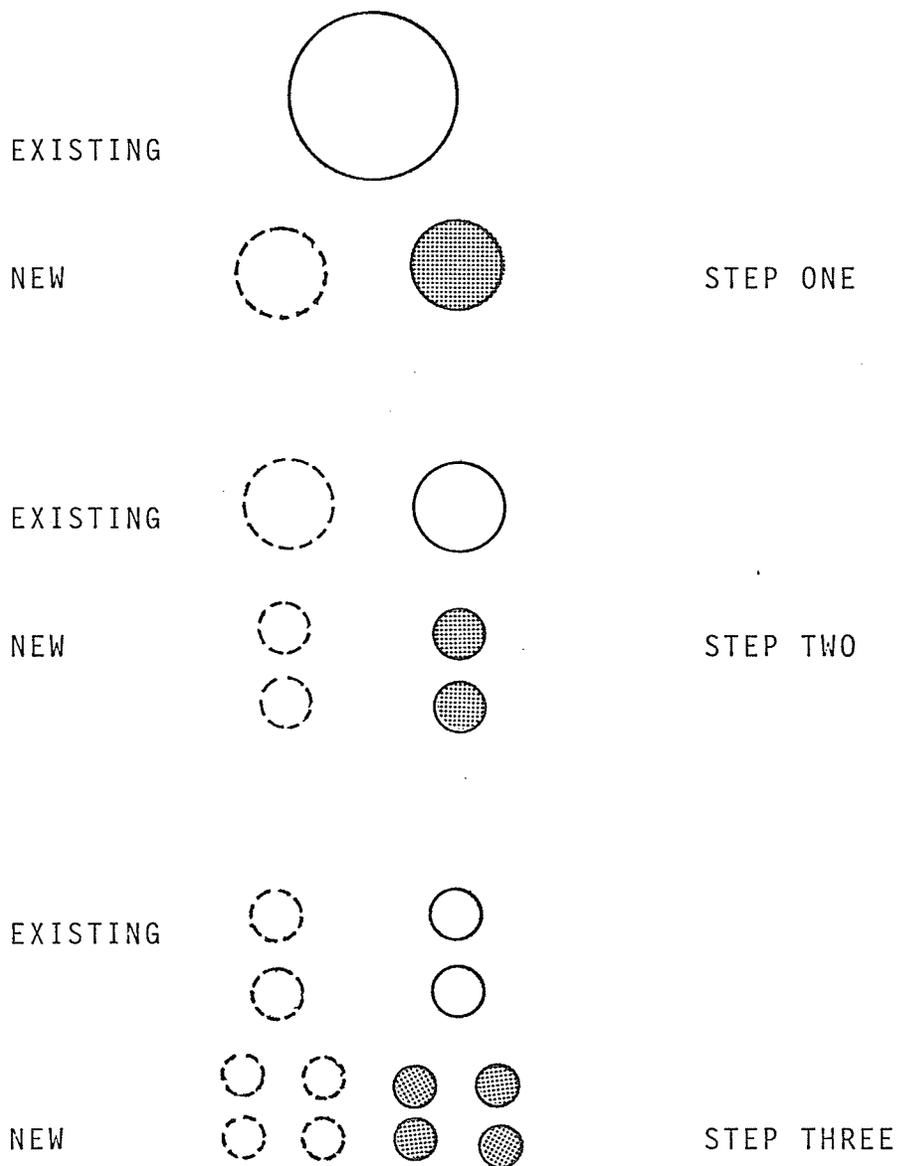


FIGURE 5-4

3. THE COMPONENTS:

(ii) CELL DEPLETION

Cell depletion is a relatively more adaptive component than is cell division, due to the increased number of steps. It can be regulated to facilitate a wide range of options in terms of: the number of steps, size of step, composition of step, support required in each step, etc.

This particular component also has the advantage that it can facilitate the transformation as a shock process (ie. one with few steps), or an evolutionary process (one with a greater number of steps). Also, because it can facilitate a wide range of options, it follows that a wide range of checks can be exercised on the system. Cell depletion can accommodate a complete range of given sizes.

A. CASE ONE: BY EQUAL STEPS:

The diagram below indicates how the original organism could deplete if the transformation took place in eight equal steps. This type of depletion would involve transferring 84 patients in each step (671 divided by 8 = 84). It has the advantage that each step would create a relatively small amount of disruption to the existing organism. It also provides a number of places where checks and evaluations can occur, for example, after each step or before the next one. It has the disadvantage that there is little guarantee that the depletions will occur in eight equal steps.

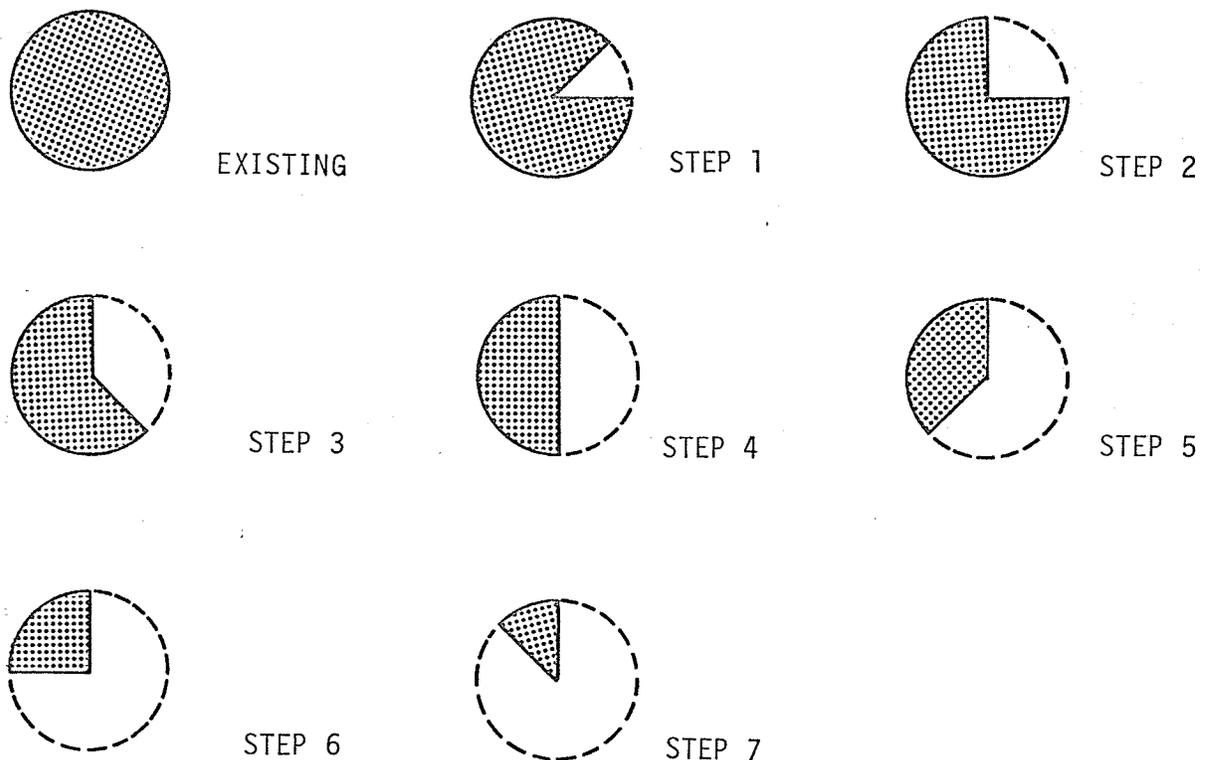


FIGURE 5-5

It may be worth noting at this point that although eight complete depletions could be a logical number to fulfill the decentralization, this number may not be in harmony with the existing physical plant. There are three buildings on the Brandon Mental Hospital site; the Valleyview building containing about 100 patients, the Parkland building containing 436 patients, and the Pineridge buildings containing 135 patients. This gives a total of 671 patients, or approximately 84 patients per step, if eight is used. It can be seen readily that this 84 patient figure per depletion is not compatible with the number of patients in each building. Computations reveal the following results, assuming eight depletions with 84 patients per depletion:

TABLE 5-1

Valleyview 100 patients = 1 x 84 with 16 patients left.

Parkland 436 patients = 5 x 84 with 16 patients left.

Pineridge 135 patients = 1 x 84 with 51 patients left.

What the computations reveal is that depletion by equal steps can only be a guide. The depletions cannot occur in equal steps. Another factor that indicates that the steps cannot be entirely equal is where the patients initially come from. Figures available indicate that there is a spread of from 6.7% to 31.5% of patients in any given region, relative to the existing patient population.⁶

6. Figures are taken from the Clarkson Report on Mental Health as well as from the statistician from Brandon Mental Hospital.

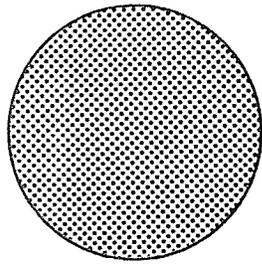
B. CASE TWO: BY UNEQUAL STEPS:

It can be seen that regulation is desirable. The known factor is that the steps will not be equal. Therefore, a process that is responsive to variations in the numbers of patients involved in each step is more appropriate than a less flexible one.

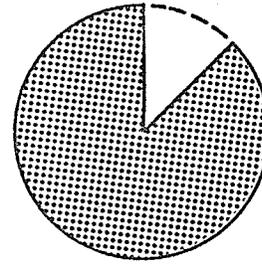
The diagram following (Figure 5-6 Page 62) indicates one way that the depletion could take place. Steps one and two each relocate eighty-four patients each. Steps three and four each relocate 168 patients.

The idea shown by the diagram is that according to changing situations, the variations can and will occur. The mental health climate in one year might dictate that two complete units of delivery will be developed. The situation might also indicate that (at a specific point), the existing can best be depleted in one large remaining step.

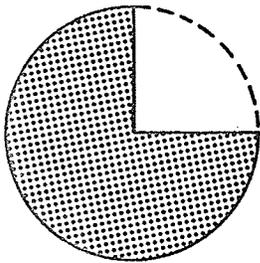
CELL DEPLETION: CASE TWO: BY UNEQUAL STEPS



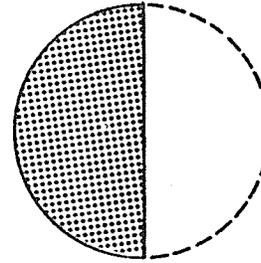
EXISTING



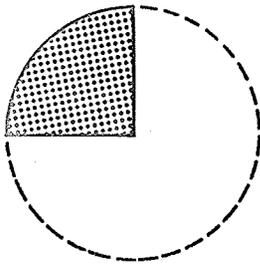
STEP 1



STEP 2



STEP 3



STEP 4

- steps one and two relocate 84 patients each.
- steps three, four and five relocate 168 patients each.
- the size of the steps can be varied according to changing situations (ie. the budget in one year might allow the implementing of two complete units [84 patients] of delivery, or there might be a point when the existing organism can best be depleted in one large remaining step rather than in 3 or 4 smaller ones).

FIGURE 5-6

In terms of patients, there are three main factors that could determine the size and thus the number of steps, the size of the existing wards. The population of the relocation area, and the population of the building. The optimum number of steps is the number that would involve the fewest moves for the patient to get back to his original environment.⁷ as well as the possibility of remaining with his treatment team. Each patient is assigned to a number of personnel who look after and guide him through treatment of all stages until he is back to "normal".

Ward populations vary in size from about sixteen to forty-eight patients. In most wards a full range of mental illnesses is treated. There are a few special wards for the more acute patients, but for the purpose of the thesis, I will assume that wards consist of a generally wide range of types of patients, or that each ward will contain patients with a full range of mental health problems, particular to level six.⁸

An important determinant of the size of the depletion is the patient population in a given area (Figure 6-3, Page 149). The range of patients served from the Brandon Mental Hospital is from 2.4% (of them) in Winnipeg to 31.5% in Brandon. The reason for the high percentage in Brandon is that many patients have relocated in order to be closer to treatment facilities.⁹ If depletions are to be made in eight equal steps,

-
7. Putting the person back into his original environment is one of the aims of the Social Systems approach to treating mental illness.
 8. This is taken from a report to the Department of Health and Social Development from Art Russell, Head of Nursing at Brandon Mental Hospital.
 9. This was reported in the Clarkson Report on Mental Health in Manitoba.

there would be 12.5% of the patients in each step, but according to the distribution of patients by regions, this 12.5% figure will have to be adjusted according to the particular region. The size of the depletion could also vary, depending on which building was being emptied, if that was the criteria in deciding the number and size of depletions.

In the case of the Valleyview building, which contains a patient population of 100, the depletion that affected this building could be increased by sixteen to accommodate the numbers exceeding eighty-four patients. This would allow the building to be completely shut down rather than be kept functioning for only a few patients, if depletions of eighty-four patients were the determining factor.

C. DETERMINING THE COMPOSITION OF THE STEPS:

In the existing delivery system there are approximately 1561 patients being looked after by the Brandon Mental Hospital at any given day. A breakdown of patients by levels of support yields the following:

TABLE 5-2 (10)

	NO. OF PATIENTS	%	NO. OF PATIENTS* PER STEP
Level 6 Inpatients	671	43.8	84
Level 5 Hostel or Community Residences	400	25	50
Level 4 Day Care & Workshop	190	12	24
Level 3 Formal Outpatient Therapy	100	6.4	12
Level 2 Crisis Intervention	10	.6	1
Level 1 Consultation	<u>200</u>	<u>12.2</u>	<u>25</u>
TOTAL	1561	100	197

It will be assumed that an equal population of each level will be delivered to each of the eight sub-systems with any variances being reflected in the percentages to a specific area (Figure 6-3, Page 149).

* Based on depletion occurring in eight somewhat equally numbered steps.

-
10. Figures are based on present patient contacts at Brandon Mental Hospital and statistician's predictions. Exact figures are only known for levels 6 and 4. All levels have a range within them and the above figures indicate the top of the range.

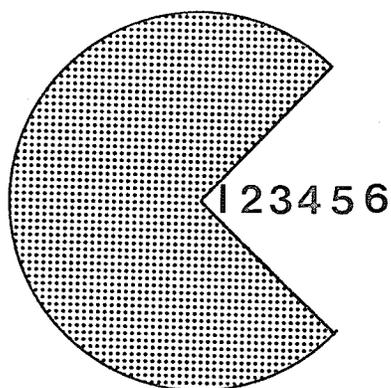
C. DETERMINING THE COMPOSITION OF THE STEPS:

a. BY LEVELS OF PATIENT CARE.

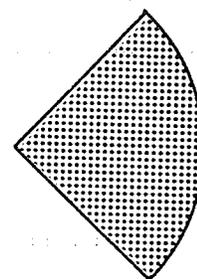
(ALL LEVELS WITHIN A DESIGNATED POPULATION)

Distribution by levels within a designated proportion works well when the proposed depletion is happening in an area where there are no existing mental health facilities. Where there are existing facilities, overloading a given level may become a problem. Timing and co-ordination are critical in this situation, because it implies that a full range of services being initiated.

This type of depletion is not responsive to areas that have special problems, eg. Thompson with its high number of problem drinkers. The diagram below illustrates depletion by levels of patient care within a specified proportion.



EXISTING ORGANISM



PROPOSED DEPLETION

FIGURE 5-7⁽¹¹⁾ PROPORTIONAL DISTRIBUTION

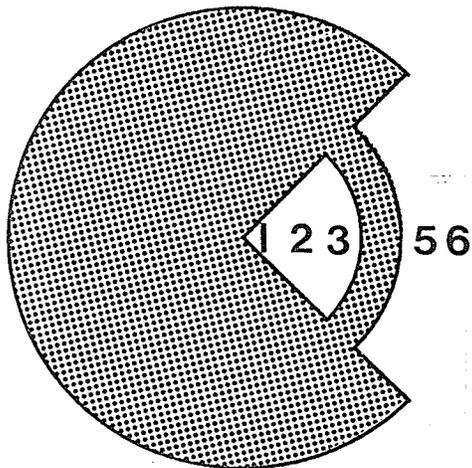
11. See Table 5-2 for exact figures at each level.

C. DETERMINING THE COMPOSITION OF THE STEPS:

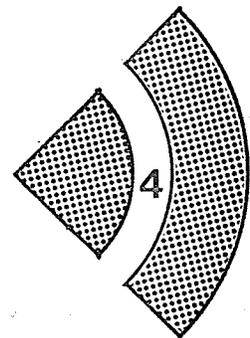
a. BY LEVELS OF PATIENT CARE.

(GROUPS OF LEVELS WITHIN A DESIGNATED POPULATION)

Depletion by groups of levels within a designated proportion works well in areas where some levels of care are already in existence. It would also be appropriate for areas experiencing specific problems.



EXISTING



PROPOSED DEPLETION

FIGURE 5-8 PROPORTIONAL DISTRIBUTION

C. DETERMINING THE COMPOSITION OF THE STEPS:

a. BY LEVELS OF PATIENT CARE.

(COMPLETE LEVELS AT A TIME)

Depletion by complete levels at a time works well when only a portion of a service in an area is missing or exists unproportionately. The likelihood of specific levels not occurring over a wide area is not high in levels 1, 2, and 3, but is quite probable in the more acute levels of care like 5 or 6. The diagram below illustrates one example of this.

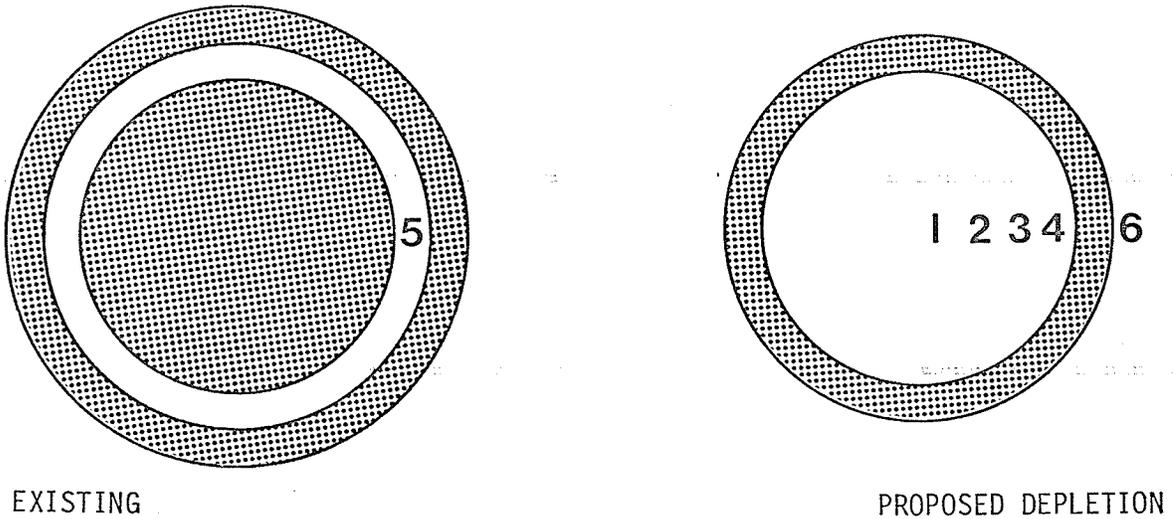


FIGURE 5-9 DISTRIBUTION BY LEVEL

C. DETERMINING THE COMPOSITION OF THE STEPS:

a. BY LEVELS OF PATIENT CARE.

(COMBINATIONS)

Combination depletions are the most probable ones. The combination chosen is subject to specific operational demands. Combinations are most probable in areas that have a limited range of services or require a limited range only. The diagram below illustrates one of a number of possibilities.

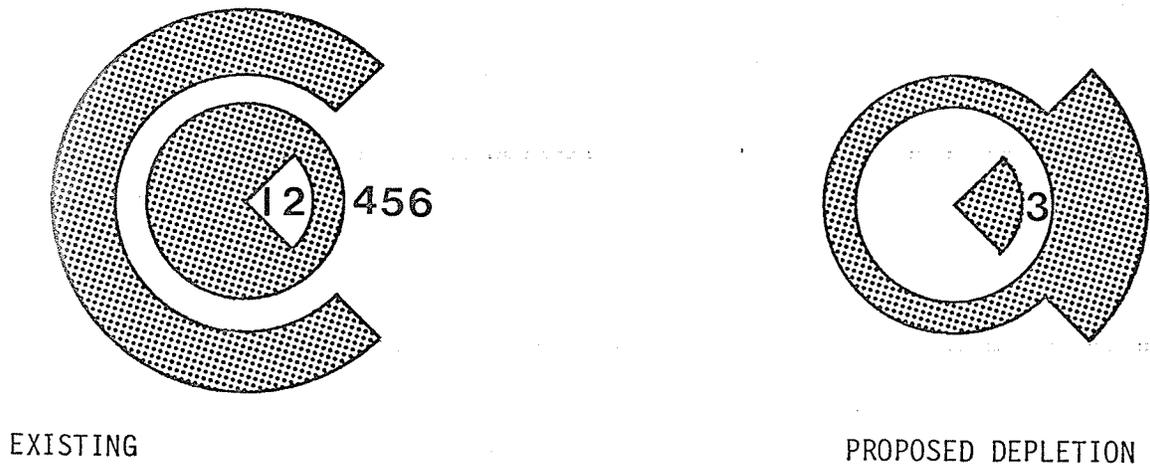


FIGURE 5-10 COMBINATIONS OF CARE

C. DETERMINING THE COMPOSITION OF THE STEPS:

b. LEVELS OF SUPPORT.

The diagram below indicates the six different levels of support available to a patient. There is a direct relationship between the level of health and the support required. The less acute levels of support are on the left of the scale and consist of: level one, consulting services; level two, crisis intervention; and level three, formal outpatient therapy. The more acute levels of support are on the right of the scale and consist of: level four, day care and workshops; level five, hostel or community residences; and level six, inpatient care. Levels of support are defined in terms of staff, services, and facilities. Generally, the more acute levels of care require relatively highly trained support personnel. The autonomy of the patient increases (moving from right to left along the scale) as the level of support decreases.

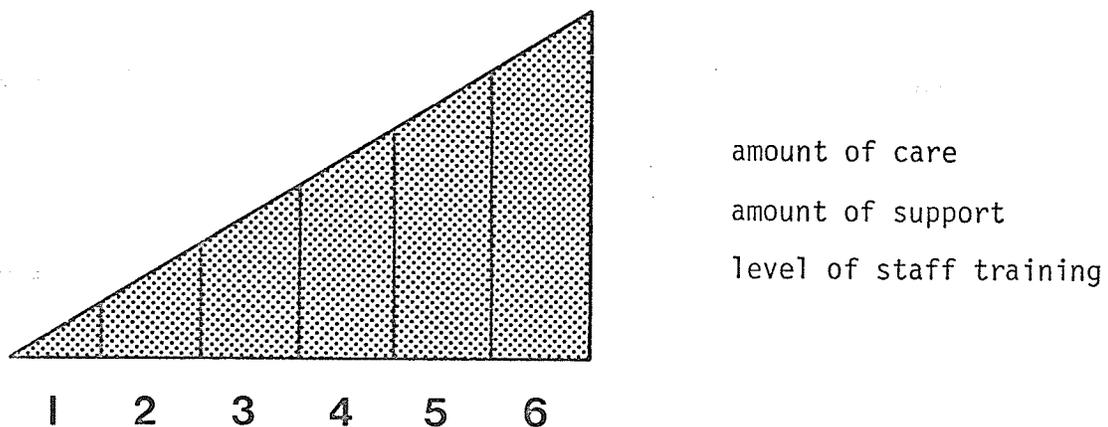


FIGURE 5-11 LEVELS OF SUPPORT

C. DETERMINING THE COMPOSITION OF THE STEPS:

b. LEVELS OF SUPPORT.

(THE TEAM APPROACH)

The team approach to treating patients is used at Brandon Mental Hospital. Each team consists of a comprehensive range of support personnel able to deal with all levels of mental health care. Each patient is involved with only one team throughout his treatment period. Should the proposed transformation take place in eight steps, it would necessitate that one team would be responsible for two separate regions. This implies the sharing of personnel (Figure 5-20, Page 80).

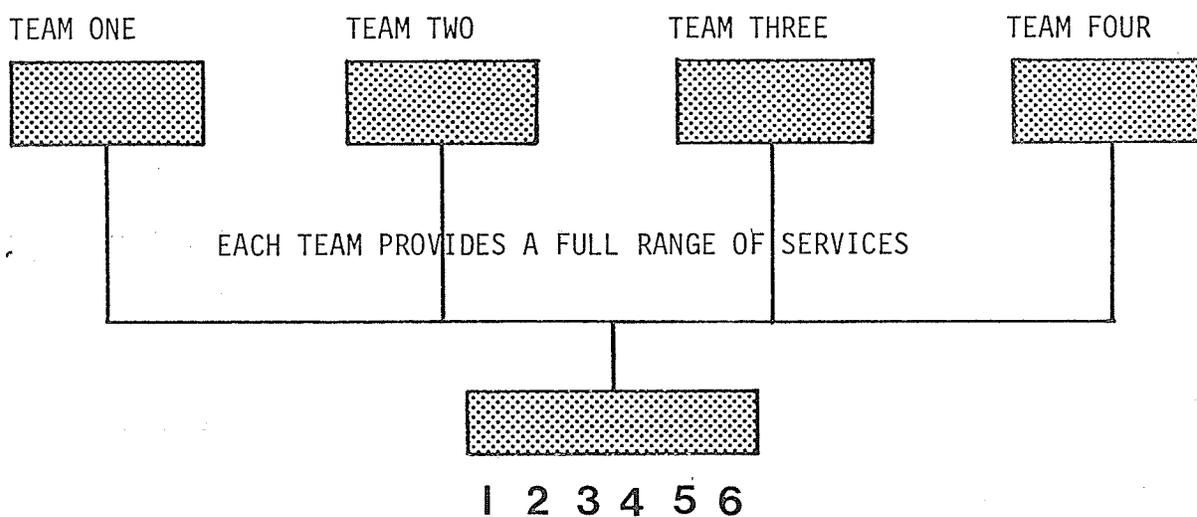


FIGURE 5-12¹² THE TEAM APPROACH

12. The figure is based on a diagram from the Clarkson Report and subsequent information provided by systems analysis at Brandon Mental Hospital.

3. THE COMPONENTS:

(iii) PROXIMITY.

A complete unit of delivery or cell, as previously defined by The Department of Health and Social Development,¹³ is based on two main factors: one, a population catchment area of 40,000 people; and two, an area described by a radius of 50 miles. Figure 5-17, Page 76, indicates that these two factors are relative to Manitoba boundaries. It can be seen readily that there is an inequity in travel distance in northern areas and an over-population in major urban areas.

The two extremes must be treated differently than the rest of the province. Personnel will become more subject to moving within the northern areas, whereas personnel will be quite sedentary in the more heavily populated areas.

There are two major cells to which the model must respond; one, the discreet autonomous cells, ie. cells that have relatively little interaction with other cells; and two, an interactive cell, ie. one that has relatively high interaction with other cells.

13. Catchment population 40,000, 50 mile radius, p. 11, Hull Report (within one hour's travel distance).

A. PROXIMITY OF CATCHMENT AREA:

a. CASE ONE: EXISTING ORGANISM.

Figure 5-13 indicates the dispersement of services in sequential concentric circles, beginning at the existing delivery facility. This type of filling in of services is more responsive to the existing system if the least amount of disruption on the existing organism is an important consideration. Decentralization is occurring in progression away from the existing organism.

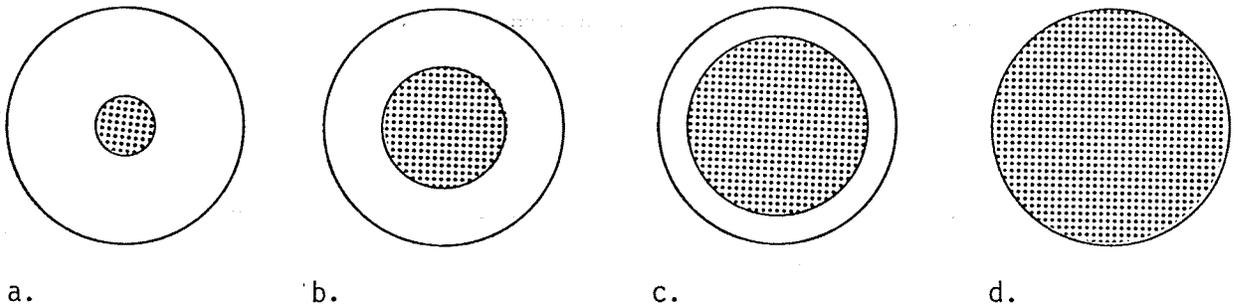


FIGURE 5-13

A. PROXIMITY OF CATCHMENT AREA:

b. CASE TWO: PROPOSED ORGANISM.

Figure 5-14 indicates the dispersement of services in an attempt to introduce the most equitable distribution at the earliest point in time. Decentralization begins in the centre of a study area and fills in to its boundaries.

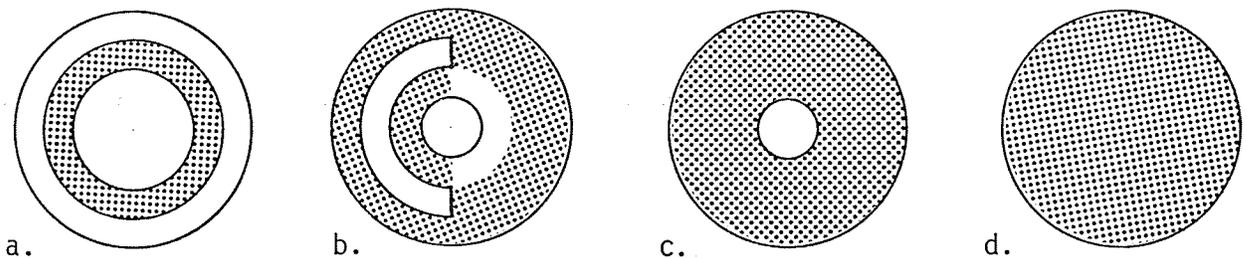
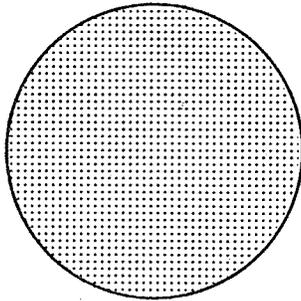


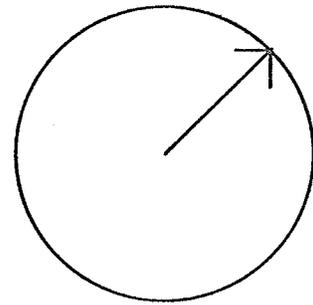
FIGURE 5-14

B. PHYSICAL DESCRIPTION OF CELL:

A cell is optimumly described by an area having a population of 40,000 people and an area with a radius of 50 miles. Diagrams below indicate these conditions.



a. minimum population
40,000



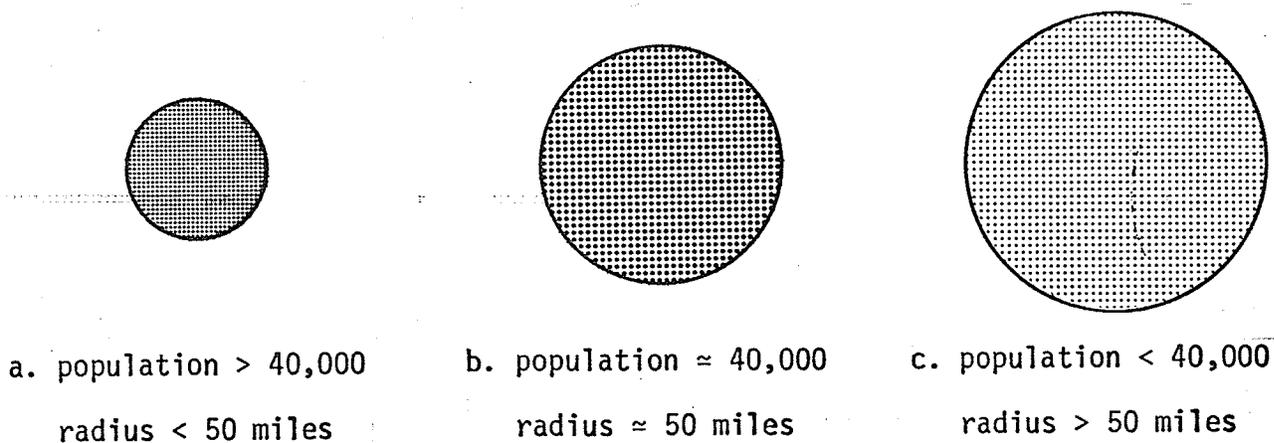
b. maximum travel distance
50 miles (13a)

FIGURE 5-15 MINIMUM AND MAXIMUM OF SUB-SYSTEMS

(13a)

The mental health delivery system in Saskatchewan defines a catchment area, allowing a full provision of services, to have a population of between 50,000 - 60,000, with a maximum travelling distance of from 75-80 miles.

Three basic cell conditions occur within the study area. First there is densely populated urban area bounded by an area described by a radius of much less than fifty miles. For example, there are approximately twelve cells within metropolitan Winnipeg boundaries. Second there is mediumly populated area described within a boundary approximating a fifty mile radius. Examples of this situation are the Dauphin, Neepawa and Minnedosa catchment areas. Third there is a lightly populated area bounded by a radius far exceeding the optimum fifty mile radius. Examples of this last situation are the Flin Flon, Thompson, and Lynn Lake catchment areas. Figure 5-16, Page 75, illustrates the three basic conditions.



- a. represented by the Winnipeg area.
b. represented by the Dauphin, Neepawa, Minnedosa area.
c. represented by the Lynn Lake, Flin Flon, Thompson area.

FIGURE 5-16 RANGE OF CELLS

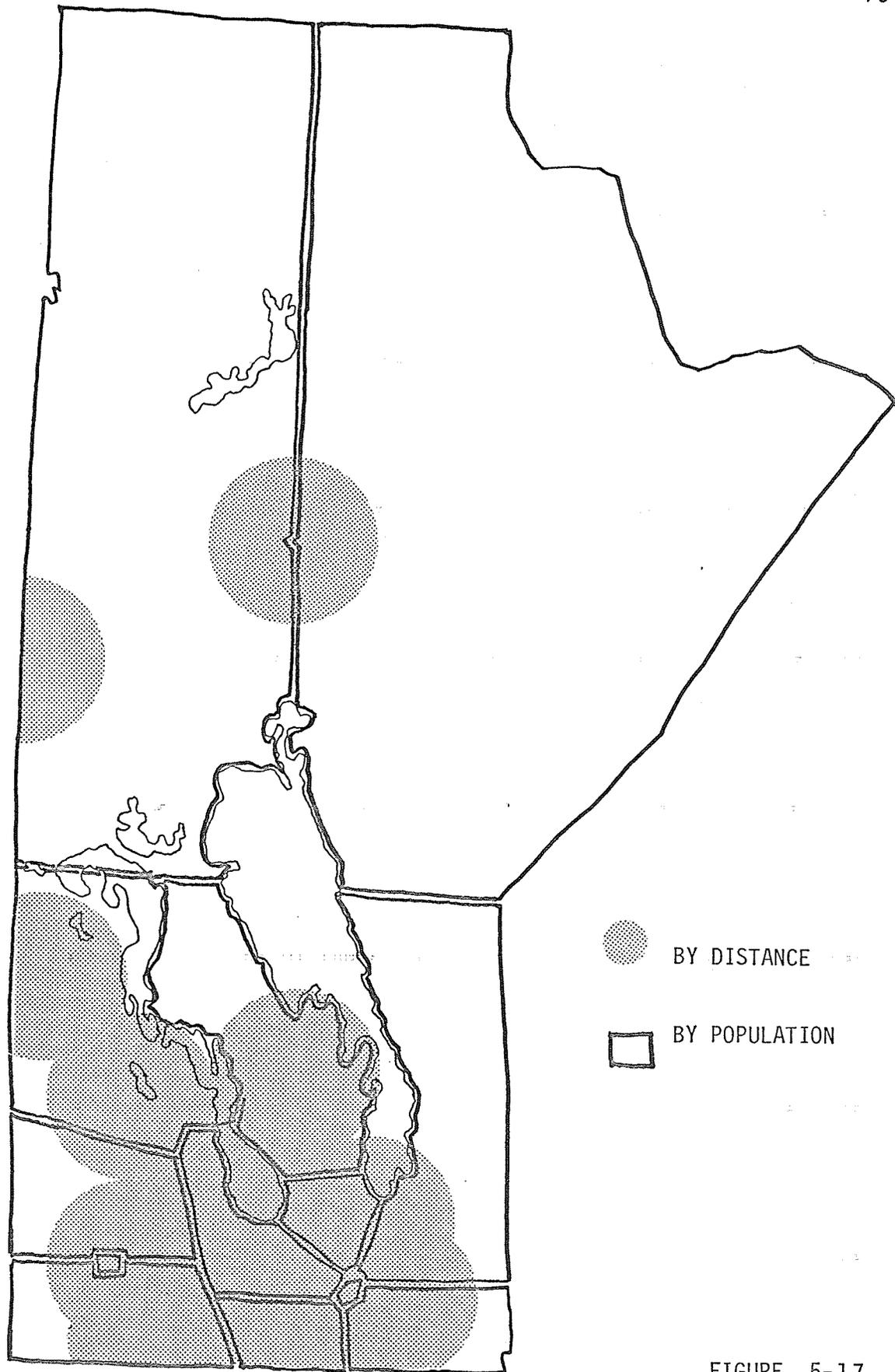


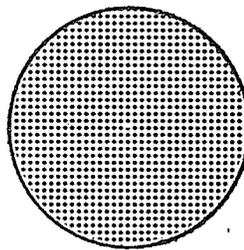
FIGURE 5-17

CELL BOUNDARIES BY DISTANCE AND POPULATION DISTRIBUTION

B. PHYSICAL DESCRIPTION OF CELL:

a. CASE ONE: ONE COMPLETE CELL NO INTERFACE.

The diagram below represents the optimum service area condition (see Figure 5-15, Page 74). It has a catchment area population of 40,000 inscribed within a radius of fifty miles. This optimum service area condition rarely occurs. It can be thought of as a self contained cell which requires little interaction with other cells to function completely.



- population 40,000
- radius 50 miles

FIGURE 5-18 OPTIMUM CELL BOUNDARY

B. PHYSICAL DESCRIPTION OF CELL:

b. CASE TWO: MORE THAN ONE CELL WITH INTERFACE.

The diagrams following (Figure 5-19 , Page78) indicate some conditions that can occur between and amongst interacting cells. Hard boundaries can be thought of as boundaries that have little flexibility or are subject to no relative change. Any patient existing or service occurring outside the defined boundary is out of the catchment area in a hard boundary situation, whereas in a soft boundary condition, the boundary could change to include the patient or service within that catchment area.

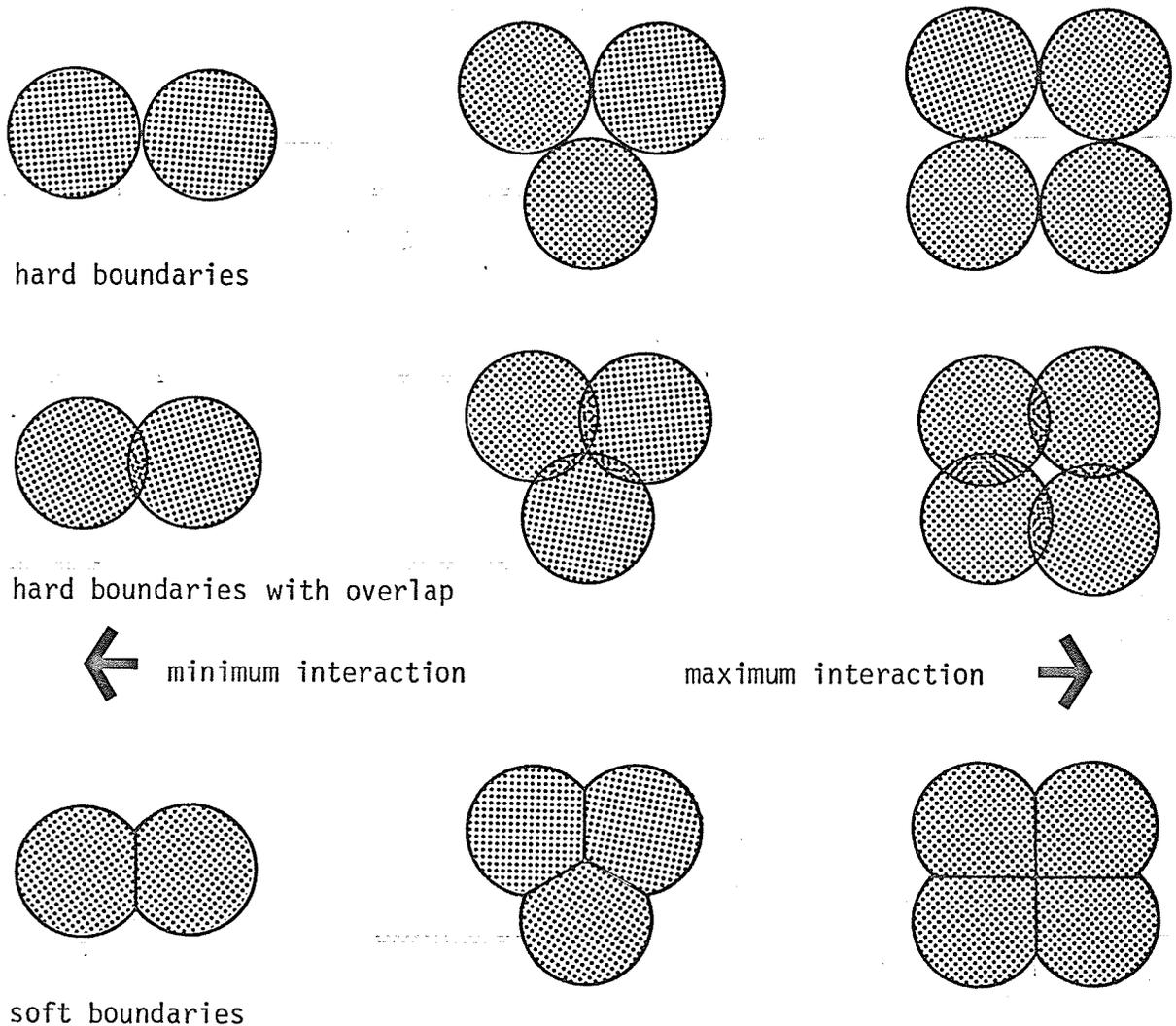


FIGURE 5-19 INTERRELATED SERVICE AREAS (Cells)

Hard boundaries:

- little or no overlap exists between cells.
- Contact points between cells are where it is possible shared for or common facilities to occur.
- areas between cells reveal where it is possible shared for or common facilities to occur (a later study will show this to be an undesirable area).

Hard boundaries with overlap:

- these reveal a relatively wide range of areas where shared or common facilities can be located.

Soft boundaries:

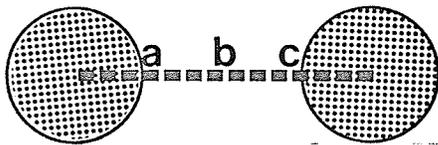
- these indicate boundary lines where common services can be shared.
- for administrative reasons,¹⁴ common services would occur within one of the overlapping cells.

14. Each sub-system will act as an independent functioning system.

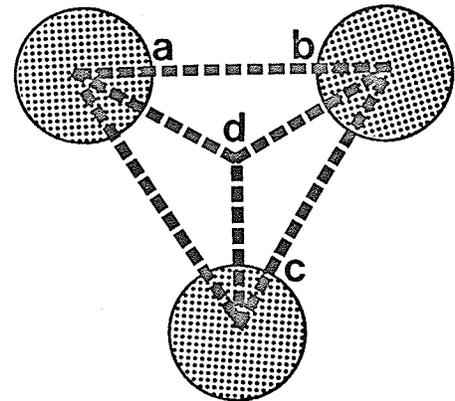
B. PHYSICAL DESCRIPTION OF CELL:

c. CASE THREE: SYMBIOTIC CELLS.

The following diagrams indicate possible travel patterns of shared support elements that could occur between or amongst cells. Letters a, b, c, and d indicate the original position of a support element, and broken lines indicate possible movements of a support element to various cells. The cells are called symbiotic cells because they cannot operate alone and must rely on shared support with at least one other cell.



a. between two cells



b. between more than two cells

FIGURE 5-20 LOCATION OF SHARED ELEMENTS ¹⁵

15. Shared elements can be personnel, services, and facilities (mobile or non-mobile elements).

The diagrams in Figure 5-21, Page 81, indicate the travel distance to all points between and amongst cells for two interacting cell conditions. The first condition shows where there are two cells with three possible positions for a service element. The second condition shows three interacting cells with four possible service element positions. (Broken lines indicate movement between points.

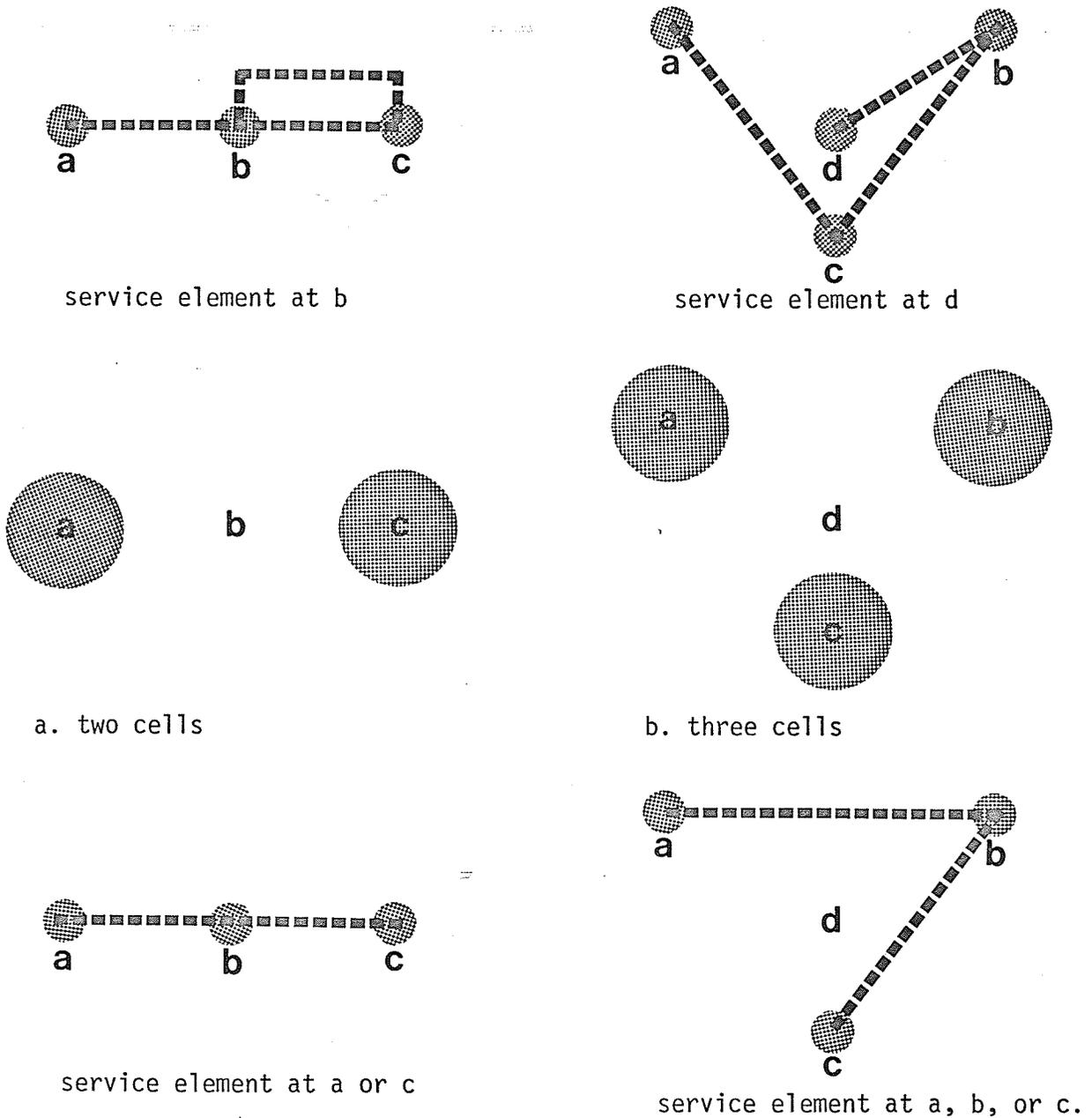


FIGURE 5-21 MOVEMENT PATTERNS, INTERACTING CELLS

B. PHYSICAL DESCRIPTION OF CELL:

d. CONCLUSIONS - CELLS WITHOUT INTERFACE.

(BETWEEN TWO COMPLETE UNITS OF DELIVERY) ^{16a}

Due to scarcity of resources (personnel, services, etc.) there will be times when it will be necessary for units of delivery to share ¹⁶. Generally, there are three possible locations for the shared element, either in one of the elements, or between the two elements. If the shared element is located between the units of delivery, movement will occur whenever the element is required by the system. If the shared element is located within one of the units of delivery, movement only occurs when the element is required by a unit of delivery other than the one in which it occurs.

(BETWEEN MORE THAN TWO COMPLETE UNITS OF DELIVERY)

A similar rationale can be employed to analyze the sharing of elements amongst more than two units of delivery. The optimum location of a shared element would be, as between two units of delivery, within one of the units of delivery.

The above mentioned relationships lead to the discovery that a complete unit of delivery cannot be examined in isolation. If it is looked at in isolation, then its effect on the entire organism cannot be evaluated. This is not to say that the entire province must be examined in minute detail before evaluations can be made, but rather that a general over-view must be considered before specific areas can be

16. Staff to patient ratio in existing Brandon Mental Hospital is 1:1, normal staff to patient ratios in other hospital situations are 3:1.

16a. A cell and a complete unit of delivery are one and the same.

brought out for close examination. A physician must know the implications that a specific operation will have for the body as a whole before he proceeds with the operation.

C. PERSONNEL AND SERVICES WITHIN CELLS:

Decentralization is responsive to patient needs but unresponsive to existing personnel and service needs. In terms of personnel and services, the area where decentralization should first occur is within the boundary of the existing Mental Health Hospital at Brandon. This is to facilitate a symbiotic relationship between the old and the new as the new is taking its first growing steps.

In the earlier steps of decentralization, personnel would be able to change their job location without affecting a change in residence location. They would, in effect, be commuting to their new job location.

A similar analogy can be drawn in terms of services. In earlier stages of decentralization, support services would probably be very parasitical on the existing organism. For example, it may make sense not to include lab. facilities in the first new cell. Lab. facilities would probably occur within a couple of the cells only when decentralization was complete.

A similar rationale can be applied to other services. The services range from the types required at only one location within the Brandon catchment area (eg. electric shock) to services required within every cell or unit of delivery (eg. occupational therapy services).

The drawing on the following page illustrates how the decentralization would take place if the existing organism, complete with its support services, was the prime consideration.

Each toned-in concentric ring indicates a complete unit of delivery or cell.

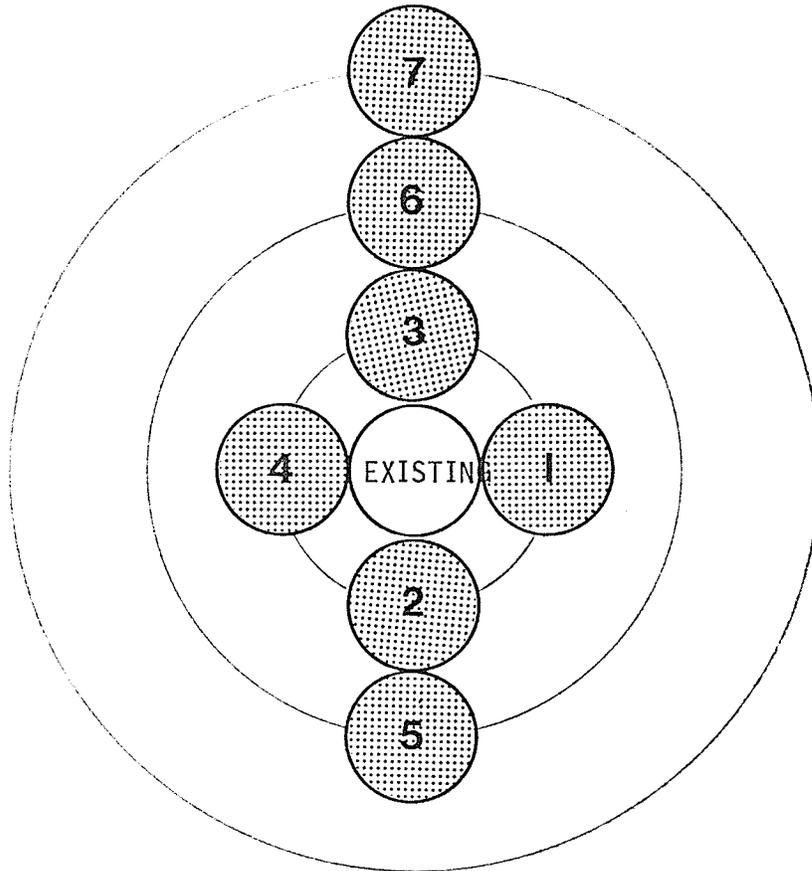


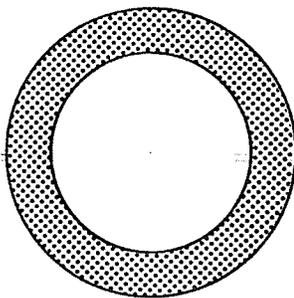
FIGURE 5-22 DECENTRALIZATION FROM POINT OF ORIGIN

However, this is not the way in which decentralization should occur. One of the reasons for decentralization is to bring a more equitable distribution of services throughout the province. If decentralization were to grow from the existing location of delivery, it would merely be postponing the time when an appropriate distribution was accomplished.

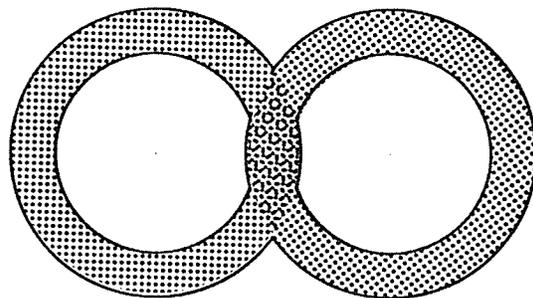
D. PROXIMITIES WITHIN CELLS:

a. CASE ONE: LEVEL ONE, MOST MOBILE LEVEL OF SUPPORT.

The levels of care which are most mobile or most likely to interact with each other should be placed on the periphery of interacting cells, as this is where the greatest amount of interaction occurs. These levels of care are also the levels which will be least disruptive when moving out of the existing system, because they are relatively autonomous and require the least amount of support. This is illustrated in the diagram below.



a. independent cell



b. interacting cell

FIGURE 5-23

The first levels to move from the existing organism would be those levels which have the highest degree of patient autonomy, require the least amount of support, and exhibit the highest degree of mobility.

These levels would occur on the periphery of a sub-system (Figure 5-19a, Page 85). The periphery of a sub-system could change in the case of an interacting one, where overlapping peripheries could become new central areas to interacting sub-systems (Figure 5-19b, Page 85), or they could become shared facilities for the least supportive levels.

D. PROXIMITIES WITHIN CELLS:

b. CASE TWO: LEVELS TWO TO SIX.

Other stages would then act as infill from stage one, with the most acute levels of support occurring at the center of the cell, or as in the case of the interacting units, the possibility of a super cell being established. The likelihood of this happening is quite low as the model begins to move away from the definition of a cell in terms of service area.

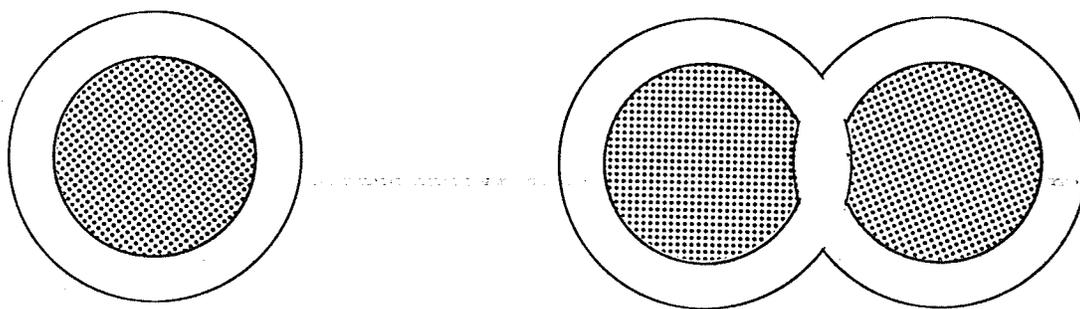


FIGURE 5-24

In order to create the most responsive type of decentralization, cells that would service the greatest area and population would be developed first.

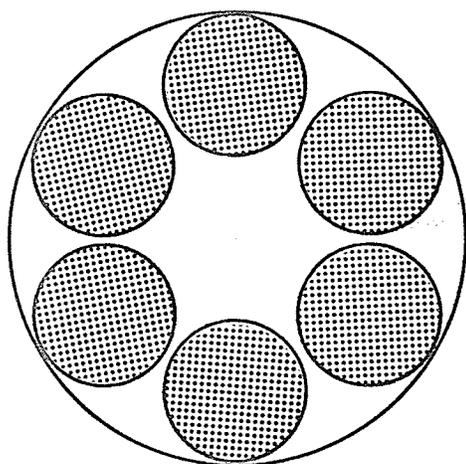
E. OVERLAP WITHIN CELLS:

Overlap can occur between levels of care. Defining the amount of levels of overlap depends on the specific cell. In densely populated areas like Winnipeg, a limited range of services could be delivered from separate facilities, ie. specialized facilities. In less densely populated areas where resources are at a minimum and must be used efficiently, delivery from a single unit, ie. non-specialized facilities, appears to be an inappropriate solution.

E. OVERLAP WITHIN CELLS:

a. CASE ONE: ALL LEVELS, SINGLE FACILITY.

The following diagram illustrates a delivery of all levels of care from a single facility, or what has been termed by Health and Social Development officials a "single unit of delivery". The possibilities of interaction amongst levels of care are at a maximum in this condition.



- mental health, single unit, delivery system

- most likely in less densely populated areas

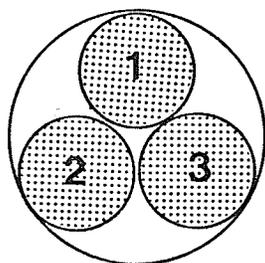
FIGURE 5-25 MAXIMUM LEVEL OF OVERLAP

E. OVERLAP WITHIN CELLS:

b. CASE TWO: PROBABLE LEVELS OF OVERLAP.

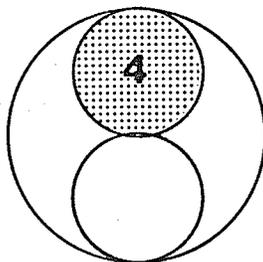
In population areas where specialization of facilities occur, it becomes important to note which levels can most suitably be located within a single facility.

Levels that could probably overlap are those that are adjacent to each other. Levels that require the least amount of care and support are much more difficult to distinguish between than levels that require a great deal of care and support for the patients. The diagram following Figure 5-26, Page 88, illustrates graphically three generic possibilities of breakdown within the six levels of care. The three generically different facilities would be: one, consultation facilities; two, therapy facilities; and three, nursing care facilities.



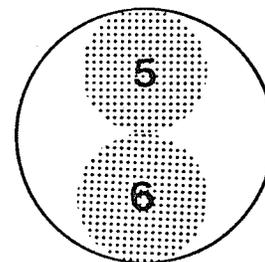
a. consultation facilities

1. consultation
2. crisis intervention
3. outpatient therapy



b. therapy facilities

4. day care and workshops



c. nursing care facilities

5. hostel or community residence
6. inpatient care

FIGURE 5-26 PROBABLE LEVELS OF OVERLAP

The following graph (Figure 5-27, Page 89) indicates the relationship between the levels of care and the amount of mobility of the patients, personnel, services and facilities. Generally, there is an inverse relationship between the level of care and the amount of mobility displayed by the patients, personnel, services and facilities required by that level. As the level of care increases, the mobility of the patients and their support elements decreases.

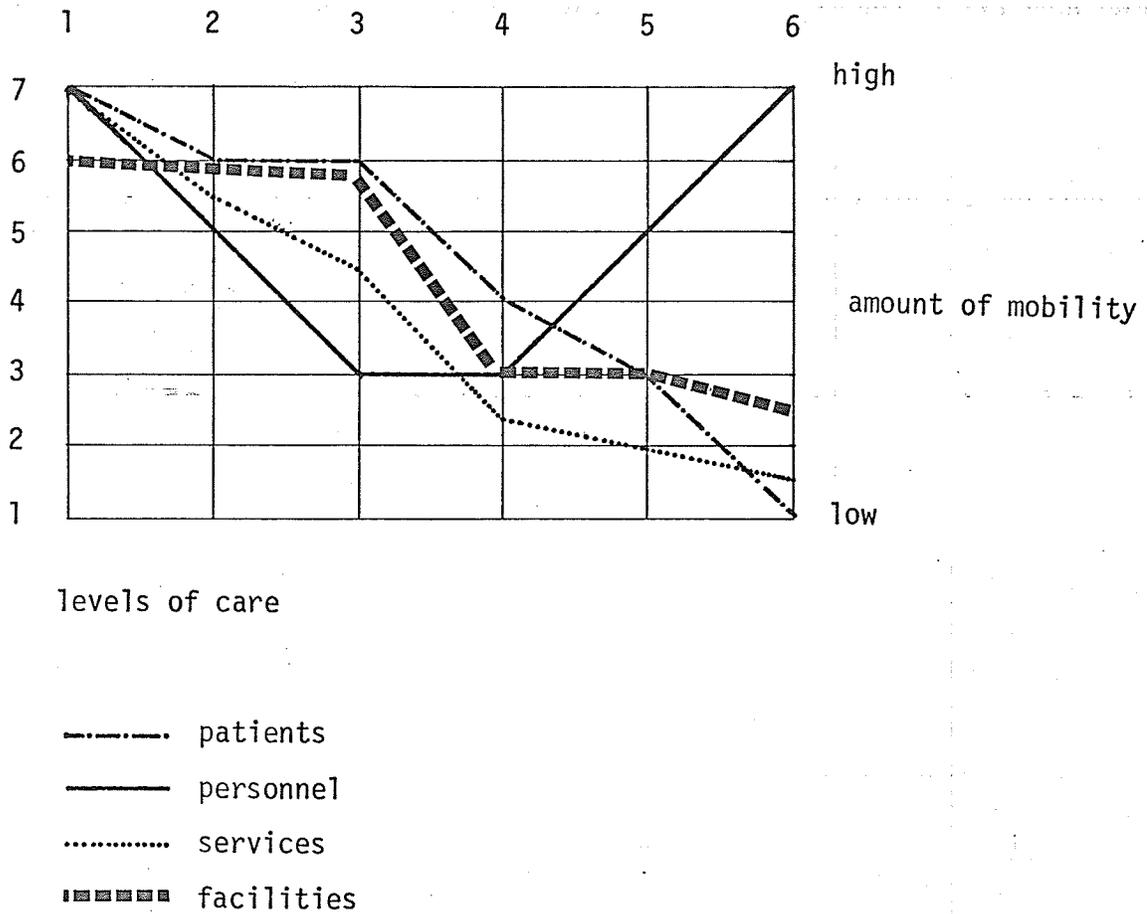


FIGURE 5-27 DEGREES OF OVERLAP

F. RELATIONSHIP OF MENTAL HEALTH SERVICES TO THE COMMUNITY:

The concept of decentralization is to bring mental health patients back to the community in order to re-establish social contacts. This means that facilities for the patient must be placed so as to optimize the possibilities for contact and involvement between the patient and the community in which the facility is placed. Figure 5-28, Page 90, indicates some of the elements that the mental health facility should be linked with or be a part of.

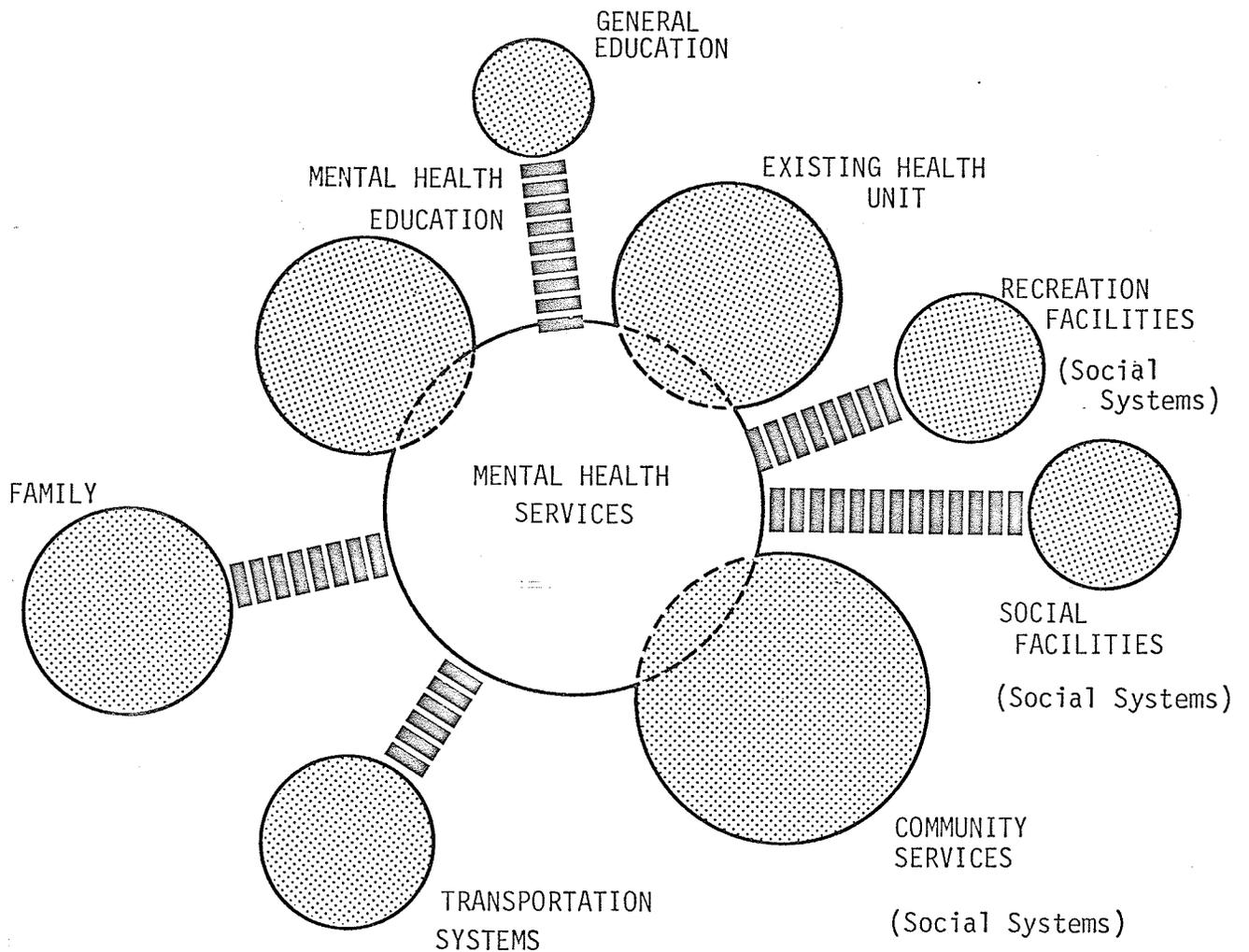


FIGURE 5-28 THE RELATIONSHIP OF MENTAL HEALTH FACILITIES TO THE COMMUNITY

3. THE COMPONENTS:

(iv) ORDER.

There are two levels of ordering: one, a general ordering level where an overall plan of action is considered; and two, an ordering level that considers specifics. General ordering responds to the entire delivery system which is made up of a number of partially interacting cells. It considers the whole in its relationship to its parts. Specific ordering concerns itself with the ordering of specifics within the delivery system.

Uncontrollable and unpredictable factors act on decentralization models. Economic, political and social factors can have beneficial or harmful effects on the model. These factors may vary the size, the amount, and the time of the decentralization which takes place. They should not, however, affect the ordering. Decentralization must go through growth stages in a relatively predetermined order. The growth can be slowed down or speeded up, but it must, nevertheless, progress in a unalterable progression.

An analogy might be drawn to the growth of an individual through his or her life cycle. First, the person must be born and go through various stages of childhood development. Next the child moves into adolescence, then finally into adulthood. There are specific development patterns that occur within each of the general ones. For example, childhood development has a number of stages of development, both physical and intellectual, and the child must pass through one stage of development before he enters the next. He usually learns to crawl before he walks, and to walk before he runs.

In the mental health decentralization model, there are four factors

which are constantly being affected by decentralization: one, the patients; two, the personnel who treat the patients; three, the support services necessary to treat the patients; and four, the facilities in which the patients, personnel and services occur.

A. GENERAL:

The following is an ordering list which applies when the system in general is being considered. It is not intended to deal with specifics, but rather it is a general ordering sequence.

1. Establish the general needs in the province.
2. Establish the general needs in the study service area,
ie. the Brandon catchment area.
3. Establish the general needs in the sub-system areas.
(Define number of cells in study catchment area.)
4. Establish the relationships between cells.
5. Order cells.
6. Establish the relationships within cells:
 - a. to existing health facilities,
 - b. to adjacent unit areas;
 - c. define possible shared functions.
7. Interpolate information about the specific unit area from
the information gathered in steps 1-6.
8. Define specific requirements:

<ol style="list-style-type: none"> i patients <li style="padding-left: 2em;">numbers levels 	<ol style="list-style-type: none"> ii services <li style="padding-left: 2em;">which where
<ol style="list-style-type: none"> iii personnel <li style="padding-left: 2em;">numbers level 	<ol style="list-style-type: none"> iv facilities <li style="padding-left: 2em;">nature of facility relation to other facilities size
9. Implement the services within a given sub-system.
10. Evaluate the services within the sub-system.

B. WITHIN CELL:

There are various options open in terms of the composition of the five elements to be moved or relocated, patients, personnel, services, facilities and treatment philosophies. The available options are chosen with the type of depletion in mind (ie. proportional personnel option goes with proportional cell composition option.) The choice of option may well be made with many considerations unknown at this point in time. It is not important which option is chosen, but rather that the chosen options are married, or if they cannot be married that the consequences are known.

B. WITHIN CELL:**a. PERSONNEL.**

(CASE ONE: PROPORTIONS OF EACH LEVEL)

1. housekeeping and janitorial
2. nursing
3. therapy
4. clerical
5. administration
6. medical

The above distribution could generally be repeated in each of the decentralization steps. This type of distribution suits depletions that occur with a designated proportion of all levels of care being considered.

B. WITHIN CELL:

a. PERSONNEL.

(CASE TWO: STRATIFICATION OF EACH LEVEL)

1. housekeeping and janitorial
2. nursing
therapy
3. clerical administration
4. medical

There are limits to stratification. That is, certain support levels are dependent upon each other, or rather suit each other. Levels one, two and three can be combined readily into what generally can be called consultation services, and levels five and six can be combined into nursing care services (see Figure 5-26, Page 88).

B. WITHIN CELL:

a. PERSONNEL.

(CASE THREE: COMBINATIONS)

Combinations would generally occur at adjacent levels. They would, however, be relatively limited in the higher levels of care because of their limited numbers. For example, high level personnel (psychiatrists) might well be itinerant between two or more cells.

B. WITHIN CELL:

b. PATIENTS.

(CASE ONE: LEVELS WITH A DESIGNATED PROPORTION)

The following diagram, Figure 5-29, Page 96, illustrates a possible

breakdown of the proportional distribution of patients in a depletion. This is a hypothetical distribution diagram only. Actual figures would create a diagram which was not pie-shaped as the resultant proportional designation. See Table 6-8, Page 178, for actual patient numbers in each of the levels of care.

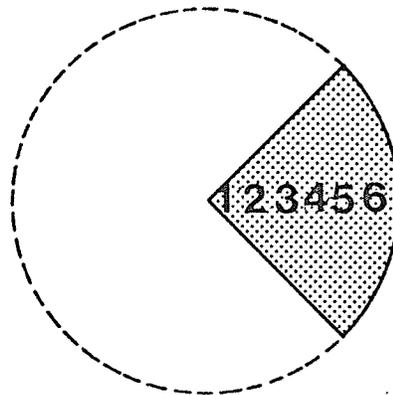


FIGURE 5-29

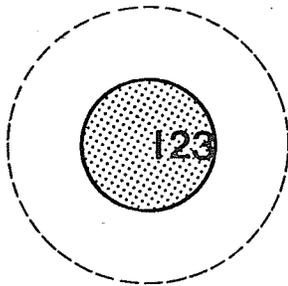
See Figure 5-7, Page 65, which illustrates the context of the pie-shaped proportional diagram above. If this type of depletion was used, other depletions would occur in a somewhat similar manner.

B. WITHIN CELL:

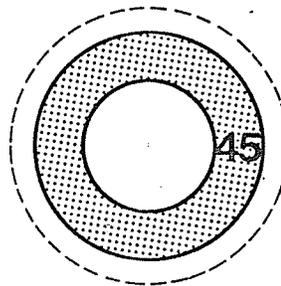
b. PATIENTS.

(CASE TWO: COMPLETE LEVELS)

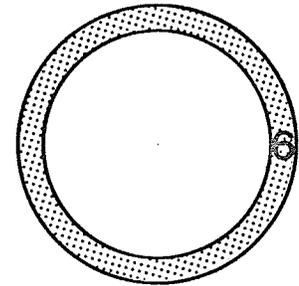
The diagrams below, (Figure 5-30, Page 97) illustrate ordering of a cell by complete levels at a time. Each of the three diagrams also indicate the levels of care that might be grouped together and three general or generic categories.



a. Consultation Levels



b. Therapy Levels



c. Nursing Care Levels

FIGURE 5-30

B. WITHIN CELL:

b. PATIENTS.

(CASE THREE: COMBINATIONS)

Ordering will, in fact, probably never happen in a rigid predetermined pattern. Combinations of different ordering possibilities will likely be the way in which ordering will occur. That is to say, depending on conditions, ordering is not likely to occur in strictly proportional or complete level patterns, but rather in combinations. The possibility of all level six patients and a portion of level five patients being involved in the first step in depletion is not distinctly remote.

B. WITHIN CELL:**c. SERVICES.**

Most services would become part of the new cell being developed. There are some services, however, that might never be relocated. Medical services such as electric shock treatment and lab. facilities, may always remain in Brandon until a point in time is reached when their updating would imply a relatively new service. At that time, they could be evaluated for possible relocation to a more appropriate geographic location (ie. a cell displaying the greatest need for this particular service, or acting as the physical or population center of the system).

B. WITHIN CELL:**c. SERVICES.****(CASE ONE: PROPORTIONS)**

The distribution of services indicated below could be repeated in each of the depletions, depending, of course, upon the composition of the depletion. For example, food and laundry services may not be required for a depletion that only concerns itself with consultation services. The list illustrates a general breakdown of the required services.

1. housekeeping and janitorial
2. food and laundry
3. repair and upkeep
4. pharmaceutical
5. medical

Some services may never be relocated (eg. electric shock and lab. facilities), and others might become available from outside the mental health delivery system. Outside services will be used wherever it is possible

and practical. The use of other services than those within the mental health delivery system could double as a device to educate other community services with mental health services, and thus, in an indirect manner reinforce the social system perspective of treatment. That is, it creates the opposite of an isolation situation.

B. WITHIN CELL:

c. SERVICES.

(CASE TWO: STRATIFICATION)

Some of the services previously mentioned can be combined or be less specialized. The distribution illustrated below indicates which services can be combined or become less stratified.

1. housekeeping

janitorial

2. food

laundry

3. pharmaceutical

medical

Some services can be grouped together but most cannot act independently. A full range is generally required for any type of facility. The range can, of course, vary, depending upon the facility being developed. Some services may never relocate (eg. pharmaceutical and medical services and must always be delivered from a central location. This structure of service relocation suits depletions by complete levels at a time as a combination of services compatible with the depletion is necessary.

B. WITHIN CELL:**c. SERVICES.****(CASE THREE: COMBINATIONS)**

Service distribution is like patient or personnel distribution in that the most probable distribution will occur as a combination of the available possibilities.

B. WITHIN CELL:**d. FACILITIES.**

The idea behind the provision of facilities, as with patients, personnel and services, is to provide a full range of facilities as soon as possible. This can be accomplished in two extreme ways: first, by providing the full range in one large facility; or second, by providing a full range in a number of smaller facilities spread throughout an entire area.

The latter is appropriate in terms of a full range of patient treatment facilities occurring relatively close to the patient's home of community, but pragmatically it may not be possible in some areas.

B. WITHIN CELL:**d. FACILITIES.****(CASE ONE: PROPORTIONS)**

Facilities can, like patients, personnel, and services, be ordered in designated proportions. The distribution below follows from the ordering of previously mentioned elements and generally illustrates the accepted breakdown of facilities.

1. consultation facilities
2. crisis intervention facilities
3. formal outpatient facilities

4. day care and workshops
5. hostel and community residences
6. nursing care (inpatient care).

This pattern of movement best suits conditions involving depletions by levels of designated proportions.

B. WITHIN CELL:

d. FACILITIES.

(CASE TWO: STRATIFICATIONS AND COMBINATIONS)

Facilities, too, can be combined and the stratifications limited. The distribution below illustrates the simplification of six different facilities into three.

1. consultation
 - crisis intervention
 - formal outpatient
2. day care and workshop
 - hostel or community residence
3. inpatient care

This structure for facility breakdown suits depletions by complete levels at a time, especially if they are combined and stratification is limited. The combination of facilities into three basic strata suggests the possibility of combining the facilities into three generically distinct facilities:

- type 1 - consultation facilities
- type 2 - therapy facilities
- type 3 - nursing care facilities.

It is important that this delineation recognize a trend in the facilities. In the early stages of decentralization, the numbers of patients in type one and three facilities are quite similar. In the latter stages of development, a shift will occur in these two types with patients being lost in type three facilities and the number of patients increasing in type one facilities.

An important aspect of facilities as well as of patients, personnel, and services is that generally a full range will have to be provided at each step in decentralization.

An analogy to the implementation of a new system can be drawn when from the movement or relocation of a general hospital. Space and personnel for the new facility must be provided before the transfer from the existing facility can begin. This results in an overlap or duplication period. Generally, larger more complex moves result in greater amounts of duplication and an extension of this period.

TABLE 5-3

EXISTING	PROPOSED
1.	build or rent space
2.	recruit personnel (basic only)
3. begin transfer patients and/or personnel	built or rented spaces operational
4. relocate services (support services)	move in remaining personnel
5. close down facility option	move in remaining patients
1-5	
1-5 x-number of steps	
1-5	

3. THE COMPONENTS:

(v) VARIATION.

Planning models at the best of times can be only guesses as to what will happen. There are a range of variables within the model that can be not only unpredictable in terms of consequence, but also unpredictable in terms of situations. I am sure that very few men were wise or foolish enough to predict an energy crisis in 1974!

A planning model has a mechanism to deal with the unforeseen. That mechanism is to provide a number of places where checks and adjustments can be made. That is, it provides a system that is adaptable enough to accommodate the unforeseen.

In terms of the mental health decentralization model, there are three basic influences that can work for or against the variables in the decentralization or transformation. The economic, political and social climates can each have an effect on the system. Each can be beneficial or harmful. There are also other important factors that can vary within the model and for which no controls can be built to minimize them at a planning stage. They are the size of the cells, the composition of the cells, the positioning of the cells, and the implementation time to develop the cells. There are various sizes, compositions, positions and timings that are most appropriate to the model, but there are no guarantees that they will be adhered to. In other words, theoretical rationale doesn't always dictate what will come to pass.

A. DEVELOPMENT CLIMATE:

There are three spectrums that can vary the size, composition, positioning and timing of the depletions. They are the economic, political and social spectrums. The economic spectrum determines the capabilities of the model, for every step towards decentralization requires an economic outlay. The political spectrum is where the decisions on implementation are made. Legislation has to be enacted in order to make the system operational. In fact, the first steps of a legislative motion have begun in a government white paper on health policy, where the government describes in general terms what the Hull Report describes in more specific terms. The third spectrum is the social spectrum in which the acceptability of the model is tested. The diagram below, (see Figure 5-31, Page 105) illustrates the three spectrums: a. applying the maximum benefits to the system, and b. applying the minimum benefits to the system.

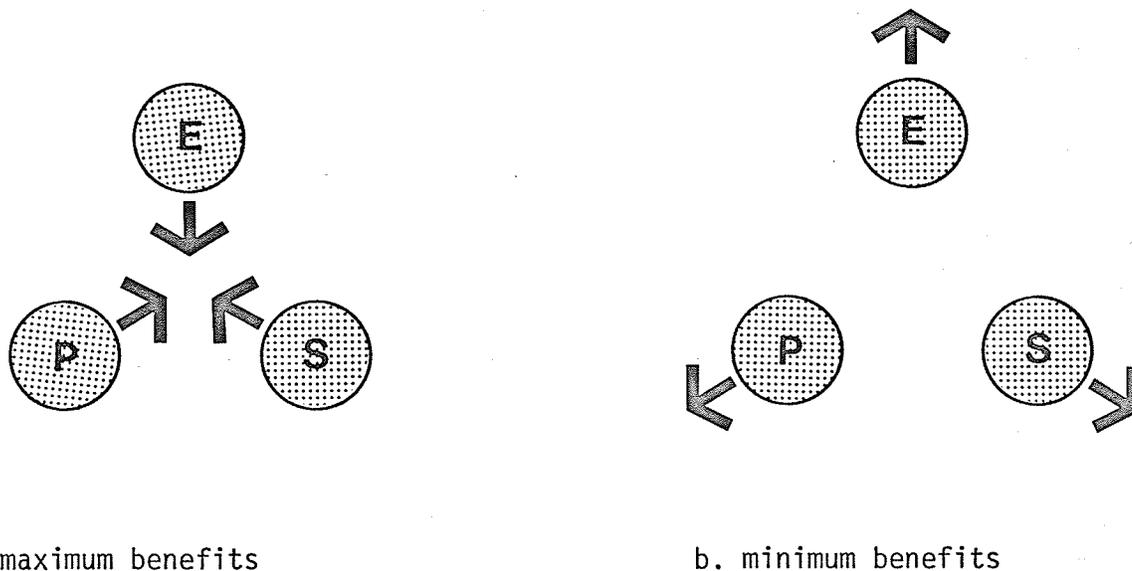


FIGURE 5-31 DEVELOPMENT CLIMATE

The diagram below, (see Figure 5-32, Page 106) is a composite of the previous diagram, Figure 5-31, Page 105. It illustrates the three spectrums acting on the mental health delivery system as well as on each other. The diagram positions and spectrums so that, although the spectrums (political, social, and economic) are opposing each other, they can at the same time, give benefits to the mental health delivery system which are indicated by the untóned circle in the centre.

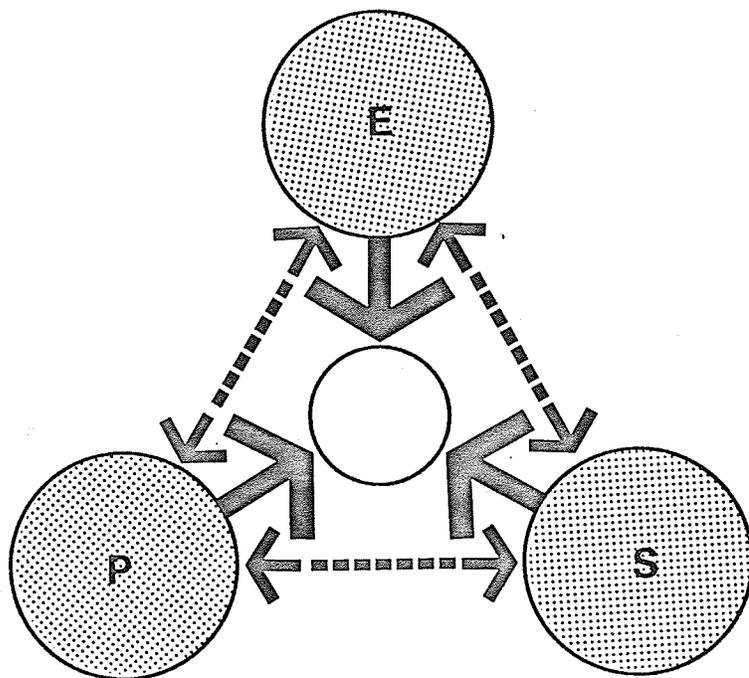


FIGURE 5-32

Economically, decentralization is not the desired optimum, but centralization, in the context of the Manitoba mental health delivery system, is also uneconomical. What decentralization does is to provide a range of duplications of personnel, services, and facilities. A method of optimizing decentralization is to minimize the duplications inherent in it. In the mental health delivery system this means using personnel and services available from other delivery systems wherever possible. It is difficult to use existing facilities because they have been designed for uses which may not be appropriate to the mental health delivery system. However, they should be used where they are applicable and appropriate.

Centralization, as it presently exists, is very uneconomical. People involved in health delivery recognize that an optimum, in terms of economy and efficiency in the size of the hospital, is between 150 and 200 beds. In the Brandon situation, there are presently 671 inpatients being serviced from a single complex. Decentralization in Manitoba will result from a presently efficient and economical system but rather from an inefficient and uneconomical situation.

Politically, the main problem with decentralization is the eradication of one of the main industries in a town. In both the Selkirk and Brandon situations the mental hospitals are among the top five industries in terms of the flow of jobs and money into the communities. The provincial government has initiated moves to alleviate this problem in Selkirk. It is spending about \$14,000,000 on a new acute and extended care facility. Economic balance can be maintained by closing down an amount of the mental health dollar flow which is equal to the amount of dollar flow being initiated in general health. Once the political decision has been made, public attitudes must also be changed.

B. SIZE OF DEPLETION:

The size of depletion can vary greatly from a portion of a single cell to a unit of delivery in a complete area. The largest size probably consists of three single cells, this being the greatest number of cells within any presently delineated region .

- | | | |
|----|-----------------|--|
| a. | MINIMUM: | partial cell. |
| | CONSEQUENCE: | incomplete development of a sub-system.
least impact on existing organism. |
| b. | MAXIMUM: | three cells (largest sub-system distribution
in a region, (see Figure 3-2, Page 26). |
| | CONSEQUENCE: | development of three interacting cells.
development of the complete region.
most impact on existing organism. |
| c. | PROBABLE: | development of complete cells. |
| | CONSEQUENCE: | ultimate development of a complete
sub-system with all of its interacting
parts. |
| d. | RECOMMENDATION: | development by single cells. |
| | CONCLUSION: | structure based on a single cell.
a number of possible check and
evaluation points.
a full range in which to study
interacting relationships between levels. |

The diagram below illustrates the range in the size of depletions from a minimum development of a partial cell to a minimum development that would involve three full cells at one time. This is based on the assumption that the largest depletion would involve developing services at a point in one of the seven regions in Manitoba (see Figure 3-2, Page 26).

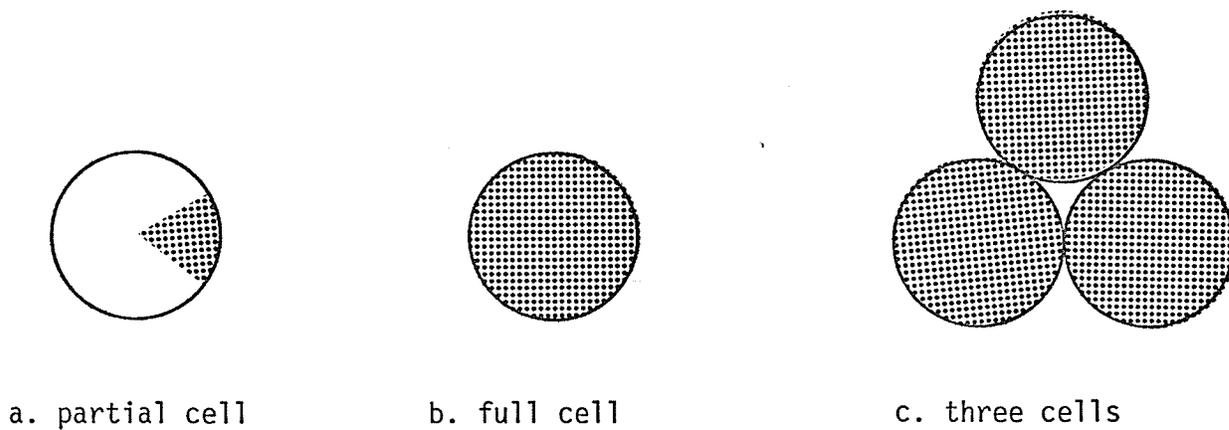


FIGURE 5-33 SIZE OF DEPLETION

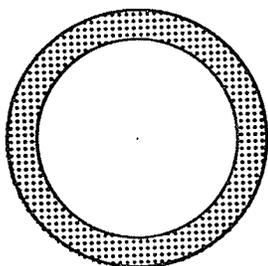
C. COMPOSITION OF CELL:

In the composition of a cell, all of the elements that make up a cell are considered as the cell entity, ie. patients, personnel, services, facilities, and treatment philosophies.

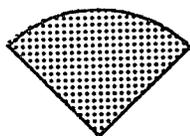
Diagram a. Figure 5-34, Page 110, illustrates development by separate levels at a time. The consequence of this type of development is that a number of specialized facilities would be the result.

Diagram b. Figure 5-34, Page 110, illustrates development by proportions of each of the six levels at a time. The consequence of this type of development is that development would occur of a full range of services from each facility.

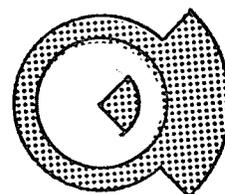
Diagram c. Figure 5-34, Page 110, illustrates how development will most likely occur, in combinations of complete levels and proportional levels. This type of development is responsive to local conditions as the combination selected is based on specific regional needs.



a. one level



b. proportional



c. combination

FIGURE 5-34 COMPOSITION OF CELL

D. POSITION OF CELL:

Positioning, or determining the locations of, decentralized facilities can be thought of as responding to two very different conditions. One condition is the positioning of the cell relative to the existing delivery system. The other condition is the positioning of the cell relative to the proposed delivery system. Both conditions exhibit different cell positioning patterns.

D. POSITION OF CELL:

a. RELATIVE TO EXISTING ORGANISM.

There are three general areas where the first new facilities can be positioned relative to the existing organism: one, the area immediately adjacent; two, the area at the system's periphery or boundary; and three, an area somewhere between position one and position two. The diagram following (see Figure 5-33, Page 109, illustrates the three possibilities.

Position one, immediately adjacent to the existing mental hospital, would maximize contact with the existing delivery system, contact to the proposed system's outlying areas.

Position two, at the system's periphery or boundary, would minimize contact with the existing delivery system and maximize contact with the proposed system's outlying areas.

Position three, somewhere between positions one and two, provides an amount of contact with the existing delivery system similar to the amount of contact with the proposed delivery system. Its contact is stronger than in position two, but considerably weaker than in position one.

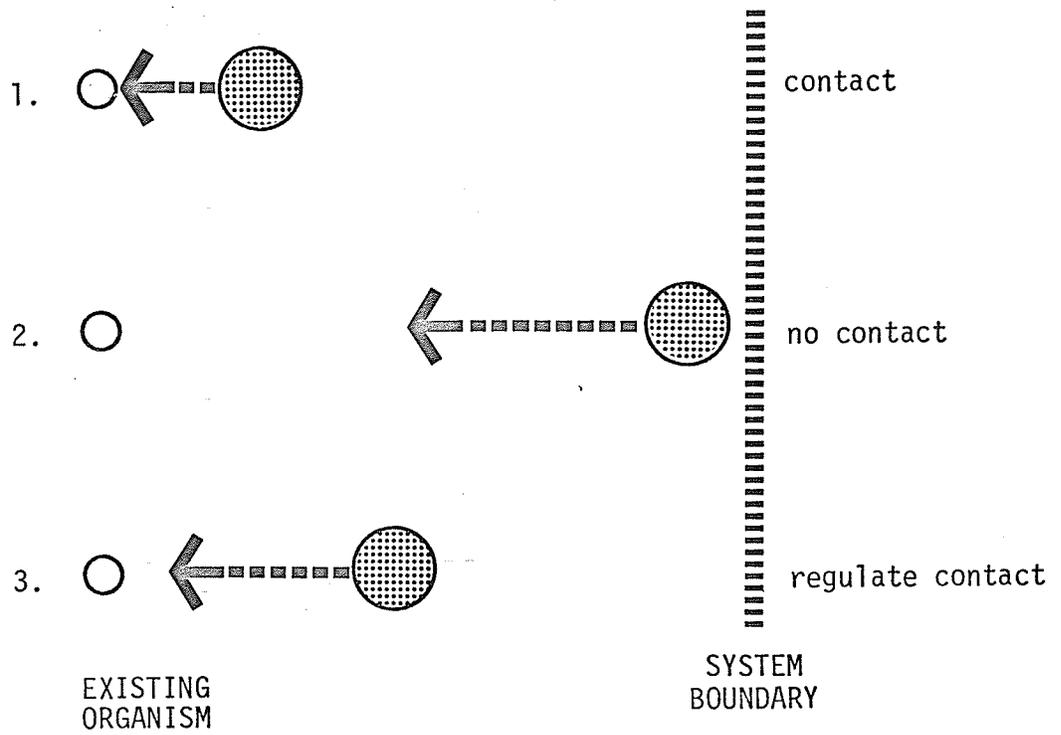


FIGURE 5-35 POSITION OF CELL RELATIVE TO EXISTING ORGANISM

D. POSITION OF CELL:

b. RELATIVE TO OVERALL SYSTEM.

Again there are three basic positioning possibilities for the placing of the first new facilities: one, one, in the area immediately adjacent to the existing facilities; two, in the area at the system's periphery or boundary; and three, somewhere between position one and position two. The diagram following (see Figure 5-36, Page 114) illustrates the three possibilities.

Position one, immediately adjacent to existing facilities, provides a minimum amount of new service potential. It provides service to existing areas as well as a small amount of services to new areas.

Position two, at the system's periphery or boundary, allows for service delivery potential from both the existing and new facility, albeit in a relatively limiting fashion.

Position three, somewhere between positions one and two, provides the maximum distribution of services from the first new facilities. It provides the maximum coverage to the overall system as well as the maximum coverage to new areas.

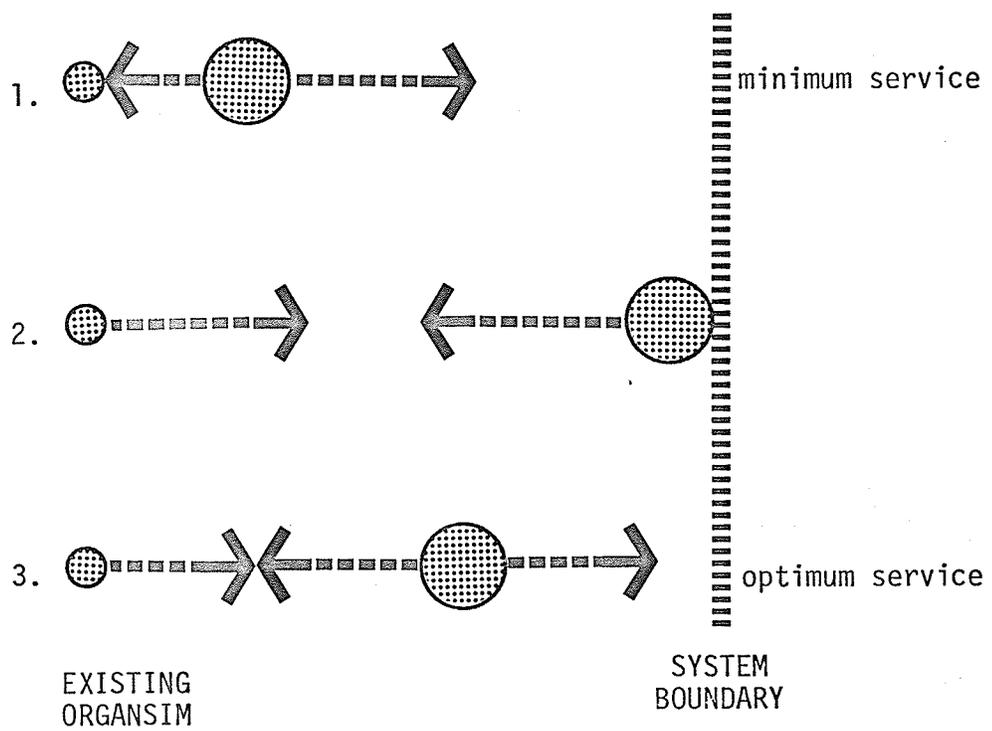


FIGURE 5-36 POSITION OF CELL RELATIVE TO PROPOSED ORGANISM

D. POSITION OF CELL:

c. CONCLUSIONS.

If maintaining contact with the existing facility were important, which it is not, it would be logical to initiate the development of new facilities in concentric rings which begin at the existing facility and end at the proposed systems boundaries.

Delivery of services to the system as a whole is paramount, which means that initial positioning of new facilities must occur in a way which optimizes delivery to the entire system and not just a part of it. In fact, the positioning of cells would probably be a trade off between physical distance and actual population distribution.

E. SIZE, COMPOSITION, AND POSITION:

Previous studies, on variation within this thesis, have been made in isolation without considering the dynamics of a cell once it is in position. Because conditions will vary from their projections, it is quite probable that the size, composition, and positioning of facilities will be subject to change or variation.

If the services outgrow the facility, then it must be enlarged. If the services provided are more than adequate, then the facility must be made smaller. How can these size variations be accommodated? In the traditional method, the facility is enlarged by an addition, or if too large, rooms are merely left vacant. This method is quite acceptable if predictions are only slightly off, but problems occur where the prediction is far from the outcome. If a mobile detachable system were used, the possibility of accommodation can be considered. Accommodation, by being able to attach, detach, adapt and to move facilities is an option that

cannot be ignored.

When the composition of what is happening within the space changes, there are two alternatives: one, to change the space to suit the function; and two, to design the space to change with changing functions. The results are the same, to have a space that is responsive to the function. The methods are where the differences lie. One method is to take away or add space as required, and the other is to design a space so as to increase the repertoire of functions that can happen within it. The latter method is a more acceptable way of handling the situation, for it provides a built-in structure in which change can happen rather than attempting to physically change a facility every time a functional change is desired.

3. THE COMPONENTS:

(vi) MOVEMENT.

Movement within the system affects patients, personnel, services, and facilities. With patients, movement occurs basically in terms of how they enter and leave a level of care. Under most circumstances movement between levels of care should be minimal. Movement amongst personnel is quite different. High level personnel will be subjected to the greatest movement. This happens for two reasons. First they are more flexible, and second, they are scarce. Service movement occurs mainly between the facility and community and between cells. Movement of the facility is seen in terms of flexibility and adaptability.

The illustrations on the following pages are an attempt to diagram movement patterns. The toned in circle indicates the initial contact that the patient has with the mental health delivery system.

A. PATIENTS:

Primary patient movement is first to a screening and assessment facility and then to the level of care which is most suitable for his needs. He generally exits the system from his primary treatment point. There are, however, times when the patient does move within the system.

A. PATIENTS:

a. ENTRY INTO THE SYSTEM.

People come into contact with the mental health delivery system through either professional or lay referral.

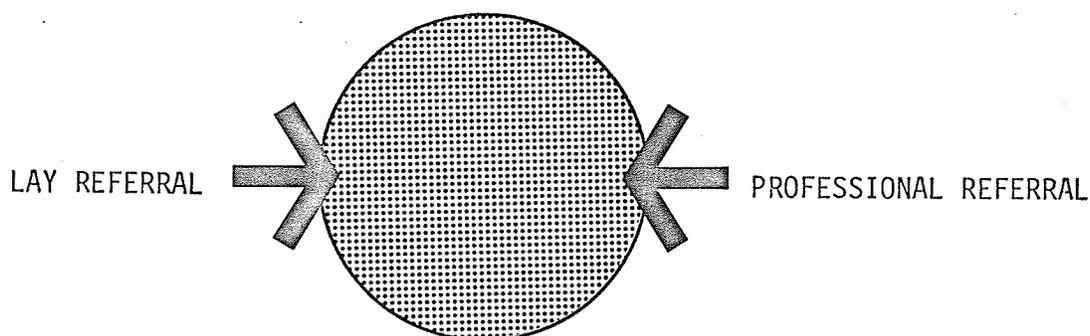


FIGURE 5-37

A. PATIENTS:

b. MOVEMENT WITHIN THE SYSTEM.

All patient movement within the sub-system is initiated from the screening and assessment facility. The screening and assessment facility can be linked with other health delivery systems. The decision is made here as to which part of the sub-system should be involved in providing services. This facility can provide a range of other services besides screening and assessment.

A. PATIENTS:

c. SCREENING AND ASSESSMENT.

A patient's first contact with the system can be through the screening and assessment process of the system. This can happen in a number of ways. He can be screened by his family physician (training general practitioners is part of the proposed delivery system) or by his physician's referral. Contact can also occur in facilities specifically set up to handle screening and assessment. From the screening and assessment point, wherever it is, the patient can move to the level of treatment which best suits his particular problems.

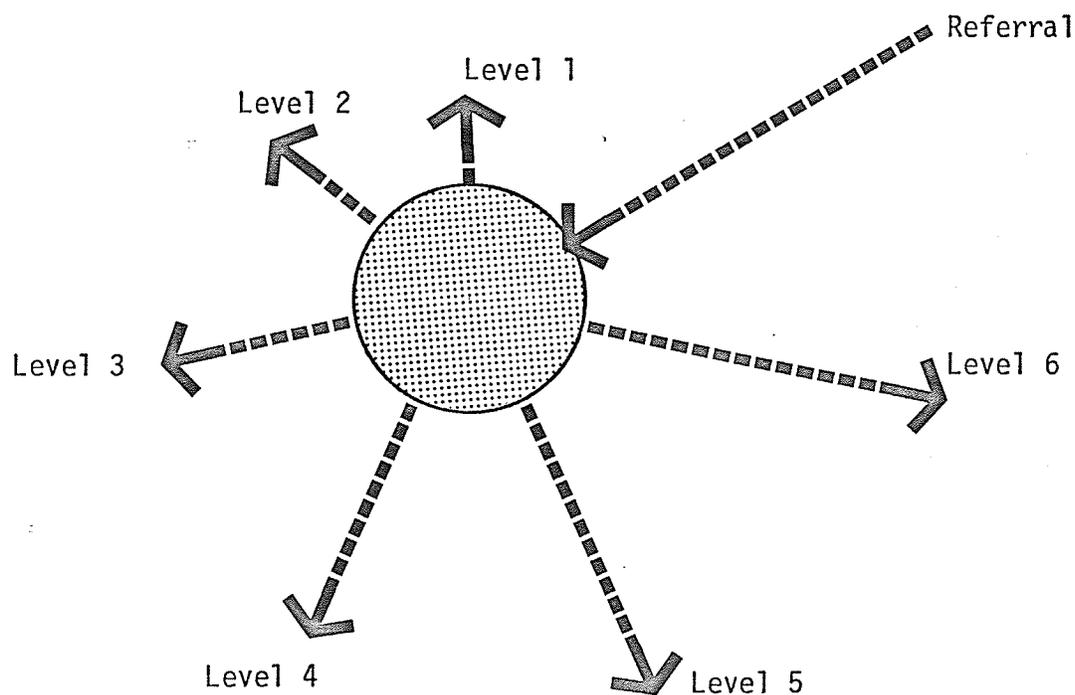


FIGURE 5-38

A. PATIENTS:

d. PARTIAL DELIVERY OF SERVICES.

The patient's first contact with the system may include a facility that delivers some levels of treatment. The patient then can either remain in this facility for treatment, or move to another facility that can provide the treatment that the troubled person requires.

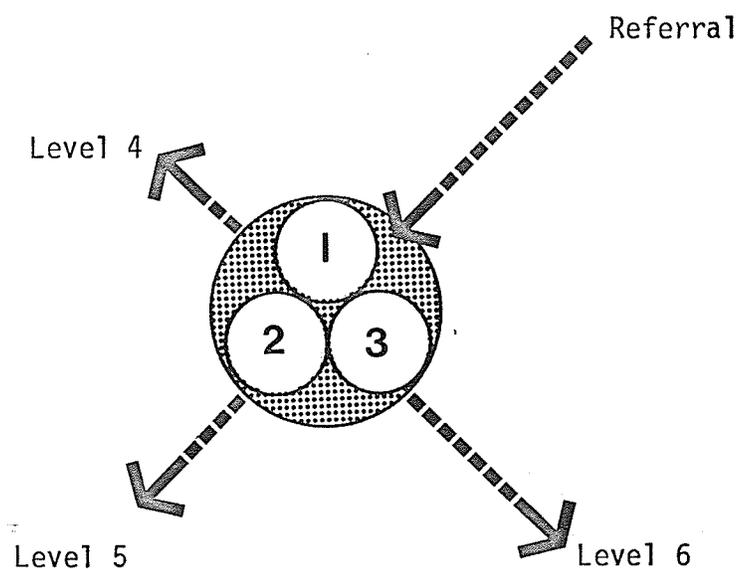


FIGURE 5-39

A. PATIENTS:

e. DELIVERY OF ALL SERVICES.

Another possibility is that a full range of services can be delivered from a single facility. In this case, the place where the patient has his first contact, is treated, and finally leaves to go home becomes one and the same. His base of treatment is a single health delivery system. This does not preclude that the patient will move back and forth from this facility to other facilities in the community, but this facility is his treatment base.

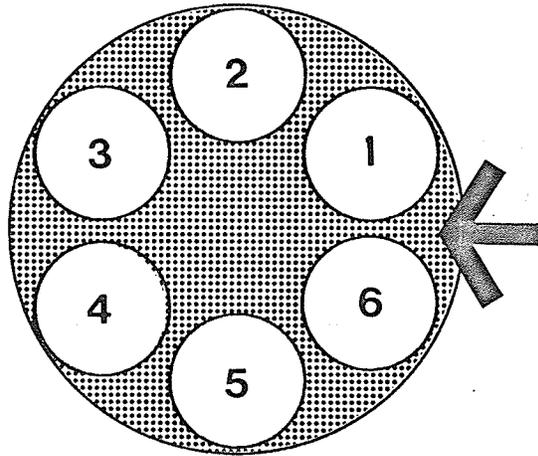


FIGURE 5-40

A. PATIENTS:

f. EXIT FROM THE SYSTEM.

A patient can exit from the mental health delivery system at any level of treatment, or he may, move within the system before the exits. Generally, movement is to a less acute level of treatment, and more patients exit from lower levels (1, 2 and 3) of treatment than from the higher levels (4, 5 and 6) of treatment.

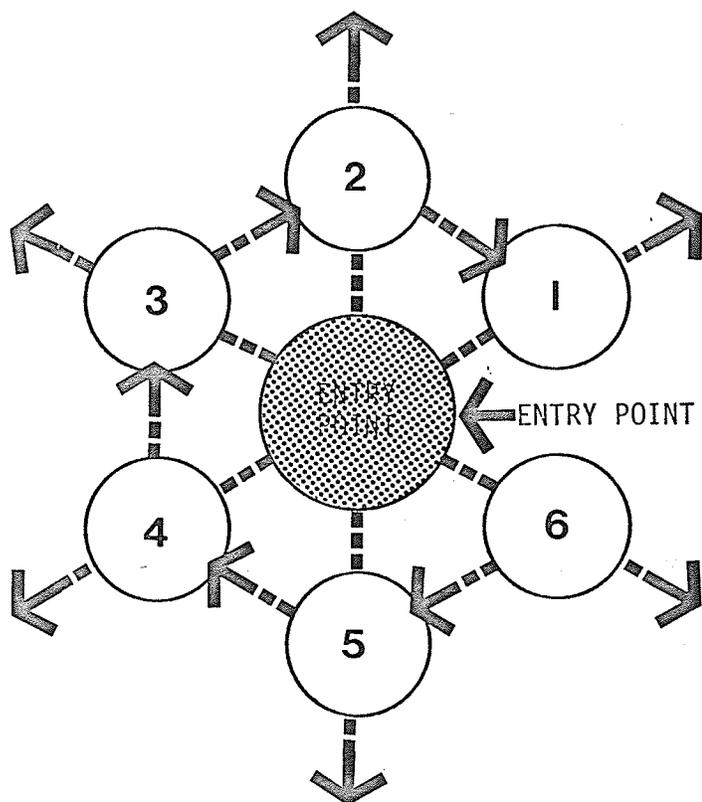


FIGURE 5-41

B. PERSONNEL:

Personnel are subject to movement within the system and outside the system. A psychiatrist may be involved in all levels of treatment as well as being involved in educating local practitioners and community service groups. Some other types of personnel move very little or may be involved with only one specific aspect of treatment, although this is not the desired approach. The more flexible that the practitioners are, the greater are the chances of the system being flexible in terms of treatment.

B. PERSONNEL:**a. PSYCHIATRISTS.**

Psychiatrists will probably be the most active movers in the system. They are the people who potentially will be able to involve themselves with all aspects of treatment. Their main areas of responsibility, however, will lie in:

1. screening and assessment
2. crisis management
3. training of local practitioners
4. consultation to various levels.

The diagram following, (see Figure 5-42, Page 123) illustrates the movement potentials of a psychiatrist in the system. The toned in circle in the centre is the psychiatrist, and the various bubbles around it are areas where the psychiatrist would have input to the system.

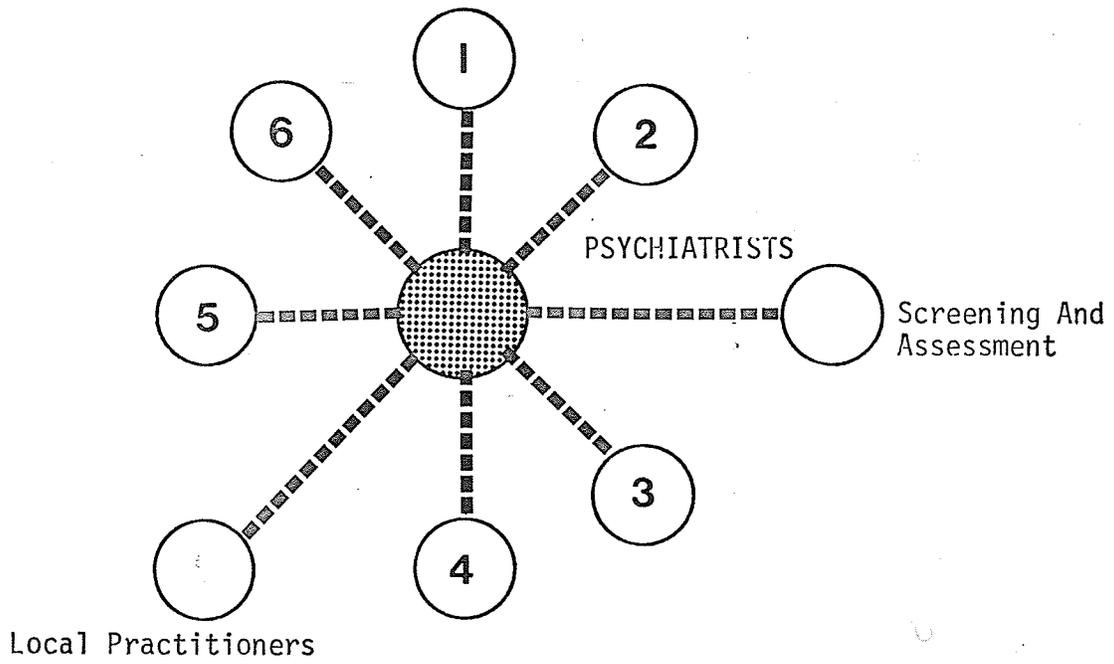


FIGURE 5- 42

B. PERSONNEL:

b. NON PSYCHIATRIC PHYSICIANS.

Non-psychiatric physicians, who will have been briefed and somewhat educated by psychiatrists, will be involved in lower levels of treatment. They may be one member of the crisis management team, or be directly involved in the mental health delivery system by treating the emotionally unstable person's physical problems. There is a strong relationship between the occurrence of mental illness and physical illness.¹⁷

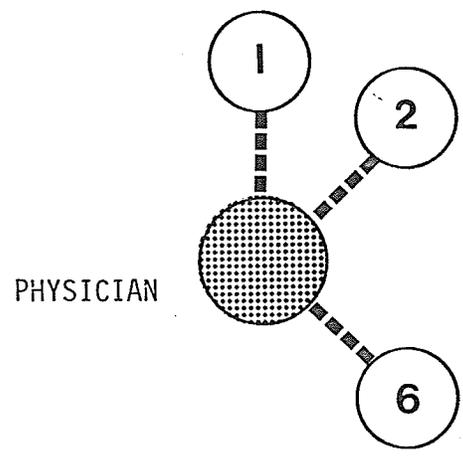


FIGURE 5-43

¹⁷ This is the conclusion of the Director of Planning at the Health Sciences Centre in Winnipeg.

B. PERSONNEL:**c. PSYCHOLOGISTS.**

Psychologists, not unlike psychiatrists, play a role in most areas of treatment. They are quite active in terms of movement amongst all areas of treatment. Like psychiatrists, they play an important role in involvement in community agencies. Psychologists will be in contact with community agencies on a day to day basis whereas a psychiatrist's involvement will be in special cases or in initiating community-oriented prevention and treatment programs. The main areas of psychologist-involvement are levels dealing with:

1. assessment
2. crisis intervention
3. family therapy
4. day care and workshops
5. hostels and community residences.

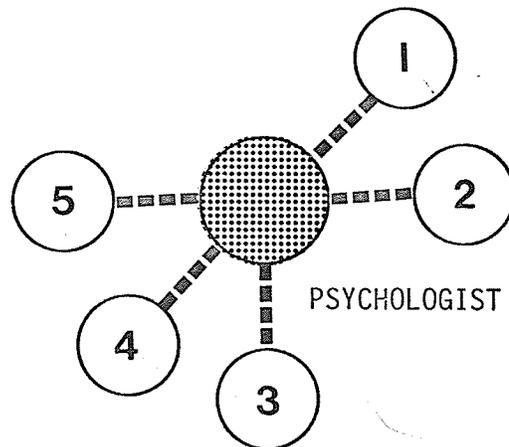


FIGURE 5-44

B. PERSONNEL:**d. SOCIAL WORKERS.**

Social workers will probably provide the strongest link between the community and the mental health delivery system. They will be constantly involved with community service groups and with consultation levels of treatment within the mental health delivery system. Their prime function, as previously mentioned, will be to sustain the liaison between the community and the mental health delivery system. Their main areas of concern within the mental health system will be:

1. assessment
2. crisis intervention
3. family therapy.

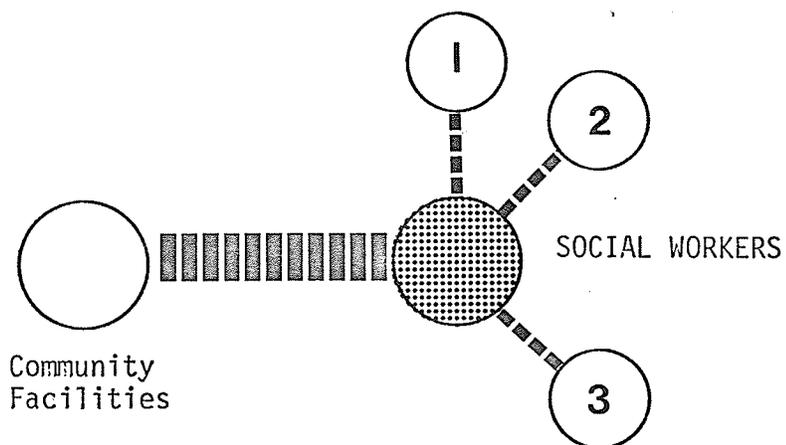


FIGURE 5-45

B. PERSONNEL:

e. PSYCHIATRIC OR PUBLIC HEALTH NURSES.

Psychiatric or public health nurses' primary area of involvement will be outside the mental health delivery structure. They will, however, be in contact with all levels of treatment when and as required. This is an area where personnel from other than the mental health system can be used effectively in treating mental or social illness. Again, they will be actively involved in educational programs which are oriented to community agencies. Within the mental health delivery system, their main areas of concern will be:

1. crisis management
2. family therapy
3. behaviour modification (day care and workshops, community residences)
4. long term care.

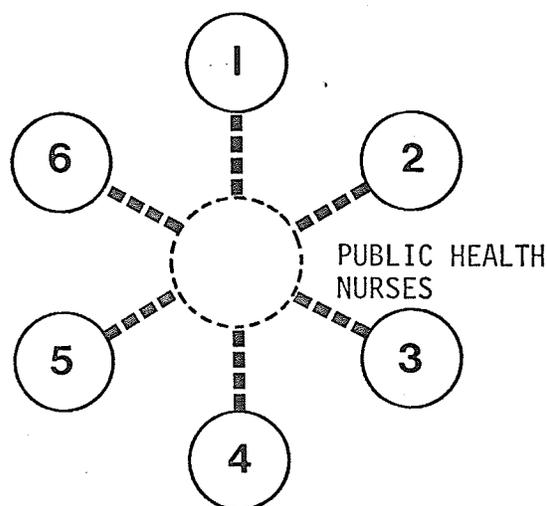


FIGURE 5-46⁽¹⁸⁾

18. The dotted circle indicates that the primary responsibility is not to the mental health system.

B. PERSONNEL:

f. NON PROFESSIONALS.

Non professionals will be used in all levels of treatment, but mainly in the custodial levels of treatment rather than in the consulting therapy levels of treatment. They will be primarily involved in:

1. community residences
2. hospitals.

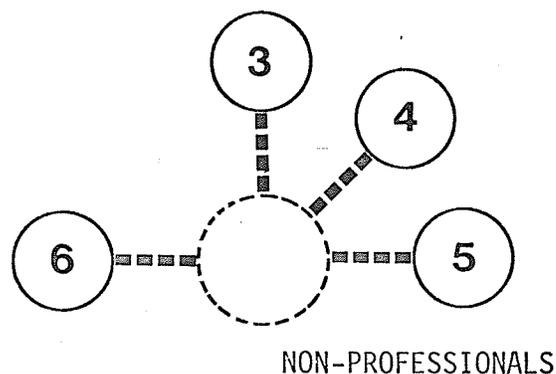


FIGURE 5-47

B. PERSONNEL:

g. VOLUNTEERS.

Volunteers will play a dual role in the mental health delivery system. First, they will be active in the treatment process, and second, because of that activity, they will form an important link with other laymen in the community through contact with their friends and associates. Their primary contact with the mental health delivery system will be through crisis intervention and hostel or community residence involvement, although this can change subject to the volunteer and education, which will affect his ability to perform in other

areas of treatment.

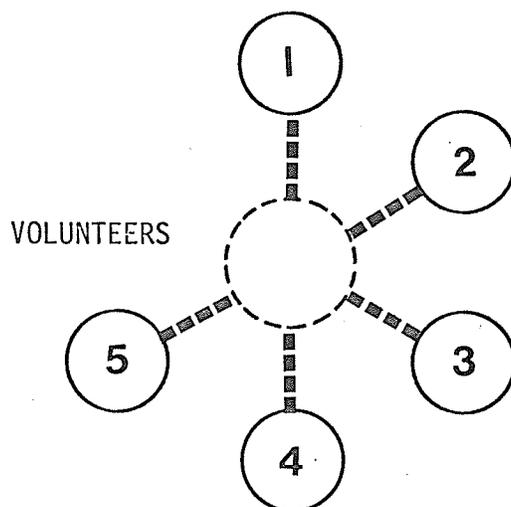


FIGURE 5-48

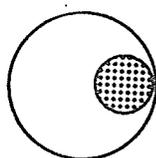
C. SERVICES:

Services occur in three basic situations relative to the facilities within the delivery system. First, there are services that occur within or adjacent to a specific facility and serve that facility only (eg. pharmacy, food service, etc.). Second, there are services of the type that occur in one facility but are shared by all other facilities (eg. electric shock, electrocardiogram, etc.). The third type of services consists of those that are located in one or two facilities within the system, but can be shared by the entire system as well as the general health care system (eg. labs and special therapy areas).

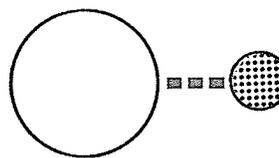
C. SERVICES:

a. SERVICES WITHIN OR ADJACENT TO FACILITY.

The toned-in circle indicates the service and the non-toned circle indicates the facility that the particular service serves. The service can be contained either (a) within the facility, or (b) adjacent to the facility, with respect to the proposed mental health delivery system. Services that are contained within the facility are new services that will have to be provided, while services that are contained in adjacent facilities are those that can be used from areas outside the mental health delivery system.



a. within



b. adjacent

FIGURE 5-49

C. SERVICES:

b. WITHIN ONE, SHARED BY SOME FACILITIES.

There will be instances when a service contained in one facility will have to be shared by other facilities within the system. Diagnostic type services are an example of ones that will be subjected to this relationship.

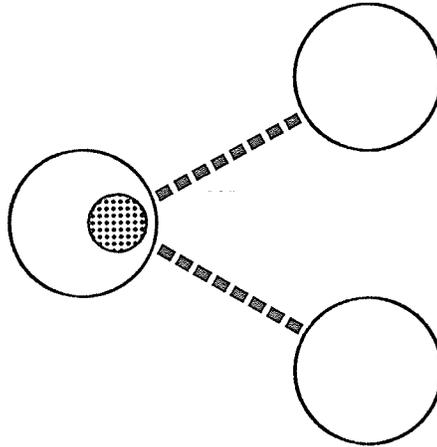


FIGURE 5-50

C. SERVICES:

c. WITHIN ONE, SHARED BY ALL FACILITIES.

There will, of course, be services that must be shared amongst all of the facilities, because of their expense or because of the special expertise required to provide them. If the service involves mental health hardware (ie. equipment), the service will be located in a single facility and its use by other facilities within the system will involve movement of the patients to the location in which the specialized service occurs. If the service involves software (ie. a human resource), the service can move to the facility where it is required for the period in which it is needed, returning to its base (see Figure 5-51, Page 133).

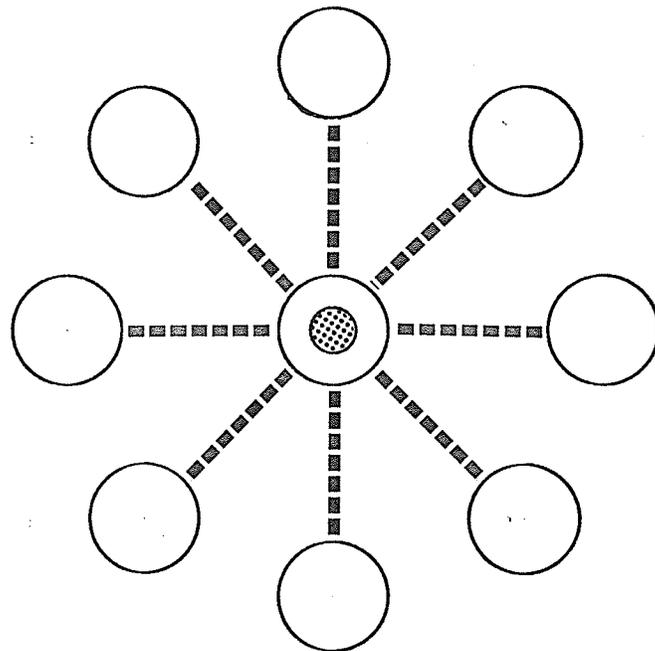


FIGURE 5-51

D. FACILITIES:

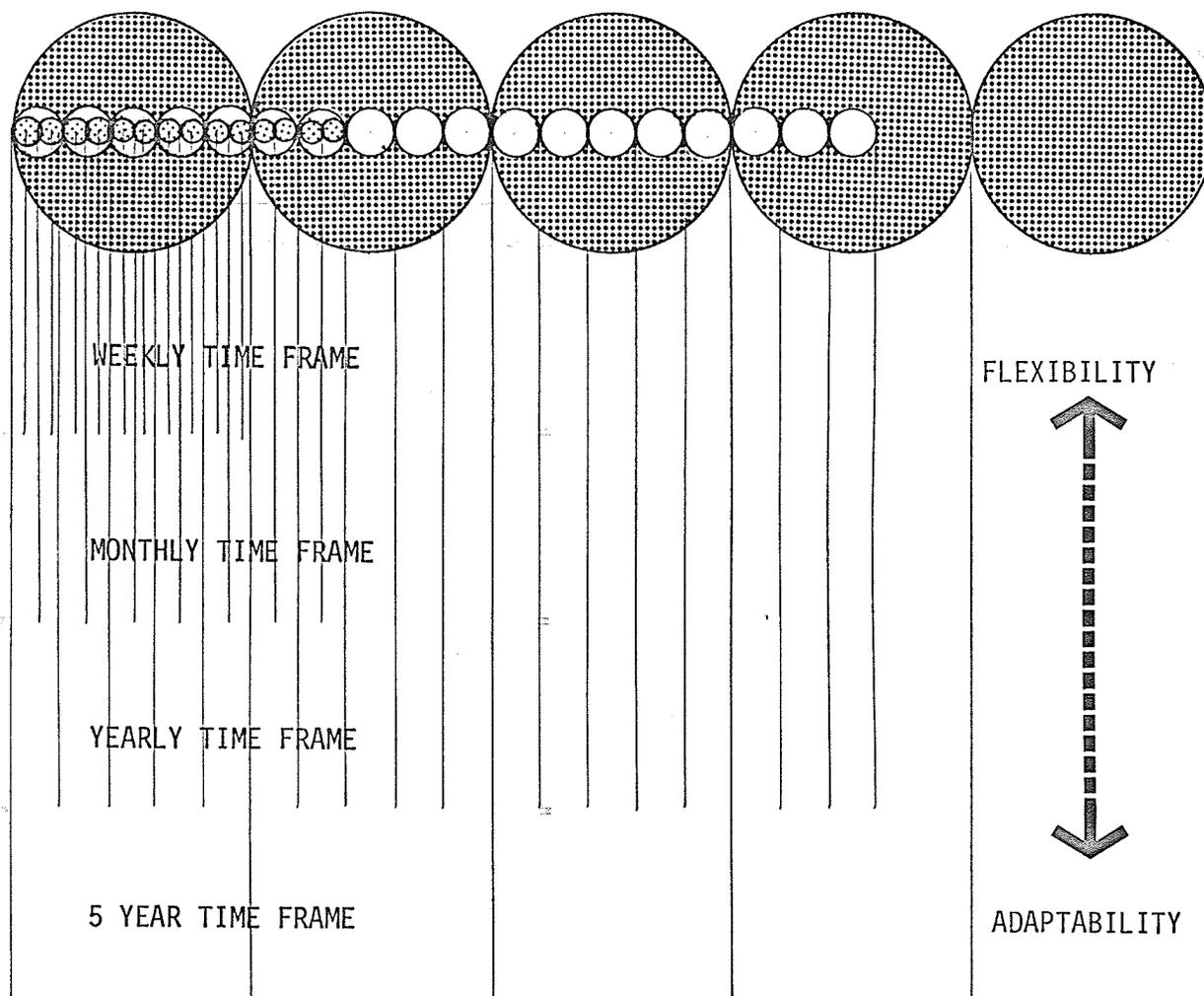
It has been brought to the attention of the author that a five year planning cycle is probable within the structure of the mental health delivery system. The five-year cycle coincides with a planning philosophy developed by the Department of Health and Social Development in Manitoba in a paper entitled, Mental Health in Manitoba a Five Year Plan.

Major philosophies in therapeutic techniques also appear to follow a five-year cycle.¹⁹ It would follow, then, that major changes to facilities could also follow a five-year cycle, if they were indeed designed to reflect the system which they were serving. This does not mean that changes will occur at the five-year point only, but that major ones will approximate that time frame. There will be changes of a lower order occurring within the five-year cycle.

In recognition of these two levels of change, facilities must be developed within a bi-reference framework. One must respond to relatively minor changes (daily, weekly, monthly, yearly) and the second one must respond to a five-year change pattern. For clarity of definition, references to minor, daily or weekly changes can be thought of in terms of flexibility, and references to changes which are major, yearly or on a five-year cycle can be thought of in terms of adaptability. There can, of course, be times when it is difficult to differentiate between the two, or even times when the two terms can be thought of as one (See Figure 5-52, Page 135).

19. The occurrence of a five year cycle in philosophy changes in techniques was brought to my attention by Dave Brown, Director of Planning, at the Health Sciences Center in Winnipeg, Manitoba.

The diagram following, (see Figure 5-52, Page 135), illustrates the two levels of change flexibility and adaptability relative to a weekly, monthly, yearly, and five year time frame or cycle.



Adaptability of system is measured at each of the eight steps in the decentralization process.

DEFINITIONS BY TIME FRAMES FIGURE 5-52

3. THE COMPONENTS:

(vii) ADAPTION.

Imbuing the mental health delivery system with adaptability means phasizing the chief element in the evolutionary survival of any organism, whether natural or artificial. An adaptable system is one which remains appropriate in the face of change. Thus, it must be endowed with the capacity for self-modification to new and unforeseen conditions. This implies that it contains elements of adjusting and restructuring.

Adapation occurs throughout the entire organism. A change in location, size or composition of a facility will have an effect on the entire system, for it must always be viewed as a whole. It is necessary to have an adaptable system because adaptability is the ever-present and unforeseen variable in the time stream. Planning techniques are hit and miss at the best of times so there must be a measure of adaptability to allow for the shortcomings inherent in planning models. It would, therefore, be impossible to define an optimal quantity of adaptability. There can, however, be developed some sort of quantative indices by asking about minimum and maximum probabilities. What are the probable minimum and maximum limits on a given facility as a whole, and on individual elements within the whole? The question of the composition of the wards, indeed, whether or not there will be wards, must be answered. Pragmatic questions must be considered, such as the cost of adaptability, as well as more abstract questions, such as the point at which too much adaptability begins to cause disorientation and also the point past which adaptability becomes socially unacceptable. These are noble questions that cannot yield answers, which is one reason for introducing a measure of adaptability to any system. Flexibility and/or adaptability can be thought to operate in three general ways; one, on buildings and

their components; two, on spaces formed by piecing together the building components; and third, on the overall planning structure.

Planning adaptability in to buildings and their components implies the structuring of some type of generating system or a kit of parts with which to build. A generating system could in itself be a modular type of system, or if not, it could produce a modular type or a series of modular types. This is, of course, accepting the assumption that the system can be broken down into a very limited number of common denominators.

Another factor to contend with in the development of a generating system is the scale of building that is required to amortize its development. With respect to the Manitoba delivery system, it is quite inconceivable that any modular type of development could justify itself economically. It can be argued that other health delivery systems could use a quasi-universal type of generating system.

This brings out an important aspect against the development of a generating or a modular type system. A series of case studies on modular development indicated that the module became the important element, rather than what was being served, even given the assumption that a module can be developed along any appropriate rationale. It probably can be developed in any direction given enough information about mental health, but this information is, of course, not presently available. A more acceptable type of adaptability in building spaces is to provide spaces that can serve many functions at different points in time.

Adaptability of space implies that many functions can occur in one space, as opposed to adaptability of the building components, which is construed to mean a space in which minor architectural changes can be made to change the space itself with relative ease. Adaptability of space is preferable, but

Two problems must be considered, the avoidance of incompatible functions in one space (eg. a nurse's station used as a place for work and a place to have rest and coffee), and the avoidance of difficult and involved architectural solutions if administrative technique can serve the purpose (ie. the making of a psychiatric, not an architectural judgement). A mental health centre contains a very complex interrelationship of functions. The problem is to unravel the complexity of the functional relationships to determine which functions can most appropriately be overlapped. Adaptability can also be subject to the other extreme of trying to build a measure of adaptability into the overall delivery system.

This type of adaptability implies the structuring of a series of points where the overall system can be checked, evaluated, and altered. Providing an evolutionary change pattern for the system, as proposed in this study, gives a number of points, depending upon the number of depletions, in which change on the system can be evaluated. The structuring process itself must have a built-in measure of adaptability to allow for shortcomings in predictions due to unforeseen or unpredictable change. As previously mentioned, basic elements of change must be examined, and minimum and maximum probabilities set up for them. This is the reason for the exhaustive examination of the variables in terms of patients, staff, services and facilities. The idea is to provide an appropriate or optimum number of check points where evaluation and change can take place.

CHAPTER SIX: FRAME OF REFERENCE.

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FRAME OF REFERENCE.

"The problem of stating goals in the abstract are twofold; first, that such abstractions have different connotations for different individuals; second, that various abstractions at some point in their logical development, are likely to prove contradictory. Nevertheless, the nature of human thought compels us to define ideas as standards to which we build. 'If concepts can be verbalized today, someday they may happen!'¹

Preceding chapters described in abstract terms the existing and proposed organisms. These abstractions must now be translated into concrete terms. Also, because of the planning nature of the decentralization as well as the lack of information, it is necessary to define by interpolation the first steps in decentralization in terms of the present organism. This is done also because of the way the decentralization problem was viewed. That is, it is viewed as a rearrangement of an inadequate delivery system into an adequate or appropriate one. This new delivery system is partially a result of the rearrangement or realignment. The variables in the two situations are the patients, the personnel, the services, the facilities, and the treatment philosophies.

1. Anthony Keffaneh, ed. Project Romulus. Cambridge, Mass. The M.I.T. Press, 1967.

There are two reasons for examining the existing situation at the Brandon Mental Hospital complex. One is to give a general idea of the size and nature of the various elements involved in the transition process. The second is to examine or dissect the existing delivery system in order to give an understanding of or perspective on what depletions can take place and how they can take place. It is necessary to know the scope of the components in order to determine or evaluate their various options. There will be an assumption made as to what the end result would be in order to determine the path to that end.

1. EXISTING ORGANISM:

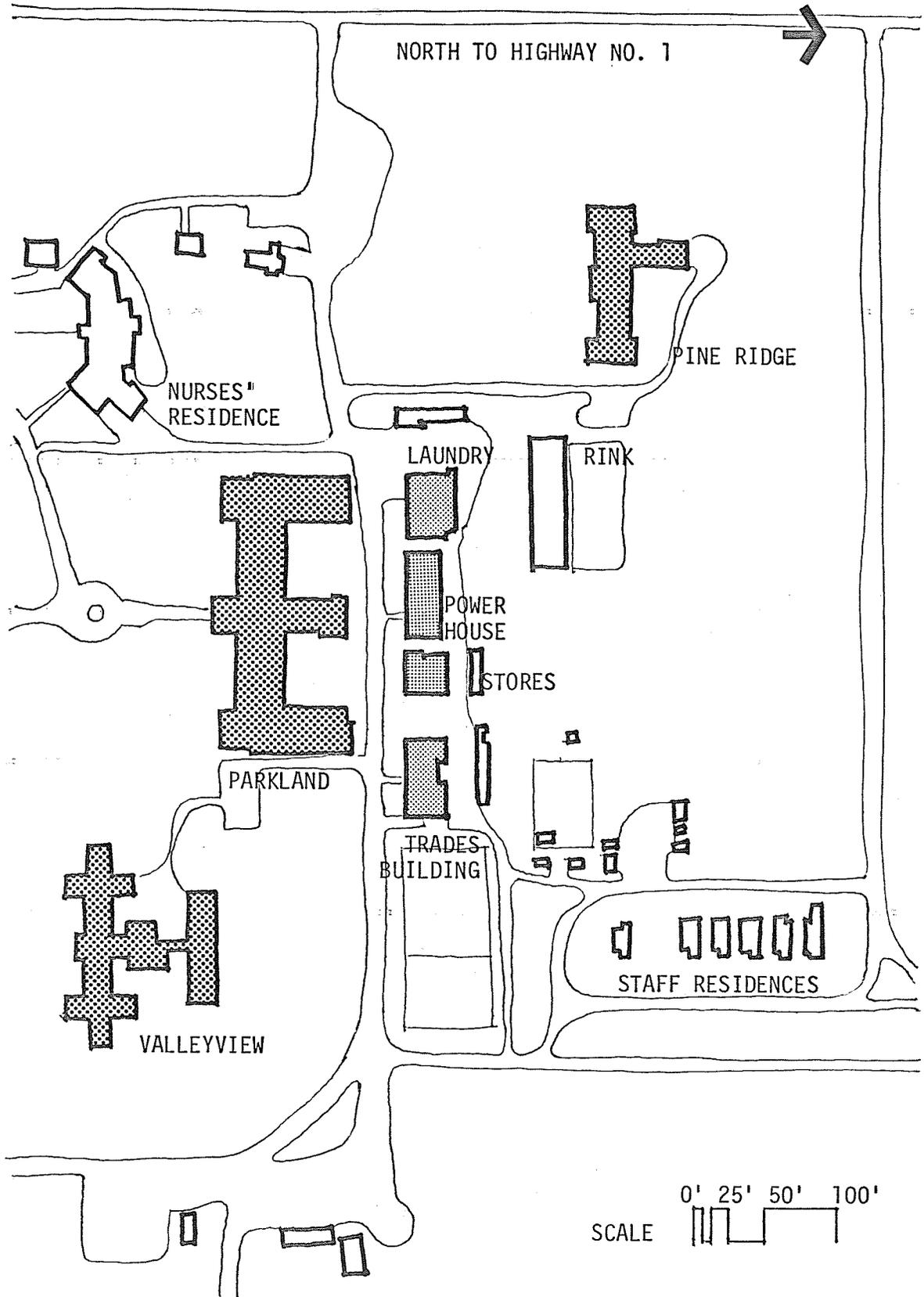
(i) SITE.

The existing mental hospital is located within Brandon's city limits. It is, however, isolated from the main part of town by a river and by its location on a wooded hill at the northern end of the town. The hospital complex consists of four main patient buildings, three of which are located on the site proper, with a fourth located apart from the others. It is the three buildings on the site that will be the focus (see Figure 6-1, Page 144).

The hospital complex has its own laundry, a powerhouse that supplies heating and a standby electricity plant. There are, as well, storage facilities for goods and a trades building where repairs and general upkeep are provided. The site is scattered with an assortment of recreational facilities which include a skating rink, a curling rink and tennis courts.

There are also a few staff residences on the north east corner of the site which house the medical staff who are available on twenty-four hour call. A nurse's residence is also provided. It is located in the south-west corner of the site adjacent to the main administration building.

The mental hospital complex is a small town within a town, and apart from the daily movement of staff and goods, its functions in complete isolation from the rest of the Brandon community.



SITE PLAN FIGURE 6-1

1. EXISTING ORGANISM:

(ii) PATIENTS.

The daily inpatient population at the Brandon Hospital is between 650 and 670. An examination of the inpatient population, as provided by Brandon Mental Hospital, broke the population down by type of care required. Patients were placed in six groups varying from acute psychiatric to nursing care. All of these patients are presently level 6 inpatient patients as defined by the "Hull Report".

TABLE 6-1 CLASSIFICATION OF INPATIENTS

CLASSIFICATION	%
Acute Psychiatric	11
Continued Psychiatric	19
Domiciliary Foster Home	12
Domiciliary Psychiatric Supervision	16
Infirm Medical	2
Partial Nursing Care	16
Complete Nursing Care	<u>24</u>
TOTAL	100

The daily outpatient population at the hospital is 639 (see Table 6-2, Page 147). This represents a ratio of inpatient population to service area population of 1:300.^{1a} Within this outpatient population are the other five levels of care in which these patients can be classified according to the amount of support that they require. The following (see Table 6-2, Page 147) gives a breakdown of the average daily population.

1a. In Saskatchewan, the inpatient population to catchment area population ratio is 1:200.

TABLE 6-2⁽²⁾

AVERAGE DAILY POPULATION				
CLASSIFICATION	NUMBERS	RANGE	% OF TOTAL POPULATION	% OF RESOURCES REQUIRED
LEVEL 1 CONSULTATION SERVICES	70	10 - 200	5.1	6.0
LEVEL 2 CRISIS INTERVENTION	4	0 - 10	0.3	19.0
LEVEL 3 FORMAL OUTPATIENT THERAPY	60	30 - 100	4.4	12.0
LEVEL 4 DAY CARE	105	80 - 120	7.6	2.5
WORKSHOPS	70	70	5.1	2.5
LEVEL 5 HOSTEL/COMMUNITY RESIDENCES	400	400	29.8	6.0
LEVEL 6 INPATIENT	671	671	47.7	70.0
TOTALS	1380	1241 - 1551	100	100

2. The figures in this Table are estimates given to me by the Systems Statistician at the Brandon Mental Hospital and only represent educated guesses.

A. TRENDS IN PATIENT POPULATION:

Projected trends in patient population indicate two main changes. One, a drop will occur of about 30% in the actual inpatient population numbers at the Brandon Mental Hospital by 1977 and the inpatient population will remain constant from that time. Second while the inpatient population is decreasing by 30%, the outpatient population is doubling. The two charts below illustrate this shift. At present, information regarding the shift in terms of specific levels is not available, so for the purpose of the thesis, it will be assumed that all the outpatient population will double evenly.

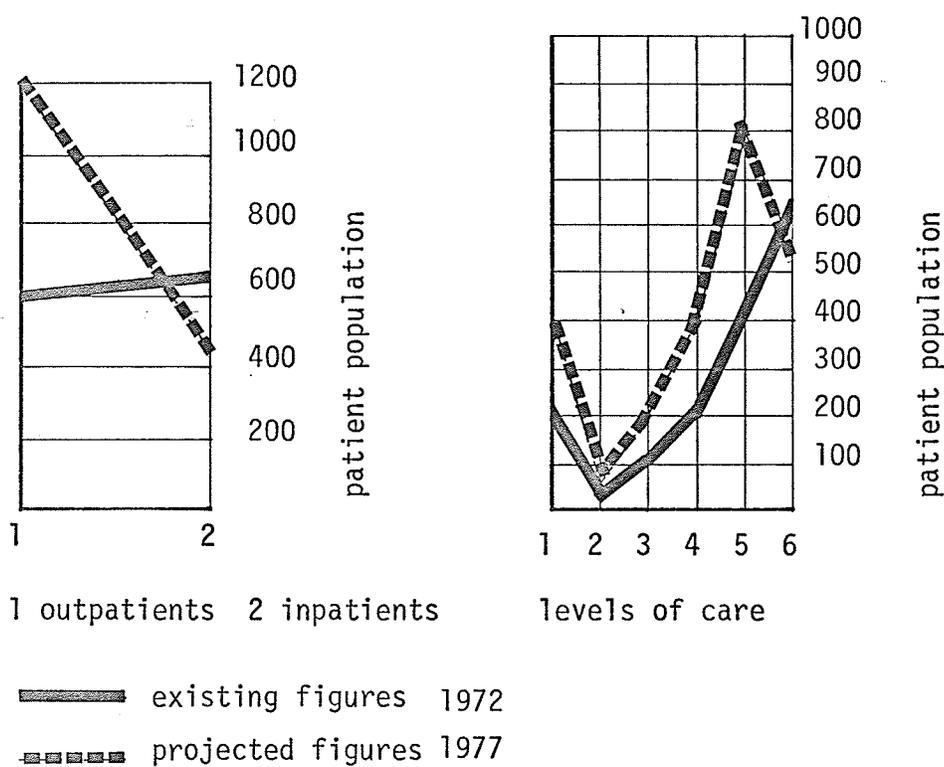
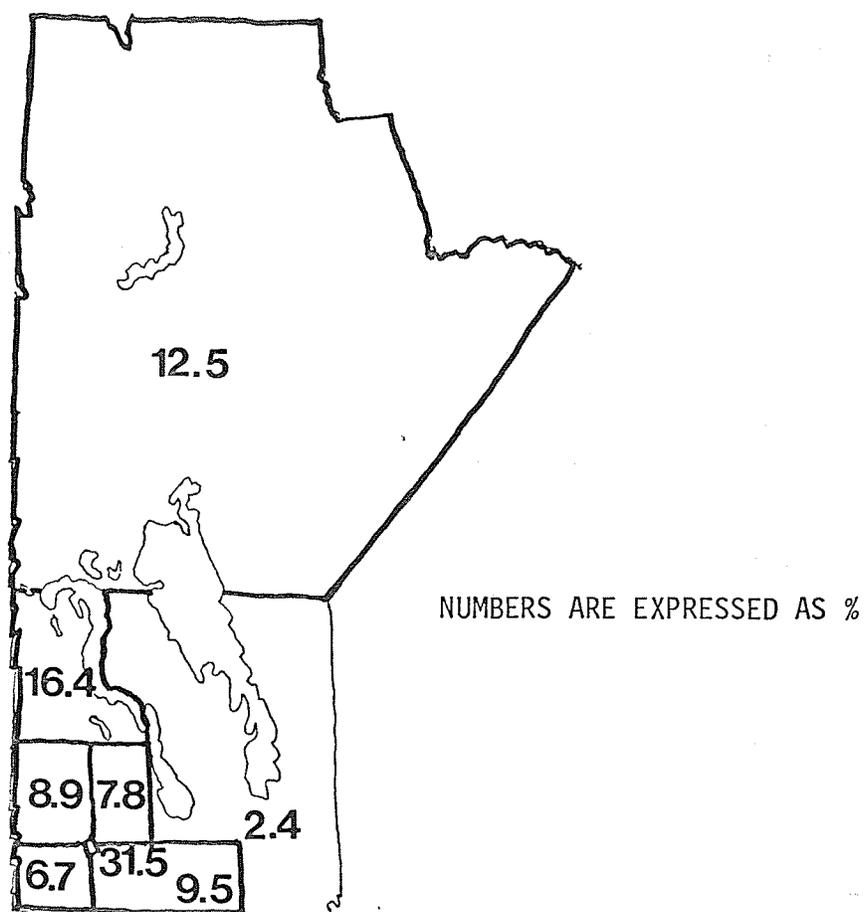


FIGURE 6-2(3)

3. Chart on left is based on information contained in Mental Health in Manitoba, a Five Year Plan, Appendix II.

B. ORIGIN:

The patient's origin is the particular place the person lived when he was well and became troubled. The following map (see Figure 6-3, Page 149) illustrates the patient's origin in terms of percentages. The figures are calculated from the present patient population at Brandon Mental Hospital. The high figure in Brandon, 31.5%, reflects the fact that a large number of patients move to Brandon to receive treatment over extended periods.



BRANDON CATCHMENT AREA DISTRIBUTION RELATIVE TO HOME ADDRESS FIGURE 6-3⁽⁴⁾

4. This map is based on figures from the Clarkson Report, P.12.

1. EXISTING ORGANISM:

(iii) PERSONNEL.

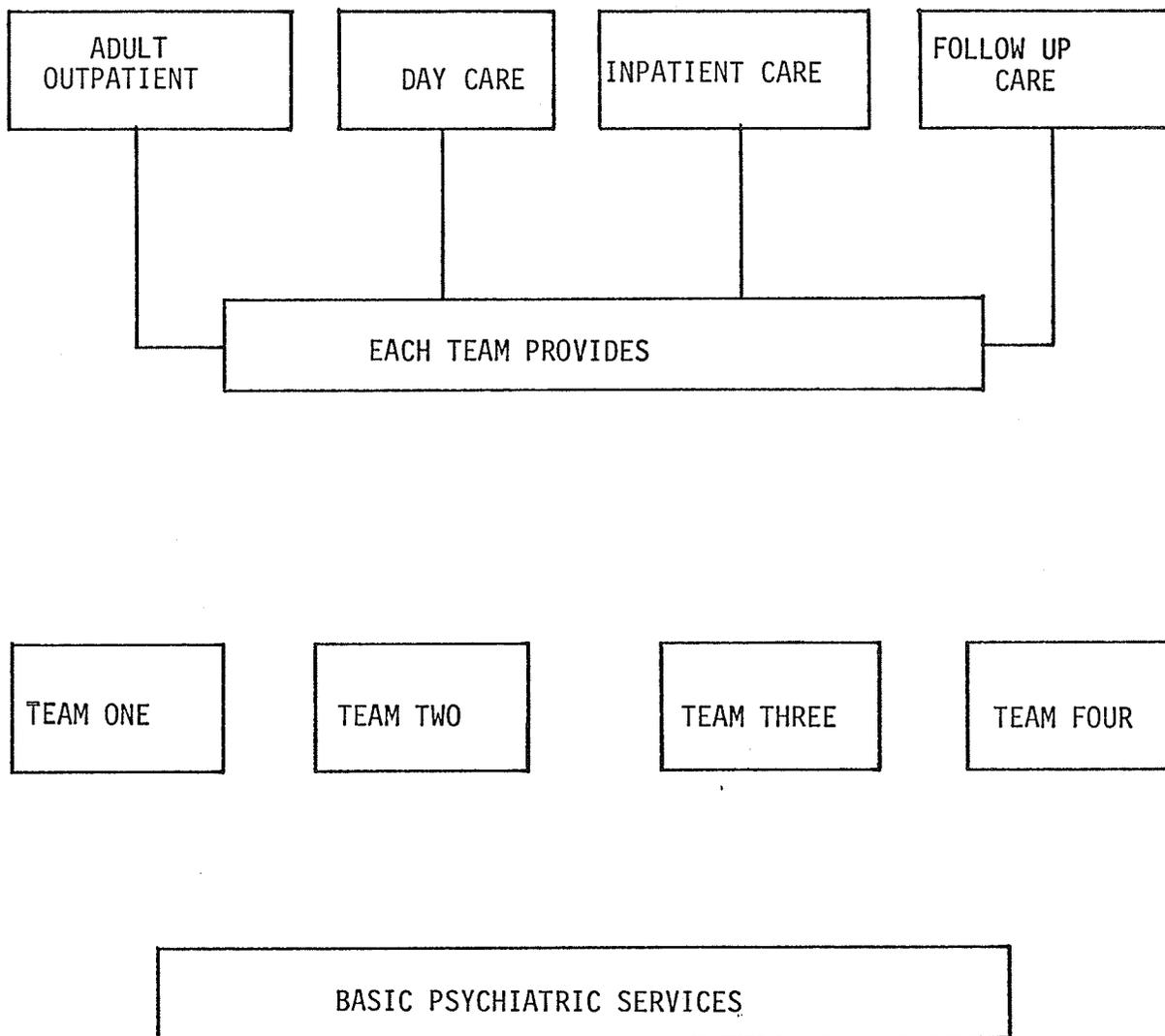
For operational purposes, the hospital has been divided into four psychiatric service teams, plus the infirmary and geriatric ward personnel. Each team is responsible for all patients from an assigned geographic area. The patients receive all of their services from staff to the team that they have been assigned to. Once a patient has entered the system he sees only those personnel who are originally assigned to him: If he moves out of the system and has a relapse, then he re-enters the system and is served by the original team of personnel.

The teams are composed of staff from various professions, medicine, social work, psychology, and nursing. The team leader is a psychiatrist (in the proposed system, the team leader could be a psychologist), and the teams work as a co-ordinated unit. As a patient is admitted, a case conference is held involving all team members. A therapy program is prepared for the patient, and each professional area provides its appropriate input.

A similar set-up could occur in the proposed delivery system, with the main difference being that the patient would receive services in his own community. This would mean that the patients would not lose contact with their family, friends and jobs while receiving treatment.

The following diagrams (see Figures 6-4, Page 151, and 6-5, Page 152) indicate the organization and the number of personnel in the present delivery system, Brandon Mental Hospital.

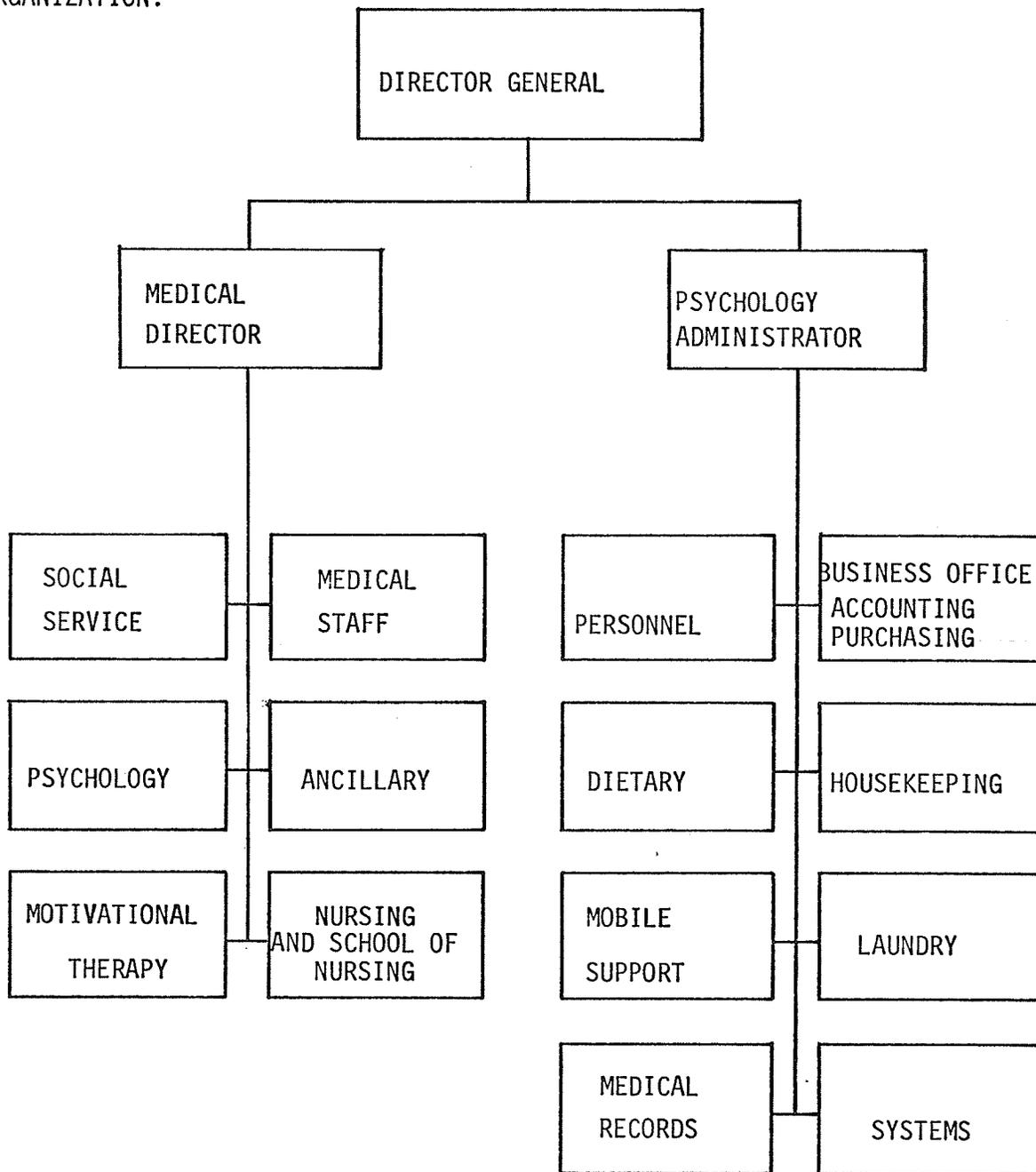
ORGANIZATION:



SERVICES PROVIDED

FIGURE 6-4

ORGANIZATION:



BMHC ORGANIZATIONAL CHART FIGURE 6-5

The following table (Table 6-3, Page 153) lists the present personnel at Brandon Mental Hospital by department and the numbers in each department. The staff to patient population is approximately one to one, compared with a general hospital ratio of three to one.

TABLE 6-3 BRANDON MENTAL HOSPITAL STAFFING PATTERN ⁵

DEPARTMENT	NO. OF STAFF
MEDICAL	
Hospital	9
NURSING	
Administration Officer	1
School	9
Sr. Supervisor	34
Jr. Super-Gen. Duty	178
Nurses Aid	85
Nursing Attendant	22
THERAPY	
Occupational Therapist	2
Activity Instructor	22
Aid	11
SOCIAL SERVICE	
Social Workers	7
Rehabilitation Counsellor	10
PSYCHOLOGIST	7
ADMINISTRATION AND CLERICAL	
Administration	9
Business Office	13
Medical Records	13

cont'd...

5. This table is taken from the Clarkson Report on Mental Health, P. 15.

TABLE 6-3 cont'd...

DEPARTMENT	NO. OF STAFF
SYSTEMS ANALYSTS	2
SPEECH THERAPISTS	2
CHAPLIN	1
PHARMACY	2
MEDICAL TECHNOLOGIST	1
DENTAL SERVICES	2
NURSE RECEPTIONIST	1
INSTITUTIONAL TEACHER	1
ANCILLARY SERVICES	13
HOUSEKEEPERS	29
LAUNDRY	30
DIETARY	51
FARM	5
TOTAL	<u>572</u>

As decentralization takes place, the possibilities of utilizing existing service and health personnel become apparent. In a typical new inpatient facility, a large portion of the organization's ladder will be filled by people already involved in the non-mental sector of health care. (Dotted boxes within solid boxes show areas where personnel outside the present mental health system could be utilized; Figure 6-5, Page 152.) This can serve two very important functions.

By using personnel other than those presently involved in mental health care, the burden on recruiting personnel to handle the increased load that the decentralization will cause will be decreased. Another factor in using general health and social service personnel is the effect that it will have in breaking the ice of isolation that exists in mental health care presently. It will bring mental health problems into areas that they presently do not reach. Community involvement is a step towards the kind of involvement that is necessary to allow a social system concept of mental health treatment to happen.

1. EXISTING ORGANISM:

(iv) SERVICES.

The main services for the hospital have been centralized, and thus the buildings on the site operate as parts of a whole rather than as individual self-contained structures. Medical services, laboratory services, and dietary services are located in the Valleyview building located on the south-east corner of the site. This building also houses about 100 patients and a small number of medical staff (see Figure 6-13, Page 167).

Each of the buildings contains a limited amount of administrative space, while the main body of administrative services is located in the Parkland Building which is located geographically on the center of the site (see Figure 6-6, Page 159.)

General housekeeping facilities are located in each of the buildings with a laundry building north of the Parkland Building which provides clean linen to all three buildings. Immediately east of the laundry building is the main power house which supplies heating to all of the buildings. The power house also contains a stand-by generating system, should power fail to be supplied from the city.

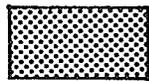
A trades building located about 150' east of the power house supplies the upkeep and repair services for the entire complex. Generally, the complex is a self sufficient unit.

1. EXISTING ORGANISM:

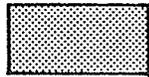
(v) PHYSICAL PLANT.

Three main buildings located on the site house a total of 671 patients. Parkland houses 436, Pineridge 135, and Valleyview 100. Two of these buildings house specific functions within them. Valleyview contains medical and laboratory services, and Parkland contains the administrative heart of the complex.

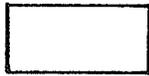
The following four tables and accompanying floor plans indicate a general breakdown of areas allocated to patients, personnel, and services. Space allocation or functions have been combined into the following three categories:



Patients

wards
therapy areas

Personnel

Staff Rooms
Administrative functions

Services

Circulation
Service facilities (wc's etc.)
Medical, Pharmacy
Kitchen, dining

The Table below indicates a general area breakdown in the Parkland Building (see Figure 6-1, Page 144), which shows site location relative to patient, personnel, and service categories. Although only 12.8% of the building area is occupied by administrative functions, it is the administrative centre of the complex, occupying 16,600 square feet of a total of 17,500 square feet for the entire complex.

TABLE 6-4 PARKLAND BUILDING (ADMINISTRATIVE)

<u>CATEGORY</u>	<u>FUNCTION</u>	<u>AREA</u>	<u>% OF TOTAL</u>
PATIENTS	Wards	44,290	34.4
	Therapy	7,950	6.2
PERSONNEL	Staff	9,470	7.4
	Administration ...	16,600	12.8
SERVICES	Circulation	31,780	24.7
	Others	13,360	10.4
OTHER		5,350	4.1
	TOTAL	128,800 sq. ft.	100%

PARKLAND

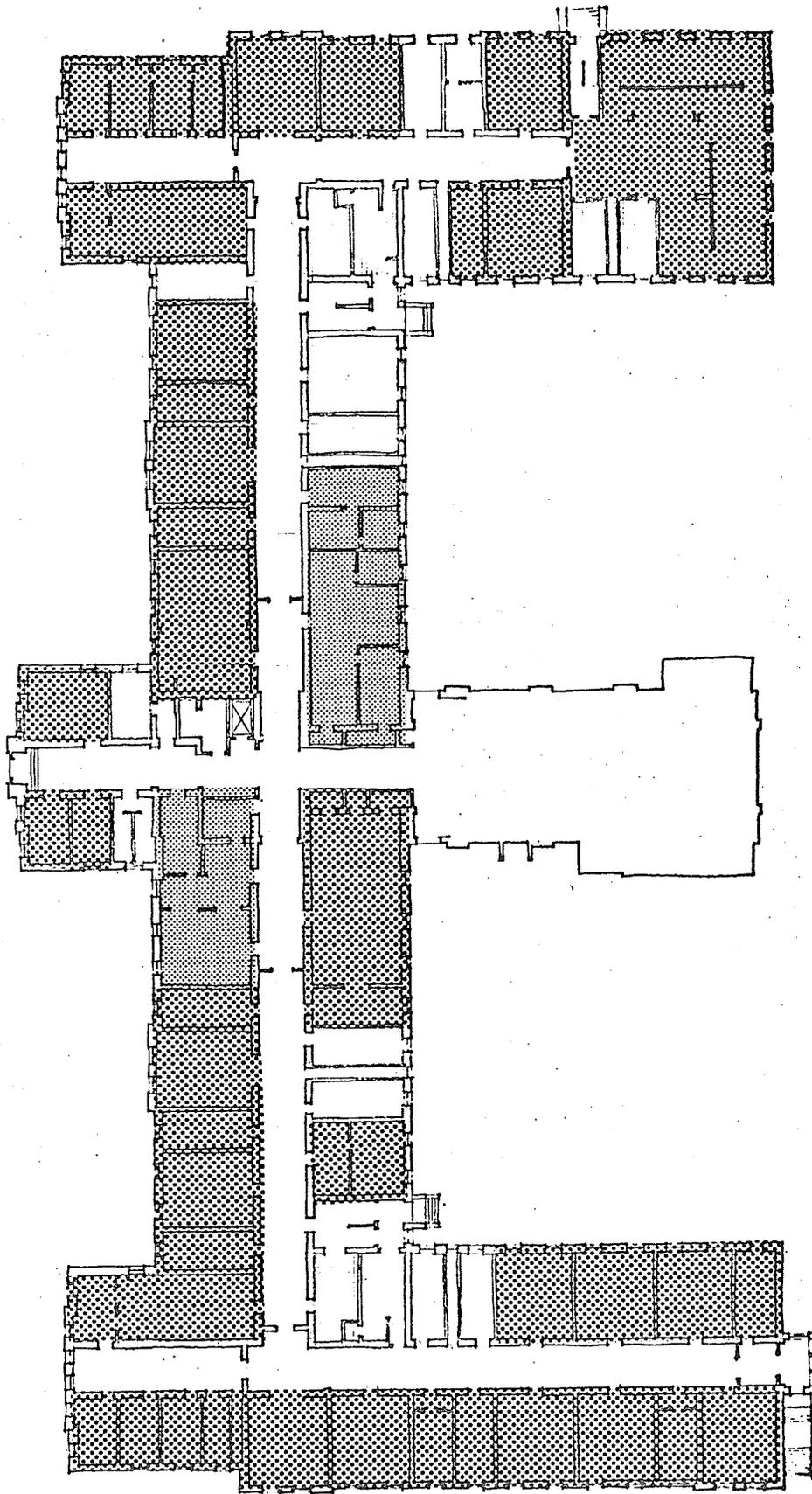


FIGURE 6-6

BASEMENT FLOOR

PARKLAND

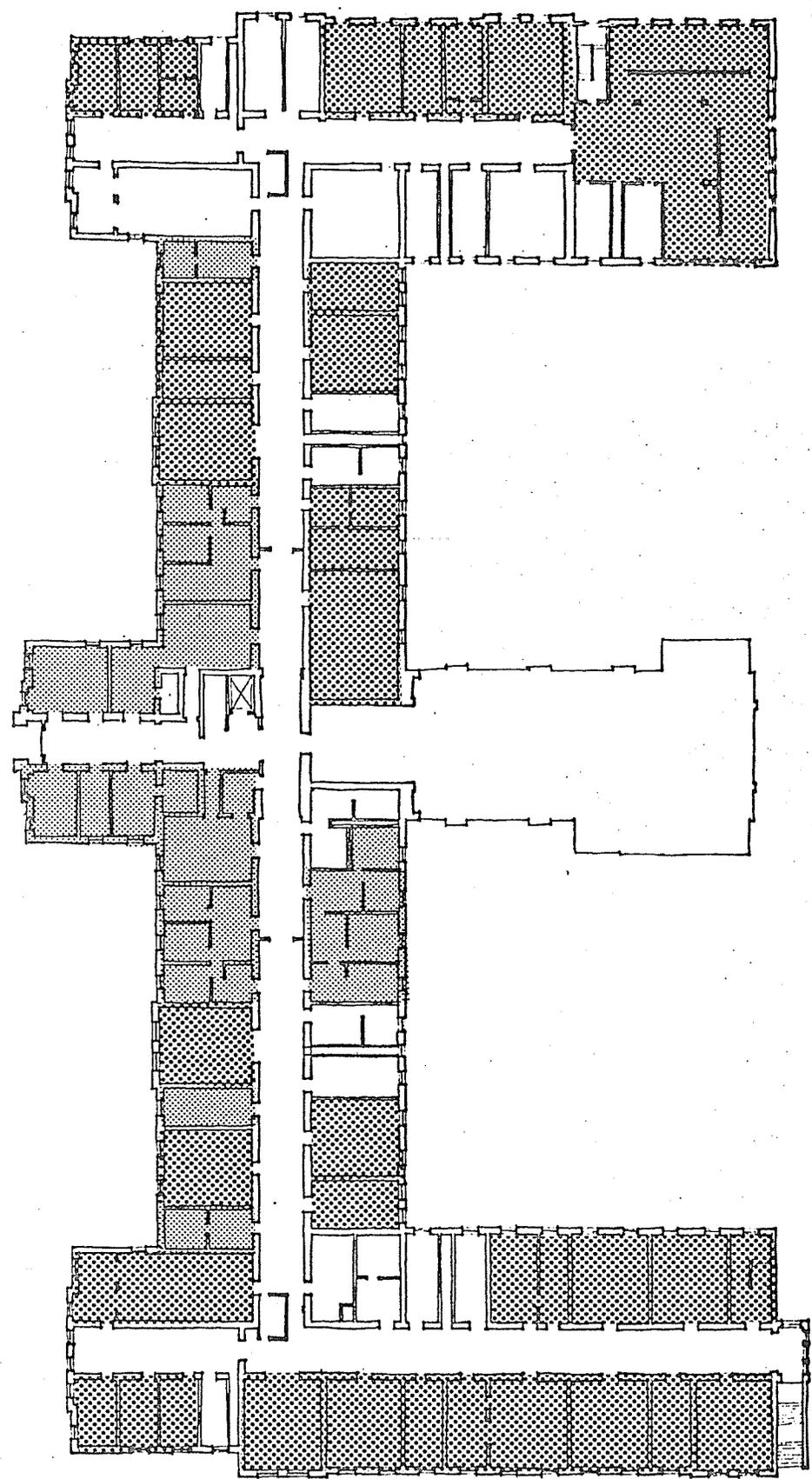


FIGURE 6-7

GROUND FLOOR

PARKLAND

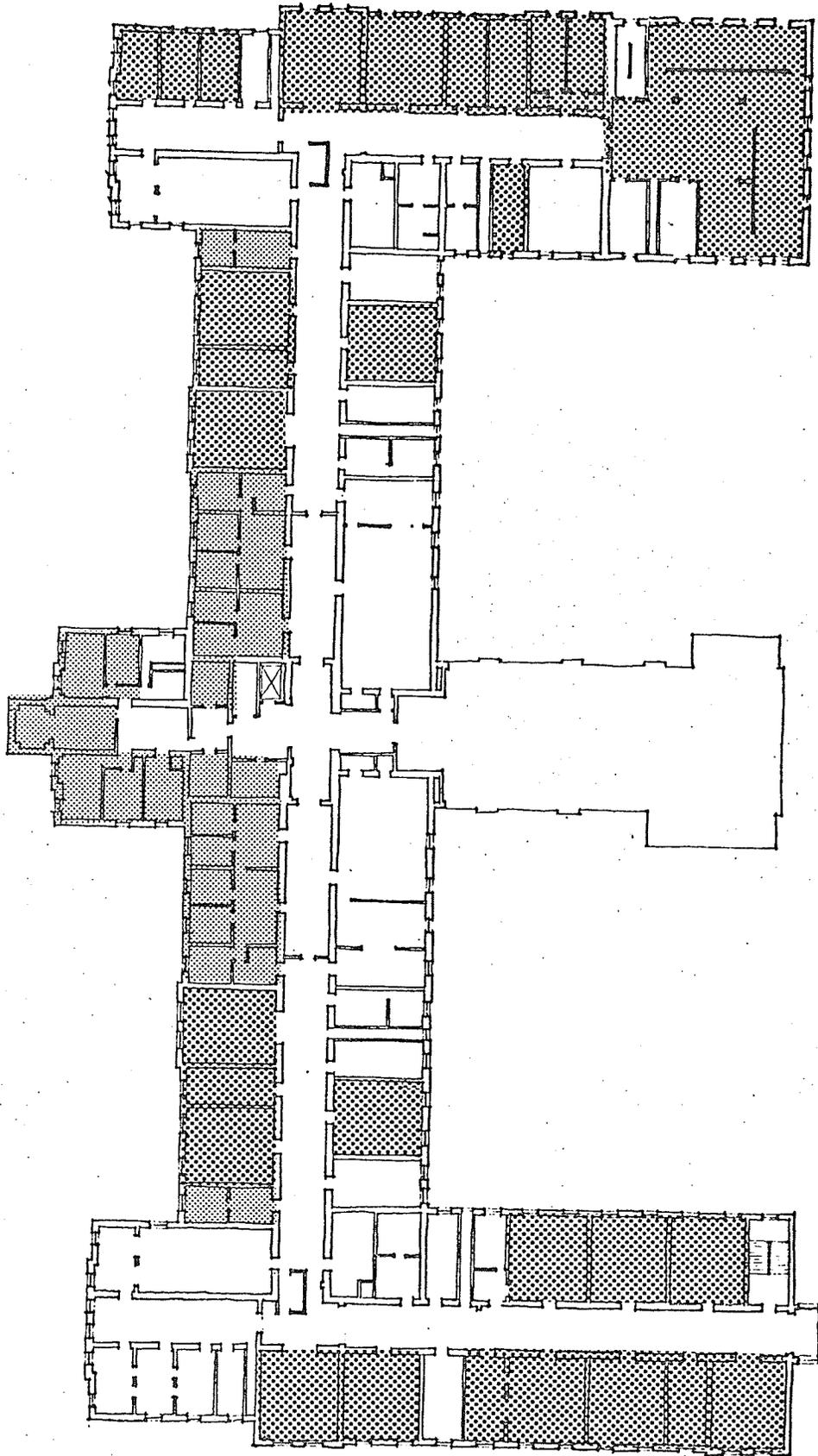


FIGURE 6-8

SECOND FLOOR

PARKLAND

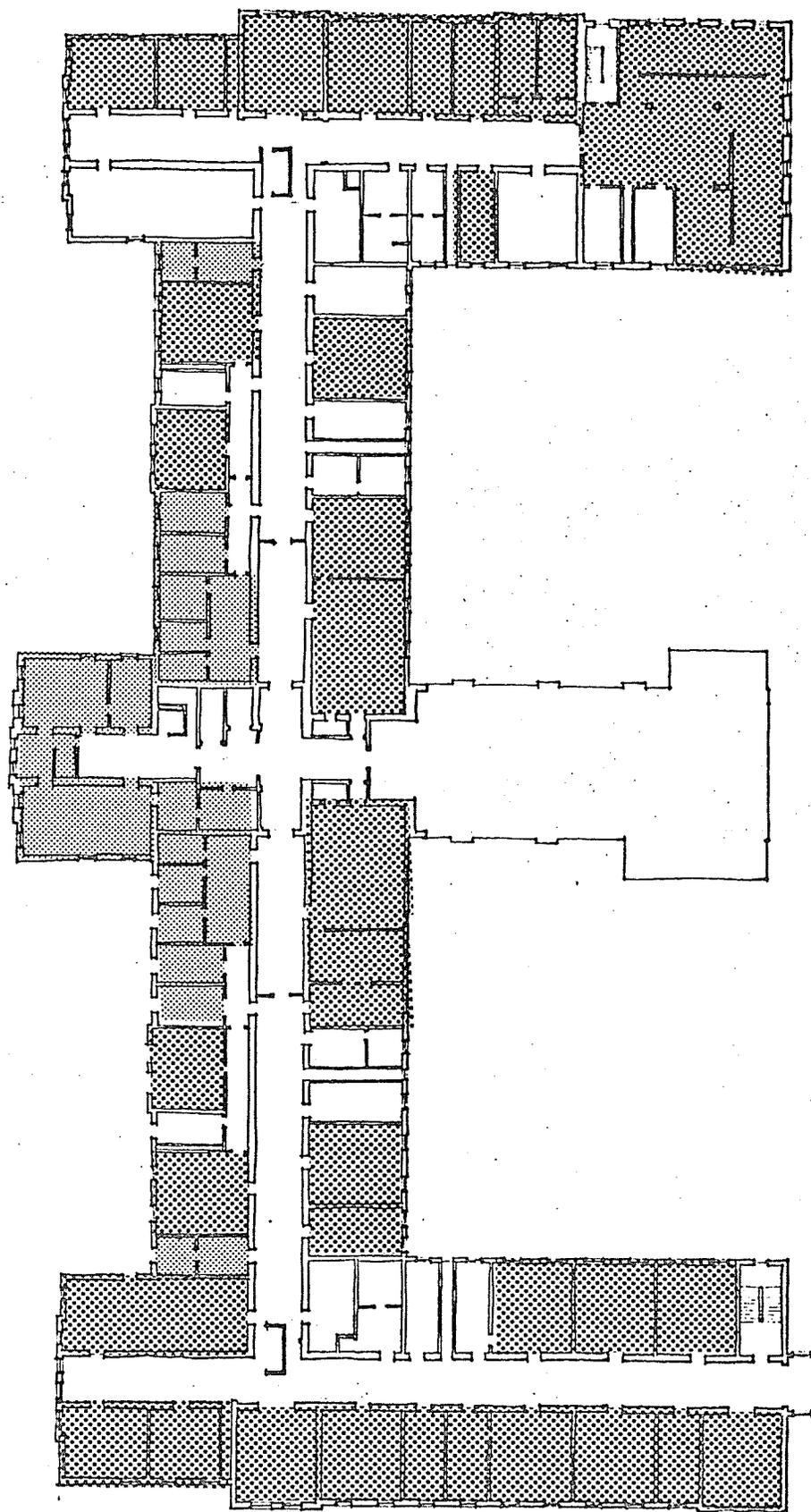


FIGURE 6-9

THIRD FLOOR

The table below indicates a general area breakdown in the Pineridge Building (see Figure 6-1, Page 144) for its site location relative to patient, personnel, and service categories.

TABLE 6-5 PINERIDGE

<u>CATEGORY</u>	<u>FUNCTION</u>	<u>AREA</u>	<u>% OF TOTAL</u>
PATIENTS	Wards	18,609	44.6
	Therapy	5,570	13.2
PERSONNEL	Staff	595	1.4
	Administration	540	1.3
SERVICES	Circulation	7,802	18.7
	Service Facilities	3,590	8.5
	Dining	2,000	4.8
	Kitchen	1,400	3.4
	Kitchen Services	1,264	3.0
OTHERS		<u>440</u>	<u>1.1</u>
	TOTAL	41,708 sq. ft.	100%

PINE RIDGE

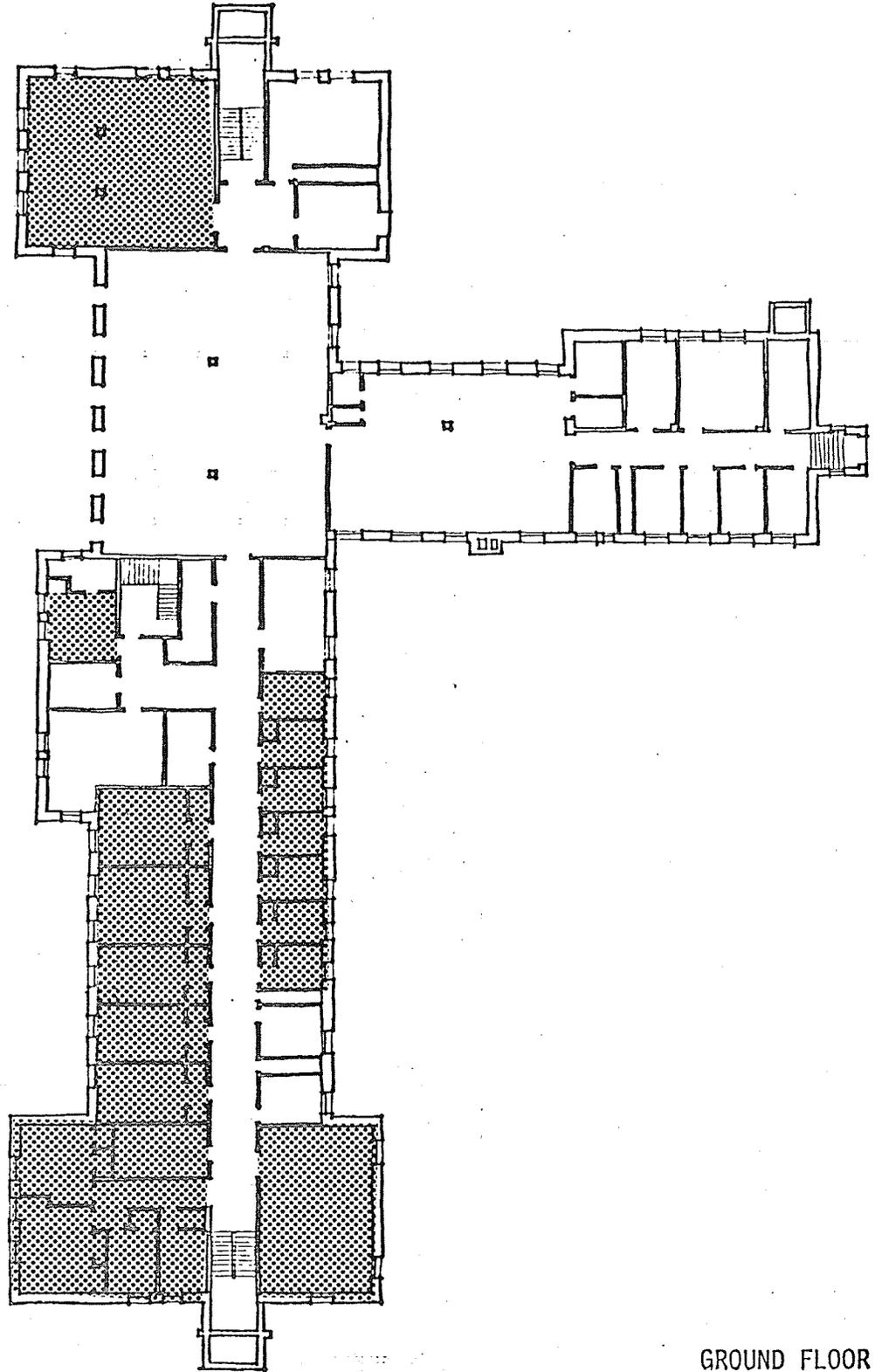


FIGURE 6-10

GROUND FLOOR

PINE RIDGE

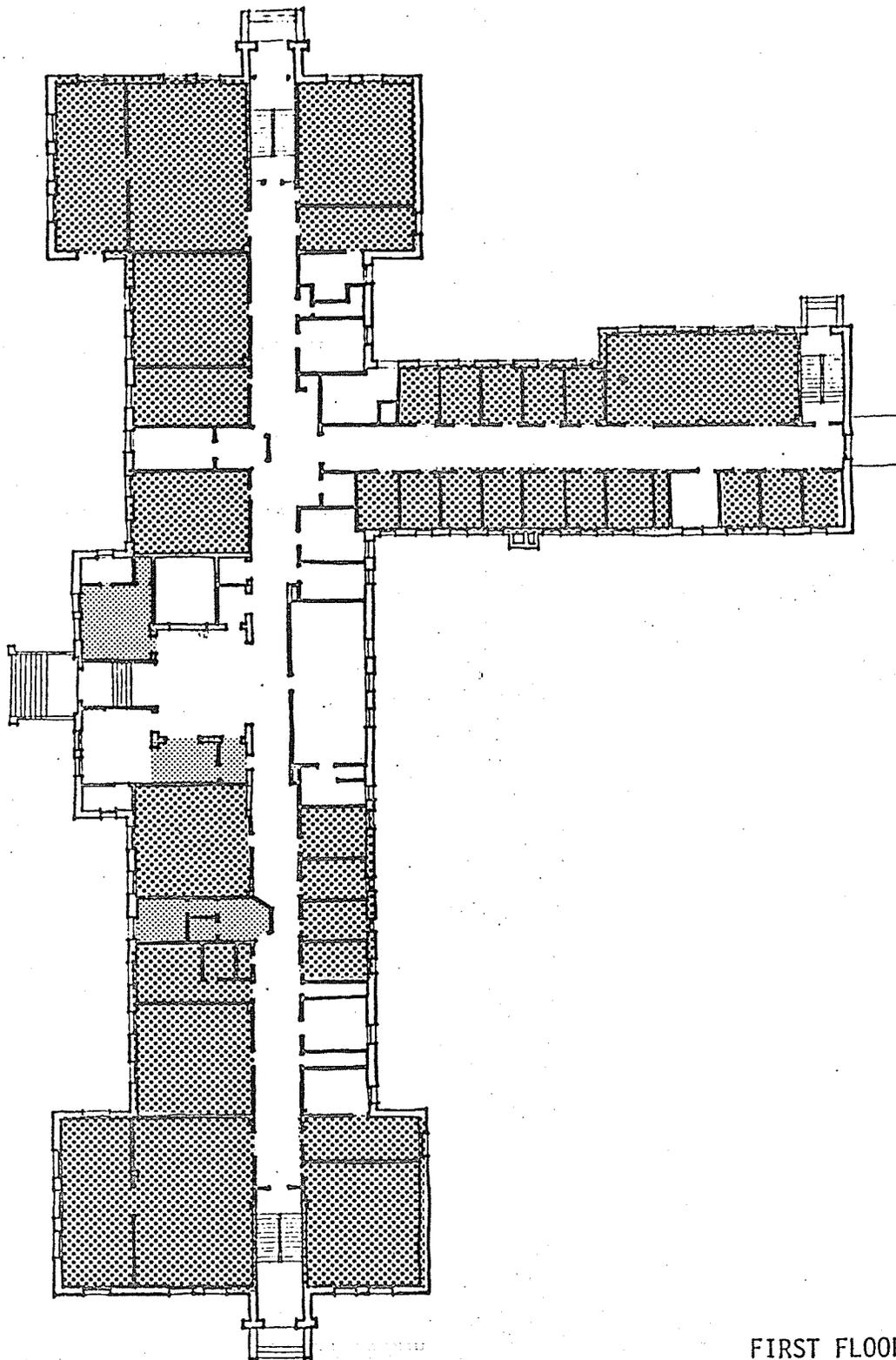


FIGURE 6-11

FIRST FLOOR

PINE RIDGE

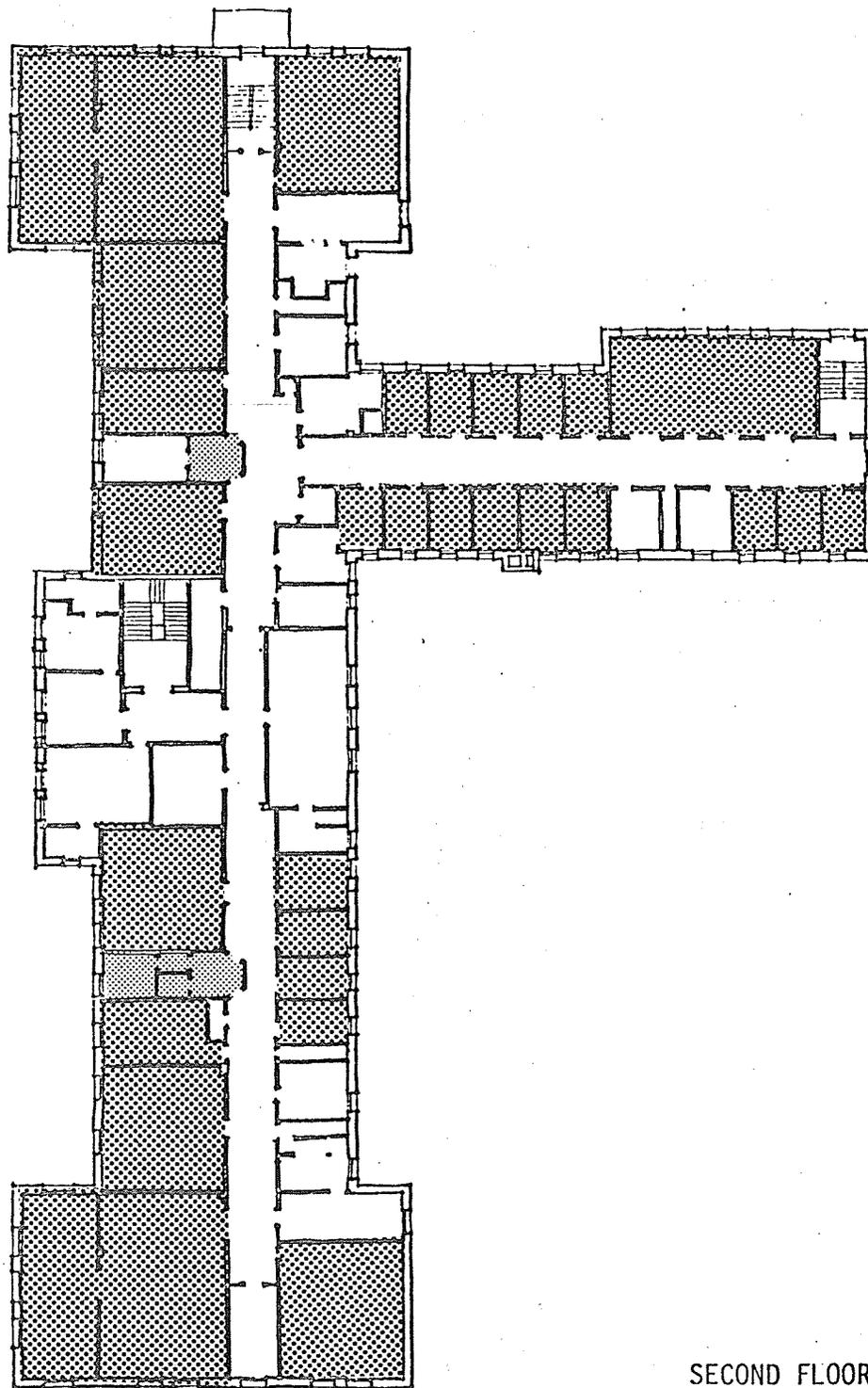


FIGURE 6-12

SECOND FLOOR

The table below indicates a general area breakdown in the Valleyview Building (see Figure 6-1, Page 144) for its site location relative to patient, personnel and service categories. Note that all the major medical facilities are located in this building. Therefore, it can be thought of as the medical centre of the complex.

TABLE 6-6 VALLEYVIEW (MEDICAL)

<u>CATEGORY</u>	<u>FUNCTION</u>	<u>AREA</u>	<u>% OF TOTAL</u>
PATIENTS	Wards	13,142	10.7
	Therapy	5,476	7.8
PERSONNEL	Staff (medical)	12,248	17.5
	Administration	360	0.5
SERVICES	Circulation	14,960	21.3
	Service Facilities	6,690	9.5
	Dining	1,120	1.6
	Kitchen/Services	1,575	2.2
	Pharmacy/Sick Bay	5,440	7.8
OTHERS	Balcony	<u>4,440</u>	<u>6.3</u>
	TOTAL	70,189 sq. ft.	100%

VALLEYVIEW

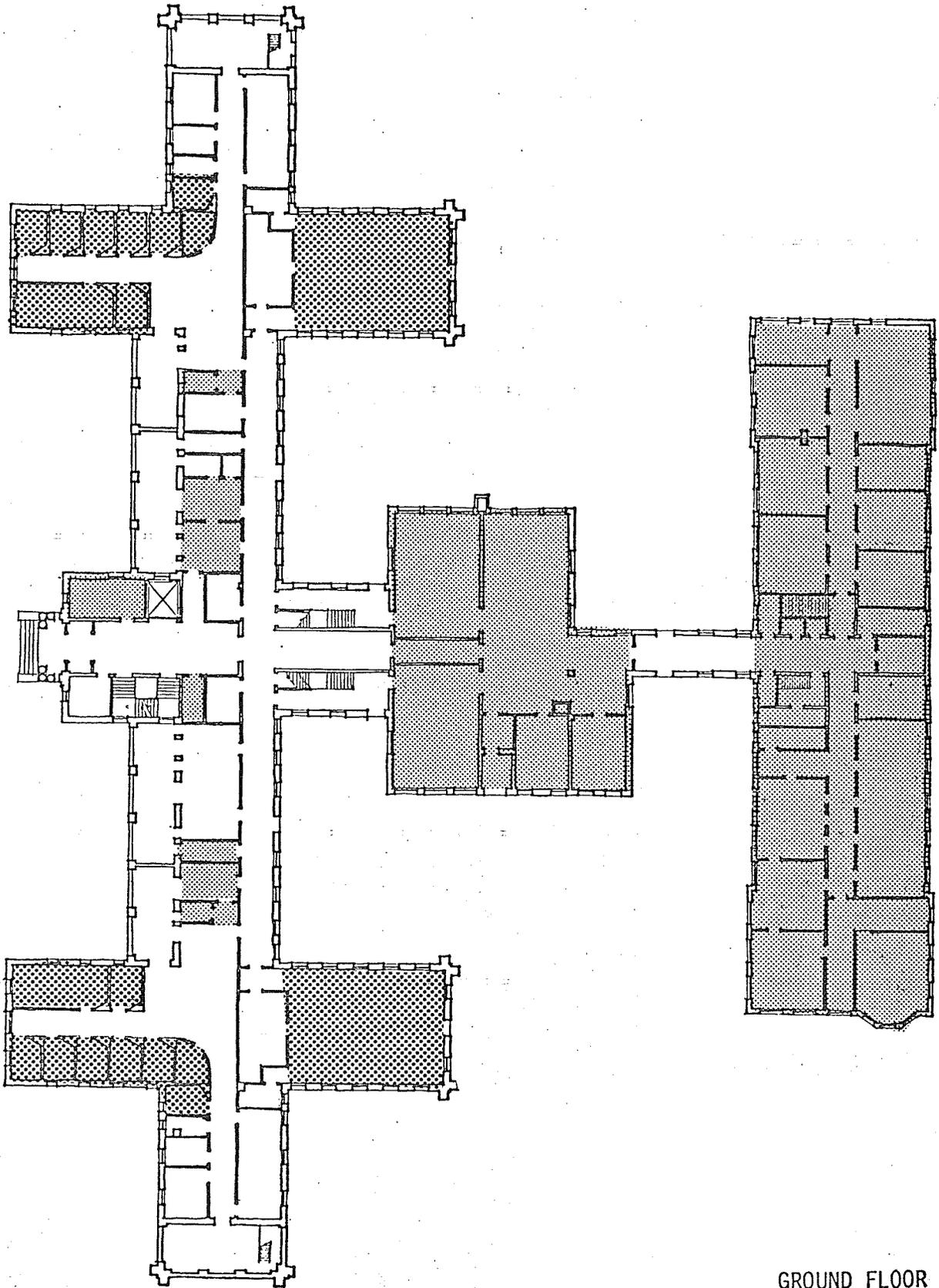
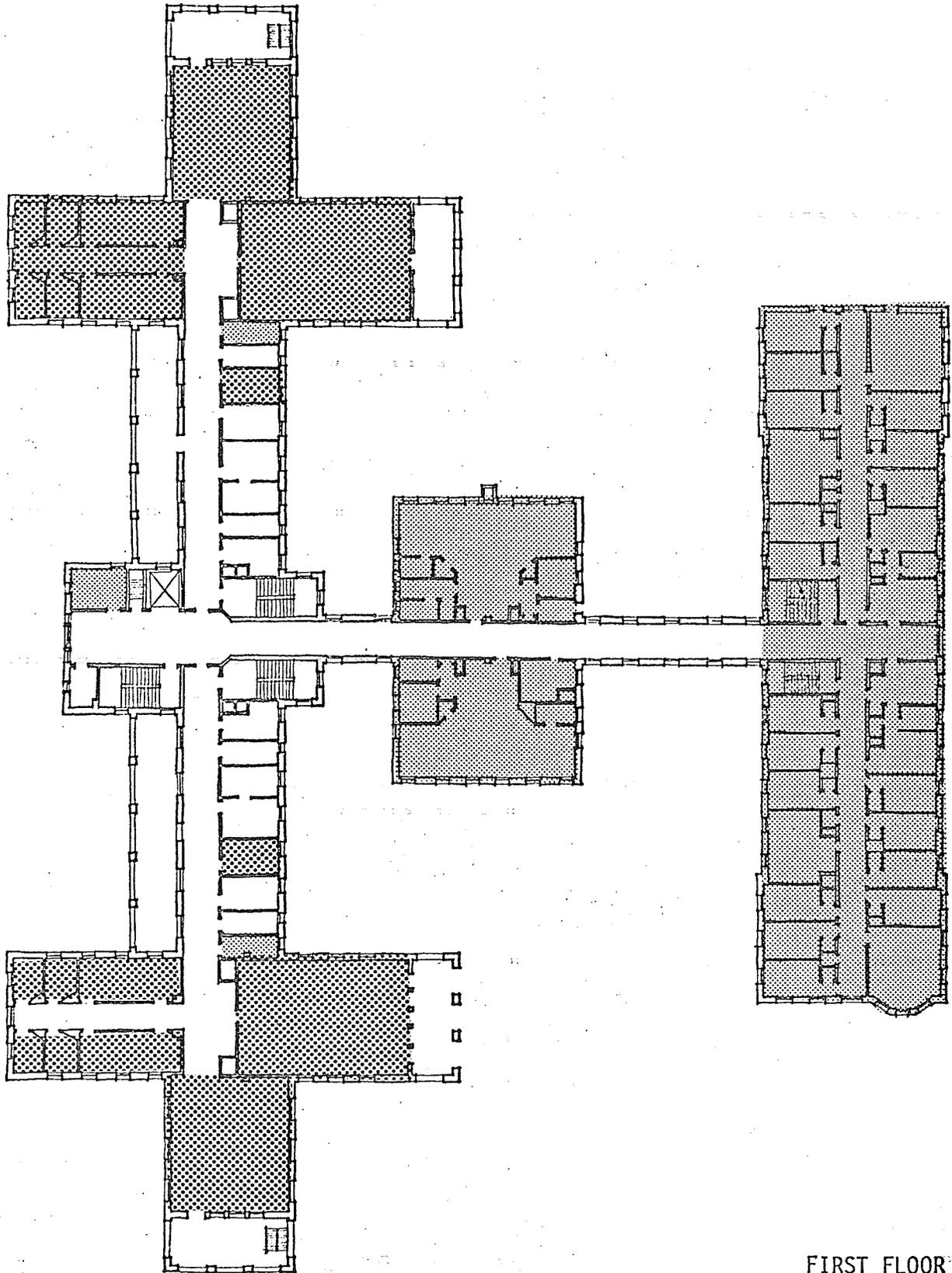


FIGURE 6-13

GROUND FLOOR

VALLEYVIEW



FIRST FLOOR

FIGURE 6-14

VALLEYVIEW

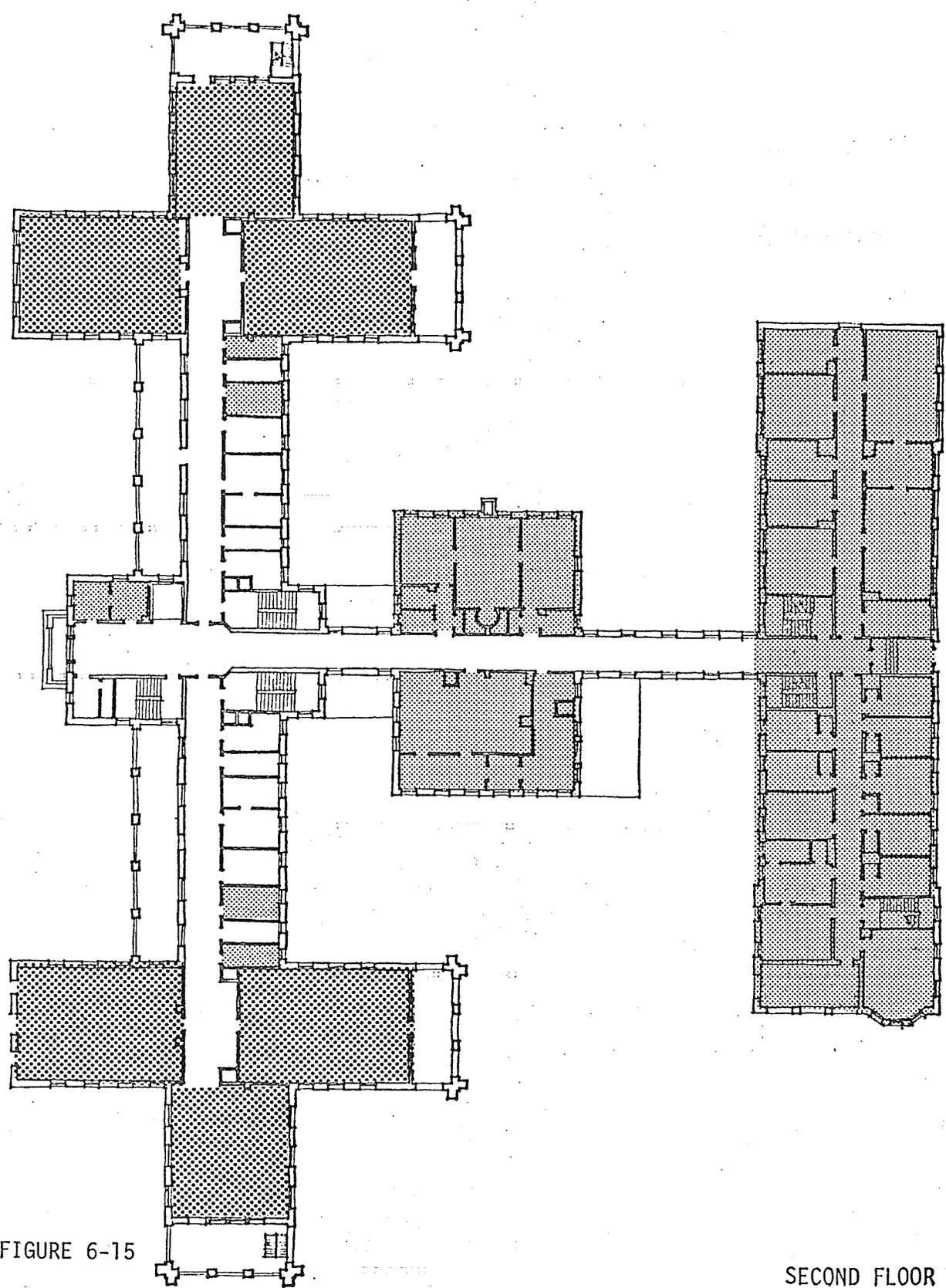


FIGURE 6-15

SECOND FLOOR

The table below represents a general summary of the three preceding tables (Table 6-4, Page 158; Table 6-5, Page 163 Table 6-6, Page 167) relative to patient, personnel and service categories analysis gives a general idea of the scale of the existing organism in a manner that hopefully can be used in projecting an idea of what is involved in the proposed decentralization process. These are the raw products of decentralization.

TABLE 6-7 SUMMARY

<u>CATEGORY</u>	<u>FUNCTION</u>	<u>AREA</u>	<u>% OF TOTAL</u>
PATIENTS	Wards	76,041	31.6
	Therapy	18,936	7.9
PERSONNEL	Staff	10,065	4.2
	Administration	17,500	7.3
SERVICES	Circulation	54,542	22.6
	Service Facilities	23,540	9.8
	Dining	3,120	1.3
	Kitchen/Services	4,239	1.7
	Pharmacy/Sick Bay	10,228	4.5
OTHERS	Balcony	4,440	1.8
	Others	<u>5,790</u>	<u>2.4</u>
	TOTAL	240,689 sq. ft.	100%

1. EXISTING ORGANISM:

(vi) DEPLETION OF EXISTING ORGANISM.

As decentralization progresses, existing mental health facilities will be depleted. If an even eight steps or depletions are used, decentralization will have the effect of moving out, in series of 84 patients, from the buildings on the Brandon Mental Health complex. Along with the patient movement, personnel and services will also be depleted.

Although major actions towards decentralization occur at each step, two or three steps might occur without any change to the existing organism, other than closing down one or two wards.

Two of the three main patient buildings on the site have specific characteristics. The Parkland building, housing 436 patients, is also the administrative center of the complex. The Valleyview building, located on the south-east corner of the complex, is the medical and food distribution center of the complex. It is the only building of the three that can operate without the aid of the other two, primarily because of its dietary distribution function.

Support services such as laundry, heat, goods stores, and repair are located in four buildings in the center of the site to the north of the Parkland building. Each of the patient housing buildings is dependent on these four buildings for support. As far as support is concerned, it makes no difference in which order the patient buildings are depleted.

The first step in depleting the existing organism could involve the closing down of the Pineridge building. It presently houses 135 patients, so two steps towards decentralization would have to take place before it closed down. The Pineridge building has a woodwork shop in the basement which could be relocated in the trades building when the Pineridge building

is operationally shut down.

The second major stage in depletion could involve the Parkland building which now houses 436 patients. This means that five steps would have to occur in decentralization to completely shut down this building. While this building is being depleted, administrative functions could move to the Valleyview building and take up the space presently being occupied by about 15 patients. Balconies can be enclosed to house administrative functions that cannot be absorbed by the space vacated by the fifteen patients leaving.

This is, of course, just a general idea of how the existing organism could deplete, and there are many problems to be faced that have not been mentioned. There is a major problem of what to do with the buildings once they have been closed down. It is not the intention of this thesis to examine this problem other than to mention that it exists. As was mentioned in the introduction, there is also the problem of recruiting and redistributing personnel and services into the regions. Again, these are problems that this thesis will assume can be solved. The emphasis of this study will be on the proposed organism rather than on the existing one, although it is an integral part of the decentralization problem.

2. PROPOSED ORGANISM:

To reiterate the beginning of this chapter, the problem now is to transform abstract statements into concrete terms. Because of the state of planning problems, especially this one, little or no quantitative information is readily available. For this reason, it is necessary to use the existing organization, or organism, as a means of projecting.

Interpolation has its disadvantages with specifics, but as far as providing a general view of things, it is probably as valid as a good educated guess.

Qualitative statements about decentralization have been made in early chapters. Now it is time to quantify them in some limited sense. Limited or expansive enough with which some actions can be instigated from can be introduced.

The proposed organism described in this chapter will be one cell, or complete unit of delivery within the system and we will examine that part of the system from which services at the Brandon Mental Hospital are presently being delivered. To put the cell into further perspective, it can be thought of as one unit within a system composed of eight distinct units.

2. PROPOSED ORGANISM:

(i) SITE.

The proposed site is located in the Parkland region, which has a service population of 55,000 people. Presently, 16.4% of the patients in the Brandon Mental Hospital come from this area. (See Figure 6-16 below.)

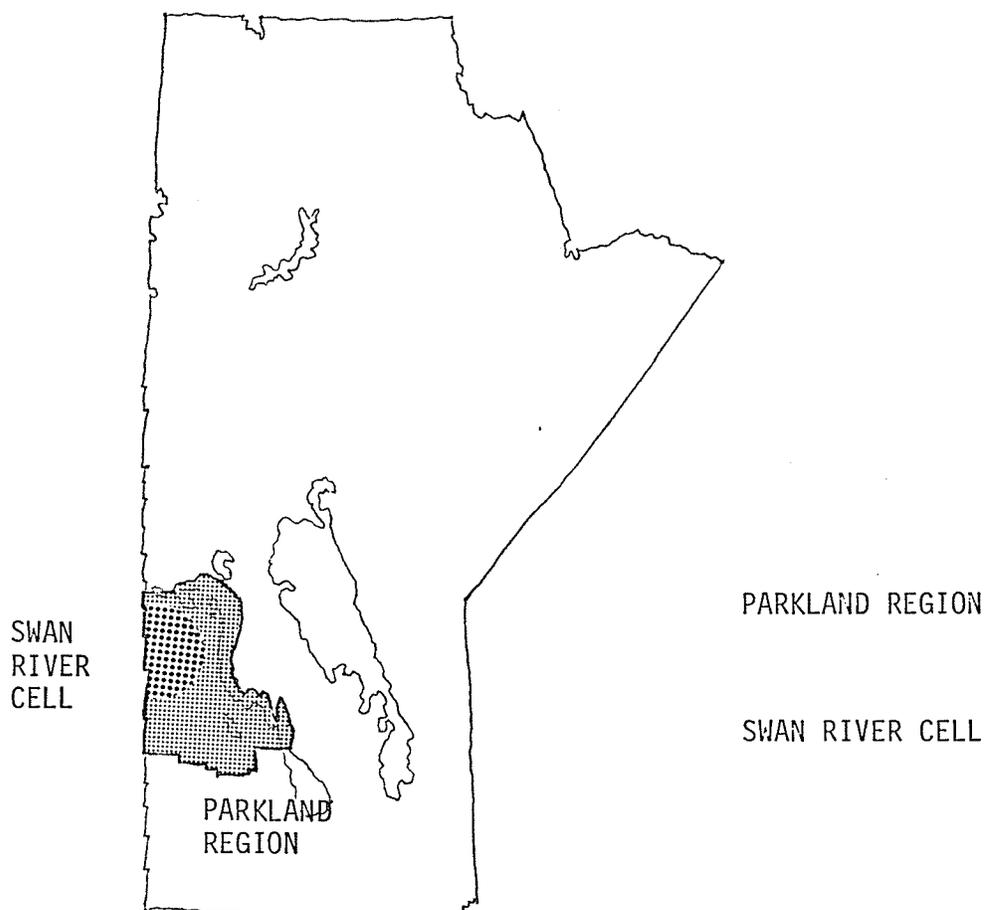


FIGURE 6-16

The site is located at the approximate geographic center of the province as well as the center of the Brandon delivery area. This makes it the logical first step in decentralization (see Figure 5-36, Page 114). The approximate geographic center of the unit area under study is Swan River, with a population of about 3,500 people. Major health facilities within this general area are located at Swan River, which has a 68 bed hospital, at Benito, which has a 10 bed hospital, and at Birch River which has a 10 bed hospital (see Figure 6-23, Page 198). Swan River would be the main location for the screening and assessment aspect of the cell, as well as the probable location for level 6, inpatient facilities.

The immediately adjacent cell would have as its center Dauphin, which has a population of about 8,900 (see Figure 6-19, Page 190). Dauphin presently has a 104 bed acute hospital with an additional 35 extended care beds. In the overlap area between the two cells is a 32 bed hospital at Roblin (see Figure 6-23, Page 198.)

2. PROPOSED ORGANISM:

(ii) PATIENTS.

The patients from the Brandon Mental Hospital that are presently being served from the selected region represent 16.4% of the total patient population or 110 patients.

The following calculations show the difference between actual and projected patient populations. Possible overlap numbers are defined as the difference between actual and projected figures.

a. inpatients (level 6)

$$\begin{array}{l} \text{unit population based on \% of patients} \\ \text{Actual} \end{array} \quad \frac{10}{100} \times 671 = 67$$

$$\begin{array}{l} \text{unit population based on number of defined} \\ \text{units} \\ \text{Projected} \end{array} \quad \frac{1}{8} \times 671 = 84$$

b. outpatients (levels 1-5)

$$\begin{array}{l} \text{patient population based on \% of patients} \\ \text{Actual} \end{array} \quad \frac{10}{100} \times 709 = 71$$

$$\begin{array}{l} \text{patient population based on number of} \\ \text{defined units} \\ \text{Projected} \end{array} \quad \frac{1}{8} \times 709 = 88$$

$$\begin{array}{l} \text{number of patients in possible overlap} \\ \text{facilities} \end{array} \quad 88 - 71 = 17$$

The above calculations indicate discrepancies between the number of patients actually coming from this area and the number of patients projected for this area. Further investigation would probably yield that the difference could be made up in the unproportional patient population from the Brandon area, but for present purposes, the lower figures which are more appropriate at this time, will be used. The following table indicates the probable dis-

tribution of patients in the Swan River study area, based on the percent of patients presently from this area (67 inpatients, 71 outpatients).

The table below is the more accurate refinement of the calculations on the preceding page, and thus will provide the figures used for the study area.

TABLE 6-8

CLASSIFICATION	%	NUMBER
Level 1 Consulting Services	5.1	7
Level 2 Crisis Intervention	0.3	4
Level 3 Formal Outpatient Therapy	4.4	6
Level 4 Day Care & Workshops	12.7	18
Level 5 Hostel or Community Residences	29.8	39
Level 6 Inpatient Care	47.7	64
TOTALS	100	138

2. PROPOSED ORGANISM:

(iii) PERSONNEL.

Projections of the staff needed to service the unit area are based on the existing staff load at Brandon Mental Hospital. Projections will be minimums for two reasons: first, existing staff to patient ratio is approximately 1:1, which is far below the norm (of 3:1); and secondly, decentralization implies that duplication will happen. Duplication is one of the facts of decentralization. The lack of personnel will be overcome to a certain extent by the fact that personnel in the proposed system will have to be much more versatile and mobile (see Chapter Five, Movement-Personnel, page 123.)

staff population based on % of patients being served	$\frac{10}{100} \times 650 = 65$
--	----------------------------------

staff population based on number of defined units	$\frac{1}{8} \times 650 = 80$
---	-------------------------------

number of staff used in possible overlap facilities	$80 - 65 = 15$
---	----------------

2. PROPOSED ORGANISM:

(iv) SERVICES.

Generally, a given unit area will provide a full range of services. Existing hospitals in a unit area can provide any required medical services. Laboratory services would be centrally located, or labs. from existing hospitals would be utilized. General services, such as laundry, would be supplied from within the unit area, either from the proposed mental health facilities or from local resources.

Generally, the more technical the support service required, the greater will be the probability of its coming from an existing and/or centrally located source. The following table gives an indication of the options on how services could be distributed relative to a facility within the system.

TABLE 6-9 DISTRIBUTION OF SERVICES (AVAILABLE OPTIONS)

SERVICE	WITHIN FACILITY	WITHIN UNIT AREA	CONNECT TO EXISTING FACILITY	SHARED BETWEEN UNIT AREAS	CENTRALLY LOCATED
Electric Shock			*		*
Administrative	*	*			*
Laboratory		*	*	*	*
Food	*		*		
Janitorial	*		*		
Laundry	*		*		
Educational	*	*	*		
Therapy	*	*	*	*	
Medical		*	*		*
Social Services	*	*	*		

2. PROPOSED ORGANISM:

(v) PHYSICAL PLANT.

There are two methods by which rough area calculations can be projected for the new facility if existing square footages are to be measured.

This is done because there is no other readily available source of projecting areas. One method is to multiply the existing area by the per-

centage of inpatients being served in the study area. Another method is to multiply the existing area by the fraction of the total of the new delivery system. Assuming eight steps, and the study area is one of eight, then the fraction multiplier is 1/8.

A. SIZE:

The projected area of the proposed facility is also based on the existing situation. It might also be noted that projections are rough guesses and not an attempt at precise area calculations, but that they are necessary to indicate the general scale involved.

1. inpatients 67 (see page 178)

area based on % of patients being served $\frac{10}{100} \times 240,000 = 24,000$ s.f.

area based on number of defined units $\frac{1}{8} \times 240,000 = 30,000$ s.f.

A similar rationale can be used to calculate areas required to serve the outpatient population of the study area.

2. outpatients 71 (see page 178)

area based on number of patients by % $71 \times 400 = 28,400$ s.f.

area based on number of patients by units $88 \times 400 = 35,200$ s.f.

Some interesting ratios can be made from the preceding data:

1. Population to area of facility ratio:

population served : sq. ft. of facility

40,000 : 60,000

1 : 1.5

2. patients : sq. ft. of facility

138 : 60,000

1 : 400

3. Staff to Patient ratio:

staff : patient

650 : 671

1 : 1

4. Patient to Population ratio:

patient : population

1 : 25

B. NATURE OF FACILITY:

Each delivery unit will embrace all 6 levels of support. Within each facility, a range of levels would quite probably exist. There are four basic types of facilities: one, screening, assessment and consulting facilities; two, day care and workshops; three, community residences; and four, nursing care facilities. The following is a list of options within the four basic types.

1. Screening, Assessment and Consulting:
 - a. screening, assessment services
 - b. screening, assessment and consulting services
(the above two can or cannot be linked into other health care delivery systems).
 - c. a. and b. as well as services to other levels
(1, 2, 3)

2. Day Care and Workshops:
 - a. provide full range of services (listed below)
 - b. provide a single service (listed below)
services provided: self care skills
interpersonal skills
vocational skills

3. Community Residences:
 - a. alternative to larger institutions
 - b. as a transitional facility
 - c. as a permanent residence

4. Nursing Care:
 - a. into existing health care systems
 - b. provide new appropriate nursing care units
 - c. specialized wings of general hospitals.

C. GENERIC CHARACTERISTICS:

More specific qualitative and functional data is at present not available. The requirements for the delivery system, therefore, can only be stated in broad terms. With this in mind, the problem of planning for the proposed delivery system is at best vague. The four general type facilities can further be broken down into the following three generic types:

1. Nursing Care Facilities
2. Office and Therapy Facilities (could also include workshops)
3. Residential Type Facilities (could also include therapy and workshops).

The next step is to determine where these facilities are to be placed throughout the delivery area.

3. DETERMINING BOUNDARIES:

There are three basic criteria used to establish boundaries: one, by regions set out in the government's White Paper on Health Policy; two, by population within a region; and three, by a 50 mile service radius from sub-system centers.

3. DETERMINING BOUNDARIES:

(i) BY REGIONS:

The White Paper on Health Policy in Manitoba, published in 1973, divides the province into seven fundamentally autonomous regions. The entire area above the 53 parallel contains one region; the Norman Region, while the rest of the province below the 53 parallel contains the other six regions, the Parkland Region, the Interlake Region, the Eastman Region, the Westman Region, the Central Region, and the Winnipeg Region (Figure 6-17, Page 186.)

The concept behind this division is that the province should not act as a single delivery unit, with all health care services responsible to one person, much like the Brandon Mental Hospital Organization chart, (see Figure 6-5, Page 152). Rather than having this vertical type of organization, it should act as a more horizontal type organization, with each region having its own responsibilities. There would still be a regional director responsible for Mental Health Services, but the regions would act as independent entities responding to regional situations.

Linking the Mental Health Delivery system to this type of organization could make linkage to other health care delivery systems a relatively smooth operation, smooth in the sense that they will be operating under a similar type of organizational umbrella.

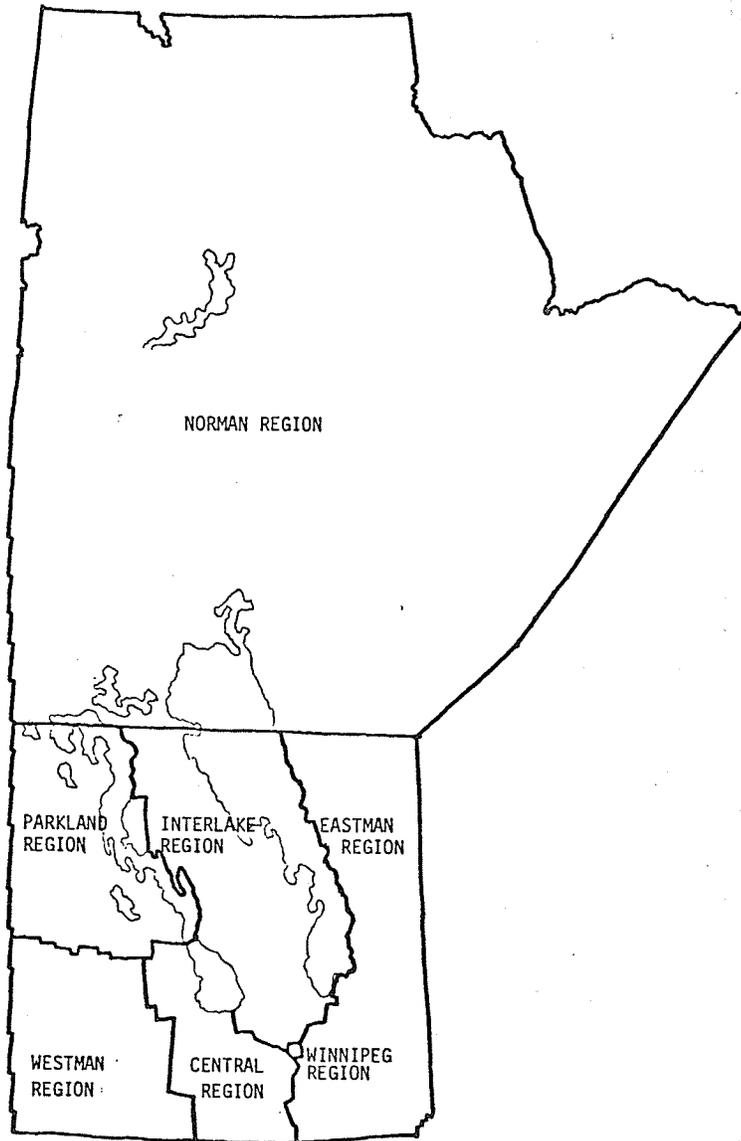


FIGURE 6-17 BOUNDARIES BY REGIONS OR SUB-SYSTEMS

3. DETERMINING BOUNDARIES:

(ii) BY POPULATION.

An important delineation of a sub-system is by a population catchment area of 40,000 people. Each of the seven regions can be broken down further into areas or cells containing a population of 40,000. The map on page 188 indicates such a delineation. This type of distribution seems to work quite well, except for the Parkland and Central regions which contain 1.3 and 2.25 units respectively. This means that either one of the boundaries could be changed to respect a complete unit organization, and thus avoid the operational problems that would occur by having a unit or sub-system in two separate regions (see Figure 5-19 Page 78, soft boundaries).

The boundary change that makes the most sense is the one that results in the least amount of disruption to the suggested White Paper organization. This would mean increasing the Parkland Regional boundary to include the extra 10,000 population now occurring within the Central Regional boundary.

Another important area of concern is the establishment of sub-system centers. Generally, these centers would include the most densely populated towns within any given sub-system. The centers would act as distributing points, containing the highest concentration of the more acute levels of care. Also, these centers are the places where there is the greatest possibility of connecting with existing health facilities. Population densities will have to be correlated with the actual home addresses of patients, with the result giving a good indication of how many facilities and which type of facilities would be located where. This computation will be made when a specific unit is developed.

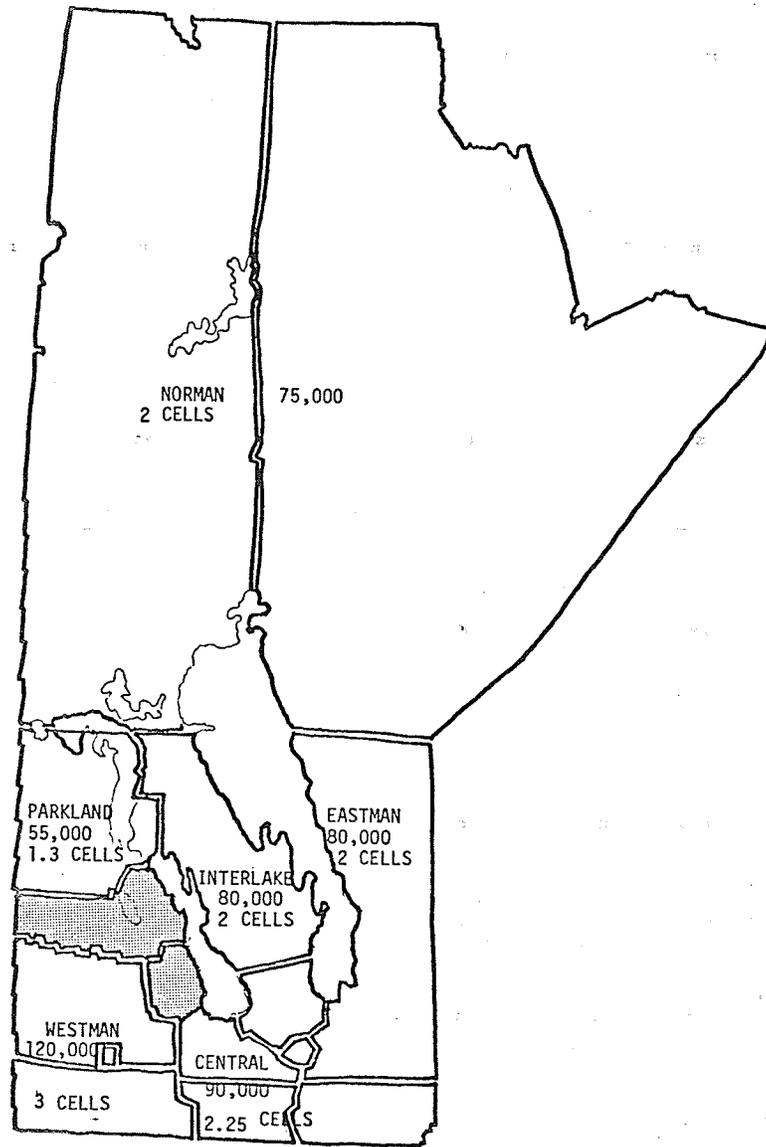


FIGURE 6-18 BOUNDARIES BY POPULATION DISTRIBUTION

Let us deal with the centers. The rationale for selecting centers is based on three factors: first, the possibility of linking with an existing health facility (this could mean allotting existing beds in a hospital for psychiatric patients, or building a psychiatric wing onto an existing hospital); second, the population density as a correlation between straight population statistics and home address statistics of patients in the present mental health delivery system; and third, the approximate geographic location of the center, for the ideal location for a center is in the center! (For location of sub-system centers, see Figure 6-19, Page 190.)

3. DETERMINING BOUNDARIES:

(iii) BY DISTANCE (50 MILE RADIUS).

Establishing boundaries by a 50 mile radius is a rough tool that indicates whether or not a given sub-system can facilitate a crisis situation, and whether or not itinerant personnel can move with relative ease within a sub-system. The 50 mile radius also gives an indication of where overlap functions could happen.⁶

An important aspect of delineation of the 50 mile radius boundary is that the sub-systems above the 53 parallel will have to be treated in a special fashion, because of the large areas outside the 50 mile radius (see Figure 6-20, Page 192). What could happen in these northern areas is that every location with a mental health facility in it would provide a full range of services. An alternative to that would be a heavy reliance on linking into existing health

(6) The 50 mile radius is based on the distance that can be travelled in an hour. This is an accepted crisis time.

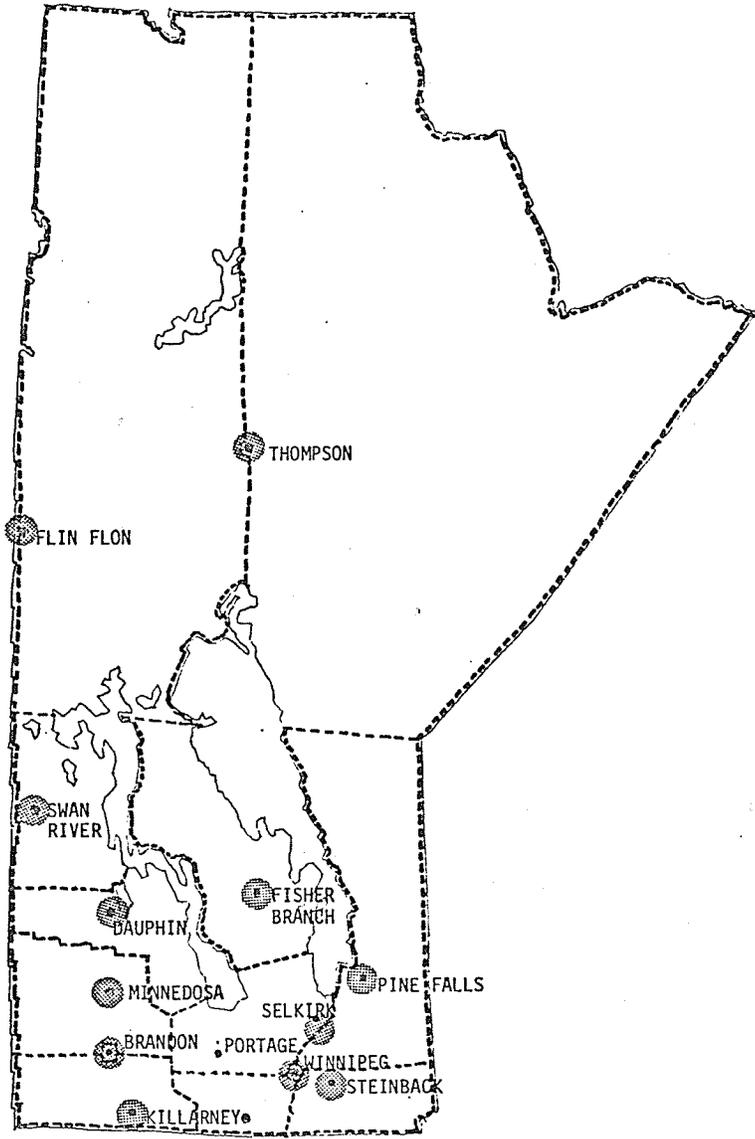


FIGURE 6-19 CELL CENTRES

delivery facilities. Whatever alternative is chosen, it will be quite different than the delivery system below the 53 parallel.

3. DETERMINING BOUNDARIES:

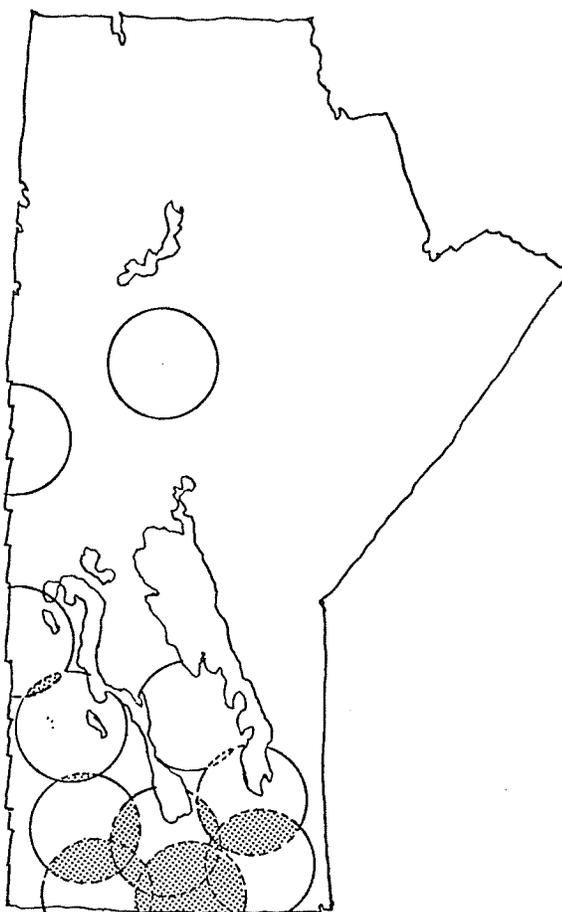
(iv) AREAS OF OVERLAP.

Areas of overlap would serve either of two broad functions: one, as locations for less acute facilities from two or more sub-systems; and two, as locations for a center for a super cell, which is highly improbable in the greater part of the province that is not densely enough populated to support a super cell.⁷

In the Parkland Region, the overlap boundary could contain less acute facilities on the periphery of cells whose centers would be Swan River and Dauphin. The facilities from this overlap area could functionally serve both cells, although they would be located in either one for operational purposes.

In the Westman Region, there are three cells, all occurring within the 50 mile boundary, with Brandon in the center and the major overlap area. Brandon could quite adequately handle the acute levels of these three cells and still be within the boundary definitions, thus having the entire region become a super cell.

⁷ A super cell is a cell with a population more than 80,000 contained within less than a 50 mile radius.



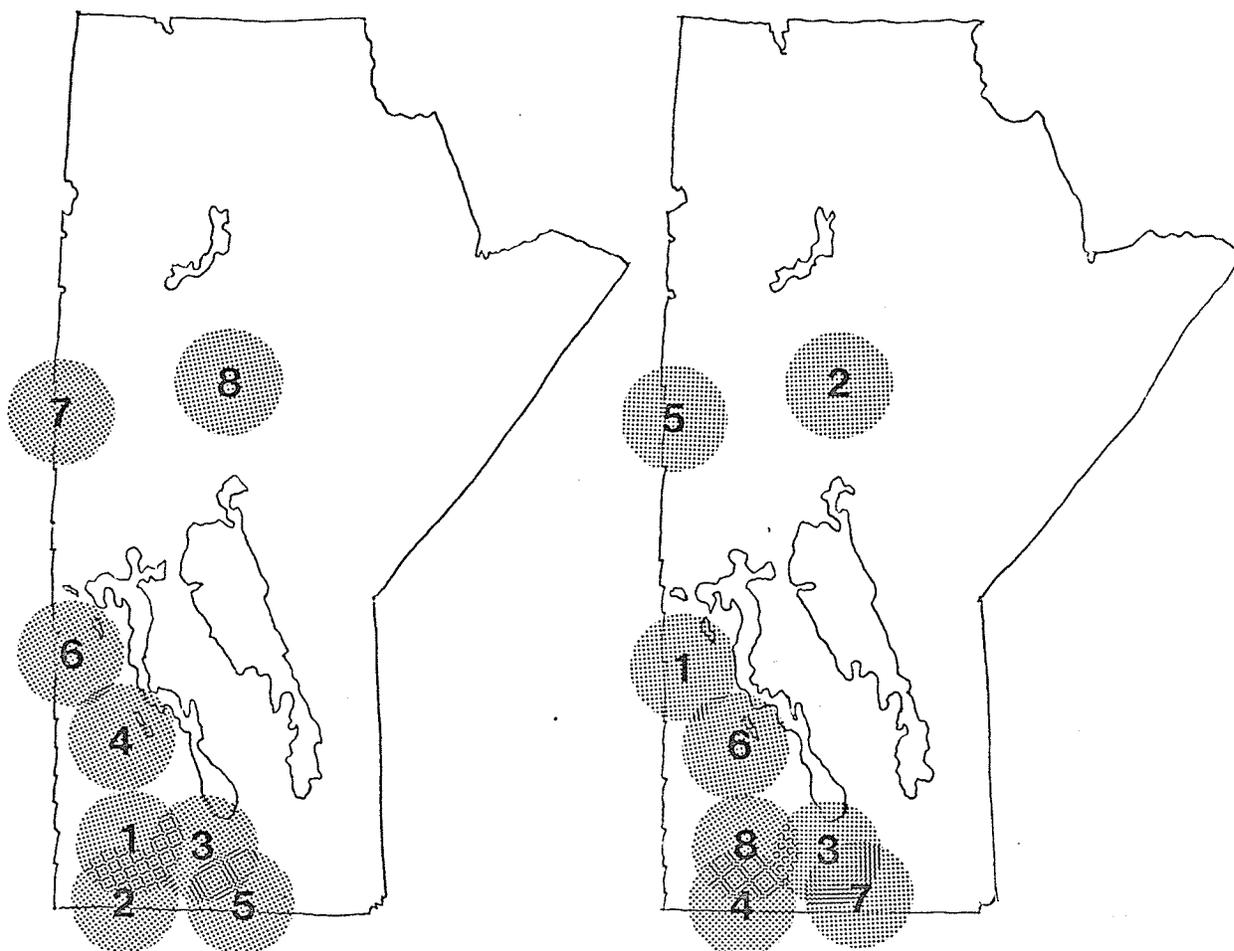
BOUNDARIES BY 50 MILE RADIUS FIGURE 6-20

The sketch above indicates possible areas (the shaded areas) where common facilities can occur. Hard boundaries, as shown above, do not actually occur and are used as guides only to show areas of overconcentration in terms of travel distance. Hard boundaries can indicate where itinerant staff can serve two or more sub-systems, (see Figure 5-19, Page 78, hard boundaries).

4. ORDERING:

Boundaries can be ordered from two points of view: one, as a growth from the existing organism; and two, as providing the maximum services to the maximum population in the minimum number of steps. The second point of view is the preferred one. It not only embodies the concept of decentralization, which is to provide a more equitable distribution of services, but it also establishes equity via a shorter route. (For distribution patterns, see Figure 6-21, on Page 194.) For further clarification on determining ordering sequences, see Figures 5-35 and 5-36, Pages 112 and 114.)

In the diagrams below 'a' indicates the sequence for the development of cells, if the least disruption of the existing situation was the criteria used for development. 'b' indicates the sequence for the development of cells when the criteria used is to provide a more equitable distribution of services.



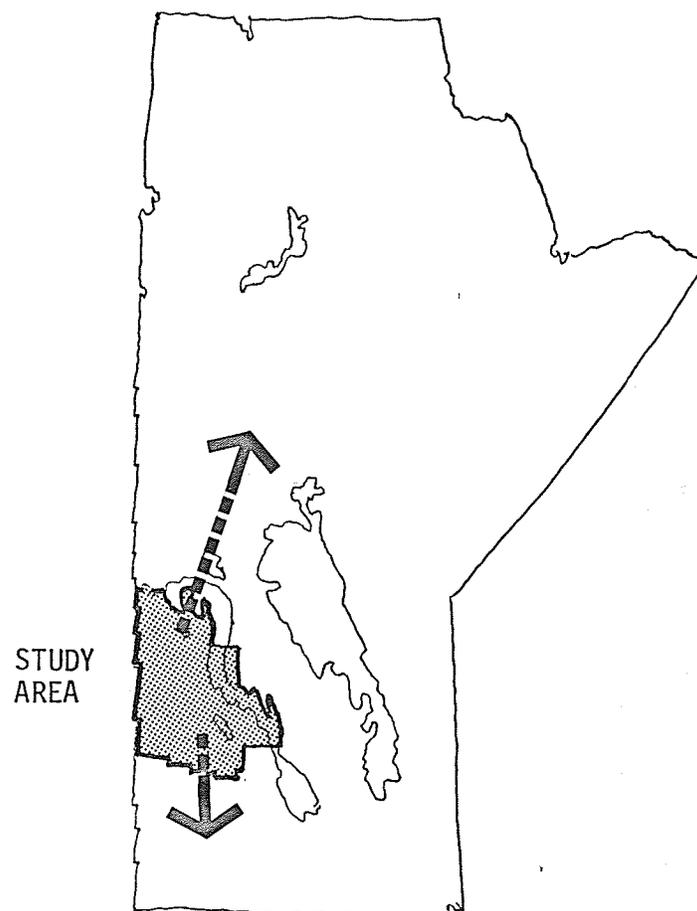
a. from existing organism
point of view

b. from provincial distribution
point of view

5. THE PARKLAND REGION:

The Parkland Region, because of its geographic location and the high population (16.4%) of patients that come from it, was chosen as the first step in which to examine decentralization. The northern half of the Parkland Region, with Swan River as a center, is the cell to be examined (see the shaded-in area on the map, Figure 6-22, Page 196.)

There are four main criteria in choosing the location of mental health facilities within the cell: one, the possibility of linking them up with existing health facilities; two, the fact that they should occur on main transportation routes; three, the fact that facilities occur in population centers; and four, the need to respect where the patients original home was before he entered the system. These are the various criteria, and the optimum locations are the ones that satisfy most of the criteria.



PARKLAND STUDY REGION FIGURE 6-22

The central location of the study area opens the possibility of it serving the area north of the 53⁰ and the area between the study area and the existing service delivery point, Brandon Mental Hospital. See Figure 5-36, Page 112, for selection rationale in terms of geographic location.

5. THE PARKLAND REGION:

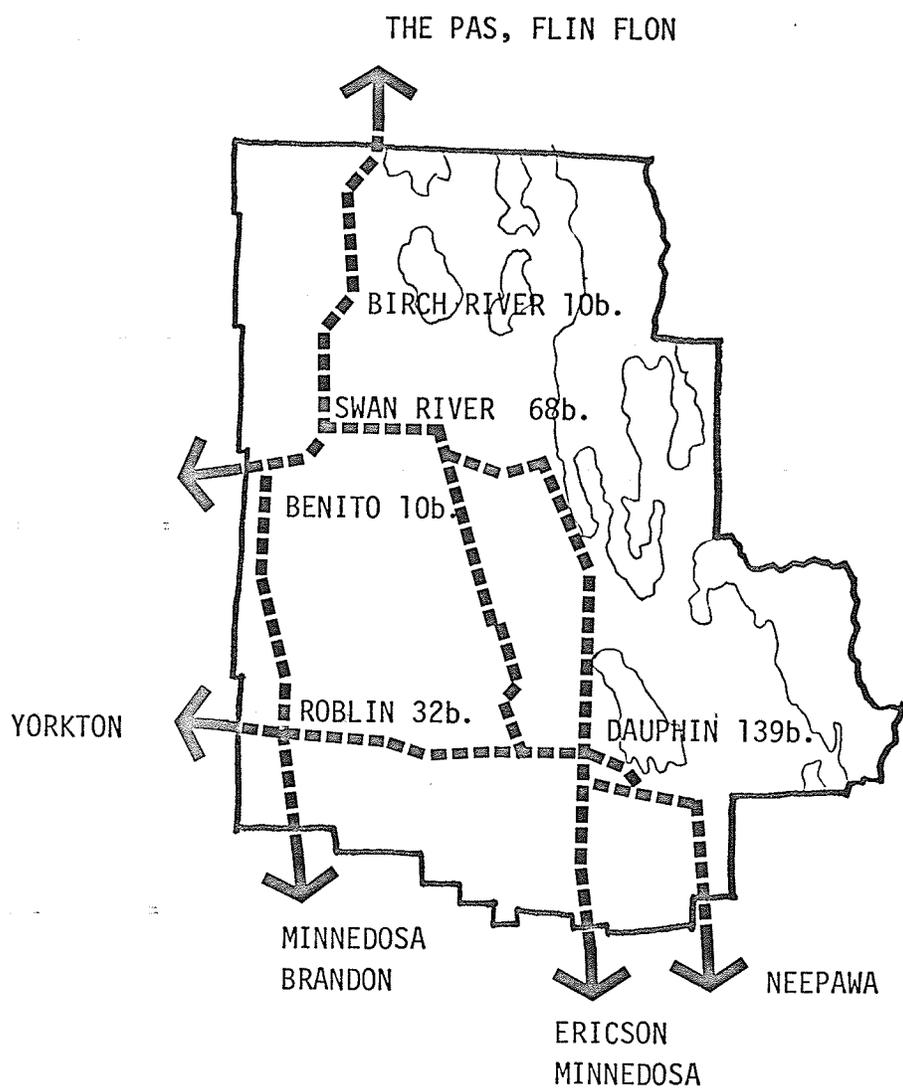
(i) EXISTING HEALTH FACILITIES.

There are four hospitals within the Swan River sub-system and one major one in the adjacent sub-system. The four hospitals within the Swan River sub-system are Birch River which has 10 beds, Benito which has 10 beds, Roblin which has 32 beds, and Swan River which has 68 beds (Figure 6-23, Page 198.) The major hospital in the adjacent cell is a 104 bed acute center, and there is a 35 bed, extended care center at Dauphin. Hospitals are places of possible linkage with the general health delivery system, as well as primary locations for level 6 patients.

Linking with these hospitals ie. linking 67 mental health inpatients with 120 general health patients, would mean increasing the present sizes of the hospitals by approximately 50%. An alternative to this would be to provide a new mental health nursing care unit to house mental patients who will not be absorbed by the existing health system. Using an absorption factor of 10% to 20% would mean that the existing health facilities could absorb only between 12 and 24 mental health inpatients.⁸ This leaves between 43 and 55 inpatients to be accommodated elsewhere. An option would be to establish one or two nursing care facilities at Swan River and or Roblin, seeing that these two towns represent a combined total of about 50% of the present mental health patient population in the Swan River cell.

⁸ This is an accepted figure that has been established in a utilization study and outlined in the "Hull Report".

The diagram below indicates existing health care facilities along major transportation routes.



EXISTING HEALTH FACILITIES & TRANSPORTATION ROUTES

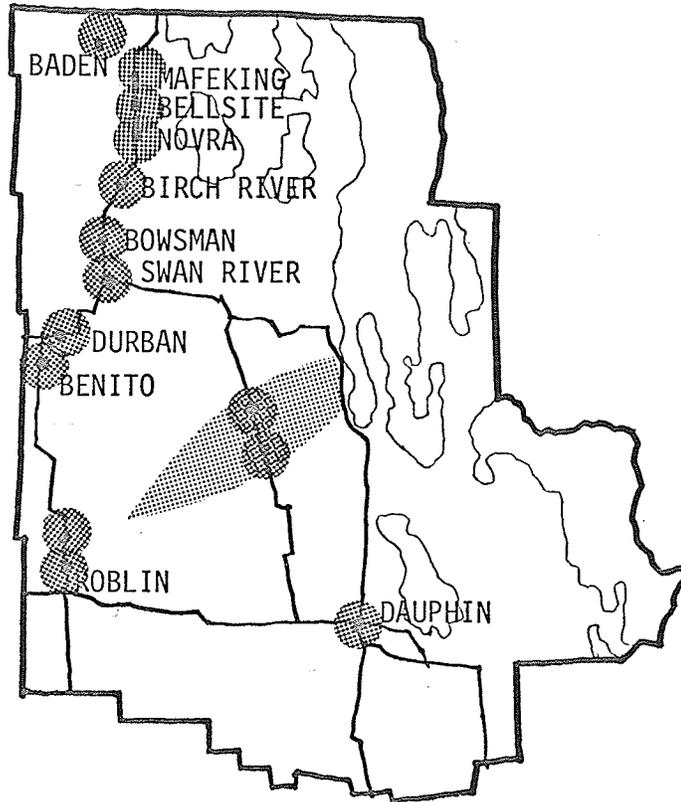
FIGURE 6-23

5. THE PARKLAND REGION:

(ii) TRANSPORTATION ROUTES AND POPULATION CENTERS.

All major communities within the region are located on main transportation routes, ie. paved highways, as are many of the minor population centers. For pragmatic purposes, accessibility to communities in the entire region is by paved transportation routes. (See Figure 6-23, Page 198, showing major transportation routes throughout the region.)

Main population centers within the sub-system are shown in Figure 6-24, Page 200 . Generally, there is a direct correlation between the size of community and the number of patients coming from that community.



<u>TOWN</u>	<u>POPULATION</u>	<u>TOWN</u>	<u>POPULATION</u>
BADEN.....	26	SWAN RIVER.....	3,522
MAFEKING.....	295	DURBAN.....	95
BELL SITE.....	75	BENITO.....	490
NOVRA.....	7	SAN CLARA.....	163
BIRCH RIVER.....	667	ROBLIN.....	1,617
BOWSMAN.....	443	DAUPHIN.....	8,655

POPULATION CENTERS FIGURE 6-24

5. THE PARKLAND REGION:

(iii) ORIGIN OF PATIENTS.

In keeping with the social system concept of treating mental illness, it is very important to treat the patient in his natural environment. Figure 6-3, Page 147 , indicates by percentage figures where the patients come from. It can be readily understood that a range of services should be available to all patients within the sub-system relatively close to their homes. Services are distributed throughout the sub-system with the intention of making them available at the point closest to the patient's home.

5. THE PARKLAND REGION:

(iv) THE SWAN RIVER CELL.

There are two general ways in which service can be distributed throughout the study area. The first is an idealistic distribution where care is taken to link mental health facilities with whatever general health facilities occur. This type of distribution is shown in Figure 6-25, Page 204, with its probable distribution pattern in terms of number of patients and types of facilities. As mentioned, it is an ideal solution at best, and is far from being practical or an optimum when staff servicing and other considerations are weighed.

A second and more appropriate alternative would be to provide a full range of services located in three areas within the region. A full range of services would then be provided from Swan River, Roblin, and Dauphin. Any further services in the region or study area would be provided by itinerant personnel using the facilities at Swan River, Roblin and Dauphin as a home base. Using this method of distribution (Figure 6-25, Page 204), all communities in the region are within one-hour travel

distance to a major health facility, or on the other hand, mental health personnel are no more than an hour away, which is the established criteria in crisis situations.

In the first alternative, service would be provided to about 90-95% patients in their home towns, as compared to about 31% in the present delivery system. In the second alternative, service would be provided to about 72% patients in their home towns and to another 28% within one hour from their home towns. In terms of patient numbers being directly served, the first alternative would serve 63 patients directly in their community and serve the remaining 6 indirectly. The second alternative would serve 50 patients directly in their community and 19 indirectly.

The second alternative although not ideal is more practical in terms of economics and the services and personnel available.

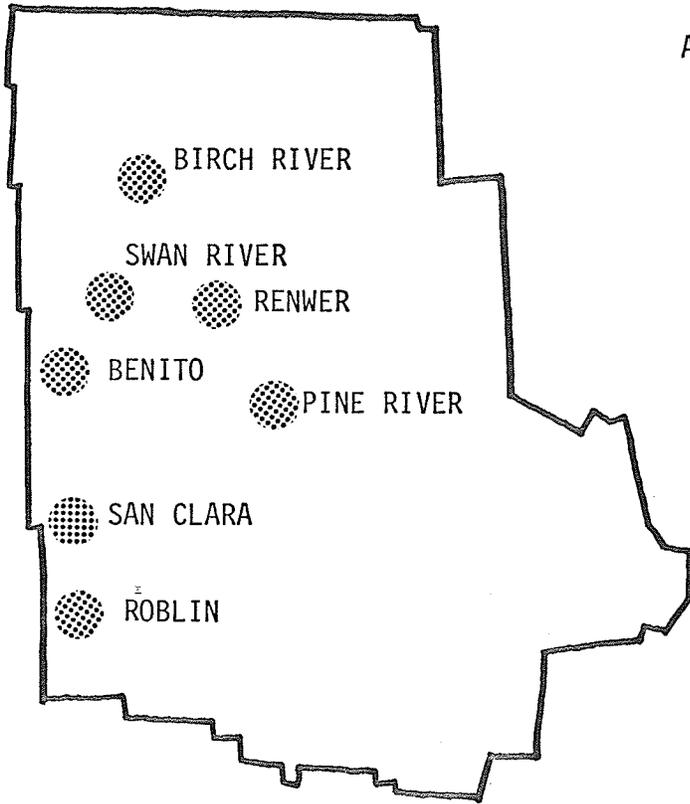
A. COMPLEX DISTRIBUTION:

Generally, the more acute type facilities are located in Swan River and Roblin where the most effective use of existing personnel can be made, with the less acute facilities being located on the periphery of the subsystem. Although crisis intervention, formal outpatient therapy, and consultation services have been located in Birch River, Pine River and San Clara, the staff to service them would probably be itinerant from either Swan River or Roblin. This is a very cumbersome method of handling problems in terms of being able to provide the staff required for this type of distribution. (See Figure 6-25, Page 204.)

B. SIMPLE DISTRIBUTION:

In a more simple distribution pattern, a full range of services would be delivered from a fewer number of communities than in the complex distribution. Any delivery of mental health services outside the two points proposed in the simple distribution would be via itinerant personnel, who would be moving from each of the three distribution points to the areas surrounding them.

With a more simple distribution pattern, linkages into existing health facilities should be much more manageable and meaningful in terms of using existing personnel and services. (See Figure 6-25, Page 204.)



A. COMPLEX DISTRIBUTION

BIRCH RIVER
20, Levels 1,2,5,6

SWAN RIVER
33, Levels 5,6

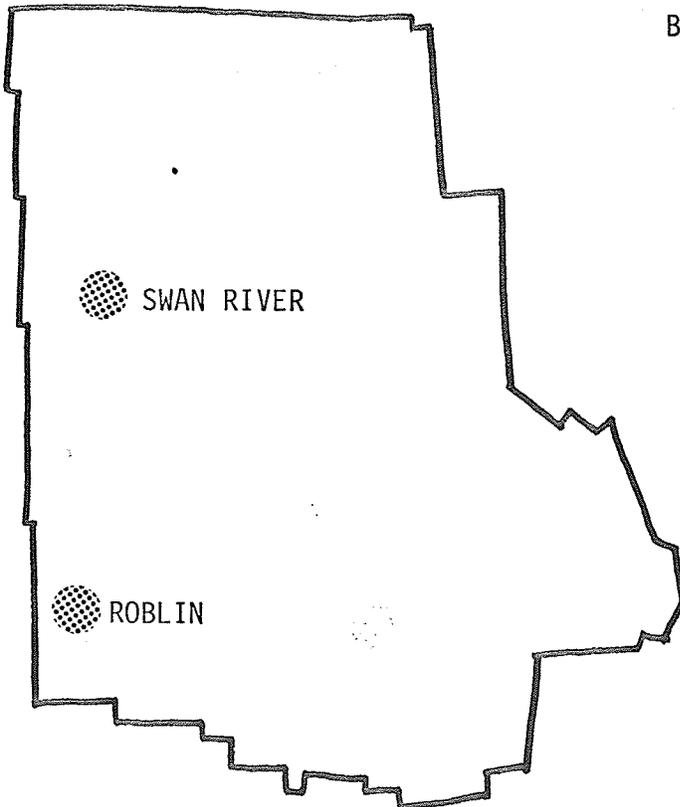
BENITO
2, Level 6

SAN CLARA
28, Levels 1,2,4,5

ROBLIN
27, Levels 5,6

RENWER
1, Level 4

PINE RIVER
19, Levels 1,2,5



B. SIMPLE DISTRIBUTION

SWAN RIVER
70, Levels 1-6

ROBLIN
70, Levels 1-6

THE SWAN RIVER CELL:TWO ALTERNATIVES

FIGURE 6-25

Decentralization of mental health services has three general implications for the method by which space is provided to accommodate movement of patients, staff and services. Space required for the delivery of services can: one, be absorbed by existing health facilities; two, be linked with existing health facilities; or three, be created by establishing new community links. Generally, less acute levels of care can most readily be absorbed into existing health care facilities where they exist. More acute levels, because of their structure and specialization, are less responsive to being absorbed into an existing facility. These are, of course, generalities, and specific conditions can do much to alter them.

Stratification of services can be best accommodated in densely populated urban areas where staffing is not a problem. Less densely populated areas, such as the study area, lend themselves to despecialization and concentrations of facilities to maximize available resources.

"Part III - A Delivery Proposal" deals with the problems of developing a mental health facility, or a so-called "multi-care social health center", within the context of linking it up with an existing general health delivery system (i.e. linking it up with an existing general hospital).

CHAPTER SEVEN: A MULTI CARE SOCIAL HEALTH CENTRE.

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The beginning of this study dealt with a general awareness and a recognition of an inequity in the delivery of mental health services which is unique to Manitoba. It also recognized that even in areas where services are presently being distributed, the manner in which they are distributed was quite inappropriate and not in tune with present day treatment philosophies. Mental health facilities should not be jails where inmates are dehumanized. A delivery system was proposed which was based on a social system concept of treatment. This system of treatment indicated that mental health services should be delivered closer to the patients' home than the present system does. The spectrum of treatment options was no longer viewed just a choice between in and outpatient facilities. A wider range of options was proposed which included six different levels of treatment. The problem then became how to redistribute existing levels of treatment, as well as how to provide for the new levels of treatment.

The next major area dealt with that problem, how to transform the present inappropriate system to a more appropriate system. The idea of a transformation or transitional model was proposed. The model recognized seven elements involved in transformation or transition in terms of patients, staff, services, and facilities, and the unseen, but ever present, changing treatment philosophies. In order to make use of the model, it was necessary to define quantitatively patients, staff, services, and facilities in order to indicate a general scale in which the model was being implemented. What the model was able to do was to set up a framework in which to determine where and how facilities could be distributed throughout the province. The next step was to examine a cell within the system and indicate one way in which mental health services could be delivered.

Two general alternatives were proposed in Chapter Six. One dis-

tributes facilities at seven points within a selected region (Birch River, Swan River, Benito, San Clara, Roblin, Renwer and Pine River), which would coincide with where the patient's home was. In this distribution pattern, the more acute type facilities would be located at Swan River and Roblin, with the less acute facilities being located on the periphery of the region. This method of distribution is taking decentralization close to its maximum limit, and perhaps beyond its practical maximum limit. It also fails to utilize the great potential of the established general health delivery system framework. A second alternative would be to establish a full range of services at Swan River and Roblin and to link the new services to an established general health delivery system in order to maximize the potential use of existing personnel, and services. That is to say, the second alternative would be to set up facilities that can take full advantage of the desired parasitical relationship between the existing general health facility and the proposed mental health facility.

There are also two options available within the above mentioned structure at Swan River and Roblin. One is to scatter the levels of care throughout the community, and the second is to provide a full range of care from a single facility in a community. The latter has been chosen for further examination.

Evidence is scant on what may be called mental health propoganda, whether or not in itself it has ever had much effect upon peoples' views of the mentally ill. Educators in this field have been extremely active in the last 50 years, but studies do not suggest that an effective way of persuading people by propoganda and public relations has been found. A study by John and Elaine Cummings in Canada shows evidence that a wholly deficient approach, long actively opposed by many mental health groups, can be extremely successful. It is to attack psychiatric illness just as if it were any other illness. Perhaps the public is confused by suggestions, however, guarded, that the catastrophies of schizophrenia or depression can be avoided by leading a mentally healthier life of an unspecified kind. The western Canadian experience strongly suggests that the public may be more willing to attack mental illness than to support so vague an entity as mental health, which no one has ever defined clearly. This has become a familiar way of dealing with other great illnesses, such as tuberculosis, diabetes, heart disease, and poliomyelitis. A community-based social health centre might do very much worse than identify itself clearly as a place where mental or social illnesses are dealt with effectively, skillfully, humanely and in an efficient, up-to-date manner.

A new, original and well-designed building is an excellent way to appeal to the public's inquisitiveness, imagination and civic pride and to emphasize and enhance a good program. It is a familiar tactic in many other human activities. Enterprises which wish to change their public image and standing with society frequently build a new building for that very purpose.

It is not merely sentimental or superstitious belief that change

will result from a new building. Change may be for the worse or the better, for what happens is that the building itself imposes massive and often imponderable changes in psychological relationships. Most careful attention must be paid to these relationships and to the building which will encourage or discourage their occurrence.

At present, the mentally ill person is usually housed in a makeshift building, which, if it is new, is adapted from general hospital designs and reproduces the typical psychiatric wards of most general hospitals, and, if it is old, displays the Baroque, army barrack style of accommodation which is typical at Brandon and Selkirk. A new building specifically designed for the well being of the mentally ill, which pays great attention to their needs, could be a form of public education. It would be a sign, concrete and unequivocal, of professional seriousness, responsibility and concern. Such a sign, combined with the evidence of service as competent as the building, would have great impact anywhere, but most impact perhaps on a community which prides itself on its buildings more than its service. Such a building might draw attention far more quickly and efficiently than any other means available to the value of the services offered and the needs still unfilled. The psychiatric buildings at Yorkton, Saskatchewan have become a source of local pride, and this has resulted in a growing concern about mental illness, according to Dr. Humphrey Osmond. The same can be seen to be true in Manitoba centers.

The methodology used to examine further a portion of the mental health delivery system consists of three basic steps, program development, concept development, and situation development.

In terms of program development, a statistical outline, along with a functional diagram for each level of care, is developed, and then the various functions are meshed into a functional diagram which describes the complex

as a whole, with the relationships amongst the various levels of care and between the proposed facility and an existing hospital being important considerations.

The concept of a multi-care social health centre is developed in two general areas. One, is the development of a concept of the patient interacting in a series of social relationships and the relationship between each of the spaces required for the social relationships. Second, there is a general idea of what a multi-care social health centre could be.

The situation development is to apply the idea of a multi-care social health centre to an existing general health facility located at Swan River within the Parkland Region. The situation development is not the answer to the delivery of mental health services in Manitoba, but rather the development of one of the various available options within the decentralization model framework.

1. PROGRAM DEVELOPMENT.

A. A Statistical Program:

Ideally, the first step in developing a program for the Swan River catchment area would be to obtain statistical data from the area to find out exactly what the community and catchment area is. The only data available in terms of mental health patients is the data on where the patients come from (see Figure 6-3, Page 149) and interpolative data gleaned from the existing delivery system (see Table 6-8, Page 178).

The data from these two areas indicates that there is a total patient population of about 221 in the Parkland. This can be further interpolated to indicate a resultant patient population of 138 serviced in the Swan River catchment area, including Roblin. Choosing the option of locating major facilities both in Swan River and in Roblin would result in an approximate patient population of 70 being serviced from each of the two locations.

As previously mentioned, there is a community service option open which could be a part of the multi-care social health centre. As data is not available to indicate what community services are lacking or can be included in the proposed facility, it remains an available option only.

For the purpose of this study, statistical data for the multi-care, social health centre will be assumed as giving the basis of specific needs for of a facility being developed at Swan River. On following pages is a general outline of what each level of care encompasses, followed by a statistical and functional program for each. Each of the separate functional diagrams is then incorporated into a single diagram, which indicates the relationships within the entire complex, its relationship with the existing hospital which it will link into, and its relationship to the community.

A. A Statistical Program:

(i) Level One: Consultation Services.

This level of care requires that psychiatrists, social workers and nurses be available at particular development crisis points. Consulting services can function from within or outside the facility. There will be an emphasis on assisting other organizations in the community such as schools, public health nurses, and general practitioners. This argues a close linkage between mental health personnel and other service personnel in the community.

Spaces required by this level of care would include offices for individual staff, a central office and reception area, some larger offices for group meetings, and perhaps a larger seminar room for formal presentations and discussions with community service groups.

AREA ALLOCATION:

Consulting offices	4 @ 120 s.f.	480 s.f.
Group meeting area	2 @ 225 s.f.	450 s.f.
Seminar/Classroom		750 s.f.
Reception and Waiting Area		<u>450 s.f.</u>
TOTAL		2080 s.f.

The different tones represent the three generic types: one, nursing care facilities; two, office and therapy facilities; and three, residential or nursing care facilities.

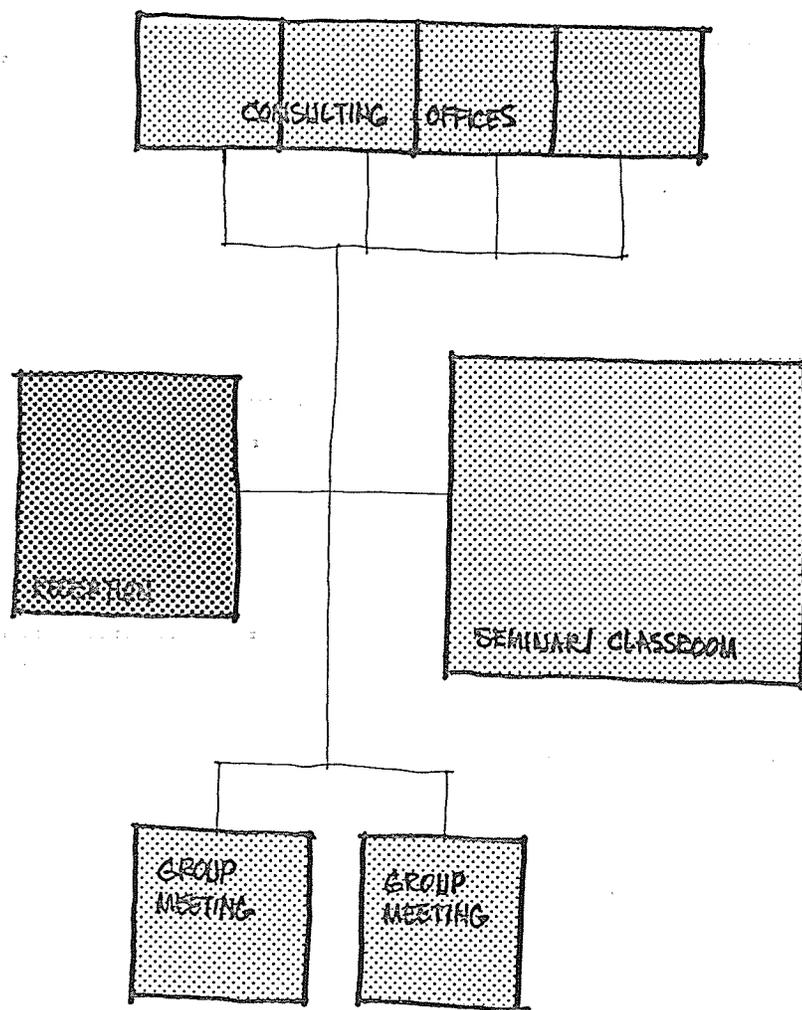


FIGURE 7-1 LEVEL ONE, CONSULTING SERVICES, FUNCTIONAL DIAGRAM

A. A Statistical Program:

(ii) Level Two: Crisis Intervention Services.

This level of care embraces the emergency team. Many acute psychiatric problems are of such a nature that an immediate, (within twenty four hours or less) intensive, but brief treatment intervention can restore the person or family to an equilibrium which will allow them to resume normal functioning. First hospitalization should be avoided since it sets a precedent for the handling of subsequent crises. The main thrust of this level of care will be out into the service area. In that sense, any required facilities will only have to have the nature of a home base. Crisis intervention services can also occur within the facility, so space should be provided for that purpose.

Spaces required by this level would include individual offices for one to one, or one to two, or one to three or four interviewing and consulting, and perhaps a larger space for group consultation amongst staff or staff and patients.

AREA ALLOCATION:

Consulting offices 2 @ 120 s.f.	240 s.f.
Group counselling 2 @ 225 s.f.	450 s.f.
Group counselling (classroom)	750 s.f.
Reception	<u>400</u> s.f.
TOTAL	1840 s.f.

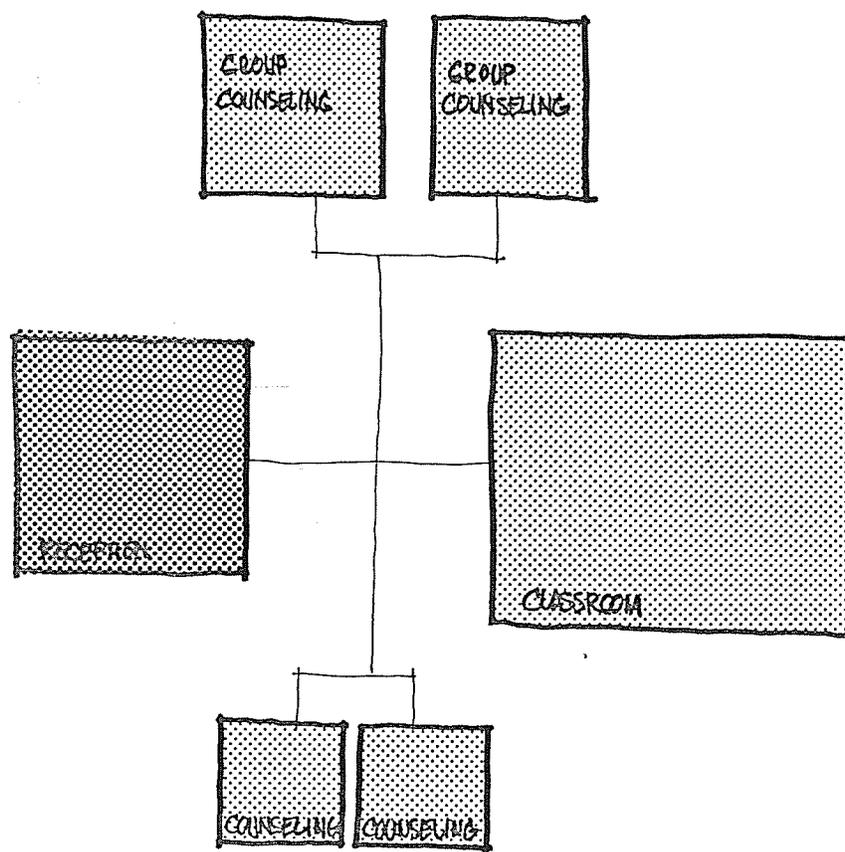


FIGURE 7-2 LEVEL TWO, CRISIS INTERVENTION, FUNCTIONAL DIAGRAM

A. A Statistical Program:

(iii) Level Three: Formal Outpatient Therapy.

Many problems for which hospitalization was previously thought to be necessary can be very adequately dealt with by providing more intensive outpatient and home care programs. Treatment may involve not only the patient, but his family. Again the thrust of treatment will be into the community and not within the multi care facility. The multi-care facility will act as a home base for itinerent personnel. An analogy to this might be the present Victorian Order of Nurses structure, where instead of the patient going to the practitioner's office for treatment, the practitioner comes to the patient and his family. Public health nurses are another example. Level 3 and the two previous levels of care, would also be actively involved in preventative and educational programs, and could, in fact, recruit public health nurses and general practitioners to assume part of the prevention and treatment role.

Space required by this level of care would be quite similar to that of level two. It requires individual interviewing and consulting space, and group consulting and discussion space which could double as prevention and educational facilities.

SPACE ALLOCATION:

Individual Consulting 4 @ 120 s.f.	480 s.f.
Group Consulting 2 @ 225 s.f.	450 s.f.
Classroom	750 s.f.
Reception/Clerical Space	<u>450</u> s.f.
TOTAL	2030 s.f.

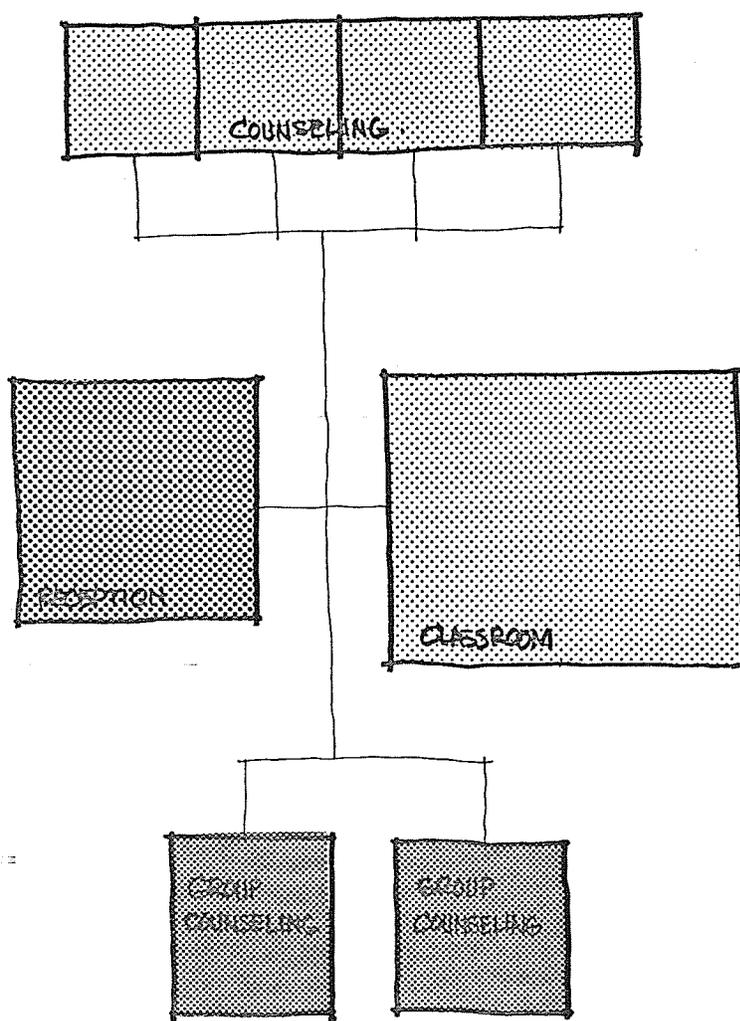


FIGURE 7-3 LEVEL THREE, FORMAL OUTPATIENT THERAPY, FUNCTIONAL DIAGRAM

Functionally, levels one, two and three are somewhat similar. By the nature of primary levels of treatment, overlap amongst them is relatively simple. That is to say the three levels can be accommodated and housed by a single functional unit.

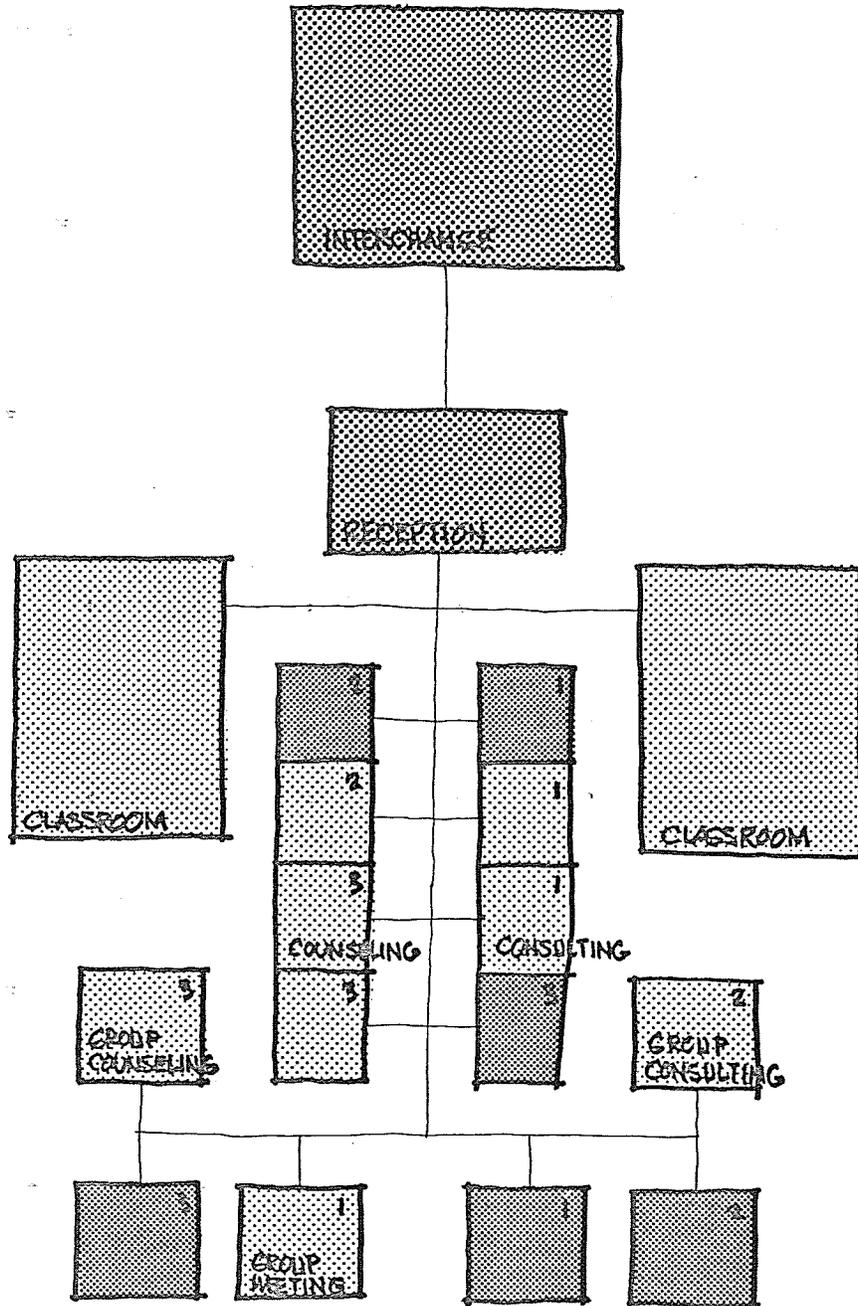


FIGURE 7-4 LEVELS ONE, TWO, AND THREE, FUNCTIONAL DIAGRAM

A. A Statistical Program:

(iv) Level Four: Day Care and Workshops.

Some mental health problems can be handled on a short term basis. Others require longer term efforts aimed at assisting people to develop the skills and competence to enable them to assume their social roles. For some, this may require re-socialization, while others may never have acquired the necessary skills and behaviour patterns. Day care and workshop programs offer a variety of activities, which focus primarily on life skills training and should include a workshop setting for work skills training. Courses providing applied problem solving are available to assist persons in those areas in which they have problems. The program includes the teaching of interpersonal and social skills, the use of public and private services, vocational, guidance, and family counselling, and sheltered workshop facilities. For many persons, the emphasis in day care programs should be on an attempt to develop either specific work habits, or specific work skills, or both. Day care and workshop programs serve as an alternative to hospitalization and as a transitional facility for persons who have been hospitalized.

Space required for this level of care would include classrooms, workshops, group therapy spaces, guidance counselling, and office spaces.

AREA ALLOCATION:

Workshops 2 @ 500 s.f.	1000 s.f.
Day Care Rooms 2 @ 500 s.f.	1000 s.f.
Group Therapy	225 s.f.
Guidance Counselling 4 @ 120 s.f.	480 s.f.
Reception/Clerical Space	<u>400 s.f.</u>
TOTAL	3105 s.f.

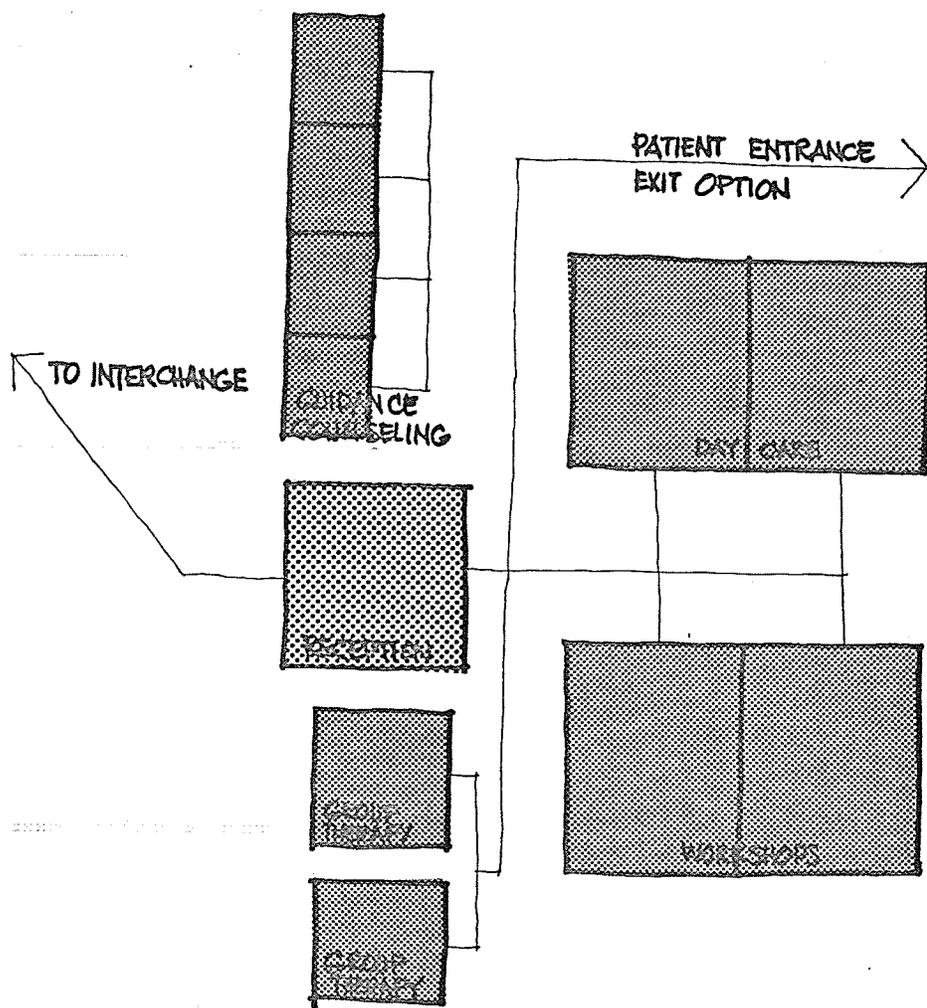


FIGURE 7-5 LEVEL FOUR, DAY CARE AND WORKSHOPS, FUNCTIONAL DIAGRAM

A. A Statistical Program:

(v) Level Five: Hostel or Community Residence.

Provision must also be made for those persons who do not require the intensive care provided by an acute hospital, but who may not be able, for various reasons, to live with their families at a given time. For such persons, short term hostel arrangements are much more desirable than continued residence in the hospital. Residents of such facilities would be provided with the opportunity to practice the skills which will be required of them to make the transition to the community in a much more gradual way, and with the opportunity of preventing the loss of existing skills. They may either be working in regular employment or attending a day care center workshop. This can serve as an alternative to acute care as a temporary transitional facility. While in this facility, a person will be encouraged to perform independently with a minimum of individual guidance.

Space requirements for this level of care would include those normally found in an apartment building, although the structure of the spaces would be quite different (ie. common living and dining areas). There will also be the need for consultation areas at group level. Therapy, staff, and service areas will also be included.

AREA ALLOCATION:

PATIENT LIVING:

Individual rooms	20 @ 150 s.f.	3000 s.f.
Kitchen & dining	4 @ 240 s.f.	960 s.f.

THERAPY AREAS:

Recreational Activity area	400 s.f.
Reading area	200 s.f.

THERAPY AREAS cont'd:

Multi-Purpose Area	500 s.f.
--------------------------	----------

CONSULTING ADMINISTRATION

Reception Area	200 s.f.
----------------------	----------

Staff work areas	1000 s.f.
------------------------	-----------

Conference rooms	400 s.f.
------------------------	----------

SERVICES

Laundry storage	200 s.f.
-----------------------	----------

Toilets	150 s.f.
---------------	----------

Houseparents Suite	<u>700</u> s.f.
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TOTAL	7500 s.f.
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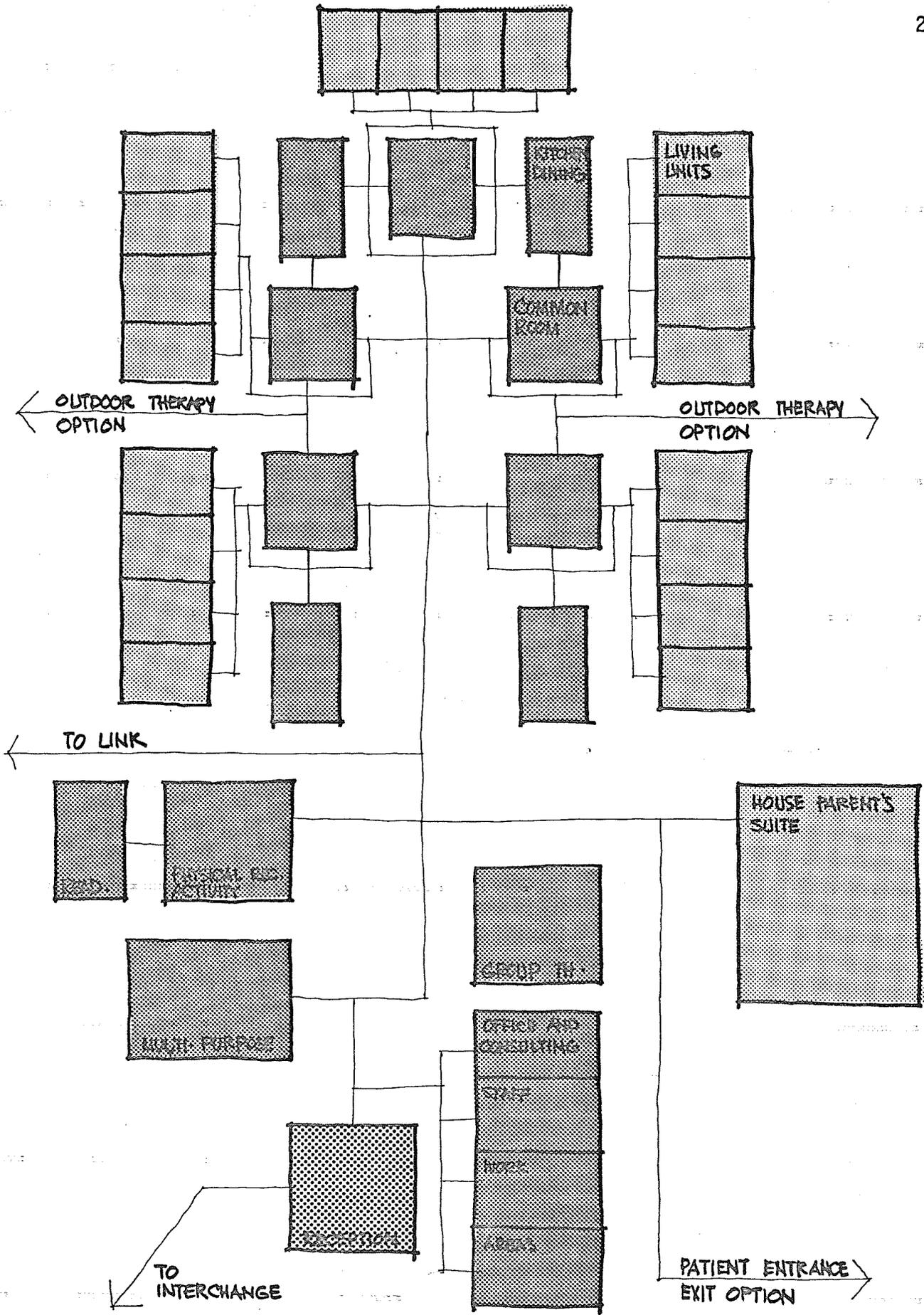


FIGURE 7-6 LEVEL FIVE, HOSTEL OR COMMUNITY RESIDENCE, FUNCTIONAL DIAGRAM

A. A Statistical Program:

(vi) Level Six: Inpatient Care.

There are some circumstances in which hospitalization is the appropriate action. General hospital psychiatric units are admitting and successfully dealing with many acute psychiatric disturbances. Any inpatient facilities should be developed with the idea of humanizing rather than dehumanizing the person being treated in the way that present mental hospital facilities do. Every effort must be made to ensure that the person's dignity as a human being is preserved. People should have private spaces and should not be subjected to large wards where they become a institutional statistic. Gang excretion and eating should be avoided.

The concept which governs the treatment of a person is to do him no harm, This is an axiom expounded by Dr. Humphrey Osmond, a pioneer in contemporary treatment philosophies, that recognized the individual as a troubled human being, not a sick animal.

Space requirements for this level of care are typical of those for psychiatric wings developed at general hospitals, such as the one at Grace Hospital in Winnipeg.

AREA ALLOCATION:

A. LIVING UNITS:

1. Patient Living Spaces

32 patients rooms c.w./w.c.	32 @ 170 s.f.	5440 s.f.
8 patient common rooms	8 @ 225 s.f.	1800 s.f.
common space	500 s.f.

2. Treatment Team Spaces

1 psychiatrist's office	120 s.f.
1 staff psychiatrist's office	120 s.f.
1 clinical psychologist's office	150 s.f.
2 psychiatric residences	450 s.f.
1 social worker's office	150 s.f.
1 head psychiatric nurse's office	150 s.f.
Office for 2 psychiatric nurses and aides	240 s.f.
1 office for Occupational therapist and Recreational therapist	225 s.f.
Conference room	240 s.f.
Kitchen	1200 s.f.

B. PATIENT SERVICES: (Provided by Existing Health Facility Link)

1. Food Preparation

vegetable preparation

preparation tables

2. Food Storage

dish storage

food cart storage

meat storage

dairy storage

3. Waste Processing

garbage can washing garbage disposal

food cart washing garbage can room

4. Kitchen Personnel

5. Laundry Service

6. Occupational Therapy	
Offices	240 s.f.
Occupational Therapist	150 s.f.
Therapist Assistant	120 s.f.
Records Room	120 s.f.
Therapy Room	1200 s.f.
7. Storage Areas	
Ping Pong	120 s.f.
Chess, Checkers, Cards	120 s.f.
Supervisor's office	120 s.f.
Men's and Women's w.c.	150 s.f.
8. Music Rooms	
Practice	
Listening	300 s.f.
Dance instruction	300 s.f.

C. SERVICES: (Provided by Existing Health Facility Link)

1. Maintenance

- Carpentry shop
- Paint shop
- Repair rooms

2. Mechanical

- Boiler
- Fan
- Pump
- Storage

3. General Storage Facilities

General Storage Area

Record storage

Store Keeper's office

Shipping and receiving

D. ADMINISTRATIVE:

1. Admitting

Lobby and reception area 500 s.f.

Admitting offices 240 s.f.

Conference room 450 s.f.

1 psychiatrist 120 s.f.

2 examination rooms 240 s.f.

1 nurse's work room 120 s.f.

2. Administration

Chief Superintendent 300 s.f.

Assistant Superintendent 225 s.f.

Administrative Assistant 225 s.f.

Business Manager 225 s.f.

Records 150 s.f.

Director of Nurse's Education 225 s.f.

Social Workers (2) 300 s.f.

Personnel Office 150 s.f.

Chaplain 150 s.f.

3. Recreational Therapy

Libraries - Patient 1000 s.f.

Staff 500 s.f.

4. Classrooms	
2 classrooms @ 750 s.f.	1000 s.f.
5. Gymnasium	
Basketball court	4000 s.f.
Storage	120 s.f.
Office	120 s.f.
Men's lockers	300 s.f.
Women's lockers	300 s.f.
Stage	400 s.f.
Scenery storage	200 s.f.
Dressing rooms	400 s.f.
6. Shops	
Cleaners	300 s.f.
Hobby shop	300 s.f.
Drug store	300 s.f.
Beauty shop	300 s.f.
Barber shop	300 s.f.
Billiards room	<u>1000</u> s.f.
	TOTAL
	24065 s.f.
	CIRCULATION, ETC.
	<u>3600</u> s.f.
	27665 s.f.

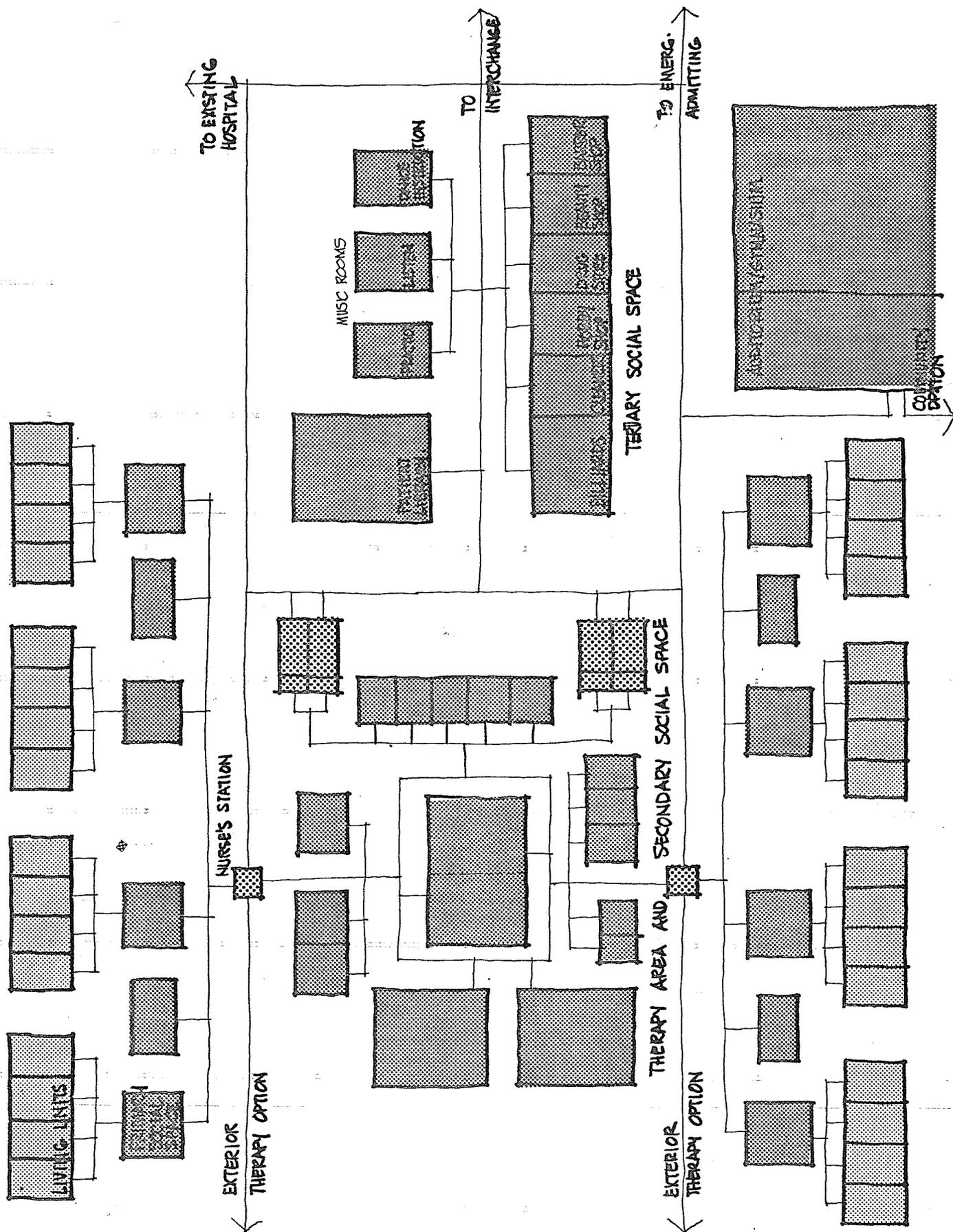


FIGURE 7-7 LEVEL SIX, INPATIENT CARE, FUNCTIONAL DIAGRAM

1. PROGRAM DEVELOPMENT.

B. Common Denominators and Specialists:

There are a number of general common denominators amongst the various levels of care, including - administrative and reception functions, consulting and therapy functions, education facilities, and consulting and/or treatment teams. Two of the levels require special services like eating and laundry facilities, because they have patients living within the facility. There are other common denominators in terms of staff, and functional areas. Another important aspect of all the levels is a screening and assessment unit where initial contacts with patients are made.

B. Common Denominators and Specialists:

(i) Administration and Reception.

Administrative and reception facilities can be broken down into two categories, those that are public oriented, and those that are not. Public-oriented areas occur in level one consulting services, level two crisis intervention, and level three formal outpatient levels of care which include active community oriented educational programs. The main public use in Level four care workshops, level five hostel and community residences, and level six inpatient facilities in dealing with new patients and visitor movement.

B. Common Denomenators and Specialists:

(ii) Consulting and Therapy.

These are generally termed therapy areas, although the difference in name suggests their basic structural difference. Consulting facilities are primarily patient, family and community-oriented, and involve to a

large degree the educational aspect of the multi-care health facility. Therapy areas are primarily patient oriented and directed. Consulting facilities are found in level one consulting services, level two crisis intervention and level three formal outpatient facilities. Therapy areas are located within day care and workshops, hostel and community residences, and inpatient levels of care.

B. Common Denominators and Specialists:

(iii) Educational Facilities.

There are three functions of the educational facilities: one is to educate the community, the second is to educate the family and the patient, and the third to educate other service personnel. Consulting services, crisis intervention and formal outpatient therapy facilities are primarily concerned with educating the community. Day care and workshops, and hostel and community residence levels of care are involved with both educating the patient as well as the family. Level six inpatient care is involved in education, but primarily at the patient level. All levels are actively involved with training and educating service personnel in the community so that they can participate in the mental health care program.

B. Common Denominators and Specialists:

(iv) Living Units.

Living units are not common to all levels of care. They only occur at levels five and six, hostel and community residences and inpatient care. They are given the name living units because they are not what is commonly thought of as nursing care type facilities. In both levels of care, they recognize the privacy of the individual.

B. Common Denominators and Specialists:

(v) Services.

Because of the nature of day care and workshops, hostel and community residences, and inpatient care, there will have to be provision made for eating facilities. In some areas of treatment, preparation of food by the patient can be of therapeutic benefit. There will, in addition, be dining facilities for both staff and patients in a cafeteria type of situation.

Other services, such as laundry, goods supply, etc., will be provided from the existing health care unit that the new facility will link itself to.

B. Common Denominators and Specialists:

(vi) Consulting and Treatment Teams.

Much the same as consulting and therapy, consulting and treatment teams basic structural difference is in their area of concern. Consulting teams are primarily responsible for advising community services, the patient, and his family. Treatment teams are primarily involved in contact with patients. An outward thrust relative to the multi-care health centre is the job of the consulting team, while the responsibilities of the treatment team are primarily inwardly oriented.

B. Common Denominators and Specialists:

(vii) Screening and Assessment.

Screening and assessment can be thought of as the hub of a wheel (see Figure 4-1, Page 33). This is where the majority of potential patients will have their first contact with the mental health delivery system. From the screening and assessment facility, patients are directed to the level of treatment that is appropriate to their specific problems.

As all levels of care are potentially open to any one, there would be at least one staff member from each level of treatment actively involved in the screening and assessment process. The screening and assessment process can happen at many points in the centre, but it happens primarily at the admitting point or within levels one, two and three.

1. PROGRAM DEVELOPMENT.

C. The Facility:

The problem now is to incorporate the various functional diagrams into one that represents the entire multi-care social health centre. It represents the meshing of the various functions into one functional entity. A functional diagram of the M.C.S.H.C. can also be thought of as a functional expression of the bubble diagram, (Figure 7-22, page 267.)

At first the relationship between the existing health facility and the proposed mental health facility was thought of as a parasitical one, with the new facility living off many of the elements of the existing facility, using its goods delivery, its energy supply, its carpenter shop, and its staff, to mention some borrowed elements. Further examination of the relationship revealed it as a symbiotic one with the new facility generating a need for services which are presently being handled from the Dauphin Hospital. With the implementation of a new facility, a laundry service becomes economically feasible and functionally desirable.

Figure 7-8, page 238 shows the result of the meshing of the separate functional diagrams and the functional representation of the above mentioned bubble diagram.

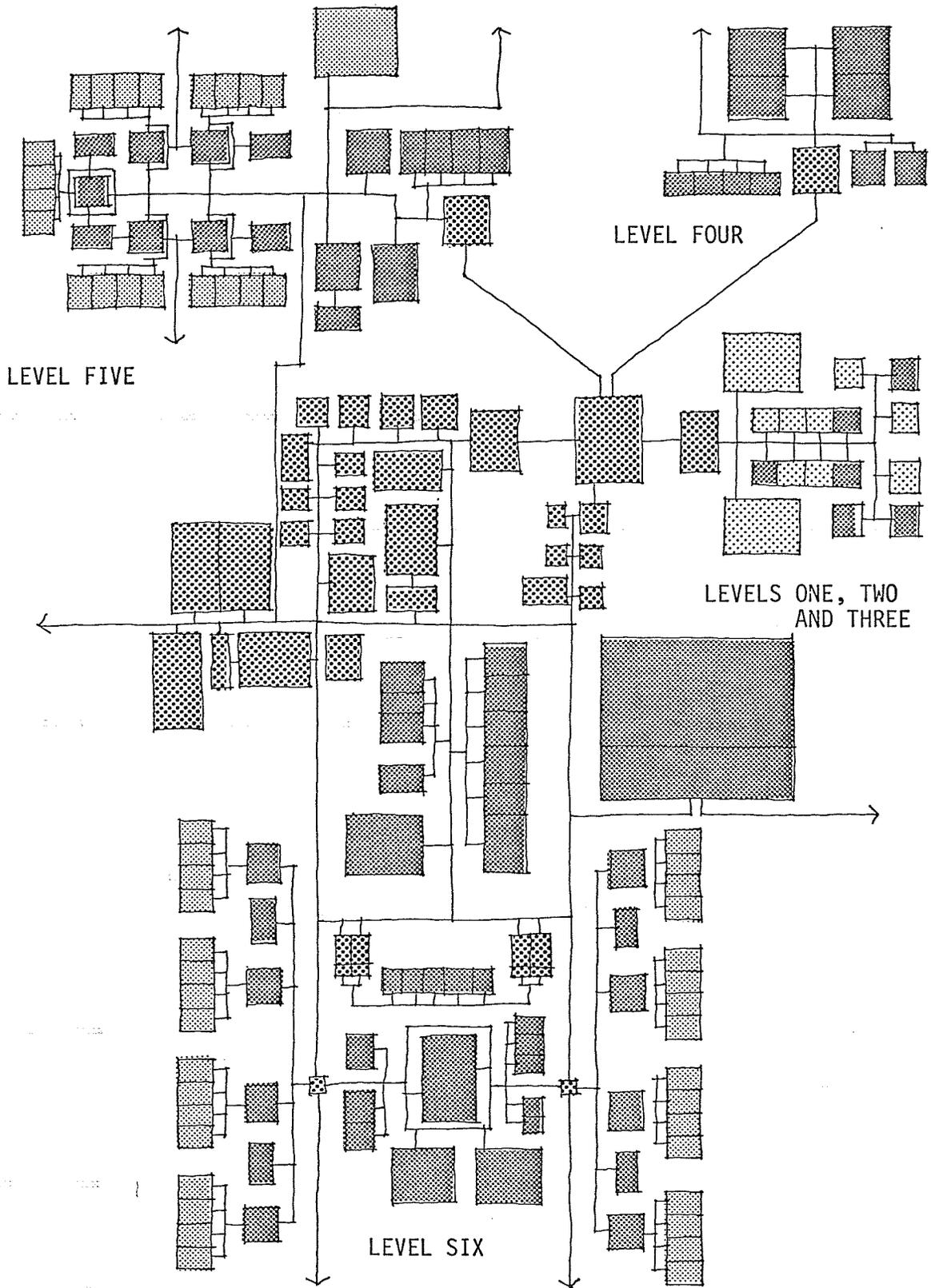


FIGURE 7-8 FUNCTIONAL DIAGRAM

C. The Facility:

(i) Functional Complexity.

Two general areas of functional complexity were examined.

The first area was the complexity of the linkage system between the existing general health facility and the proposed mental health facility. The second area of examination was the internal functions within the proposed facility.

Generally, service areas that would potentially serve both the existing and the proposed facility are located along a linkage system. These include a new laundry, a dispensary, staff lockers, staff dining areas, and mechanical facilities. The functional diagram of the link (Figure 7-13, page 245) indicates the complexity of the linkage system.

Internally, some very interesting observations can be noted from examining the functional complexity diagrams on page 241, 242, 243, 244, and 245.

Patient movement in the less acute levels of care (levels one, two and three) is relatively free, and it gets progressively more restricted or controlled as the level of care becomes more acute, with level six being the most controlled. Patient movement and autonomy is in fact the major functional difference between level five hostel and community residence patients and level six formal inpatients.

Public movement generally follows a similar pattern, with the public moving relatively freely in the less acute levels of care, and being more controlled in the more acute levels of care. The amount of public penetration into the various levels exhibits a similar pattern, with a relatively small amount of penetration in more acute levels and a relatively unobstructed movement in the less acute levels of care.

Dietary movement is mainly to public and staff dining areas and to levels five and six. Although the functional diagram can do little to differentiate between the eating patterns of level five and six patients, there is a fundamental difference. Unprepared food is brought to level five patients, and the preparation of the food becomes part of the therapeutic milieu, while the food brought to level six patients is in the form of fully prepared meals.

Medical personnel move freely throughout most of the complex, but they are discouraged from doing so in the patients private living units in levels five and six.

Drug movement is restricted to movement from one control point to another control point. This becomes critical at more acute levels of care. Primary drug movement only is shown on the functional complexity diagram. Primary being the initial movement of drugs into the level of care. Secondary drug movement, being the administering of drugs is not shown, as this can happen anywhere and at anytime. It might be interesting to note here that although psychiatric patients at the health sciences centre in Winnipeg constitute only 10% of the total patient population they consume 30% of the drugs used in the complex.

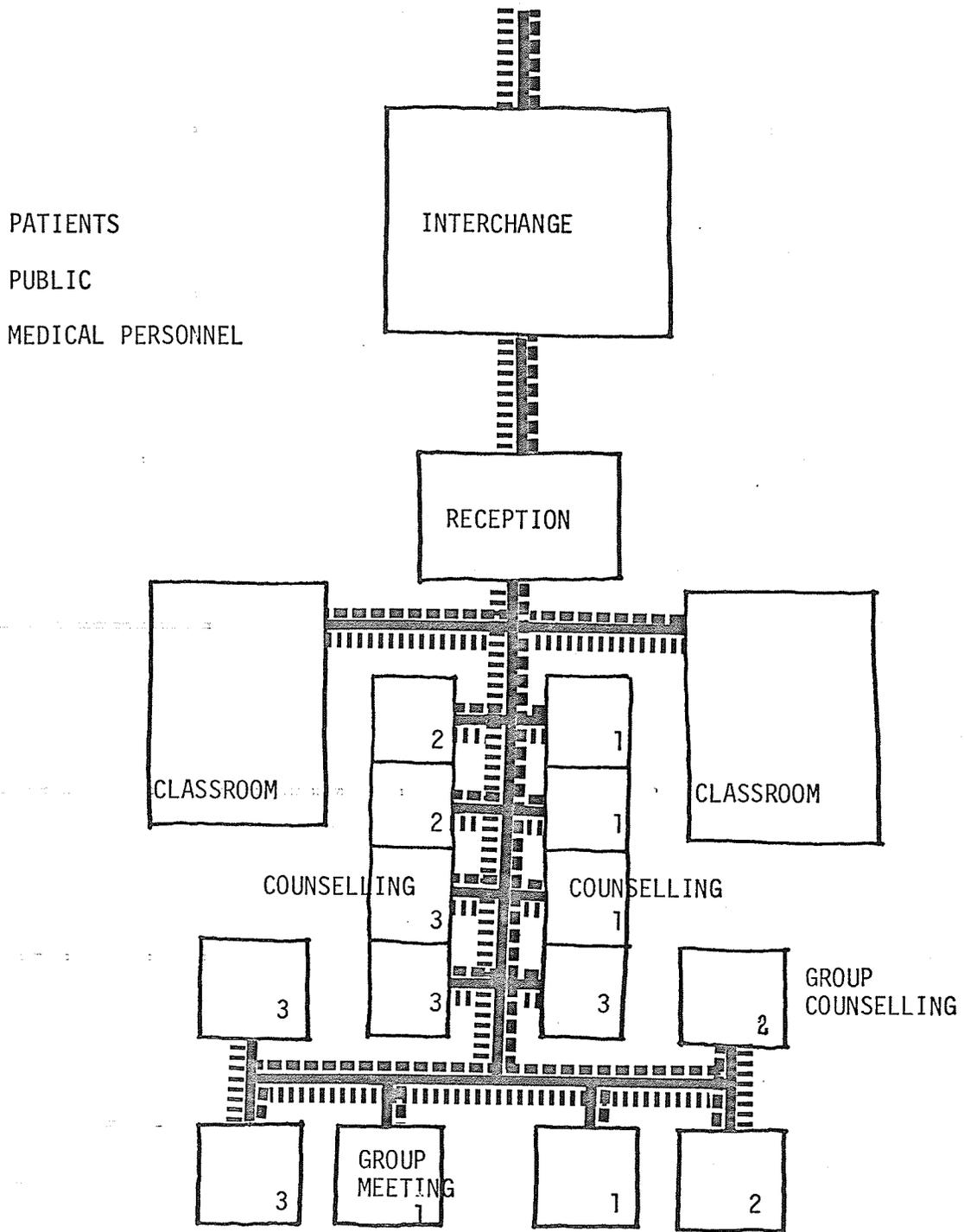


FIGURE 7-9 FUNCTIONAL COMPLEXITY, LEVELS ONE, TWO, AND THREE

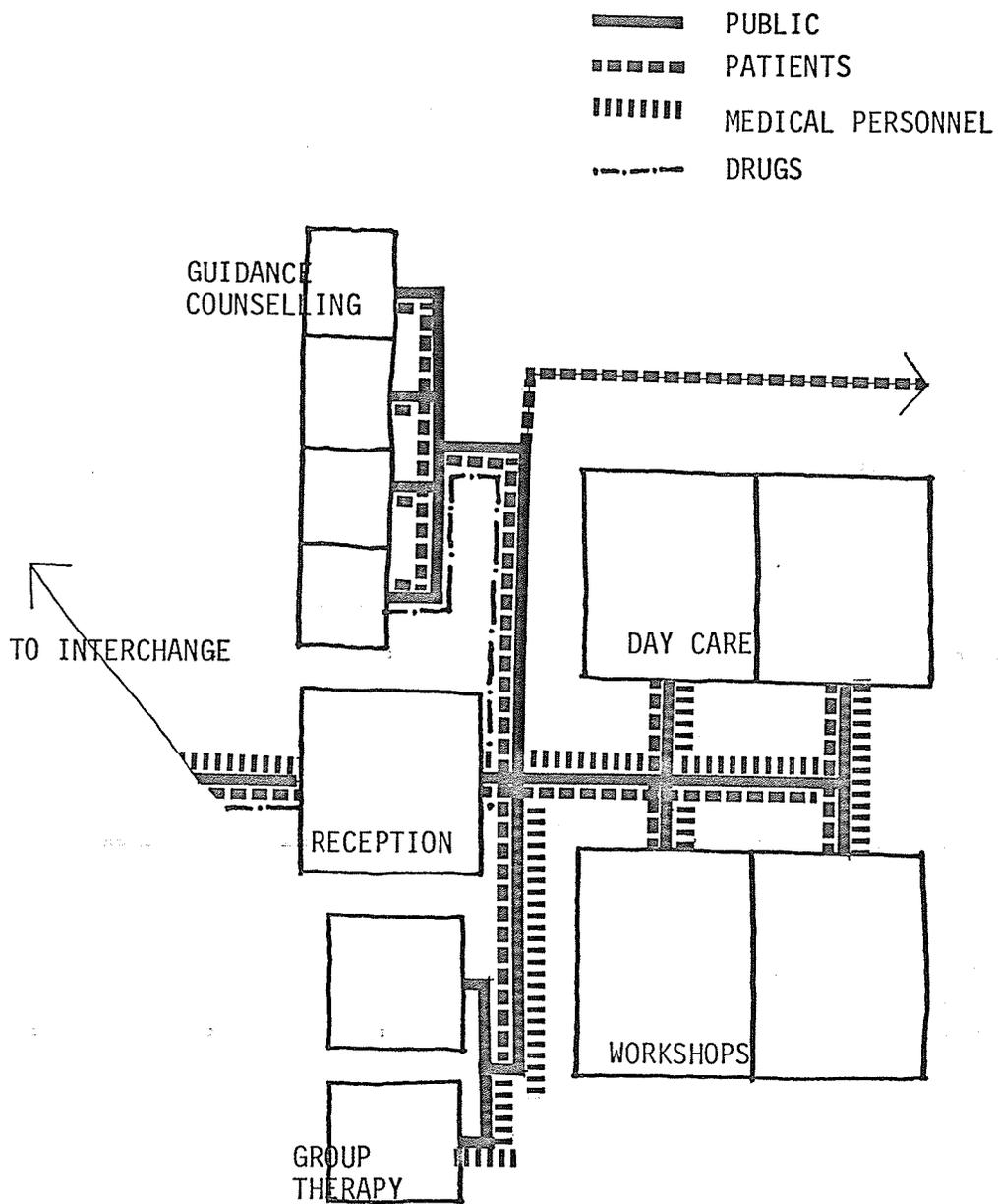


FIGURE 7-10 FUNCTIONAL COMPLEXITY, LEVEL FOUR

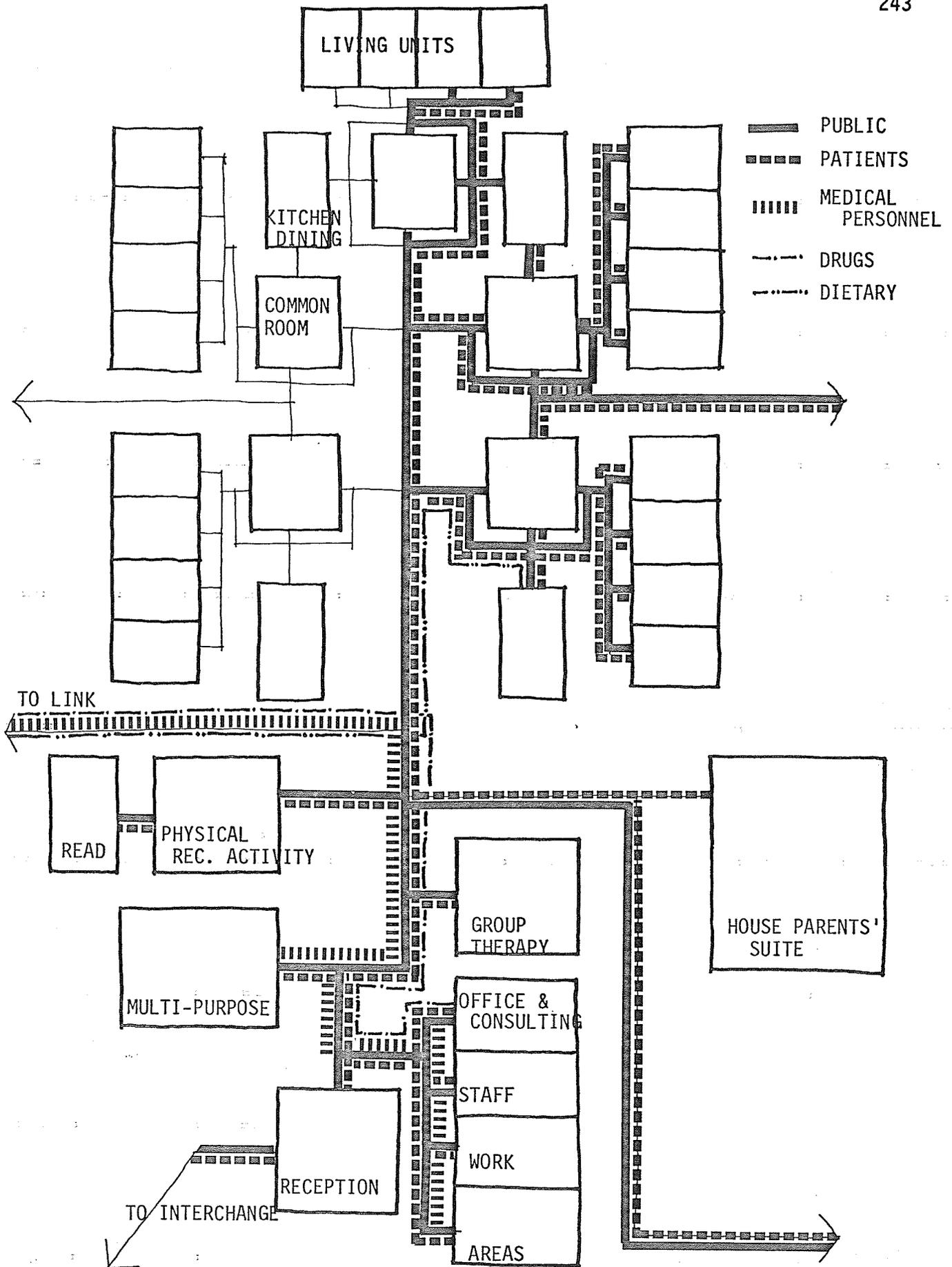


FIGURE 7-11 FUNCTIONAL COMPLEXITY, LEVEL FIVE

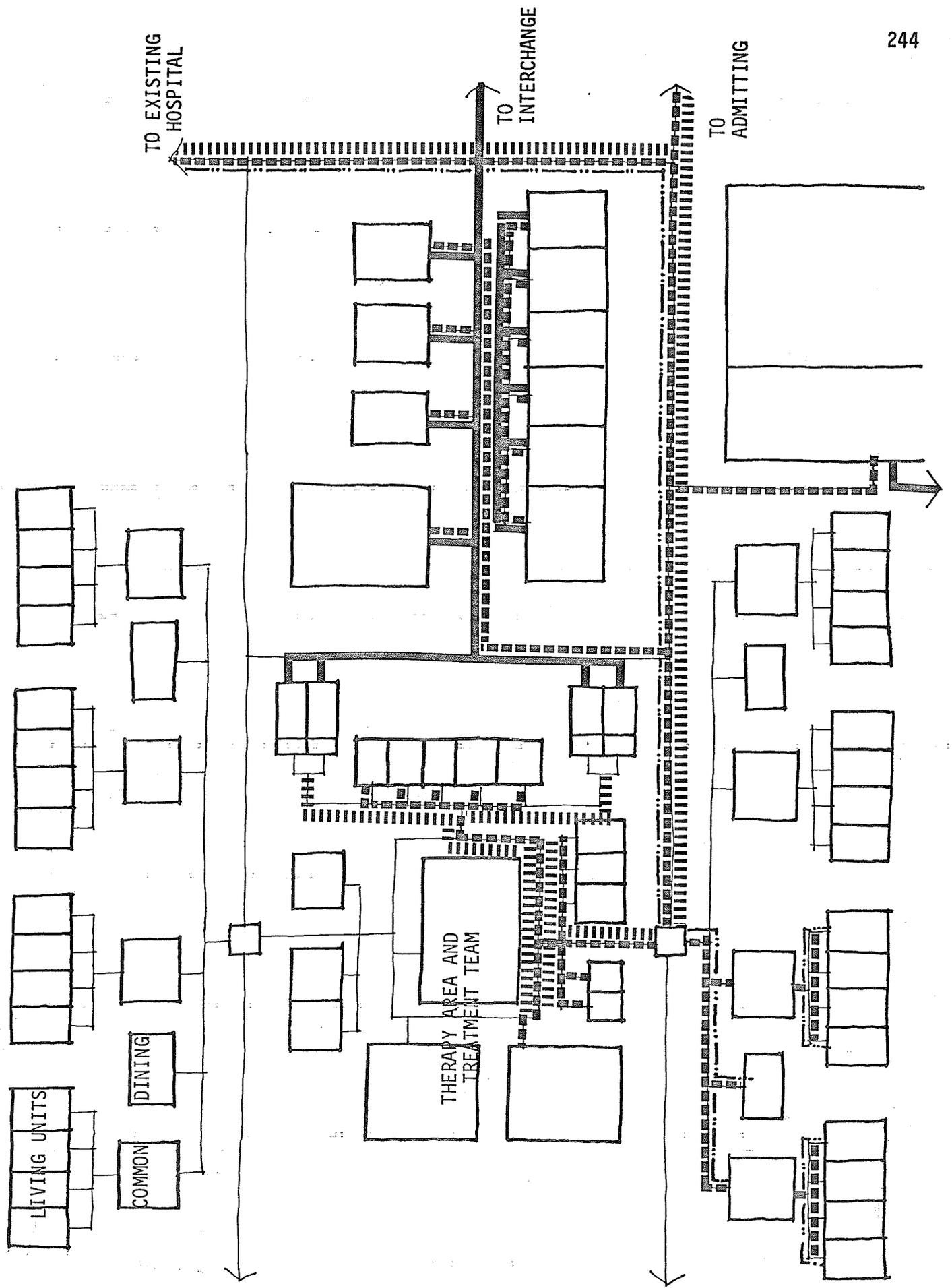


FIGURE 7-12 FUNCTIONAL COMPLEXITY LEVEL SIX

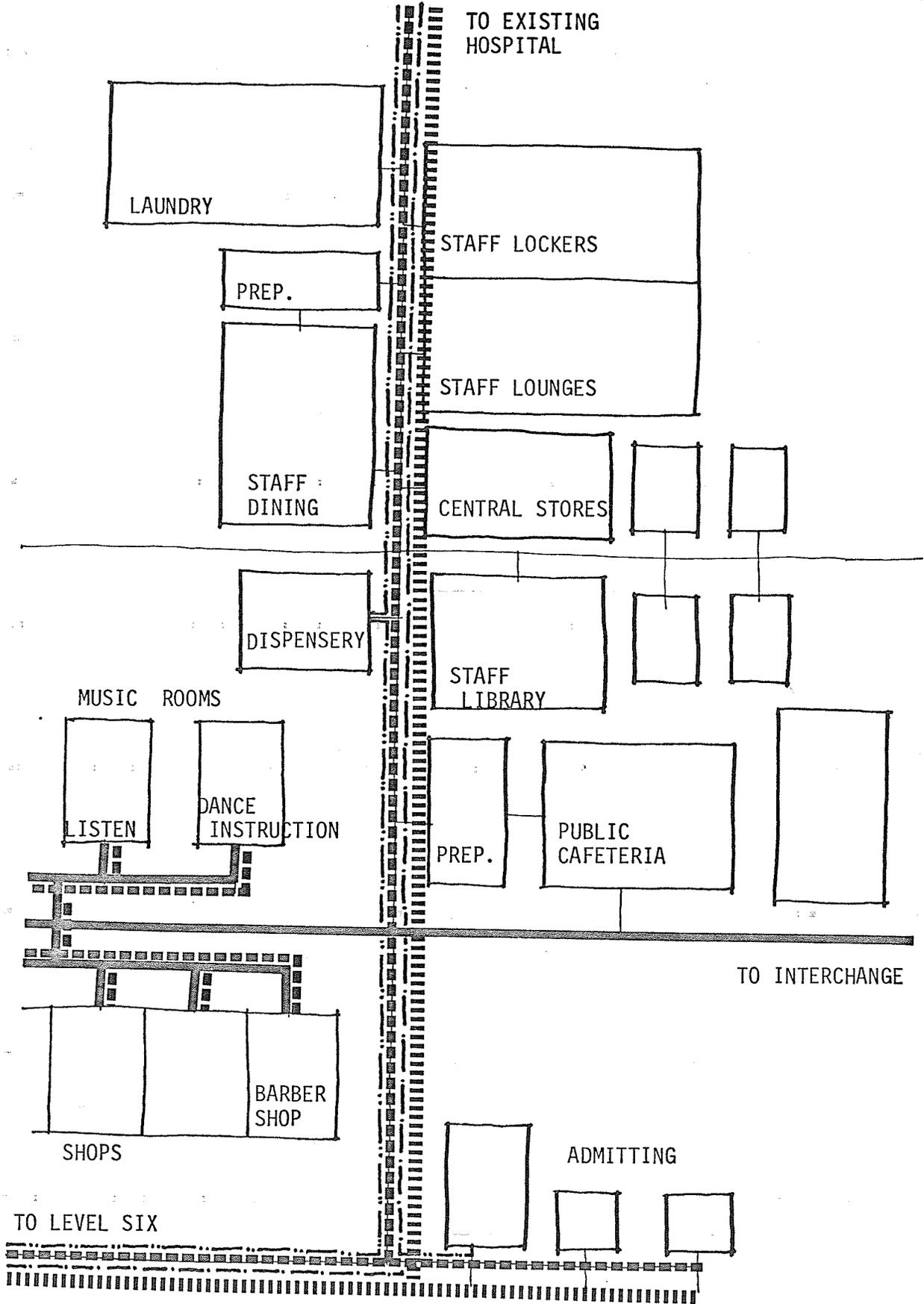


FIGURE 7-13 FUNCTIONAL COMPLEXITY; LINK

C. The Facility:

(ii) Major Controls.

There is a large variety of controls to which patients, public, staff, drugs and other services are subject. They can vary from a light or sign through manned control stations, such as nurse's and reception areas, to mechanical controls like stairs and elevators in the case of multi-level buildings. Although the variety of controls is limitless, the things being controlled can be defined within certain limits. As mentioned above, major controls affect the movement of patients, public, staff, drugs and services. Commencement and termination points in terms of movement generally indicate where control points can be located.

Any reception area can be thought of as a commencement point, and a reception or control desk acts as a control. A termination point, like a public visitor maximum penetration point, would also act as a control, for its nature would be to regulate movement by stopping it.

The diagram, Figure 7-14, page 247, indicates the position of various control points in terms of the five major movement elements, patients, public, staff, drugs and services. Again, the acuteness of care has a direct bearing on the intensity and number of control points, with the less acute levels of care, such as consultation services (level one), crisis intervention (level two), and formal outpatient therapy (level three), having the less intense and fewest controls, while the more acute levels of care, such as inpatient (level six), having the most rigorous and largest number of control points.

The diagrams for functional complexity and major control can be superimposed and interpolated into a functional density diagram that indicates the relative density patterns of the various functional links.

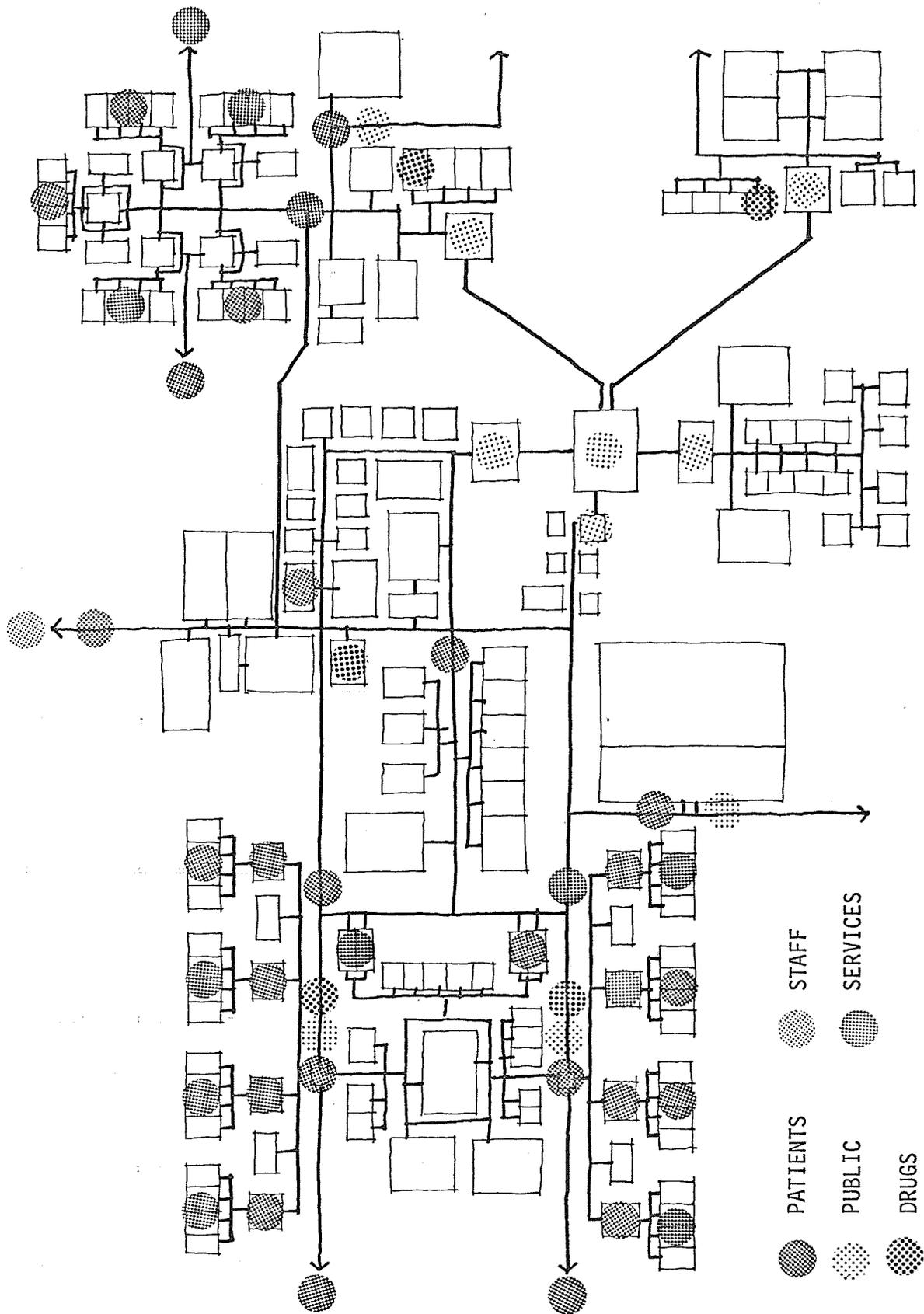


FIGURE 7-14 MAJOR CONTROL POINTS

C. The Facility:

(iii) Functional Densities.

The functional density diagram,(Figure 7-15, page 249)generally indicates the amount of staff, patients, etc. which flow through any given passage. What is indicated indirectly and what must further be interpolated in a design solution are the various pulses within the flow. For example, all inpatients (level six) will pass through admitting, but because it is a slow movement in terms of numbers at any given point in time, it is shown as a relatively light line. What the functional density diagram can show is the relative flow over a time.

From the diagram,it can be seen that the interchange and the tertiary social spaces (eg. shops, billiards, patient library and music room) carry the greatest numerical flow of movement elements. This could be further interpolated to indicate that these two functional linkages must be more than just corridors linking spaces. Given the amount of flow through these links,the chances of interaction amongst patients, public, and staff is increased,to mention but one possibility.

Once the general function relationships between an existing health facility and the proposed one,along with the relationships within the proposed facility,have been established, they can be interpolated in a specific situation.

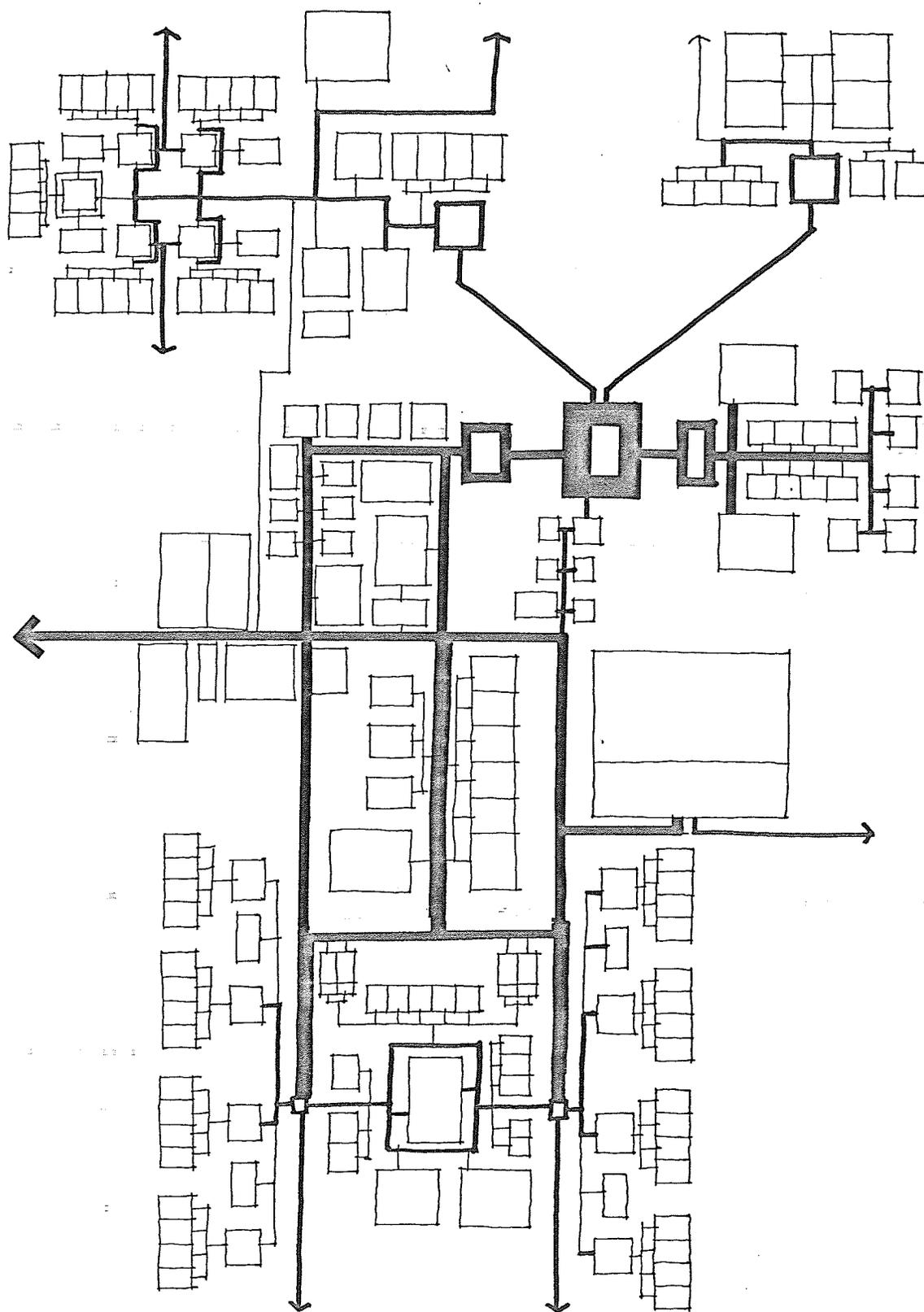


FIGURE 7-15 FUNCTIONAL DENSITIES

Once basic functional relationships have been established, they must be imbued with life, for they are nothing without a sense of being. If they are not given a life, the system will be lifeless and its development useless. The second portion of development is concept development, in which a sense of place and being must come about.

2. CONCEPT DEVELOPMENT.

A. Philosophy and Concept:

The existing delivery system has an inherently morbid pathological nature. It depersonalizes and dehumanizes the patient very well. Dr. Humphrey Osmond has presented a partial list of how concentration camps facilitated the depersonalization and dehumanization of their victims:

1. Sudden seizure of victim, preferably at night.
2. Subjection to humiliating, incomprehensible treatment of a legal or quasi-legal kind combined with interrogation by people who do not disclose their identity incarceration in unfamiliar or strange surroundings, accusation, isolation, and even torture may be added.
3. Transportation, often en masse, in a closed vehicle to an unknown destination.
4. Arrival at this destination with neither welcome nor explanation.
5. Removal of clothes, boots, glasses, personal belongings and even dentures.
6. Compulsory mass bathing, total shaving, tattooing enforced shortly after arrival.
7. Issue of unfamiliar and bizarre clothing, no return of one's own clothes and belongings.
8. A discipline imposed by threats, either by injury or of prolonged incarceration.
9. Use of a number rather than a name, or the use of unasked for abbreviations or distortions of one's own name.

"Convict number 76512" and "the appendix in room four"

are examples.

10. Accommodation which is over-concentrated (meaning too many people together making privacy and solitude and recognition of familiar people difficult because so many people are around) and over-crowded (too little space for any particular person, even one person in one space).
11. Mass feeding and feeding in competition with others to a rigid time schedule.
12. Mass excreting in company with others.
13. Pointless work.
14. No prospect of release.¹

Dr. Osmond goes further to point out that it takes no great or special ingenuity to reverse this path, for the opposite direction is the one in which people suffering from social illnesses must go. Reversing and preventing dehumanization requires no special skill once the danger is recognized.

1. Victim is not siezed - patient comes to hospital whenever possible of his own accord and with adequate preparation and explanation.
2. Whatever steps must be taken for the patient's or society's safety are explained. Humiliating procedures and their architectural equivalents are avoided by repeated serious scrutiny. Threat of a legal kind or physical containment

1. Carl Larve, Jones, Architecture for the Community Mental Health Centre; p. 43.

must be minimized and never must become a routine. Its employment must always be explained to the patient. In good practice with a well run unit, it is very infrequent and so can be seen as an index of skill.

3. Transportation should be comfortable and to a familiar identifiable destination.
4. On arrival, the exact destination must be recognizable for what it is and must welcome the sick person appropriately.
5. Arbitrary removal of personal possessions is harmful - it can only be avoided if personal space is available.
6. Compulsory washing is rarely necessary if normal bathing arrangements are available and the patient is encouraged to use them.
7. Special hospital clothing is unnecessary because the patient has his own space.
8. Discipline is imposed by the sick person's growing understanding of his illness and his recognition that he is getting help. He is seen from the start as a responsible patient with all that it implies. Patients grasp this quickly and pass on the information to other patients.
9. Maintenance of name, status, title (Mr., Mrs., Ms.) with an emphasis on decent social behavior by example from staff is essential. To reinforce this via the building is an architectural challenge. How much environment affects even violently physically sick people is not always clear; however, a seasick person will do all he can to avoid vomiting on a fine carpet.

10. Avoid over-concentration - too many people together.
Since man is a creature used to living in small, face-to-face groups and his span of attention is limited to about seven plus or minus two when well, over-concentration is liable to be disturbing when well and destructive when ill. A group of four has many advantages and can be justified on theoretical grounds.
11. No over-crowding - too little space per person. Within wide limits, over-crowding which is usually forbidden by law, is less harmful than over-concentration which has received little or no attention. The two situations seem to have not been fully distinguished.
12. Mass feeding, particularly under pressure, should be avoided. Small groups eating together family style encourage good manners and good appetites. Even more important, the staff can see that patients get enough to eat and learn from patients about their likes and dislikes which must be respected.
13. Mass excreting and bathing to facilitate supervision is degrading. On the few occasions when supervision of an individual is needed, other means should be devised. Also, hot water may have to be monitored.
14. Work should be a rehabilitating process, keeping one's personal or shared spaces in order or as retraining which is quite different from forced labour.²

2. Ibid., p.44.

Dr. Osmond has stated quite clearly some basic objectives which mental health facilities can follow. What he is saying was also said by Florence Nightingale, "The first principle of a hospital is to do the sick no harm," or to do them nothing but good. So, the basic philosophy of a multi-care social health centre is that while it involves itself with the community, it does the person who comes into contact with it no harm, and it treats him with dignity.

There are two general ideas that I would like to deal with in speaking concept of a multi-level social health centre. One is the concept developed by Dr. Humphrey Osmond, a psychiatrist, and Kiyoshi Izumi, a Saskatchewan architect, who proposed at a Rice University Design Fete, a structure of social spaces in which a mentally ill person could function. The second is a general idea of what a multi-care social health centre could be.

First, I will deal with the former of the two.

Sick people require surroundings which minimize rather than exaggerate their disabilities. Blind people can be immobilized by assuring them that obstacles of a sort that are hard to touch have been placed around them. Legless people are hampered by stairs or ramps of an unsuitable kind. The mentally ill person requires an environment which prevents dehumanization, but encourages social interaction to the limit of, but not beyond, his tolerance.

Each patient should have a private space of his own. Some patients become unsure about their identity. A space of one's own with one's own name on the door, clothing and other personal possessions inside, pictures of one's family and pictures of oneself with one's family, and a mirror to see oneself are anchors in reality, providing feedback which may do something to stem the changed perceptions. One's own bed, chair, table, desk space, and clothes rack can all help to encourage and reinforce the sense

of self. These private spaces should have a direct relationship to a primary social space for a small number of patients. This relationship helps them to identify their privacy with the simplest of their social relationships.

Dr. Osmond says that desirable social interaction is possible only with people who are friends or at least familiar with each other. There are, obviously limits to the number of people who can sustain social interaction in a group. With healthy people, Dr. Osmond feels that about seven is the maximum desirable, while still maintaining interaction, and with mentally ill people, that maximum drops to about four (see diagram below).

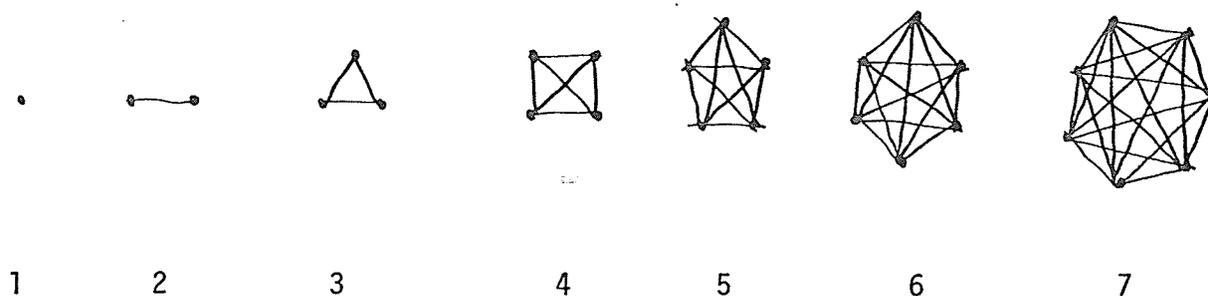
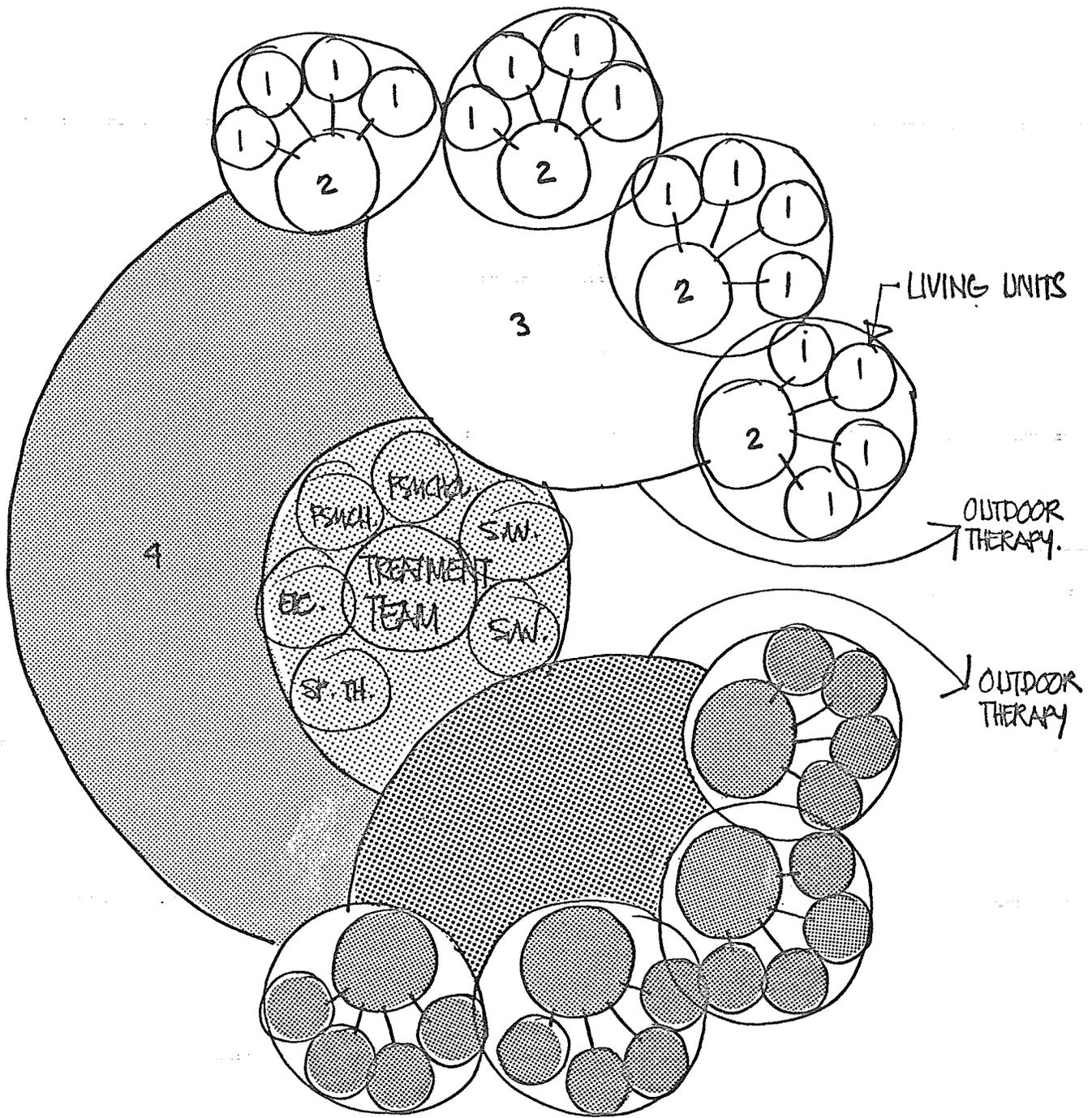


FIGURE 7-16 SOCIAL INTERACTION MATRIX

These interaction places can be thought of as primary social spaces. They would relate directly to the private spaces. This provision helps them to identify their privacy with the simplest of their social relationships. The relationships between the four-patient primary social spaces extend the link between private and primary spaces to include more complex social interactions. The effectiveness of all social relationships depends on provisions which allow the patient to move through the social spaces as he feels he can cope with them. If he cannot cope with relationships at a secondary level, then he must be able to retire to a primary or a private space. The concept can be extended to include a third or tertiary social space level, where large groups gather for social interaction. Activities such as bingos, dances, and plays form the structure of this third level of social interaction. It can be thought of as community type social spaces. Figure 7-17, page 258 illustrates in diagram form the relationships between private, primary, secondary and tertiary social spaces.

Much has been said about the therapeutic effect of outdoor therapy spaces. The above concept can be extended to include that. The patient could move through a series of social spaces which include outdoor as well as interior spaces. It then becomes important that the point, of social space that the patient is in when leaving interior coincides with the level of outdoor social space that he exits to. That is to say, if an interior exit is provided at a primary social space level, then the patient should be exiting to a primary outdoor social space. The diagram on page 258 could be used for both interior as well as exterior spaces.



- 1. Living Unit (Private Space)
- 2. Primary Social Space
- 3. Secondary Social Space
- 4. Tertiary Social Space

FIGURE 7-17 PATIENT SOCIAL RELATIONSHIP DIAGRAM

The second area of concepts of the multi-level social health centre is that which deals with the complex as a whole. At first, the multi-care social health centre was thought of as an extension of a street where the various levels of treatment are located. One end of the "street" was the existing hospital, and the other end formed the gate to the community, with M.C.S.H.C. acting as the link between the two ends of the street. With this in mind, a series of development sketches proved this to be an inappropriate way of looking at the M.C.S.H.C.

Figure 7-18, page 260, shows the first of the series of development sketches. The "street" is shown as the toned-in strip through the centre of the complex, with the more public-oriented levels of care at the community end of the avenue and the levels which are less public and more dependent on the existing health facility at the existing health facility and of the street. The problem with this idea is two-fold. It indicates a linear movement through the facility with no differentiation between public and patient movement. Second, it infers that public movement through the facility should be sequential, which is not the case.

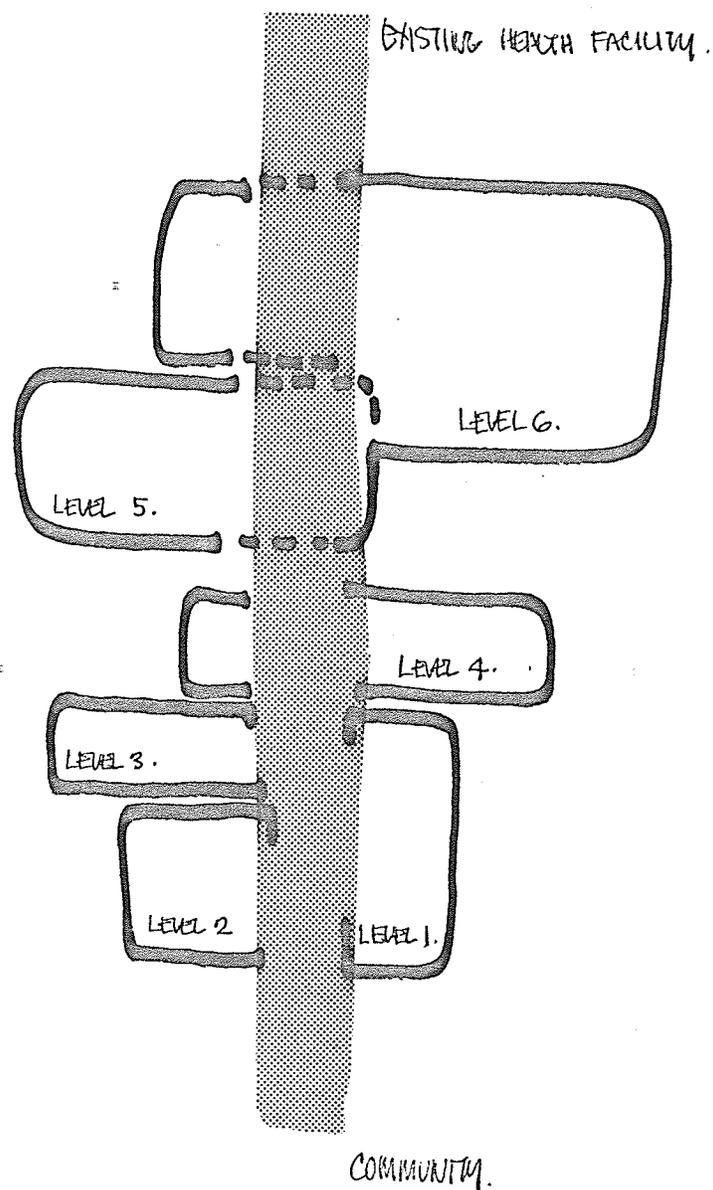


FIGURE 7-18 COMMUNITY HEALTH STREET

An attempt to overcome that linear movement, as well as to interruption of the sequential movement, is indicated in Figure 7-19, page 262 . A "side street" is introduced into the diagram to facilitate patient movement. This indicates that patient movement and public movement patterns are separate, which is true in some cases only. Further definition of patient movement is required. This diagram indicates areas or spaces where patients and the public can be screened before they move into their areas of concern. What this means is that a pulse of movement is being developed which is consistent with what is desired in reference to movement through a series of social relationships. Further definition of patient movement options is required.

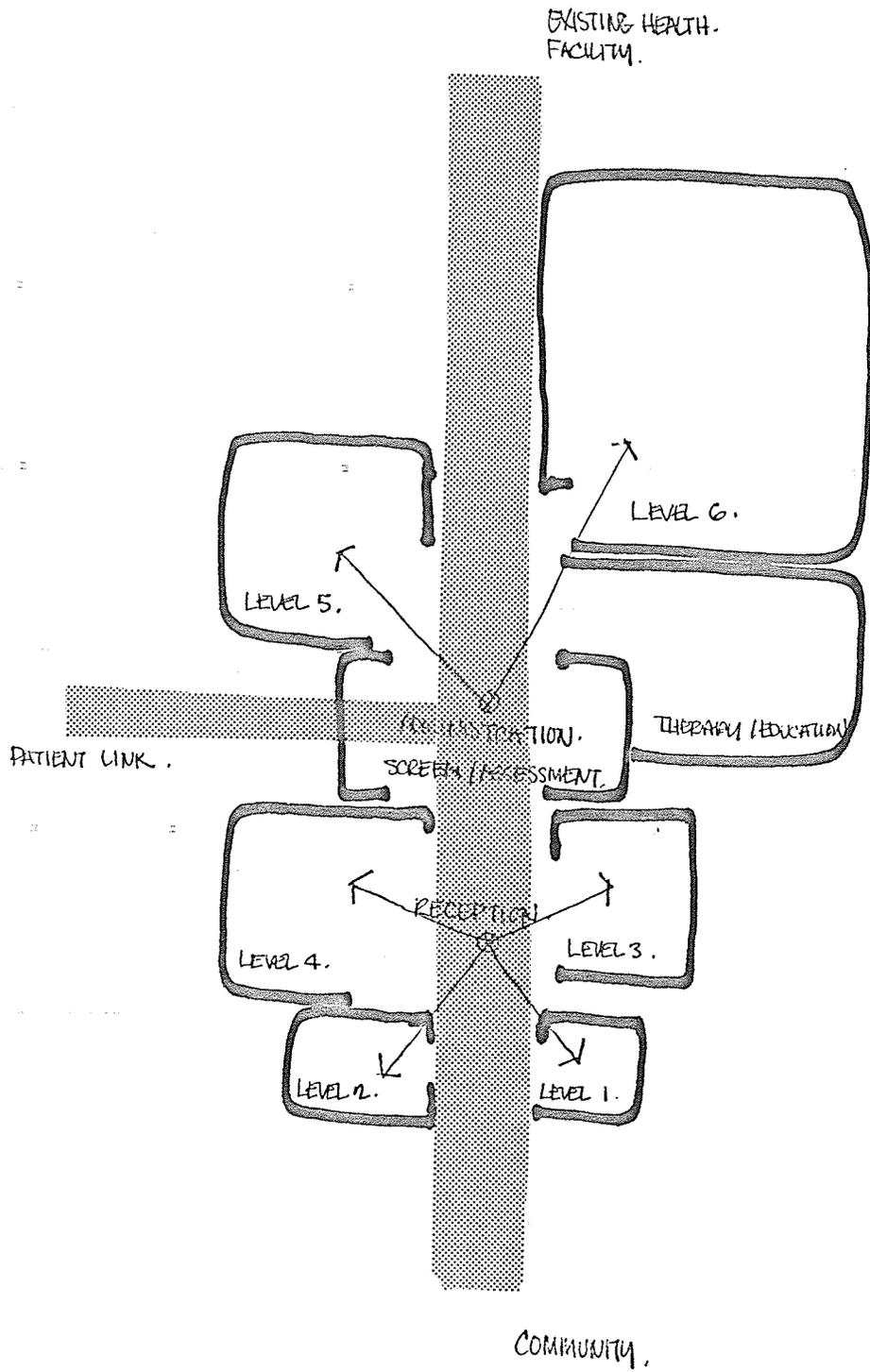


FIGURE 7-19 A SIDE STREET

As various patient movement options are developed, it begins to be apparent that an important space is developing between public and patient movement options (see Figure 7-20, page 264). A further development can also be noted. There are certain portions of therapy area that can be both public and patient-oriented. These are areas where the patient and/or his family can act out quasi-community type social relationships, such as going shopping, going to the beauty parlor, playing billiards, or attending a bingo. It can also be noted that if the street is shortened and widened, it can by that inherent nature become more of a mixing type of space than a moving space. It is less difficult to stop and ponder on a wide street than it is on a narrow street given the same density of people flowing past a given point within a given time frame.

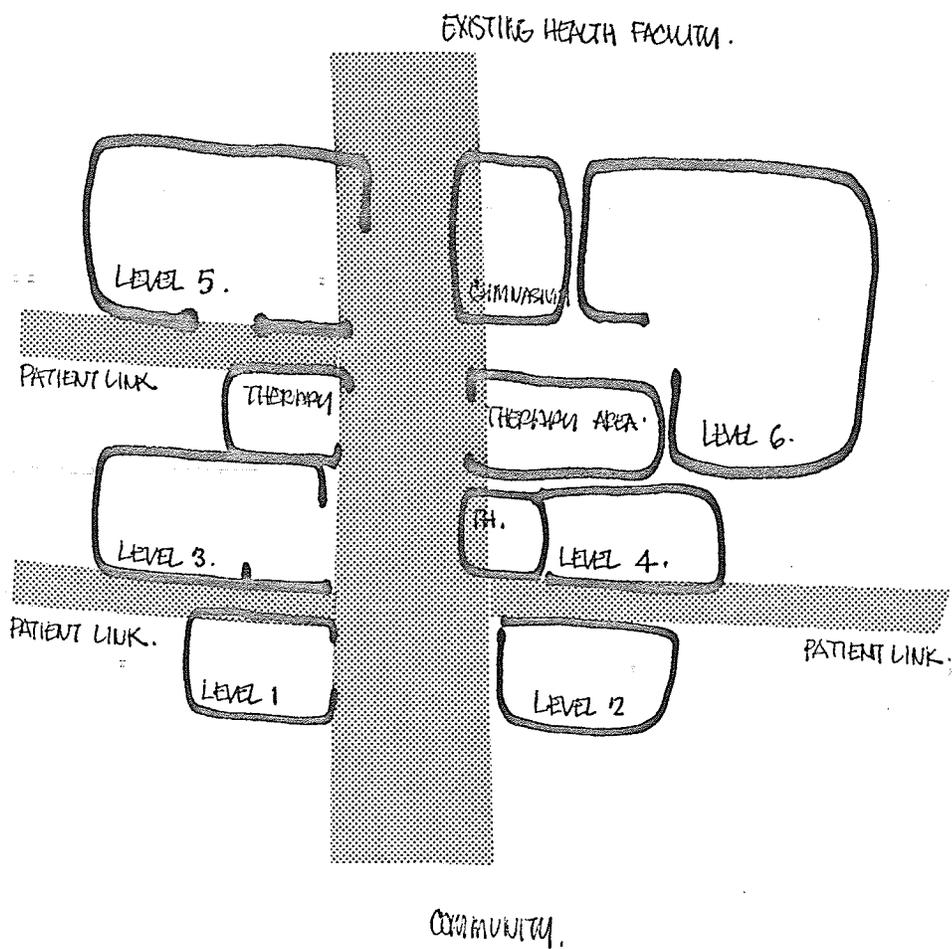


FIGURE 7-20 PATIENT/PUBLIC SPACE

What has not been apparent before is that there might be an element around which the building could be designed which would symbolize its purpose in the same way that an altar symbolizes a church, or a great open space symbolizes an assembly building. That element now becomes apparent. It is a mixing place in which patients and public move about, to and from the various spaces within the multi-care social health centre. This space becomes an interchange where the various complexities in terms of people movement are created and dispersed. It becomes the valve where the many faceted aspects of various movement patterns are regulated. It becomes the principal element around which the M.C.S.H.C. can be developed (see Figure 7-21, page 266)

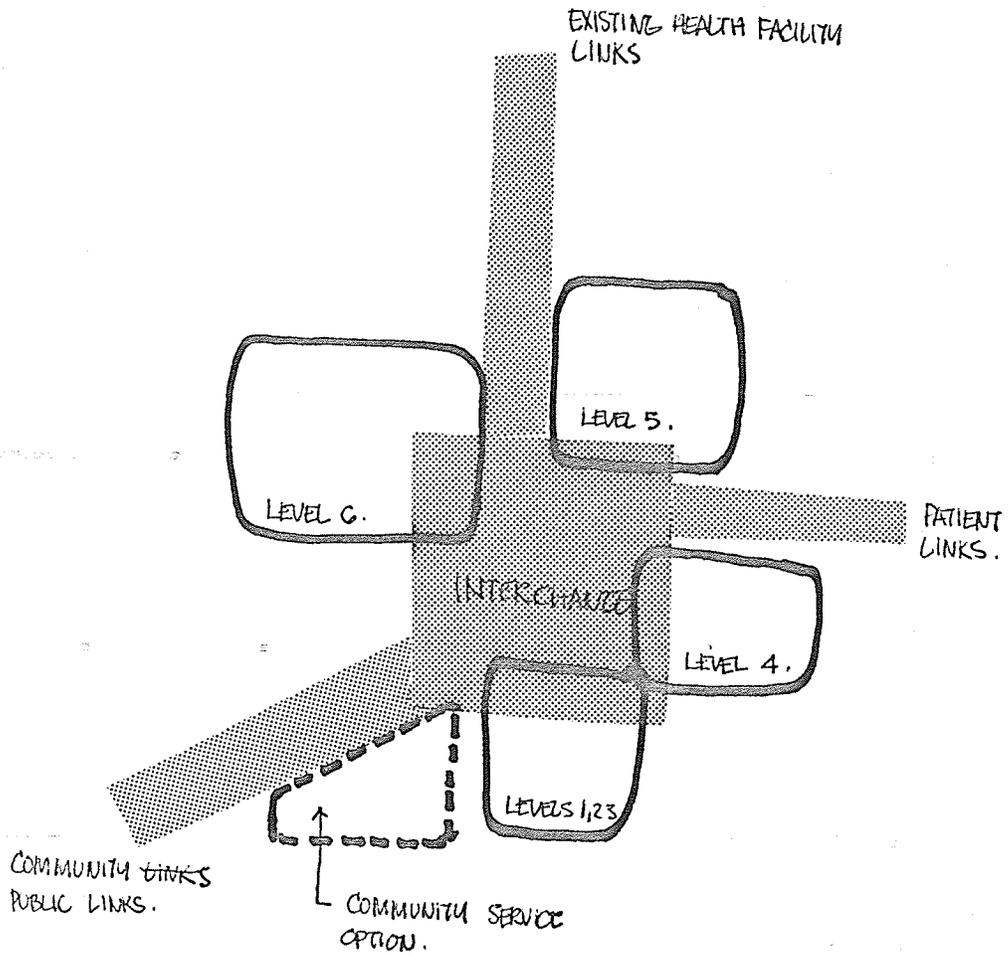


FIGURE 7-21 THE INTERCHANGE

The diagram Figure 7-21, page 266, can be developed further to indicate the complexity of the multi-care social health centre (see Figure 7-22, page 268). The central area in the complex is the reception interchange space, which can be thought of as the hub of a wheel. The various levels of care are spokes extending from the hub.

The hub or interchange is the primary public space, and as the relationship to the public in terms of level of care decreases, so does the strength of the relationship between the level of care and the interchange. The less acute and more public-oriented levels of care, such as consultation services, crisis intervention and formal outpatient therapy, have the strongest relationship with the interchange. At the other end of the scale level six, inpatient spaces have the weakest relationship with the interchange. The relationships are not quite as simple as just described. There are therapy areas programmed for level six that have a public orientation. Thus each level of care does not operate totally independently of the others. Dependent functions as opposed to independent functions are located in a stronger or lesser relationship to the interchange depending upon the level of care with which they are primarily associated. It will be a lesser relationship if they are primarily associated with level six and a stronger relationship if they are associated with level one.

Another important aspect of the diagram is the link to the existing health facility and the functions that are directly tied to that link. Generally, functions that have the potential of serving both the existing and the proposed facility should occur just off or on the link.

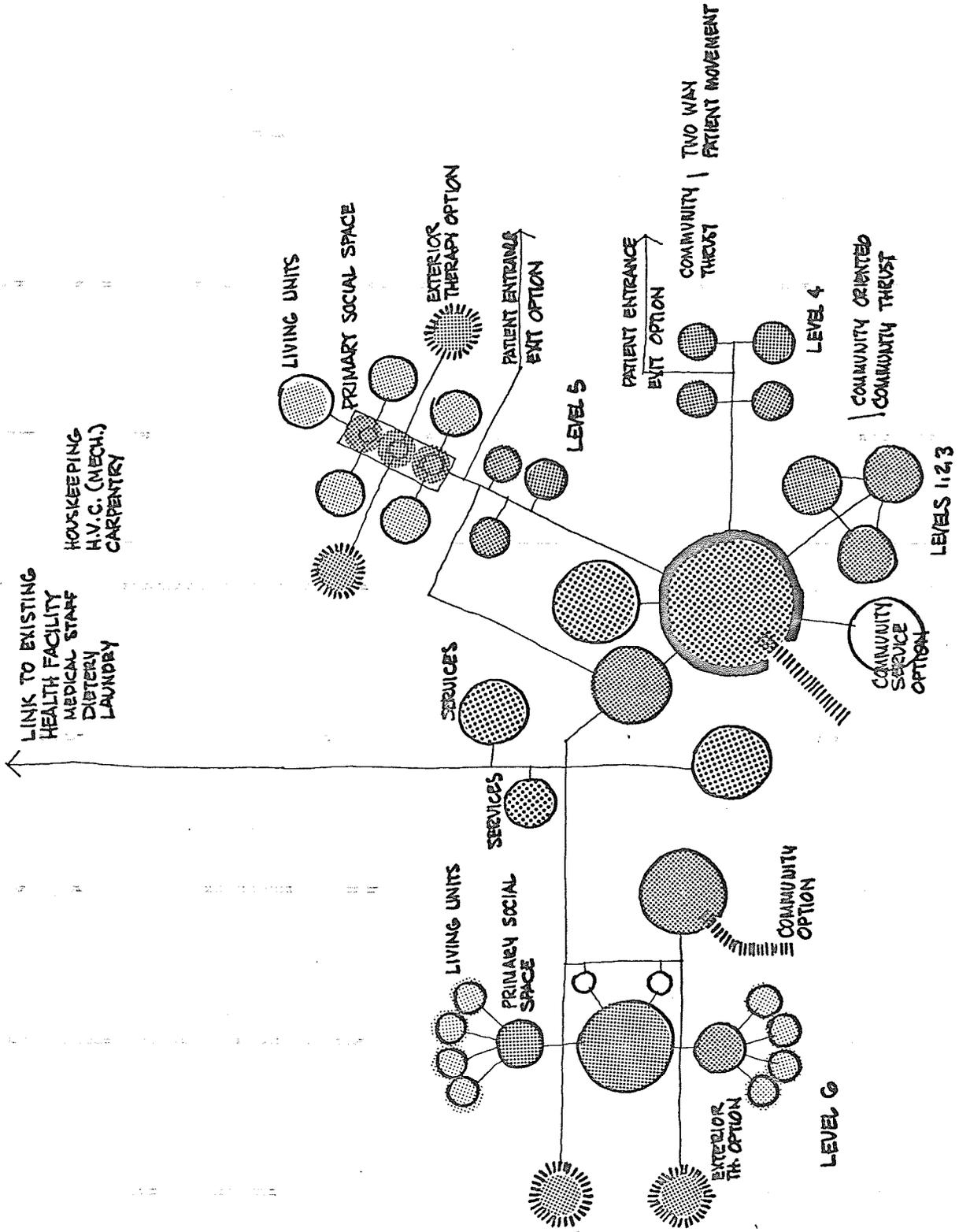


FIGURE 7-22 MULTI-CARE SOCIAL HEALTH FACILITY BUBBLE DIAGRAM

Once a general philosophy and concept has been described, it becomes necessary to develop a program in which the philosophy and concept can be applied. The program is developed along two lines. One is a statistical program development, and the second is a functional program development. The program developed is based on hypothetical needs established from the analysis of the existing organism of patient population and the actual patient population in the Swan River area, and from the interpolation of the data resulting from the analysis.

3. SITUATION DEVELOPMENT.

A. The Situation:

The town of Swan River was chosen in which to further examine the implications of initiating the decentralization model because it would probably be the first point where decentralization should begin (see Figure 6-21, Sub-system Ordering, page 194).

A. The Situation:

(i) The Town.

The town of Swan River is located near the centre of the northern portion of the Parkland sub-system (see Figure 6-22, page 196), which is located in the northern portion of the Parkland Region. The catchment area has a population of 40,000, and within it there is an existing patient population of 138. Presently about 60% of the patients in the catchment area reside in Swan River.

The town (see Figure 7-23, page 212) has shown steady growth, having a population of 2,260 in 1969 compared with its present population of 3,800. Early growth was concentrated along the Canadian National railroad line which splits the town in half, with the residential area to the west of the track and a mixed commercial and residential area to the east side of the CN line. The town was originally settled because of and grew around the needs of the employees of the pulp and saw mills. As roads began to open, highway transportation became an important element in the growth of Swan River. About this time, the town started to become a service and distribution centre for surrounding farms. With the opening of roads came a shift in the commercial growth along Main Street, which was extended to become highway No. 10 to Flin Flon and The Pas

in the north and to Dauphin in the southeast. Later, commercial and industrial facilities were opened to the east and west of the highway 10 junction. Residential growth will probably increase to fill the pocket between the downtown commercial district and the relatively new commercial strip along the highway 10 junction. Note the existing hospital site on town map.

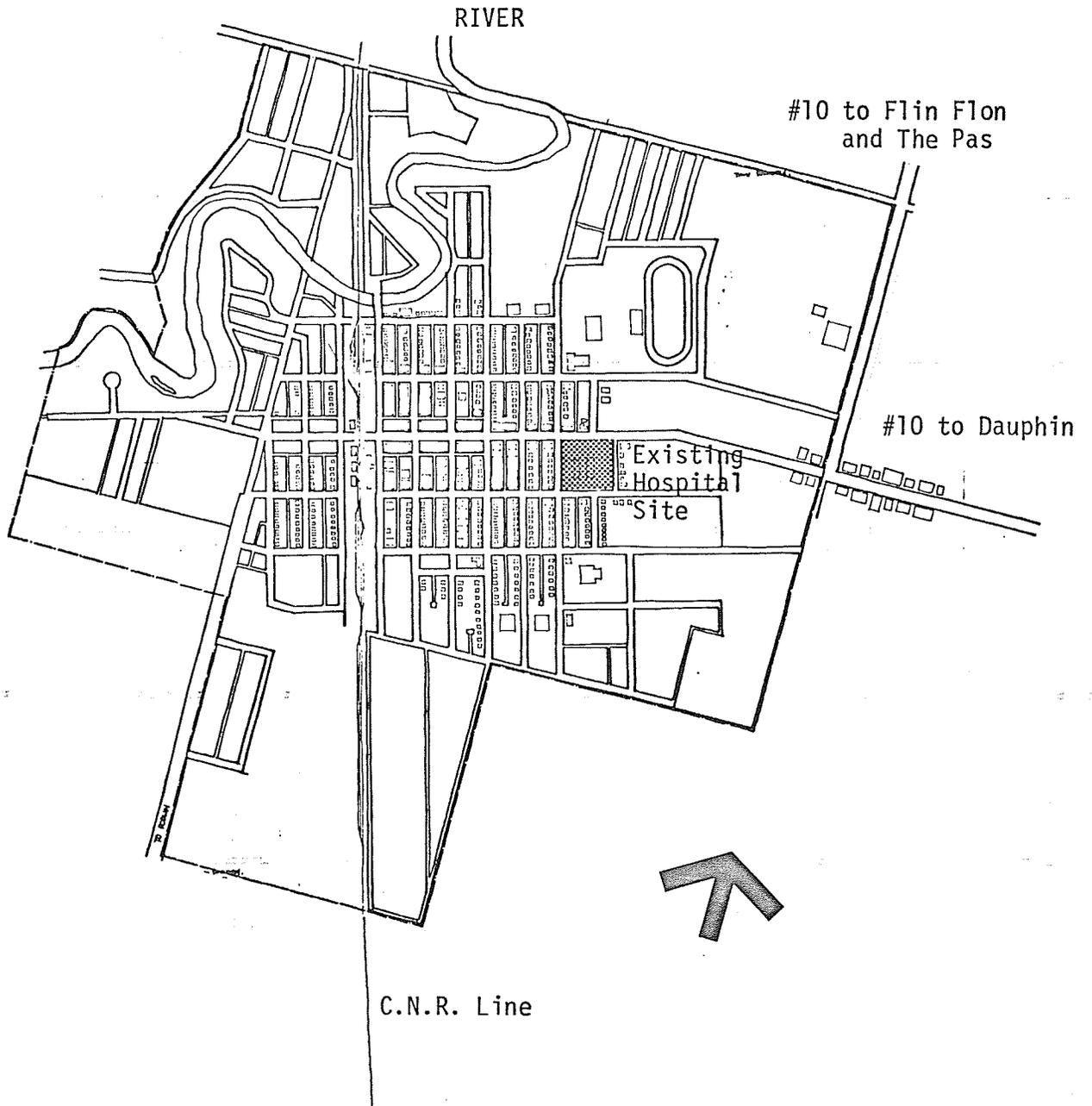


FIGURE 7-23 THE TOWN OF SWAN RIVER

A. The Situation:

(ii) Site.

The site is in the approximate geographic centre of the town located along the main street between the town's two commercial centres (see Figure 7-23, page 272). Ten or fifteen years from now, the site will also enjoy the position of being in the population centre because of the town's growth pattern. The site is surrounded by residential buildings to the west, east and south, and by commercial buildings to the north (ie. service station and a motel).

An existing sixty-eight bed hospital is located on the square site each side measuring 250'. Staff parking is located south of the building and public parking to the east. The site is generally flat with trees (max. 25' high) planted around the periphery of the site about every twenty-five feet.

To give a general idea of the climatic conditions in Swan River they can be compared with those in Winnipeg.

CLIMATIC CONDITIONS:

a. Mean Temperature

	JUNE	JULY	AUG.	DEC.	JAN.	FEB.
Swan River	59.3	65.1	62.5	4.8	3.9	2.7
Winnipeg	61.7	67.5	65.6	7.4	0.9	3.7

b. Average Rain and Snow

	RAIN	SNOW	PRECIPITATION	DAYS OF RAIN
Swan River	13.23"	68.20"	20.06"	68
Winnipeg	16.18"	51.17"	21.06"	57

c. Prevailing Wind

	DIRECTION	GUSTS
Swan River	N.W. (w)	up to 73 m.p.h.
Winnipeg	N.W.	up to 79 m.p.h.

Generally climatic conditions in Swan River are similar to those in Winnipeg, although it is slightly cooler and dryer in Swan River. Solar conditions are also quite similar, with a maximum sun altitude of 60° in Swan River compared to 68° in Winnipeg.

In terms of the proposed facility, there are two general location options available if the proposed facility is to link into the existing hospital. The first is to build on land immediately adjacent to the site. This would mean the purchasing of existing residential land and buildings and linking the proposed and existing sites above and/or below the street, separating the existing hospital site and the proposed site. The second, and chosen option would be to locate the proposed building on the existing site with a more direct linkage system. Figure 7-25, page 277 indicates a building zone area. The constraints of the existing hospital and site must be examined in order to determine where, in the potential building zone, the proposed building can be located.

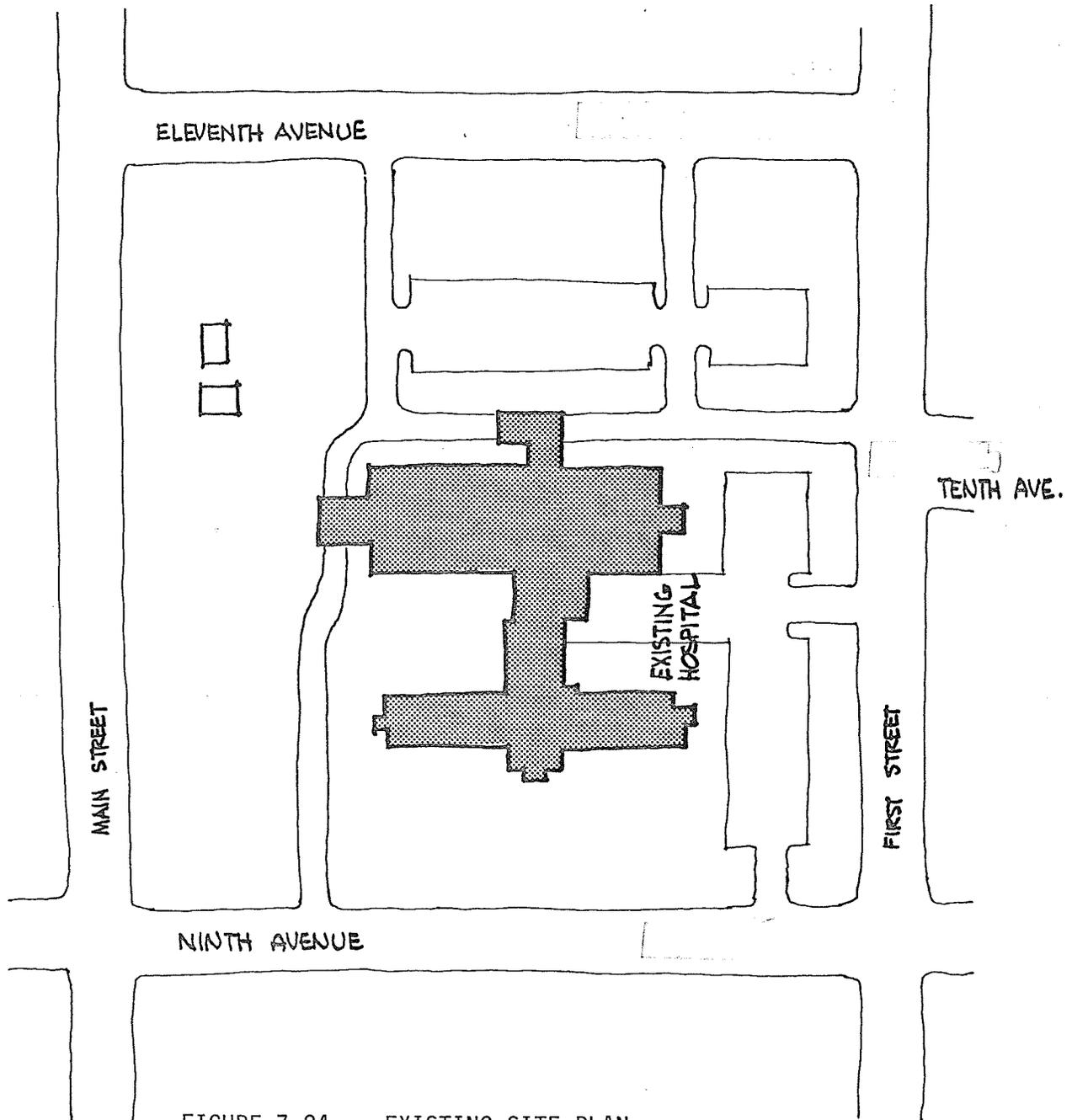


FIGURE 7-24 EXISTING SITE PLAN

A. The Situation:

(iii) Existing Hospital.

The existing hospital was built in two stages. Initially in 1929, a 20 bed hospital was built. In 1966, the hospital was extended to provide 68 beds, and the original 20 bed hospital was converted into an extended care facility. The Swan River Valley Hospital is the only major hospital in the immediate area. The closest major hospital is located in Dauphin. There are, however, two 10 bed hospitals at Birch River and Benito, but any major surgery or medical treatment is done at Swan River. It can be thought of as a district hospital, in the sense that it services the area around the town of Swan River as well as the town itself.

Support services for the hospital are generally located in the basement. Admitting, reception, administration, labs, operating rooms, and dietary facilities are located on the first floor of the new wing, with extended care beds on the main floor of the old wing. Shipping and receiving are located in the link between the two wings. The second floor of the new wing houses maternity and nursing care facilities. The link contains minimal care wards, and the old wing houses a pediatric ward and classrooms, etc. for a nurses' training program. See the drawings on pages 278, 279, and 280 for plan layouts of the existing hospital.

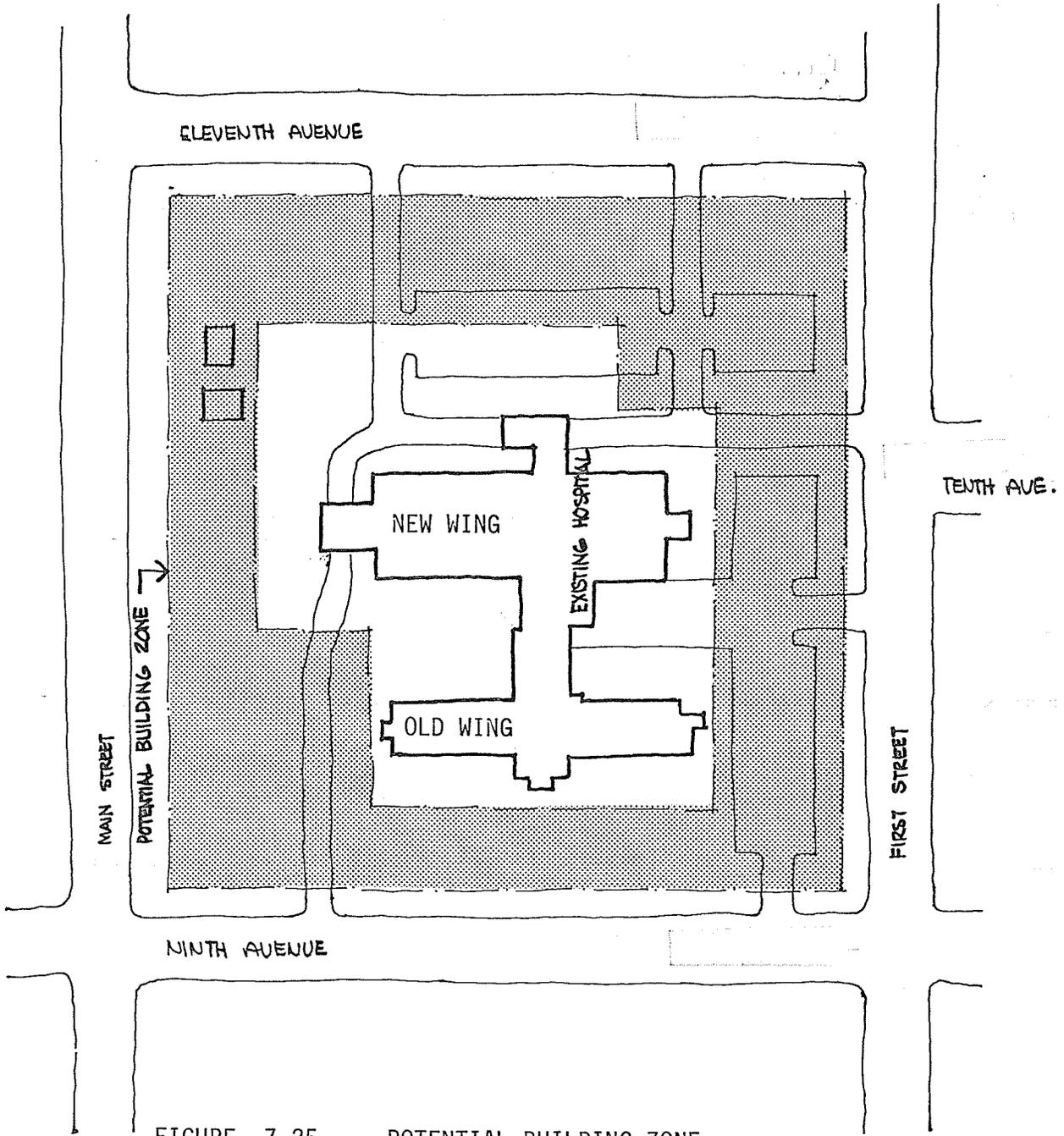


FIGURE 7-25 POTENTIAL BUILDING ZONE

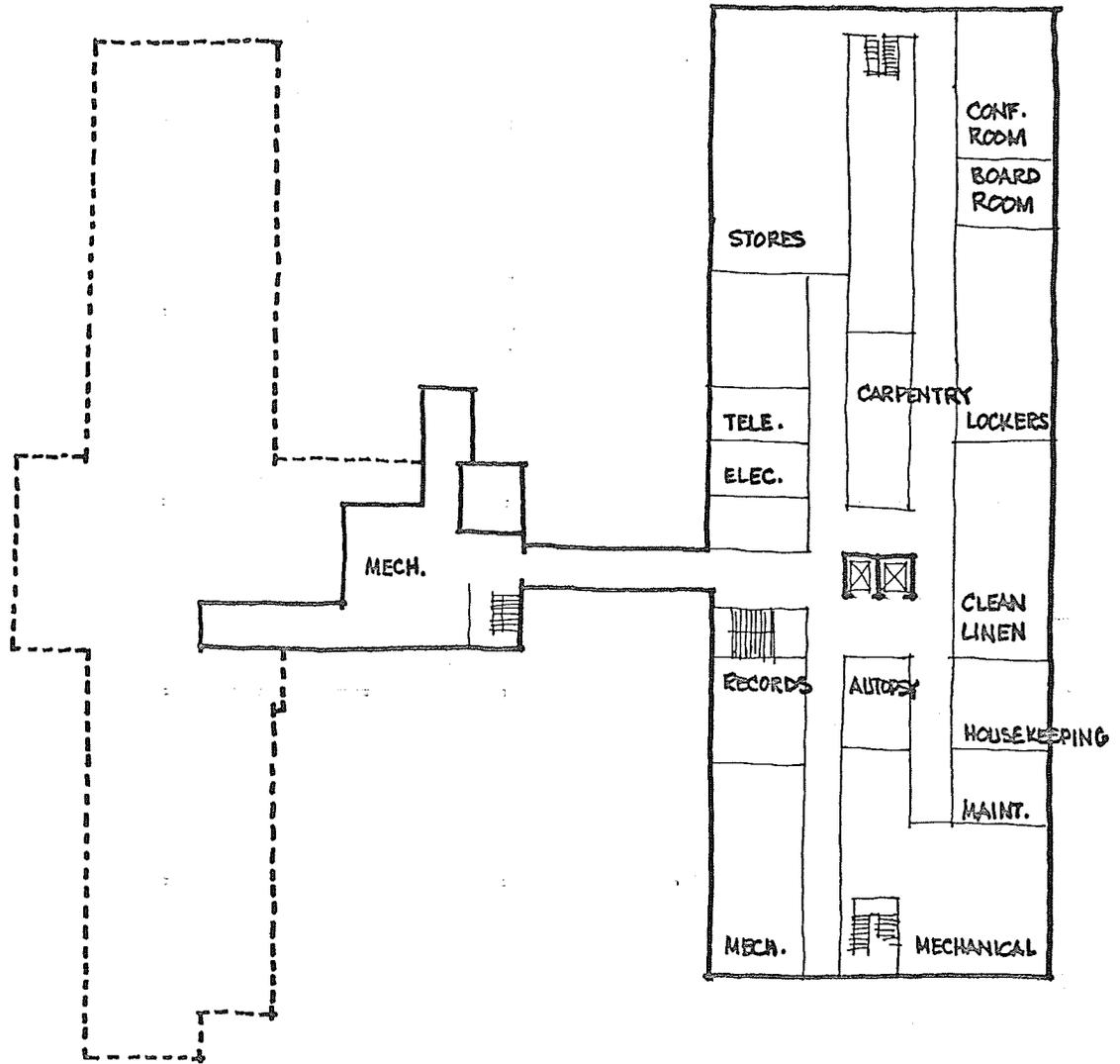


FIGURE 7-26 EXISTING HOSPITAL, BASEMENT

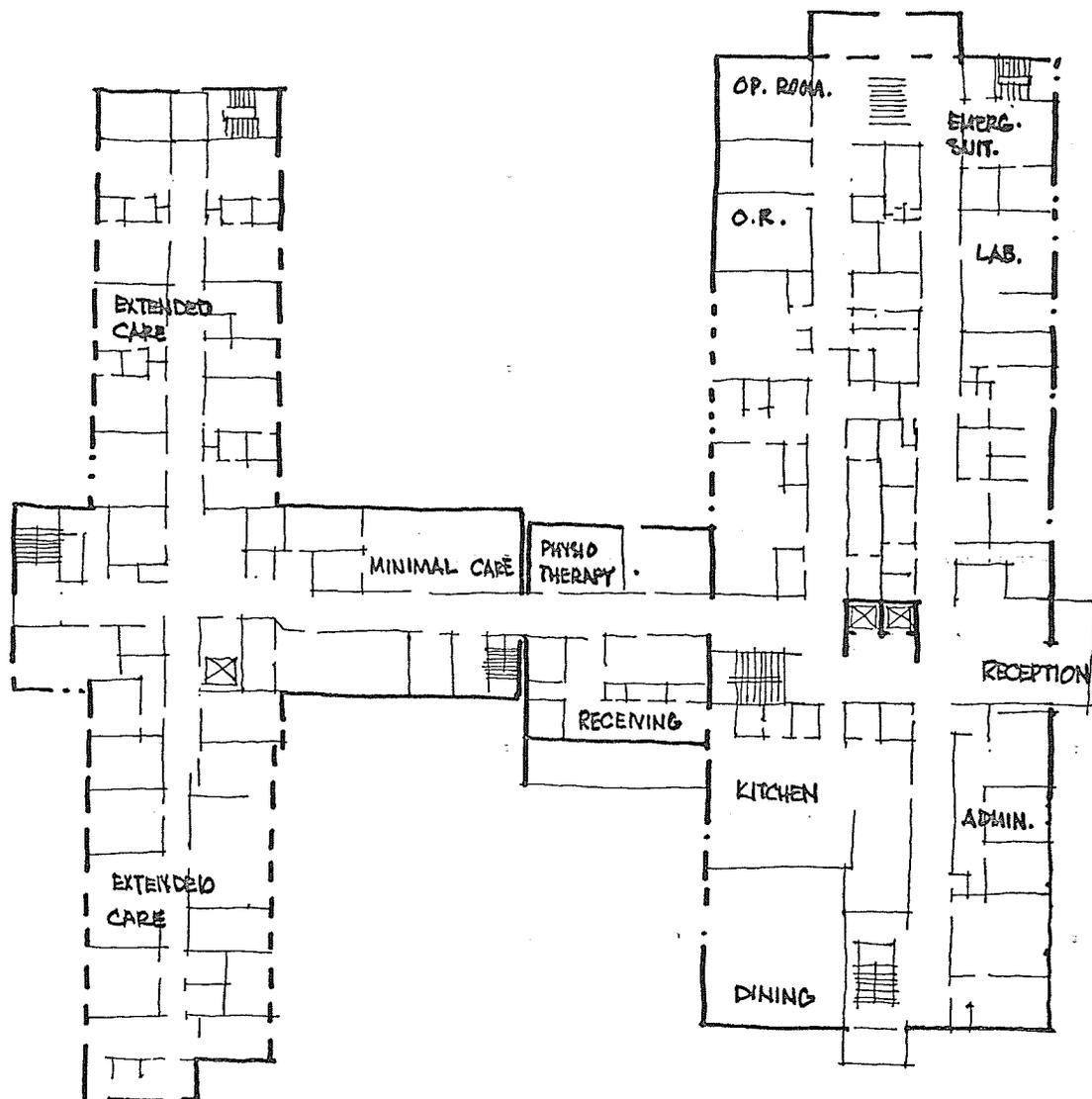


FIGURE 7-27 EXISTING HOSPITAL, FIRST FLOOR

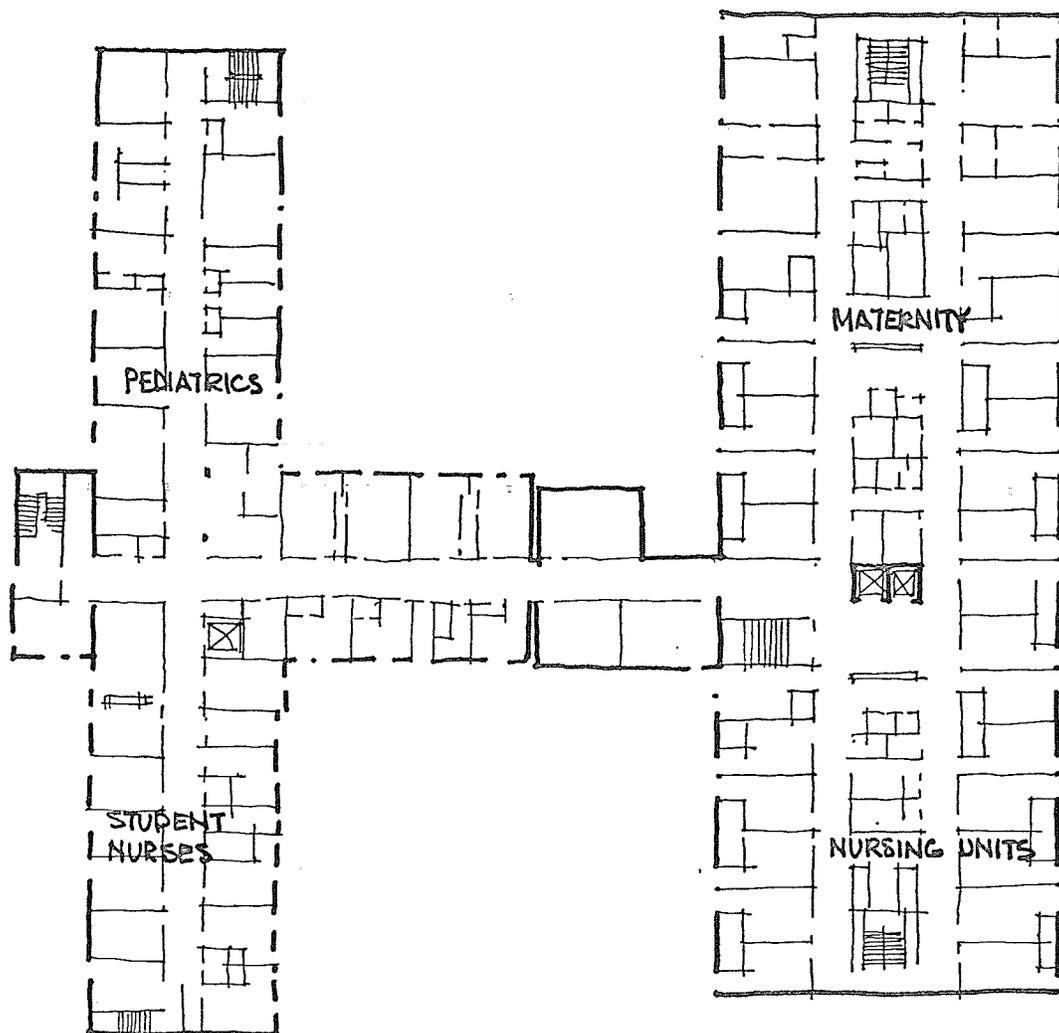


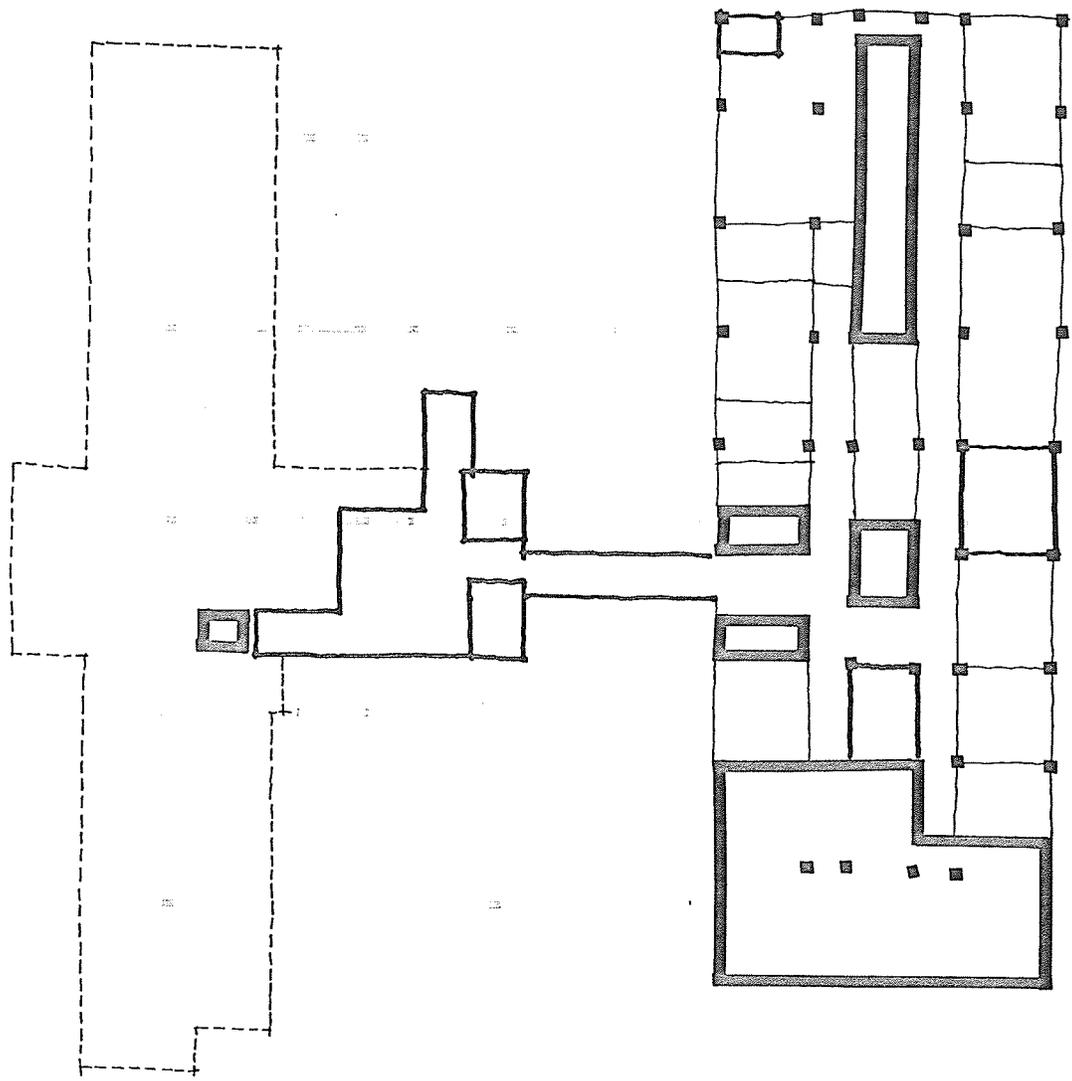
FIGURE 7-28 EXISTING HOSPITAL, SECOND FLOOR

A. The Situation:

(iv) Linkage Capabilities.

A study of linkage capabilities is an attempt to find appropriate places in which to link the existing hospital with the proposed multi-care health facility. It also gives an indication of where the proposed building might be placed relative to the existing building. Linkage capabilities are determined by existing building conditions and by site constraints. In terms of internal building conditions, two measures were made to determine linkage capabilities.

First, permanence patterns, seen in terms of functional changeability, were mapped out. Three degrees of permanence were used to make the evaluation. First degree permanence elements are structural columns and beams, elevator shafts, etc. which are difficult to move. Some second degree permanence elements are kitchens, laboratories, operating rooms, etc., and third degree permanence elements are areas that are relatively easy to change such as the reception and administrative areas. Diagrams (see Figures 7-29, page 282; 7-30, page 283; 7-31, page 284) show the resulting permanence patterns.



-  FIRST DEGREE
-  SECOND DEGREE
-  THIRD DEGREE



FIGURE 7-29 PERMANENCE PATTERNS, BASEMENT

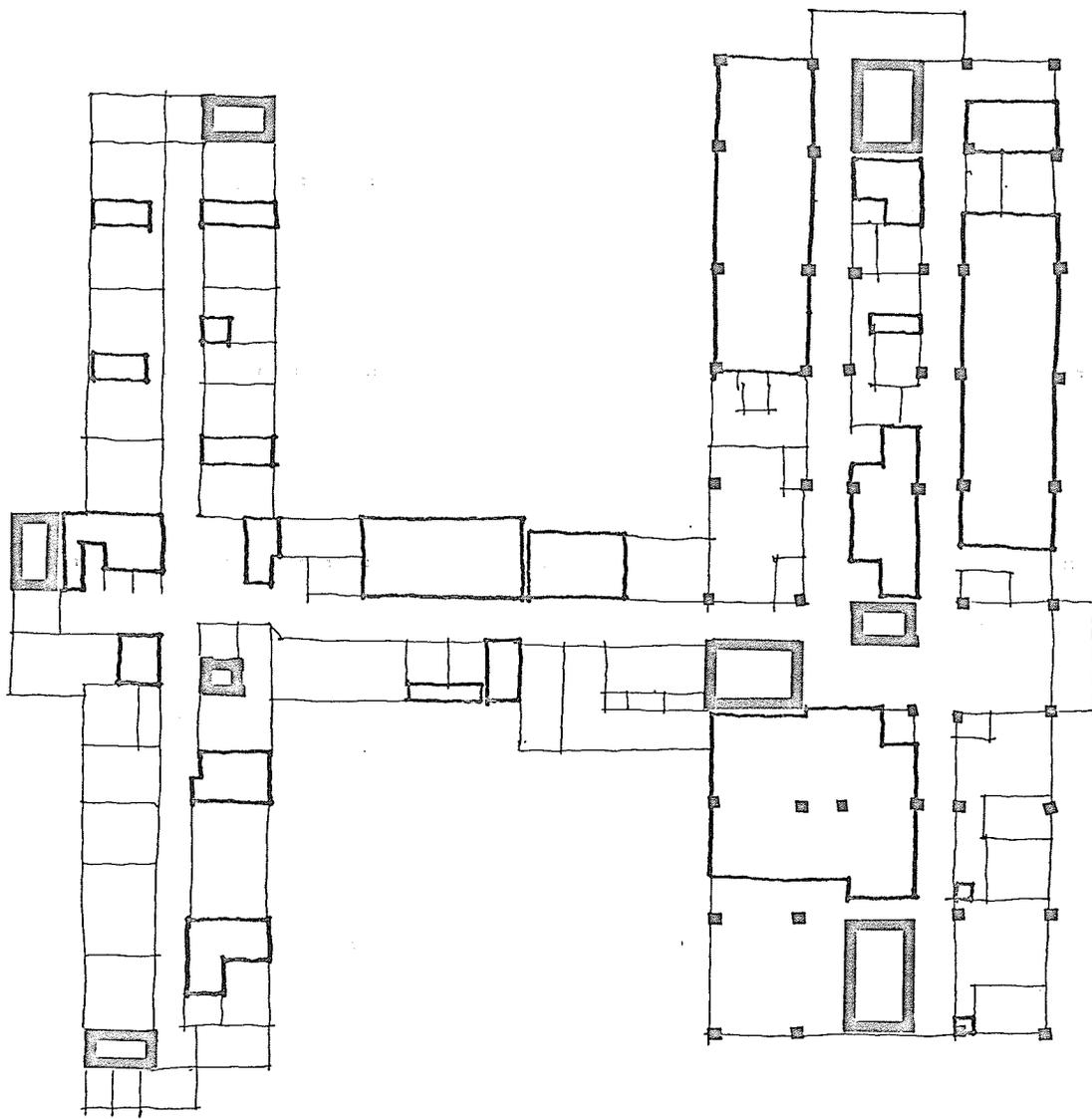


FIGURE 7-30 PERMANENCE PATTERNS, FIRST FLOOR

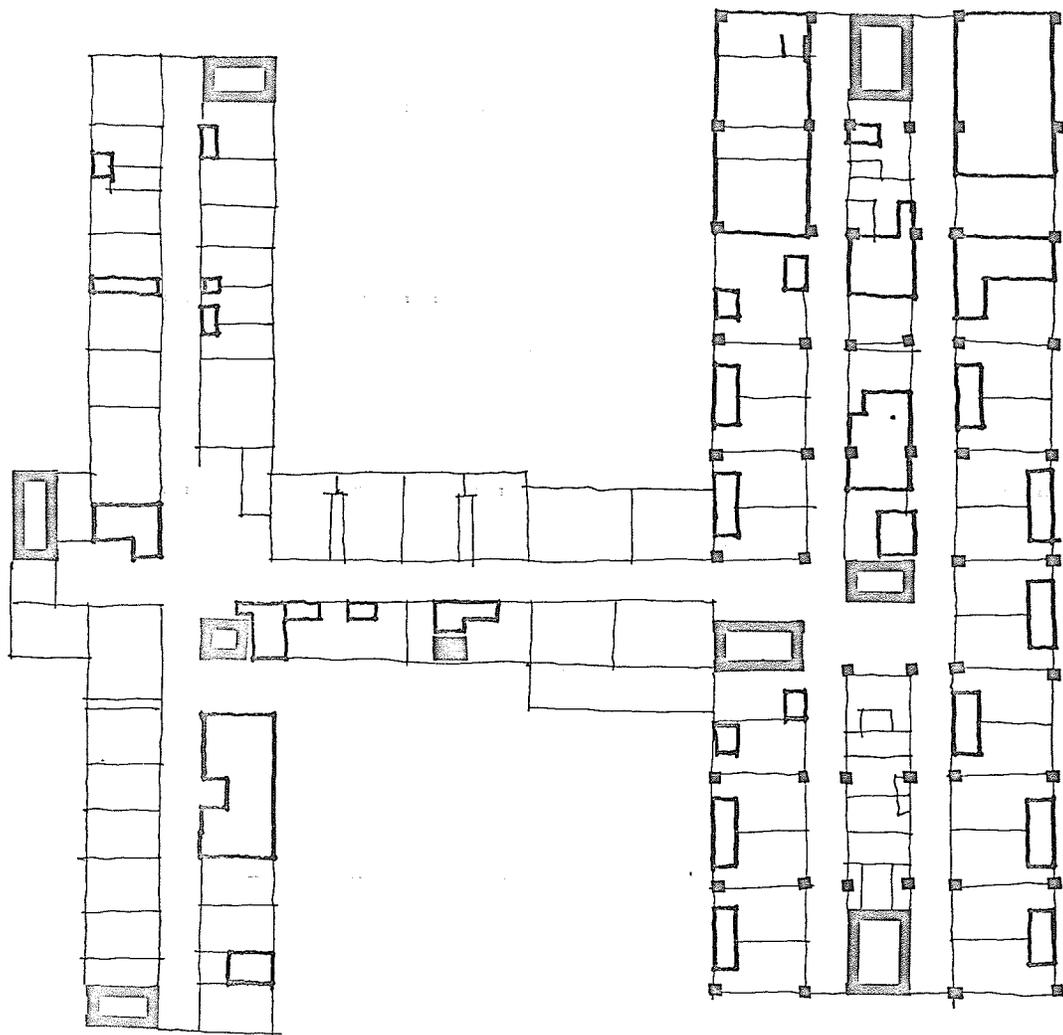


FIGURE 7-31 PERMANENCE PATTERNS, SECOND FLOOR

Second, functional patterns were mapped out. Three degrees of functional linkage were used. First degree functional elements are those which have the strongest relationships with the new facility, such as mechanical, dietary and service spaces. Second degree functional patterns include spaces like operating rooms, nursing care units and some therapy areas. Third degree functional elements are spaces that have little or no relationship to the new facility and include administrative, sanitary, and general storage areas. For the resulting functional patterns, see Figures 7-32, page 286 , and 7-33, page 287 .

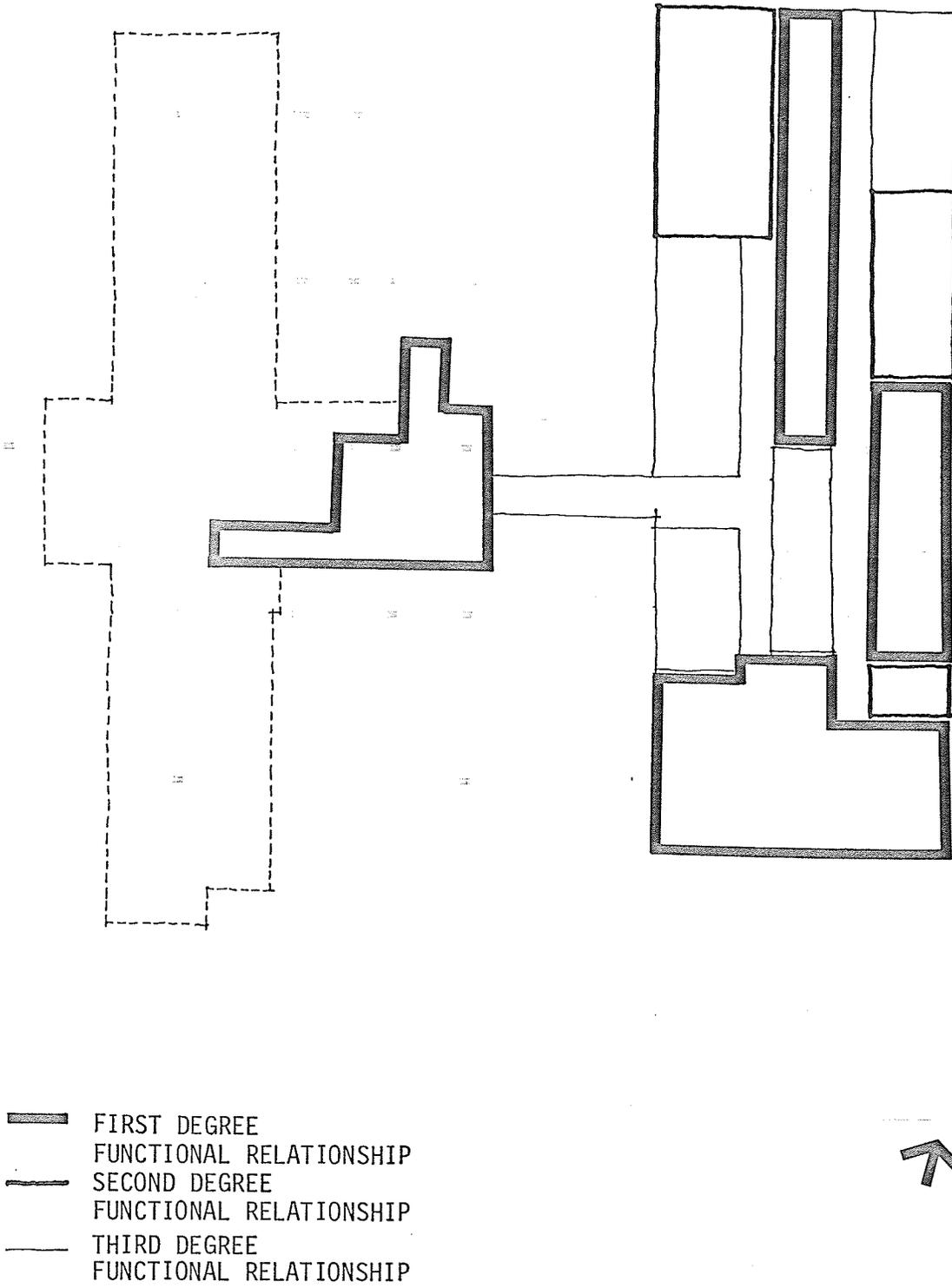


FIGURE 7-32 FUNCTIONAL PATTERNS, BASEMENT

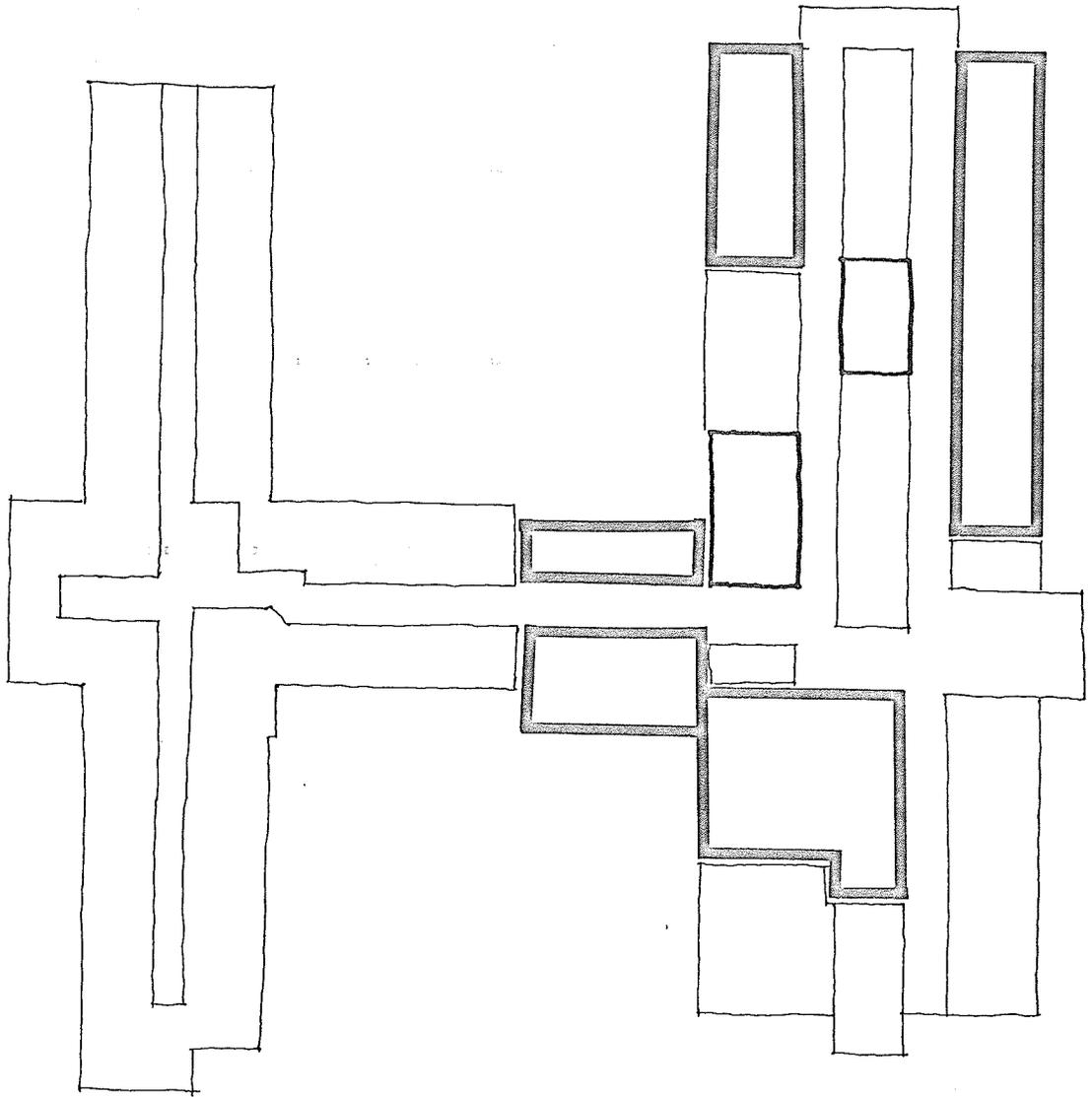
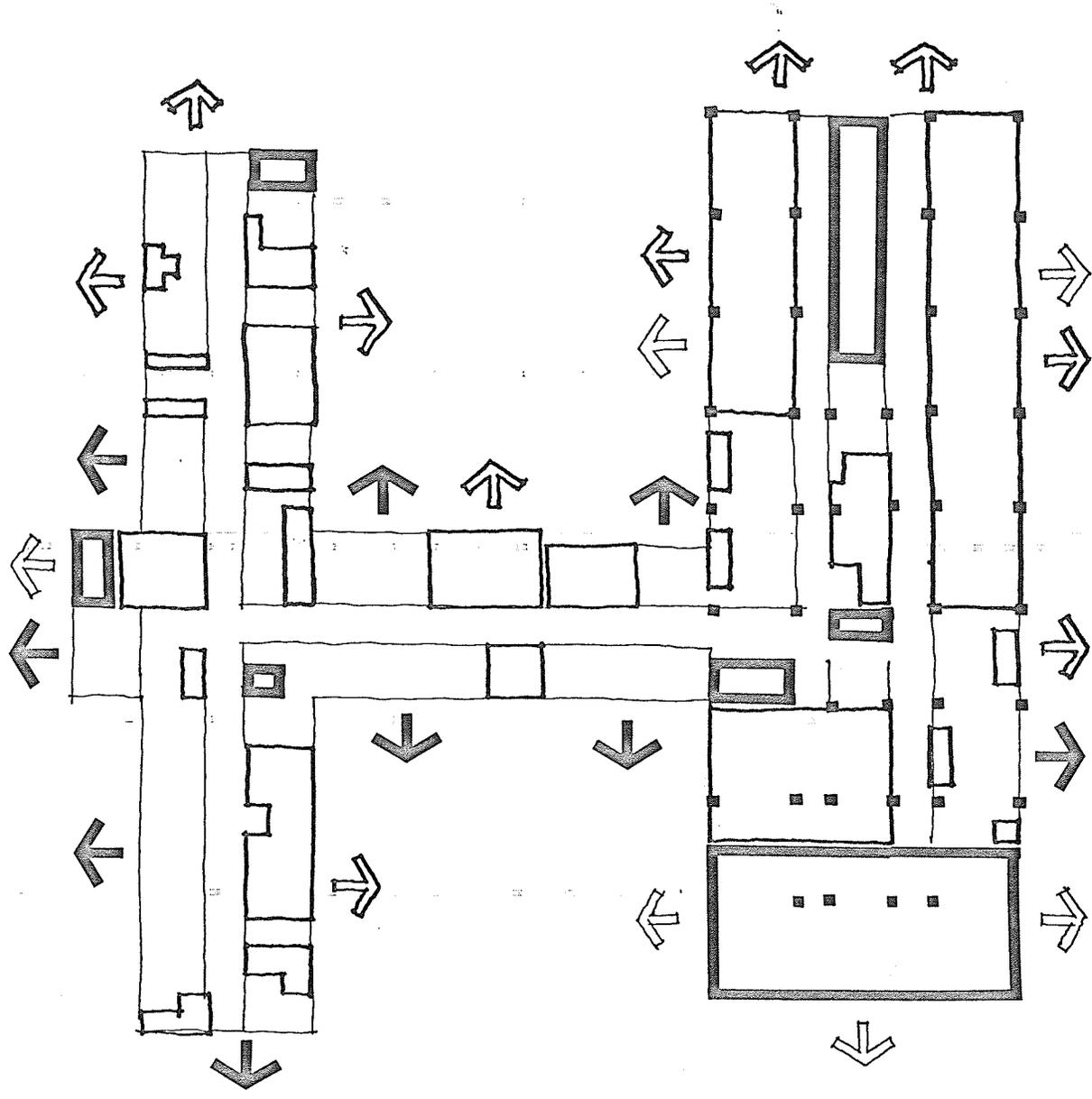


FIGURE 7-33 FUNCTIONAL PATTERNS, FIRST FLOOR

Permanence pattern diagrams can be overlaid with functional pattern diagrams resulting in a summary of both of these patterns. This summary diagram indicates linkage capability points, as seen in Figure 7-34, page 289.



-  FIRST DEGREE LINKAGE CAPABILITIES
-  SECOND DEGREE LINKAGE CAPABILITIES
-  THIRD DEGREE LINKAGE CAPABILITIES

FIGURE 7-34 PERMANENCE PATTERNS, SUMMARY AND LINKAGE CAPABILITIES

Third, site constraints were examined to determine external permanence patterns. Again three degrees of permanence were used to establish the patterns. First degree permanence implies the least amount of disruption to existing site conditions and third degree permanence implies a relatively high degree of disruption to site conditions or constraints. See Figure 7-35, page 291 for the resulting patterns.

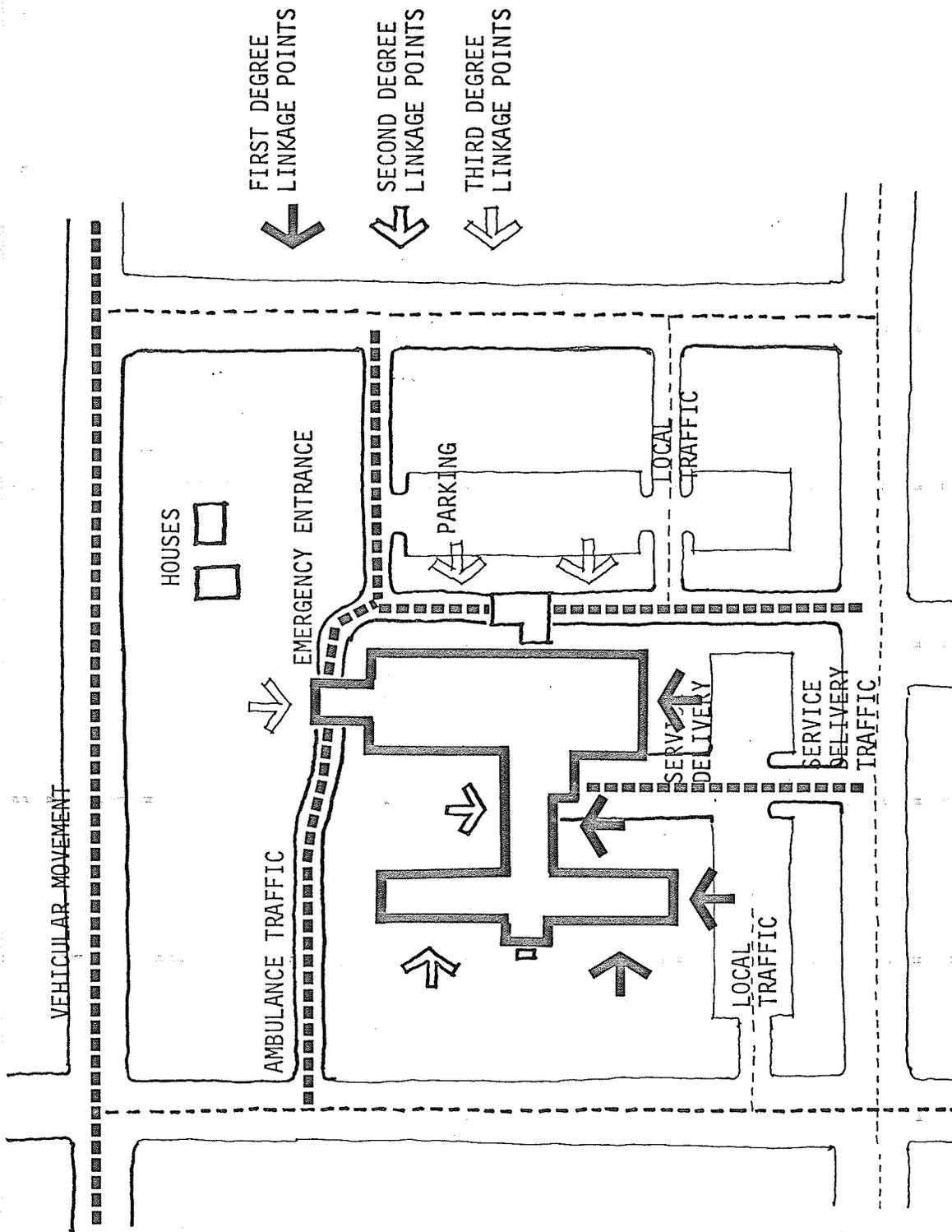


FIGURE 7-35 SITE CONSTRAINTS, PERMANENCE

An examination of the preceding permanence patterns can result in a linkage capability diagram. This is arrived at by superimposing internal permanence and functional patterns and comparing their results with external site permanence capabilities in order to determine the appropriate places where linkages could take place. The result is shown on a linkage capability summary diagram, (see Figure 7-36, page 293). The proposed building zone, which is consistent with the appropriate linkage area, is also shown on the diagram.

● FIRST DEGREE LINKAGE CAPABILITY

● SECOND DEGREE LINKAGE CAPABILITY

● THIRD DEGREE LINKAGE CAPABILITY

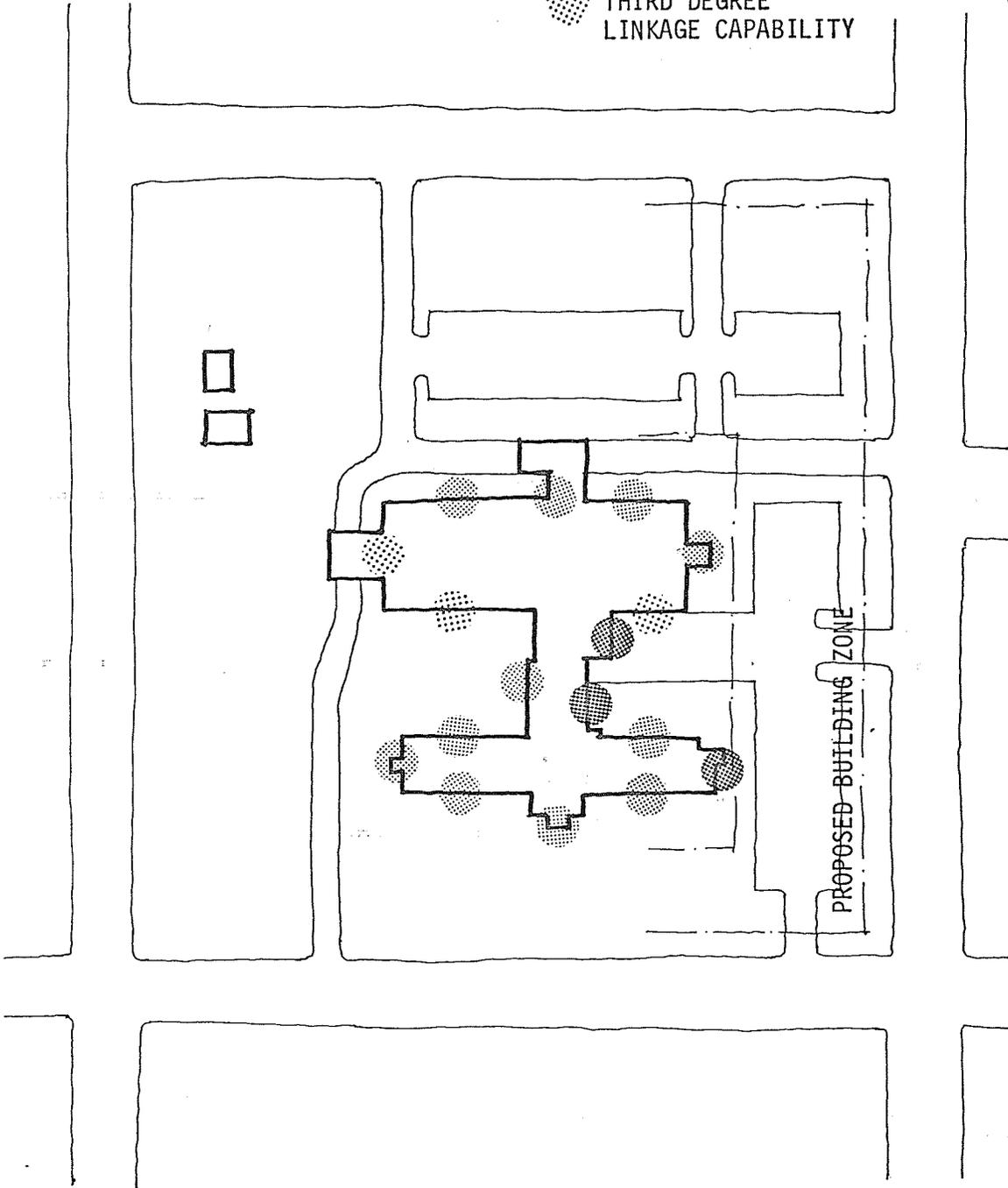


FIGURE 7-36 LINKAGE CAPABILITY SUMMARY AND PROPOSED BUILDING ZONE

3. The Situation:

(v) Site Zoning.

The main determinants of site zoning, once the general position of the proposed complex has been established, are service and linkage options.

(v) Site Zoning:

(a) Service Option One

Service bay is left as it exists, with entrance and exit options to the east and south. The problem here is that servicing must go through the proposed building area or be mixed with local entrance traffic. Also, any future options for linkage to the acute care portion of the hospital at the ground level are limited. (see Figure 7-37, page 295).

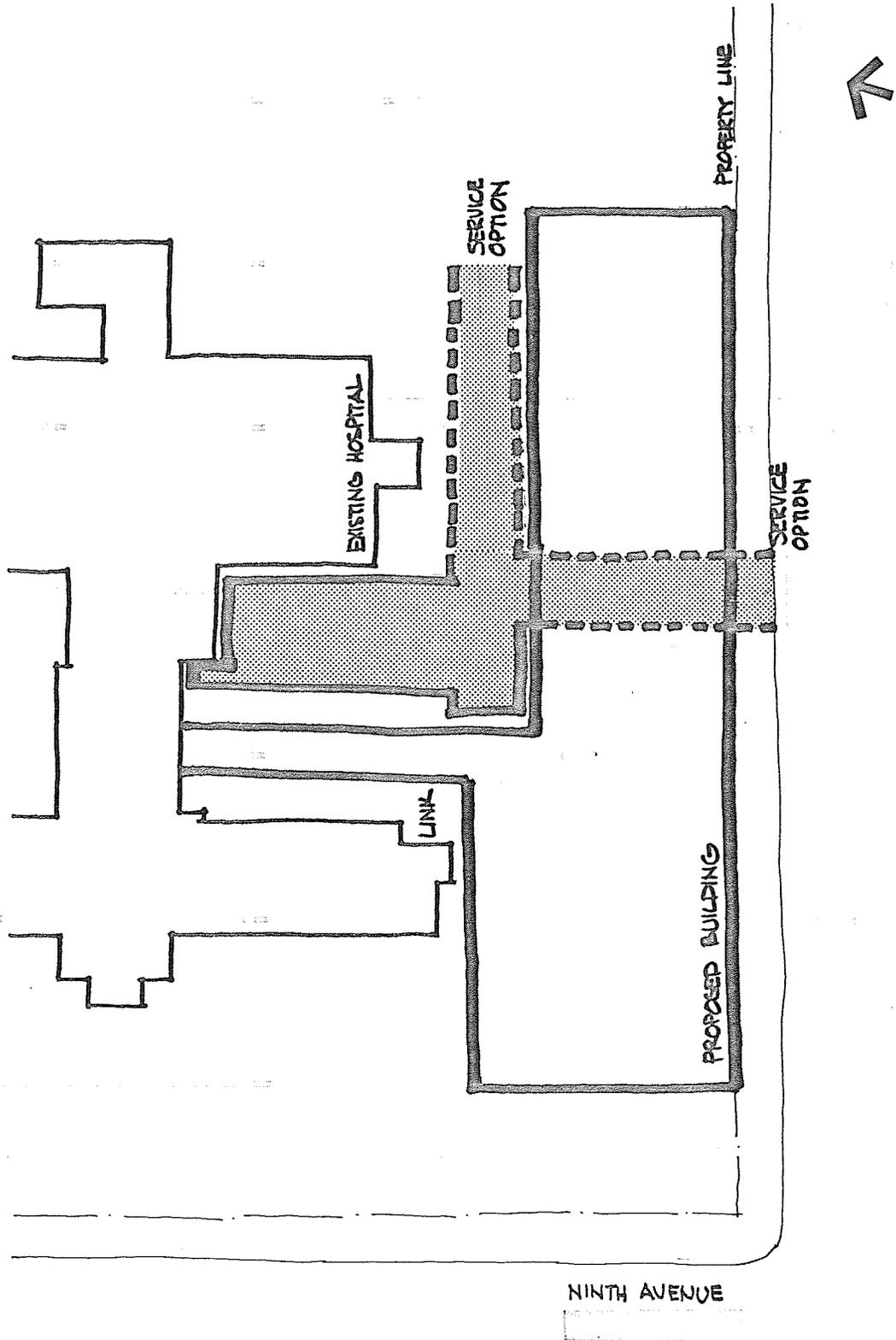


FIGURE 7-37 SITE ZONING, SERVICE OPTION ONE

(v) Site Zoning:

(b) Service Option Two

Entrance/exit and future option problems are solved by moving the service by to the west and by entering and exiting from the west. This leaves all interface east of the service ramp open to linkage options, as well as avoiding the conflict between local and service traffic. (See Figure 7-38, page 297.)

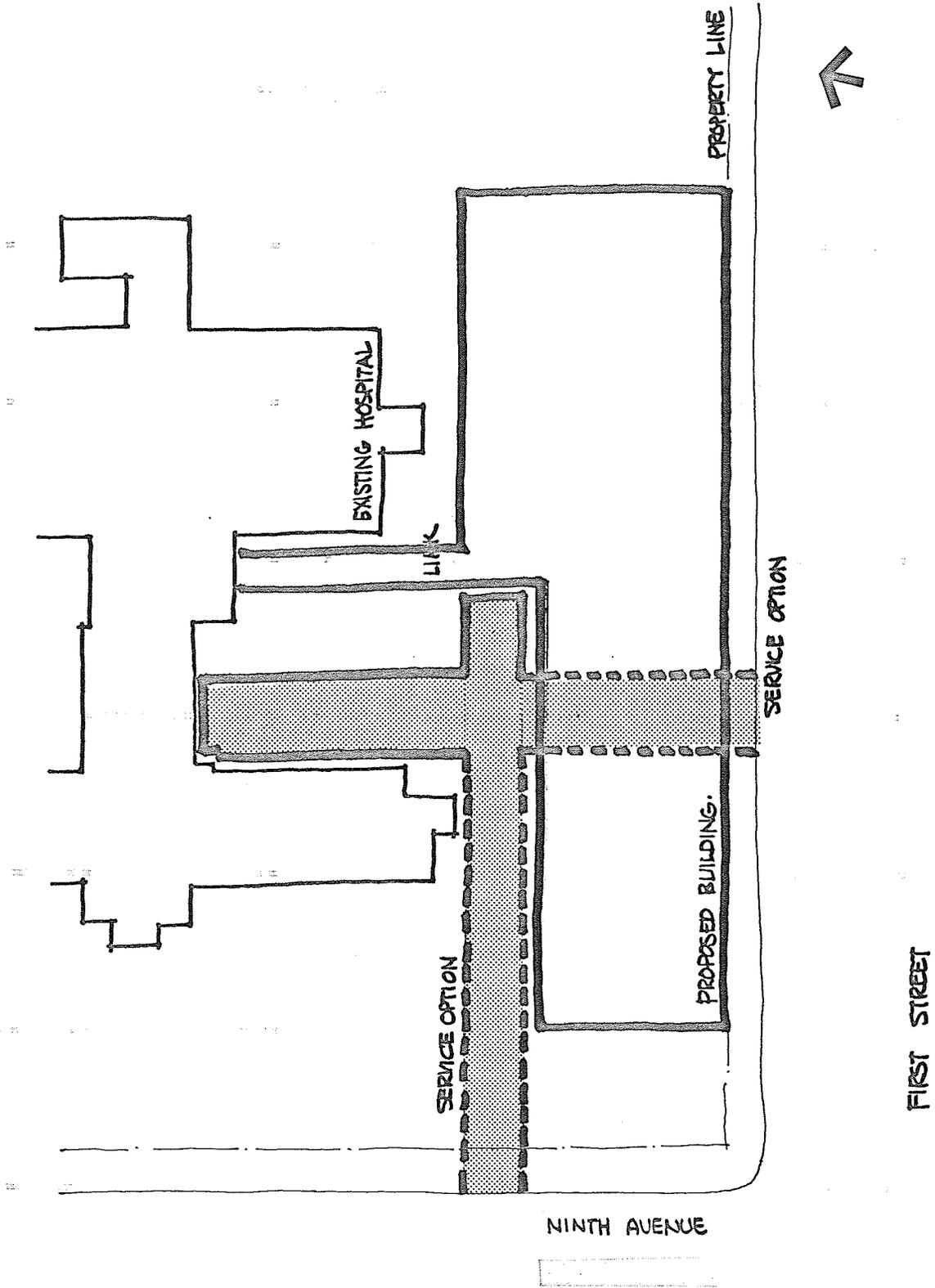


FIGURE 7-38 SITE ZONING, SERVICE OPTION TWO

(v) Site Zoning:

(c) Service Option Two, Link Option One

The problem with this link option is that it disrupts the view of the dining area in the existing hospital. It also closes off combining emergency entrances for the two facilities at one point such a combination is desirable. (see Figure 7-39, page 299.)

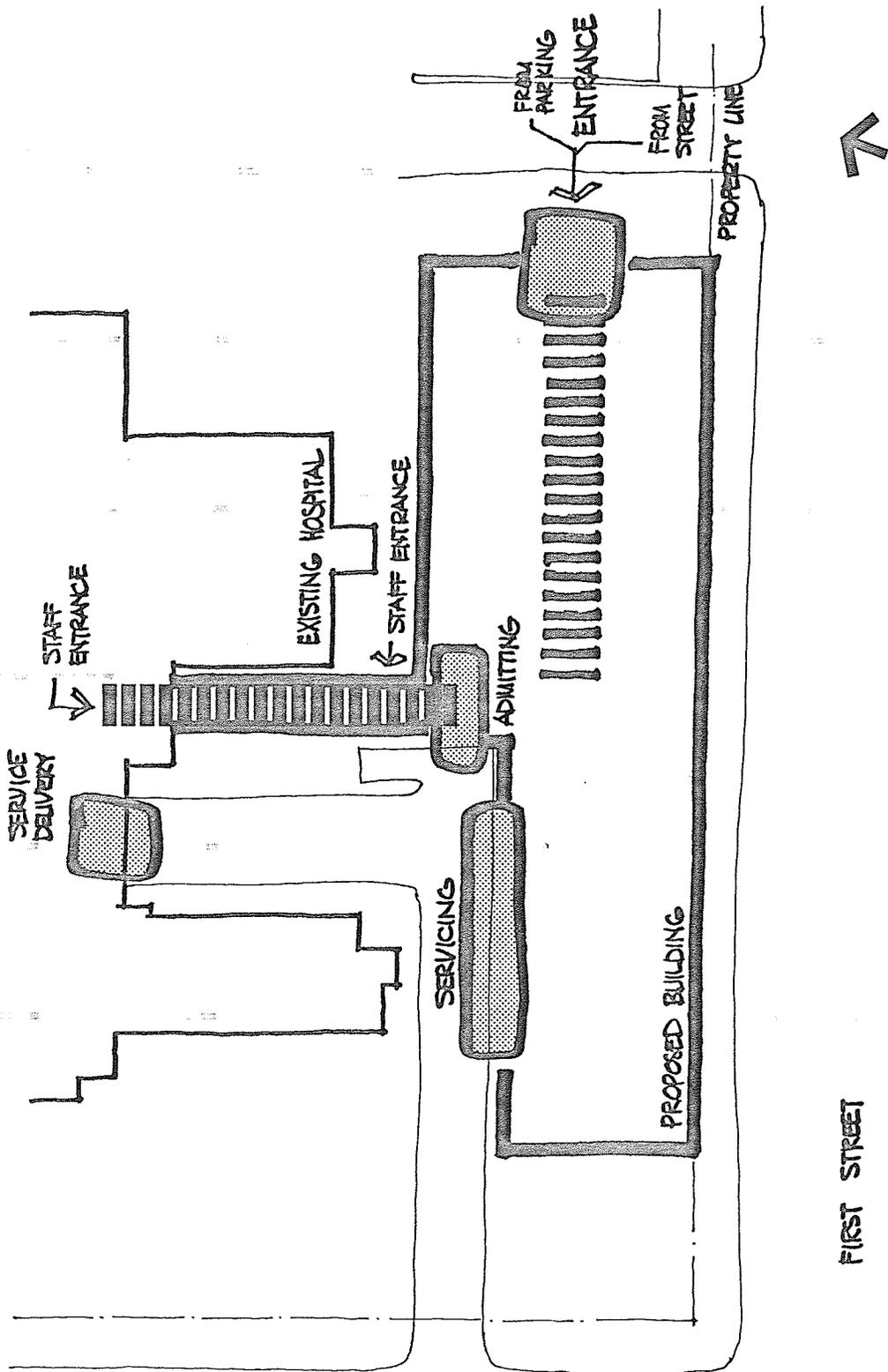


FIGURE 7-39 SITE ZONING, SERVICE OPTION TWO, LINK OPTION ONE

(v) Site Zoning:

(d) Service Option Two, Link Option Two

This is the selected zoning option. Emergency entrances are combined at one point, and linkage from the proposed to the existing building occurs at this point. A staff entrance is located on the side of the link which is west of the service ramp area (see Figure 7-40, page 301).

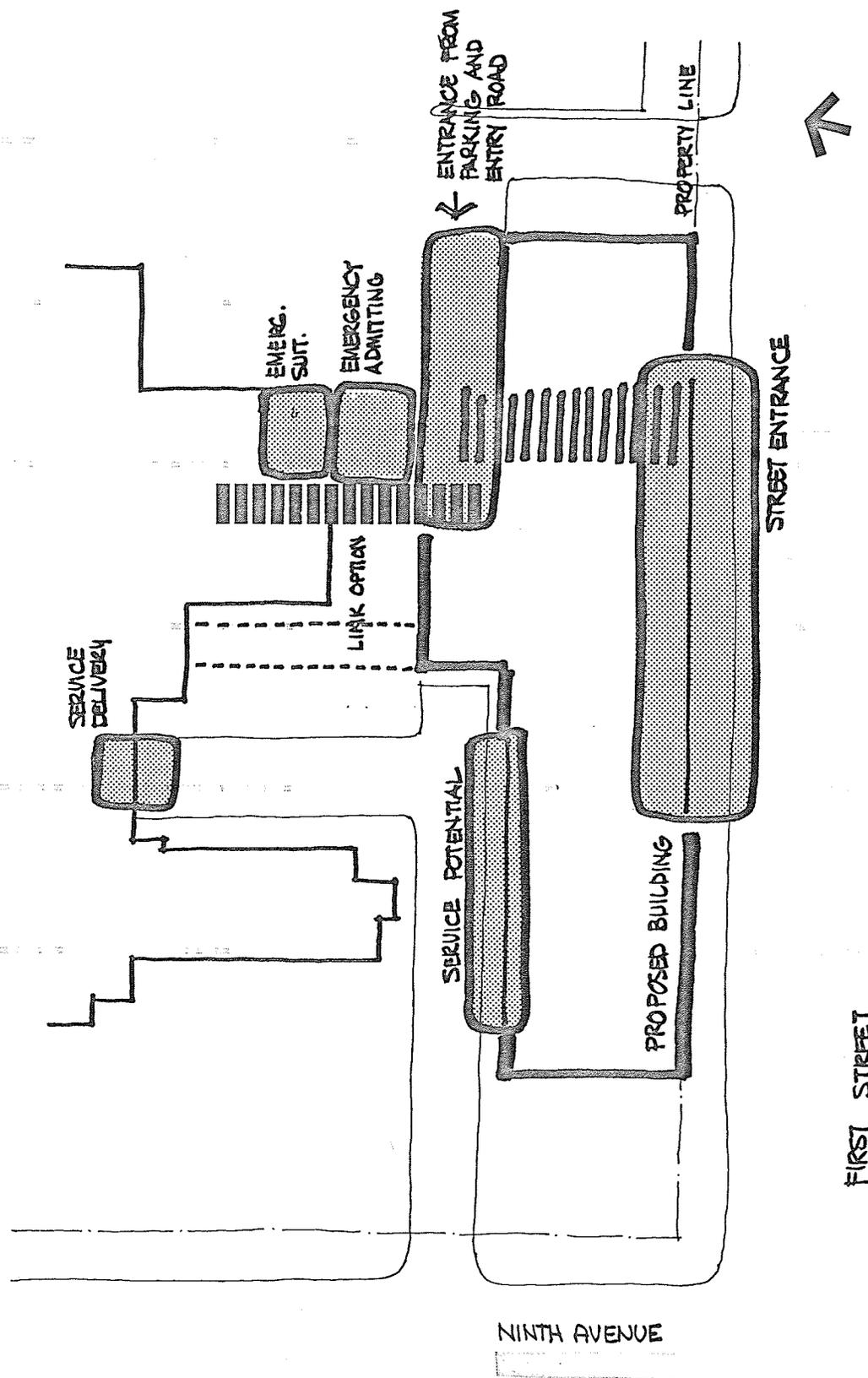


FIGURE 7-40. SITE ZONING, SERVICE OPTION TWO, LINK OPTION TWO

A. The Situation:

(vi) Building Zoning and Linkages.

Generally service areas are located in the basement; public-oriented spaces are located on the first and mezzanine levels; and patient therapy and living units are located on the second and third levels. Outdoor therapy areas are located on the roofs of the mezzanine and the second floors.

Service linkage is directly into the service link of the existing hospital. Staff links occur at: the ground level immediately adjacent to the emergency entrance in order to facilitate medical care for any mental health patients being admitted, and on the second level in the existing nursing care ward and in the existing nurse's training wing.

Service areas are generally located in the basement. They include the new dispensary, a mechanical room, laundry, staff dining, staff lockers, and the service link. They are designed to be consistent with the service areas located in the existing building and in other buildings of this type.

See Figure 7-41, page 304 for basement zoning plan.

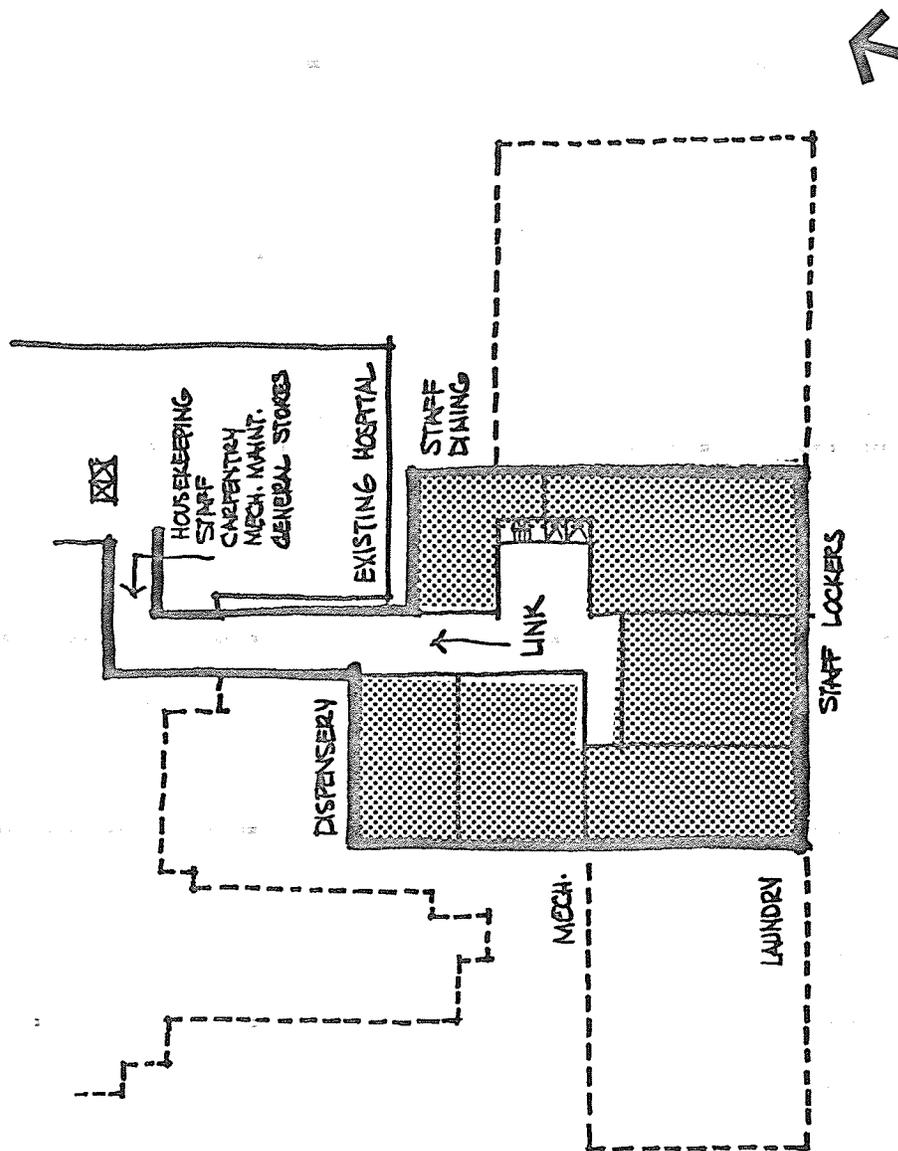


FIGURE 7-41 BASEMENT ZONING

Public oriented functions are zoned for the first floor. These include administrative areas, treatment levels one, two, three and four, reception, and social facilities. It might be noted that the emergency admitting entrance is common to both the existing and the new facility. This common entrance facilitates the emergency treatment that is required by a significant proportion of level five and six patients. See Figure 7-42, page 306, for the first floor zoning diagram..

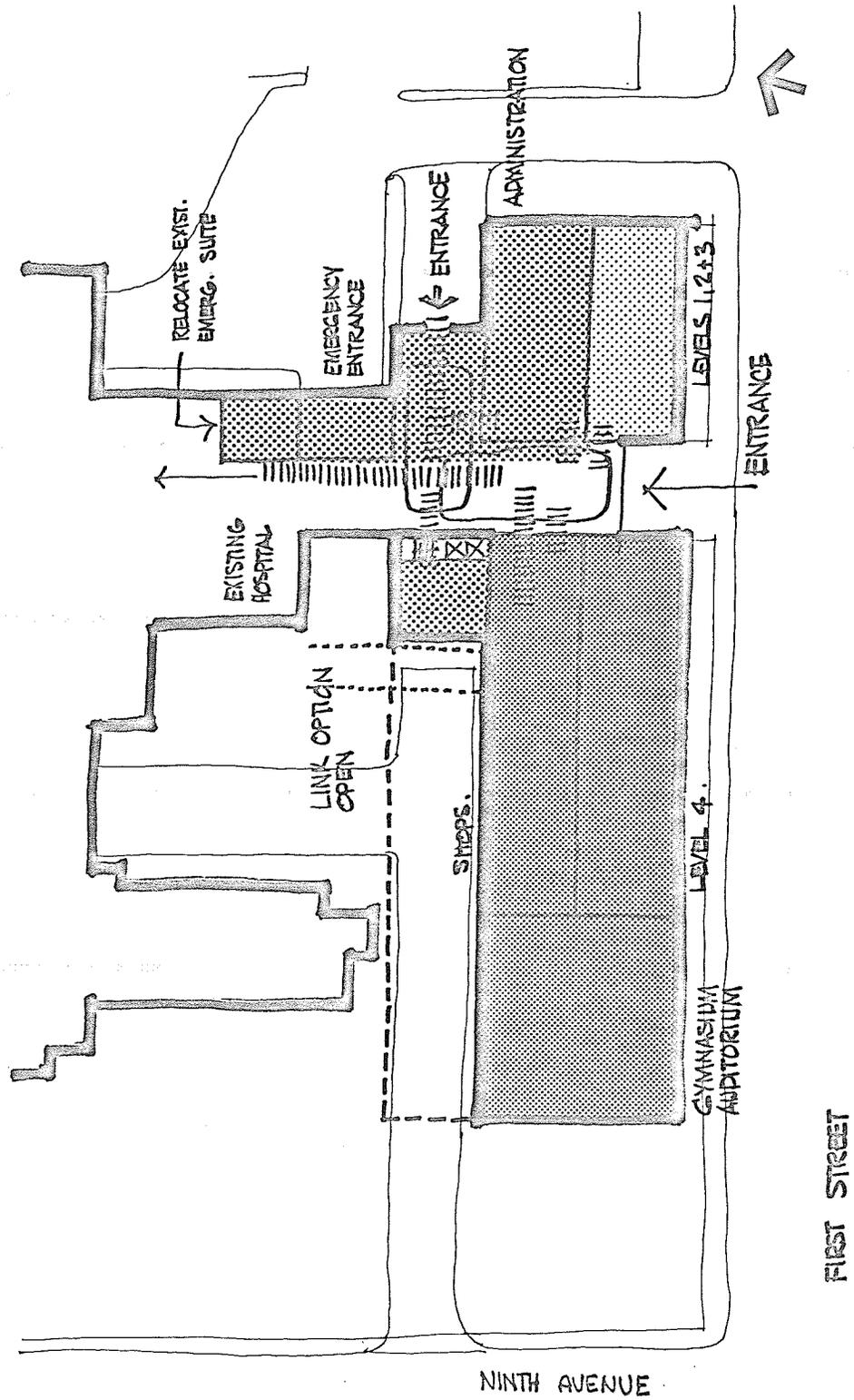


FIGURE 7-42 FIRST FLOOR ZONING

Due to the limited area on the first level, some public functions are located on a mezzanine level. These include some administrative areas, a public cafeteria, and some level one, two, and three areas. See Figure 7-43, page 308, for the mezzanine zoning diagrams.

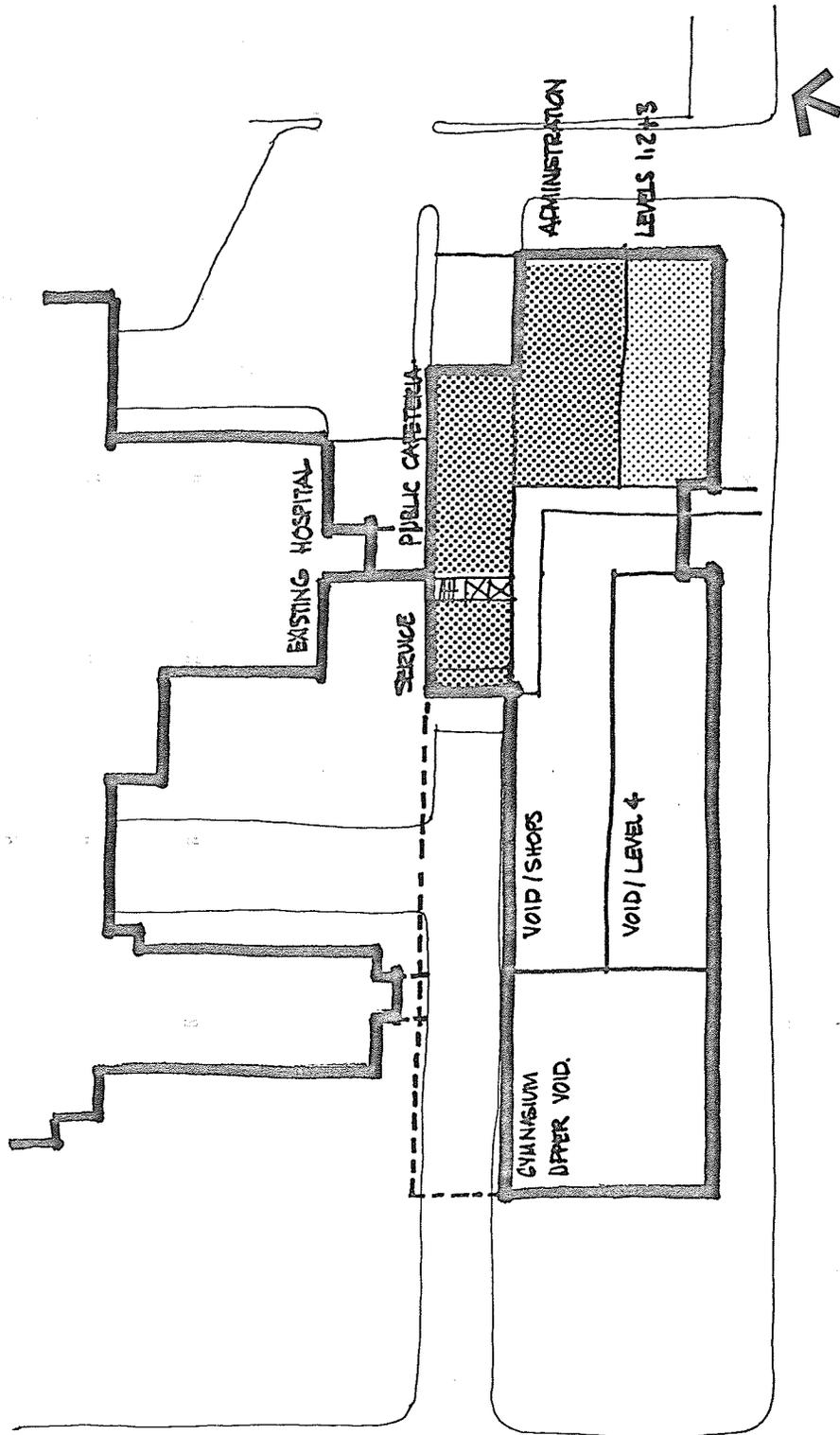


FIGURE 7-43

MEZZANINE ZONING

Level five and six living areas, along with therapy areas directly related to them, are located on the second floor and on the roof of the mezzanine level. Two important links with the existing facility occur on this level; the nursing care link and the educational link (see Figure 7-44, page 310) .

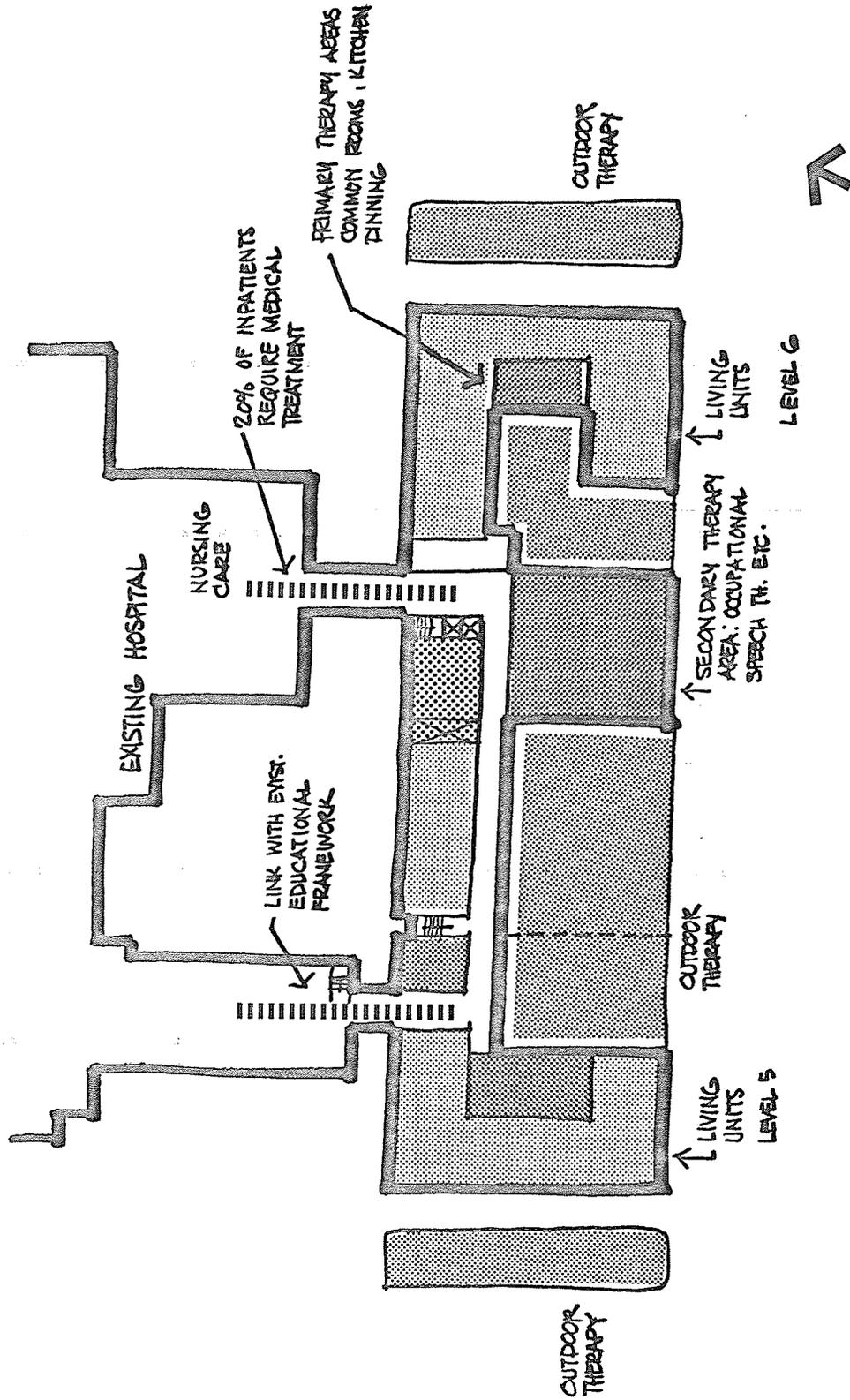


FIGURE 7-44 SECOND FLOOR ZONING

The remainder of level five and six patient living units, with their accompanying therapy areas, are located on the third level. (See Figure 7-45, page 312).

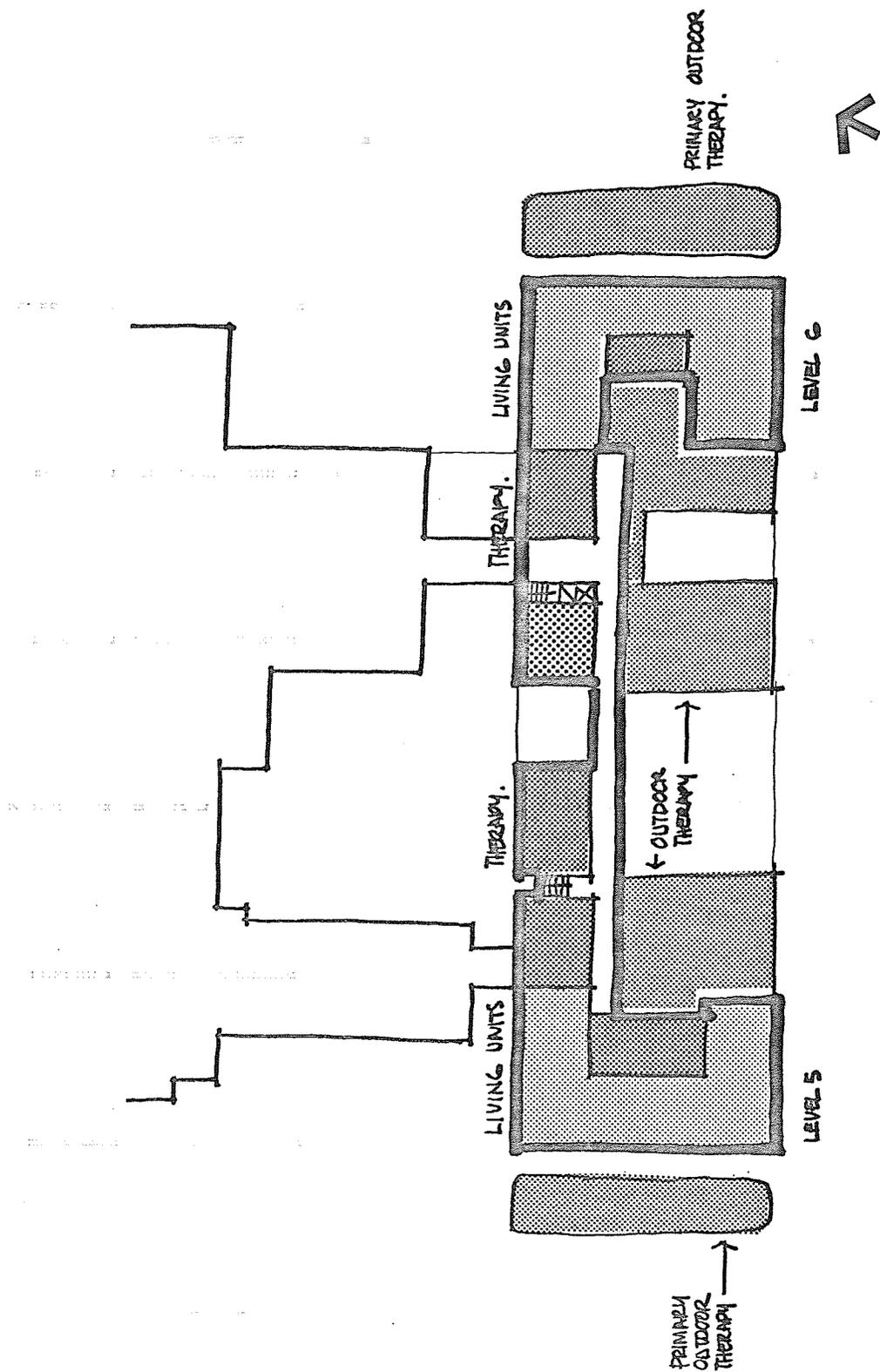


FIGURE 7-45 THIRD FLOOR ZONING

The diagram, Figure 7-46, page 313, indicates a three dimensional representation of the functional diagram, Figure 7-8, page 238 in a composite three dimensional functional relationship diagram. This diagram begins to indicate the complexity of the functional relationships.

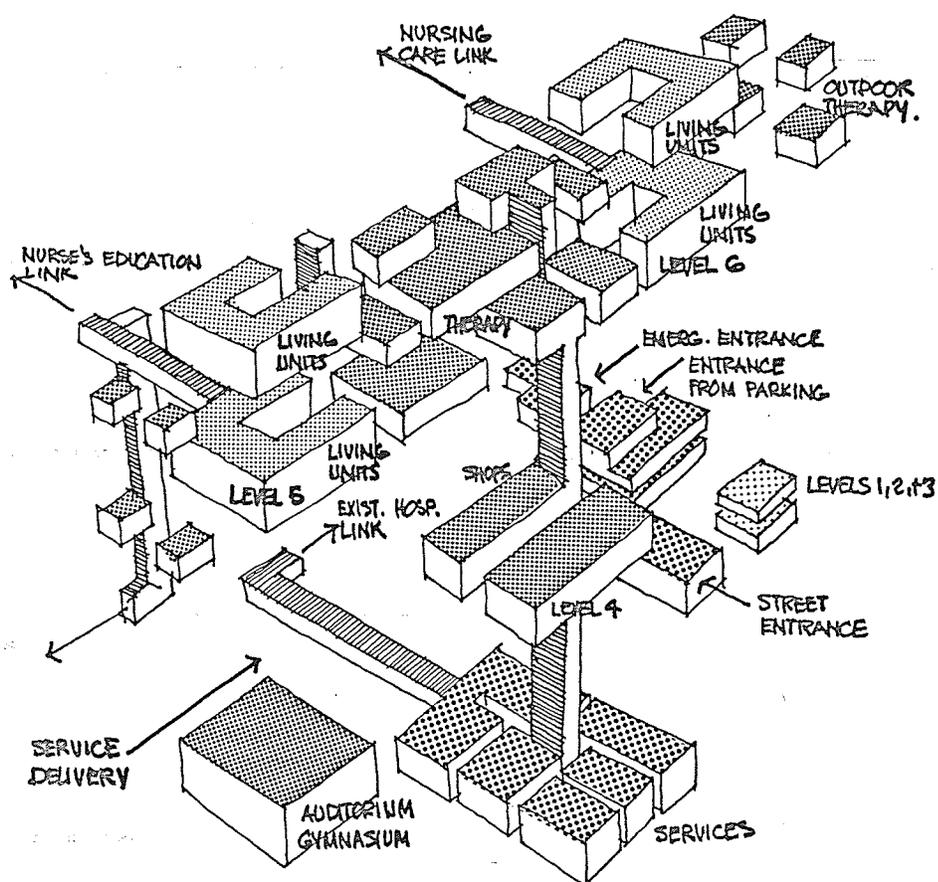


FIGURE 7-46 FUNCTIONAL RELATIONSHIP ISOMETRIC

A. The Situation:

(vii) Massing Study.

The diagrams and photographs on the following pages indicate a general massing study from the previous functional zoning diagrams. They do not attempt to be design solutions per se but rather ideagram interpretations.

Architectural manifestations are the next phase of this decentralization study. What the following diagrams can do is indicate the effects of some of the ideas of the functional studies in terms of scale and general massing character.

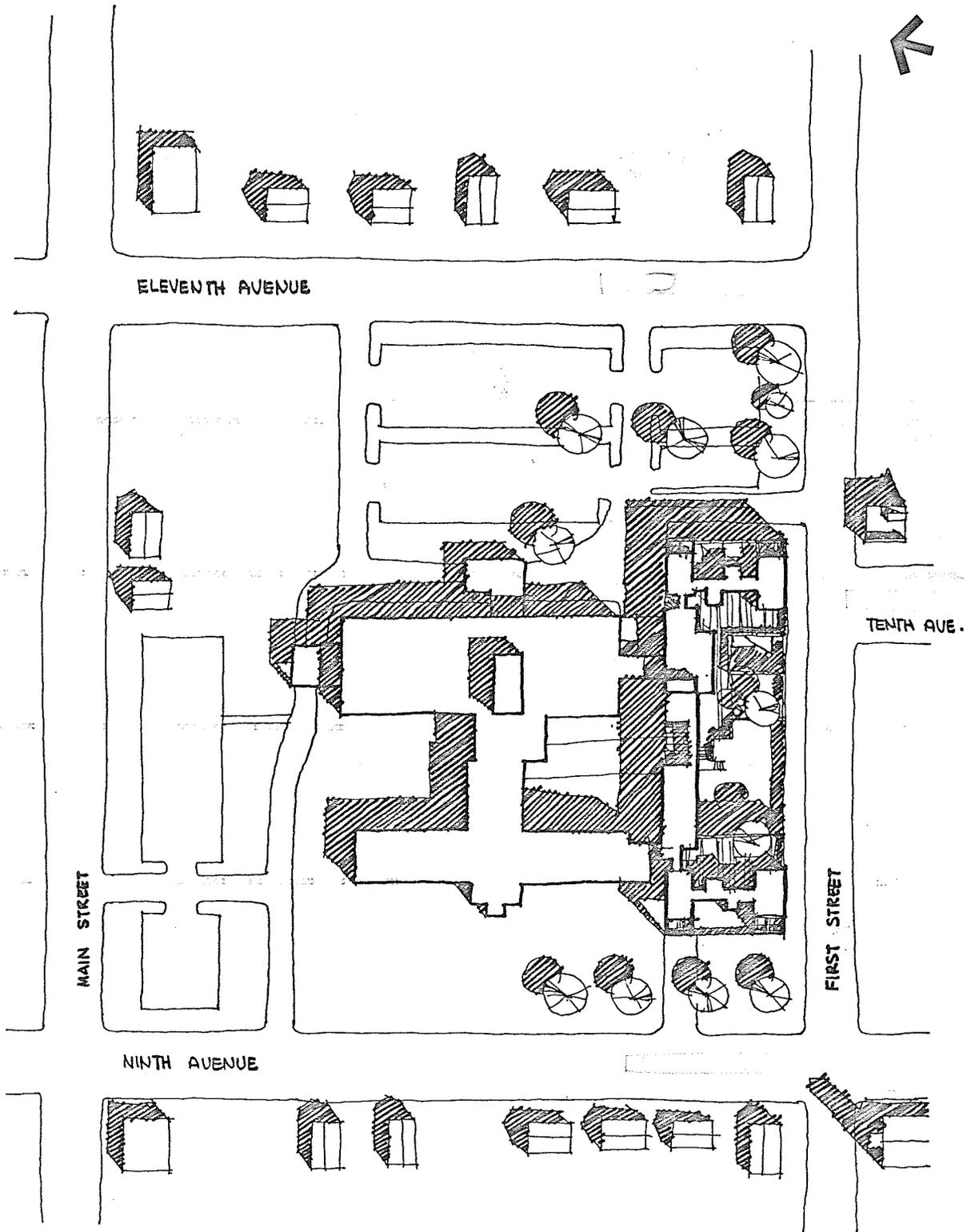


FIGURE 7-48 SITE PLAN

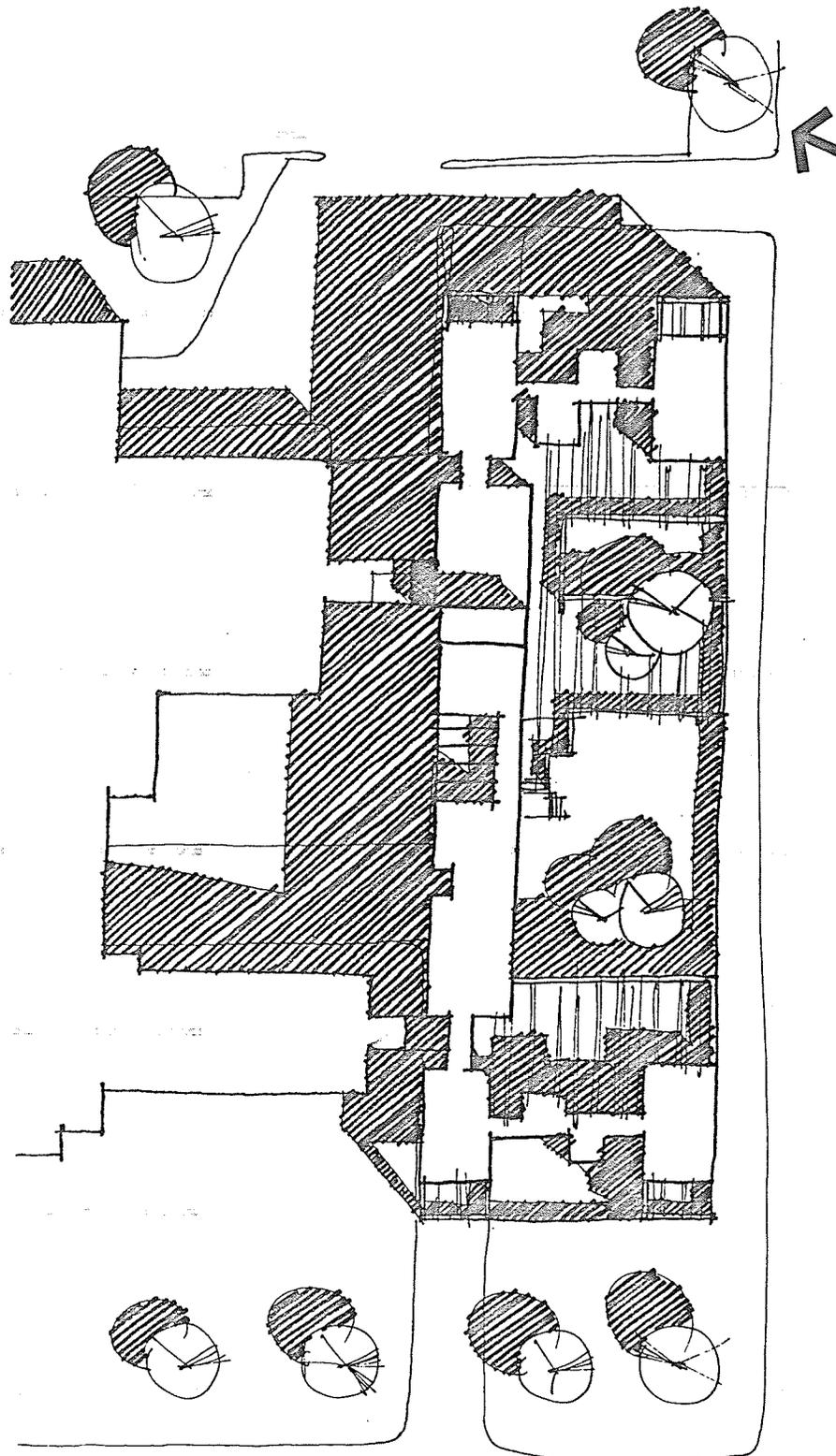


FIGURE 7-47 ROOF PLAN

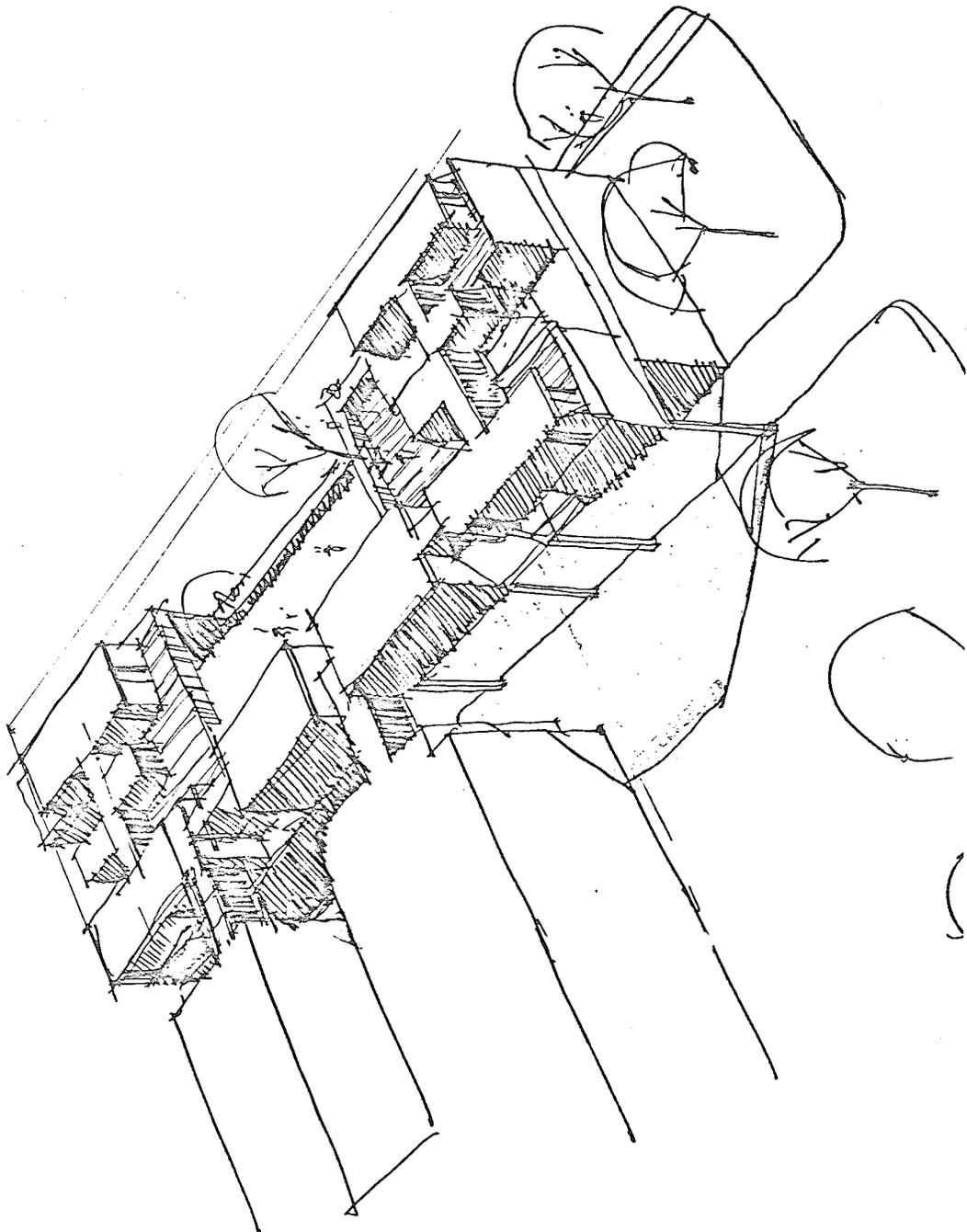


FIGURE 7-49 MASSING STUDY

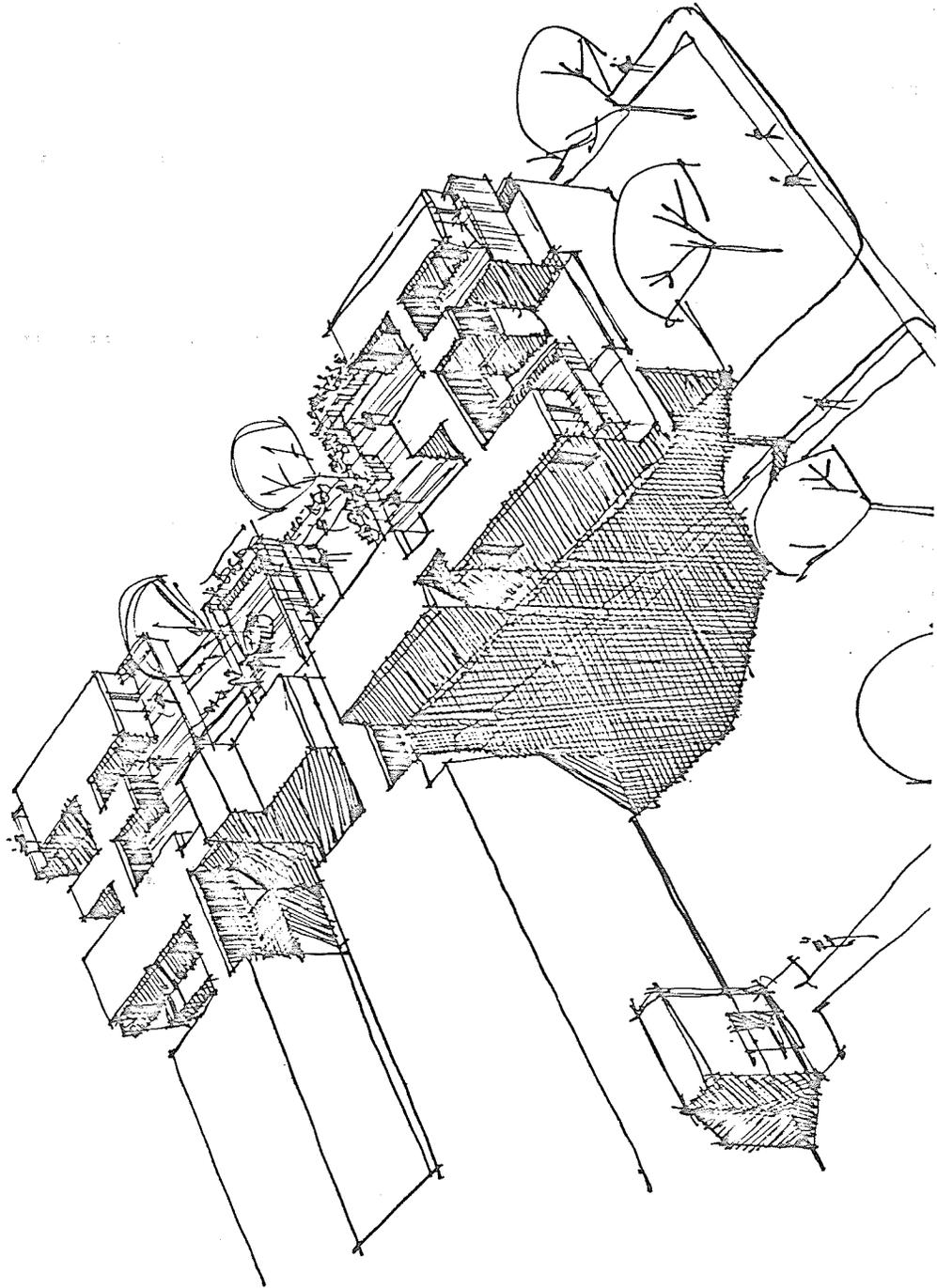
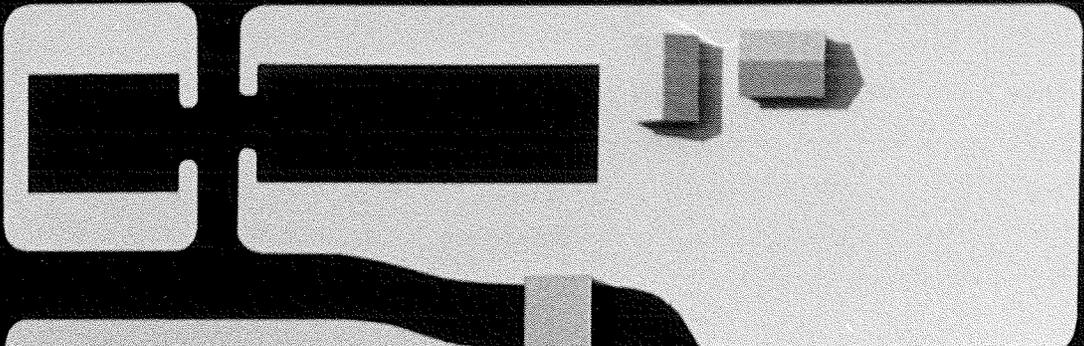
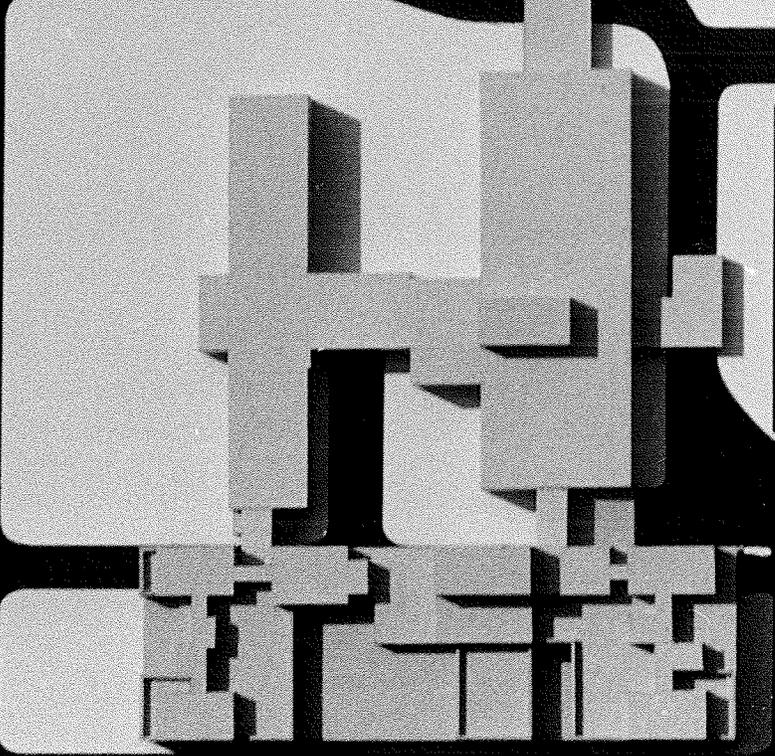


FIGURE 7-50 MASSING STUDY

main



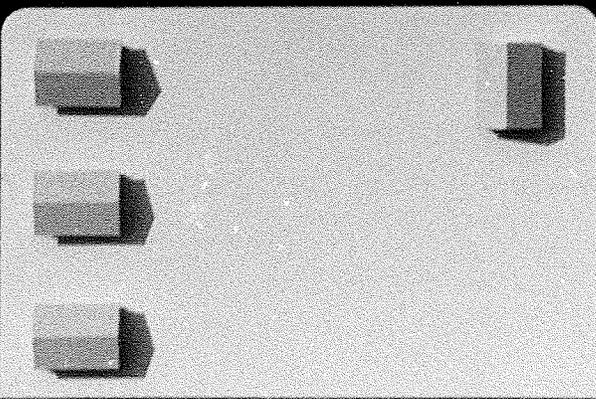
ninth



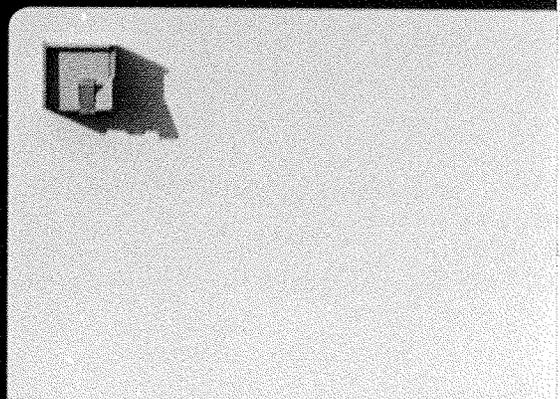
eleventh



first

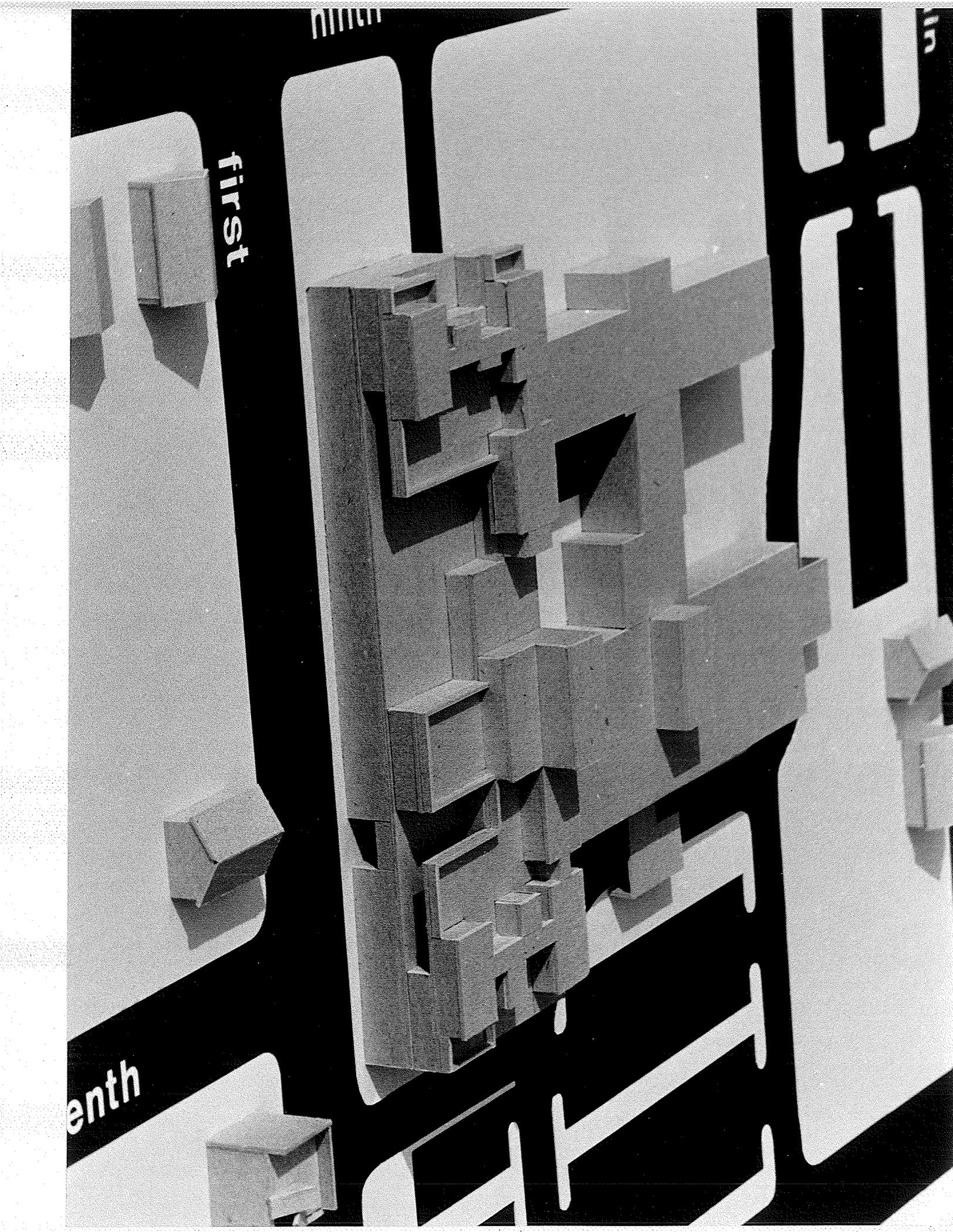


tenth



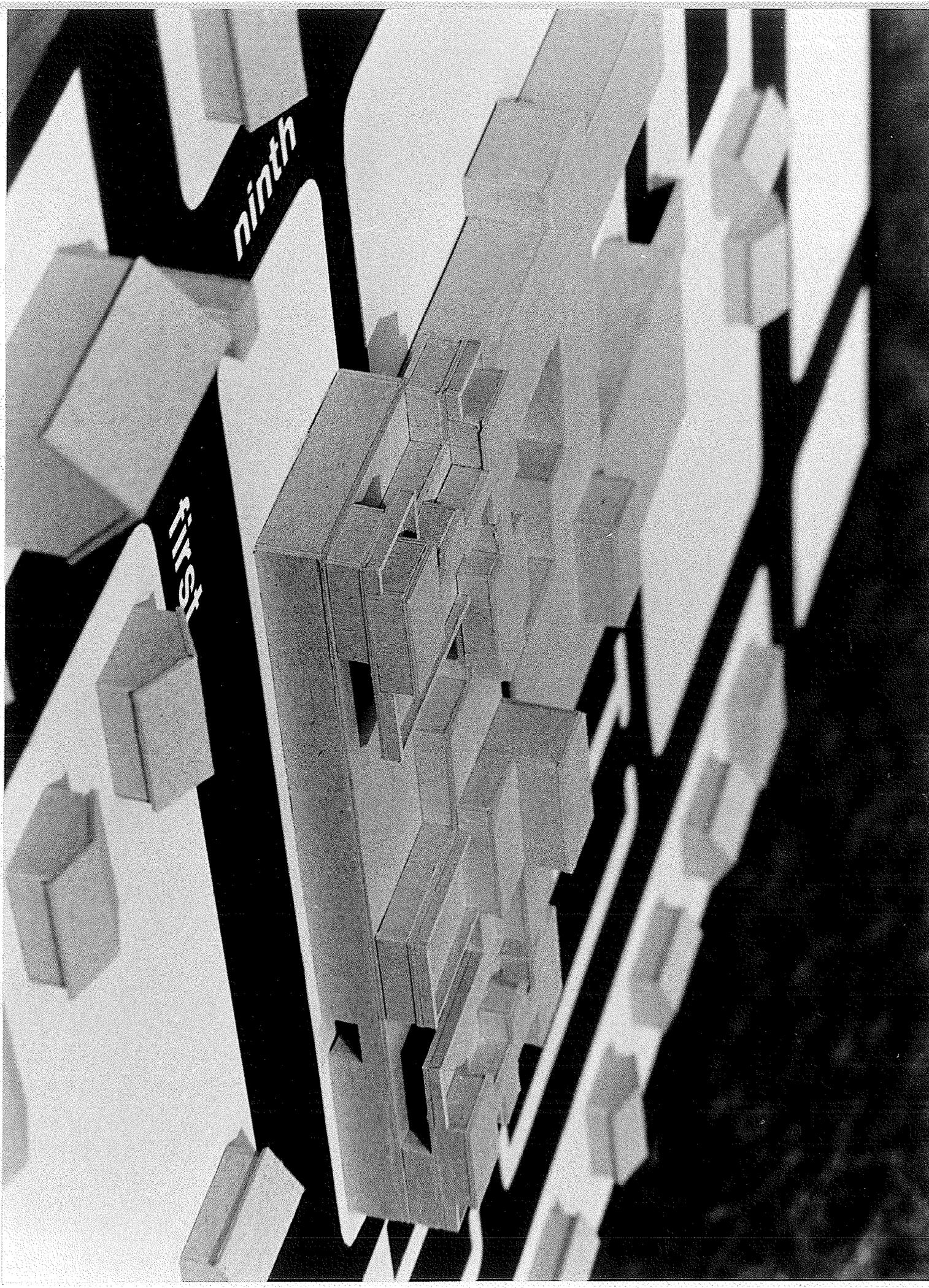
multi care social health centre

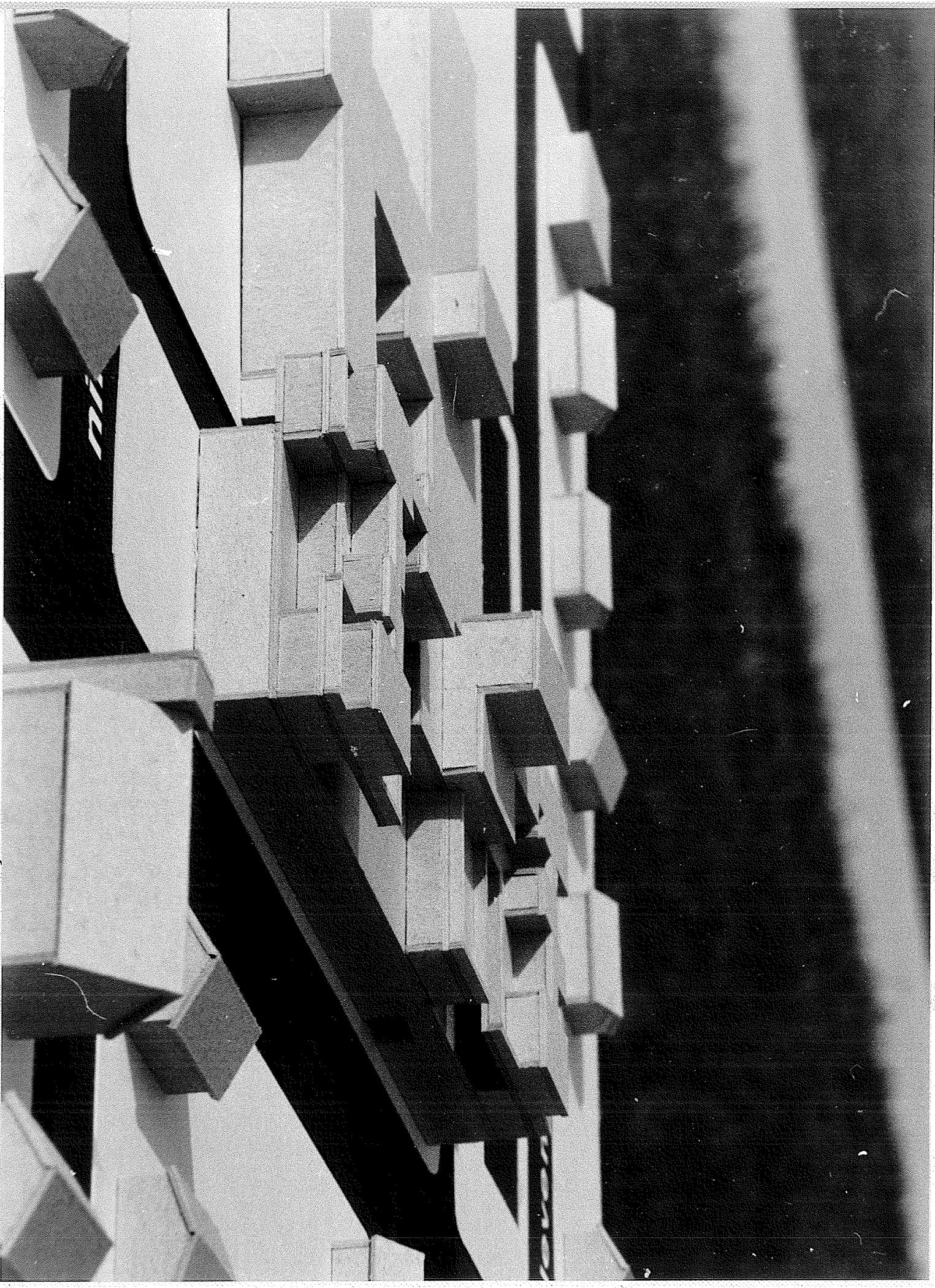


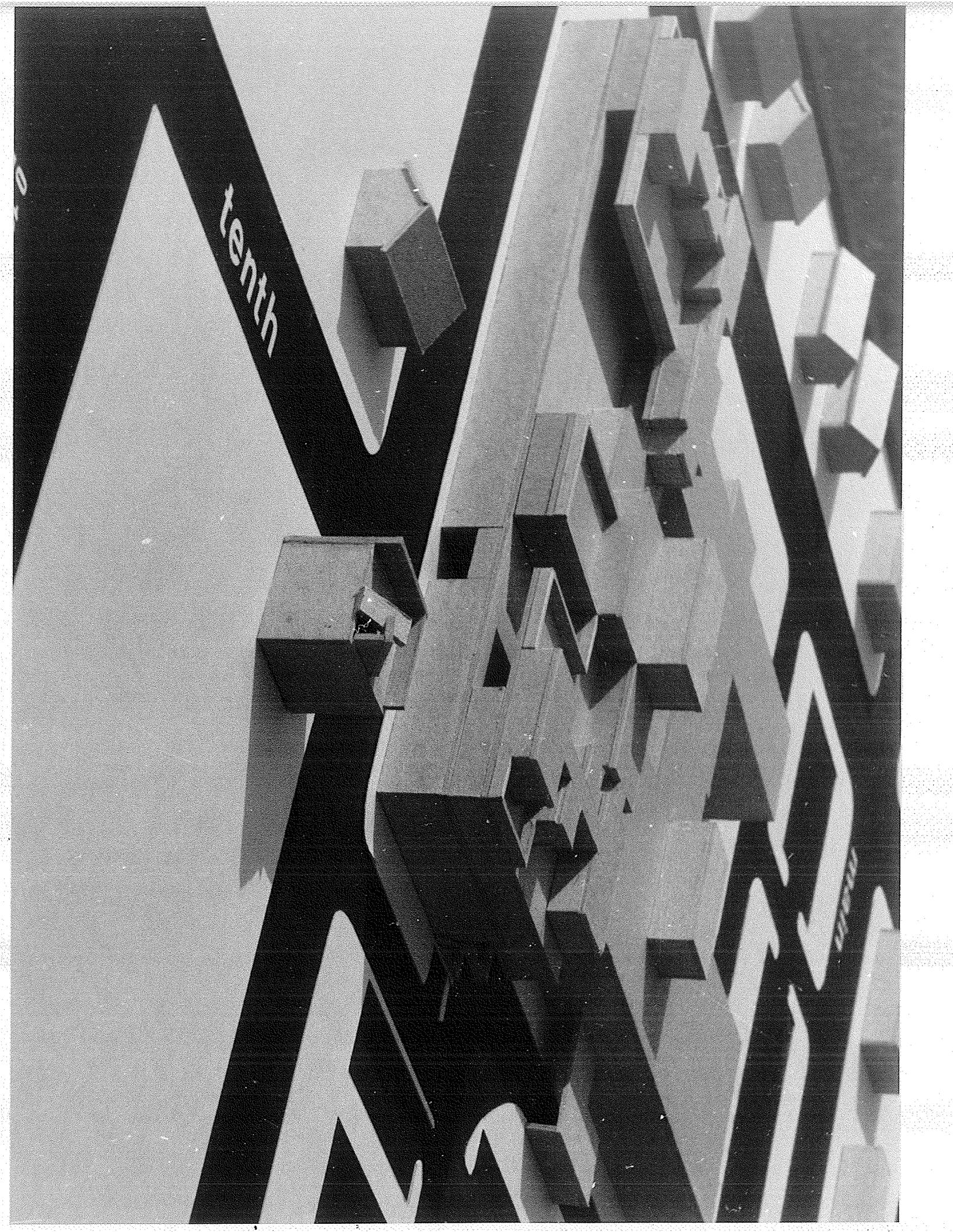


first

enth







MASSING STUDY PHOTOGRAPHS

RETROSPECT

The idea of a methodological approach to the problem of decentralization has been used as a very personal approach. This in itself may seem contradictory, but no matter how objective is the tool, as soon as someone uses the tool, the use of it makes it a very personal matter. This must be recognized, and any results to the situation must be measured in terms of this recognition.

The first portion of this paper dealt with a historical view of the vehicle, the vehicle being the mental health delivery system in Manitoba. The idea behind this portion of the paper was to get an understanding of the general boundaries, what the system was achieving and how it was achieving the delivery of mental health services. Once this was done, an examination of the existing system was thought to be the next logical step.

An examination of the existing system gave an up to date picture of how the system was operating. There was an attempt to define some constraints that could be looked at in terms of both the present and the proposed delivery system, although each was to be examined separately. The constraints were used to provide some measure of consistency, while examining the two different time frames, the present and the future.

Mental health services in Manitoba, as well as in Canada, are in constant turmoil, and a less than coherent approach to its delivery is being exercised. For the purpose of this study, a specific approach, based on a social system concept of delivery, was examined. This approach defined an entirely different point of view on how mental health services should be delivered. This meant that a method of looking at the problems of this social systems approach could be beneficial.

The method proposed in which to examine the problems of this new delivery system was to provide a model or structure with which the examination could be made. The decentralization model became the tool. Decentralization was viewed as a living entity and as a process. As a result, many of the elements of decentralization were viewed in a biological sense, or viewed as a living organism. This made sense to me, because what was happening or proposed was the mutation of an existing organism. All the elements of the organism were to remain, but their arrangement and relationship to each other would change.

It was felt to be necessary to establish a frame of reference in which this mutation could occur and be examined. The existing system was employed as a frame of reference. The existing system was used to define the proposed system. The model was set up and given a reference point. The next step was to test or use the model. "Using the model" is perhaps a more appropriate phrase to use than "testing the model" for test implies that the end result can be evaluated, and that is only possible when the test result is employed.

For the purpose of this study, a test situation was proposed based on the findings of the model. The proposal, a multi-level social health centre, is one of a number of possibilities. The facility was examined and put into a specific location. The idea of a test situation was to indicate what problems would be considered when implementing the proposed delivery system in a given situation in an architectural context.

The result is not a physical statement, but rather the beginning of an idea of how that physical statement could be developed. It is not the answer, but the beginning of a question.

DEFINITIONS

CATCHMENT AREA

The area and population served by a health facility, sub-system, or system. It can vary from a limited population in a rural area to the whole province. Each health entity has its own catchment area.

CELLS

The province is divided into twenty-five distinct catchment areas or cells. Each cell or catchment area is defined as an area serving a population of 40,000 located within a fifty mile radius. It is the smallest, all inclusive complete unit of delivery.

COMPLETE UNIT OF DELIVERY

A complete unit of delivery is equal to a cell which is defined by a catchment population of 40,000. A complete unit is made up of a number of units of delivery.

DECENTRALIZATION MODEL

A theoretical structure set up in which to examine some of the inherent aspects of decentralization.

DELIVERY SYSTEM

All the staff, facilities and services that constitute a particular area of health services.

EXISTING ORGANISM

The present mental health delivery system.

FUNCTIONAL LINKS

Any link between two spaces as indicated on a functional diagram.

FUNCTIONAL LINKS cont'd..

Functional links can manifest themselves as spaces, corridors, stairs, and elevators.

GENERATING SYSTEM

A generating system can be thought of as a kit of parts with which to build something. It is a kit of parts, with rules about the way these parts may be combined.

INPATIENT CARE

Care given to a patient in a hospital setting on a twenty-four hour basis.

LOCUS OF TREATMENT

A particular place or environment in which treatment occurs.

In the case of a mental hospital, the locus includes staff and services as well as facilities. It includes the broad spectrum of any area of treatment. It is the specific area of treatment provided to a patient.

OUTPATIENT CONTACT

Any contact with a patient. Contact can be made by a patient visit to a doctor's office or hospital or by a telephone call. Contact involves patients who are not being treated twenty-four hours a day in a hospital situation.

PHYSICAL PLANT

A building or space from which a health service is delivered. It can vary from a small consultation office to a large multi-care

PHYSICAL PLANT cont'd..

social health centre.

ORGANISM

See existing organism and proposed organism.

PROPOSED ORGANISM

The proposed mental health delivery system.

SERVICE AREA

See catchment area.

SOCIAL HEALTH

Another name given to and synonymous with mental health. It is a name more in tune with health delivery under a social system perspective of the cause and treatment of mental illness.

SOCIAL SUPPORT

That part of the social system by which a person is affected.

SOCIAL SYSTEM

The entire social environment that can affect anyone.

SOCIAL SYSTEM PERSPECTIVE (SOCIAL SYSTEM APPROACH)

A name given to a concept of mental health cause and treatment in which the entire social system is thought to be part of the cause and part of the treatment of mental health.

STUDY AREA

Any system, sub-system, cell or unit of delivery being studied or examined.

SUB-SYSTEMS

Areas of delivery that coincide with the seven regional boundaries as set up in the White Paper on Health Policy.

SYSTEM

A designated area of health delivery in the province. Presently three systems are operating in the province, the Brandon delivery system, the Winnipeg delivery system and the Selkirk delivery system.

TRANSITION

The actual process of transformation from an existing situation to a proposed situation.

TRANSFORMATION

The physical manifestation of the transition process.

UNIT AREA

An area served by a unit of delivery. See units of delivery.

UNITS OF DELIVERY

A portion of a cell. Each cell can have a single unit of delivery or a large number of units of delivery, depending upon the sub-system size.

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