

## PLANNING SPACES:

A MANUAL FOR HUMAN SERVICE FACILITIES DEVELOPMENT

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JUNE 1978

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1575 Phoenix Blvd. Suite 8  
Atlanta, Georgia 30349



In 1866, Samuel Gridley Howe gave the dedication address at the laying of the cornerstone for the New York State School for the Blind at Batavia.

... While noting with pleasure and even excusable pride, the humane impulses which prompt and which will carry forward this work, pardon me if I utter a word of warning.

Good intentions, and kind impulses, do not necessarily lead to wise and truly humane measure.

Nowhere is wisdom more necessary than in the guidance of charitable impulses. Meaning well is only half our duty; thinking right is the other and equally important half.

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ACKNOWLEDG-  
MENTS

We want to thank

Wolf Wolfensberger who taught us what we know about normaliza-  
tion and futuristic human service planning; and

Ron Gerhard who shared his picture of how to insure the flexi-  
bility of space use. This gave us the structure for  
organizing the information in this manual.

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PRINT  
RESOURCES

O. Friedman. "In Step with Tommorow." AIA Journal, July, 1971,  
pp. 19-26.

R. Gerhard, et al. The Balanced Service System. New York: Basic  
Books, In Press 1978.

W. Wolfensberger. The Principle of Normalization in Human Services  
Toronto: NIMR, 1972.

W. Wolfensberger and Linda Glenn. PASS: Program Analysis of Ser-  
vice Systems. Toronto: NIMR, 1973.

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LEARNING

We think every human service space planner should take a five -day  
intensive course in evaluating service quality with PASS in order to  
understand the principles defining facility appropriateness. A six-day course in  
planning comprehensive community services is also very desirable. These courses  
are offered through:

The Training Institute for Human Service Planning  
Syracuse University 805  
South Crouse Avenue  
Syracuse, New York 13210

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PEOPLE  
RESOURCE

For consultation on the issues and procedures raised in this manual,  
feel free to contact us through:

Georgia Association for Retarded Citizens  
1575 Phoenix Blvd., Suite 8 Atlanta,  
Georgia 30349

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# INTRODUCTION

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INTRODUCTION This manual describes a set of planning tools for use by people who are concerned with finding appropriate space for human service programs and by people who want to review the effectiveness of other people's space planning efforts.

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OBJECTIVES People who use the planning tools in this manual should be able to answer three questions when they finish:

- How much space do we need and for what purposes?
- How can we approach our space planning in the most flexible possible way?
- How can we insure that whatever space we acquire maximizes the chances people with handicaps have to interact with typical people and interprets handicapped people in the most positive way possible by clearly stating criteria for service location and design.

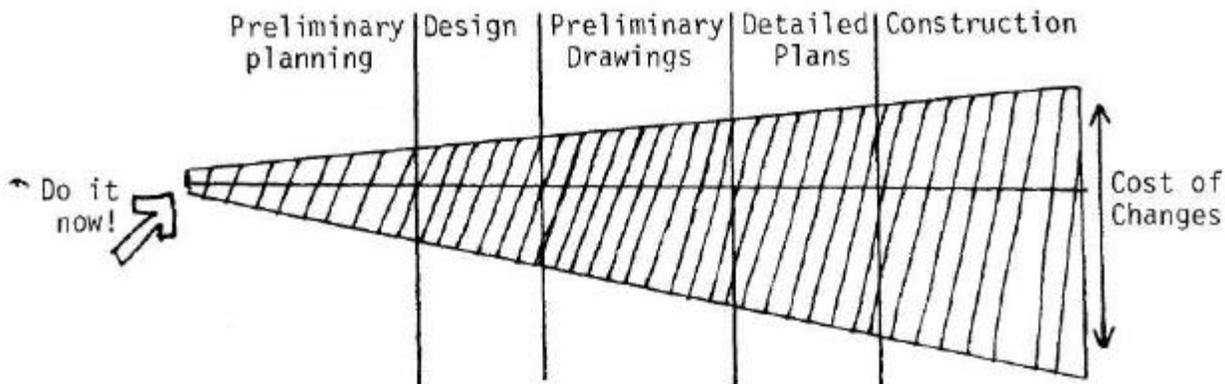
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COMMENTS In writing this manual, we are not trying to make people into amateur architects. We do want to help people become more knowledgeable and efficient consumers of a professional architect or realtors services. Think of this manual as suggesting "What to do before you call the architects." Based on our own experience in collaborating with architects, we believe that thinking through the questions here will make your relationship with an architect easier and more productive. At the very least, you will spend less of the architect's time (which is your money) by anticipating basic questions.

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ADVICE FOR USERS

WHEN TO USE THIS MANUAL: THE SOONER THE BETTER As each stage of the design and construction process unfolds, the cost of making changes increases. Space planners have the widest range of options if they begin making decisions that have impact on the flexibility and the cultural normativeness of facilities even before they contact an architect.



## INTRODUCTION

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PREREQUISITE We believe that the value orientation of service planners and their society is the single most powerful force that shapes services, including facility use decisions. Many values expressed by those of us who plan services have negative consequences for handicapped people, and the values with the most negative effects are most likely to operate outside of planners' awareness. Therefore, we want people who use this manual to have thought carefully about the foundations and implications of the principle of normalization.

Therefore, users of this manual should study:

Wolf Wolfensberger. The Normalization Principle, and Some Major Implications to Architectural-Environmental Design. Atlanta: Georgia Association for Retarded Citizens, Monograph No. 1, 1978.

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## A PERSONAL NOTE: WHY WE WROTE THIS MANUAL

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INTRODUCTION We are writing this manual because the decisions a service program makes about acquiring space make a great deal of difference to handicapped people, and because failure to pay enough attention to the future implications of space acquisition decisions can have serious long term consequences.

---

BELIEFS We believe that the location and design of program spaces have a lot to say about the development of people with handicaps . . .

in the present because . . .

- physical spaces have programmatic impact through
  - the opportunities for interaction with typical people and typical contexts patterned by space locations and arrangements;
  - the normativeness of expectations and level of learning challenge communicated by the space arrangements;
  - the kinds of developmental activities that are assisted by the space.
- physical spaces effect the quality of life of the people who use them (especially spaces which people use for large amounts of time) by
  - the level of comfort they provide;
  - the options they provide for taking account of individual differences;
  - the beauty of the environment.

and in the future because

- physical settings send powerful messages about the nature and possibilities of handicapped people.

We also believe that the pattern of facility development a service follows makes a major difference in the ability of a program and a service system to change over time as values and methods change.

## A PERSONAL NOTE

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COMMENT      We have focused this manual on the future effects of space planning because we think that they are ultimately even more important to the welfare of handicapped people than programmatic impacts or influence on present quality of life:

- failing to preserve flexibility in space acquisition results in a service system so overcommitted to a particular facility type that it can't accommodate new possibilities. In effect, buildings rather than human service managers and consumers make decisions about service activities. (For instance, the current overinvestment in institution buildings locks the system into an inability to respond to people's need for service in less restrictive places.)

- failing to attend to the messages sent by facilities is likely to further handicap people by projecting devaluing images on them which reinforce societal perceptions justifying their continued isolation.

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## (RE)DEFINING THE PROBLEM

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### COMMENT

We think that many people who use this manual will already have defined their space finding problems as

"What kind of building shall we build?"

If you have out the question this way, we would like you to back up and reconsider by systematically excluding other options for finding space. We ask this because the best way to create a poor solution to a problem is to get tied prematurely to a narrowly defined problem.

---

### ANALYSIS

Redefining space planning as building planning seems to happen frequently because:

- there are lots of powerful motivators in space planning situations which have little to do with choosing the most appropriate, economical space plan to do the job. Buildings also serve as
    - monuments to founders', donors', politicians', or human service workers' desires to provide service or charity,
    - advertisements for a human service planner's. or an architect's ability;
    - sources of income for consultants, architects, builders, suppliers, and others;
  - sources of income for governments or service systems when a specialized building type creates funding eligibility (e.g. ICF-MR).
    - rallying points for groups of concerned people who organize themselves around the building as the fulfillment of a dream.
  - there are dozens of fascinating problems that can be solved once the decision to build is made ("What color shall we paint it?" and "Can we afford to add a gym?") These problems have to compete with problems that are harder to think about if the decision to build is suspended.
- 

### COMMENT

We recommend spending time on defining the problem in wider terms because we can see so many examples in human service history of one period's built solutions turning into irrelevancies

(RE)DEFINING THE PROBLEM

(like hydrotherapy rooms) or into major problems (like how to deal with specialized space built at great cost which fails to meet current funding-related standards). Often the problems created by building are "solved" by more building (as when inappropriate and unsuitable facilities are rebuilt to maintain funding patterns)

To avoid as many of these problems as possible, we invite you to approach your space planning needs from as broad a perspective as possible.

---

BELIEF

Some people are quite sure that handicapped people are best served in special buildings. We don't agree. Like us, they look upon the opportunity to build as a chance to try to create an environment that will be responsive to handicapped people and developmentally powerful for them. However, we believe that there is nothing in meeting this goal that requires buildings whose architectural features are different from ordinary buildings. We know that there are a vast range of developmental technologies, some of which require specialized equipment and perhaps furniture, but we don't believe that this dictates a need for special space.

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"Once you take a problem to a specialist you are wired in to a specialist's solution. However well executed it is, the odds are against its being a real answer. Let us also suppose that he is a very good architect, broad-thinking, one dedicated solidly to the proposition that form follows function. So he inquires after your needs, your ambitions, your hopes, your fears, what manner of people you are, etc. Do you know what you are going to end up with? A building. Now a building, however nice, may not be the answer to your problem at all. Perhaps the real answer is to stop expanding, or fire the traffic manager, or everyone stay home and do cottage work connected by closed-circuit TV. But these are generalist solutions, not the sort of thing you expect an architect to come up with. If he did, you'd probably think he was a busybody."

Gossage, H.L., "Understanding  
Marshall McLuhan," in McLuhan Hot  
and Cool; edited by Stearn, G. E.;  
The Dial Press, Inc., New York,  
1967.

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# FLEXIBILITY

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DEFINITION 1 Flexibility refers to the capacity of a facility or group of facilities to welcome change rather than resist change. This means:

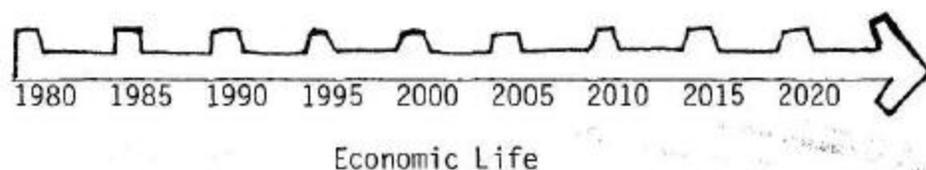
- before any facility is planned, every attempt is made to design a service response which will meet consumer need without reliance on a building;
- before a needed facility is built, every attempt is made to make the building's economic life equal to its functional life by
  - shortening the economic life by leasing or buying and selling existing buildings;
  - extending the functional life by designing buildings which are easily adaptable to a wide variety of uses.

Flexibility operates at two levels:

1. The overall pattern of facilities can be changed manipulating, as necessary, the number, location, and type of buildings.
2. Individual buildings can be used for different purposes by manipulating their physical layout including:
  - size and shape of space -
  - furniture

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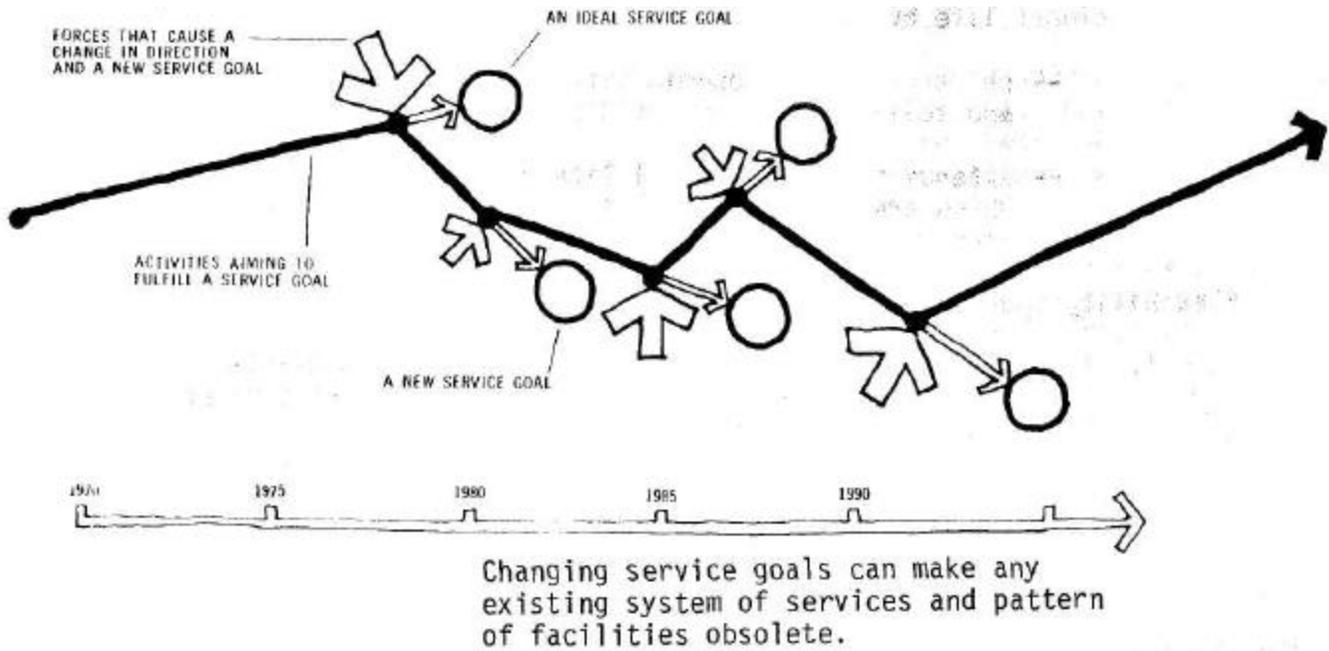
DEFINITION 2 Economic life represents the length of time a building must be used to justify the investment of resources involved in its construction. Economic life is determined, in part, by the physical life of the structure and, in part, by the conditions under which funds are secured to acquire the space.



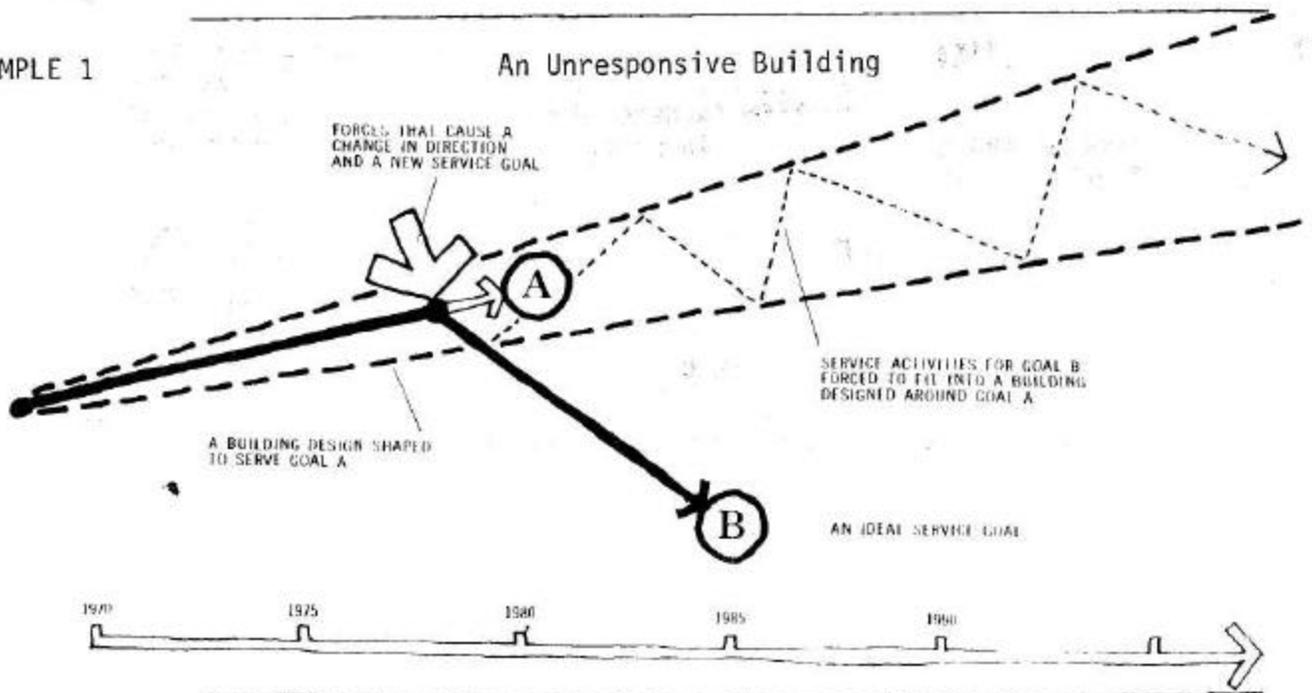
FLEXIBILITY

DEFINITION 3 Functional life represents the length of time a building accommodates and supports the activities necessary to attain the service program's goals and processes. In understanding functional life, it is essential to notice that service goals and processes change frequently in response to

- changes in laws and regulations;
- technological changes;
- changes in values.



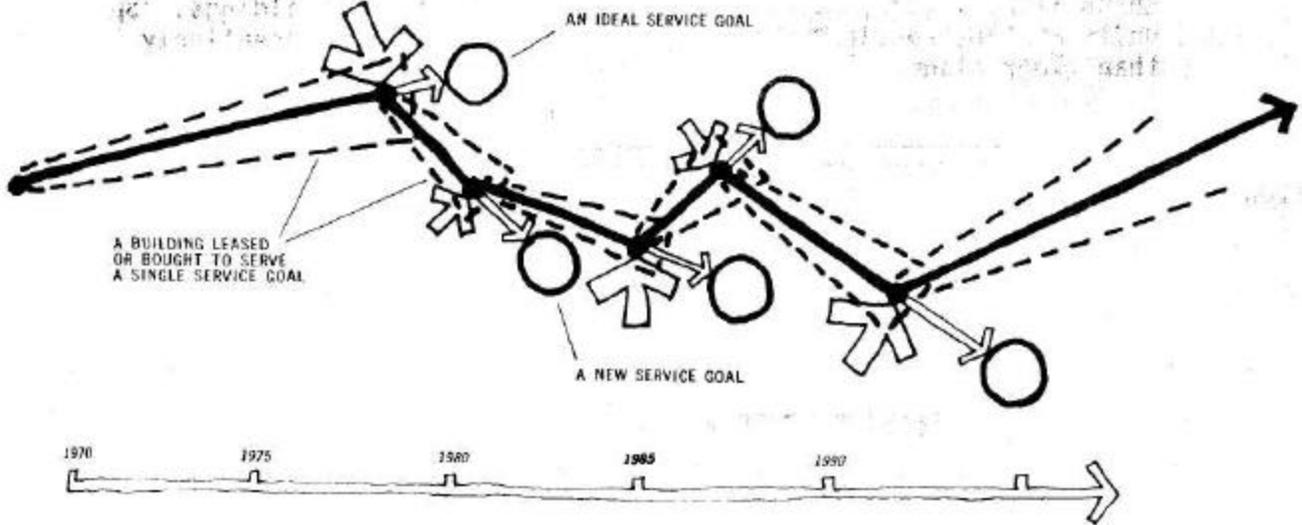
EXAMPLE 1



# FLEXIBILITY

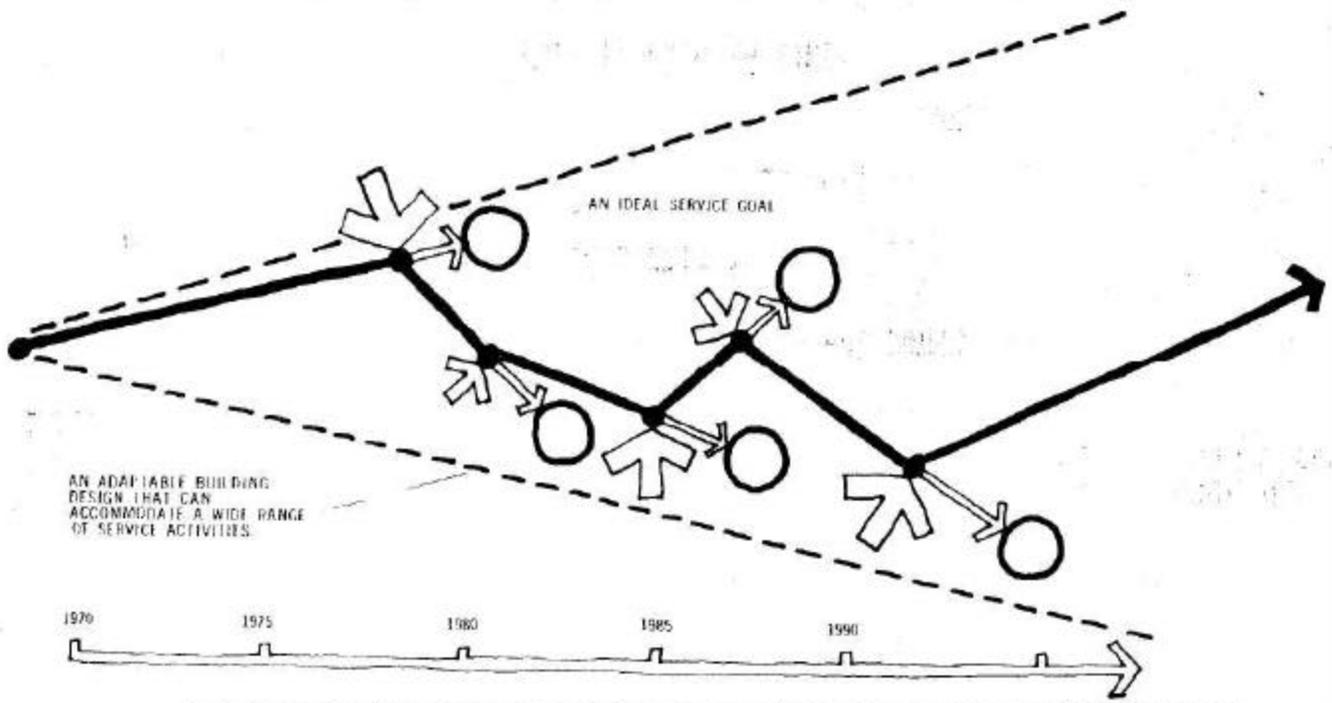
## EXAMPLE 2

### Responding to Changes in Goals by Leasing or Buying and Selling Buildings



## EXAMPLE 3

### Responding to Changing Goals by Adaptive Building Design



## COMMENT

Flexibility allows a program to deliver service of a high quality. Inflexible space will make it much harder to provide high quality service since over time it is likely that energy which could be used to shape service must be used to manage space problems. However, flexibility alone doesn't insure service quality. That depends on other features of the service such as are defined by PASS 3 (see p.ii) Thus:

## DEFINING SPACE UNITS

---

INTRODUCTION This section asks you to define your space needs in terms of space units, because we think that it is helpful to have a way to think without being automatically tied to rooms and buildings. Space units are abstractions which are easier to manipulate creatively than floor plans.

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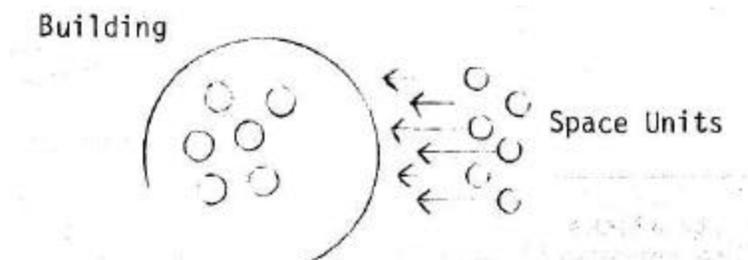
DEFINITION A space unit is a way to represent space for planning purposes which summarizes space characteristics in terms of

- what is to be done
  - service purpose
  - service process
- by whom (when this makes a difference to space needs)
- for whom
  - age
  - nature of disabilities
- when
  - time of day
  - length of time people will use the space over a period of time
- other space necessities.

---

### HOW TO USE THE IDEA

Space units are like atoms. They can be grouped in a variety of ways to define buildings, just as atoms cluster together to form molecules:



The atoms are constant, not the molecules. Therefore, in thinking about space needs, always start with space units then try out putting them together in different ways to get the most flexibility and the most normalizing possible combinations.

---

DEFINING SPACE UNITS

EXAMPLE

WHAT	FOR WHOM	BY WHOM	WHEN
<p>A.</p> <p>Sheltered Work</p> <p>Assembly of locking gas caps</p>	<p>A.</p> <ul style="list-style-type: none"> <li>- 12 severely mentally retarded adults (19-60);</li> <li>- 2 can't walk and use wheel chairs</li> <li>- All trained to criterion on task</li> </ul>	<p>A.</p> <ul style="list-style-type: none"> <li>- 1 supervisor</li> <li>- 4 non-handicapped "model workers"</li> </ul>	<p>A.</p> <ul style="list-style-type: none"> <li>- daily, 5 days/week, 8-5;</li> <li>- indefinitely</li> </ul>

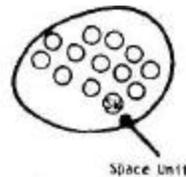
Space Unit A could be located:

- in a rented storefront - 

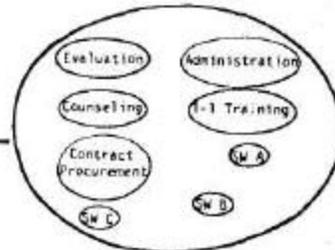
Building

Space Unit

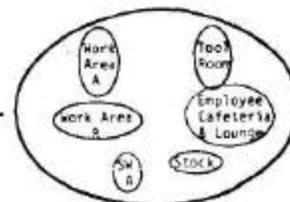
- on an unused ward of a state hospital



- as one program area in a purpose-built larger sheltered workshop



- as one work area in an assembly plant, sublet from the plant



## DEFINING SPACE UNITS

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- EXERCISE
- A. Based on the four choices given: \$.,.
1. Select the most flexible space plan and explain your choice.
  2. Select the most normalizing space plan and explain your choice.
- B. Make up at least two more possible locations for Space Unit A.
- 

## RULE OF THUMB

### Space for Other Functions

Service programs require some space for the kinds of work that must be done to support the delivery of high quality services. Specifically, each program will have to consider its need for space to house:

- Administration activities
- Activities which support citizen participation in design and delivery of service
- Research and evaluation activities
- ~ Staff development activities.

For this exercise, do not list real needs for space for desks, file cabinets, cleaning supplies, audio visual equipment, etc. as potential space units.

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# WORKSHEET: DEFINING SPACE UNITS

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## INSTRUCTIONS

On another sheet of paper, make a list of as many different possible space units as you'll need to fully account for your service program's goals given your service region and resources. At this stage, more units are better than fewer, since you can always combine smaller units into larger ones. Give each potential space unit a letter and a summary name (e.g. "A. Sheltered Work"). (Use double letters for more than 26 units.)

Fill in each column on this worksheet with summary facts and phrases to describe each space unit. You'll probably need to reproduce the form to get enough space.

## WORKSHEET

- PURPOSE WHAT - PROCESS	- AGE FOR WHOM - DISABILITY	BY WHOM	- TIME OF DAY WHEN - DURATION
A.	A,	A.	A.

# TESTING THE NEED FOR SPACE UNITS -

## DEMAND

### INTRODUCTION

One of the major determinants of how many space units of what size are needed to develop a flexible service program is the number of people who will use the service in the future. This section asks a series of questions which will give you one way to project future characteristics of the target population.

### WORKSHEET 1

### PRESENT POPULATION SERVED

AGE GROUP (yrs.)	SEVERITY OF DISABILITY		
	Mild	Moderate	Severe - Profound
0 - 2			
3 - 5			
6 -11			
12 -14		i	
15 -18			
19 -25			
26 -65			
65+			
Total			

### COMMENT

Every statement about the future is a guess. We hope you don't get stuck in the uncertainty of your predictions because we think it's better to display your ideas about the future - even though everybody knows they are likely wrong - than to plan space without making projections.

## WORKSHEET 2: DEFINING CHANGE FORCES

---

### INSTRUCTIONS

1. On another sheet of paper, brainstorm as many factors as you can think of that could change the size and shape of the population you will serve in the future by increasing or decreasing the number of people of any age served and/or by changing the severity or level of disability the people you serve will experience.
  2. Eliminate any ideas that are near impossible and cluster similar ideas into summary statements.
  3. Enter each summary statement into either the increase row or the decrease row under "WHAT".
  4. For each statement, enter your prediction of what age/disability groups will be effected under the "WHO" column.
  5. For each summary statement, enter your prediction of when a change force will start to influence your situation and how long it will effect your situation (e.g.: "starts in 1980 mostly over by 1981" or "continually") in the column marked "TIMING".
  6. For each summary statement, enter your prediction of how much the *factor will influence the population served* as "high," "moderate," or "low" under the "IMPACT" column.
-

WORKSHEET

	WHAT	WHO	TIMING	IMPACT
I N C R E A S E				
D E C R E A S E				

## WORKSHEET 3: PROJECTIONS OF POPULATION SERVED

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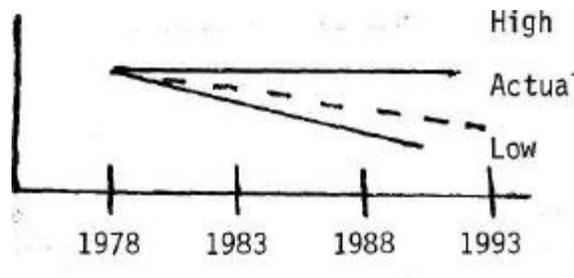
### METHOD

The method for future projection suggested here is the "High-Low Projection" method. This way of approaching the future assumes that the future is a range of plausible events which become wider (less certain) the further ahead in time the projection is made.

The "low" line is defined by assuming that the change forces that can be identified at work in the situation result in the lowest reasonable outcome.

The "high" line is defined by assuming that the change forces identified at work in the situation result in the highest reasonable outcome.

The model suggests that the actual course of events will fall somewhat within the space between the high and low levels, and that facilities should be selected or designed to accommodate as wide a range of possible events as possible.







DECISION TABLE: TESTING SPACE UNITS IN TERMS OF DEMAND.

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RULE OF THUMB You may have defined some space units to include more than one age/disability subgroup. If you find that this confuses things because demand changes for each subgroup at different rates, just revise your list to include more space units and split them up by age/disability group.

---

COMMENT The space units identified on Worksheet 1 must be most carefully designed to maximize internal flexibility if they must be rebuilt, bought, or renovated.

WORKSHEET 2

Groups Who are Likely to Need (More) Service	In 5 Years	In 10 Years

COMMENT You may want to revise your list of required units and decide whether to include space units to meet this projected need in your current planning efforts.

## A CAUTION ON USE OF PREVALENCE RATES

---

### INTRODUCTION

Some planners apply an estimated rate of prevalence of a handicapping condition to the population of an area in order to establish need for service. This is especially common in making future projections. We think this can be a useful exercise, but the rates that are typically chosen bear little relationship to the actual number of people who use services. Using a rate of 3% or more for the prevalence of mental retardation, for example, results in a grossly inflated picture of the number of people who will need service. At this rate, a county with a projected 1990 population of 50,000 would supposedly need to serve 1,500 people. In fact, to plan space on this basis would result in a tremendous oversupply of space. We suggest that the table on page 22 allows a better estimate of service needs.

---

### COMMENT

This table is based on the idea that the number of people labeled as handicapped and in need of service depends only partially on facts about the person labeled. The other factors which determine the number of people to be served include:

- administrative decision about service eligibility. For example, a requirement that people must be labeled as experiencing a certain degree of handicap before they are eligible for service.
- the standards of acceptability for service and participation in non-labeled services held by a community. For example, the exclusion policies of a community's school system will be a major determinant of the number of people of school age who need special programs. Also, the level of commitment a business community has to full employment for people with handicaps strongly influences the number of people who need sheltered work,
- ideas and values about handicapping conditions held by planners. For example, this table does not include many people with mild degrees of retardation in its estimate because its author believed that the costs of labeling these people offsets the benefits available to them.

Because of all these sources of variety, no general estimate of need for service will do for a local planning effort. We offer this table not because we think it is "the truth" but because it provides one bench mark from which to work.

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ALTERNATIVE PREVALENCE RATES

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Estimated Needs for Daytime and Overnight Services  
for Mentally Retarded Children and Adults in a Model Region  
of 50,000 Population

Service Need	Percent of Total Population in Categories	Estimated Number in Categories
1. Percent of total population needing special services due to their mental retardation.	1% of total population: .75% EMR; .20% TMR; .05 SMR.	500
2. People in need of special programs in public school at any one time.	1.2% of total school population (12,500)	150
3. People in need of only minimum services other than special programs during school years.	50% of entire mentally retarded population	250
4. People in need of community residential placement, at any one time, with a variety of programs available.	.1% of total population	50
5. People needing nursery and preschool programs	5% of known mentally retarded population	25
6. People needing Vocational Services	10% of known mentally retarded population	50

Based on B. Blatt, "The Executive," in Changing Paterns in Residential Services for the Mentally Retarded, Washington: PCMR, 19/6 p. 144.

Note 1 Specialty services, in home training and support services and recreational opportunities are not included because we assume that these activities will take place in people's natural environments or in readily available office space. We think it should be exceptionally rare for a program to try to build space for these functions.

Note 2 "Service need" is stated in the most general terms. We assume that there are many different ways to meet the need for, say, community residential services. This table does not specify what kinds of residential options would meet the need. It does not even predict which options would require acquiring space since, for instance, many children needing a community residence could be placed for adoption or in foster care.

# TESTING THE NEED FOR SPACE UNITS

## - ALTERNATIVES

---

INTRODUCTION This section states the questions that people who want to fund program spaces should answer before they think about building a building.

### DECISION TABLE

1. Can any amount of any of the needed service functions happen in the consumer's natural environment (e.g. own home, public school, typical job environment)?	-- Yes -	Reduce the size of needed space units, or. Reduce the number of necessary space units.
----------------------------------------------------------------------------------------------------------------------------------------------------------------	----------	----------------------------------------------------------------------------------------

2. Is there an existing space which can be rented, leased, or borrowed to provide any of the required space units?	-- Yes -	Rent to provide these space units.
--------------------------------------------------------------------------------------------------------------------	----------	------------------------------------

No

3. Is there an existing space which can be leased and renovated to provide any of the required space units? _____	-- Yes -	Rent and renovate to provide these space units.
-------------------------------------------------------------------------------------------------------------------	----------	-------------------------------------------------

No

4. Is there an existing space which can be bought to provide any of the required space units? _____	-- Yes -	Buy to provide these space units.
-----------------------------------------------------------------------------------------------------	----------	-----------------------------------

No

5. Is there an existing space which can be bought and renovated to provide any of the required space units? _____	- Yes -	Buy and renovate to provide these space units.
-------------------------------------------------------------------------------------------------------------------	---------	------------------------------------------------

No

6. Build the most flexible appropriate space to provide the space units which are still needed. _____.		
--------------------------------------------------------------------------------------------------------	--	--

## TESTING THE NEED FOR SPACE UNITS

### - ALTERNATIVES

---

INSTRUCTIONS Start with the first box for each space unit (or cluster of space units) and assume that it could be done without using any building at all. Before you can go on to the next box, you must state evidence that positively disproves the "Yes, we don't need a building." answer. If the space unit you are working with survives the first challenge, challenge it in the same way with the question in each box in turn.

---

COMMENT We are not taking the position that no one should ever build a building. We do want to make sure that the appeal of building a building doesn't lead you to overlook important possibilities.

Furthermore, the information you collect on the following worksheet will be useful in the design process. That's why we ask you to write down your reasons for each decision on the worksheet on the next page.

---

EXAMPLE As far as we are concerned, normalization related reasons are as important as any other. For instance, a program might decide to decline to rent a space for \$1.00 a year because it is poorly located, has a negative history, and is incongruous with proposed functions, and choose instead to buy and renovate a more suitable facility at much higher cost in dollars and flexibility. This is an example of trading off dollar costs to reduce social costs, to handicapped people.

---

TESTING THE NEED FOR SPACE UNITS -  
ALTERNATIVES

WORKSHEET

We need to build because ...	
SPACE UNITS	REASONS
1. Even though we can perform (some of) these functions in the consumer's natural environment . . . and . . .	we can't do the rest in the natural environment because:
2. even though we can rent space for these space units . . . and . . .	we can't provide the rest by renting because:

TESTING THE NEED FOR SPACE UNITS -

ALTERNATIVES

<p>3. even though we can rent and renovate space for these space units . . . and . . .</p>	<p>we can't provide the rest by renting and renovating because:</p>
<p>4. even though we can buy space for these space units . . . and . . .</p>	<p>we can't buy space for the rest because:</p>

TESTING THE NEED FOR SPACE UNITS -  
ALTERNATIVES

<p>. even though we can buy and renovate space for these space units ...</p>	<p>we can't rent and renovate for the rest because:</p>
<p>. We have to build to provide these space units:</p>	

# HOW TO MAKE BUILDINGS ADAPTABLE

---

**INTRODUCTION** If building - or major renovation - is the only way to meet space needs, then buildings should be designed to be as adaptable as possible. This section outlines an approach to building flexibility. It is in this area, however, that you will need to draw on the problem solving ability of the architects with whom you work.

---

**PRINCIPLE** The more permanent the construction, the more simple and adaptable its shape must be. The more movable the construction, the more it can be custom shaped for a particular purpose.

---

**APPROACHES** 1. The basic structure and external shell of the building has a relatively long life (perhaps as much as 50 years). Internal space should be designed to allow internal parts to change at separate rates to account for functional changes.

AVOID	INSTEAD
a. Shaping the exterior shell of the building to express arrangement of interior space.	a. Make exterior shape more general, allowing interior design to change at a faster rate.
b. Constructing interior partition of materials similar to outside shell.	b. Use light weight and/or movable internal partitions which are easier to re-arrange.
c. Designs which distribute building weight on many internal walls.	c. Minimize number of weight-bearing walls.

2. Insure that the building is built so that it could be sold or leased for the widest possible variety of other purposes. Be sure you answer the question, "Who - other than another human service - would want to buy or lease this facility?" Notice that following normalization-related principles will help make the building useful for multiple purposes.

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# FUNDING FLEXIBILITY

"There is no such thing as a free lunch."

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**INTRODUCTION** Construction and renovation are expensive. Much space planning effort goes into finding enough money to pay for needed space. The source and conditions of funding will impose limits on the flexibility with which space can be used. This section provides a few examples of the flexibility costs of funding and asks you to identify the constraints that are imposed by the various sources of funds you are considering.

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**EXAMPLE** Funding Source: Public service bonds sold to finance a statewide facilities development effort with 30-year bonds secured by the fees generated from full occupancy of the facilities.

Possible Flexibility Costs: System tied long term into high occupancy for institutional residential services. This requires compliance with requests of funding sources (e.g. ICF-MR Regs.) at escalating costs.

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**EXAMPLE** Funding Source: Private foundation provides a construction grant for specialized service building.

Possible Flexibility Costs: Service providers and supporters highly invested in making full use of facility for purpose built. Many tend to fit programs and people to buildings and resist change toward more integrated service. May encounter substantial resistance - even legal - to converting the building to another purpose. Monument functions of building may be prominent.

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**EXAMPLE** Funding Source: Legislative appropriation for construction.

Possible Flexibility Costs: Supporters of funding request at risk of being accused of bad management if facility is not fully used; legal encumbrances to converting property to other purposes. Often such facilities are purpose built to match a particular funding source; income from this funding source becomes a reason in itself for maintaining the building.

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**RESOURCE** Marie McGuire Thompson. Housing for the Handicapped and Disabled. NAHRO Operational Guide. National Association of Housing and Redevelopment Officials, Washington, D.C. March, 1977.

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INSTRUCTIONS

As it says at the beginning of this section, everything costs something. This worksheet just asks you to forecast and compare the flexibility costs of the different funding sources available to you. To find out what flexibility costs are possible, read relevant regulations, lending or gift policies, or interview people to answer the question, "What limits are there on the ways our service can use the building now or in the long term future because we use this funding source?"

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WORKSHEET

Possible Flexibility Costs of Funding

Proposed Funding Sources	Possible Flexibility Costs

# DEFINING AGE-APPROPRIATE SPACE UNITS

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**INTRODUCTION** The principle of normalization implies that people live and function in groups which are of a size, composition and nature that are typical for groups of valued people of the same age, sex, and circumstances. This section asks you to check to be sure you haven't defined a space unit which groups people in an age-inappropriate way.

---

- INSTRUCTIONS**
1. Arrange your space units on the worksheet. The worksheet represents one way to think about culturally typical age grouping. You can put a space unit in more than one column if you define it that way.
  2. Circle all of the space units that appear in more than one column.  
For each space unit you circle:
  3. Decide whether you can identify a setting which groups valued people in the same numbers, in the same ways, for similar purposes.
  4. If you can't find a common, valued setting which is similar, split your space units up into smaller units that group people in more typical ways.
- 

**WORKSHEET**      **Identify space units including . . .**

Young Children (Birth-5)	Elementary School Students (6-13)	High School Students (14-18)	Young Adults (19-25)	Adults (26+)

COMMENT

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Many services for people called mentally retarded mix an atypically wide range of age groups in the same setting - or in atypically close proximity to each other. Occasionally, this happens because of the scale of the service effort. For example, in a service area with a very small service population, there is a pressure to gather handicapped people of all ages into the same building - and sometimes into the same room. This may be justified with statements about the needs of handicapped people such as, "Severely handicapped young adults are more like young children in their programmatic needs than like other young adults." We don't think that this is true. To our way of thinking, a far more developmentally powerful and normalizing service response is possible if service planners deal with small numbers of people by working to find small amounts of space in typical settings. For instance, we know of one service area that found one available classroom in a local high school for its staff to use to serve a small number of high school aged severely and profoundly handicapped people rather than choosing a space plan that would have required them to group people age-inappropriately.

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## SPECIFYING SPACE UNITS

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**INTRODUCTION** Now that you have tested the number and kind of space units you will need to rent, buy or build, this section asks you to further specify each space unit by size and special requirements. Your specifications can help you in dealing with realtors or architects by making your needs clear.

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**SUGGESTION** As you work through the rest of this manual, it will help if you put each space unit on a separate sheet of paper. Use this paper for notes from each worksheet you fill out.

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**PROCEDURE** For each space unit

Step	
1	Define approximate size.
	a Study a variety of settings for people who belong to culturally <u>valued groups</u> which serve similar functions and note size and locations features.
	b Study any standards which will apply to the facility when it is in use and note size requirements. For example: <ul style="list-style-type: none"><li>- ACFMR/DD Standards - (1978 edition)</li><li>- CARF Standards</li><li>- building and life safety codes</li><li>- state programmatic standards</li></ul>
2	Define other design requirements.
	a Study standards (from 1 b) and note any special facility requirements.
	b Study a variety of settings for people who belong to culturally <u>valued groups</u> which serve similar functions. Note design features <u>and</u> the ways in which requirements from programmatic standards (from 2 a) are handled. Note desirable design features.
	c Note any non-normative design features imposed by standards on a list for future problem solving.
d Study standards of physical accessibility and description of accessible facilities and note facility requirements.	

## A NOTE ON ACCESSIBILITY

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### INTRODUCTION

We assume that the facilities developed by users of this manual are mandated to be physically accessible. The two major issues facing space planners with respect to accessibility are:

- how to insure that people with physical and sensory handicaps can, in fact, fully use the facilities, and
- how to permit full accessibility in the most culturally normative possible way.

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### COMMENT

We like the idea that barrier free design means even more than wheelchair ramps and special toilets. It means designing facilities which are functional, safe, and convenient for all people who might use them. Particularly in facilities which are being built, this way of thinking will result in more useful facilities which are physically accessible to handicapped people by their basic design and not because of special building features. This perspective on accessibility is laid out in:

M. Bednar, ed. Barrier Free Environments. Stroudsburg: Dowden, Hutchinson, and Ross, 1977.

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### SUGGESTION

Include a tour of several (supposedly) accessible facilities in your planning efforts. The tour will be most effective if you can take it with some people who have serious mobility problems. Be sure to allow time enough to explore the entire physical space and note barriers and facilitators of movement. Contrast this with a tour of an inaccessible building.

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### OTHER

#### RESOURCES

R. Mace. An Illustrated Handbook of the Handicapped Section of the North Carolina State Building Code (1974) and Guidelines for Modifications to Existing Buildings (1976) by the North Carolina Department of Insurance. Both published by the North Carolina Department of Insurance.

## CLUSTERING SPACE UNITS

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INTRODUCTION    The main reason for defining space needs in space units is to assist you in being a more playful service designer. This suggests some rules you can follow to find the most flexible and normalizing possible settings.

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SUGGESTION    Draw some possible answers to these questions:

- How are these space units related to each other:
    - in terms of people flow, both service workers and/or consumers? -- in terms of functions?
  - Which of these space units should be located together and which should be separated:
    - within a facility?
    - from facility to facility?
  - Which spaces will people - both staff and consumers - spend a lot of time in and which will they be passing through?
  - How many different combinations of space units are possible that meet the criteria of flexibility and normalization?
-

## CLUSTERING SPACE UNITS

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### "RULES"

In order to insure the most normalizing service environment possible, we'd like to suggest that you rule out several possible space arrangements;

- AGE
1. Don't put space units for young children with space units for school aged children.
  2. Don't put space units for elementary school children with space units for high school aged adolescents.
  3. Don't put space units for school aged people with space units for adults.

- FUNCTIONS
4. Don't mix school space with work space.
  5. Don't mix residential space units with either work space or school space.
  6. Don't mix leisure/recreation space with school or work space except incidentally.
  7. Don't mix major leisure pursuits (more than a typical home would provide) with residential space units.
  8. Don't mix guidance or specialty service (physical therapy, speech therapy) space units with residential space.
  9. Don't mix guidance or specialty service space units with school or work space units except minimally, within culturally normative limits.

- GROUPING
10. Don't group space units for labeled handicapped people with widely divergent abilities.
  11. Don't group space units for people of different types of disabilities.

- SIZE
12. Don't group residential space units to congregate more handicapped people than would live in one (large) family in the same neighborhood (8 people maximum).
  13. Don't group school or work space units to congregate more people than would go to school or work in a similar typical setting in the local area.
  14. Don't create major recreational space units (e.g. swimming pools, bowling alleys, restaurants, etc.) which are likely to be used only by handicapped people.
-

## CLUSTERING SPACE UNITS

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COMMENT To understand our reasons for these "don'ts," study PASS 3 (see resources section for information). This will let you decide for yourself whether or not to use them as rules of thumb.

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RESOURCE See:

Paul Laseau. Graphic Problem Solving. Cahners Books International, 221 Columbus Ave., Boston, Mass.: 1975.

*for useful instructions on how to use simple diagrams like space units to think through a situation.*

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## SITE SELECTION CRITERIA

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### INTRODUCTION

People who are handicapped are at risk of being devalued in our society because they differ in some way from what is considered typical. Many human service facilities compound the perceived difference of people with handicaps by where they are located. We think that where a service is located can increase or decrease the chances people served have to experience a range of contacts with valued people and settings, thereby increasing or decreasing the likelihood that handicapped people will be accepted as valued citizens in their communities.

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### ADVICE FOR USERS

Once you have adequately defined your space units, you can use the following principles as a problem statement for a real estate person: "Find us a location for our space units (or facility) that has as many of these characteristics as possible."

You can also compare possible sites by ranking them according to which one best meets the most of the suggested characteristics as illustrated in this section.

---

### INSTRUCTIONS

1. Look at each principle in turn and decide if any site fails to meet the criterion at all, e.g. it is located outside of any population cluster. If the site fails to meet the criterion at all, put a NO\_ in the column for that site.
2. Rank order the remaining sites 1,2,3... placing 1 in the column which represents the site that is the best of these available in terms of the principle, 2 for the next best, and so on.
3. When all of the sites have been evaluated on all the principles, look down the columns and decide which site is the best.

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### COMMENT

It will be rare to find a site that will be optimal on every principle. Planners must consciously weigh the importance of each principle, and decide on the one which best meets all the principles in total

SITE SELECTION CRITERIA

DECISION TABLE

Principle	SITE				
	A	B	C	D	E
1. The site is close to the center of a local population cluster (town, community, city).					
2. The site is close to the center of the regional population distribution (defined area from which potential consumers of service come).					
3. The site can be reached quickly and conveniently by consumers, families, staff and the general public.					
4. The site is free from traffic congestion, and has available parking (or docking) space.					
5. The site is within easy distance of a wide variety of available resources (appropriate to the particular space unit) which are convenient to service consumers <u>and</u> used by typical people.					
6. The site is in a neighborhood which is considered safe by the general public.					
7. The site for a service (providing living spaces, providing advice and counseling, etc.), is located so that it matches the type of neighborhood in which it is placed.					
8. The site is located so that it does <u>not</u> group so many (potentially) devalued people in the same vicinity that the capacity of the surrounding social system to involve them is strained.					
9. The site is located so that consumers of the service will not be in competition with other service consumers for use of available social system resources.					
10. The site is located so that it is <u>not</u> close to other programs serving (potentially) devalued groups of people					
11. The site is located in such a place that I (we) could comfortably and enjoyably live (work, play, study, etc.) there.					

## FACILITY APPEARANCE CRITERIA

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INTRODUCTION Services to people with handicaps often call undue (and usually negative) attention to the service consumers because they are not located and designed with conscious attention to several simple criteria which we will describe in this section. Criteria are over-looked in locating, designing and units, consumers will bear the additional stigma planning. Consumers will be more likely to make services if these criteria are met. Each criterion should be applied to each space unit or cluster of space units.

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CRITERION 1 The size of the building, its design, and surrounding features should match the type of space unit which it houses. The building should look like what it is supposed to be (i.e. what goes on inside).

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EXAMPLE A space unit designed as a residence should be in a building which was built and constructed as a typical home.

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EXAMPLE A space unit defined as an educational program for school-aged children should be in a facility which looks like a typical school.

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NON-EXAMPLE unit define as training toward employment for adults building which looks like an elementary school.

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CRITERION 2 The type of building, its landscaping and objects on the facility site should blend neighborhood.

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EXAMPLE A residential program is located in a house in a neighborhood which is composed of single-family dwellings. The house is similar in size to the rest of those in the neighborhood.

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NON-EXAMPLE A residential program is located in the only multi-level house in a neighborhood of primarily single family dwellings. It is the only home with a large, obvious fire escape and a fire alarm bell, both prominently visible from the street. This is the only house whose yard is entirely surrounded by a fence.

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FACILITY APPEARANCE CRITERIA

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CRITERION 3 The external and internal appearance, furnishings and decor should be consistent with the chronological age of the people being served. A person seeing and being inside the facility should be able to "read" the appropriate chronological age of the people served by observing the facility.

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EXAMPLE A classroom for school-aged children should be furnished with chairs, tables, desks, sinks, etc. that are appropriate to the size and age of the children served. Bulletin boards, signs, posters on the walls as decorations connote the ages and interest of school-aged children.

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NON-EXAMPLE A work program for adults is housed in a former elementary school which has lowered drinking fountains, lowered built-in shelves and cabinets. Some rooms are decorated with pictures and posters featuring cartoon characters.

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CRITERION 4 *Internal features of the building are designed so as to be culturally typical or expectable (i.e. there is nothing about the internal design features that would strike an observer as odd or curious.)*

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NON-EXAMPLE A classroom for children is located in the space formerly used as a gym locker room. The showers and toilet seats are still openly exposed in the corner of the room.

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NON-EXAMPLES A school gym which still has baskets and goals is now space.

A church building with pulpit and pews pushed to one side is used as a school.

"Exit" signs in a home.

Floors with drains. Wire-

mesh glass in a home.

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FACILITY APPEARANCE CRITERIA

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CRITERION 5     The facility exposes users to normative risk. Built-in design features of the facility do not reduce risk or hazard below a level that would exist under similar circumstances in the community without compelling reasons related to consideration of the impairment of those served.

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NON-EXAMPLE     Door-knobs and light switches are located at such a level that children served in the setting cannot reach them.

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NON-EXAMPLE     Thermostats have coverings that do not allow control unless covers are removed with screwdrivers.

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CRITERION 6     The facility is as physically comfortable to all of the senses as a facility serving the same function for highly valued people.

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EXAMPLE     Lighting is adequately and comfortably provided both naturally by window design and by artificial means.

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NON-EXAMPLE     Bedrooms in a residence have bare floors without carpeting or throw rugs. Bedroom has been placed in basement area with no windows.

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CRITERION 7     The setting is designed to interpret the people who use it as aesthetically sensitive and to encourage the development of a sense of appreciation toward environmental beauty in those who use the facility.

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EXAMPLE     **Well-kept, healthy plants are used to beautify space in a facility.**

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EXAMPLE     Space is tastefully decorated with a variety of pictures, colors, lamps, etc.

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FACILITY APPEARANCE CRITERIA

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-EXAMPLE Facility is painted in one rather drab color throughout.

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-EXAMPLE Space has essential furniture or equipment, but there is no attempt to add niceties such as cushions, paintings and knick-knacks.

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