

DOCUMENTATION OF DESIGN PROCESS AND THE DESIGN OF A
SENIOR CITIZEN'S CENTER IN MARION COUNTY, KANSAS

by

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Chapter 1

INTRODUCTION

A Senior Citizen's Center is a facility, which brings together older citizens in a community setting. It furnishes the users with the opportunity to continue to develop their human qualities by having physical and visual contact with friends and acquaintances. It can promote individual and group prestige, recognition and dignity, and it can provide for the opportunity of each to make use of his or her talents and abilities. The center offers the older citizen the opportunity to be productive, useful, independent, and self-fulfilled both for themselves and for the welfare of the community.

The Kansas Area Office on Aging in Manhattan, Kansas contacted the designer responsible for the report, to inquire if she would be interested in providing guidance to the Marion County senior citizens group for the development of their center. This design opportunity offers a public service to the older citizens while providing a learning experience for a student designer interested in design for the elderly.

It is hoped that this report will provide answers to the questions the senior citizens of Marion County, Kansas have concerning the designing of their center. This report is intended to create an awareness for the problems of designing senior citizen's centers thus creating an atmosphere that will have a positive influence to the users.

Many Senior Citizen Centers across the country provide space for Government subsidized nutrition programs which is in response to the elderly's desire to have this program included in conjunction with various other government and community programs. By incorporating the nutrition programs in the center, the facilities can provide the opportunity for the satisfaction of many of the basic human needs.

The purpose of the Marion County Center is to provide social, recreational, educational, and nutritional opportunities for the citizens. By providing these opportunities in the community, the citizens may be able to maintain their identity and sense of usefulness to a greater extent than in the past.

The purpose of this report is to document the design process and to execute the designs by which the interior space of a new building becomes a community center for the senior citizen of Marion County, Kansas. The intention of the report is to provide design guidance for the senior citizens to plan their center. The newly designed space will become a facility that will furnish the users with a nutrition site, a Federal, state, and community subsidized place for fellowship and recreational activities, and offices for the Area Office on Aging.

PROBLEM STATEMENT OF REPORT

The study is divided into two phases; documentation of the design process and the graphic and pictorial representation of the actual recommended design.

William M. Pena's book "Problem Seeking" (Pena, 1977) provides the designer with a rational method by which one can interpret and apply research information into a decision making process.

The process consists of five steps:

Step I- Establish goals which indicates what the client wants to achieve and why.

Step II- Collect and analyze facts which are used to describe conditions which include the physical, legal, climatic, and aesthetic aspects of the site and the user group.

Step III- Uncover and test concepts which will help determine how the client wants to achieve his goals. These are based on concrete ideas which are intended as physical solutions to the client's architectural problems.

Step IV- Determine money, space, and quality and needs to see if a budget can be determined, or a fixed budget balanced that will satisfy the client.

Step V- The problem statement determines the significant conditions and the general directions the design of the interior space should take. This step serves as a premise for the design and a design criteria which the designer will follow in determining the best solution to meet the client's needs.

The second phase of this project, the graphic and pictorial representation of the actual recommended designs appears in the appendixes of this report, and is the result of following the Problem Seeking Approach.

OBJECTIVES

The specific objectives of this report are:

1. To document the design goals of the project:
 - a. Document the design process
 - b. Execute the design

2. To describe the users in terms of their life style.
3. To identify the characteristics of a senior citizen's center from a literature search.
4. To incorporate the recommendations found in the literature search into the development of a design program.
5. To generate various design solutions in response to the program.
6. To prepare a design solution for a workable senior citizen's center.
7. To select and develop a final design solution from identified alternatives.

ASSUMPTIONS

1. The designed center will have a positive effect on the users.
2. The designer has the responsibility to develop a design solution that will satisfy the needs of the users.

Chapter 11

REVIEW OF LITERATURE

The literature review is divided into two parts. First, the documentation of the Older American's Act of 1979 and the Rehabilitation Act of 1973 which provided the impetus for the Senior Citizen's Center movement is presented. The second part deals with the theoretical framework developed to explain the relationship between human behavior and the environment. The purported meaning or goal of the Senior Citizen's Center is to change or modify human behavior. Therefore, an attempt is made in the literature review to establish a connection between human behavior and the environment in order to provide validity for the design of the Senior Citizen's Center presented in this report.

Older American's Act of 1979

Senior Citizen's Centers are increasing in the state of Kansas as a result of the Older American's Act (AoA, 1979; Cohen, 1979) which provides funding for multipurpose senior centers under Title III of the Comprehensive Older American's Act Amendments, 1978.

The principle agency for carrying out the Older American's Act is the Administration on Aging (AoA). The AoA is responsible for creating and coordinating programs designed to serve the needs and interests of Older Americans, particularly those who are disabled, very old, poor, isolated, and uneducated. (Cohen, 1979)

Area Agencies on Aging have been established at the local or county level to develop an area plan which is designed to lead to

comprehensive and coordinated programs which support older Americans. (Cohen, 1979) The agencies are required to carry out the following functions: provide leadership, determine needs, inventory resources, establish measurable program objectives, plan with existing planning agencies, and, through contract or grant, coordinate delivery of existing services and pool untrapped resources of public and private agencies. The agencies emphasize the full Constitutional rights of all older Americans by opposing those negative stereotypes that are based upon age. They strive to open up opportunities which are educational, social, and cultural as well as financially rewarding for the older American. (DHEW,1979)

A Senior Citizen's Center is a facility, which may offer the following social services: health, continuing education, welfare, informational, recreational, homemaker, counseling or referral services, transportation, residential repair and renovation projects, special assistance for the disabled elderly, legal and ombudsman services, and other senior citizen's programs. (Cohen, 1979) In addition to the afore mentioned social service programs, many Senior Citizen's Centers across the country provided space for the Government subsidized nutritional programs. (DHEW, 1979)

The purpose of the nutritional program is to improve the life style of the senior citizens by offering them the opportunity to partake of well balanced meals and help them become physically and socially active. Under the program, congregate meals and home-delivered meals are provided to persons 60 years and older, and their spouses. (Cohen, 1979) In addition to the actual food service program, educational and recreational programs which provide

informational and referral services are offered to help the citizens learn about themselves, their health, and their nutritional needs.

Rehabilitation

The Rehabilitation Act of 1973 under Section 504 provides the older Americans with specific rights under the law. The civil rights law offers protection for the citizen by not allowing persons to be excluded from participating in, be denied the benefits of, or be subjected to discrimination under any program or activity which received Federal financial assistance. (DHEW, 1979)

In order to provide barrier-free environments for the senior citizens, building codes have been developed by the Federal, state, and local municipalities. The codes and requirements apply to both the interior and exterior of any public building.

Based on the programs and services set forth in the AoA and the Rehabilitation Act, the development of a physical facility in which to administer and implement the programs and services is a natural out come. The question which must be raised in designing the physical facility is, will it meet the needs of an elderly population who will be the primary users of the space? The second part of the literature review addresses this question.

Man-Environment Relations

The research in this report is based on the assumption that the physical environment can be a constraint directly or indirectly effecting the opportunity for an individual or group to satisfy their basic human needs. According to Abraham Maslow (1954) who has done extensive research in motivation and personality, there are basic

human needs which every human strives to satisfy. These basic needs include the following: physiological, safety, affiliation, esteem, and self-actualization. His theory places these needs in an heirarchical order beginning with physiological needs and ending with self-actualization. He theorizes that much of human motivation (and consequently human behavior) is in response to need satisfaction activity. Man-environment relations theory concedes the influence of many determinates of human behavior both human and non-human (the physical surroundings). The impact of the environment to determine human behavior becomes critical when the group using the environment is elderly.

Competence/Environmental Press

L. A. Pastalan (1970) and M. Powell Lawton (1970) have done research in the area of environmental competency. Their research suggests that the greater the degree of competence of the individual the less his/her behavior will need to be modified to negotiate the phenomena? environments (Porteous, 1977)

Environmental competence is defined as the ability of an individual to function within any environmental setting depending upon his/her capabilities and the characteristics of the particular setting. (Gelwicks, 1974) If people are brought together in favorable environmental settings, their abilities to perform and develop independence will be enhanced. The elderly generally have the ability to choose their own environments which satisfies their needs provided they are given adequate information and economic resources. (Gelwicks, 1974)

The two major variables in the theory are the competence of

the individual and the complexity of the environment. The greater the person's competence, the less effect the environment will have upon his behavior; and the less competent the person the greater the influence of the environment. (Nahemow and Lawton, 1976)

The competence of the individual is affected by health, sensory capacity, cognitive ability, motor skills, and ego strength. The theory is useful in designing for the elderly because it can be shown that older people tend to be less competent in some or all of the areas included in the definition of competence. If the environment is too complexed for an older person to master, then it is said that the environment is exerting a strong environment press. A strong press on a person with low competences may lead to maladaptive behavior.

Further research in the area of design for the elderly has been conducted which documents the decreases in competence mentioned earlier. (Bednar, 1976) The findings from this research should be implemented into new or renovated building designs. Some examples of research which the designer must be concerned with are the physiological, psychological, and sociological changes which occur as one ages.

Physiological changes may occur to sensory organs. The degree of severity varies with each individual, however, such disabilities can be compensated for and aided by the selection of equipment, finishes, furnishings, and color that will not restrict or hinder the older person as they function within the environment. (Koncelik, 1976)

Stimulating the senses of older citizens is important to

compensate for losses related to visual, auditory, tactile, motor, and thermal factors. Since spatial awareness and orientation are acutely affected by these losses, design features should be introduced into the environment that will increase the elderly's perceptions and comprehension of the environment. (McRae, 1976; Pastalan, 1970)

Cultural, social, and psychological changes commonly occur as the person ages. Because of this, the elderly's environment should be one that offers positive reinforcements to these changes. The learning capacity, retention of self-image, self-esteem, self-actualization, and the need to belong, of the senior citizen also should be reinforced.

When a person reaches retirement age, he/she should still be able to function as a normal human being. (Koncelik, 1976) Since he/she still may have the desire and physical capabilities to perform all the skills and duties they were doing before they retired from their salaried positions, they should be offered the opportunity to continue these activities.

Since the object of the multi-purpose senior citizen's center is to provide social, recreational, educational, nutritional, and guidance opportunities to the elderly, it is essential that the designer has a working knowledge of the physiological, psychological, social, and cultural changes that occur in older persons and the impact of these changes on the environment. That he/she be able to design support for activities which satisfy basic human needs and to do it in compliance with all Federal, state, and local regulations is necessary for a successful Senior Citizen's Center.

Chapter III

DESIGN METHODS AND PROCEDURES

1. To interview the planning committee and determine the extent of the design project.
2. To conduct a literature search of past studies and to abstract the findings to help identify the characteristics of a senior citizen's center.
3. To analyze the recommendations found in the literature search and incorporate these findings together with information generated from the interviews into a program.
4. To develop a program that will include:
 - a. problem statement.
 - b. site.
 - c. profile of senior citizens using the center based on the life style and other pertinent information.
 - d. Federal, state, and local constraints that need to be incorporated in the design.
 - e. project data that will include information of the needs and requirements of the users.
 - f. activity analysis to include spatial requirements, furniture and equipment, recommendations, and human needs requirements.
5. To create alternative design solutions that satisfy the program.
6. To select the best alternative solution.
7. To develop and present a final design solution in an

8½" X 11" format that will contain:

- a. program.
 - b. floor plan.
 - c. lighting plan.
 - d. sample boards.
 - e. furniture and room finish schedules.
 - f. product design.
8. To develop and present project schedules and work flow chart. (The complete stages of design and execution.)

THE PROGRAM

PROBLEM STATEMENT FOR SENIOR CITIZEN'S CENTER

The goal of the Marion County Center is to provide a support system to help the elderly stay in their own homes as long as possible. Such an approach would be less expensive than a long term care facility for the elderly and hopefully would increase their independence for a longer period of time than without the services and support of a Senior Citizen's Center.

The Site

The Senior Citizen's Planning Board provided the following information concerning Marion, Kansas.

Marion, Kansas, a small rural community of 2,400, is located 60 miles South of Junction City, Kansas on Highway 77. The city, nestled in a valley, is situated between two lakes. The Center is located one block South of the main street of town and thus offers ease of access to the senior citizens of the community.

Transportation is provided to and from the center for the Marion County citizens under the transportation section of the Older American's Act. A van and driver are under contract for the center's use. The number of citizens using the services is recorded. The fee is forty cents per one way trip and is paid for by the Area Office of Aging. The program is administered from the senior citizen's center.

Profile of the Senior Citizens

According to the Area Office of Aging, citizens who are 60 years or older will be using the center. The center is primarily for senior citizens, but others may use the facilities as guests. Through interviews with the Marion County Planning Council, it was determined that of the anticipated 125 using the center, an average of 70 will be using the nutrition site.

The exact life style of the population using the Senior Citizen's Center is not known although some information was gathered in interviews. The researcher is using the following criteria as an average profile:

- males and females
- retired farmers
- small town residents
- lived in one area most of life
- mobil and active
- approximately 1/2 had only elementary education
- were married during World War I
- started families in the 1920's
- entered most productive careers in the 1930's (during the depression)

- most of their children were in World War II
- many of their children were caught in early retirement (age 55-65)
- had to cope with automation and electronic ages
- reside in small rural community
- marital status varied
- varied living arrangements

The Community Center is available to any senior citizen who resides in Marion County, Kansas. The participants are very active both mentally and physically, and are anxious to see the building designed and built to meet their fellowship needs.

The Building

The building, purchased by the Marion County Planning Board, is a 50' X 100' rectangular shaped metal structure with an attached 12' X 20' vestibule. The building is a single floor structure offering the users easy enter and egress as well as a barrier-free interior.

Included in the initial base price of the structure are two exterior 3' X 7' doors. All other openings (windows, other doors) are in addition to the base price.

Programs to be Accommodated

The new facility must contain the following:

1. Nutrition program; to include enough table seating to meet the average number of anticipated users and a kitchen which must include: commercial range, convection oven, commercial refrigerator, dishwasher, three compartment sink, vegetable sink, and two mobile worktables.

2. two offices; 1 private, 1 semi-private both to be used by the Area Office on Aging.

3. a 15' X 15' enclosed conference room located just inside the main entrance. It will be used as conference or rental space that will bring in added income for the center.

4. two restrooms; 1 men's with two waterclosets (one handicapped), one urinal, two sinks, and 1 women's with four water-closets (one handicapped), two sinks.

5. a workshop.

6. a janitor's room to contain a faucet and drain.

7. a storage area containing a desk, handwashing sink, freezer, and storage for canned and dried food stuffs.

8. a large multi-purpose meeting area to be used for meetings, programs, conversational and recreational activities. Screens must be provided for space division when needed.

9. a semi-quiet meeting area to be open to the multi-purpose area used for reading, conversation, extra eating space, and other activities deemed necessary.

10. ample closed storage for the entire center.

11. Transportation program.

12. Any program under 504 regulations which deal with discrimination of handicapped persons.

The primary constraints involved in designing this center are:

1. meeting Federal, state, and local codes that apply to a senior citizen's center.

2. working within the existing budget.

3. meeting the needs of the Marion County Senior Citizens

and staff.

4. confining the designed area to the boundaries of the 50' X 100' structure.

5. limiting the design to center activities for the elderly of Marion County, Kansas.

Constraints

The building is a newly designed structure and must meet the necessary codes and regulations of the Federal, state, and local government as well as stay within the funds available to the citizens.

Funding

The majority of the funding for the newly constructed center was obtained through a federally funded grant. The remainder of the budget is supplied by fund-raising drives, which will be sponsored by the center's citizens, and outside contributions. The amount of funds available at the onset of the project is \$51,500.00. The funds are divided as follows:

\$ 49,000.00-Federal grant monies

\$ 14,000.00-committed to kitchen and anything related to the nutrition site such as: dining tables and chairs, beverage counters and service, and plumbing.

5,000.00-committed to restrooms.

2,000.00-matching funds.

Barrier-free Requirements

The center must meet the requirements of the Rehabilitation Act of 1973, Title V, Section 504 which reads as follows:

Section 504 of the Rehabilitation Act of 1973 provides that:

No otherwise qualified handicapped individual in

the United States... shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

Section 504 represents the first civil rights law protecting the rights of handicapped persons and reflects a national commitment to end discrimination of the care or social services that receives federal financial assistance.

A handicapped person has been defined as anyone with a physical or mental disability that substantially limits one or more of such major life activities as walking, seeing, hearing, working, or learning. Handicapped conditions include, but are not limited to: alcoholism and drug addiction (if they limit one or more of life's major activities), cancer, cerebral palsy, deafness or hearing impairment, diabetes, epilepsy, heart disease, mental or emotional illness, mental retardation, multiple sclerosis, muscular dystrophy, orthopedic, speech, or visual impairment, and perceptual handicaps (dyslexia, minimal brain dysfunction, developmental aphasia).

Program Accessibility:

Rules and regulations

Title 45- Public Welfare

Subtitle A- Department of Health, Education, and Welfare, General Administration

Part 84- Nondiscrimination of the basis of handicap in programs and activities receiving or benefiting from federal financial assistance

Subpart C- Program Accessibility

84.21- Discrimination prohibited- No qualified handicapped person shall, because a recipient's facilities are inaccessible to or unusable by handicapped persons, be denied the benefits

of, be excluded from participation in or, otherwise be subjected to discrimination under any program or activity to which this part applies.

Program accessibility differs from barrier-free accessibility. The general rule for determining if a project is accessible is to see if the services provided by the project are readily usable by handicapped persons. This determination can best be made by having a handicapped person assess the program's accessibility.

Accessibility to a program or activity may be achieved by a number of different methods: redesigning of equipment, reassignment of classes or delivery of services in an accessible building, making aides available to the handicapped individual, home visits, or alternation of the facility. In choosing a method of compliance, however, you must keep in mind that the service needs to be offered in an appropriate integrated setting. Having a facility set aside "just for the handicapped" opposes the intent of Section 504. Structural changes in existing facilities are required ONLY where there is no other feasible way to make the program accessible.

For example: If an activity is being offered in an area that is NOT accessible to a handicapped person, it is sufficient to merely relocate that activity to an area of that building which is accessible. It is also sufficient to have a written plan as to what steps would be taken to make an activity accessible should a handicapped person desire to take part.

You may also obtain 504 compliance by delivering services at alternate accessible sites or by making home visits.

For example, if a nutrition program, which is located in a

building with structural barriers, has as its ONLY purpose serving meals, it could be deemed accessible (program-wise) if meals were delivered to the homes of the handicapped persons. The program accessibility standard is very flexible and permits you to devise ways to make your program accessible short of extremely expensive or impractical physical changes in the facility.

The center also must meet the specific Federal, state, and local codes that apply to the center. It thus should be noted that all recommendations and specifications provided are in congruence with the necessary codes and regulations of the state.

Building Codes:

Fire-

- must meet Class C Rating
- maximum width single exit doors 42"
- exit lights at all exit doors (illuminated at all times)
- unobstructed aisles to exits of not less than 36"
- walls should have a 2 hour fire resistance rating
- walls should not be collapsible if other section of wall collapses

Electrical-

- electrical wiring shall not be installed or altered until it has been checked and a permit issued
- electrical systems must be planned out and approved by inspector
- installation or correction of all electrical wiring must be inspected before it is closed or continued into the next step

Lighting-

- one footcandle general illumination at least
- three footcandle general illumination in restrooms
- standards of natural light 6 footcandle over area of room at a height of 30" above floor

Restroom Requirements-

- needed for women
 - three toilets, one of which is handicapped
 - two lavatories
- needed for men-
 - two toilets, one of which is handicapped
 - one urinal
 - two lavatories

Handicapped Restroom Requirements-

- clear space beyond room door of 60"x72" at least
- clear width between face of water closet and the wall can not be less than 48", 72" deep, outswing of door at least 32" wide
- hand rails must be provided on both sides of not less than 42" long, mounted 33" above and parallel to the floor and the front end positioned 24" in front of water closet

Exit Facilities-

- outside entrances, there must be at least one primary entrance accessible from parking lot of street by way of a walk way uninterrupted by steps or abrupt changes in grades
- outside entrances shall also have a width of not less than 5' and a gradient of not more than 1' in 20'
- doors of swinging type leading directly outside or to a lobby or passageway leading to the outside of the building
- any exit door from place of assembly having an exit capacity of 100 or more maybe provided with a latch or lock only if it is panic hardware