BACHELOR THESIS
GARY W. NICODEMUS
INDIANA MASONIC HOME
HOME FOR RETIRED MASONS & WIDOWS
At first look you might think that I just set down and decided to write a book about the Indiana Masonic Home, its past, present and future. Process is the word that is used to describe this project. Process is the organization of past and present knowledge and conditions and hopefully make the future a little less of a surprise. Process is not nice and neat as this book hopes you might believe but is research, and conversations, trial and error, and many other disorganized events. Sometimes going through this process you ask yourself is it all worth it? Are the buildings at the Indiana Masonic Home all that important? As an architecture student I think the buildings do play an important role but even more important is how these buildings make us form opinions of ourselves as a society. In this case a society of retired masons is the issue and when ever you are dealing with the elderly you have to be very sensitive to their needs. After all, they have been putting up with buildings, issues, and opinions of others for a long time. You see, they have already gone through the 'process.' I hope that this project opens just a small door to understanding the residents of the Indiana Masonic Home and I wish to apologize for any errors, factual or implied, in this project. Process is something I'm just beginning.
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This thesis book
is dedicated to
Bill Miller
...a good friend.
Gary Wayne Macomber enrolled at Ball State in 1969 and was admitted to the College of Architecture and Planning one year later. This was the first class under a new program to teach design in first year instead of mechanical drawing. It was an experimental year with both the professors and the students learning very much. Roots of these projects remain in first year to this day. The college was still located in the old building, providing for interaction between the various years of students and a true feeling of belonging. I had the usual frustration that comes from a combination of graphics, design and all-nighters but enjoyed the challenge.

As the years progresses I was hindered like so many students with the math requirements necessary to architecture. After my junior year I dropped out of college for lack of confidence in my ability to achieve success in this area. After working in a non-architectural field for the next three years, I returned to college to give architecture another try. This time I concentrated on other activities as well as architecture, opening new horizons in my personality. Fourth year was my hardest because I was questioning my own design skills. It was the most frustrating period of college. Thesis year began in the summer of 1977 and gave me new hope.

In summary, I feel I am a good but somewhat conservative designer. I have good graphic skills that have made many of my projects excellent over these five years. I have always found it hard to concentrate on general studies and feel very average as a "hit the books" student. The Indiana Masonic Home was a challenging project for me and I hope you will enjoy reading about it.
This is the name of one of the oldest and largest fraternal organizations in the world. Its full title is Ancient Free and Accepted Masons. It aims to promote brotherhood and to foster morality among its members. Men of any religious belief may join. They try to promote "religion in which all men agree, that is, to be good men and true." They call God the "great Architect of the Universe," and the base of their symbols and rituals is on the tools and practices of the building professions. Throughout its long history, Masonry has brought together men of varied faiths and opinions. The Masons spend millions of dollars annually for hospitals, homes for widows and orphans and the aged; and other kinds of relief for people in distress. More than a hundred fraternal organizations have a relationship with Masonry, but they do not form part of its basic structure. Each state and province in the U.S. has a Grand Lodge and a Grand Master at the head of all the local Blue Lodges. Girls and Boys who have immediate families in the Masons have their own organizations. The girls may join Job's Daughters and the boys may become members of the Order of DeMolay.

Many of the ideals and rituals of Masonry stem from the period of cathedral building from the 900's to the 1600's. At that time, masons or stoneworkers formed associations called guilds in various European cities and towns. Freemasons were another group of stoneworkers who traveled from community to community. With the decline of cathedral building in the 1600's, many of the masons' and freemasons' organizations became purely social societies. The group began accepting members who had never been stoneworkers, and called these men speculative masons.

The masons now emphasize the fact that they do not foster any specific
religious, political or economic creeds. As a result, the organization has constantly attracted more and more members. During the past 10 years their membership has increased by over a million. The number of Masons in the United States is twice that of the rest of the world. About 1 of every 12 adult American males is a Mason.
Although the trend in American Free Masonry has been in the direction of institutional care for the needy and their dependents since 1880, Indiana fell in step slowly and reluctantly. Many plans were submitted from time to time, only to be rejected, mostly for financial reasons. In 1909 a special committee was organized to formulate plans and a campaign was started to solicit $1.00 from each member for the "Mason's widows and orphans project." In 1911 the first year's balance was $13,343. Later that year Dr. Olin E. Holloway, Past Grand Master, reported that with the help of vigorous campaigns a total of $55,717 had been raised and he sponsored a motion to start construction. The vote was unanimous. Dr. Holloway was the acknowledged leader of the movement and at the outset of World War I, he announced a total of $313,517 raised for the project. The land was acquired just south of Franklin, Indiana. It was 223.66 acres and was bought at $165. an acre.

What an exciting day was October 21, 1915, with the laying of the cornerstone. The city of Franklin had never seen anything like this before! The stores closed at 1pm so all could watch the parade and the huge crowds which flocked to the city. More than 15,000 were estimated to be on the grounds that day. Many witnessed the laying of the cornerstone and the spectacular parade of almost 2,000 men marching and 200 special guests riding in motor cars. Spirited yells came from Franklin College as the parade passed the grounds. It was truly a day of rejoicing. The Board of Directors appointed Brother George W. Mecomber as Superintendent, at a salary of $1,500 annually. Most construction took place in the next 15 years and the complex grew by leaps and bounds, a long awaited dream come true.

BACKGROUND

INDIANA MASONIC HOME
Recently, the Indiana Masonic Home had only two orphans remaining. Holloway Hall, the school grades 1 thru 12, has been vacated, and two of the girl's duplexes have been demolished just this year. The home is now almost exclusively for destitute retired Masons and their widows. New construction includes a new addition to the Home's hospital and a chapel named after the late J.S. Kresgee. The main building is undergoing extensive remodel with a new lounge area and rooms soon to follow. A new recreation room was just completed in the basement of one building. Several areas are not in use because they are outdated or don't meet code.

In a new decade of inflation, new values and interests, the Indiana Masonic Home still serves the needs of hundreds of people and will continue to have its doors open to all who need comfort and guidance.
On such a large scale project as this, I needed large scale input; therefore I sought the help of three clients. My main input and client is the administrator of the home: Marvin Isley. I also had as reference foster parents: Mr. and Mrs. Utterback. And last but not least the last admitted orphan, presently residing at the home: William Miller.

Marvin Isley, administrator, lives with his family in a home located just west of the main entry to the complex. Minister by profession, Mr. Isley was formally the superintendent for the Baptist's Homes in Indiana. Six years ago he was assigned by the board of directors to his new position as administrator of the Indiana Masonic Home. He has made many improvements in these recent years in its operation and is constantly striving to update its facilities. Maintenance is always a big job in an institution of this size and Mr. Isley found this to be a primary concern because the many years and neglect had taken its toll. He expressed a need for a master plan and also a new development of housing for the elderly. He does not know what to do with some of the buildings but expresses a feeling that several should be demolished. He also expressed that a new office block and a small clinic is needed. Upon talking with Mr. Isley, many concerns became apparent and I hope my input might influence decisions in future planning.

Mr. and Mrs. Utterback have been foster parents for orphans at the home for many years. Mr. Utterback has been a driver for the home's vehicles but is presently retired. Mrs. Utterback works in the Administration Building, now called the Main Building. Both are farmers and possess pleasant, easy-going attitudes but they too have concerns about the home.
In just the few hours we have talked, they have painted a beautiful picture of the Indiana Masonic Home from their memories. They are dedicated people and have enjoyed the company of children as well as the elderly over the years.

William Miller, the last admitted orphan to the Home, is presently a student at Ball State. Bill has been a great help in telling the inside story of how it is to live in an institution year round. He, while at Ball State, has adjusted to group living very easily as opposed to others his age. His home in Franklin is very much like a dormitory, residing in the original Boy's cottage #1. An easy person to get to know, Bill has many friends but expresses loneliness because there is no one near his age at the home.
Institutions are fascinating. They are large facilities to provide a number of services to people having a common need. Institutions are always changing, growing and conforming to serve the public. But who decides what changes are needed or what is best?

At the Indiana Masonic Home, one architectural firm: McGuire and Shock of Indianapolis has determined the building needs since the Home's conception in 1925. Fresh input is needed to reorganize and follow through future planning. This large complex gave no a number of architectural routes to pursue.

First, a master plan was desperately needed due to rapid change. Poor planning in the most recent buildings virtually ignored the strong order of the complex.

Secondly, an old school building, Holloway Hall, was recently vacated and there were many possibilities for its adaptive re-use. This structure has many interesting brick details and spaces.

Thirdly, an immediate need for doubling the existing elderly housing that provided a more home-like atmosphere was pressing. Planning for updating the present facilities was already in progress.

Institutions are here to stay, but how can they serve the needs today and in years to come? Only by study of the entire picture from the many buildings and functions to the people that live, work and die there, will the Indiana Masonic Home continue to serve masonic elderly.
Elderly housing was needed. Housing that broke away from the traditional "motel room" design and provided needs for living, sleeping, cooking, storage, and personal care. The scope of this project includes a master plan for the complex, a phased project of elderly housing units and a suggested adaptive re-use of Holloway Hall, an old school.

The phasing was divided into 4 parts to meet increasing population needs over several years. Total occupancy of the new facility will house approximately 600 residents and employees, with about 275 two or three person units.

Holloway Hall will act as the north complex control building, independent of the existing main control building.

Holloway Hall facilities include necessary shopping for food and drug items, men and women's clothing and a masonic bookstore. Haircare and laundry care will also be provided. A main portion of the building will be used for dining and kitchen facilities and office space. Other facilities will be located in the new buildings such as meeting rooms, a library, craft rooms, a shop, rest lounges, security offices and medical staff facilities.

Many slides and drawings were done to understand the spaces existing. Original drawings were obtained of several buildings and an aerial photo was useful in the understanding of the complex organization for a revised master plan. A real challenge, the Indiana Masonic Home will not only make an excellent thesis project but I hope it will help administrators, staff, residents and planners in future years appreciate what a great place it is.

BACKGROUND
PROJECT DESCRIPTION
There are artificial determinants of age that society sets for the elderly. The arbitrary cutoff of 65 as a chronological measure of ability is not very reliable in measuring true capability. Physiological appearance is a deception. Gray hair and wrinkles may show that one person has been around longer than another, but it will not act as an accurate predictor of capability. Generally, those reaching retirement age are reaching it in better condition than in the past. The problem is that health is not a constant which suddenly evaporates at the onset of death. Everyone tends to change or "develop" both physiologically and in other ways throughout the life span and especially in advanced years.

Two other concepts must be shared at this point. First of all, not all facets of the aging process are losses. There are gains, especially in terms of continuing development up to a point. A greater effort should be mounted to establish more data on adult development. Most developmental work has been done using children as subjects. This stems from a natural bias, that because children grow they develop. This bias maintains that the human organism levels off in development and then declines, losing capabilities with age. This is in many ways an untrue and unfair assumption.

A second important factor in the human organism's aging process is the effect of cultural norms and dictates. Americans have reacted to industrialization and material acquisition by becoming sedentary and developing poor nutritional habits. Lack of exercise, use of stimulants and depressants, poor diet, smoking and drinking in
excess hasten age in the physiological sense on top of leading to heart disease, cancer, and respiratory and circulatory problems. It is possible that regular exercise and careful diet control could prolong reserve just as lack of control hastens its demise. The subject of death is usually connected with the subject of aging. However death is not necessarily a result of aging or the process of reserve loss. The human organism is capable of delivering adequate or more than adequate performance even with substantial loss of reserve capacity. Autopsies have revealed that often someone who has endured a long life has done so with many pathological conditions, any one of which might have been the cause of death at any time.

Designing of nursing homes and those concerned about the spaces and objects surrounding the aging are almost totally concerned with the human organism in the normal state and not with death. The crucial question is how does the environment impede or facilitate the life of the aging who reside in any given environment? Homeostasis is the state of equilibrium or balance of all the functions of the body. An elderly person in seemingly good health may not have any reserve capacity at all. An infirm elderly person could potentially lack homeostasis even at rest so that his or her body is never in a state of balance. When health declines, the effects may be unpredictable. Organs that have not been affected by an illness are affected because of the loss of reserve and inability to receive the necessary blood supply or other sustaining nutrients or repairs.
Human factors information about the nature of aging and the aged is still unfolding. No one ages at the same rate of another person. It is possible for someone in their 80's to have normal or extraordinary vision, for instance. It is important to recognize that people over the age of 65 are not a monolithic group. Generally the population over 65 has health problems. Fully 80 percent have some chronic condition. This ranges from diminishing eyesight to advanced rheumatoid arthritis and other disabling conditions. Retirement home populations will have anywhere from 20 to 80 percent of their numbers nonambulatory, and in wheelchairs. Designers of elderly housing facilities must recognize the fact that the populations of these institutions are going to have an overwhelming majority of women as residents. Census statistics and institutional research studies clearly show that the ratio of women to men in these advanced years is approaching ten to one.

In conclusion, two key statements should be made about special housing for the elderly in the institutional environment:

Many of the psychological difficulties of the older person appear to result from the lack of environmental supports, rather than the aging process. Inadequate housing, deterioration of older neighborhoods, antitherapeutic institutions, poorly located services, inadequate transportation, and architectural mobility may act directly upon the emotional and physical states of any vulnerable individual, old or young.

For some older people, the most appropriate place for care is a total custody institution. In contrast to the usual attitude of hopelessness about such patients, research has repeatedly demonstrated the effectiveness of rehabilitative and therapeutic programs in aiding institutionalized aging patients to live more satisfying lives.
Certain biological functions show a downward trend in capacity with aging. These include changes in the endocrine system.

The endocrine system, or glandular system, is generally reduced in effectiveness, secretory capacity, and interaction of hormones. The most obvious change in the glandular system is the change in the gonadal glands. Women cease menstruating at some point in the middle years. In men, there is a decrease in the production of spermatozoa, but relatively little decrease in male hormones.

The work in the field of sexual response brings into focus the unavoidable physiological as well as social fact that women outlive men, and that the human needs upon which a retirement home design is predicated are largely the needs of women.

Cell loss with advanced years can account for a drop of 25 to 44 percent in brain weight. This cellular loss is reflected in slowing of reaction time and response. Blood flow to the brain decreases by as much as 20 percent. However, this decrease is not as great as the decreases in other parts of the body, because the body is shifting blood from other areas to the brain to preserve its critical function. The brain, however, contains many more millions of cells than the human organism will ever use. Though reaction time and responses are slowed, the intellectual process overall remains largely intact.

Many researchers feel that the deterioration and reduction of oxygen consumption is directly related to the aging of the muscles and skeleton. Aging of these two interrelated components of the body
is also related to alterations in metabolism. As loss of high-
oxygen-producing cell mass progresses, there is increased
vulnerability to disease and loss of homeostatic balance.
Peak muscle strength occurs between 20 and 30 years and declines
progressively thereafter. Muscle strength decreases to approximately
55 percent of what it had been at 30 sometime in the 70's. However,
exercise is extremely important in maintaining fitness and reserve in
later years.

Arthritis is common among the aging. Practically every person
alive will have arthritis to some degree in some form before death.
Statistics vary on the pervasiveness of arthritis in the American
population, but it must be considered one of the most prominent
disable conditions, if not the most disabling condition afflicting
man. The Arthritis Foundation counts 17 million people afflicted
with arthritis, or one out of every eleven people.

Movement, strength, and flexibility are curtailed with even mild
cases of arthritis. The affliction greatly affects the elderly
person's ability to rasp, control and grip. Manipulating controls,
moving objects, negotiating pathways in environments, and other
tasks that were performed readily and easily in youth now become
painful, difficult, and time consuming.

Basic sensory difficulties are also encountered giving the most
need and concern to architectural consideration. The eyes play an
important role in communication of hundreds of things daily. The ears
through hearing many sounds from warning signals to general conversation.
The visual channel is the most utilised mechanism for receiving and interpreting information. As everyone ages, the lens of the eye is subject to increasing opacity (crystalline lens). The lens also becomes thicker and yellowish. This gradual change can impair the perception of colors, especially the perception of blues, greens and purples. Depth perception can also be subject to acute loss with age. There is also a crazing or wearing of the cornea with age.

Hearing losses are sustained in a sizable proportion of the population after the age of 40. The critical function of hearing is the continual monitoring of the environment around the listener. Sounds relate the listener to his environment, provide warning signals, and can help isolate the listener from his surroundings. Hearing speech is a secondary aspect of the function of hearing. Interpersonal communications is important and should be promoted in whatever environment the elderly inhabit. However, the discrimination of words, the framing of words, and the distinguishing of voice sounds from background noise become difficult as aging progresses. Many elderly residents of institutional settings want to communicate with others and feel frustrated by environmental as well as social barriers. Still others prefer isolation.

Taste, smell, and temperature sensitivity are all diminished with age; but the precise measure of their decline has not been made. The precise manner of the decline of effectiveness of these senses is very difficult to describe, but only add to the list of design considerations.
As aging people decline in health, and yet desire to continue to function, the environment must be so designed to accommodate whatever level of functioning the aging and infirm person is capable of. These "users" of the environment are "special users:" residents who need supportive health care in an enriched environment. Alterations in physiological controls make death more highly probable. The malfunctioning of the homeostatic mechanism may explain why old people are less resistant to disease, why they incur less efficient or disturbed functioning of major organs, nervous system, the endocrines, and so on, under stress or disease.

Old people die in greater numbers than the rest of the population. This seems overly obvious to generations born in the latter half of this century. However, this was not always the case. Children had the highest rate of mortality up until recently in the majority of cultures; they still do in a great number.
The Indiana Masonic Home is within the city limits of the city of Franklin. It is located just 1 mile southeast of the courthouse and immediately south of Franklin College. Examination of the area owned by the home shows that only about 1/5th of the area is used for the complex of buildings, located to the Northeast. Another 2/5ths have the possibility of building development just to the south and the remaining 2/5ths includes the creek and floodplain. The farm is located extensively in the Southwest area with the land being rich and moist.

Development in the future of Franklin will include two major areas. The strip along State Road 141 from downtown East to the Interstate, and the area along State Road 31 from State Road 141 North approximately 3 miles. Neither of these areas will affect the Indiana Masonic Home's growth or stability.

Franklin appears to be a conservative farming community with strong civic and religious ties. Housing is in good to satisfactory condition but multi-family dwellings are scarce. Businesses are old and established downtown. New business include a Murphy's Mart, McDonalds and other fast food chains, and a Sambos restaurant. These are just North of the city on State Road 31. Franklin needs light industry to spark its income, population, and physical growth. As the Home continues to grow in population within the next 10 years, the city of Franklin will have to provide basic needs for the residents and the employees of the Home. Formally self-sustaining, the Indiana Masonic Home will become more dependent upon the community for its
needs. The Home is an important part of the community flavor that makes Franklin Indiana a nice place to live.

Surrounding the Indiana Masonic Home are varied land use areas. The property itself is zoned semi-public. To the West, Young's Creek and its floodplain is a major boundary. Public areas are just to the North, i.e., Franklin College and the city park and pool. To the East, just across old 31, is allotted for high density residential and to the South is medium density residential. Expansion of the facilities, when necessary, would be either East or South. The general area will probably be changing very little in the next 10-15 years because of the public control.

Johnson County is where the Indiana Masonic Home is located. Johnson includes nine townships: White River, Pleasant, Clark, Union, Needham, Hensley, Nineveh, Blue River and Franklin Township in the center. The city of Franklin crosses into both Needham and Franklin Townships and the Home is located just West of the township line. Sugar Creek, Blue River, Young's Creek are several of the counties water tributaries. Young's Creek runs South through the Home's property and flows into Sugar Creek at 350-3 and 500-3 and in turn, runs into Blue River at 900-3 and 600-3. The flood plain is used for agricultural purposes only; primary crops are corn and hay.

The Indiana Masonic Home is located just South of the center of the state, in Johnson County. Its surrounding counties are as follows: to the North, Marion; to the West, Morgan; to the South, Brown and Bartholomew; and to the East, Shelby County. It is located just
20 minutes from the following cities: Shelbyville, Columbus, and downtown Indianapolis. The area is generally hilly with a strong agricultural population. The city of Franklin is located almost central to the county and is the county seat. Several possible locations were considered for the Home in 1915, but Franklin was the best choice, being centrally located in the state and having the large area needed. Access routes include Interstate 65 just East of the Home, and State Road 31 just shortly to the West. At the Home's conception, State Road 31 bounded the property and was the only major access route. This route, now renamed old 31, is used far less. State Road 31 still bounds the property on the South. The railroad is still used today for coal shipments to the Power House.
The Indiana Masonic Home completed most of its growth by 1930. After governmental aid was given to persons adopting orphans, the complex began to slowly decrease in population. While orphans became fewer in number, the population of elderly residents increased. Buildings must conform to serve the present needs of its population today.

Generally, the circle was laid out in the beginning years and was a simple gravel drive at first. A single home for girls and one for boys was built, but this was soon to change over the next decade. Probably a very important addition to the Home was the addition of the combination grade and high school, Holloway Hall. This one building came to be the focus of learning, togetherness, social and athletic events for the many orphans. It now stands empty. Many other buildings not shown in this study were added over the years. These included many farm houses, service buildings, barn, dairy, silos, water towers, etc. to help make a working, self-contained complex that was economically feasible to operate. Food was grown on a large farm both for people and cattle. Cattle was butchered and processed in the Main Building. A water system of wells was maintained and power was supplied to all buildings by the power house. Coal is still the main energy source today even though the Home has a gas back-up system.

Some neglect and poor planning has made the complex weaker in its operation and aesthetic value. Girl’s cottages #2 and #3 & #4 were demolished just recently. These buildings had poor systems and were not feasible for elderly access or circulation. Much work must be done to assure future growth is well planned and moves to unify the complex again.

SITE ANALYSIS

COMPLEX GROWTH
The original complex included
the centrally located main building, a
Boy's Cottage and Girl's Cottage, the power-
house and a laundry. The complex also had a small hospital.
In only five short years the complex grew by leaps and bounds to include an addition to the Main building, the Scottish Rite building for the elderly and two new cottages for orphans: Boy's 2 & 3 and Girl's Cottage 2.
Most of the money went to the new school: Holloway Hall, but several other structures were built in this last five year period. They included an addition to the hospital to take care of the growing population and a small greenhouse was also constructed. Money was also raised for a main entry arch.
The largest growth period the complex was to see was between 1925 and 1930. Structures included a new girl's cottage, 3 & 4, additions to the hospital including the tallest structure on the site (4 stories), and additions to the Scottish Rite Building. Boy's cottage #1 was changed into an employees building and a large addition was added to the rear. The Superintendent's House was located just off the main entry and Boy's Cottage #4 & 5 was also built.
Next a slow period of growth that lasted almost 10 years. The decline in orphan population was taking its toll. By 1950 the complex was to add only an addition to the Main Building and connecting enclosed walkways to make access for the elderly easier.
Nothing was to slow the hospital growth down and by 1955, the same year the first McDonald's Restaurant was opened, a new hospital was constructed to replace the badly worn one. This new hospital was one of the first of its kind to aid the elderly only and had modern facilities.
The Indiana Masonic Home, now reaching what some would call 'maturity', was still changing. A new chapel was constructed near the hospital to make access for the sick easier. Money was donated by the late S.S. Kresgee, who was known for his many variety retail outlets. An addition to the new hospital included an atrium and a new dining room. In 1977 Girl's Cottages #2 and #3 & 4 were demolished.

What new chapter will the book of growth include in the next 20 years? I hope adaptive re-use projects along with new construction will organize it.
The Indiana Masonic Home presently has 16 buildings in its complex that must be studied extensively before any planning design work is done. These buildings vary so greatly in size, uses, location and condition that I have used a Master Planning Building Inventory Form to review each one individually. As the names and uses of the buildings change over the years, a pattern began to develop. Growth in the later years has left the complex with a larger area to maintain and a lot of unused space both inside the buildings and the general grounds itself. Buildings standing empty or near to empty numbered 6 until two were demolished just last month.

Generally, the buildings are of dark red brick with incredible detail. They have stone trim and most have light red tile roofs at a 40° slope. Porches adorn the older buildings and walks cover almost all areas of the area. Enclosed walkways between buildings tie the major part of the complex together. The main road is for show with the service road to the rear of most buildings used just as heavily. Details include cupolas with copper trim and grand entrances. Most buildings have one problem: vertical access is poor. The formal plan and complex organization must be maintained and revised to fulfill the needs of the future.

Slides were also taken to record the building and to give some feel for what I'm dealing with. The complete building study is located in the appendix for reference.
Most of the buildings at the Indiana Masonic Home focus onto a 500'-diameter circle drive which has a fountain at its center. A 360° panoramic view was photographed to simulate the open feeling obtained by being in this area. Several buildings were removed from this circle, Girl's cottage #2 and Girl's cottage #3 & 4, leaving a visual void in the circle's continuity. Replacement of the building elements or landscape elements would strengthen the unity. The fountain is in poor condition and has not been used for many years. There is much concern by the residents for it to be put back in service, but the expense seems high as opposed to other, more pressing concerns. I feel this area cannot go unnoticed forever and the original formal paths, cutting the circle into quadrants, should be paved. Wheelchair access to one of the most beautiful areas of the complex is greatly hindered.

At one time the new chapel was planned for the center of this circle but this idea was abandoned. I propose that this area be never used for a building but to be reserved as a formal landscaped area. Maintaining this area is a great asset of the complex and should reflect the concern of its residents to preserve its beauty.
Movement systems are very important to review in doing a master planning study of this scale. The main street organization is the federal entry and the circle drive. This drive has no parking areas and probably was used for drop off purposes only. Parking on the grass next to this drive is common today and is a problem to be considered. The service road complex that generally winds its way behind most of the buildings is excessively long and has been paved. Service roads behind the Administration Building run without planning and are not very organized. Parking off this service road, an ambulance entry and route, and re-organization of the system must be reviewed. Pedestrian circulation is probably of primary importance but has been somewhat overlooked. Circle walkways as previously mentioned are all but gone and if people need to walk to the hospital or the new chapel they must walk on the street.

Hot water and heating systems run underground in service tunnels. Originally 2 tunnels, one that wound its way around the circle and terminated at the last Boy's Cottage, and the other that picked up the Girl's Cottages and the school existed. In 1950 the first of these tunnels was re-done and the new tunnel took in the school. Tunnel #2 is presently not in use because the buildings on it have been demolished. An extensive well system services the entire complex, but I understand that city water can also be used. The fountain has a control just south east of it and has a drain line running about 750 feet to Young's Creek. A new water tower has been constructed and the old one next to the power house removed.
Apartments for the elderly. Independent living units created and financed by a variety of federal funds and programs. These units would not necessarily have public spaces such as lounges or conglomorate dining facilities, although in later building projects these amenities have been provided.

"Domiciliary" housing units. This designation refers to independent living units where social services, programs, and conglomorate dining facilities are provided.

Health-related facility (HRF). A step below that of the 24-hour nursing service found in the next level of care. The concept behind the HRF is that it would serve those elderly who have been rehabilitated in nursing homes. Ideally, it should be open to those who find a need for health care services, but do not need 24-hour care. These people would enter from a private dwelling unit or from apartments or domiciliary units. This area of facility development is quite new.

24-hour skilled nursing home. A health care facility providing round the clock nursing observation and care, meals, social services, physiotherapy, and other programs. This is the true nursing home.

Extended care facility (ECF). A designation created through Medicare legislation and funding. A recuperative setting having the amenities of the 24-hour skilled nursing home, but the potential for more intensive rehabilitation—ultimately. Entrance is allowed after treatment in an acute care hospital when recuperation maybe extended but intensive care space is unwarranted.

Geriatric hospital. An "acute" care setting where the elderly who
have been struck down with an affliction or have suffered an accident can be treated by specialists in geriatric medicine in surroundings conducive to their special needs and recovery rate. Other designations are worth exploring because there is rapid development in conglomerate services offered in a variety of packages such as retirement community, geriatric center and managed public housing. The Indiana Masonic Home includes the full range of residency-health care facilities mentioned here.
<table>
<thead>
<tr>
<th>Archetype</th>
<th>Descriptive Behavior</th>
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<tbody>
<tr>
<td>Nesting</td>
<td>Elemental protection; protection for nesting activities; retreat from stimulation, aggression, threat, social contact; emotional recuperation.</td>
</tr>
<tr>
<td>Sleeping</td>
<td>Sleeping; dreaming.</td>
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<tr>
<td>Mating</td>
<td>Courting rituals; pair bonding; copulation; affectional behavior; communication.</td>
</tr>
<tr>
<td>Rehabilitation-healing</td>
<td>Recuperation; care of illness, injury; special rest out of phase with diurnal cycle; reduced stimulation in controlled environment; special ritual; props; instruments; foods; death.</td>
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<tr>
<td>Grooming</td>
<td>Washing; social or mutual grooming.</td>
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<tr>
<td>Nourishment</td>
<td>Eating; feeding; slaking thirst; communication; social gathering.</td>
</tr>
<tr>
<td>Excretion</td>
<td>Excreting; territorial marking.</td>
</tr>
<tr>
<td>Storing</td>
<td>Hiding of food and other property; storage; hoarding.</td>
</tr>
<tr>
<td>Passive activity</td>
<td>Spying; contemplating; meditation; planning; waiting; territorial sentry; watching.</td>
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<tr>
<td>Engaged activity</td>
<td>Motor satisfactions; role testing; role changing; role breaking; fantasy; exercising; creation; discovery; dominance; confirmation; analysis and synthesis.</td>
</tr>
<tr>
<td>Locomotion</td>
<td>Perimeter checking; territorial confirmation; motor satisfaction; place changing.</td>
</tr>
<tr>
<td>Meeting</td>
<td>Social gathering; communication; dominance confirmation; governing; educating.</td>
</tr>
<tr>
<td>Working</td>
<td>Hunting; gathering; earning; building; making.</td>
</tr>
<tr>
<td>Competing</td>
<td>Formal agnostic ritual; dominance assertion; ecological competition; interspecies defense; intraspecies defense and aggression; mating competition; conflict.</td>
</tr>
<tr>
<td>Learning</td>
<td>Formal education; conditioning; socialization.</td>
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<td>---------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Worshiping</td>
<td>Meditation; cosmic awe; mysticism; reverence to deity; moral concern.</td>
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Three different units were designed to meet the needs set forth in the following criteria of private spaces. These are the first five dealing with the bedroom, the bath, the kitchen, the living/dining space and storage areas. One of the biggest failures in complexes of this kind is that the designer waits too long to get on a personal scale with the resident. The complex should be organized around the units and not the units around the complex. Considerations for special handicaps and wheelchair access must be considered from the very beginning. The last areas are public spaces and are also important to the overall success of the complex. One of the biggest failures we will see is the so called lounge. A lot of expense and consideration goes to this space but often it just doesn't fit the user needs. This is discussed later, along with the dining room, the corridors and elevators, and the often forgotten outside spaces.

Finally, a space summary follows to give you the feeling that housing for the elderly is more complex than it looks. Refer to the existing conditions in the photos & slides section in reference to each area. You might be surprised at what is needed. Also refer to Drawing #18 for the three proposed plans for units.
Old people probably make greater use of the bedroom than any other room in the unit. This is due in part to the need for rest periods, but as people grow older they also become more susceptible to illness and are bedridden more frequently than those who are young. Within the area surrounding the bed, there should be visual access to controls for light, heating and cooling, television and radio, nurse call, and also some degree of personalization (1). The control units often mounted behind the bed for the convenience of staff should be mounted at bed level within easy reach. The bed itself should be
wider and equipped with rolled soft bolsters (2) that would allow sitting for dressing and visiting. The bolsters should also allow for the mounting of a canopy or oxygen tent. (3) Research and experimentation is needed to develop various forms of multi-bedroom and single bedroom dwelling units for elderly people. Consultation with the elderly is important in this context, with designers being receptive to their ideas. The provision of units suited to the requirements of persons who cannot be accommodated in one bedroom units requires exploration. A couple and a relative, or two or three or more friends, are examples of such groupings. There are many possible solutions ranging from two and three bedroom apartments of conventional size and design, to units with smaller bedrooms of different sizes. Advantages from multi-bedroom units could benefit both the elderly and management. The cost of shelter per occupant would be reduced through the sharing of kitchen and bathroom facilities. Flexibility in allocating accommodation, and adaptability to possible future uses by a wide range of tenants should appeal to management. Imaginative planning is therefore of the utmost importance if a variety of living environments are to be satisfactorily created from small floor areas.
An efficient bathroom is important to any household. But, in the daily routine of the elderly, no other room plays a more significant part in terms of functional need, safety and convenience than a bathroom designed to meet failing standards of strength, eyesight and physical stability. There should be sufficient space to move about, especially in a wheelchair, in the bathroom for transfers and grooming. Transfers require handrails on both sides of the toilet (1) because there is a high frequency of paralysis or reduced strength on one side in most
home populations. The sink area should have accessible, clearly marked controls (2), and the mirror to the rear of the sink should be canted for the wheelchair user. (3) Storage (4), quite lacking in most institutional bathrooms, should be sufficient to accommodate the grooming needs of the user.

Apart from a somewhat higher-than-normal use by day, frequent use of the bathroom is common at night. The route from the bedrooms should be direct and unobstructed, and sufficient space should be provided for the passage of a wheelchair into the bathroom.

The bathroom door should be a minimum of 2-feet 8-inches wide and open outwards. If a lock is provided, it must be operable from the outside. Bathrooms tend to be gleaming and fissy with slippery wall and floor surfaces. While these may be characteristic of traditional bathrooms, some modifications are essential if elderly people are to be protected from slips and falls. Floors should be non-slip, resilient, impervious to water, and easy to maintain.

In the following two examples, a view showing shower and bath applications have many details that are needed for both elderly and handicapped persons.
1. Space for a wheelchair beside the toilet
2. Toilet with recessed base
3. Long grab bar beside toilet
4. 27" deep counter
5. Toilet paper within reach at the side of the toilet
6. Washbasin within reach of the seated position on the toilet
7. Mixing faucet, lever handle, within reach of the seated position of the toilet
8. Knee space under counter, drain pipe covered or insulated
9. Mirror, lower edge no higher than 36"
10. Outswinging bathroom door, lever handle
11. Door pull, hinge side of door
12. Medicine cabinet on each side wall within reach
13. Platform at end of tub
14. Grab bar, end and back side of tub
15. Small shower stall

PROJECT ANALYSIS
1. Space for a wheelchair either side of toilet
2. Toilet with recessed base
3. Adjustable height toilet seat or seat extender
4. Swing-away grab bars
5. 27" deep counter
6. Washbasin within reach of the seated position on the toilet
7. Fixing faucet, lever handle, within reach of the seated position on the toilet
8. Knee space under counter, drain pipe covered or insulated
9. Mirror, lower edge no higher than 36"
10. Medicine cabinet within reach
11. Space for transfer to a shower seat
12. Freestanding shower seat, can be placed either end of shower, or removed
13. No curb for shower stall
14. Grab bar on three sides
15. Controls centered on back wall
16. Hand shower
17. Outswinging door
18. Door pull
Physical characteristics of the aged hamper normal kitchen functions of food preparation, cooking, dish-washing and eating. Reaching to high shelves and stooping to low ones are difficult because of a general stiffening of limbs. Standard faucet or small cupboard handles cannot be grasped efficiently by weakened or arthritic hands. Poor vision calls for a higher-than-normal lighting level, especially over sinks and stoves. Full-height pantry cupboards should be installed in units for the elderly.

Cupboards should not be placed over stoves or refrigerators. If cupboards are built over the counter, the height of the top shelf should not exceed 4-feet 2-inches above the floor.

Shelving which is completely adjustable in height is the most suitable. Fixed shelving should not exceed a maximum height of 5-feet 3-inches and a minimum of 1-foot 3-inches above the floor. Shelving widths should be about 11 or 12-inches.

Provision of a minimum width of 2-feet 2-inches for knee space under the sink is desirable to permit the use of a stool. The underside and plumbing should be enclosed to prevent burns and scalds. The standard height of 3-feet is recommended. However, if a high proportion of residents are permanently confined to wheelchairs, the installation of some kitchen counters at a height of 2-feet 9-inches should be considered. For reasons of safety, electric stoves are recommended.

Controls should be at the front of the unit, easy to reach, and identify by either sight or touch. Stoves should be placed away from windows to reduce the danger of setting curtains on fire.
1. Wall oven, for easy access, open at counter height
2. Cooktop controls at the front, to avoid burning
3. Cooktop and counter, 30" to 33" height
4. Knee space under sink counter to allow sitting in wheelchair at counter
5. High recessed base under cabinets to accommodate wheelchair pedals
6. Pullout work shelf, 30" to 33" at standard height counters
7. Mixing faucet at sink, lever handle
8. Cove lighting under wall cabinets, bulb replacement within reach range
9. Shallow shelf over sink counter within reach range
10. Wall space within reach over sink counter, used for hanging utensils
11. Front-loading dishwasher
12. Side-by-side refrigerator doors to allow access to refrigerator and freezer
13. Full height storage closet for easy access
14. Cabinet space under wall oven within reach range
15. Drawers under cooktop and counter for easier access
16. Easy grip cabinet door pulls
17. High cabinets (out of reach for the chairbound) for other users
18. Smooth, non-skid flooring; open spaces for wheelchair passage
19. Round table to avoid corners, legs, or pedestal base with no apron to allow for wheelchair
Living-dining areas in dwelling units for the aged are usually small. Careful placement of doors, windows, and circulation space is therefore essential is maximum use is to be made of the available floor area.

Television is extensively used for entertainment and the layout should take this into account. When the living-dining and kitchen areas are combined, a folding partition or curtain should be provided to screen the two from each other.

Residential quality depends upon having the living room space under
the control of the resident. The space should accommodate a writing
surface (1), adequate storage space (2), either two lounge chairs
or one lounge chair and a wheelchair (3), and have a large window
area with proper sun control for light and viewing (4).
One of the most important facets in providing a measure of control,
as stated previously, is providing the opportunity to personalize
the space the patient-resident inhabits. Display space cannot be isolated
in the manner of the bed space or the social-activity area. Display
is going on, either in a deliberate way or indeliberate way,
everywhere in the room. Remove all stimuli from the room and there is
actually a negative display going on, a display that communicates
a powerful message to those infirm about where they are and what is
happening to them.
There should be absolutely minimal restrictions on the hanging of
pictures, calenders, fabric hangings, and other accoutrements. Strip
mouldings are available that allow for this type of personalization
without damage to the walls. Shelving units should be provided so
that books, photos in display stands, memorabilia, and other personal
articles can be stored and seen.
Three main types of general storage space are provided in multiple housing— a storage closet in the individual unit, an individual locker in a common area, and a common storage room.

Past experience has shown that individual lockers in a common area are neither popular nor fully used. Of the other types, tenants much prefer storage facilities in the unit.

When general storage closets are provided in the units, they should have a minimum of 64-cubic feet of space for bachelor and 96-cubic feet for one-bedroom units.

At least three shelves should be provided, each with a minimum width of 1-foot 4-inches. The lowest shelf should be about 2-foot 6-inches from the floor, with other shelves spaced upwards 1-foot 4-inches apart. Adjustable shelves provide an ideal solution.

A combined bedroom and linen closet is recommended as this arrangement saves space and reduces the number of doors.
In the current state of the art of building of nursing homes, lounges must be regarded as the single greatest failure as a concept. Typical lounges are the result of regulations which specify that so many square feet must be devoted to lounge space on the basis of number of beds. This device usually result in one or more very large areas devoted to socialization, relaxation, and contemplation, but not really accommodating any of these activities. This reflection points up one of the serious difficulties with present lounges: they are multifunctional, but so designed and planned as to be inhibiting to the behaviors they were meant to support. Another important consideration is the furnishing of the lounge space. In extended care facilities, between 30 and 70 percent of the population was confined to wheelchairs. Yet, the majority of lounges are furnished as if everyone residing in the nursing home was ambulatory. Another related factor involved with groupings and activities is that a great many residents who use the lounge are transported there by staff members. The location of people in the lounge may be at the discretion of the staff and not the residents. Lounges can either be isolated and enclosed, with access through a doorway or passageway, or they can be open areas near an entrance, at the intersection of hallways, or in a space not unlike a harbor just off a corridor to one side or both sides. The need for fresh design approaches to lounges in new facilities and some modifications in existing nursing homes is obvious. As they stand, lounges are not fulfilling their intended role adequately.
It is fair to say that meals are the most highly anticipated activity of the day in retirement homes. They offer an opportunity to divest the mind and thoughts about sickness and decreasing lack of capability and to think about and talk about something external to problems of self.

Once in the dining room, a very apparent problem inhibits access. Dining rooms seem to be designed from the standpoint of seating as many patient-residents as possible without fully considering the effect upon passage, serving of food, and the ability to penetrate beneath table surfaces and egress backward from this position.

Table selection is also an important factor and one that has received a great deal of attention. The number of people in a grouping, the size of table in relation to both entrance and egress and also serving, and the configuration-round, square, rectilinear or ovaloid—receive much discussion.

Although the dining room is, at this juncture, a more successful space generally than the lounge, it has succeeded because it has a definite function and can be made attractive because of the high degree of activity. However, not all eating or feeding takes place in the dining room. Patient-residents eat in lounges, hallways, bedrooms, outside and elsewhere. Dining rooms should be smaller and more intimate, using small tables conducive to conversation. It is also possible that some patient-residents who have problems eating, but use the dining facility need something of a semiprivate area for their meals.

PROJECT ANALYSIS

DINING ROOMS
Corridors must be carefully designed if they are to compensate for physical and visual deterioration. Slip-resistant floors and high lighting levels are necessary features. Individual entrances boldly marked by colors, unit numbers, and lighting, are desirable elements. These would add cheer to the environment, and in a practical sense, help to identify private spaces.

An institutional corridor atmosphere can also be softened through intelligent use of color, the provision of outside views, and well-designed artificial lighting.
Perception studies of reactions of people indicate a negative emotional response to corridors which, for reasons of economy, tend to be long and narrow. Ideally therefore, corridor segments should not be more than 30 to 40-feet in length. Where this is impossible, lengthy corridors should be broken by staggering or angling them, and by color and texture variations.

Windows can provide light and visual interest. Corridors should be at least 5-feet wide. Where handrails are provided, they are needed on both walls of the corridor so that an elderly person with a disabled right or left hand, can use the support on either side. Handrails should be thick to ensure a good grip. If tubular handrails are used, they should be at least 1 3/4-inches in diameter, and mounted at a height of 2-feet 9-inches. When handrails are interrupted by a doorway or opening, they should return to the wall before being terminated or have some form of tactile warning about 6-inches from the ends.

In the picture, the corridor configuration that utilizes the concept of social space adjoining the room entrance is really a reflection of the "street, porch, and house" concept of the transition needed to effect interchange. There is no denying that lounging and other recreational activities take place in the corridor. The precise arrangement of this type of activity space could vary greatly.
Elevators are a key element in multi-floor buildings to compensate for loss of mobility experienced by elderly people. Even a two-floor walkup building reduces the housing options of those who find it difficult or impossible to use stairs.

In the picture in a view from the elevator, when the doors are open, the floors should be clearly and boldly marked. A great many possibilities exist for graphic treatment. In these circumstances, the need for elevator service has to be balanced against need.
desirability and costs. To assist in arriving at a conclusion, the following criteria are offered.

Buildings having two or more stories above grade should be equipped with at least one elevator. Buildings having two or more stories above grade with more than about 100 units, should be provided with at least two elevators. Buildings having four or more stories above grade with less than about 100 units, should be equipped with two elevators. Safety and reliability are more important than speed.

At least one elevator should have a minimum interior cab size of 5-feet by 7-feet to accommodate a stretcher. There should be an access to a secondary building entrance from this elevator for stretcher cases. This entrance and passageway can also be used for moving furniture. Handrails should be provided on three sides of the cab at a height of 2-feet 9-inches.

A shelf for packages should be provided in the cab, and in each elevator lobby. The shelf should be at least 8-inches wide by 1-foot 4-inches long, mounted at a height of about 2-feet 6-inches. A fold-down type of shelf may be used.

Doors should open and close slowly and have a very quick response re-opening sensor. J

Control buttons should be arranged horizontally not more than 1-foot 8-inches from the cab floor to permit their use from a wheelchair.

There should be a voice intercom system connecting the elevator cab with an alarm bell and receiver located in the manager's office or in the lobby.
The use and the meaning of the outside grounds, docks, or walkways are significant in the design of the facility. Frequently, the procedure and method of access is so complex and removed from the patient-resident that very little exposure to the outside, if any, is received at all. One problem is that the only solution employed in most architecture is to make a pronounced difference, if not barrier, between inside and outside. In fact, in a large majority of facilities there is access to the outside only through the main entrance of the building. Other exits are merely fire or emergency
exits used only after complex latching mechanisms are triggered and alarm systems are set off.

Referring to the picture, there is a need for protected outside areas, (1) that provide for sitting, socialization, and activity, with shrouding to reduce glare and weather-control baffles. Access can be directly off the building (2) or can be an independent shelter. In any event, these areas should be multi-functional and very accessible.

It is important to program outside activities in the routine for the elderly who reside in the institutional setting. It is equally important to provide amenities in keeping with the setting and safe for resident use.
In summary, the most essential ingredient, and the one most thoroughly excluded, in present-day nursing homes is providing a sense of residency. There is frequent reference to the "homelike" quality; but this is usually an attempt to provide a visible veneer of appointments and artifacts that relate to the concept of home. However, these attempts are usually found in entrance ways or visitor lounges, and sometimes corridors and other public spaces. These things do not provide a sense of residency because they are not within the control of the patient-resident.

Control over the physical environment by patient-residents depends largely upon five factors:

1. Mobility status. Four distinct levels of mobility are found in the nursing home setting: full ambulatory, disabled ambulatory (walk with canes and walkers), semiambulatory (wheelchair bound or geriatric chair bound), and nonambulatory (bedridden). In the semiambulatory category are those who can move their own wheelchairs and those who cannot and are usually seated in geriatric chairs, which cannot be moved by the patient-resident.

2. Personalization. The ability of the patient-resident to manipulate artifacts within the physical environment, to bring in personal objects, to affect the character of his or her surroundings in a way that is sympathetic to personal preference.

3. Socialization. The ability to commingle with cohorts both in public areas in groups and in privacy, without regulation, threat, or interference.
4. Privacy. There must be a place where every patient-resident can
to or retreat to permit seclusion for meditation, consultation, in-
timate discussion, personal activities, and rest. The most logical
place for this capability is the patient-resident room, although there
may be other conceptions of use of space for this capacity.
5. Identification. The patient-resident must feel that he or she
belongs in the facility—is not just a recipient—and that the
facility belongs to the patient-resident. This cannot only be aided
through devices in the physical environment itself, but also by
including the patient-residents in planning and decision making at
the staff and administrative level.
The mobility status of the patient-resident is by far the single most
important determining factor in controlling the personal surroundings
and self-maintenance in the overall facility.
A preliminary drawing showing the location of the Indiana Masonic Home on a large scale. Refer to the section on location for details concerning the State of Indiana, the surrounding counties, Johnson County and the City of Franklin. The location appears to be conducive to future growth and development and will serve as a great location for the home in years to come. Its rural setting is a true asset for privacy while the city of Franklin will meet the needs of the Home for convenience items.
Based on the existing site qualities, many problems were first recognized during analysis. Such items were discussed i.e., car, truck and pedestrian circulation, movement around the circle, vistas, balancing of the masses, open space, and many others. The tight layout of the site bounded by state Road 31, the center circle, and a small creek to the west made recent development ignore the strong and formal organization. Attempting to analyze the problem seemed to bring about even more problems. Notes during a crit were the input of Anthony Costello.
During the second site analysis movement systems were approached and many new things were discussed i.e., images, systems, interior pedestrian circulation, connectors, massing, and many others. The number of existing structures and the huge site made the problem seem insurmountable. I had to consider buildings that were in use, ones that were outdated, ones being remodeled, structures that were vacant, and even two buildings were being demolished. Maybe they didn't even need a new building. Robert Koester provided the notes during a crit.
Soon it was time to get down to brass tacks and group buildings and areas by usage. In this concept new area was provided for expansion of the extended care housing and several new areas for domiciliary expansion. The main access road was crossed by an overhead walkway as the connector. Another walkway crossed the service road to the south. An optional area was provided depending on the growth rate and future needs. The vacant Holloway Hall was considered for adaptive re-use as the second control center for the complex.
This concept was most preferred for a number of reasons. It relocated the long and very dangerous entrance to the complex to a more suitable location. This now freed up more land area around the old school to use for development. It organized the complex into halves with the axis east/west thru the circle. Focus now turned onto the higher 4-story Eastern Star Building. Originally the complex was balanced almost building for building on a north/south axis; but the demolition of Girl's cottage 2, 3&4 all but did away with this concept.
This concept ignores the use of Holloway Hall and the circle axis. Using this concept the main control building supports the entire complex with a central location. Advantages are a direct connection to the hospital and use of the large open land area that exists just south of the original complex. The old school could be used for an unrelated activity, sold to a private owner or demolished. Service areas are most convenient in this plan. Development of the central core space was preserved in all three concepts.
The existing program's physical features revealed the 18 buildings on the site and the location of trees, roads, walks and open areas. Within this context a preliminary site was chosen. This smaller open area had many features of its own that would be important in the final design. The school was to have it's beautifully detailed front facades preserved; elimination of the existing service road was being considered; a vista to the creek and an open area needed; and many other factors were considered. This area was developed in model form in the first preliminary model.
Where could I build? That was the next question with consideration to the flood plain, the existing street setback, the preservation of the front of the school, the creek vista needed, the set back off the main circle, and providing for service areas, this was a very hard question to answer. By looking at the highest practical building density program, for the first time, a simulation of a building was born. Far from the final effort, this gave a combined look at the many different aspects required on an difficult site.
The first circulation study revealed the inner vehicular spine around the circle but only a semi-circular pedestrian spine caused by the removal of buildings around the radius. Then came a strong pedestrian spine within the main buildings made possible by connecting covered walkways. Finally a service road circled the complex servicing most buildings from the rear. Problems revealed were with several poor intersections and service areas. The hospital had the most confused pedestrian system and no usable system existed in the major portion of the preliminary site study outlined.
A proposed circulation study balanced the complex by reinforcing the inner pedestrian circle. This was attained by the formation of a second, smaller circle due north. Other changes included the removal of the existing service road that took up valuable building space, the relocation of the main entry archway and the historic landmark sign, and a covered walkway between the new construction and the front entry of the old school. (Later eliminated.) Consideration for the new vista to the creek was not yet considered.
Here the pros and cons were listed for each of the concepts previously mentioned and a section showing different approaches. Site section A-A retained the main entry and bridged the street between the new and old with a covered walkway at the second floor; a subgrade tunnel could also be considered. In site section B-B the new and old construction form a court that could be covered or uncovered. Site section C-C reinforces the natural vista north/south through plantings, and does not consider building in this study area.

DRAWINGS

SECTIONS
A revised master plan base map allowed for a more complete circulation study. Here the inner vehicular core changes slightly with the addition of the "skillet" concept followed closely by a completed pedestrian spine. Within the buildings another new pedestrian spine makes servicing practical and interaction inevitable. The newly relocated service road uses U.S. 31 as the final service link instead of crowding it. The main entry has a split access to compensate for the strange angle in U.S. 31. The two new vistas, one public and one private add interest and organization to the complex.
The new structure now took on the form of a building unit with arms outstretched acting as connectors. The main body of each unit would act as circulation centers, meeting spaces, entries, and service cores. The apartment units are the outstretched arms containing a variety of units. This more refined base map showing physical features now gave implications of plantings and shelters, it balanced the complex in masses and organized around two main buildings, it became efficient. A hospital addition also proposed separate land areas allotted for each function.
Retesting the original concept #2 this drawing was done to show only housing units as they relate to the main control buildings. An additional building for control, previously used for housing is proposed next to building #4 in the old complex. This would provide for growth in this direction after building #1 and #2 are filled.

It became apparent that enough parking was not provided for the new complex and that service areas were weak. This was corrected in later drawings. Overall a cleaner look at the master plan was provided.
One section cut thru the existing Holloway Hall and a proposed apartment unit as the buildings face each other, we discover a formal vista. Complimented by plantings and the existing flag, a personal tough is achieved. Covered entries for both vehicles and pedestrians are provided. The other section cut thru new construction only shows the outdoor sports shelter, a new fountain and the vista to the creek. Both section attempt to achieve a scaled down effect using detailed street furniture and set-backs on the apartment units. Balconies are also suggested.
Entry studies were drawn of existing buildings on the site to study details of how old structures might blend in with the new ones proposed. The Front facade plane shown in yellow reveals the use of columns to accent the entries. Red brick with red tile roofs are the primary materials used. Stone inlays are used as decoration and accent the floor lines from the exterior. Small paneled windows are in every building, and many other details such as railings and cupolas. Arches were common to express entry in outdoor areas. A rich sense of heritage must be preserved in these structures and in the ones to follow.
As physical features progress, landscaping becomes more apparent and formal in its organization. A barrier of trees is placed along U.S. 31 to accent entries and shield unnecessary noise from the street. Now developed are outside spaces just off the rest centers and several shelters, one for outdoor sports and the other for picnics or just quiet activity. This shelter also acts as a bus pick-up for trips. A preliminary room layout shows how different sized units will fit.
Next, plan and section studies were drawn. Three units providing different needs for handicapped senior citizens and units for 2 or 3 roommates. The units all provide an alcove projected area for viewing or have a built-in desk for reading or writing. The units are so designed as to make maximum use of each square foot and have smaller kitchens than normal apartments because the dinner meal is provided by the complex in a central dining facility. Optional balconies are available on the larger units. Units are reversed to allow for back-to-back system chases.
The alcove, with a slightly lower ceiling area, provided individual H.V.A.C. units to be located in them. Two units per apartment and three in the triple apartments made it possible for individual comfort zoning. Exhaust ducts are located in the chase areas toward the corridor and a ceiling heater is provided for additional heat in the bathroom. Having a safe heat source in this area was ranked important by elderly in several studies. Grilles were mounted high in the rooms to avoid hot or cold drafts and good circulation. Electricity seemed to be the best power source for these remote units.
Here details were used from existing structures to simulate a possible wall detail for the new apartments. Decorative grilles were used for exhaust and intake above the glazed areas that were reproductions from Holloway Hall. Brick inlays were used to compliment the structural system and stone inlays followed the 2nd story floor line. Other studies revealed the roof detail to be too busy and chopped up the roof line. Red tile was still retained as the material to tie the complex together. At this time, columns were being detailed for several entrances.
Now for the first time we attain a close up view of the buildings in question. Circulation both vertical and horizontal is suggested. Three major changes in concept have been achieved at this point. The main circulation and service cores have been reduced from 7 to 3, being due to the larger apartment units; secondly, meeting areas and lounges, craft areas and rest centers have been relocated in the "knuckles" of each wing, allowing for two story spaces to happen and larger areas unrestricted by the structural system; and third, a consideration of phasing the structure in four parts.
This drawing shows one typical elevation and two typical sections. The building is quite large but most elements are used more than once. The Isley Building acts as the main entry into the new complex. The arched entries just opposite the handle on Holloway Hall are reflected in the entry breezeway. A copper topped cupola adds a flavor of the old on a modern building. The sections show how balconies are stepped to give elderly persons a secure, friendly atmosphere. Ramps are provided along with elevators in the three circulation cores.
The final drawing has a change in the room projection. It now slants to the east, south or west so that every room will receive sunlight at least sometime during the day. The knuckles are enlarged to make more room for activity spaces, i.e., the library, the craft room, the shop, etc. Private balconies are few but large balconies or sun porches are provided for public use. The model partial plan is outlined in dark blue and shows most of the typical elements in the complex.
The drawings are done on 1000H Clearprint paper. Size is 3' x 5'. The drawings are done very large to give you a feel for the spaces. The colors are organized by each classification, i.e., plans, circulation, site, etc. A plastic sheet overlay was used to transfer the title to each sheet. Each drawing is composed of a blackline print and markers. A masonic sticker is the title block emblem.