CHAPTER TWO

2.1 Introduction

Because NIMBYism has a major, negative impact upon the availability of low-cost, manufactured housing for America's workers, it is necessary to understand the basis for this prejudice. This chapter examines the sociological and psychological reasons that lead to NIMBY and how the history of the manufactured home has led to misconceptions about the homes and their owners. The rest of the chapter discusses what elements create negative and positive preferences for neighborhoods and how a good neighborhood meets the residents' needs.

2.2 The History of Manufactured Housing

Since the history of manufactured housing plays a large role in its negative image, an overview of the history is desirable. The history of the manufactured house has been traced back to the 1920s and the advent of the automobile age. As more Americans achieved disposable incomes and the price of automobiles decreased, more Americans purchased these modern marvels. Family trips in the car became popular, but roads and accommodations had not kept up with the development and sale of cars. Instead, families often camped out when vacationing by car. The more ambitious built themselves camping trailers to pull behind their automobiles. Trailer camps began to spring up along the roadways to accommodate these intrepid travelers. In 1926, the first commercial camping trailers were factory produced. (Figure 2.1) These small, lightweight trailers contained beds and little else. Cooking was done outside and bathroom facilities were provided at trailer camps and parks (Atiles, 1995; Atlas, 2003; Burns, 1989).

The Great Depression in the United States resulted in a severe housing crisis. As people lost their homes due to nonpayment of mortgages, those with travel trailers began to live in them. They set up in the old trailer camps that had been established in the 1920s. Many towns acted to force the residents to move on after a specified time (Burns, 1989; Genz, 2001). As America came out of the Depression the country began gearing up for the wars taking place in Europe and Asia. The government purchased 1500 trailers in the early '40s to house war workers (Burns, 1989). The average trailer at this time was 20 to 24 feet long and 8 feet wide. (Figure 2.3) There was room inside for 3 bedrooms, but no bathroom (Atlas, 2003; Burns, 1989).

After World War II, a housing shortage existed in the United States. New construction of site built homes could not keep up with the demand. Trailers were sold not only for vacations but as

Figure 2.1 Early camping trailer. (MHI)

Figure 2.2 Camping along the roadside. (MHI)

Figure 2.3 Larger trailer circa 1940s. (MHI)

permanent homes. (Figure 2.4) By now the length was approaching 30 feet but the homes were still less than 10 feet wide. Small bathrooms were installed in the homes (Atlas, 2003; Burns, 1989).

By the 1950s and 1960s, a new type of trailer emerged. (Figure 2.5) This home was too large and heavy to be hauled along the roads by the family car. This new mobile home was still built on a metal chassis but was meant for long-term occupancy. The size of the home had extended to 50' by 12' by 1959 (Atlas, 2003; Burns, 1989) Indoor plumbing allowed for bathrooms and up to 3 bedrooms. Doublewides began appearing in the 1960s. These homes were built and transported as separate halves and joined together on the housing site. By the 1970s, one in every four houses built was a mobile home (Manufactured Housing Association of Oklahoma, 2003).

In 1969, HUD announced the Operation Breakthrough initiative. The program was to provide homes, including a large number of mobile homes, for purchase by low- and middle-income families. Twenty-two contractors were hired to produce both manufactured and site-built homes at nine different sites. The original intention was to mass produce 350,000 units per year. President Nixon's 1973 housing moratorium canceled the program. At that time, only 2500 units had been built (Bady, 1989).

The quality of the mobile homes varied by manufacturer. In the 1970s, the Federal Government in the form of the Department of Housing and Urban Development, stepped in to regulate the mobile home industry in order to protect the health, safety and welfare of the homeowners. The National Manufactured Home Construction and Safety Standards Act of 1974 established a federal building code for mobile homes (Atiles, 1995). The code set a "reasonable standard for construction, design, and performance of a manufactured home, which meets the needs of the public, including the need for quality, durability and safety." (Manufactured Housing Association of Oklahoma, 2003). In 1976, Congress passed the Mobile Home Construction and Safety Standards Act which authorized the HUD Code as the legal standard for all manufactured homes. All homes built today, must meet this code. To distinguish the homes built under the new code from the older homes, it was determined that all homes built under the HUD Code would be referred to as manufactured homes. The United States Congress officially designated this name in 1980 to all manufactured homes built to the HUD standards.

In the mid1990s the HUD Code requirements were changed to reflect climatic concerns, especially for tornado and hurricane prone areas. Zones have been established across the country and homes manufactured for each zone must meet those climate's specific

Figure 2.4 Early trailer park, circa 1940s. (MHI)

Figure 2.5 More permanent trailer or mobile home of the 1950s or 60s. (MHI)

requirements. The main differences between today's manufactured houses and site-built homes are that manufactured homes are built to the HUD code in an enclosed, controlled environment while site-built homes are built according to local building codes on the site. Once a manufactured home is moved to its site it is placed on a foundation which varies from location to location, owner to owner and developer to developer. The foundation can be a solid slab, a system of concrete block piers or a poured foundation wall. The least expensive system is the concrete block piers and this is the most likely system to be used for low-cost developments.

Today's manufactured home has an expected habitable life of 71.4 years (Meeks, 1995). By 1993, one out of every sixteen Americans lived in a manufactured home. One half of all manufactured homes were located in the South and a little over half were in metropolitan areas. Manufactured housing has accounted for twelve to fourteen percet of all housing in the United States since the mid 1980s (O'Hare and O'Hare, 1993). By the late 1990s, one of every three homes built in the United States was a manufactured home.

Many of the older mobile home developments began life as trailer camps or parks in the 1920s and '30s. These sites were established along the main roads to accommodate families

vacationing in their automobile-pulled trailers. A communal bathhouse was often provided. During the depression of the 1930s, people living in their camping trailers set up in the trailer camps on a more permanent basis, much to the dismay of the local governments. The trailers became know as "shantytowns on wheels" (Atiles, 1995). There were some attempts by the United States government to improve this situation. Garrett Eckbo was one of a group of designers who worked for the federal government in designing workers' housing in California. Using trailers as the home, Eckbo designed the exterior space as a series of outdoor "rooms", based on the cultural norms of the proposed residents (Treib, 1997).

After World War II, trailer camps from the 1920s and 1930s were often converted to house the more permanent mobile homes. (Figure 2.6) There was little attempt to distinguish between trailers and mobile homes and they were often moved in next to one another. New developments were usually constructed to place a maximum number of homes on a minimum amount of land. This resulted in a proliferation of utilitarian communities where the homes were lined up side by side with little room between homes. Some communities reached densities of twelve units per acre. While these communities provided an affordable living situation for the working class, they paid little heed to the physical,

Figure 2.6 Mobile home park containing both trailers and mobile homes, circa 1950s. (MHI)

psychological and social needs of the residents.

In the 1980s and 1990s a new type of manufactured housing development began to appear. These originated in the Sunbelt as vast numbers of retirees began selling their northern homes and moving to the warmth of the southern United States. These "snow birds" had money to spend on housing, but did not want to spend time and physical effort on maintaining a large house on a quarter acre lot. Developers began marketing upscale housing developments that consisted of doublewide manufactured homes on small landscaped lots. The developments included amenities such as pools, golf courses, screened-in porches, carports, restaurants, post offices, convenience stores, dance floors, saunas, tennis courts, exercise rooms and planned recreational activities. Many were located near waterways and provided docks for boats (Hart, Rhodes and Morgan, 2002).

Though these developments provide affordable housing, they do not provide housing for the working class. Homes in these developments are meant for the middle class. Lot rent can top $400 a month, while the house prices can run up to $100,000 (Hart, Rhodes and Morgan, 2002). A different approach to good manufactured housing developments is necessary if we are to provide working class Americans with home ownership in a well-planned neighborhood that meets their needs.

2.3 Sociological and Psychological Basis' for NIMBY

The most common argument against the presence of manufactured housing communities is that their existence will lower property values for the nearby site-built homes. Numerous studies have refuted this argument, but it still persists. (Guoqiang and Stephenson) In order to find a solution to this problem it is necessary to understand the sociological and psychological basis' upon which it is founded.

Home ownership has been a vital part of the American Dream since the early 1900s (Raab and Raab, 1975; Rohe, Van Zandt and McCarthey, 2001; Hughes and Zimmerman, 1993). In the 1930s the New Deal promoted homeownership as the highest reward of American citizenship, but it was a largely unrealized dream for most Americans until the end of World War II. After the war the dream was made possible for many with the sprouting of suburbs such as Levittown all across America. Americans flocked to these small homes in the suburbs. Away from the noise, congestion and crime of the big cities, the suburbs were seen as ideal places to raise a family.

Figure 2.7 Home ownership is a major goal of American families. (MHI)

Owning a home in America has come to be seen as a rite-of-passage that symbolizes social and economic status. (Figure 2.7) It is the biggest investment most Americans make. In a 1994 FannieMae national survey, eighty-six percent of the respondents felt that people were better off owning their home than renting. Sixty-seven percent of the renters claimed to be renting only because they could not afford to buy a home. Fifty-seven percent of renters also claimed that eventually owning a home was a priority in their lives (Rohe et al, 2001). As the perceived status of the home increases, so does the perceived social class and economic status of the owner. The homeowner also derives a sense of dominance over non-homeowners and owners of lesser properties (Mehrabian, 1976). The greater the house, the greater the feeling of dominance.

Rainwater and Marcus have defined the home as a medium of self-expression and identity (in Sixsmith, 1986). Sixsmith sees the home as having several associations and meanings for the owners, including:

> ➢ a sense of belonging to a place
> ➢ a place for self-expression
> ➢ a place where one experiences critical happenings for life growth
> ➢ a place of permanence
> ➢ a place of security

People tie their self-esteem into the ownership of a home. Positive attachment to the home promotes a sense of well-being. The home allows for predictability, order and stability in life (Bell, Greene, Fisher and Baum, 2001). Homeownership also provides evidence to an owner's success or failure in life. The inability to move up the housing scale represents failure and a lowering of self-esteem, while increasing house size and amenities represents success and an increase in self-esteem. The single-family detached house is a symbol of self-sufficiency and personal autonomy because of its greater isolation and insulation from other homes (Agnew, 1982). Rakoff claims that the control of one's own private space allows for a greater feeling of freedom from control and intrusion. This control leads to a feeling of greater power over the future (in Agnew, 1982).

The home is considered a primary territory (Altman in Harris and Brown, 1996) to be defended against intrusion (Habraken, 2000). Suburbs partition space in such a way that clear territorial boundaries are marked. Housing satisfaction can be influenced by the perception of safety within the home and the neighborhood (Bell, et al, 2001). Depending upon the homeowner's commitment to the community, the neighborhood becomes either a secondary territory or a public space. If a secondary territory, the homeowner shares control over the territory with neighbors. Successful control of territory means enforcing the boundaries against intrusion (Habraken, 2000). Neighborhoods can also proffer status upon residents (Rapoport, 1969). Territories as neighborhoods are staked out on the basis of economic power and social status (Mehrabian, 1976). If these neighborhood territories are intruded upon by those of lower class and status, the neighborhood status is seen as lower.

The ownership of a home is very important to Americans. It is tied to their social dominance and economic power. Home ownership promotes self-esteem and a sense of well-being. It symbolizes security of life and material investment. It is not surprising that perceived threats to the value of this most important property are met with strong resistance. The presence of low-cost, manufactured housing is perceived as a threat by many to the economic value and status of their home and neighborhood.

2.4 Aesthetics and the Creation of Positive and Negative Perceptions
When we look at a neighborhood, we tend to judge the neighborhood and its residents based on our preconceptions of what a neighborhood should look like. Those preconceptions are formed from our life experiences and learned knowledge (Nasar, 1988). Studies have shown (Royse, 1968; Werner, Peterson-Lewis and Brown, 1989; Sadalla and Sheets, 1993) that people can make fairly accurate judgments about the social and economic status of the residents of viewed houses and neighborhoods. This judgment can be

based on house size, maintenance, vegetation (Royse, 1968), decoration, house style (Werner et al, 1989), building materials (Sadalla and Sheets, 1993), site layout and streetscape (Arendt, 1999).

The aesthetics of our surroundings can affect our sense of well-being, our sense of rightness. Visual quality is important to us and we respond to what we see in highly evaluative ways (Nasar, 1988). When we look at neighborhoods we more readily accept that which is familiar to us and tend to question that which is unfamiliar. Familiarity is comfortable because it fits within our framework of experience. Small differences can excite our curiosity, but as familiarity or our sense of the norm continues to decrease, we become uncomfortable. When the neighborhood we are viewing is so very different from what we know, we react very negatively to it.

Royse (1988) found that one group of people can form positive or negative attitudes toward another group based on the visual, physical attributes of the environment alone. He found that the middle-class was more likely to make judgments about the morals or characters of the people living in viewed homes and neighborhoods based solely upon the appearance of the homes and neighborhoods. In his study they reacted most strongly to the appearance of an unkempt neighborhood or poorly maintained houses, referring to the

residents as lazy, irresponsible or shiftless. Upper class neighborhood residents were often classed as aloof or lacking in concern for the community, again based solely upon the appearance of their houses and neighborhoods. Werner, Peterson-Lewis and Brown (1989) discovered that people make judgments on sociability based on the presence of outside holiday decorations. It is reasonable to assume that any form of yard decoration will provide cues to the identity of the homeowners. Show gardens at the front of a house are used by homeowners to display their identity to the public (Marcus, 1986).

Sadalla and Sheets (1993) found that the materials which a homeowner chooses for the façade of their home give clues to their personality or self-identity. It is therefore possible to extrapolate that materials used on the house site and throughout the neighborhood can convey an image or identity.

What Perkins, Meeks and Taylor (1992) refer to as physical incivilities have been linked to peoples' perceptions of crime and social problems. Litter, vandalism, vacant or dilapidated housing, abandoned cars and unkempt lots increase the perception and fear of crime about a neighborhood. Litter and vandalism are the most recognizable of the physical incivilities.

What becomes obvious from these studies is that house and neighborhood aesthetics affect the way in which residents are
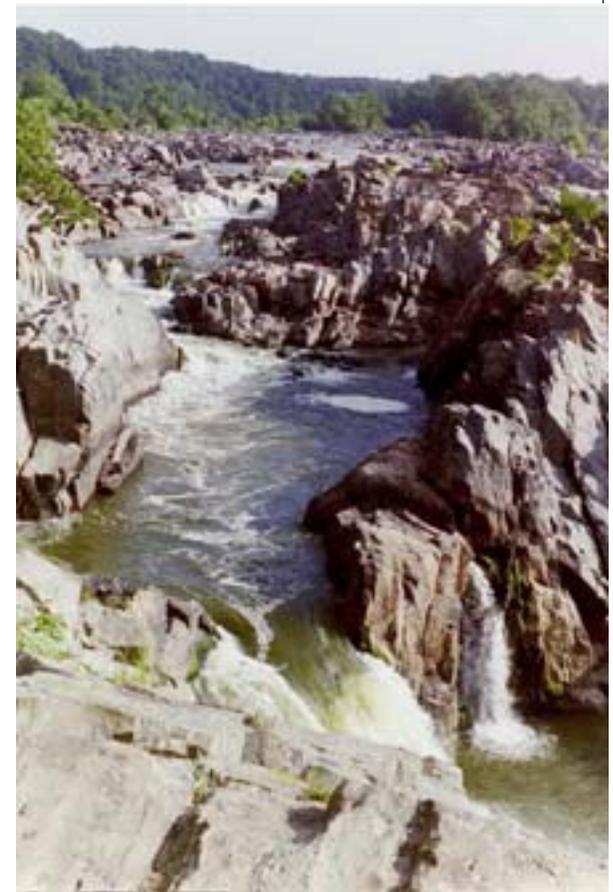
Figure 2.8 Natural views are preferred over views of the man-made environment by many Americans. (Bean)

viewed. And while it is important that neighborhood design should focus first upon residents' needs, it is also important to remember that the resulting environment will offer cues, positive or negative, to the greater society without the neighborhood (Royse, 1968). Positive physical cues should decrease the negative perceptions that lead to the NIMBY syndrome.

So what determines good aesthetics? Nasar has determined that three characteristics influence our aesthetic responses: naturalness, diversity and organization.

➢ Naturalness and openness are preferred over the built environment. (Figure 2.8) People prefer views of sky, vistas, trees and other vegetation over views of buildings and other manmade constructions (Nasar, 1988, Talbot, 1988 Marcus, 1975).

➢ Diversity can refer to color, ornateness, and Kaplan's idea of mystery (Nasar, 1988). Mystery is the idea that a view will give us just enough information to draw us further into the space to explore. Diversity has been found to be an important influence upon aesthetic response.

➢ Organization refers to the clarity, coherence and complexity of a scene. Too much complexity

overloads our perception, too little leaves the viewer bored.

The key to producing a pleasing aesthetic scene lies in getting the correct mix of these elements in the correct saturation. Nasar talks about the landscape of homes in a neighborhood. If a neighborhood is made up of widely diverse styles of houses with little in common, it decreases the visual coherence and organization and thus the preference for the scene. But if all the homes are identical and set back exactly the same distance from the street in uniform rows, it lowers preference. There is no mystery to such a scene; there is no uncertainty to engage the viewer's interest. There is little naturalness to be found in a regulated row of identical facades. People prefer moderate degrees of variety (Talbot, 1988).

Openness is a preferred view, but people react negatively to a wide-open expanse of mowed lawn surrounding a building. Other elements must be added to the scene in order to increase preference. The literature reviewed for this paper suggests that color from a flowerbed, scattered verticality from trees, patterns in the grouping of plants, organization from paved paths can all increase the complexity of the scene and increase preference. (Figure 2.9) Among the specific design elements that increase and decrease preference are:

Figure 2.9 This scene of the Japanese Garden at Maymont in Richmond, Virginia contains many elements which increase scenic preference: the bridge and the path winding out of site create a sense of mystery that draw you into the scene; the stream and the vegetation provide natural elements. (Bean)

- Vegetation:

  - Raises the perceived class, wealth and influence of an area.
  - Decreases perception of physical incivilities
  - Preferred over view of manmade constructions.
  - Living in an area with many trees increases resident satisfaction.
  - Can create mystery if a path disappears into a grove of trees.
  - Street trees can create a feeling of coziness.
  - Vegetation can shield unwanted views and create privacy.
  - An open meadow is preferred to a large, open expanse of mowed lawn.

- Ornamentation and displayed symbols:

  - Can give viewers visual cues to the resident.
  - Can allow resident to express self to public.
  - Allows resident to lay claim to territory.
  - If overly ornate, can reduce preference.

- Physical incivilities:

  - Will cause viewers to downgrade their perceptions of the home/neighborhood in terms of social class, wealth and crime.
  - Gives perception of unclaimed territory.

- Fencing/hedges:

  - Provide clear boundaries for claimed territory. (Figure 2.10)
  - Elaborate fencing can raise the perceived social class of an area.
  - Decrease perception of criminal activity.

- Materials:

  - Materials associated with cheapness will lower the perception of economic status
  - Materials are perceived differently in different regions of the United States depending upon vernacular styles and availability of materials. Brick is very expensive in South Florida, so it is perceived as a material of wealth. In Georgia, brick is very common and its status is not as high as in South Florida. But it still receives a positive evaluation because it is a traditional material for building facades in Georgia.
  - Materials can also influence viewers' perceptions of sociability.

Figure 2.10 This fence at Mt. Vernon is a clear boundary marker for the garden. (Bean)

Figure 2.11 The large number of cars parked around this home create visual clutter which reduces preference. (Bean)

- Space:

  - The size and shape of space between and around buildings is not as important as what is done with the space.

- Visual clutter:

  - Utility poles, wires and signs reduce preference.
  - When automobiles are visually prominent it reduces preference. (Figure 2.11)

"Affordable housing can and should fit aesthetically within market rate communities…Before the community at large will embrace affordable housing, it must be convinced that affordable housing can be as attractive as market rate housing. The education process must begin with design." (Ross, 2001, p.5).

2.5 Residents' Needs

Designing a low-cost manufactured housing community needs to go beyond just keeping the neighboring communities happy. It is of primary importance to address the needs of the people who will be living in the community.

The psychology discussed in Chapter 2.2 that motivates middle- and upper-income homeowners also applies to working class home owners. Home is more than just a shelter from the elements; it is a symbol of social status and economic class. It is a means by which people can develop and express their identity. Owning your home is the American Dream for the working class just as it is for the middle and upper classes.

Abraham Maslow's Hierarchy of Human Needs is often cited as a basis for evaluating the role of the built environment in meeting human needs. Maslow organizes human needs into five levels, the lowest level being the most basic (Huitt, 2003; Gwynne, 2003). His first four levels are called deficiency levels. They include:

- Physiological Needs – basic human needs for life; food, shelter, air, and water. Housing meets the shelter needs (Beamish, Goss and Emmel, 2001).
- Safety Needs – meeting these needs allows the individual to establish stability and control in their lives. Home should provide a refuge (Beamish, Goss and Emmel, 2001).
- Love and Belongingness Needs – these are the human needs to be accepted by other humans. When the home serves as a center for the family, this need can be met (Beamish, Goss and Emmel, 2001).
- Esteem Needs - this includes self-esteem gained by accomplishment and by recognition from others. As we saw in Chapter 2.3, housing in the United Stated plays a large role in self-esteem and recognition. Homeownership in our culture has been found to promote higher levels of life satisfaction (Rohe and Basolo, 1997).

After the four deficiency levels have been successfully fulfilled, we enter into the growth level. Originally there was only one growth need level, that of self-actualization. But Maslow later went back and added three more growth levels to his model (Huitt, 2003). These are:

- Cognitive Needs – the need to understand and to explore
- Aesthetic Need – the need for order, symmetry and beauty. Meeting the aesthetic need is a major focus of this paper.
- Self-actualization – the reaching of one's full potential.
- Transcendence – the need and ability to help others reach their full potential.

Housing is a basic ingredient in the fulfilling of deficiencies in Maslow's hierarchy for human motivation. It is a symbol of economic success or failure, an indicator of social status, a territory to be defended, a supposed haven from the stresses of everyday life, an expression of self. Unless we understand this, we will not be able to provide housing that satisfies the needs of working class home owners.

2.6 Neighborhood Design Criteria

The needs of residents' can be broken down into two categories, those pertaining to the neighborhood and those pertaining to the individual house site. The needs to be considered for creating a good neighborhood include:

- ➢ Fitting the neighborhood into the context of the existing community
- ➢ Creating a community identity
- ➢ Reducing the perception of density
- ➢ Creating variety in the streetscape
- ➢ Ensuring that there are safe play areas for children
- ➢ Creating usable common open spaces
- ➢ Assuring resident safety from traffic
- ➢ Building well-sited community facilities

- ➢ Fitting the neighborhood into the context of the existing community

Studies by Marcus have indicated that residents of low-income housing do not want their homes to be marked as different by the surrounding community (1986). It is important to design the neighborhood to fit into the existing community fabric. This means taking into consideration the "rhythm of the uses on the street, their size, their scale, where cars are parked in relation to the street and existing units." (Michael Pyatok in Ferris, 2001, p.7).

- ➢ Creating a community identity

People attach their self-identity not only to their home but also to their neighborhood. If the community is to become a secondary territory as Altman suggests (Harris and Brown, 1996) the residents must feel there is a tangible idea to which they can commit. Ideally this will be a positive identity which the residents will project upon themselves and their neighbors. It can be based on a specific culture or the idea of family, the striving for success or a celebration of who the residents are. This idea should be adaptable to fit and grow with the residents, allowing them to shape their community identity, not to have it thrust upon them from outside.

- ➢ Reducing the perception of density

Today, higher density housing is often equated with low quality in the public's mind (Sanders, 1993). But this idea has only developed since the end of World War II and the rise of the suburb. Prior to World War II and the proliferation of the automobile, urban housing was concentrated near commercial or community centers, usually within comfortable walking distance. Large lot size would have been impractical close to the town center as it would limit the number of homes within walking distance of jobs, services and goods. Land in town was also more expensive which helped to limit lot size (Nelessen, 1993; Arendt, 1999).

Yet houses still had to be large enough to accommodate the larger families common then. The remedy was to place the houses closer together. And since the back yard was used for work, housework and gardening, the house was usually pushed towards the front of the lot, leaving most of the open yard in the rear. In a study of four New Jersey towns, Nelessen found that front setbacks in towns built before 1930 ranged from 4 feet to 24 feet. Side yards were often 5 feet wide or smaller in size. The homes with the larger setbacks were usually on the outskirts of town where there was open space allowing for larger lot size. In larger towns and cities, lot size was cut even further to accommodate more houses on scarce land (Nelessen, 1993; Arendt, 1999).

When the automobile became widely available to the working and middle classes after World War II, people were able to move out away from the city and town centers. The land outside of town was abundant and much cheaper. Now the middle class and working classes could have their "estates" with a house sitting in an expansive lot, just like the wealthier classes. The new standard for housing included a carefully manicured expanse of turf between the front of the house and the street. The housing developments did not have to be compact because the residents drove their cars everywhere. They had to, single-use zoning had been introduced in the 1930s and commercial centers were

not allowed in residential zones (Nelesson, 1993).

As America has built up, land has become scarcer and more expensive. Once again planning departments are looking to build developments at greater densities, centered on commercial or community centers, within walking distance of the homes. (Nelessen, 1993; Arendt, 1999; Wentling, 1991). In order to keep lot rents low in land lease manufactured housing communities, it is necessary to adopt this strategy of higher density development. (Sanders, 1993) Reducing the perception of density requires careful site planning and landscaping. (Langdon, 1995)

> Creating variety in the streetscape

This harkens back to Nasar's three determinants of aesthetic response: naturalness, diversity and organization. People prefer to look at a scene with some variety to it. Variety in the streetscape can also decrease the perception of density (Marcus, 1986; Talbot, 1988). Some ways to create variety where the houses are very similar are by varying setbacks, building different sizes and types of porches or entries for each house, encouraging individual home owners to landscape their yards and placing street trees at irregular intervals along the street.

> Ensuring that there are safe play areas for children

This is of paramount importance to families. Children need safe places in which they can explore their environment and interact with other children. Parents need a place where their older children can safely play without direct adult supervision (Marcus, 1986).

> Creating usable common open spaces

Common open spaces serve many purposes in higher density neighborhoods. They can reduce the perception of density. They can provide areas for adults and children to relax, play and explore (Marcus, 1986). They can provide natural areas to relieve the less favorable views of the built environment (Nasar, 1988). They can serve as the foundation for a community's social life. They can help to create a positive image of place (Nelessen, 1993).

When the community takes ownership of common ground, either through use or maintenance, it becomes a part of their territory (Harris and Brown, 1996). This claiming of neighborhood territory is important to the residents' sense of safety and well-being (Rainwater, 1971). If well maintained, it can also confer upon the residents a higher status (Wilson, 1984).

Common open spaces must link to pedestrian paths or people will cut through

the adjacent, private outdoor spaces of other residents to get to it. A series of small and large open spaces linked together allows for a greater variety of uses and is more visually pleasing (Marcus, 1986; Nasar, 1988; Talbot, 1988).

> Assuring resident safety from traffic

> Building well-sited community facilities

The manager's office, community center, mailboxes and trash receptacles should be carefully sited so as to be accessible to all the residents. They should also be designed so that they fit into the overall design of the neighborhood.

2.7 House Site Design Criteria

Residents' needs for the exterior space addressing their house are:

➢ Well-defined private, semi-private, semi-public and public outdoor space
➢ Aesthetic views.
➢ Adequate parking.
➢ Sense of normalcy.

  ➢ Well-defined private, semi-private, semi-public and public outdoor space

When Clare Cooper Marcus began doing her studies on low-income, medium density housing in the 1960s, she found that most residents' complaints dealt with exterior spaces rather than the interiors of their homes (1993). In order to design exterior space it is important to understand how it is organized in relationship to people's needs. Territories exist not only on the neighborhood scale, but also on a house scale. Since territories are controlled spaces, it is necessary to understand the degrees of control necessary over the various spaces within a territory. N.J. Habraken's hierarchy of space (2000) explains the needs people have for various types of space: private, semi-private, semi-public and public.

Private spaces are those spaces that are available only to family and friends that are invited into the space. This includes the interior of the house and can include an exterior space that is set off for invited friends and family use only. Privacy in a dwelling's adjacent open space is an important contributor to overall housing satisfaction. Visual privacy, which requires some sort of screening, is more important than auditory privacy (Marcus, 1986).

Semi-private spaces are areas where people can meet or greet visitors to their home. On the exterior, this includes the doors, gates and the front porch or stoop. This serves as a transition space into the private areas of the home or yard. The front porch can also serve as an area for children's play or adult relaxation while watching what is happening in the neighborhood.

Semi-public space is exterior space that can be viewed from the sidewalk or street. This is often the front yard. It serves the residents as a place to display their identity through gardens and yard art. It is privately owned, but publicly viewed. It serves as a transition area between public space and semi-private space. It is the boundary of the homeowner's territory

Public spaces are those that are accessible to the public. In residential areas these include public sidewalks, paths, streets and common open spaces.

In order to distinguish between these spaces it is often necessary to provide a physical boundary such as a wall, fence or hedge. It is also possible to place psychological boundaries by using objects or materials that claim the space as someone's territory (Habraken, 2000). Clearly claiming space as territory can limit intrusion and even crime in that space (Newman, 1972). It also encourages the residents to maintain the space (Marcus, 1993).

  ➢ Aesthetic views

Human need for aesthetics is the basis for Maslow's sixth level of human growth needs. Marcus cites the need for aesthetic views from the windows of the house.(1986). Since many manufactured houses are small by today's standards for single family detached housing, it is important to be able to expand the residents' visual space beyond the walls of the house. This can be as simple as screening unpleasant neighboring views with trees and shrubs, or as complex as siting homes so that they can view distant vistas.

  ➢ Adequate parking

This refers not only to the amount of parking space for each housing unit, but also the location and the quality of the designated space. Designating the location of parking can help to reduce the visual clutter that automobiles can produce when scattered over the landscape. Clutter reduces visual preference (Nasar, 1988). Using a uniform material throughout

the neighborhood for paving the parking spaces can help to create the neighborhood identity (Sadalla and Sheets, 1993).

> ➤ Sense of normalcy

As noted elsewhere in this paper, people do not want their houses to be perceived as so different that they become stigmatized. Since lower priced manufactured homes already appear very different from traditional, site-built homes it is necessary to find ways to increase their appearance of normalcy, to be similar to that of site-built homes. Responses may include add-ons such as porches or carports, the way in which the home's front door addresses the street, providing a street address rather than a lot number to each home and clearly marked territorial boundaries.

2.8 Conclusions

Manufactured housing has a long history beginning with the travel trailers of the 1920s. By the early 1990s manufactured homes served as a primary housing source for one of every sixteen Americans (O'Hare and O'Hare, 1993). Unfortunately, the owners of site-built homes often perceive manufactured housing to be a threat to the value of their property and to their economic and social status. Research suggests that aesthetics play a large part in the perception of homes and neighborhoods and whether they are

received positively or negatively by viewers. By designing manufactured housing developments that address issues of naturalness, openness, diversity and organization, it may be possible to significantly decrease the negative reactions of nearby residents. In addition, the needs of manufactured housing residents must be met in order to provide a good neighborhood that encourages the claiming of primary and secondary territories, fulfilling the residents physical, social and psychological needs.

The criteria listed in section 2.6 and 2.7 form a guide for the creation of good neighborhoods. Good neighborhood design does not rely upon the economic or social class of the residents, or the amount of money poured into neighborhood construction. Instead it depends upon creating spaces that fulfill the needs of the residents living there. These needs can be provided for by any number of designs and amenities. The key is to create spaces which people will claim as their territory.