

CHAPTER 5

Once the general criteria have been set, it is necessary to refine the criteria to fit the local situation. This chapter addresses this by investigating local preferences, attitudes and housing character. The site is then examined for factors which will affect how the design will be fitted to the land.

5.1 Community Preference Study

Introduction

One way to reduce NIMBY is to design a site so that it meets local criteria for what a neighborhood should look like. A study was designed to discover what a particular demographic of residents of Blacksburg found to be preferable in house site design. The sample group was chosen based on the traditional image of opponents of low-cost housing who attend zoning hearings: middle class home owners over the age of 30. Of the twelve people who agreed to participate in the study, only six attended, three for each of two sessions.

Of those who attended, two were male and four were female. Four of the participants were in their sixties, one was in their fifties and one in their forties. All were middle-class home owners in the town of Blacksburg. Five were retired from their chosen professions. One had a

background in urban planning. The candidates for the study were recommended by a member of the local clergy who is active in the community.

The sessions were divided into three activities. In the first activity, the participants were shown a series of slides.¹ Each slide had two images. Each image showed a different manufactured house. The slides were designed to clearly showcase one facet of site design in relation to the house, such as front yard dimensions, add-on features such as porches, and location of parking. The participants were instructed to view the slide for fifteen seconds and then to choose the image which they preferred and to mark it on the provided answer sheet. They were also instructed as to what particular factor they should be considering for that set of images.

For the second activity, the participants were shown another series of slides. The slides had a single image of a manufactured house sited on a lot. They were given two minutes to view each slide and write down up to three things they liked about the siting and three things they disliked about the siting of the house. The participants were instructed to keep in mind the factors we had considered in the first exercise.

The third activity was a group discussion. The participants were asked to talk about the things that they had seen and to expand

upon what they had liked and what they had disliked about the images.

First Activity Results

The first set of slides was meant to determine the importance of the front door's relationship to the street. Analysis of the choices leads me to conclude that the location of the door is not as important as the clarity of the entrance. I had fully expected the participants to choose houses that had the front door facing the street over houses which had the front door on the side of the house, facing the house next door. Instead, the participants chose the houses which had clearly defined entrances, either front or side. (Figure 5.1)



Figure 5.1 A clearly defined entrance was preferred. (MHI)

The second set of slides showed houses with various setbacks. In almost every case, the participants chose the slide with the largest front yard. (Figure 5.2) Most of these yards had over forty feet between the house and the street. In the few instances where the smaller yard was preferred, it exhibited markedly better landscaping than the larger yard. Small yards of less than ten feet depth were rejected outright.

The third set of slides dealt with the location of the garage in relation to the house. The participants preferred the garages which were recessed behind the house, rather than in front of the house. (Figure 5.3)

The fourth set of slides examined preferences as to entry styles. The images showed a variety of porches, stoops and decks, some covered and some uncovered. The participants overwhelmingly chose covered porches and stoops over uncovered entrances. A small covered stoop was judged more acceptable than a large uncovered porch or deck. (Figure 5.4)

The fifth set of slides showed various materials used as foundation skirting on the houses. The four choices of material were a concrete panel which resembled a solid concrete foundation wall and three vinyl materials, one which resembles brick, one stone and one vertical siding. No one chose the concrete panels, even though they are almost impossible to tell apart

from a solid concrete wall foundation. Most of the participants preferred the realistic stone look-a-like over the brick look-a-like. No one chose a very artificial looking stone panel. The vertical siding panel was chosen over all the other choices.

The sixth set of slides examined the height of the foundation walls on the homes. The results of this were very unclear. The participants seemed to be more influenced by the presence and quality of the foundation plantings rather than the height of the foundation walls. The amount of contrast in color between the foundation wall and the house wall also seemed to influence the results, with a closer match being preferred.

The seventh set of slides presented two parking/driveway location options, in front of the house and off to the side of the house. The participants preferred driveways that went to the side of the house, rather than ending in front of the house.

The last set of slides examined neighborhood entrance signs. Three types of signs were chosen, very small, unobtrusive wood signs with professional lettering, medium sized signs with masonry pillars on each end and very large sign walls of masonry. The medium sized sign received a clear majority of votes.



Figure 5.2 Large front yards were most preferred. (MHI)



Figure 5.3 This home was rated low because of the location of the garage and the very small size of the front yard. (MHI)



Figure 5.4 Though the landscaping received approval, the uncovered deck at the front entrance did not. (MHI)

Second Activity Results

In this activity the participants were shown 9 slides of manufactured houses sited on lots with various setbacks. (Figure 5.5) The homes had varying degrees of landscaping, were situated in different types of neighborhoods, addressed the street in different ways and had a variety of entrances.²

This activity made it clear that the group was most comfortable with a house that addressed the street across a lawn. Though lawns were seldom mentioned as positives, the lack of a lawn, or a very small set back were frequently mentioned as negatives. The one house that was sited with the gable end addressing the street received very few positive comments, even though it was attractively landscaped.

Other positives frequently mentioned were the existence of covered porches, unobtrusive garages, foundation plantings and the presence of trees. Negative comments were also received for decks on the front of the house, too prominent driveways or garages and poor landscaping.

Third Activity Results

The third activity was a general discussion of what the participants preferred to see in regard to the siting of a house. This discussion followed results of the second activity fairly closely and allowed the participants to explain some of their choices. Though they preferred a large yard, they acknowledged that others may not want or be able to spend large amounts of time in keeping up a large yard. But they felt there should be some clear separation between the house and the street, whether a large sidewalk or a small yard and garden. They all agreed that a covered porch was much better than an uncovered porch, both aesthetically and functionally. They liked traditional touches such as the picket fence in one image. They all agreed that trees were important to the character of the site, the more mature, the better.

Conclusions

Though the focus group was only a small sample of the Blacksburg population, there are some clear conclusions that can be drawn from this study in regards to housing preferences in this area.

- Entrances to homes should be clearly marked. It does not matter if the entrance is on the side of a home as long as it is clearly marked and easily accessible.



Figure 5.5 This home received high marks for its setback, picket fence and landscaping. (MHI)

- The larger the yard, the more acceptable it is. This can be overcome with careful landscaping of the home and yard.
- Garages and carports should be constructed to the side, or preferably to the back of a house. The same applies for parking in a driveway.
- Covered entrances are highly desirable. This appears to be true from both an aesthetic and a functional standpoint.
- The height and material used for foundation skirting is not as critical as the use and design of foundation plantings. Sparse plantings are not well regarded.
- The entrance sign to a neighborhood should be medium sized and landscaped. Ostentatious signs are not acceptable.
- Trees are favorably regarded in a neighborhood landscape.

Not all of these criteria can be implemented in the site design for a manufactured housing development, because they are dependent upon the home owners' wishes and economic situation. But some of them relate directly to site planning for both the homes and the neighborhood. For the site designs produced for this paper, the

following criteria were adopted from this study.

- Provide at least a fifteen foot setback for houses that face the street and at least ten feet for houses where the gable end faces the street.
 - This setback allows for a lawn area and/or a garden area between the house and street.
 - In the suburban lot layout (Chapter 3.4.4) this space allows for a home owner to build a covered porch of usable size if they so desire.
 - This space allows for street trees to be planted in the suburban layout .
 - This allows the home owner adequate space for foundation plantings.
- Place the parking away from the street facade of the house if possible.

5.2 Community Attitudes Interviews

Much of the opposition to manufactured housing comes from the homeowners living near the development. The objections are usually voiced in vague terms and fears for the loss of property value. To address negative attitudes towards manufactured housing effectively it is necessary to identify the specific factors that observers find objectionable.

Since the objections of middle and upper class voters are often expressed to public officials in the form of complaints, it is reasonable to assume that planning department officials would be a good source of information about objections to manufactured housing held by these voters. It is also assumed that manufactured housing development owners and managers would be on the receiving end of citizen complaints about their communities.

To discover what these specific complaints are, interviews were held with eight planning officials representing four different districts in a small area of southwestern Virginia and four community owners/managers in the same areas. The interviews were held over a period of a few months. Questions asked concerned the nature of any complaints made about manufactured housing communities to the participants or their offices. The participants were also asked how these complaints were addressed and what

regulations they had in place for dealing with complaints.

The results of the interviews were very disappointing as they did not give clear indications of what constituents objected to in manufactured housing. While everyone agreed that neighbors often objected to the presence of manufactured housing, complaints were vague and dealt more with the inhabitants than the appearance of the homes and neighborhood. One planning official told me I should check with the police department about complaints received. The only design-related objections concerned the trimming of tree "barriers" that allowed the manufactured homes to be seen from neighboring houses. No specifics were given in these complaints, just that the houses could be seen.

There was an evident feeling among some of the owners/managers that their local government was unnecessarily causing them difficulties and would like to see the communities disappear. But again, there were few to no specifics about causes for these perceptions.

These results suggest that it would behoove developers and designers to work closely with both local planning departments and neighborhood groups from the beginning of any manufactured housing development project. Objections could then be noted and solutions worked out which would accommodate most of the

participants and hopefully reduce the objections. If the objections are based on prejudice towards different social, cultural or economic groups, good site design will have little impact. If good neighborhoods create good neighbors, over time a well-designed manufactured neighborhood may be able to change prejudiced minds.

5.3 Visual Survey

To be able to design a neighborhood that fits into the context of the surrounding neighborhoods, it is necessary to know what the surrounding neighborhoods look like. One way of achieving this is to conduct a visual survey, looking for elements that create a neighborhood's character.

This survey was conducted in four of the neighborhoods surrounding Clayton Estates. Three of the neighborhoods consist of single family detached dwellings. The remaining is an apartment complex, housing mostly students from nearby Virginia Polytechnic Institute and State University. The findings are related in the table on the following pages. (Table 5.1)

Conclusions

It is possible from the survey to pick out certain design elements which will help a manufactured housing development fit more comfortably into this suburban setting. One element is the use of brick. (Figure 5.6) While placing a brick foundation wall around each manufactured home would be prohibitively expensive, it is possible to incorporate the use of brick in the shared community spaces of the neighborhood.

Another common element is the manner in which the site-built houses address the street. All of them are sited so that the

front door faces the street across an expanse of lawn. (Figure 5.7) Though most of the lawns are quite large, not all are. Almost every house has a covered porch or stoop at the front door. All decks are at the side or rear of the house. It is quite possible to design a manufactured housing community so that the front facade of the house addresses the street, fitting in with the character of the surrounding neighborhoods. Homeowners in Clayton Estates should be encouraged to build covered stoops or porches for their homes. The decks which are now predominant do not fit in with the character of the surrounding neighborhoods.

Since the first floor of the houses in the surrounding neighborhoods vary in height from the ground, placing homes in Clayton Estates at a uniform level would not be necessary. But due to the long, narrow nature of the homes, it would be best to keep them no higher than 4 feet off the ground if possible.

Landscaping in the surrounding neighborhoods is fairly unimaginative. Most houses sit on an expanse of green lawn with a row of foundation shrubs anchoring the home to the ground. Some have planted shrubs along the driveway or set a specimen or two in the center of the lawn. Two of the neighborhoods have been built within the last 10 years and the acreage was cleared of all vegetation. The result is that all the trees are immature specimens and the neighborhoods lack the aesthetic



Figure 5.6 Brick is a common element in the four surrounding neighborhoods. (Bean)



Figure 5.7 All the homes address the street across a lawn of varying widths. (Bean)

Table 5.1 Visual Survey Results

Element	Neighborhood 1	Neighborhood 2	Neighborhood 3	Neighborhood 4
Housing Type	Single Family	Single Family	Single Family	Multi-family
Estimated Value	High end	Mid range	High end	Low to Mid range
Facade Material	Brick Wood siding with brick Wood siding with brick foundation	Wood siding with brick foundation Wood siding with stone foundation	Brick Wood siding with brick foundation	Brick with concrete foundation Siding with concrete foundation.
Setbacks	40' to 60'	30' to 40'	20' to 75'	20' to 30'
Parking	All had garages 90% open to face street	All had garages All open to face street	All had garages Some open to face street, some to face side, some very unobstrusive	Parking lot in front of units
Street Lighting	None	None	None	Carriage lamps
Fencing	Very few, back yard only Painted and unpainted wood slats	Very few, back yard only Unpainted wood slats	Many, almost all in back yard Painted and unpainted wood slats, rail fences and picket fences	None
Signage	Basic municipal street signs Modest development sign	Basic municipal street signs No development sign	Basic municipal street signs No development sign	Basic municipal street signs Modest development sign
Pedestrian Walkways	Concrete sidewalk, one side of street only	Concrete sidewalk, one side of street only	None	Concrete sidewalks down both sides of street
Front Entries				
Porches	Most of the houses	About 1/2 of the houses	About 1/2 of the houses	None
Decks	Back and sides only	Back of house only	Back and sides only	Back of units only
Stoops	A few	About 1/2 of the houses	About 1/2 of the houses	Every unit
Entry Addresses	The street	The street	The street	The parking lot
Covered Entrance?	Majority had cover	All had cover	Majority had cover	All had cover
Size	Variety, small to large	Variety, medium to large	Variety, small to large	All small
Height from Ground	Ground level to 5' or 6' above ground level	Ground level to about 2' above ground level	Ground level to 3.5' to 4' above ground level	Ground level to 3' above ground level

Table 5.1 Visual Survey Results continued

Element	Neighborhood 1	Neighborhood 2	Neighborhood 3	Neighborhood 4
Landscaping				
Foundation	Shrubs	Shrubs	Shrubs	Shrubs
Trees	Immature trees in front yard	Immature trees in front yard	Immature trees in front yard	Immature trees along streets and parking lots
Lawn	Most have expanse of green lawn	All have expanse of green lawn	Most have an expanse of green lawn	Small lawn between building and parking lot
Front Yard Plantings	A few have extensive plantings of shrubs and perennials, rest are mostly just lawn	Grass, a few shrubs, one or two have an immature tree	A few have extensive plantings of shrubs and perennials rest are mostly just lawn	Grass
Yard Art	A very little in some front yards	No yard art	A very little in some front yards	No yard art in front
Other	A lot of evergreens used		A lot of evergreens used Several have evergreen screens planted between the houses	Mature trees left at the back edge of the site Planted only 1 or 2 species of trees

character that mature trees bring. Clayton Estates is fortunate to have many mature trees on their site. It is recommended that management does everything possible to avoid cutting down healthy trees when placing new homes.

Since all the surrounding neighborhoods have front lawn areas between the house and the street, the design for Clayton Estates should also give homeowners a lawn between their houses and the street. The space does not have to be as large since the houses are smaller, but the space should provide enough room for outdoor activities such as play or gardening.



Figure 5.8 A large, covered front porch is a feature on many of the houses. (Bean)



Figure 5.9 The absence of mature street trees. (Bean)

5.4 Site Analysis

The Site

The chosen site, Clayton Estates, is located in the northwest quadrant of the town of Blacksburg, Virginia, in the foothills of Brush Mountain. (Figure 5.10) It is found in sections C-9a and C-9b on the Blacksburg Town Maps. The property consists of 41.5 acres of hilly land. There are currently 265 lots on the property, 110 of which are vacant (Clayton Estate Rent Tolls, 2003).

History

The land on which the development sits was agricultural in nature until the University Village Mobile Home Park was opened in the 1960s. The development at that time consisted of 17.5 acres containing 171 lots. A 7.5 acre parcel that was once the C. Hugh Duncan Riding Stable was later purchased and added to the property. Two other mobile home developments were situated to either side of University Village along Givens Lane, the Paul B Echols Mobile Home Park and Cricket's Mobile Home Park. Cricket's was later purchased by University Village and its 16.5 acres were added to the development. (Figure 5.11)

One trunk road, Givens Lane, serves the property. While there is still a farm and pasture lands along Givens Lane, most of the land has been purchased and put into residential development in the last 10 years.

Figure 5.10 The red dot marks the location of the site. (Town of Blacksburg)



Figure 5.11 (below) Plat showing the different developments that were joined together and later became Clayton Estates.



The development and its residents currently face hostility from some residents of nearby neighborhoods. The main objection is the presence of the development near their newer, upscale residences and their fear that the development will negatively affect their property values. (Figure 5.12)

The Terrain

The property has varied terrain. A large section of the land is located on a fairly flat hill top that falls off sharply into a narrow valley. The highest point on the property is at 2216 feet, the lowest at 2104 feet, making for more than a 100 foot drop from the Northeast corner of the property to the Southwest corner .

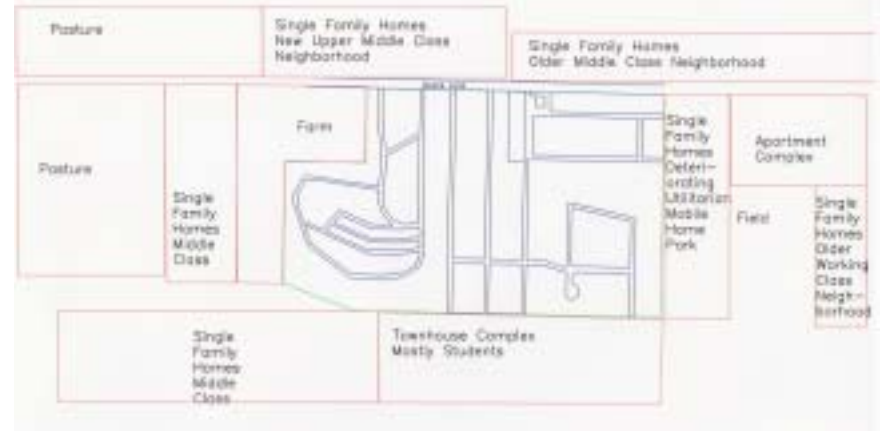
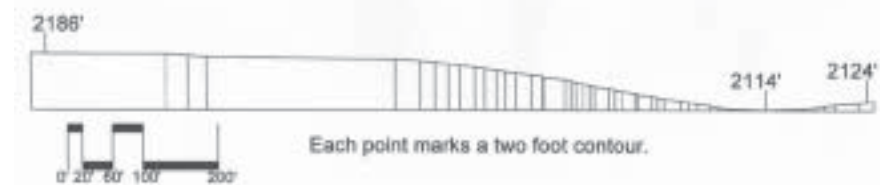


Figure 5.12 The basic character of the parcels surrounding Clayton Estates.



Figures 5.13 and 5.14 Topography map showing both 2' and 10' contours. The magenta line shows the location of the section shown below.



The valley serves as a drainage basin for the surrounding hills. (Figure 5.15) The water eventually feeds into Tom's Creek, a trout fishing stream in Montgomery County, Virginia. The stream running through the property has been confined in a storm sewer for most of its length.

Vegetation

Though the property has been developed for several years, there are still many mature trees, mostly along the eastern and southern edges of the development. The map (Figure 5.16) shows the location and density of standing mature trees.

The clear areas accommodate a utilitarian layout of closely spaced homes in the development. Where the homes were placed further apart, trees were allowed to remain. Trees on the property include oaks, maples, black walnut, spruce, pine, tulip poplar and dogwood. Most of the pines were planted by University Village as a required buffer along Givens Lane.

The Residents

Clayton Estates does not keep demographic records of its residents. The 2000 United States Census Report separates the development and combines the sections with two different blocks within a block group. Therefore it is difficult to get a specific picture of the demographics of the neighborhood.

From observations and conversations with the residents, it is obvious that there is a diverse community here. There are retirees, some of whom have lived here for over twenty years. There are couples with children, childless couples, single parents, single adults, gay, and straight, Caucasians, African Americans and Hispanics living in the development. The children range in age from infants to high school.

Of the adults, some are disabled, some are retired, and some are working one and even two jobs to make ends meet. The vast

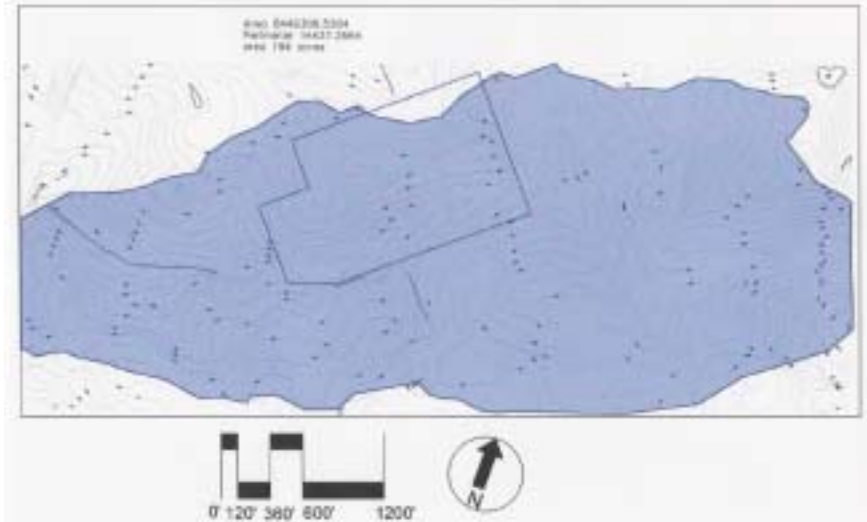


Figure 5.15 The area shaded in blue shows the watershed that drains into the valley that runs through the property. The outline of the property is shown.



Figure 5.16 Existing trees.

majority of households in the development earn less than \$24,000 a year (US Census 2000). It is a demographically mixed, working class neighborhood.

5.5 Assets

Vegetation

Approximately one-third of the site is covered in mature trees, providing shade, windbreaks, wildlife habitats and positive aesthetics. A. C. Nelessen's preference studies have shown that Americans across the United States prefer neighborhoods with mature trees (Nelessen, 2003).

View Shed

Since much of the development is located at or near the top of the hill, there are some excellent views of the surrounding mountains. (Figures 5.17 and 5.18) Some residents have views towards groves of mature trees. (Figure 5.19)

The Terrain

While the terrain can be a problem, it can also be an asset. On one comparatively small site, there is a large, somewhat flat hilltop, an area of steep slopes leading down into a stream corridor with a shallower slope extending upwards from the other side. This variety offers many opportunities for creating different ambience, character and uses within the neighborhood.

Core of Committed Home Owners

While many of the homes are set on a barren lot with little or no effort at claiming



Figure 5.17 View looking southwest from the site. (Bean)



Figure 5.18 View looking northwest from the site. (Bean)



Figure 5.19 Stand of mature trees on the site. (Bean)

territory, there are home owners who have laid claim to the land around their home. Most of these owners have a home that is sited so that the front door of the house faces the street, giving them a clearly defined territory to claim. (Figures 5.20 and 5.21)

Even in the old utilitarian style areas of the development, where one or two owners start claiming territory, others on the street often follow suit. What begins in the small area between the house and the street spreads to the claiming of territory between the houses. (Figure 5.22)

5.6 Problems

The age of the development is a major liability in terms of deteriorating infrastructure.

Roads

The development owned roads are of paved asphalt except for one which is a small stretch of gravel. Despite periodic repairs pot holes are a problem throughout the development. (Figure 5.23)

There are no gutters or curbs and the road running through the drainage basin becomes a river in heavy rains. (Figure 5.24)

There is no internal development road connecting the old University Village area to the old Cricket Park area, so residents have created one that is treacherous to navigate in a low slung car. Figure 5.25)

Utilities

Because of the age of the water, phone and sewer systems, residents are beset with myriad problems and annoyances. The water and sewer systems are owned by the development. A series of breaks in the water lines has resulted in mud entering the system. The low water pressure in parts of the development has allowed the mud to settle in the pipes. Heavy vehicles passing over the lines or a sudden increase in water pressure can resuspend



Figure 5.20 and 5.21 These home owners have claimed territory by landscaping their lots. (Bean)



Figure 5.22 Home owners in this utilitarian layout have claimed the area between their homes and the street. (Bean)

the mud particles and send them into the residents' home water supply. Low water pressure to some of the homes is a major annoyance. Residents have complained that it takes up to an hour to fill a washing machine or dishwasher. Sewer pipes are old enough to be having trouble with tree roots blocking the flow of the effluent. This has caused the effluent to back up into some residents' homes.

The telephone company has been slow to upgrade the phone system for the development. Currently the phone lines for one section run along the ground and up into the trees. This inadequate system has resulted in the periodic loss of phone service for some of the residents.

Storm Drainage

Because of the steep terrain and the large area (194 acres) that drains into the stream valley, storm water runoff is a significant problem. The lots at the very bottom of the development can be flooded for days as there is no channel to remove the pond that is created. (Figure 5.24)

At the top of the valley a deep ditch has been dug to redirect the water coming into the development from the property next door. Not only is the straight, deep channel dangerous when filled with swiftly moving water, but it disappears after a few blocks and all the water washes onto the roadway. Water running down into the valley from the property behind the development has cut

channels into the gravel roadbed and made it impassable by vehicles. (Figure 5.26)

Steep Terrain

The steep terrain not only causes problems with storm runoff, but makes it difficult to place houses on the site. (Figure 5.27) Terracing of the hillside is necessary and the siting of homes is restricted to placement parallel to the slope of the hill. The traditional utilitarian layout placed on a clear-cut hillside produces a very unaesthetic view of a series of closely spaced, long, unadorned facades set on mostly bare lots. (Figure 5.28)

Utilitarian Layout

Much of the development was designed in the old utilitarian style where the houses are placed long side to long side (or front door to back door), rather than end to end. Though this allows the land owner to put more houses on the site, it creates a no-man's land between the homes where neither dweller is sure where their lot starts or ends. As a result, there is often no attempt to claim territory in this space and the homes sit in sterile isolation. (Figure 5.29)

This layout also creates a neighborhood character that is very different from the character of the surrounding neighborhoods where the front door of the home is set in a wide facade and addresses the street across an expanse of



Figure 5.23 Old roads are in need of repair. (Bean)



Figure 5.24 Flooding after a heavy rain. (Bean)



Figure 5.25 Dirt road cut by residents. (Bean)

lawn. This difference can be seen as a stigma by both the residents and observers from outside the manufactured housing neighborhood. (Figure 5.30)

Affordability

The company which owns Clayton Estates expects a five percent profit from the management of the property. In order to determine the number of lots necessary to meet that requirement, I added five percent of the monthly expenses to the monthly expense amount. This gave me the total amount the development needed to generate each month. As current lot rents run from \$185 to \$195 a lot, and have increased yearly by \$5.00/month, I decided to use two different lot rent amounts, \$190 and \$200, as the basis for lot rent income. At \$190 per lot, the development would have to have 207 lots to generate sufficient income. At \$200 per lot, the development would need to have 197 lots. A combination of the two rents would require between 197 and 207 lots on the property.



Figure 5.26 Deep rut cut by storm water runoff. (Bean)



Figure 5.27 Steep hillsides are a problem for siting homes on the site. (Bean)



Figure 5.28 Rows of homes marching down a less steep portion of the hillside. (Bean)



Figure 5.29 No-man's land between two homes. (Bean)



Figure 5.30 A character distinctly different from that of the surrounding middle-class neighborhoods. (Bean)

Conclusions

The Clayton Estates site has both assets and problems. Many of the problems stem from the age of the development's infrastructure. Other problems arise out of the history of the site, both the attempted joining of two separate developments into one and the old utilitarian layout of the neighborhood. The utilitarian layout of the development decreases the claiming of territory by the residents which often results in poor maintenance of the outside of the home and lot. This increases the NIMBY attitude faced by the residents from those in surrounding neighborhoods.

In order to decrease the negative image of the residents and their neighborhood, it will be necessary to create a design which will increase the claiming of territory at both a primary (home and lot) level and a secondary (neighborhood) level. The following chapter presents three designs for Clayton Estates. One is a redesign of the existing development using the present infrastructure. The other two designs ignore the existing infrastructure; they are the Ideal Plan and the Economical Plan.

(Footnotes)

¹ See appendix for slide images.

² See appendix for slide images.