VISUAL RESOURCES
AND
COMMUNITY CHARACTER

ISSUES PAPER NUMBER I

VISUAL RESOURCES and COMMUNITY CHARACTER

Introduction

What type of community is Door County now, and what will it be like in the future? In meeting with the residents and officials of Door County, the visual qualities of the County are obviously a central attraction for both residents and tourists. Visual resources are the driving force of the tourism segment of the economy. There are two related ways to view these visual concerns. The first is simply to review the County's visual re- sources by themselves. But think for a moment about what the visual resources of the County are. The shores, the bluffs, the villages, the orchards, the farms...the entire County is com- posed of visual resources. The County is a fabric of views that are dependent on each other and cannot be separated--if they are, they will be destroyed. The visual resources must be viewed and protected in context. Their preservation depends upon the realization of the interdependence among all the County's visual components (shores, bluffs, farms) and the major factor affecting those components (development). The second way to view visual resources, therefore, has a broader perspective that relates the County's visual resources, as represented by the natural and built environment, to the development of the County. This latter view is what we refer to as "community character."

Community character is the better of these two views because of its ability to deal with development, economics, and aesthetics all at the same time. The term "community character" is intend- ed to cover a broad spectrum of concerns. Community character addresses the quality of life or life-style, visual qualities and image, and lastly, historical and cultural heritage. Com- munity character analysis provides a model for describing a community's character and addressing land use and economic de- velopment issues that affect a community's character. In con- trast to the community character approach, a simple visual resources approach only compiles an inventory of the existing resources.

While people have focused on the visual resource issue as being of prime importance, the underlying issue is not a failure to know where the resources are located, but the extent to which they are threatened by uncontrolled and insensitive development. The 1964 Plan has already identified most of the critical areas. Relating resource protection objectives to a system which ac- counts for development impacts on resources is the issue. This will identify the extent to which resources are threatened by different forms of development. . The ability to protect visual

resources is thus linked in a direct way through community character to the further development of Door County and the way in which residents and visitors feel about that development. These concerns can be categorized into four different issues: location of development, scale of development, natural features and their accessibility as affected by development, and finding a place for development without compromising the protection of visual resources.

First, as in all communities, the **location of development** is a primary concern. The protection of visual resources is directly related to the ability of the County to control where development takes place and at what intensity. Other issues regarding the scale of development, its character, and its sensitivity to natural and visual resources present also affects the appropriateness of a location for development. These are the traditional concerns of comprehensive planning. Unfortunately, Door County's present zoning regulations cover only half of the towns. Furthermore, the regulations themselves would need a major overhaul to protect visual resources. If the County does not find an effective mechanism to protect its visual resources, then all the studying of the visual resources will be meaningless. Control of development location is essential.

Second, the **scale of development** is an important factor affecting the visual quality of the County. The architectural and historical heritage displayed by most of the built environment plays a large part in the County's attractiveness. By comparing the size of these buildings with some of the newer, larger developments in the County, one should get a feel for the importance of scale and how it affects the visual resources of the County. The contrast between the built environment and its natural setting is part of the essential character of the County. While there is evidence of concern for the built environment, the debate seems to have focused on land use rather than on the essential characters of each of the communities or their real relationship to the surroundings.

The third issue is somewhat elusive. The importance of **natural features** to the character of an area is obvious. If development occurs in a manner that is insensitive to the natural features of an area, they are destroyed. What makes this issue difficult is that the destruction happens little by little so that often it is not noticed until one day we realize there are not many natural features left. And what is left may be so broken-up into little pieces that a quality panoramic view is not to be found.

Views of the lakes, bays, sand dunes, woods, wetlands, farmland, orchards, and old fields are all features that make living or working in Door County attractive. The loss of these scarce resources erodes the County's ability to attract visitors and must be stopped. The relationship of a settlement to the water is an important element, and one that requires special treatment. One

of the major resources of the County, water access, has been almost exhausted. Development pressure has now skipped over to the bluffs and threatens the visual and environmental integrity of that resource. For the most part, the remainder of the County is a general rolling landscape. In these areas, visual character is easily destroyed by rather low levels of scattered development. If scarce resources continue to be lost to development, the very elements that attract people to the County will be lost. Such a loss ultimately will have an adverse impact on the County's economy.

A fourth issue is the inherent conflict between the concept of protecting visual resources and accommodating market demands. This issue represents the tension existing between the three issues discussed above. The locational demands of new residents and businesses are at the root of most zoning controversies because they directly compete with the goal of protecting visual resources. In a community such as Door County, the risk of destroying the natural and man-made elements of the landscape that attract people to the County, and its communities, is high. The existing land use pattern reflects this conflict. Development has been attracted to the County's most visually sensitive areas. Homes have now been constructed on nearly all of the County's shoreline. Bluff areas are under heavy development pressures in other areas of the County. Many residents have converted visual resources, that were essentially open to all, to private residential preserves. Nearly all residents have sought, and continue to seek, a home that captures the visual resources of the County through its windows. "I look out my windows, and nearly every one is a picture postcard" (Wisconsin Natural Resources Magazine, May-June, 1986). Routes 42 and 57 are under substantial development pressure in northern Door County, and are overloaded with signs in the southern areas. These trends threaten the gateways through which most residents and visitors travel.

Discussion of Issues

Preserving visual resources and community character sounds like a sensible course of action. Why, then, has not all development contributed to the preservation of visual resources and the enhancement of community character? Sooner or later most of the issues come back to the regulations needed. In this section the issues will be explored in greater depth in this light.

First, direct competition exists between the need to preserve resources and character, and the locational desires of residents an businesses. While developers are often portrayed as the villains, all residents, present and future, are the main problem. Why has development occurred one lot deep along the shore, and then skipped to the bluff tops along Green Bay? Residents want a view over the water. Unfortunately, the residents whose homes consumed the water frontage, now tend to protest the development

of the bluffs. Developers and landowners have voiced their con-
cern for this "drawbridge mentality" which they characterize as
"Now that I have mine, its time to stop further development."
The respective positions of residents, business people, land-
owners, and developers is not the issue; however, their feelings
highlight the fact that those areas that have already been
built-out and those areas that are now under the most develop-
ment pressure, are most likely located in sensitive visual
areas.

The fact that developers are clearly unwilling to invest in
properties which lack visual resources because they are afraid
of being rejected by the market demonstrates the development
pressure on visual resources. In Chicago or Milwaukee, a devel-
opment in a corn field will sell if it is well priced, situated,
and designed. In contrast, in Door County, people seek to in-
vest in a dwelling that captures the visual essence of the
County. Historical as well as recent development trends confirm
the theory that the market will reject development which lacks a
beautiful setting--witness the skipping of development patterns
from the shoreline to the bluff tops. Programs that ignore this
economic fact will be more difficult to adopt and enforce.

Another example is the development pressure along one of the
most important resources in Door County: the water. Nearly
every county in the country which is similar to Door County with
respect to great natural beauty, water access, and a location
relatively close to major metropolitan areas, is under intense
development pressure. In virtually all of these areas, the
water views have long since been consumed by development. Cape
Cod, the Florida Keys, and barrier islands from Texas to North
Carolina, for example, are all under intensive pressure.
Northern New England and the Upper Midwestern lakes are nearly
surrounded by development. If Door County is to succeed in pre-
serving its visual character, which is primarily rural, it must
find new ways to either limit development in sensitive areas
or require that development occur in a manner which is more sen-
sitive to character so that the visual resources are not con-
sumed or destroyed.

A second issue, therefore, is that some form of regulation will
be needed to achieve the preservation of visual resources. In
Door County, this issue is affected by two problems: the lack of
zoning in much of the County, and the current zoning regulations
are incapable of achieving the desired level of visual and envi-
ronmental protection.

In Wisconsin, a town is prohibited from adopting its own zoning
ordinance if a zoning ordinance exists at the county-level
(Edelbeck v. Town of Theresa , 57 Wis2d 172, 1973). The towns
in a county which has a zoning ordinance are, however, under no
obligation to adopt the county zoning. Therefore, a county's
purposes can be thwarted by a town which fails to adopt county
zoning. This situation makes achieving a visual resource pro-

tection goal difficult for Door County. The State of Wisconsin has recognized, with its floodplain, shoreland, and wetland laws, that zoning is the most effective and economical planning tool to accomplish site-specific protection. Convincing the towns in the County to heed this message may be difficult. An effort must be made to avoid the tragically common practice of taking action <u>after</u> the damage has already occurred. Most zoning regulations are a late response to unfortunate experiences with bad development. Door County needs to adopt highly effective preservation policies now, before it is too late.

The current standards set in the Door County Zoning Ordinance are insufficient to protect the County from bad development. This problem is composed of two factors. One, the most critical, is the uncertainty regarding <u>what</u> the County's goals are; and two, by nature, traditional zoning regulations set only a <u>minimum</u> standard to be met.

The standards set by most traditional zoning regulations are minimum standards. If these minimum standards are not set at a level which ensures the desired quality for each project, the overall quality of development will not live up to the community's expectations. Worse yet most ordinances contain standards that actually prohibit design. A review of some recent projects and proposals in the County indicates that Door County's zoning regulations do not <u>ensure</u> high-quality development that respects the desired character of the community. For the most part, the regulations deal solely with lot size. As discussed in the introduction, the preservation of visual resources requires far more than lot size regulations.

Given that the protection of visual resources centers on the protection of Door County's character as a whole and on controlling development pressure, we feel that Door County needs a tool that is capable of dealing with the interrelated nature of these issues. The tool we have developed to accomplish such a task is called community character analysis.

The County has begun to attack this first problem by undertaking this planning effort. Perhaps the most critical problem is uncertainty regarding what the County's goals are. In this planning process, Door County must make crucial decisions that will determine the County's beauty and character for generations to come. If residents and elected officials let the County develop without clear goals and strong guidance, the County will soon lose its unique and treasured character and identity. A basic analytical structure needs to be established which can address the wide-ranging issues facing the community. Community character is a theory or structure which will facilitate the resolution of most of the issues facing the County. It ultimately will provide a framework for both analysis and decision-making. In looking at Community Character it is important to understand its various parts.

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Community Character

If the visual character of the County is to be preserved and enhanced, then merely looking at the natural features of the County is insufficient. Visually, the landscape is dynamic. The peninsula was once covered with forests and small areas of grasslands. Settlement, timber harvests, and clearing for agriculture have significantly altered the original character of the County. Currently, development, signs, and the abandonment of farms are the most active modifiers of the environment. The whole concept of the evolution of community character is largely a recognition of the typical effects of growth. Without growth there would be little chance that the character of a community would change significantly over time.

Some communities have evolved in terms of scale, from hamlets to large cities, while other communities have changed in terms of type from rural areas to suburban areas with progressively more urban characteristics. By undertaking this project, Door County joins an increasing number of communities which seek to protect their character in the face of growth. While some communities desire to alter their current character, this objective would be fatal to Door County's economic viability. Tourism is not the only component of Door County's economy, but its loss would create major, and potentially irreversible problems for the residents. How to grow without destroying the County's character is, therefore, a major task of the Comprehensive Plan.

There is nothing inherently good or bad in any particular community character type or scale. An urban character is no better or worse than a rural character; a village is no better or worse than a city. These aspects of character are simply descriptive. Until the human element is added, the relative merits of the different types, scales, or other aspects of character for a particular area cannot be established. A community that grows or evolves into an unwanted form represents a bad outcome; while preserving or growing into a form that is desired, represents a good outcome.

Once community character goals are set, potential actions which will cause character to change can be evaluated. An action which results in an undesired change in character is bad; an action which results in a desired change in character is good. The most unfortunate situation is where decisions are made (or not made) and an unwanted character change occurs without the community being aware of what it was doing. From our reconnaissance, it seems clear that it is essential to retain and enhance Door County's present character and limit actions which will threaten to disrupt that character.

Character generally changes gradually--through a series of incremental decisions. All too often, the citizens suddenly discover the character has changed, view the change as a problem,

and typically react by trying to reverse the trend. Unfortunately, this action is generally taken after the desired character has been lost forever and the reaction of the community is too late to make a difference. Whether uncontrolled change is the result of an inability to sort out the implications of slow gradual growth, or unwise decisions that create an undesirable change, this problem is best solved by developing a means to analyze and predict character.

Another factor is that, by not consciously dictating community character standards, new development is not guided toward a desirable site-specific appearance, and therefore, does not promote or enhance the best qualities of the community. In many instances, developers are just as unaware of the incremental destruction of desired character as the general citizenry. To effectively manage growth, the citizens of Door County must determine what sort of character they wish for the county as a whole; for their own town, for their general surroundings, for their village or neighborhood, and, in some instances, for specific parcels or projects.

Community Character Analysis

Until recently, a written or verbal reference such as "Door County is rural county, a beautiful land of bluffs, shoreland, woodland, sunny meadows, quaint villages and active harbors," was the only way in which the character of a community could be conveyed. As is always the case with the written or spoken word, it is subject to individual interpretation. These words conjure up images in our minds, but do not guide the development of the County.

Since the character of a community is a critical issue that lies at the root of most disagreements over planning, zoning, and development, the portrayal of this issue relies upon a verbal description of community character. Each person has a different perspective on community character. What is the character of Door County? Many citizens have recited key ingredients: water, forests, villages, farms. To many, Door County is a jewel.

One of the critical failings of words is that they are subject to a wide degree of interpretation. "Rural" is viewed quite differently by residents of Door County than by the residents of Chicago and Milwaukee. While we all understand the term "village," in a general sense, this understanding has not stopped portions of Route 42 from becoming a suburban strip of plastic waterfalls and shops. Personal experiences color our perspective about certain words. While the small villages of Door County may have one image to their year-round residents, most of the three-hundred plus Chicago suburbs are also known as villages. Will these terms really help, or will they just confuse planning issues?

To help overcome this problem of personal perspective, in this analysis we shall rely on a comprehensive, objective analysis of community character. Since everybody has emotional preconceptions about a community and its character, and may also have very different interpretations of the general words commonly used to describe community character, the ability to precisely describe character, and communicate it accurately and consistently to third parties is important. Community character analysis enables us to classify Door County in an objective, rather than a subjective, fashion.

Community character analysis has seven components that are used to describe a community's character. Definitions have been developed for the various components so that the meaning behind words used to describe community character is clearly understood. Each component looks at the community from a different aspect that colors that view. All of them together define community character and, in turn, the County's visual resources. These seven components are listed here and described more fully in the following paragraphs:

1. The large scale components of a community (such as the use of property and the intensity of such use) are used to determine the **type of community**. This component may look at either whole communities or sections of them. It is a macro-scale view.

2. Analysis of **community** scale looks at the physical and demographic size of the community. Community scale, like the type of community, is a way of viewing the community on a macro-scale.

3. Looking at the relationship between people and buildings is a **micro-scale** analysis; it considers aspects of community character at the opposite end of the spectrum from the macro-scale components.

4. The **design** of development in a community is an important component of community character. Character, in part, is defined by existing development design and is affected by the design of new development.

5. The way that we live in different communities and the opportunities for different life-styles represents an aspect of community character. The types of activities in which people participate and the types of activities people expect to see going on around them are examples.

6. The **land** itself provides an aspect of character. The topography and the vegetation that has adapted to it, are the raw forms for all visual experiences.

7. Classifying **spatial qualities** of landscapes is a more technical method used to define types of natural spaces.

The first component looks at the **type of community**. An understanding of the unique aspects and essential elements of different built environments is required. There are eight different community character types: three urban, two suburban, and three rural. The issue addressed by this component is whether the type of community created by land use and zoning plans matches the community's objectives. In general, both the visual resources and unique character of Door County must retain their rural qualities if they are to be preserved or enhanced. Suburban development treats visual resources through mitigation; that is, damage can be minimized but resources will be altered. With one exception, urban character types will destroy the County's unique character.

Community character types are assessed using an objective system of analysis. Most plans tend to focus on traditional land use categories as a means of land classification: residential, commercial, agricultural, industrial, and vacant. The critical question regarding this traditional approach is: How does such a classification system relate to the visual character or resources of the County? This traditional approach, when applied in the past, has not produced an effective vision to guide the development of Door County, and has not worked well in other jurisdictions either. Door County has urban areas, areas that are suburban in character, and rural areas. Each of these character types must be approached differently in visual terms, functional or land use terms, and life-style terms. The community character analysis scale is designed to describe, measure, and predict community character types.

The second component, **community** scale, basically involves the extent of a community (its size in square miles and its population). The scale of the community, also relates back to the type of life-styles which are available in our communities. Community scale is basically an issue involving the extent of a community (its size in square miles and its population). For the most part the visual resources of the County are a result of the interaction of small scale communities with a rural landscape. The present development patterns threaten to destroy this essential element of visual pattern in Door County. The preservation of hamlets and villages is critical.

The dynamics of human life in a community change with community scale, just as the visual nature of the community does. In terms of community scale, the villages and hamlets of Door County are being strained to their limits. Significant additional development will result in a shift in their community scales to a more typical, less traditional, and potentially less desirable, size.

The **micro-scale** component defines the relationship between a person and a building, a group of buildings, or a space. At this level, how the individual relates to the environment (both

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natural or built) becomes very important. While the previous components view the built environment as a whole, from the outside, micro-scale views the community from the inside. It is a human's view of the community rather than that of a bird. Given the natural and rural character of the County and the presence of small-scale communities, scale is a very important aspect of community character in Door County.

The impact of a building, or a group of buildings, on either a landscape or an individual, can be great depending on the quality of design used in a project. While this is a more subjective concern, good design can be addressed by how it is applied in areas of differing community character. Spatial qualities such as harmony, contrast, texture, sky, and roof-lines are all vitally important in controlling the impact of development.

The various **life-styles** that people may desire influence where they choose to live; the life-styles of people in a community, in turn, affect the character of their community. Urban areas are commercial activity centers and attract people who want to live near these activities. Suburban areas are basically residential areas. Rural areas are mostly open, the buildings should fit into the landscape a set of farm buildings may be larger than the structures in most residential areas. However, even when these buildings are seen up close, we associate them with working of the land in a rural setting, and our knowledge of their use influences our feelings about them.

Land, its forms and vegetation, is the raw material of the landscape. The basic land form is the key feature of much of the landscape; the Lake Michigan shore, with its coastal ridge backed by wetlands, is very different from the bluff based lines of the Green Bay shore. Valleys, hills, and ridge tops provide yet other environments. These basic land forms interact with vegetation to create the general character of the County, particularly in the undeveloped areas. While some areas of the County have remained undisturbed, most of the County has been heavily modified by farming, logging, or, increasingly, by development. This modification affects the County's character.

Finally, the landscape has spatial qualities; for example, there are areas of flat open farmland and areas of forests. Whether walking, biking, or driving, the character of these areas are total opposites. Open farmland may be nearly _formless_ space, while the forest _encloses_ space under its canopy. Land forms and vegetation can create space, just as architects do with buildings in cities. The rural landscape of Door County is primarily controlled by the way in which farms were cleared and, in some cases, abandoned. Now development pressures are mounting, and in these areas, conscious interaction with the environment to protect, preserve, or enhance the landscape is possible. The creation of landscape forms will become a tool of the designer in rural environments.

Each of the perspectives imparts different types of information.
All must be pulled together as a whole. Large scale elements
give form or dictate certain qualities, other relate more to the
quality of visual experience.

Community Character Types

There are three basic types of character--urban, suburban, and
rural. While volumes have been written on urban design, differ-
ent rules are needed for suburban and rural areas. The three
types of character are divided into eight classifications by di-
viding each of the basic classes into two or more additional
types. The eight types of community character are: Urban
Core, Urban, Urban Transition, Suburban, Estate, Countryside,
Rural, and Natural (See Figure 1).

URBAN AREAS

Urban character has been divided into three types: urban core,
urban, and urban transition. All urban characters require a
site to be completely cleared of vegetation. Land coverage of
the site by buildings and pavement is very high, and while urban
character projects can be sited to take advantage of visual re-
sources, they devastate the land on which they are built.

1. **Urban Core:** Urban core areas are very intense and massively
   scaled urban environments. The buildings are generally
   mid-rise or high-rise structures. The central business
   areas of Chicago and Milwaukee are urban core in character.
   In Green Bay, some buildings are being built to this scale.

2. **Urban:** Urban is the community character type that most
   closely resembles the classic urban design type of environ-
   ment in which buildings define and enclose spaces. Third
   Avenue in Sturgeon Bay is a good example of an urban street-
   scape. The spaces are architectural and often function
   beautifully with little or no vegetation. The ground is
   likely to be paved. The urban environment is designed to
   bring people into close contact and to maximize personal
   interaction. The purpose of urban areas is commerce. Con-
   gestion is desirable and privacy is typically obtained in
   private interior spaces or small walled courtyards. The
   skyline is architectural and is defined by the roof lines of
   the surrounding buildings.

Figure 1

	URBAN CORE	URBAN	TRANSITION	SUBURBAN	ESTATE	COUNTRYSIDE	RURAL	NATURAL
CHARACTER CATEGORY:	URBAN	URBAN	URBAN	SUBURBAN	SUBURBAN	RURAL	RURAL	RURAL
CHARACTER SUB-CATEGORY:	URBAN CORE	URBAN	TRANSITION	SUBURBAN	ESTATE	COUNTRYSIDE RURAL	RURAL	NATURAL
SPATIAL DESCRIPTION:	Architectural Space	Architectural Space	Architectural Space	Borrowed Space	Borrowed Space	Space Dominant	Space Dominant	Space Dominant
SPATIAL QUALITY:	Highly Enclosing	Enclosing	Partially Enclosing	Garden	Garden/Natural	Landscape	Landscape	Landscape
FUNCTION:	Center of Activity	Center of Activity	Center of Activity	Resid. Retreat	Resid. Retreat	Landscape	Landscape	Landscape
LAND USE:	Commercial > Residential	Commercial > Residential	Commercial > Residential	Res.>Comm.	Residen.	Exurban Agricultural	Ag & Res Agricultural	Some Ag. Agricultural
ECONOMIC ROLE:	CBD	Regional Center	Regional Center	Community	Neighbhd.	Scenic	Natural	Wild
ENVIRONMENTAL DISRUPTION:	Total	Total	Total	Severe	Moderate	Very Low	Farming	Very Rare
ENCOUNTER LEVEL:	Continuous	Very High	High	Moderate	Low	Very Low	Very Low	Rare
PRIVACY:	Indoor Only	Indoor and Courtyards	Indoor and Courtyards	Yard w/ Screen	Yard	Yards & Open	Open	Open
CONGESTION:	Very High	High	Moderately High	Moderately High	Moderately Low	Low	Rare	None
APPLICABLE ANALYTICAL & REGULATORY MEASURES								
D/H	Yes	Yes	Yes	No	No	No	No	No
Density/Open Space	No	No	No	Yes	Yes	Yes	Yes	Yes
Volume Ratios:								
Building	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Landscape	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Site	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Horizon	No	No	No	No	Yes	Yes	Yes	Yes
Scale Ratios	Yes	Yes	Yes	Yes	Yes	Yes	No	No

KEY: > = Greater Than
      < = Less Than

There is no fixed scale to urban environments. For example, Fish Creek's central business area is urban; its wooden buildings are different from the buildings in Sturgeon Bay, but they too hug the street to provide a sense of enclosure. Even tiny Ellison Bay has an area which is developed at an urban character, except that it is only a few buildings long. Urban areas, particularly villages, are scaled to keep in harmony with people, and are much less overpowering than urban core areas.

3. **Urban Transition:** Urban transition is a modern category that develops as urban uses locate in previously undeveloped areas. These urban uses usually need to be redesigned to accommodate intensive automobile access. They are, in fact, traditional downtown urban activities transferred to outlying collector and arterial street and highway locations. The ubiquitous strip shopping center is an urban transition type. While such strip commercial is generally thought of as a creature of the suburbs, it can be found in the Sister Bay strip, on the outskirts of Sturgeon Bay, and now threatens much of Route 42.

Urban transition uses are urban primarily because of function. They serve the same commercial functions that urban areas do, and they differ from traditional urban centers because their subservience to the demands of the driver.

The impact of the roads and parking areas required for automobiles are the driving forces that determine the character of this type of environment. Missing are the well-defined enclosures and human scale of classical urban design. The degree of enclosure is inadequate to focus and direct human activities, as is the case of the urban environment, but is sufficiently high so that the feeling of suburban spaciousness, the lack of congestion, and privacy are lost. The buildings are widely spaced, which tends to destroy any sense of place. The lack of a sense of place is further aggravated by parking lots and roadways in the spaces between buildings. The scale of buildings is often very large. For the most part, urban transition character is the result of high activity areas, served by automobiles, and separated by bits of lawn.

Two types of urban areas are found in Door County: urban and urban transition. Historically, urban areas were generally only to be found in Sturgeon Bay's central business district, in the villages such as Fish Creek, and in hamlets such as Maplewood. The more recent strip development that has occurred south of Sister Bay, on the fringes of Sturgeon Bay, and in other locations has given rise to another type of urban area--urban transition. In general, this development has a negative impact on the character that is associated with Door County.

All forms of urban development destroy the basic environment and its visual resources. This is not to say that urban development is bad, but simply that development which is urban destroys the natural visual resources. There are urban environments throughout Europe, and even in Door County, that become visual resources themselves. Looking down on Ellison Bay or Ephraim, for example, represent some of the more noted views in the County. On a smaller scale, the church on the hill in Maplewood is an urban structure that has become a valuable part of the County's visual resources.

A major choice that Door County must make concerns the form of development in the County. The most efficient manner of dealing with growth is to encourage that it take place in compact urban clusters: some around existing clusters and some should form new urban places. This strategy would preserve the most open space in the County.

SUBURBAN AREAS

The suburban type of character has been broken into two classes: suburban and estate. It is important to understand that "suburban," as used here, describes a form of development and does not take on the usual locational meaning of the word. All suburban environments are based on "borrowed space." This term refers to the practice of borrowing nature or views from adjoining land. While borrowed space can preserve some important aspects of the environment, suburbs are built areas. Visual resources enhance the suburban environment, but resources must also be sacrificed to build suburban communities.

4. Suburban: Suburban character, as used here, refers to the more intensive of the two suburban forms of character. Suburban communities have sufficient open space between, or within, developments to provide needed contrast and balance to the buildings. The open spaces have lost their architectural quality and have a maintained garden or natural appearance. Historically, the open spaces which helped create a suburban character were simply vacant lands that had not yet been developed; thus, they are referred to as "borrowed space."

In suburban areas human interaction is generally lowered from the intense commercial level to the social level, and individual privacy is greatly enhanced. While total privacy does not occur on the suburban lot, a substantial sense of privacy is maintained. There is a balance between the man-made and open space elements of the community.

Door County does not think of itself as suburban, but if one looks at the pattern of development in portions of the County, it is very similar to a suburban subdivision. Nearly all of Sturgeon Bay's residential areas are suburban

in character, as are most of the villages. The shore land of the County is developed one lot deep in a suburban or estate pattern, depending on lot size. For the most part, however, this shore land development is able to borrow vastly more open space than is typical in other suburban areas. This factor may lead residents of these areas to think of their neighborhoods as rural in character.

5. **Estate:** Estate development represents the lowest intensity end of the suburban portion of the character scale. Here, individual properties are large enough to provide an extensive open feeling, and there is less reliance on borrowed land to promote this open feeling. In general, open spaces have a slight dominance over man-made components. The lots are large enough so that privacy is secured without resorting to fences. The ability to borrow vast areas of space from shore land or bluffs makes residential lots that are nominally suburban in scale, enjoy the benefits of estate or even rural living. This is true only because these lots take advantage of an enormous and unrestricted open space that will never be built upon. If lots on the land-ward side of the shore roads were to develop, the character of the shoreline developments would quickly change.

In suburban areas, no matter how much care is taken in design, the visual resources of the community will not be preserved. The most that can be done is to mitigate the alterations that can occur with suburban-type development. In general, mitigation will preserve a high quality living environment, one that will retain the essential components for its residents. For the person seeking the rural visual experience of Door County, however, suburban areas will prove unsatisfying.

If suburban-type development is used as the standard mode in Door County as is presently the case, suburban development will consume from 2 to 5 times more land than would clustered urban development. The present "stripping" tendency of development makes the land consumption problem worse. The shoreline is stripped, with the other side of the shore road remaining undeveloped for the most part. Development then skips over to high land or bluff tops with a water view. Since the development is linear, the visual impact of the development is magnified (see Figure 2). The sprawling nature of suburban design causes the landscape of large areas to be altered. While a small urban place may be a man-made visual resource, this is not true of suburban development; only if a suburban area is confined to a very small size through clustering is it possible to even approach the same effect.

Mitigation of damage is the essential strategy to be used in suburban areas. Landscaping and other regulations that control building placement and environmental damage are key elements in this strategy.

Figure 2
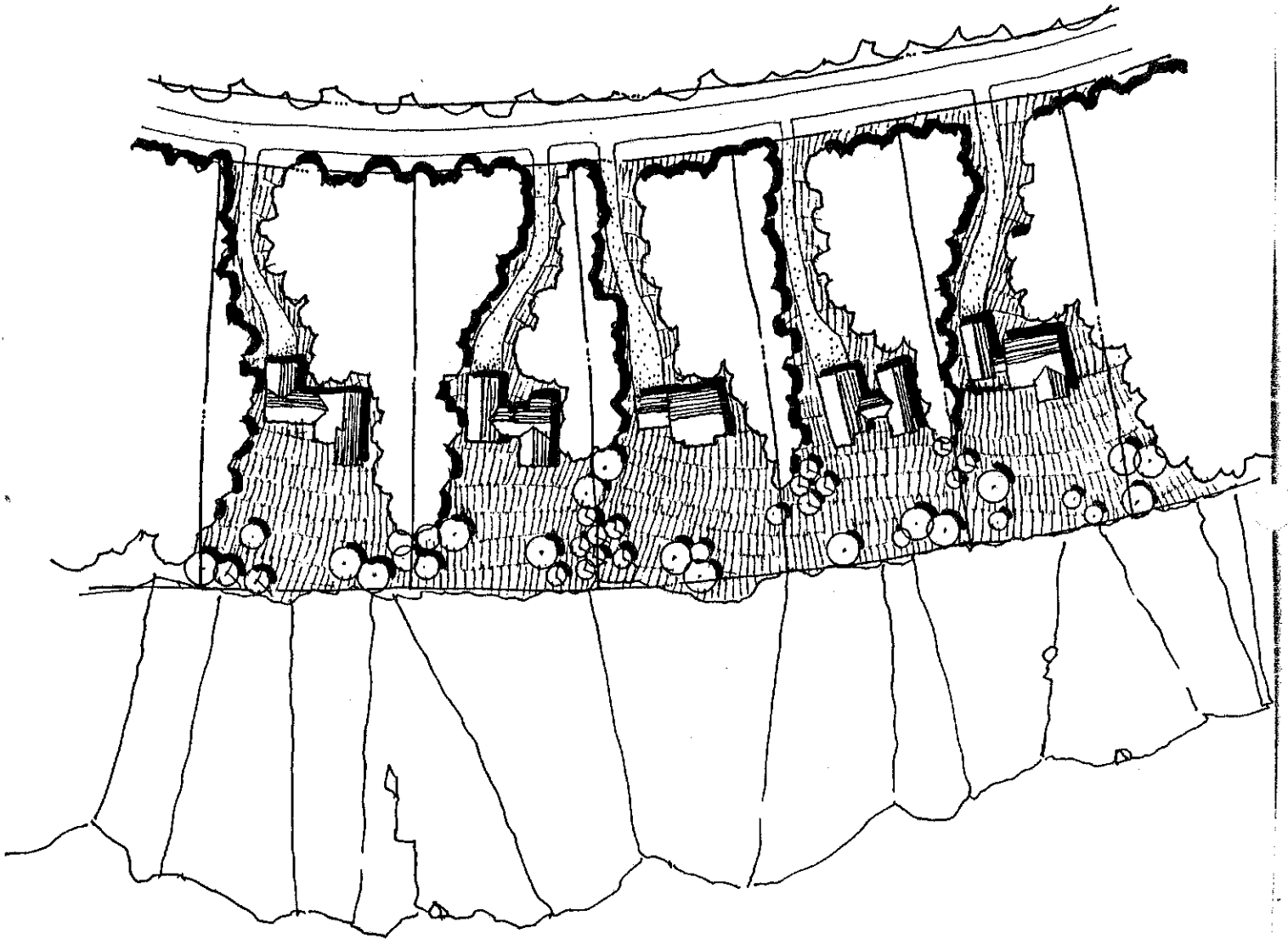
RURAL AREAS

Rural areas have been divided into three types of character: Countryside, Rural, and Natural. All share one distinguishing characteristic: space has the qualities of a landscape. The term "landscape" has intentionally been selected because the spatial characteristics of rural areas have more in common with landscape painting than with urban design. Indeed, the landscape quality this quality has brought many painters to Door County. What creates a landscape? The sky and the view to the horizon are the most important elements. Buildings, for the most part, appear in the background or middle ground or a rural vista. Occasionally these structures may be in the foreground, but in these instances, they are structures that belong to the landscape: farmhouses and farm buildings, or a fisherman's dock and boat house.

6. **Countryside:** As with all of the rural character types, space dominates in countryside areas so that the environment is a landscape. Countryside is the only one of the rural characters that contains exurban development to any degree. The ability to accommodate any significant development without destroying the landscape qualities of this district is clearly a difficult balancing task. In order to achieve this balance, wherever possible, such development should be masked from view. Development that is well-screened by woodlands is nearly invisible, and substantial development densities are possible without destroying the countryside character. In open land, the buildings are highly visible and lower intensities are needed to preserve a countryside character. There are many areas in Door County that have a countryside character, and there are many other areas where too much development has taken place and the countryside character has been converted into estate type development.

Most of the land in a countryside area will either remain in agriculture or continue in a natural state. While this pattern generally provides for the preservation of scenic resources, the quality of those resources is not ensured. Since a countryside area must evoke the qualities of a landscape, it can, and should, be considered a composition. The clearing of land, and the creation of edges, spaces, or screens to provide interest and variety are essential elements of this composition. Residential development must occur to create the densities associated with countryside character; this development must enhance the character of the county through sensitive site design which results in the creation of a balanced composition.

Development that occurs in wooded areas is relatively easy to mask from view with large setbacks and a requirement for buildings to take access from subdivision roads, rather than the main roads. The signs of development, such as drives and mailboxes also need to be hidden. Drives should be com-

bined or eliminated along major roads. In open areas, these tasks are much more difficult. At even very low densities, the homes scattered across the landscape are very visible and quickly reach a point where the horizon is continually interrupted by buildings. Therefore, intensive clustering is needed to preserve the landscape qualities. Low buildings, in natural colors, that are placed and vegetated so as to disappear into the landscape, must be the rule rather than the exception. The large modern homes being built in exurban environments tend to draw attention to themselves and thus accelerate the erosion of the balanced countryside landscape.

7. **Rural:** This character is just what its name implies--the character common to agricultural areas. Most of southern Door County remains in this character category. A rural community is one in which development is limited to the rural ecology: the barns, homes, and other buildings needed to produce an agricultural crop. While there may be some residential structures present that are not related to agriculture, they must be held to a minimum or the area will convert to a countryside character.

The rural landscape in Door County is a mix of farmland and natural areas. Because the farms are production units, intentional landscape enhancement should only be required in areas where nonfarm development is occurring. Visually, there is no real basis for a distinction between countryside and rural characters, except for a matter of degree. The difference in the use of land, rather than the intensity of development is most important. Countryside character represents the first tentative stages of suburbanization. In contrast, rural character results from a pure or nearly pure agricultural area and economy.

8. **Natural:** Door County has a number of areas, both publicly and privately owned, that are essentially wild. Although these areas may have been logged or farmed at one time, they have returned, or are returning, to a natural state. The undeveloped portions of the county which are wild areas of natural vegetation--whether woodland, wetland, lake, or dune environments--are natural areas.

Like the distinction between countryside and rural character areas, the major distinction of natural character areas is in land use, rather than in the intensity of development. Natural beauty, views and vistas can be equally well preserved in areas of countryside character. Natural character areas require not only that vegetation be preserved, but the ecology as a whole. Except for the reestablishment of natural patterns and native species, absence of human activity which modifies the environment is the best way in which this may be done. Natural areas cannot accommodate even exurban pressures or pressure from agriculture. These areas, if

left alone, will and should return to a natural climax vegetation. Natural areas are the least intensively used of the rural environments, lacking both residential and agri-cultural activities.

Door County is attractive because of its water frontage and its rural character and charm. Historically, the hamlets and vil-lages were able to borrow that rural character because each was isolated from the others by large rural areas. In some areas, this is no longer the case.

The visual resources of Door County are dependent on the preser-vation of a rural character. Only by maintaining a rural char-acter will various types of landscape features be preserved. Although all the development that has occurred recently has done little to alter the overall character of the County, only if one flies over the County does one experience the overall character. We experience the County at ground level. The small portion of the County's roads that are heavily traveled have been heavily impacted by development. The character of these areas has changed.

The most development permitted while still retaining a rural character would be in the countryside character type. Even so, because it retains a rural character, the level of development is very low. It is unlikely that this character type can be solely relied upon to maintain the character of those sensitive visual resources that are most threatened because the densities permitted are so low. Such a strategy would not be politically feasible and may be judged to be exclusionary. Yet, the preser-vation of a rural character is essential to the protection of the majority of the County's resources. The County needs to preserve the character of the County through a mix of rural de-velopment interspersed with denser forms of development in order to accommodate the County's growth.

Recommendations:

In order to preserve the County's visual resources, large portions of the County will have to be placed in rural cate-gories: countryside, rural, and natural. In areas where development pressures are low, and are likely to remain at a low level for a long period of time, these categories will not affect land values as in downzoning. In these areas, formulating an acceptable zoning category for zoned and un-zoned areas is an essential ingredient.

In areas under moderate to intense development pressure, there are several strategies that need to be used in combi-nation in order to strike a balance between growth and pre-serving resources. The most preferable alternative is to create a mixed zoning district that permits the development of new urban nodes, villages or hamlets, provided the devel-opers protect a sufficient amount of land to preserve as

rural. This strategy allows all landowners in the sensitive areas to share in the benefits of a limited market for development. In conjunction with this strategy, the rural areas should have a countryside type of designation that has stringent mitigation standards in order to permit the highest possible densities while maintaining the rural environment.

Finally, some resource areas will probably be lost. This occurrence, however, should be limited to two types of areas. One, where a significant amount of damage has already occurred, such that mitigation of further damage and upgrading of the visual image of existing development represents a sound strategy given the degraded nature of the visual resources. And two, near Sturgeon Bay--this is a logical place for suburban development. This development should take place in the highly attractive areas and should include several of the suburban categories of character.

Community Scale

The community character types are an important element in defining community character. Community scale, however, is particularly important in Door County. Without this concept it becomes very difficult to understand how Door County should develop so as to turn out different than suburban Madison or Milwaukee. Cape Cod is an illustration of this point: large parts of Cape Cod are now indistinguishable from Boston suburbs. Door County has been pursuing many of the same land use policies that Cape Cod towns used, and such an undesirable conversion is a definite possibility for Door County. The signs of this transformation exist in many parts of the County. The strip development between Sister Bay and Ephraim is now suburban in character and will destroy the individual identities of the two villages as they grow together, leading to an indistinguishable sprawl of suburban development.

Community scale is also critical to understanding the unique rural-urban interactions in Door County that distinguish it from other rural areas and from suburbs. There are different scales of human communities. There are communities where the scale of settlement is very small and the human element is significant-- allowing one to quickly traverse the area on foot in a minute or two. At the other end of the spectrum are ultra-large metropolitan places where the individual is minute in comparison to the whole, and where an hour or more of auto travel may be needed to traverse the community. As communities of different scales are discussed, understanding that the larger units are often comprised of groupings of the smaller units is important. Therefore, the classes of community scale discussed in this paper distinguish between free-standing communities (which are common and endemic to Door County) and the components of larger units (common to metropolitan Milwaukee, the Twin Cities, or the

Fox River Valley area). The following is a discussion of the different levels of community scale.

1. Hamlet or Cluster

The hamlet or cluster is a very small grouping of buildings ranging from three or four, up to perhaps as many as sixty individual structures. While the hamlet clearly refers to a totally free-standing community, the cluster is the building block for larger units. There are thus two scales working here--one for free-standing communities, the other for development components of larger communities. The hamlet is likely to be a small node of urban character set in a rural landscape. Ellison Bay, Maplewood, and Valmy are some of the hamlets in Door County. The cluster, on the other hand, may be urban or suburban in character with the possibility of neighboring areas being of any character. In each case, no more than two minutes of normal walking should be needed to traverse these small-scaled areas. In both cases, the scale of the buildings will have to reflect the character of the area. The cluster is almost inevitably residential. A hamlet like Ellison Bay, on the other hand, is likely the commercial focus of a larger area to which it provides services.

2. Village or Neighborhood

The village or neighborhood are real social units. They are large enough to sustain substantial social and economic interaction, and have a number of smaller social units functioning within their boundaries. Walking through a village or neighborhood might take as long as five or ten minutes. Both of these areas are large enough to support nonresidential activities which serve only the immediate area. Villages are the dominant form of development in Door County outside of Sturgeon Bay. Egg Harbor, Fish Creek, Ephraim, and Sister Bay are villages that have served as the primary base of the tourist economy. Other villages, such as Forestville and Brussels, are traditional agricultural villages serving the surrounding farmlands as market centers. Like the hamlet and cluster, the village and neighborhood are distinguished by whether they occur as a isolated settlement, or as a component of a larger settlement area.

3. Town or Suburb

Towns or suburbs are composed of groups of neighborhoods and are large enough to support a considerable diversity of non-residential activities. There are apt to be areas within the town or suburb that have significantly different types of community character. The center of town may be denser than surrounding areas, although this is not an essential element. Sturgeon Bay falls into this category. The downtown areas are clearly urban, while the residential areas are mostly suburban in character.

A town should have a wide range of land uses providing jobs for its citizens. In our society today, smaller scale communities are unlikely to provide job opportunities for any significant number of their residents. Towns occupy a broad band in the community scale spectrum. Smaller towns may take from ten to fifteen minutes to traverse on foot. Sturgeon Bay is an example of a much larger town. In fact, it almost appears and functions as two towns due to the influence of the Bay, the canal and its few bridges. While it is possible to walk across the bridge the gap is too great. At the smaller end of the scale, towns may be small enough to retain a clear sense of identity and place throughout. Large towns often lose these characteristics.

Like the difference between the village and the neighborhood, the town and the suburb are distinguished by whether they occur as an isolated settlement, or as a component of a larger settlement area.

4. City or Region

The city or region is a large community. A person can only begin to recognize the immediate environment. Arrival in the regional or city center may be obvious, but most other areas of the city or region do not have this same sort of obvious identity (except to their residents). Except for sports teams, universities, or other cultural facilities, citizens have difficulty identifying with the city or region as a whole. San Francisco is unusual where the hills and Bay create a unique city-wide identity. For the most part, the size of the city or region dwarfs individual activities in favor of activity centers for large numbers of people throughout the city or region. Green Bay is the nearest city to Door County, and there is no likelihood of Door County communities reaching this scale within the planning time-frame.

A city is a large settlement which is relatively isolated from other communities. A region is an agglomeration of several smaller settlements.

5. Metropolis

This represents the far end of the community size scale. Its size and scale make it an area which includes a wide range of communities mixed together within a very large area. The areas are often so large that they begin to merge. For example, the Milwaukee and Chicago metropolae are often classified as part of a single Great Lakes metropolis.

Figure 3

COMMUNITY SCALE

HAMLET-CLUSTER
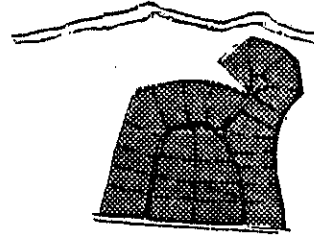
VILLAGE - NEIGHBORHOOD
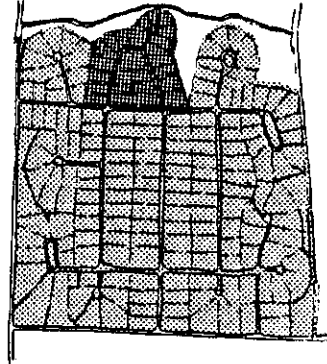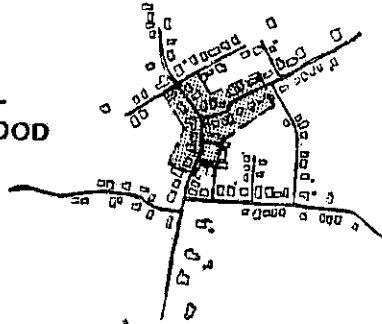
TOWN-SECTOR
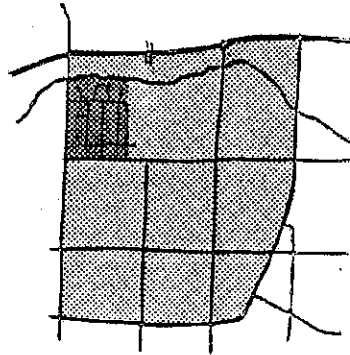
CITY-REGION

METROPOLIS

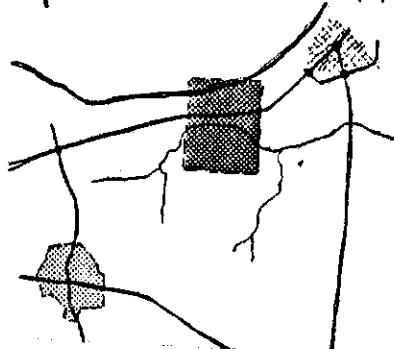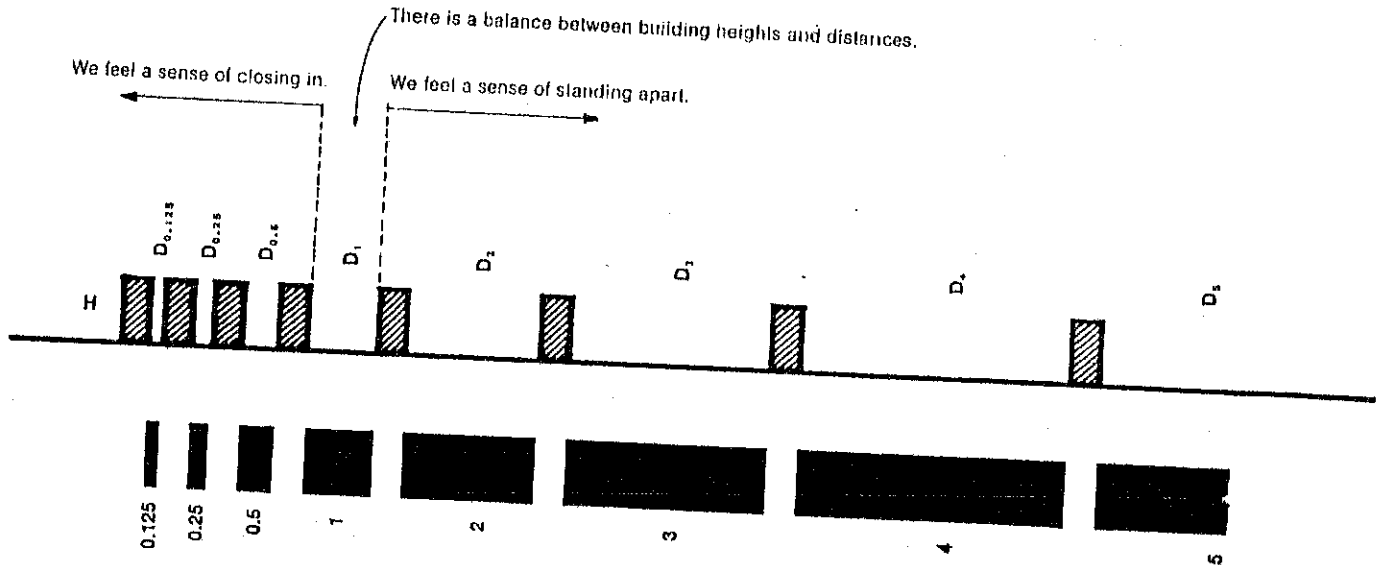Lane Kendig, Inc.

23
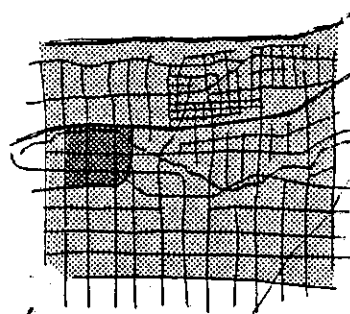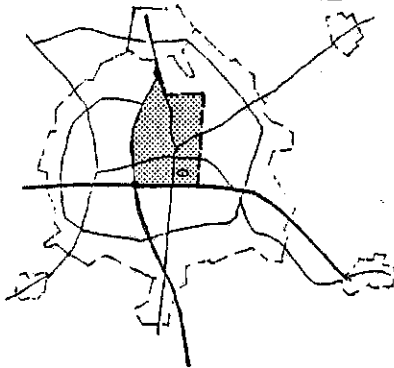
Figure 4: Measuring Scale

Source: <u>Exterior Design in Architecture.</u> Yoshinobu Ashihara.
Van Nostrant Reinhold Co: New York. 1970.

A second measure devised for this analysis is one that compares
the volume taken-up by a human to that of the buildings or
spaces involved. The volume occupied by a human corresponds to
Leonardo DaVinci's well-used illustration: 216 cubic feet.
This volume can be used as a measure of the mass or volume of
structures. Thus, a 1,000 square foot home has a volume of
12,000 cubic feet and therefore a value of 55.5 when compared to
our human-based volume (12,000/216). This analysis is repre-
sented in Figure 5.

Figure 5

6 FEET

6 FEET
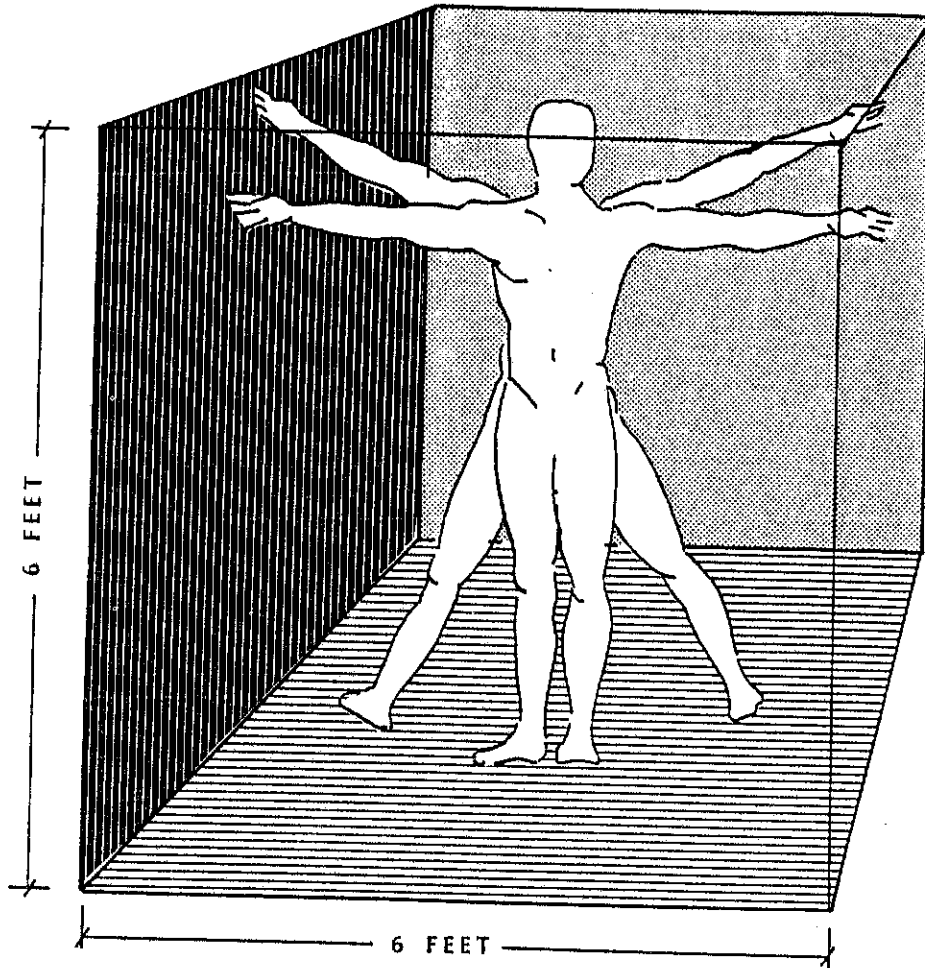
216 CUBIC FEET

SCALE RATIO
BASIC VOLUME UNIT

Figure 6 depicts a number of structures to provide a sense of
what different human volume values might look like. The criti-
cal use of this tool is not necessarily in setting a specific
maximum or minimum building mass for the community, but rather
to provide a technique for determining whether the proposed
building fits into the existing character in terms of its
micro-scale. Unlike D/H, building scale is applicable to all
areas: urban, suburban, and rural.

Figure 6

SCALE RATIO

20 — 6 cu.ft. — 432 sq.ft. / 4,320 cu.ft.

52 — 6 cu.ft. — 864 sq.ft. / 11,232 cu.ft.

111 — 6 cu.ft. — 1,200 sq.ft. / 24,000 cu.ft.

250 — 6 cu.ft. — 3,000 sq.ft. / 54,000 cu.ft.

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Lane Kendig, Inc.

April 12, 1988
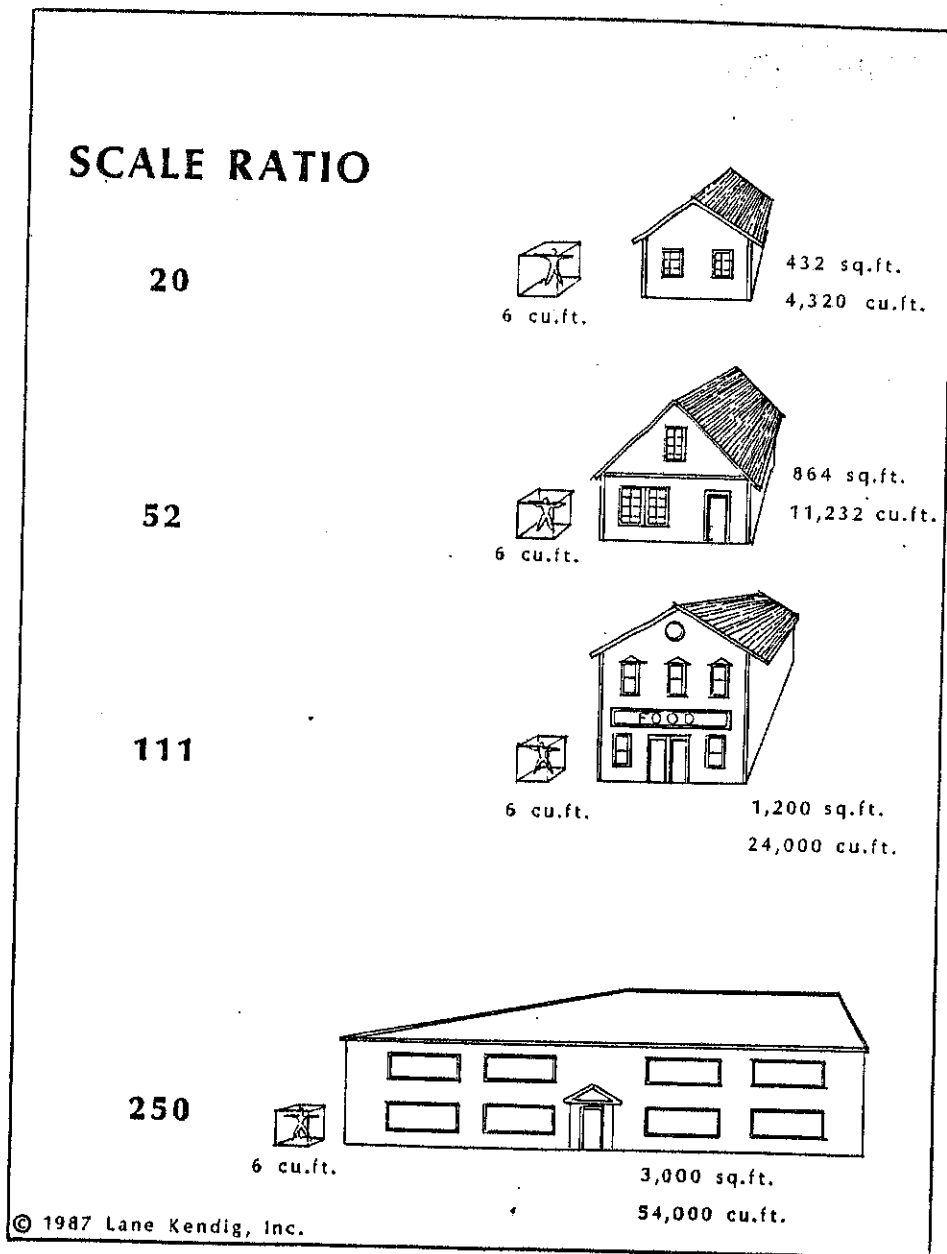
Micro-scale is a major problem in both the villages and rural areas of Door County settlements. Some vacation homes have been scaled to blend into the landscape others have been built that are completely out of character with nature and scale of the surrounding rural environment. Many of the condominium structures are being built which are too large for suburban, village or hamlet environments. This change of scale destroys the qualities of the built environment and rural areas.

Recommendations:

Development proposals can be evaluated to determine if they fit into the fabric of a community. In developed areas, the new buildings would be compared with the scale ratio of existing buildings. The scale of all new buildings would have to be within a certain percentage of the average scale of the community or neighborhood. In rural areas, a site-specific examination of the appropriate scale of buildings should also be performed. In a forest, buildings can be hidden because the vegetation mass is large. In the open, low-profile buildings are more appropriate because the vegetation masses are small and large buildings would dominate the landscape.

The micro-scale concept needs to be used in Door County in two separate ways. One application is needed in the existing hamlets and villages, as well as developing suburban areas, and the other application is needed in the rural sectors of the community.

In existing hamlets and villages, the objective is to keep new development in scale with existing historic development. This is best done by a design review which would require each building to be in scale with its neighbors (see Figure 7). The developer or builder would have to determine the bulk of nearby buildings and would be limited to a building that could not differ from the average by more than a given percentage.

In rural areas, the issue is the scale relationship to the environment, rather than neighboring buildings. The measure would work by limiting new buildings to a specific volume that relates to the volume of the enclosing woodland of the same coverage as an average residence. The values would relate to the type of space that was involved. The building scale permissible would decline as the space became more open, and would also be related to the amount of landscaping provided by the developer to mitigate the visual impact of the development. There are several acceptable alternatives to implement this. A design manual that would subject individual projects to a design review is the most flexible alternative, but most costly in terms of staff. The other alternative is to incorporate specfic design standards into the district zoning regulations.

Figure 7

BUILDING SCALE
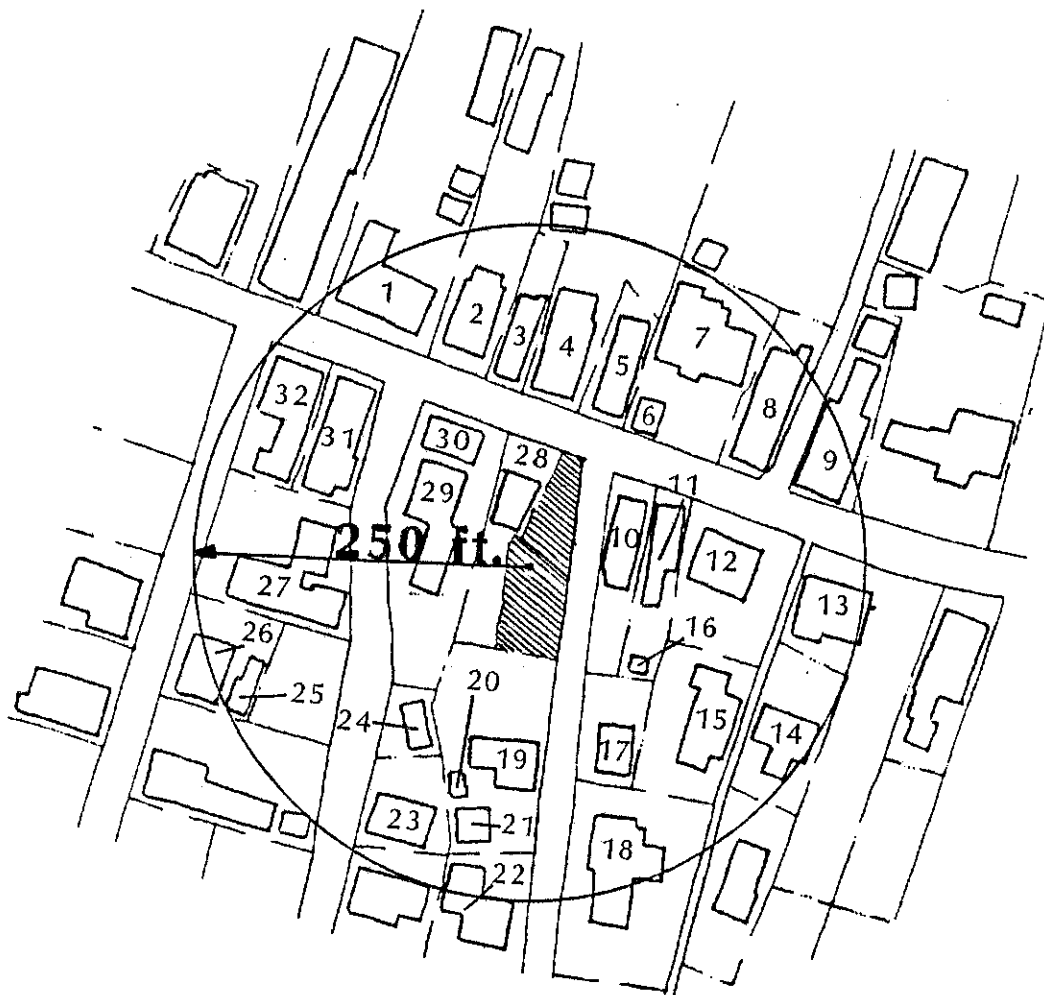
NO.	SCALE UNITS	NO.	SCALE UNITS
1.	23	18.	31
2.	14	19.	18
3.	9	20.	2
4.	20	21.	7
5.	17	22.	21
6.	5	23.	12
7.	33	24.	8
8.	22	25.	7
9.	25	26.	23
10	13	27.	33
11.	10	28.	10
12.	20	29.	22
13.	20	30.	10
14.	19	31.	21
15.	23	32.	23
16.	2		
17.	10	AVERAGE SCALE UNITS: 16.6	

April 12, 1988

Contrast

Unlike the scales reviewed previously, contrast is a value scale. The community character type scale measures the existing (or future) character, and then the observer applies a value to that measurement. The contrast scale measures the degree of contrast between objects which can range from no contrast (i.e. monotony) to total contrast (i.e. discord). Harmony and interest are ideals which lie in the middle of this scale; the position on the scale has a clear value associated with it. While discord on the contrast scale is clearly undesirable, suburban on the community character scale is bad only if the individual community does not want that character.

Contrast may occur in color, materials, roof lines, architectural style, scale, orientation, signs, landscape, or other elements. Sometimes limiting contrast is important. For example, one of the problems with commercial strip development is that each building and sign seems to seek to out-compete others for attention. The result is discord, a situation in which the messages each is seeking to communicate are lost. Door County experiences discord in its emerging strips, and also at the entrances of the County where the billboards stand out as sharp, cheap, and generally tasteless introductions to the County.

There need to be a number of common threads in design to make a community cohesive. In the better preserved villages and hamlets of Door County, a common traditional, architectural theme exists. The contrast along a street or road created by new development must be limited to preserve the cohesive appearance of the community. In Ephraim, for example, white buildings have been the standard, giving the Village a uniquely identifiable visual image. In urban and suburban types of districts, there should be enough contrast to provide interest rather than monotony, but not so much as to result in a discordant feeling. The contrast in urban districts should be between buildings or other objects; in the suburbs, the contrast between buildings and natural areas becomes important.

In rural areas, the objective is different; we are dealing with a landscape that should appear whole. In agricultural areas, man has modified the landscape but it still has a unity with Nature's backdrop. Man-made buildings that exhibit a sharp contrast with the environment compete with the landscape and detract from it. In much of Door County, whether by accident or design, the agricultural and natural elements have created a very pleasing scenic resource. It is the intrusion of development into rural areas that most threatens the County's visual resources. Contrast is an issue here too. In general, buildings conflict with the landscape; there are exceptions, however. Farm buildings or a fishing pier; boats and a shed, are seen as an essential part of the rural landscape in Door County. A vil-

lage can stand out in sharp contrast and call attention to itself. Other buildings should blend into the environment. A cottage, summer home, or permanent home is best invisible. It does not belong and to fit must be made to seem an unimportant and almost natural part of the landscape.

Where the object sits in the landscape is important, as well as its height and mass. When an object is in the far distance, its size and degree of contrast with its environment is less important than if the object were in the middle or foreground. In the middle ground, the buildings must begin to blend into the landscape; in the foreground, this is absolutely essential. These distances are not related to normal zoning districts, but as a general rule the foreground is likely to extend 400-500 feet back from a road. The middle-ground ranges back to 1200-1600 feet from a road. These distances will vary--a large building far back from the road may still be in the foreground due to its height and mass, rather than the exact distance from the road.

Recommendations:

The County should adopt some design regulations or architectural controls. These are the only ways in which contrast issues can be addressed. Design or architectural controls are a significant increase in the level of regulation the County now has. Adoption of such controls, therefore, needs careful consideration. The problem with design control is that it is the most subjective of regulatory devices and, therefore, can lead to inconsistent or too subjective decisions. The use of a design manual can reduce this problem by providing guidelines, but issues such as contrast cannot be reduced to formulas except in rare instances.

Land-forms

In evaluating the visual resources of an area, land-forms create another structuring element in addition to buildings. Major topographic features may be viewed from miles away. Topography (in relationship with the placement of roads, buildings, and trails) defines what is visible from any location. These views may be further restrained by either vegetation or man-made obstructions. There are several major land-forms that are common over significant areas of Door County and then there are a series of unique areas. As a peninsula, the water/land interface is the most obvious predominant land-form. This interface occurs in three varieties in the county: bluffs, bluff/terraces, and beach/wetland/interior lake. The general topography of the county creates a series of other land-forms: escarpments, hills, valleys, and wetlands. Lastly there are some unique environments: dunes, ridges, and drumlins.

Bluffs: The bluffs are those areas where an escarpment ends at the water. There are two subcategories of bluffs: cliffs, where the bare rock is exposed, and other areas where the slope is steep, but forested, so that the actual ground surface is heavily screened. These are both dramatic features. For the most part, they are best seen from a boat. The most critical locations of this resource are those areas that are easily visible from land as well as water.

This resource represents not only a visual resource to be viewed, but also a location where views over the bay or along the shoreline are available. Thus, developers and individual home purchasers have sought out these locations for development, as have public agencies for protection.

There are several critical elements involved in maintaining this visual resource. First, the face of the bluff must remain undisturbed. Second, the vegetation near the bluff's upper edge (its "crown") must be preserved. It is here that homes and condo's seek to locate for the view. The disturbance of vegetation associated with this type of development often requires clearing far down slope to remove tree tops that conflict with the residents' views. This alters the visual character of the natural bluff and, of course, exposes the buildings to views from other locations. Bluffs are the dominant land-form along the Green Bay shoreline. The following illustration depicts a bluff.
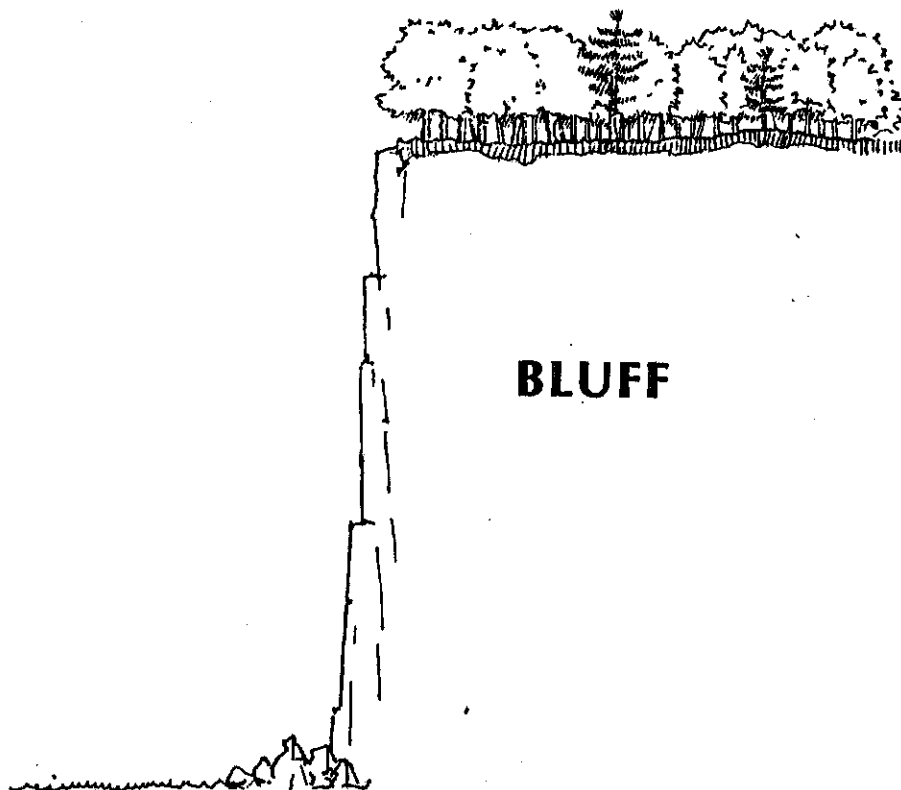
BLUFF

Recommendations:

Ideally, regulations for bluffs would have height restrictions tied to the crown of vegetation on the bluff top and color restrictions. Unfortunately, this measure is administratively complex since it would have to deal with situations where there is no vegetation. As a result, this approach is unsuitable in Door County. A more practical solution is to permit low density development with intensive clustering, and the clearing of a viewing corridor perpendicular to the bluff top in order to reduce the percentage of the bluff face that is cut. At minimum, the bluffs need a buffer that forces development back from the edge of the bluff. The buffer requirement should have selective thinning regulations in order to maintain the visual integrity of the bluff top. This is the lease desirable alternative for protecting the bluffs because it continues to expose their entire length to development. Figure 8 shows the two alternative approaches.

Figure 8

Alternative Approaches for Bluffs
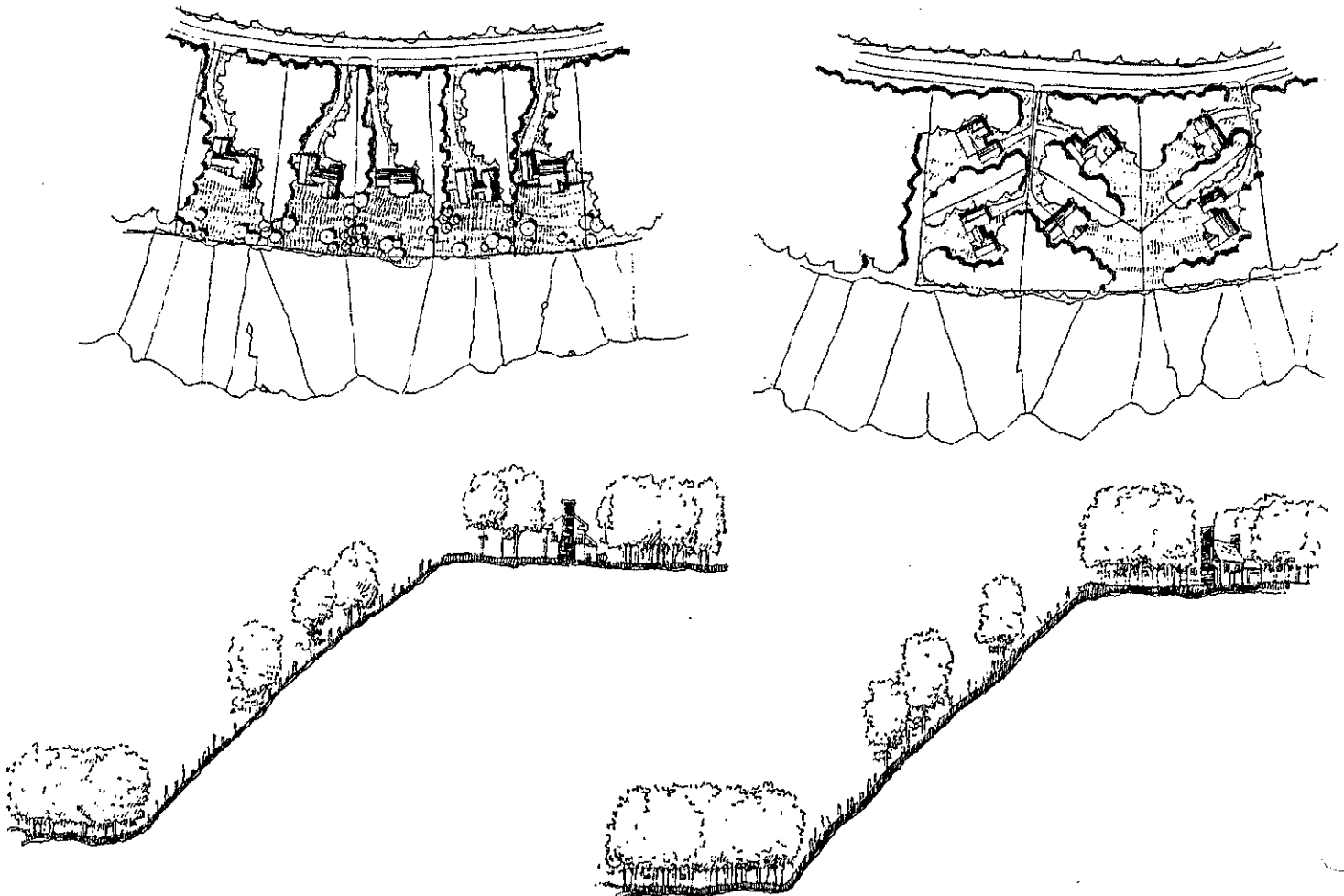
Bluff/Terrace: The bluff/terrace occurs where the foot of the bluff is situated above lake level, so that a land area occurs between the water and the bluff face. The bluff face is more likely to be a steeply sloped escarpment, than a sheer cliff. Most of them have a heavy forest cover. The terrace at their foot may be a few hundred feet wide to nearly half a mile in width. This creates a landscape below the bluff that is visible from any road in the area, particularly if the area has been farmed. Such areas are threatened by disruption from above and below. The water side of roads through these areas are often nearly fully developed. The bluff crowns are also under strong development pressure and, if there is a good slope from the shore to the bluff foot, there will also be strong pressure to develop there as well. Unlike the bluffs, there is generally greater access to bluff/terraces via the shore road. The major concentration of this land-form is from Sturgeon Bay to Egg Harbor and in some areas south of Sturgeon Bay. The following illustration depicts a bluff/terrace.

Recommendations:

The minimum approach to preservation of this resource would be to apply the bluff regulations to the top of the bluff/terrace and require a similar treatment along the shoreline for areas that are not already developed. The ideal solution would be to place all the bluff/terrace areas into a rural zone where the development intensity is .1 du/ac or less. However, while there may be some places where this proposal is feasible, the more acceptable technique to the County is probably a lower density, transferable development rights, and extreme clustering. The County's major bluff/terrace, south of Egg Harbor, might accommodate two or three new hamlets or villages with 90 percent or more of the environmental unit remaining in open space.
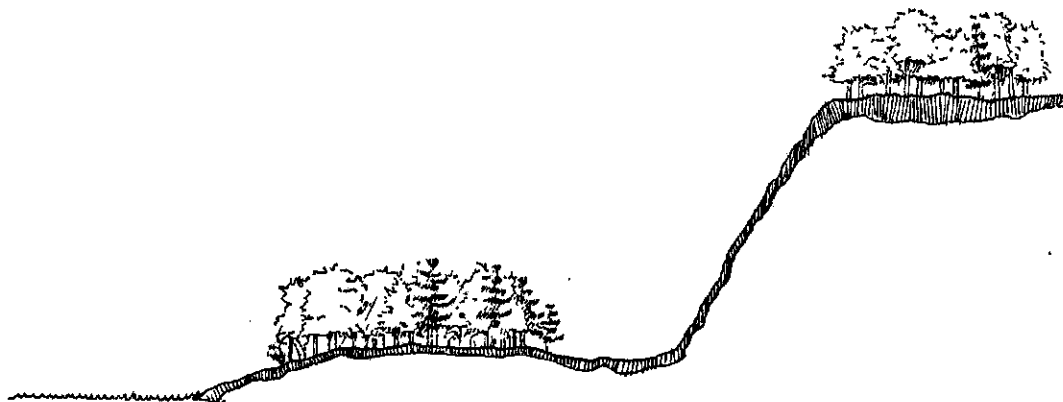
BLUFF/TERRACE

Escarpment: This is the third form in which escarpments are
found in Door County.   Escarpments are the only one of the three
forms found inland.   In most cases they are direct extensions of
the bluff formation which bends inland.   This condition is found
near Fish Creek for example.   In other cases, the connection is
not visually strong although the underlying geological connec-
tion remains.   There are some in the southern portion of the
county that are near the center line of the peninsula.   The es-
carpment is distinguished from valleys by the fact that the
steep rise in the land occurs on only one side of the wetlands
or stream so that the escarpment is generally a one sided
feature.   In general, this land-form is part of a system of
ridges and valleys that trend in a southeasterly direction.   The
escarpments are distinguished from these other features by
steeper slopes--generally in the 50 percent or greater range.
The escarpment which one descends on Route 42 going into Fish
Creek runs inland for nearly two miles.   The following illustra-
tion depicts an escarpment.

Recommendations:

Escarpment regulations should be essentially similar to
those for bluffs, although there is room for flexibility in
allowing development.   Some of the escarpment areas are not
visible from below because of extensive forested swamps and
wetlands, therefore, some development can be permitted.
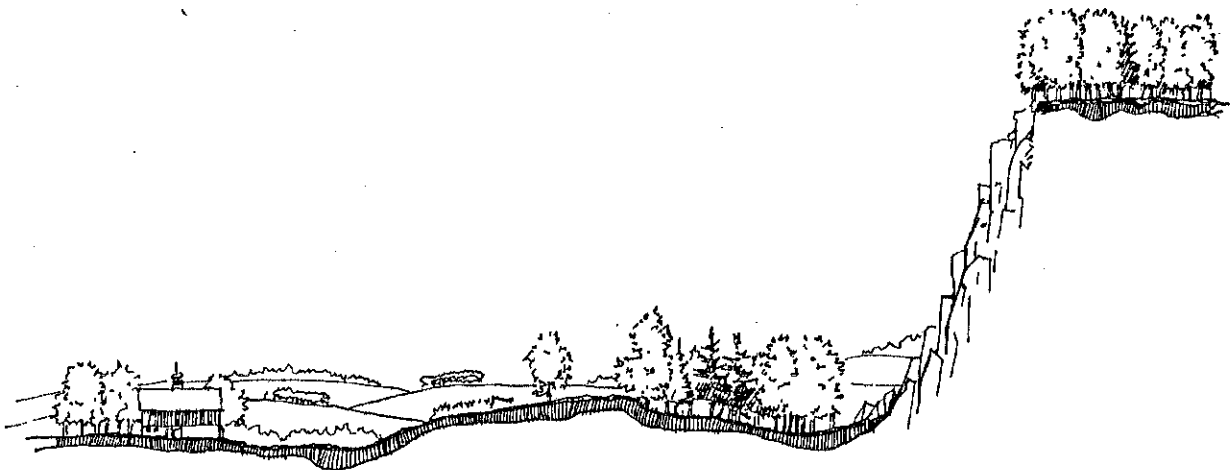
ESCARPMENT

Beach/Wetland: Nearly all of the Lake Michigan shore of Door County is in this land-form. It consists of a ridge, or series of ridges, along a slightly elevated shore. Extending inland a substantial distance, more than a mile in some places, is a wet-land forest. In a few cases, interior lakes may be located within this complex. This is an environment that is nearly all covered by forest and is experienced by traveling through it. Views, except in a few points, are very limited, and from most roads only rare glimpses of Lake Michigan or the bays are encountered. The forests are dominated by evergreens and it is quite dark. The following illustration depicts the beach/wetland/interior lake complex.
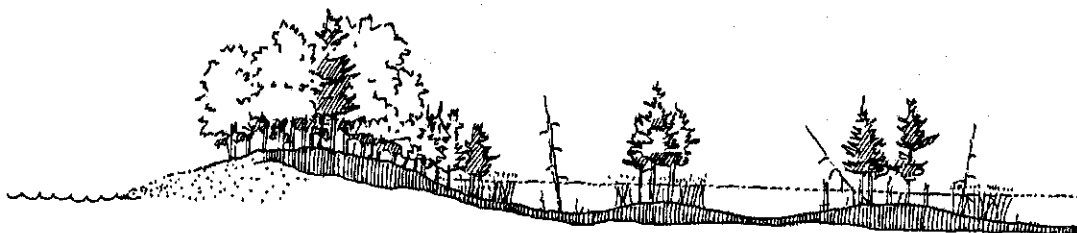
BEACH/WETLAND

Recommendations:

The shorelines in Door County are heavily built-up. Where vacant shoreline remains, clustering and the sharing of view corridors should be encouraged. This requires the use of nonrectilinear lots. An area of four individual lots should be replatted as shown in Figure 9 wherever feasible.

Figure 9
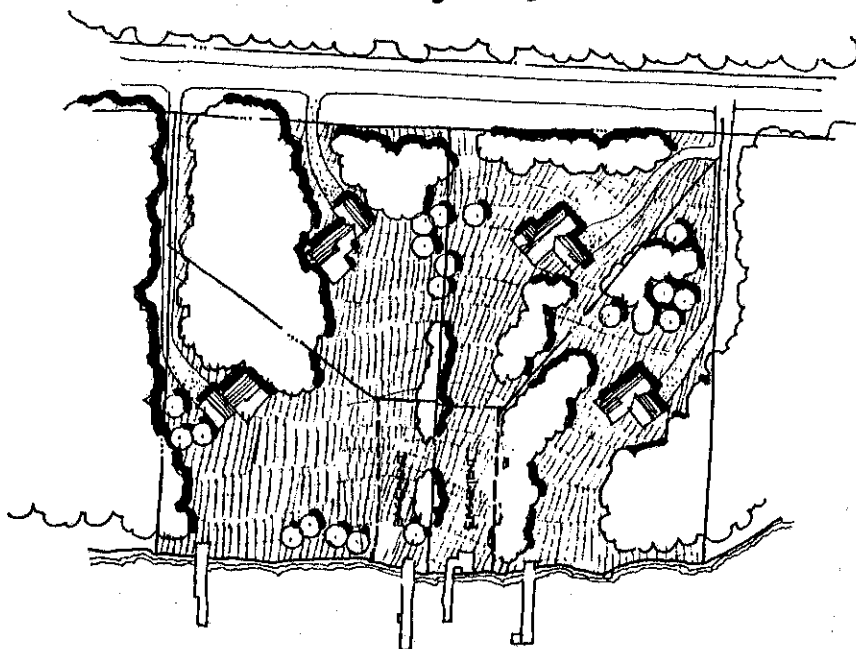
Hill or Ridge: The ridge and valley system is superimposed on the main ridge that constitutes the Door County peninsula. A ridge is a series of hills that divide the land into different watersheds. This system generally trends in a south to south-easterly direction. The hills or ridges form the high points of this system. In some cases, the slopes of the hills or ridges is steep enough to create valleys with a significant sense of enclosure. The hills may be well formed and visually distinctive such as Brussels Hill, or they may be less noticeable, except from specific vantage points such as the hill directly east of Carlsville on County I. The ridges are extended hills where the high points may run for a mile or more. In agricultural areas, the views of the hilltops or ridgecrests, as one approaches them, silhouettes buildings or vegetation against the skyline. In heavily wooded terrain, these features are best viewed from afar. The tops of hills or ridges also provide a view into the distance or, in other cases, into valleys. The following illustration depicts this land-form.

Recommendations:

The optimal solution for most hills is a combination of rural zoning, mandatory clustering off the hill tops, and setback and height restrictions. Most of the hills are in rural areas of the county where the rural zoning is most practical. Low density, clustered development is another alternative. Along with clustering should be height requirements that keep the height of structures below that of the hill top.

In suburban or urban areas, such as villages or towns, the hill top can be used to focus attention on the urban nature of such places. The church on the east side of Maplewood is a good example of the visual impact created by a village or hamlet using topographic features within its borders to enhance the urban experience. On the other hand, the condos on the hill east of Egg Harbor have the opposite effect of sprawling development into the surrounding countryside. The use of topographic features in urban places should be part of a community design plan.

HILL/RIDGE
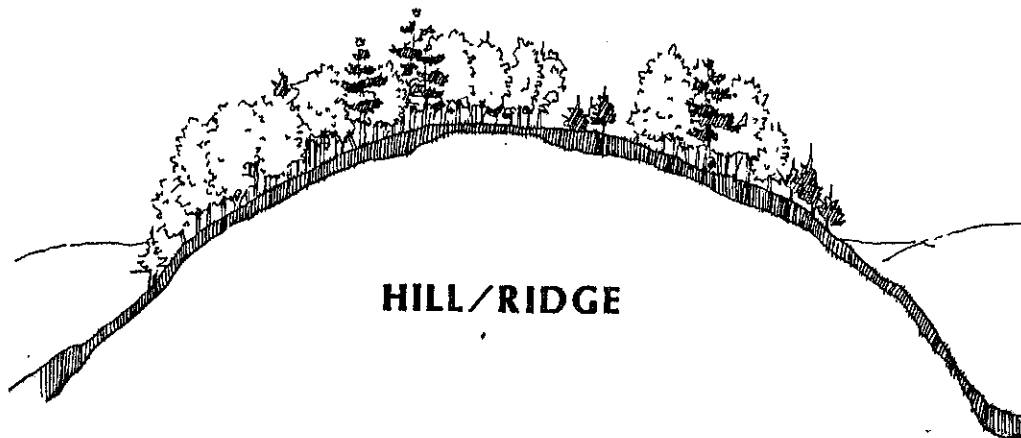
Valley: From a geological perspective, all of northern Door County has a well-formed ridge and valley system starting with the Mink River, whose valley form runs from Garrett Bay to Rowley Bay with a branch to Ellison Bay. However, this feature is not visually distinct as a valley because the gentle slopes are not steep enough to create a sense of enclosure. The term "valley", as it is used here, identifies those portions of landscape where a valley is sufficiently well defined to represents a real visual resource. Good examples are both the valley containing Lost Lake, between Plumbottom Road and Hillside Road, and the valley running north and south between Baileys Harbor Cemetery and County Road A, transversed by County Road EE. The following illustration depicts a such a valley.

Recommendations:

Well-formed valleys present an especially pleasing driving environment; the best strategy is to keep such areas rural. They will certainly be destroyed if suburban strip development occurs as is the case south of Sister Bay. If development is to occur in a valley, then it must be a hamlet or village with tight clustering and surrounding open lands. This would place the hamlet in the middle or background of the views into the valley, similar to the view into Ellison Bay or the view of Brussels from Brussels' Hill. At intermediate levels of development, viewing angles from the surrounding hills and roads should be plotted and development set back so that it is peripherally visible but not in the center of the scene. Clustering and landscaping should be used to further reduce the visual impact of development.
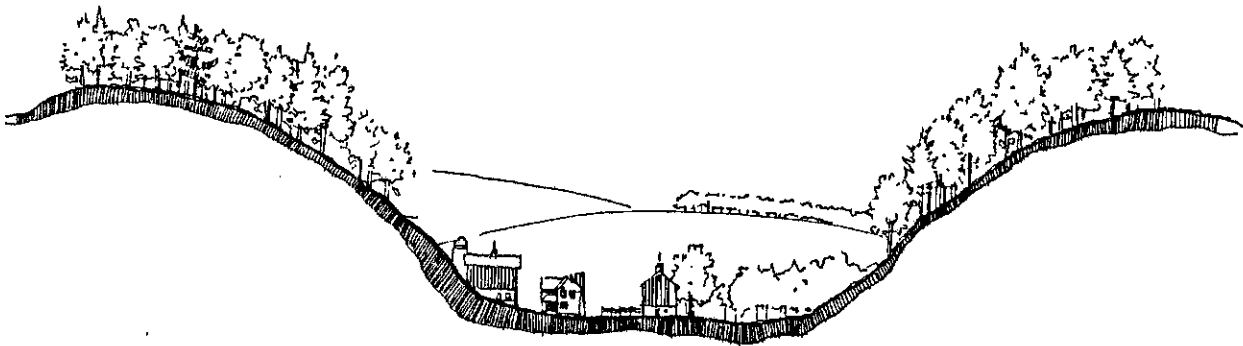
VALLEY

Wetlands: The bottoms of nearly all the valleys in Door County are in wetlands. Many of these areas are wooded, and because they are protected as wetlands, they represent a long-term structuring element in the landscape. Since the boundaries of these areas follow the terrain, they stand out in marked contrast to the roads which were laid out on section lines like a giant checker board. They also give form and interest to the lowland areas when seen from view points on hills, ridges or escarpments. The following illustration depicts a typical wetland.

Recommendations:

Wetlands are already well protected by State and Federal legislation; therefore, Door County need not adopt additional regulations in order to control wetlands.

WETLAND

Dunes: This is the first of the unique landscape elements that are present in the county. Dunes occur only on the Lake Michigan shoreline and, in fact, very low dunes exist in a number of places where shallow bays have been closed off by a dune ridge--as at Kangaroo Lake. Only at Whitefish Bay does this dune structure rise to heights of fifty or more. The status of this unique resource is reflected by the acquisition of the only area of large dunes in the county. The following illustration depicts a dune complex.

Recommendations:

Continued public ownership will protect this resource.
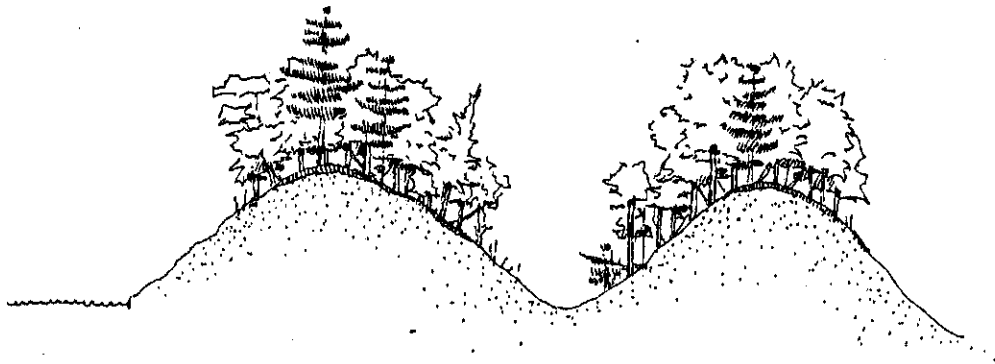
DUNES

Old Beach Dunes: A related form of dune structures create a se-
ries of parallel ridges and wetlands built up at the mouth of
what used to be a shallow bay. This process has created the
wetlands at Bailey's Harbor. Similar features are found near
Sturgeon Bay and Kangaroo Lake. The most spectacular of these
areas is "The Ridges" partially developed at the water's edge,
with much of the remaining area under private or public
protection. It is the mix of wetlands and ridges of dry land
that make this feature stand out. In some of the similar dune
structures the whole area is elevated further above the lake
and the wetlands are not permanently flooded. The following il-
lustration depicts a ridge complex.

Recommendations:

The Ridges area should continue to be protected by
ownership. Other areas will require protection of the up-
land portions of this feature in order to retain their
character. Because of the narrow nature of the beach ridge,
only very limited development should be permitted. Some
form of transferable development rights would be useful
here.
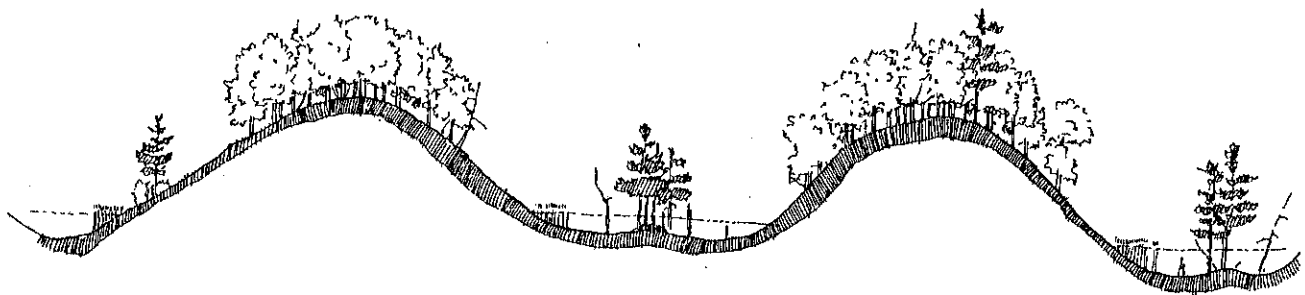
OLD BEACH DUNES

Drumlins: In Liberty Grove along County Z and ZZ there are a number of drumlins fine examples of drumlins that are easily viewed. Drumlins are found in other areas of the county as well. These glacial features provide an interesting change in topography that is rare in Door County. This resource is presently without any protection and some of their value has been lost due to insensitive road construction. The following illustration depicts this land-form.

Recommendations:

Drumlins tend to rise sharply from the surrounding topography; unfortunately, many in Door County are on section lines and now have roads going through them. These drumlins need rehabilitation. When development occurs, roads should be rerouted where possible, otherwise roads should be raised to minimize the depth of the cuts through the drumlins. Landscaping can help to emphasize drumlins in the open areas and should be encouraged. If developed, homes should be built within woodlands or the entire drumlin replanted to hide the new construction.

DRUMLINS

Spatial Qualities

While it is clear that major land-forms structure the visual landscape, the effect of land-forms may be highly modified by vegetation and man-made barriers. The land is viewed from a number of locations. First, homeowners try to capture views from the windows of their homes. This is a self-centered objective that often provides spectacular views for the resident, but damages the views available to the general public. An example is a home on a bluff which provides a spectacular view, but destroys the qualities of the bluff for other viewers. Second, much of Door County's landscape is experienced from a car. This limits the viewer's vantage point to the roads and selected viewing points. Lastly, the landscape is also experienced on foot, skis, bike, or horseback. Views are provided either along marked trails or through total freedom of movement. The major orientation of this paper regards the view from roads, although the principles discussed herein are applicable to all situations.

Landscape spaces can be defined in the following classes: interior, tunnel, canopy/edge, enclosing, screened, defined, framed, hidden, undifferentiated, and panoramic. It is essential to relate these classes back to the types of community character discussed earlier. Landscapes are rural areas. Buildings are foreign intrusions in the landscape, and although many of these terms could, in fact, be used to define built spaces as well as rural spaces, the essential scenic resource must always have a rural character, or its qualities will be lost.

Interior: This landscape occurs in a forest, with little in the way of directional guidance. The individual is surrounded by the forest on a winding path or road so that the view is continually changing. The density of the forest tightly confines the view to foreground and some middle-ground elements. There is no horizon; in fact, the forest canopy acts as a roof. This landscape is found within parks or other forests and not on roads. The following illustration depicts this type of space.

Recommendations:

Protecting interior spaces requires development that occurs within woodlands to use the smallest possible building footprint. Regulations are needed that control the degree of clearing that can take place in the woods. Thus, taller structures should be permitted and one story homes that maximize clearing should be discouraged.
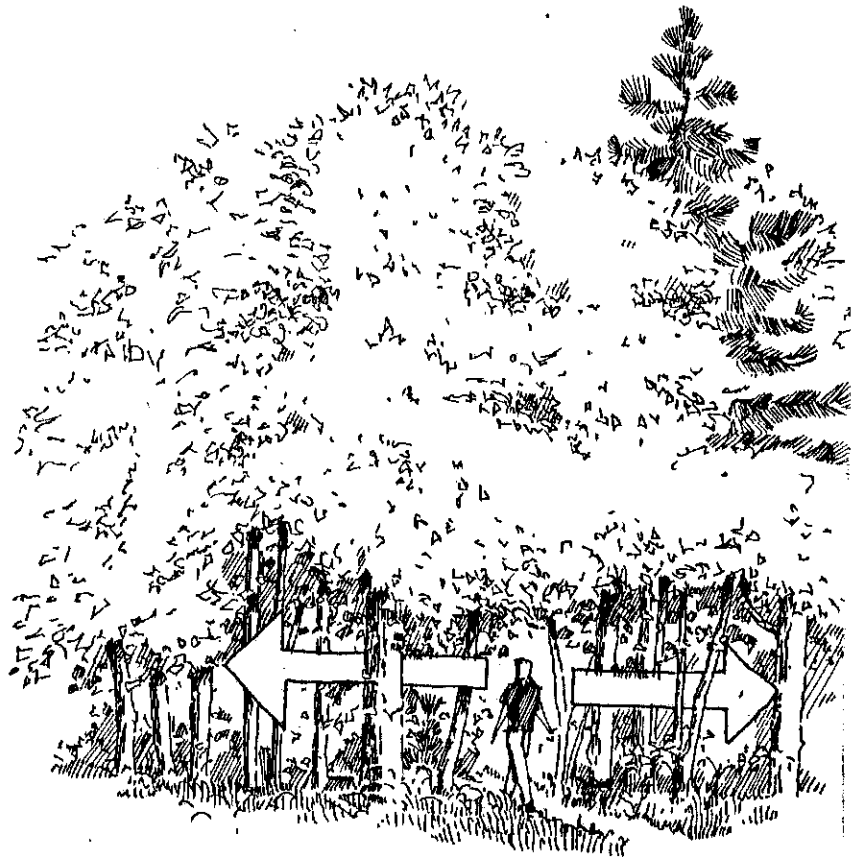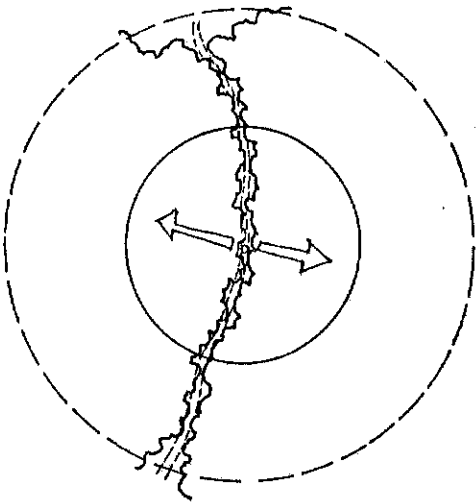
INTERIOR

Tunnel: This type of landscape occurs in forests where there is either a road or a clearly defined pathway.   This space provides a clear sense of direction for the viewer along the axis of travel.   The forest density confines views and there may or may not be a horizon, depending on whether or not the forest canopy covers the road or path.   There are a number of such views along the eastern coastal roads of the county.   Particularly good examples are the road from Gills Rock to Northport and the road in Peninsula State Park between Nicolet Bay and Tennison Bay.

There are two tunnel types found in the County.   The classic tunnel occurs where the trees completely over reach the road and provide a roof or partial roof.   There are many other areas where either the type of trees, evergreens for example, are unlikely to ever cover the road.   In other cases, the highway or utility companies have cut back the edge of the woods so the trees are too far apart to ever effectively enclose the road. Both types provide a sharp contrast with the open spaces.   The following illustration depicts this type of space.

Recommendations:

The major policy for the preservation of tunnels should be to avoid strip-type development and require large setbacks. The fewer drives reaching the tunnel the better.   In areas where there is heavy development pressure, the utility companies should place their lines underground so that the tunnel effect can be maintained.   Current practice results in the destruction of the classic tunnel formation.   Where wide clear right-of-ways already exist, developers should work with the County and utility companies to get more vegetation near the edge of the road.

TUNNEL
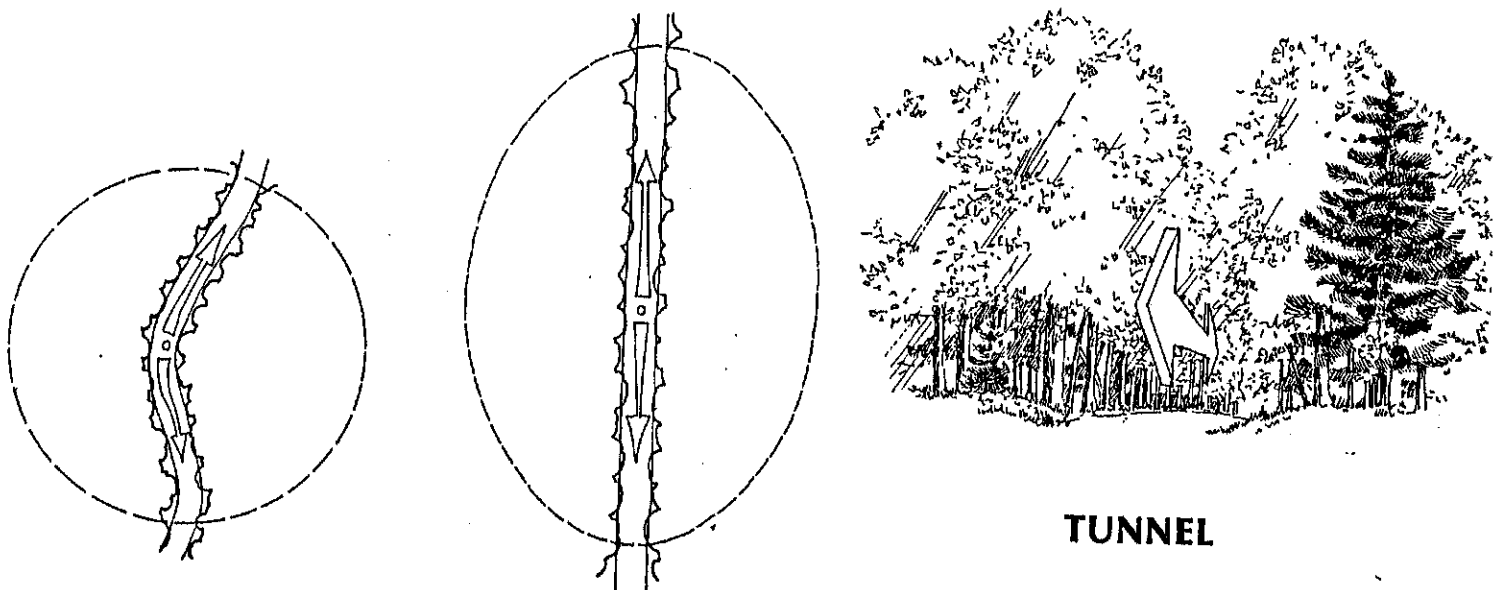
Canopy/Edge: This space occurs at the edge of the forest. Here, the road or path is close enough to the edge of the forest to permit views into the surrounding area. This effect occurs along a wooded shoreline. It can also occur in the interior of the county, wherever the forest opens up enough to permit at least a limited view of the horizon. It is a favored form of landscape. First, it treats the eye to two different landscapes --creating increased variety and interest. The forest canopy also acts as a frame for the exterior features which enhance the views. It provides visual contrast by providing views from a uniform environment. The following illustration depicts this type of space.

Recommendations:

The edge environment is most sensitive, and there are two alternative policies. The first is a setback of 150 to 200 feet which would ensure the integrity of the forest edge. This is the preferred policy since it is simple. Where this policy is not feasible or practical, then the bulk of buildings, location of buildings, their height and architectural materials all need to be regulated. The standards would expect for low buildings that are small in scale, which would appear to sit under the forest canopy and not disrupt the forest edge. This second alternative requires far more detailed site planning reviews to enforce.
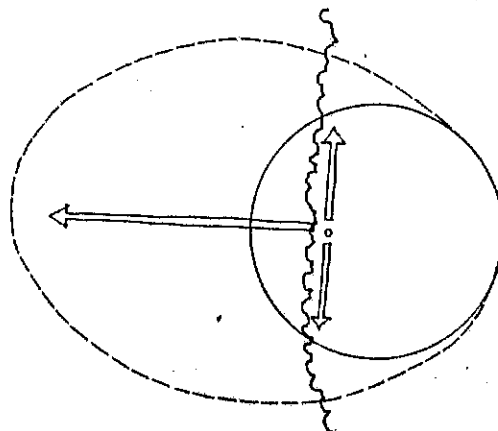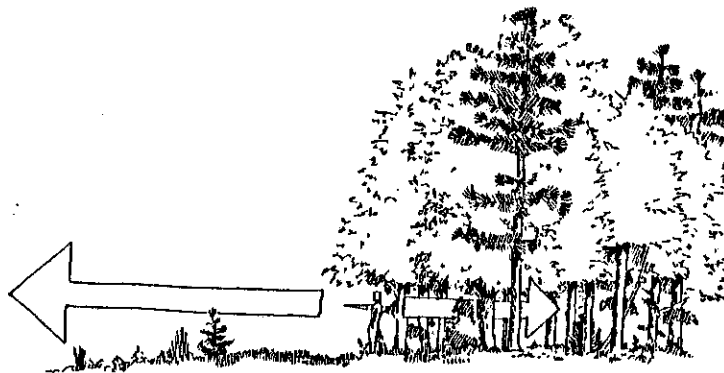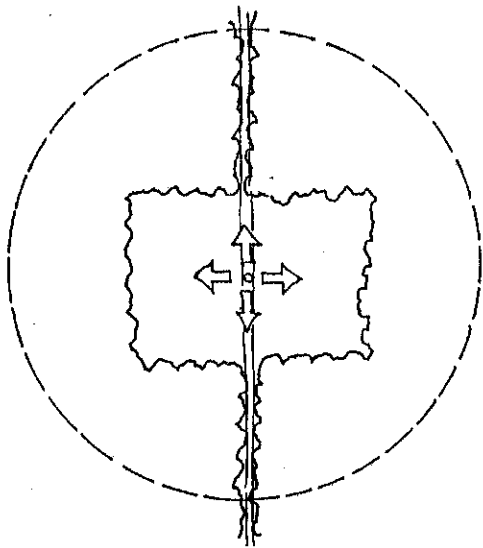

CANOPY/EDGE

Enclosing: This landscape is the natural equivalent to an urban space. Instead of buildings enclosing a square, forests enclose meadows, wetlands, or farm fields. It is a space that has sharp definition, as opposed to the three previous types of landscapes which are more apt to be a moving point on a path. The shape and size of the space are important. The shape can provide a degree of interest just as the shape of a square does in a town. The size of the space and the surrounding vegetation acts in the same way as does the D/H in urban design and determines the effectiveness of the enclosure. The quality of the space's floor and the interest created by the surrounding borders. The following illustration depicts this type of space.

Recommendations:

The space itself should be left undisturbed; development should be clustered in the surrounding woodlands. The enclosing woodlands should be treated as is any other edge. Clearly, the pattern of ownership will dictate what is possible. Where development cannot be moved into the woodlands, it should occur on the edges and extensive landscape screening should be required. There are exceptions: there are a considerable number of enclosing spaces that are invisible--they occur in the middle of woods. In these cases, development should occur within the enclosing space and leave the forest as untouched as possible.


ENCLOSING

Screened: This space often occurs along a road where trees in the right-of-way screen the view to the land beyond.   Like the canopy/edge space, it can be viewed in perspective where it defines a path of movement.   It also serves as a foil to the surrounding landscape.   The screen provides a foreground element that can enhance and add interest to the landscape feature in the background.   The following illustration depicts this type of space.

Recommendations:

This resource should be protected by limiting road improvements, requiring utilities to be located behind the screening trees, and by large setbacks to keep buildings in the middle or background of the view.   Where large setbacks are not feasible, additional landscaping/screening will be needed.
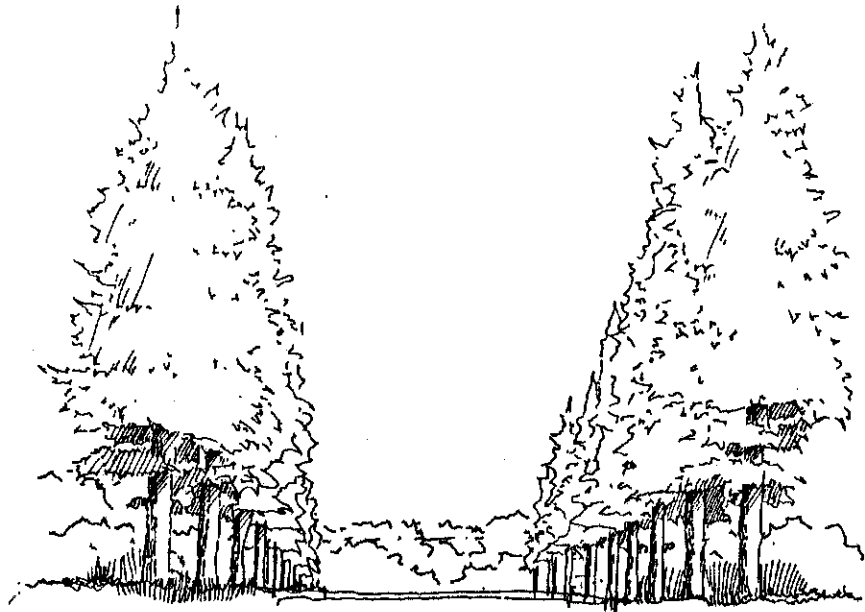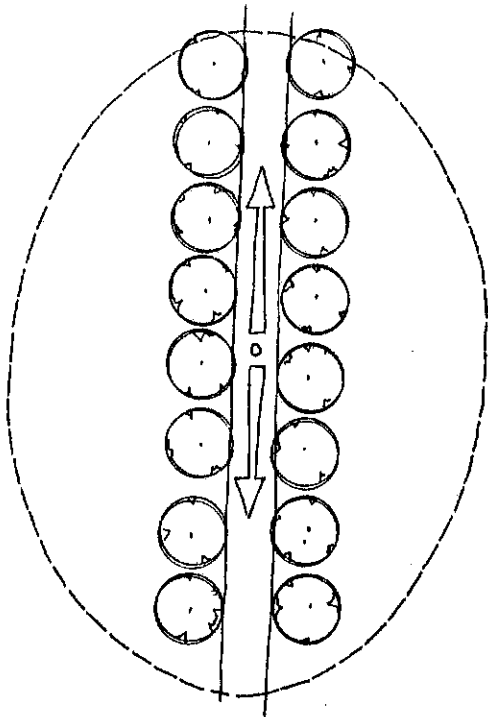

SCREENED

Defined: In this case the landscape is defined with edges which lack the amount of enclosure needed to create a space. This type of landscape flows as one moves through it. Contrast and different focal points within the landscape are needed to prevent monotony. While there is insufficient enclosure to create a specific space, there is a degree of definition to the space. The following illustration depicts this type of space.

Recommendations:

All the recommendations for enclosing spaces apply to defined spaces as well. But because defined spaces are much larger, there will clearly be many cases where buildings will have to be built in the spaces. Depending on topography and other site specific factors, there are a number of locational alternatives. In general, setting development in clusters, as far from the surrounding roads as possible, and then planting a heavy landscape buffer to screen the development from view is desired. However, topography should be used to screen the development wherever possible. Building heights should be one story to keep developments as innocuous as possible.
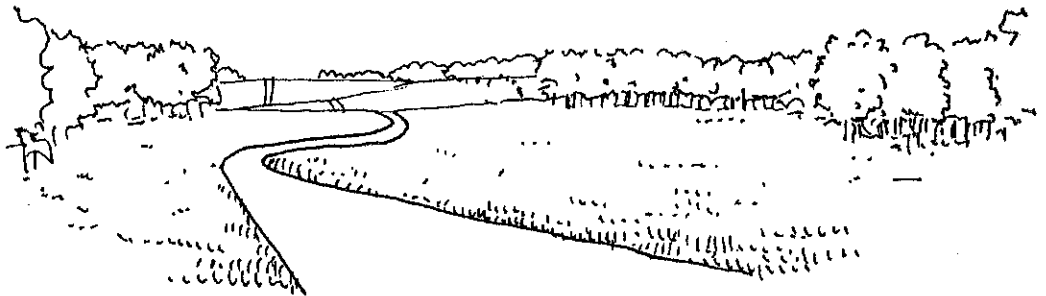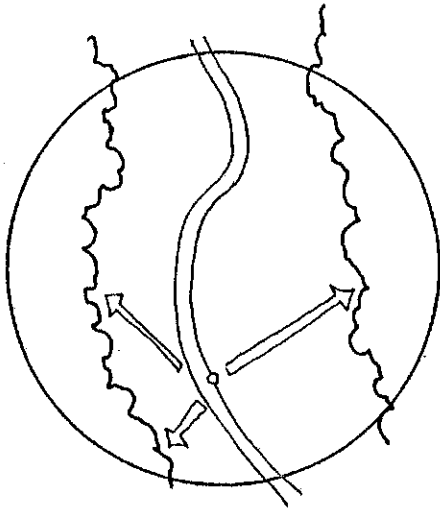

DEFINED

Framed: In this type of landscape there is a central focus, and other elements in the landscape frame or direct the vision to this central object. Looking north from the Kangaroo Lake, a hill is framed that provides the needed focus for the landscape which makes it more interesting than the southern view from the same point. This landscape element can also work in areas approaching an urban character. For example, a view of Ephraim is framed coming down the hill on Route 42. These can be among the more important landscapes because of the ability to focus on a particularly important view. The following illustration depicts this type of space.

Recommendations:

These are unique views and should be preserved in their present form. Public acquisition or TDRs are the preferred techniques. If these techniques are not feasible, then only low density should be permitted, plus full architectural and scenic review should be required.
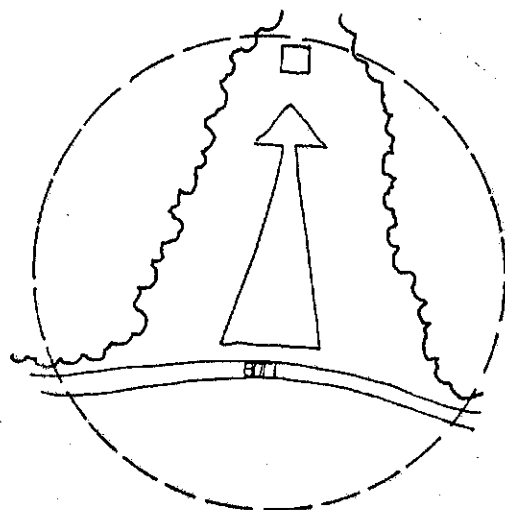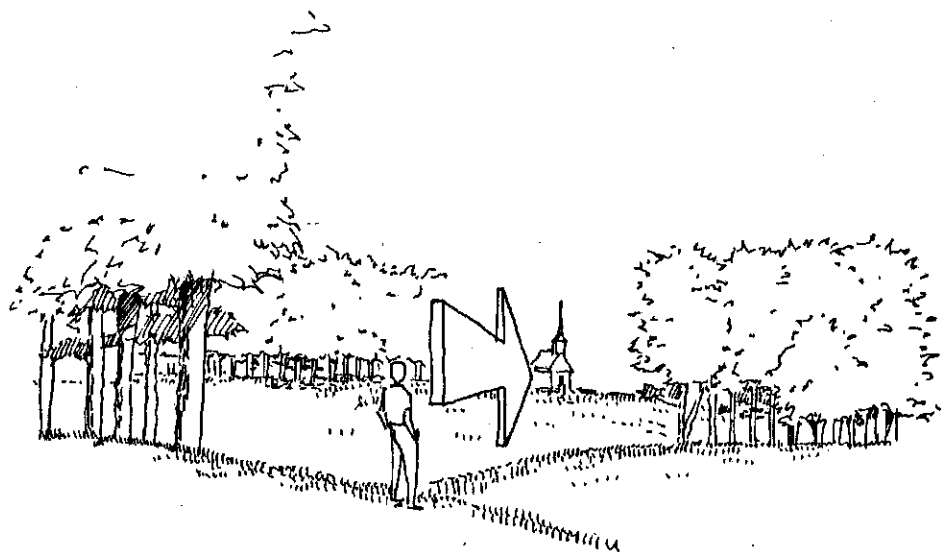

FRAMED

Hidden: This is among the most complex type of spaces, in that it implies the linked organization of at least two spaces. The first space limits the view into a second space that is beyond. Furthermore, this space requires that the revealed space is evident only from that particular vantage point and screened from view from other locations. This feature provides interest by surprise, and creates a depth of space that adds to the interest. The following illustration depicts this type of space.

Recommendations:

While both the hidden space and the space through which is viewed should be treated as enclosed or defined, and follow those rules, hidden spaces should have a visual axis plotted that defines the areas of the space that are, in fact, visible. That land, in the visual axis, should be left free of development.
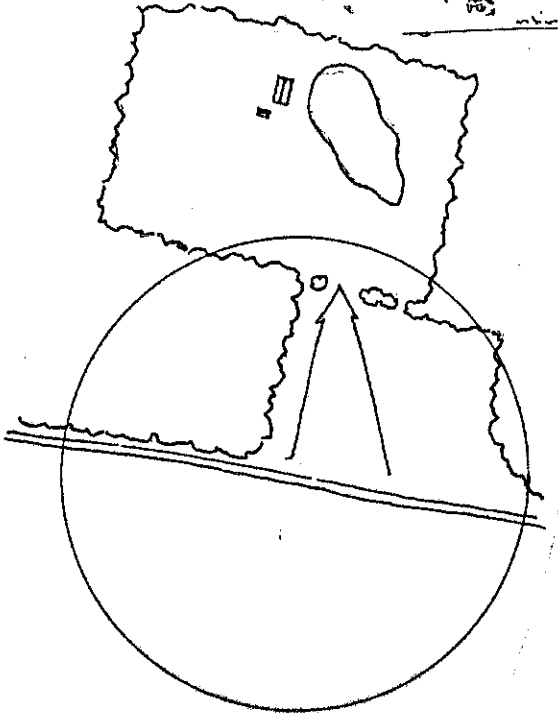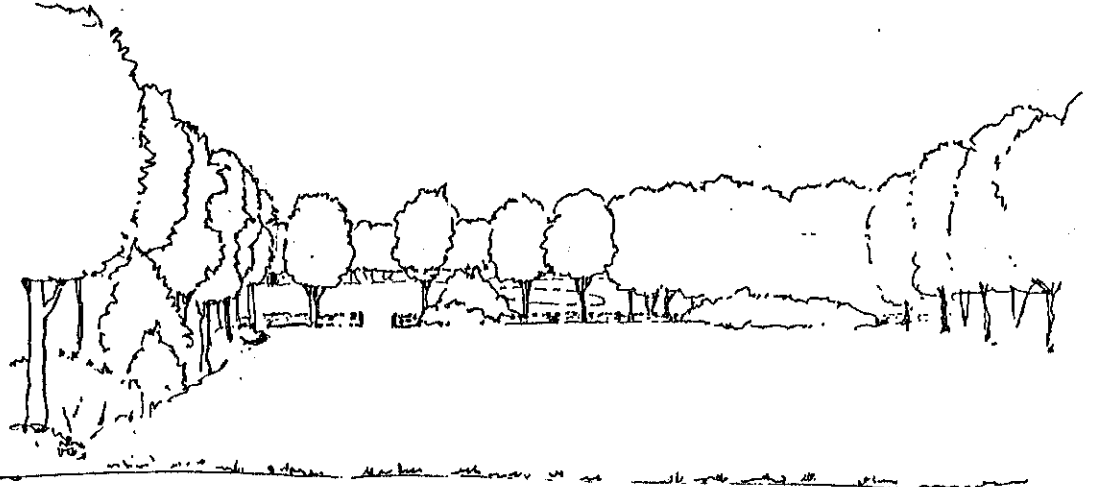

HIDDEN

Undifferentiated: These spaces do not have any real boundaries short of the horizon. They are, except in unusual conditions, indistinct. The lack of trees, topography or structures to define space tends to make such views meaningless. The exception is the approach to hilltops where the view up at an open hilltop provided a needed focus. Even in this case, foreground elements that frame or expose a view through movement are important.

Recommendations:

First of all, development in these areas should be rural. Nearly all development in undifferentiated areas will be highly visible because of the open character of the landscape. In these open environments clustering, large setbacks, height restrictions, buffering, and landscaping requirements should be provided. The rural zoning would take most of the pressure off these areas; if higher intensities are permitted, the process of preserving the areas' character will be much more difficult and expensive.
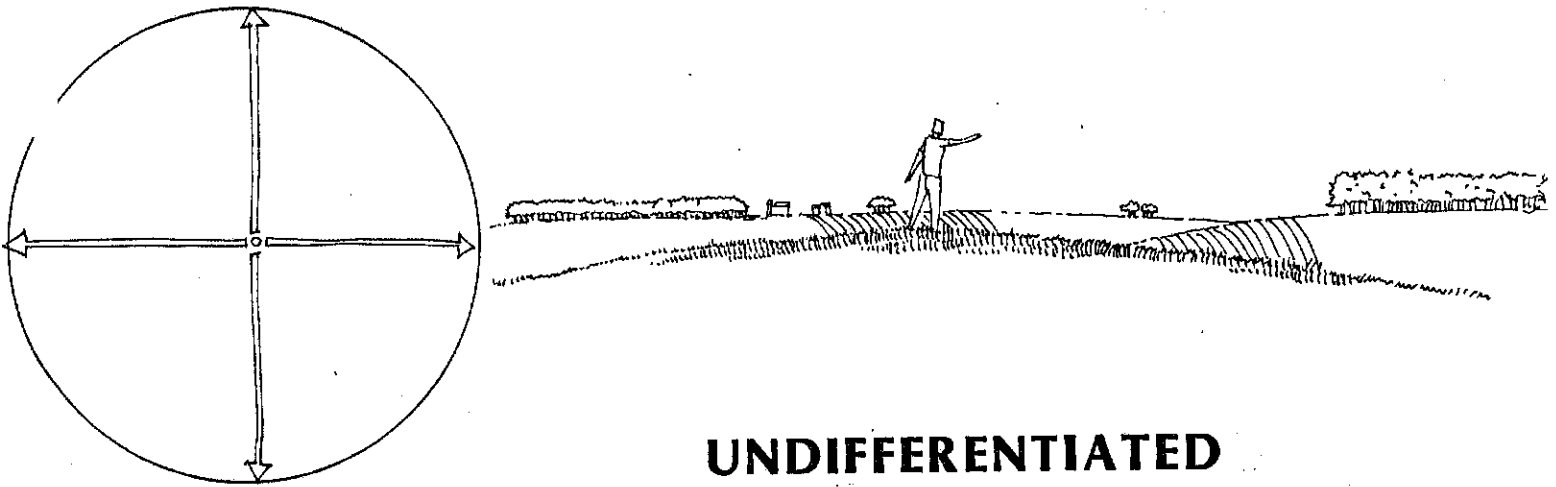

UNDIFFERENTIATED

Panoramic: These are places where the viewer is elevated so as to have a view placed in front and below.   There are panoramic views that have a focus.   Something special is in the middle ground of the view, the types of panoramas that occur where the viewer overlooks a bay or town.   Others maybe completely unfocused, the viewer simply looks out over the Bay or farm land. Panoramic views are among the most important spatial situations that exist in the county.   All of these types of space exist in Door County.   Unlike the rooms in a building, the spaces of nature are continually changing as we move through them, or even change the direction of our view.   One of the important issues will be the ability of the County to create, protect, maintain, and provide a linked series of views which create a scenic road or corridor.

Recommendations:

This is the most difficult of all spaces to control. From a viewing point, development in the foreground can destroy the view by making the view point unattractive. Similarly, insensitive development in the panoramic view can destroy the quality of the view.   In general, will require detailed on-site analysis tailored to each view. Buildings should be kept well away from viewing points and heavily screened with vegetation so the frame of the view is not disrupted.

PANORAMIC

Lane Kendig, Inc.   54   April 12, 1988
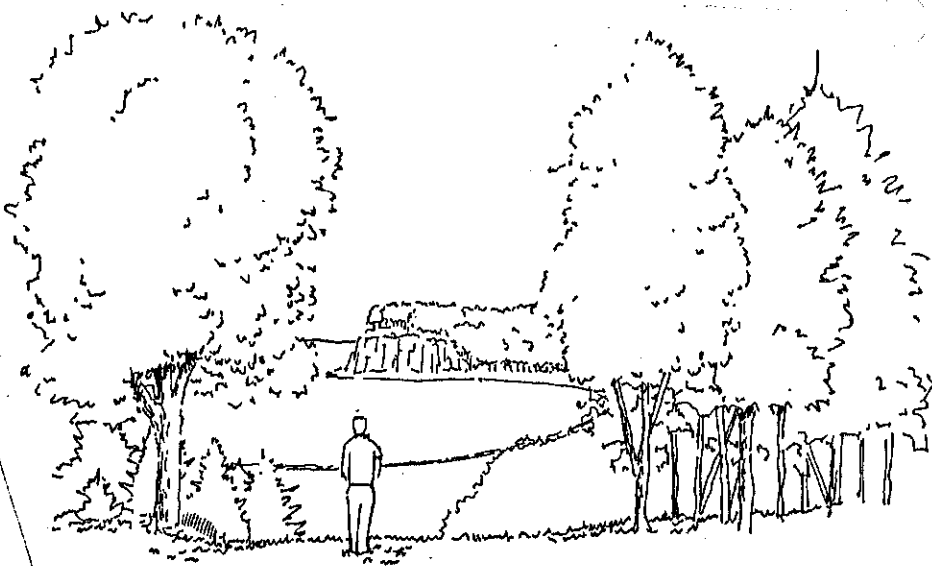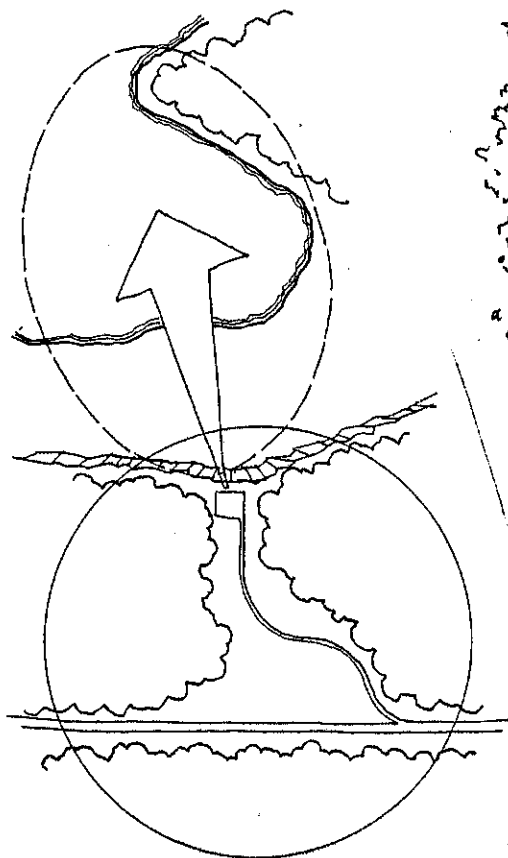
Community Character Type Land Use Assignment

Using the terminology discussed earlier in this paper, communities can be classified by their community character type. Urban, suburban, and rural character types, as well as their subcategories, can be identified. This kind of analysis has been performed for Door County, and classifications have been applied to individual properties in order to plot the existing character of the county and each of its towns. Under this system, most uses would be assigned only one of the three classifications. Figure 10 lists the assignments which have been used for Door County.

Figure 10

Land Use Character Assignment

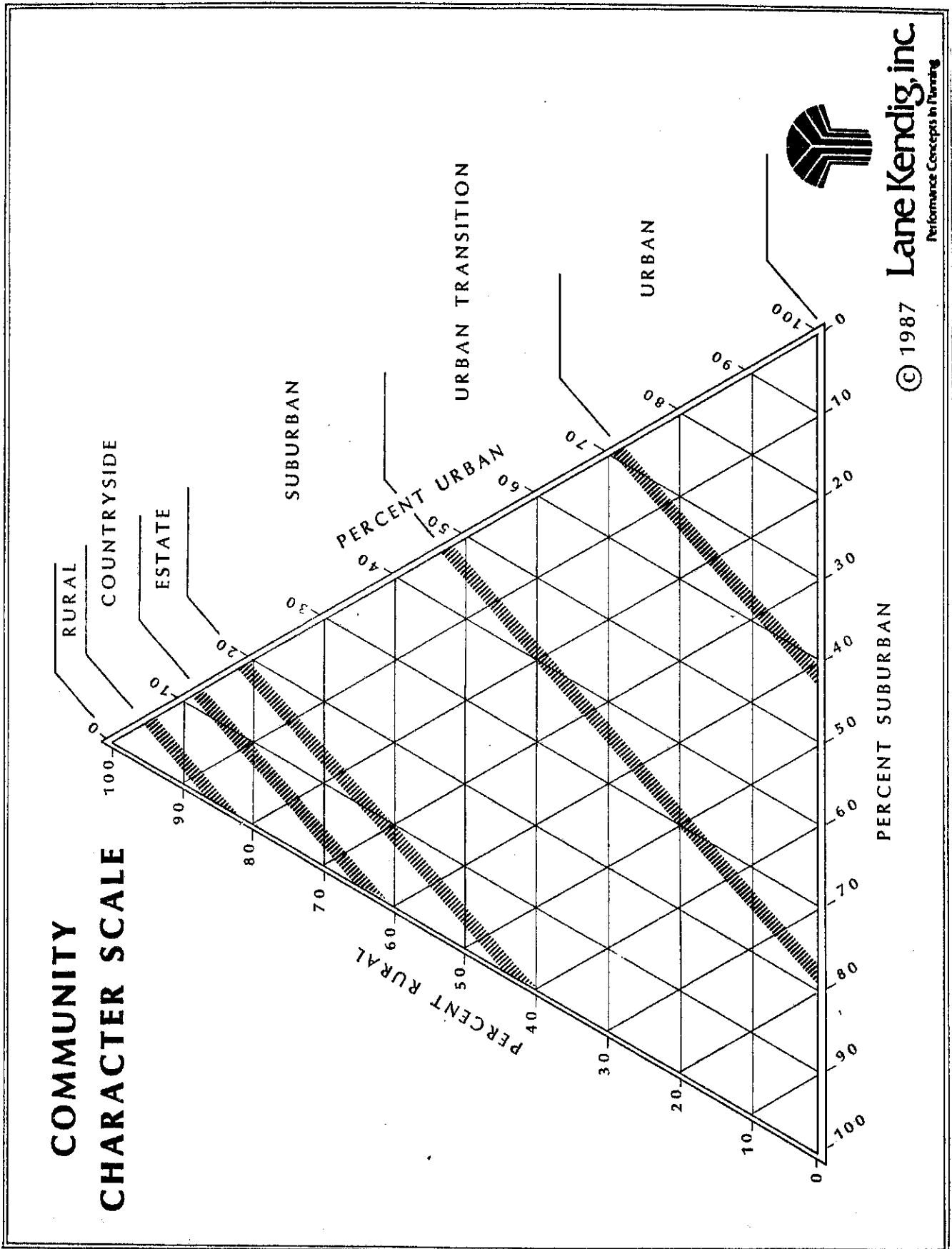| Type of Character	Land Uses
Urban	Commercial, shopping centers, industrial, offices, institutional buildings, other intense nonresidential uses, townhouses, condominiums, apartments, single family units on lots of less than 8,000 square feet.
Suburban	Single family residential on lots in excess of 8,000 square feet, low density institutional uses, athletic fields, and cemeteries.
Rural	Woods, fields, wetlands, open water, and parks.

The Community Character Scale

The major problem in community character analysis is to quantify character in a manner that takes the subjective out of the analysis, and places the analysis into an objective framework. The community character scale achieves this goal.

The community character scale is a version of the triangular diagram engineers use to classify soil types. It is a graph upon which the percentages of three different components can be plotted. Figure 11 shows the community character scale with no information plotted. Each corner of the diagram represents the point at which the study area is completely comprised (100%) of a single character. The scales along each side of the triangle permit easy plotting of the percentage of any one of the three types of character. The seven types of community character divide the triangle into six character areas. (For the purpose of

this analysis, urban core and urban characters occupy the same portion of the community character scale.)
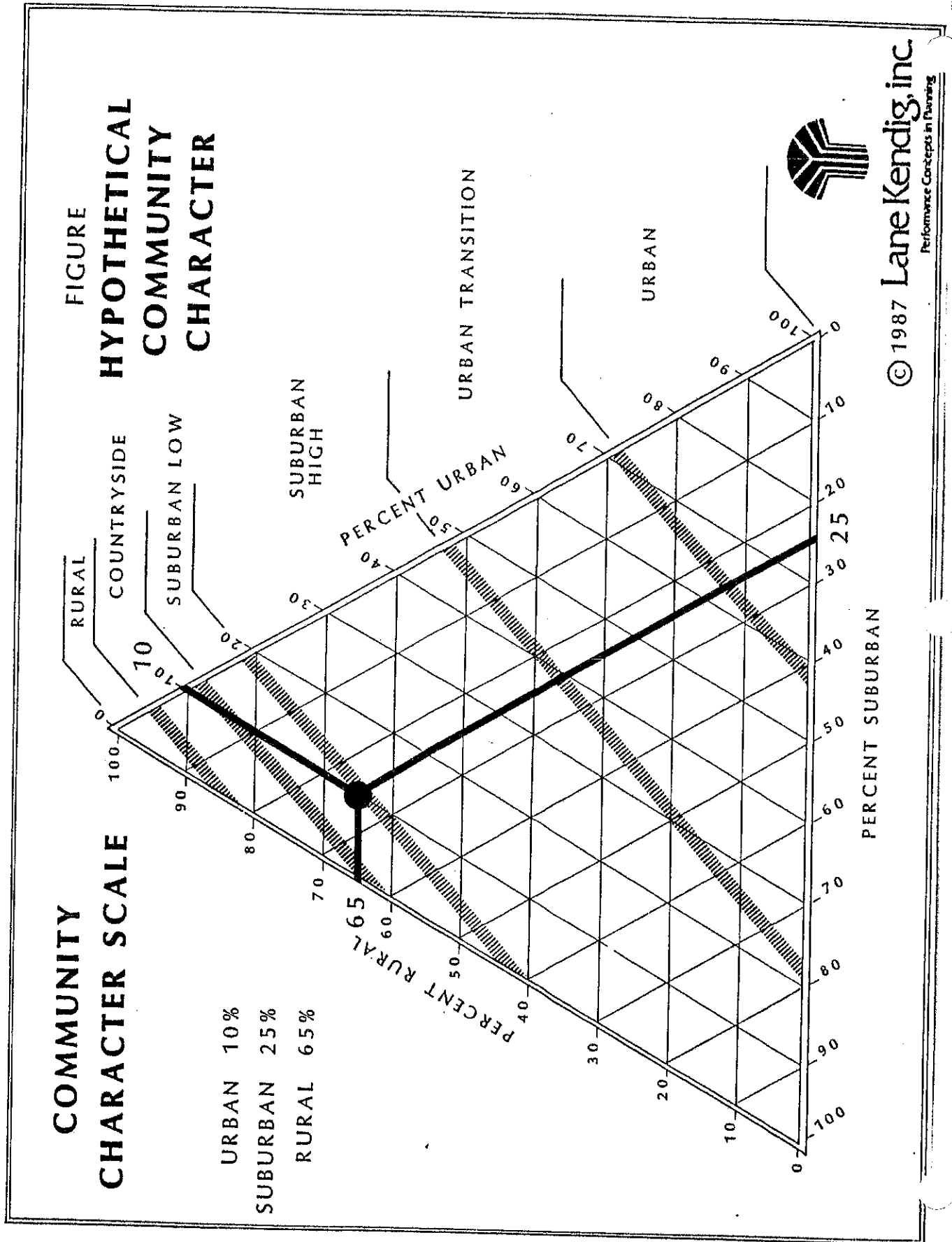
In order to use the community character scale, the percentage of an area that is urban, suburban, or rural must be known. Figure 12 illustrates a hypothetical area that is 65% rural, 25% suburban and 10% urban.

Figure 11

COMMUNITY
CHARACTER SCALE

RURAL
COUNTRYSIDE
ESTATE
SUBURBAN
URBAN TRANSITION
URBAN

PERCENT URBAN
PERCENT RURAL
PERCENT SUBURBAN

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Performance Concepts in Planning

Figure 12

FIGURE
HYPOTHETICAL
COMMUNITY
CHARACTER

COMMUNITY
CHARACTER SCALE

URBAN 10%
SUBURBAN 25%
RURAL 65%

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The community character scale is useful not only to plot exist-
ing character, but to predict possible future character. Since,
in most instances rural, is assumed to be vacant developable
land, all possible futures lie below the existing character
point (Figure 13). If all future development was suburban in
character, then the graphing of future character would proceed
along a line parallel to the left-hand side of the community
character scale. Purely urban development would proceed paral-
lel to the right-hand side of the triangle. Any land to remain
rural would create a bottom limit to possible
changes in character.

Figure 13

COMMUNITY CHARACTER SCALE

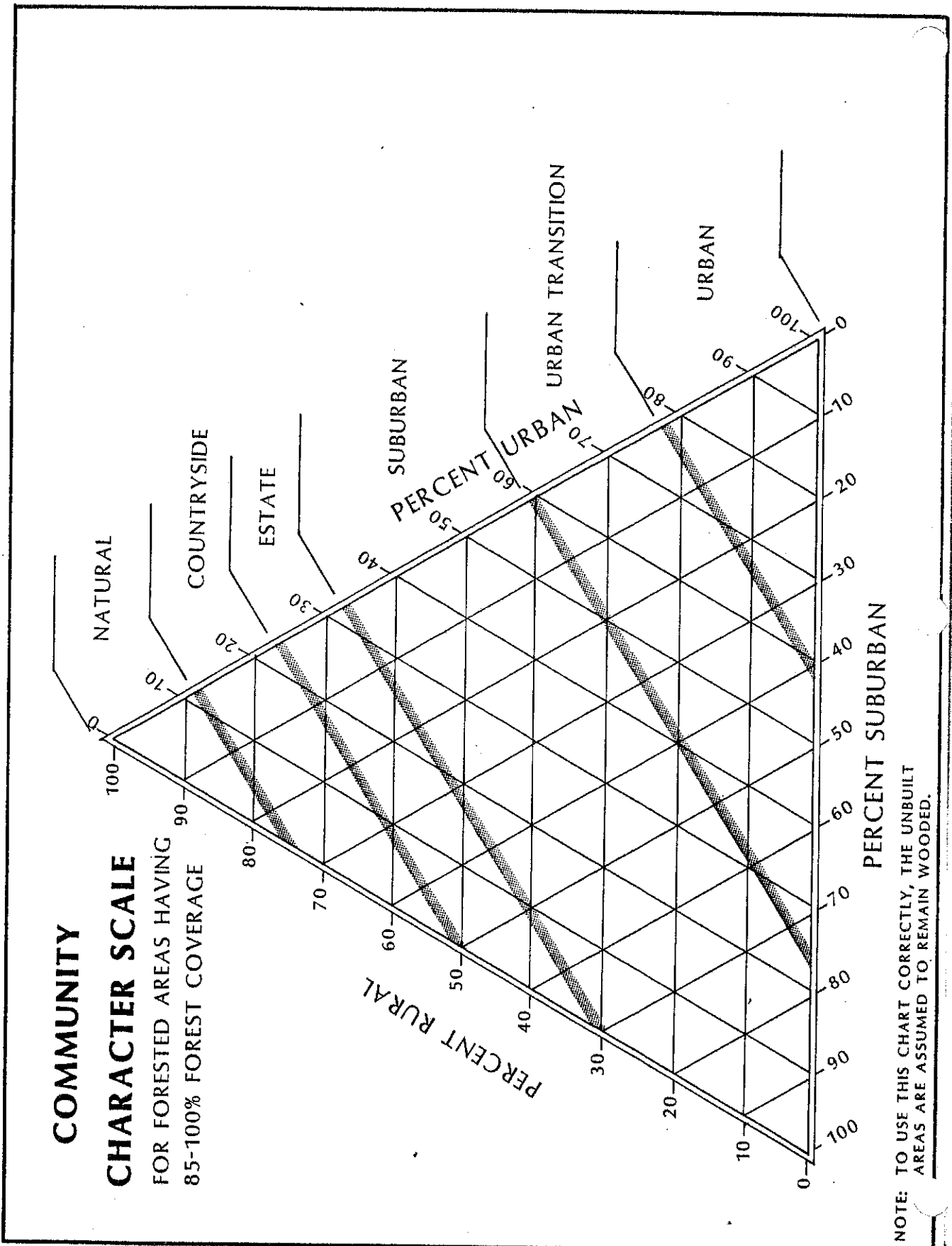HYPOTHETICAL POTENTIAL COMMUNITY CHARACTER
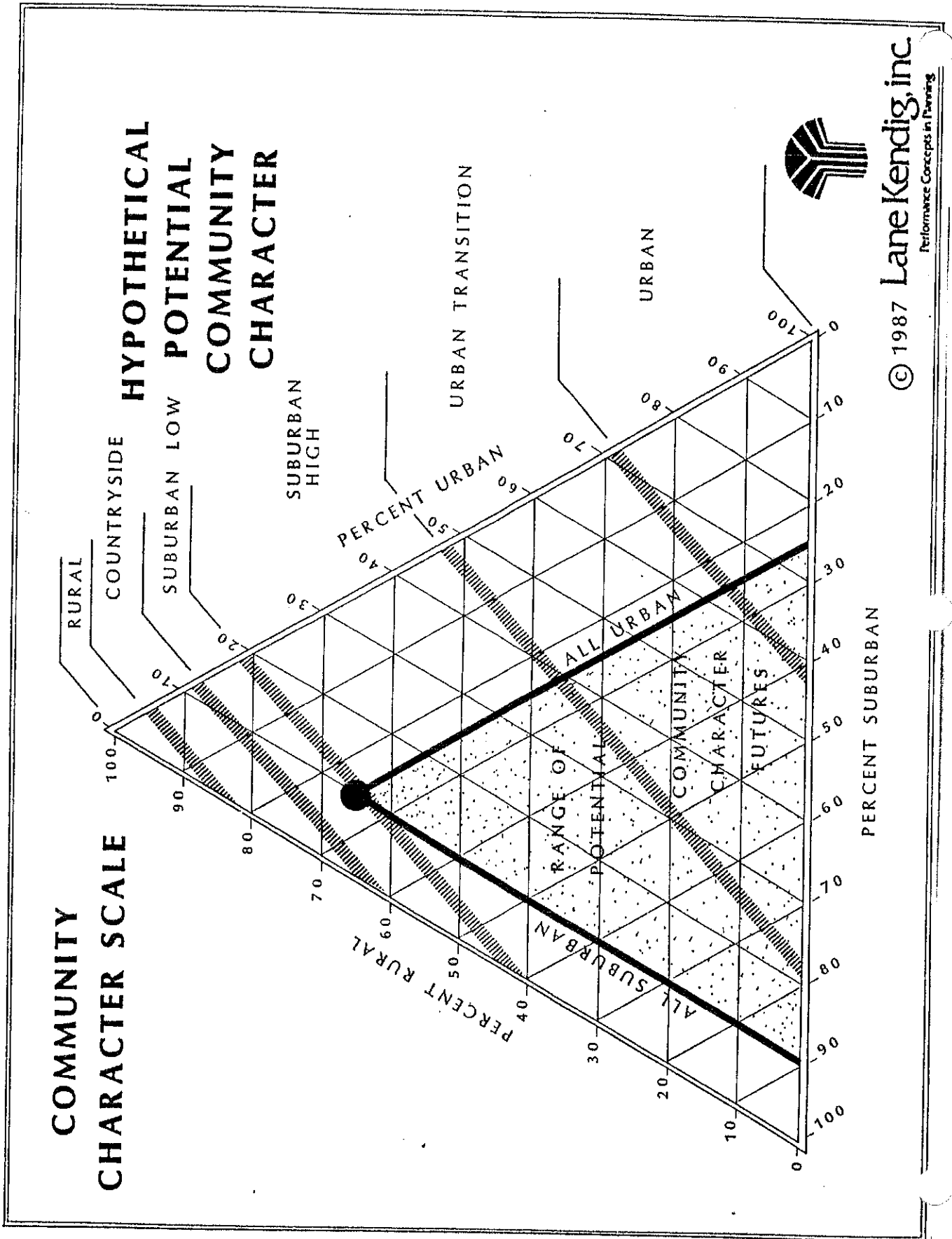
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Performance Concepts in Planning

The scale used to this point has been one which provides for
large amounts of open field or farmland in the rural areas. In
an analysis of an area that was mostly forested, the trees re-
sult in a different form of character at some places on the
scale.   Figure 14 is an alternative form of the scale.   It
should be used only for small areas where the forest cover in
open areas is at least 85 percent.

The reason the scale changes is the trees introduce a vegetative
mass that reduces the impact of development visually.   As the
amount of development present increases, the buffering effect
declines to the point where the normal diagram and the forest
diagram are the same.

Figure 14

COMMUNITY
CHARACTER SCALE
FOR FORESTED AREAS HAVING
85-100% FOREST COVERAGE

NATURAL
COUNTRYSIDE
ESTATE
SUBURBAN
URBAN TRANSITION
URBAN

PERCENT URBAN
PERCENT SUBURBAN
PERCENT RURAL

NOTE: TO USE THIS CHART CORRECTLY, THE UNBUILT
AREAS ARE ASSUMED TO REMAIN WOODED.

Analysis of Door County's Existing Type of Character

The distribution of the types of community character in Door County has been calculated from a detailed analysis of the County compiled from air photos, topographic maps, ground surveys, and local knowledge.

Some development has occurred since the date of the source material, so the actual character present for any given area may be slightly less rural than indicated here. The character of the entire County and each of the towns is listed in Figure 15 and shown in Figure 16.

Figure 15

Community Character Type
Door County and Each of its Towns

TOWN	AREA IN ACRES	% URBAN	% SUBURBAN	% RURAL	COMMUNITY CHARACTER
Bailey's Har.	19,015	<1	1	99	rural
Brussels	22,367	<1	1	99	rural
Clay Banks	9,230	0	2	98	rural
Egg Harbor	24,498	1	5	94	rural
unincorp.	23,913	<1	4	96	rural
Egg Harbor	576	17	29	54	suburban
Forestville	22,905	<1	2	98	rural
unincorp.	22,905	<1	1	99	rural
Forestville	384	5	27	68	estate
Gardner	21,734	1	2	97	rural
Gibraltar	20,263	2	4	94	rural
unincorp.	17,831	1	3	96	rural
Ephraim	2,432	7	13	80	countryside
Fish Creek to Ephraim 42 corridor	906	22	27	51	suburban
Jacksonport	18,404	<1	2	98	rural
Liberty Grove	34,280	1	6	93	rural
unincorp.	32,616	<1	6	94	rural
Sister Bay	1,664	15	19	66	suburban
Sister Bay to Ellison Bay 42 corridor	1,055	2	15	83	countryside
Ephraim to Sister Bay 42 corridor	620	32	24	44	suburban
Nasewaupee	28,198	1	1	99	rural
Sevastopol	33,961	<1	3	97	rural
Sturgeon Bay	19,281	7	8	85	countryside
unicorp.	19,281	1	6	93	rural
Sturgeon Bay	6,720	20	11	69	suburban
Union	13,703	<1	1	99	rural
Washington	15,405	4	4	92	rural
DOOR COUNTY	303,619	1	4	95	rural
unincorp.	291,843	<1	4	96	rural

Figure 16

COMMUNITY CHARACTER SCALE
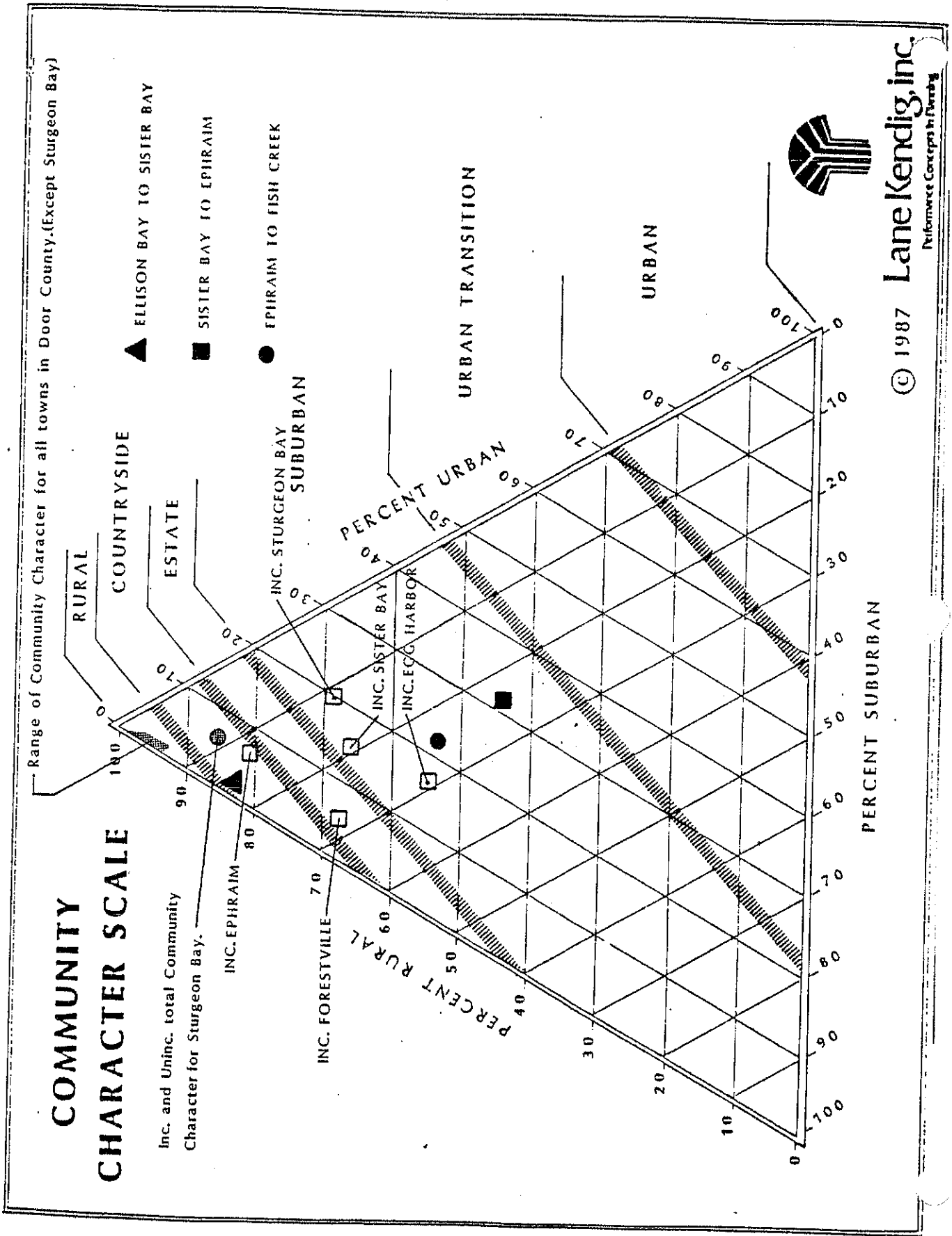
All of the towns still have a rural character. Even when the built-up incorporated areas are included at the town level, the County is clearly a rural county. There is sufficient development, however, that Sturgeon Bay has reached a countryside character level and can be expected to lose its rural character over the next 20 years.

A rural character is an essential element if the County's visual character is to be preserved. With so much open land, why are the County's citizens worried about threats to the County's character? Few people experience the character of a township as a unit. The character of selected road segments along Route 42 quickly demonstrates the cause of concern. Nearly every tourist that comes to Door County drives from Sister Bay to Egg Harbor at least once. Many Door County residents travel these roads daily. The character of these road segments--the character determined by the land uses within 1000 feet of the road--presents a very different picture of the County than a rural county. The following road segment characters have been observed:

Fish Creek to Ephraim	Suburban
Ephraim to Sister Bay	Suburban
Sister Bay to Ellison Bay	Countryside

Unless drastic action is taken now, all three of these areas will end up with an urban form of character. Worse yet, these segments destroy the rural character of the villages which, until recently, was ensured by the surrounding open spaces. Despite the urban and suburban character of the built-up areas within the villages, there was sufficient open land around to preserve the rural character of each village. From Fish Creek to Sister Bay, the villages are now linked together as highway-oriented suburban communities. Thus, the villages lose not only their individual character, but also become different forms of development--a sprawling suburban form rather than three separate communities.

Similar damage has occurred to a lesser degree along the County's shoreline. This development has been either at the suburban or estate character level. Although the development has been mostly limited to the water side of the road, and trees have been preserved that limit the visual impact of the development, the linear nature of the development makes it more visible and more destructive than would have been the case if development of the same magnitude had been clustered.

Implementation

Major implementation issues are covered in issues paper Number II, Resource Protection. The discussion here is intended to define more closely the type of strategies and techniques that are essential to community character and visual resources preservation. There are significant differences between the form of regulation needed for the protection of visual resources and regulations used in protecting other types of resources.

First, the County government must recognize that community character represents the only sound basis for preserving the essential character of the County. The rural and scenic resources in conjunction with quaint villages are the magnets that attract people to Door County. Preserving visual resources is patently impossible if general governmental policy permits these areas to develop in urban or suburban modes. Thus, although this section discusses specific design techniques which can be used to promote the desired visual character, understanding that they operate within two major constraints is important.

Secondly, the types of controls used to preserve visual resources are different from those used for natural resources or agriculture. The actual location of development in the landscape is critically important when dealing with a visual resource. Open space ratios or lot size requirements alone are therefore inadequate. Each of the techniques presented in this section is based on the design guidelines previously discussed for rural areas, whether their character be countryside, rural, or natural. While these techniques can be used in suburban areas to increase the quality of the environment, they preserve major visual resources only in settings having a rural development basis.

Lastly, design intervention is a positive tool. Using design controls results in an enhanced environment. An area with a marginal character may even be improved to provide a more mainstream character. Most environmental protection techniques use mitigation to offset damage caused by development. With visual resources, design can both mitigate the negative effects of development and enhance the quality of the visual resource.

Zoning

The first element for review is the basic underlying zoning needed. Crafting both conventional zoning and performance zoning (types of zones) that meet rural standards is possible. The main issue between them will be how flexible they are in also permitting development. Clearly, agricultural zones that meet the requirements of the Wisconsin Farmland Assessment Act will help preserve open or generally open land and, thus, the essential rural character of the area. Minimum lot sizes of from ten to twenty acres can be effective in wooded or largely wooded

areas in preserving the rural character with minimal additional design intervention. These lot sizes could be reduced somewhat if positive design reinforcement is used.

The following subsections are zoning techniques available which may or may not need to be reinforced with other techniques such as design-oriented elements.

1. Large and Very Large Lot Zoning

    Large lot and very large lot zoning, as detailed in issues paper Number II, are conventional zoning strategies that can play a role in the preservation of visual resources. There are limits, however, to the effectiveness of these strategies; there is an inverse relationship between minimum lot size and protection of the physical environment. These limitations are described in the following table.

    Conventional Zoning and Resulting Character:

Minimum Lot Size	Moderately Wooded	Slightly Wooded	Wooded	Open Fields
40 acre	Natural	Natural	Rural	Rural
30 acre	Natural	Rural	Rural	Rural
20 acre	Rural	Rural	Countryside	Countryside
10 acre	Countryside	Countryside	Estate	Estate
5 acre	Estate	Estate	Estate	Estate

In general, large lot zoning is effective only at the upper end of its 1 to 20 acre range. Its effectiveness is largely dependent on the amount of woodland present--the greatest impact being where the site is fully wooded. The chart makes clear the impact of mitigation strategies that would require reforestation of a property. The limits of large lot zoning must be kept in mind when determining the land use plan for the County. As a rule of thumb, it is easily possible to double these densities with extreme clustering.

2. Performance Zoning

    Performance zoning has several bases; first, the districts should be designed to achieve a specific character. Second, clustering is encouraged. At any specific density, clustering generally results in a more rural character than a conventional district of the same density. Lastly, performance zoning merges many specific design elements. Usually, performance zoning contains resource protection standards, buffering requirements rather than conventional setback regulations, and landscaping requirements.

    Nearly all performance zoning ordinances have environmental protection standards that require certain portions of a site

be left as open space; therefore, the ordinance also allows flexibility in using the remainder of the site for development. These elements are positive tools for a designer interested in protecting the resources of an area. And although performance zoning standards were conceived to protect natural resources, the approach is easily adaptable to protecting visual resources.

Door County does have special standards which it uses in areas with scenic resources or visual resources; the ordinances, however, are designed to achieve specific design objectives. The rigidity of such conventional zoning works against good design. Performance zoning was conceived to provide the designer with flexibility.

For visual resource protection, performance zoning standards can be used to steer development to those portions of a site that are best suited to development--portions that preserve the visual integrity of the site. Figure 17 shows several parcels of land having scenic resources. The elements that are to be protected are illustrated. In Figure 18 the type of performance standards that would achieve these goals are illustrated.
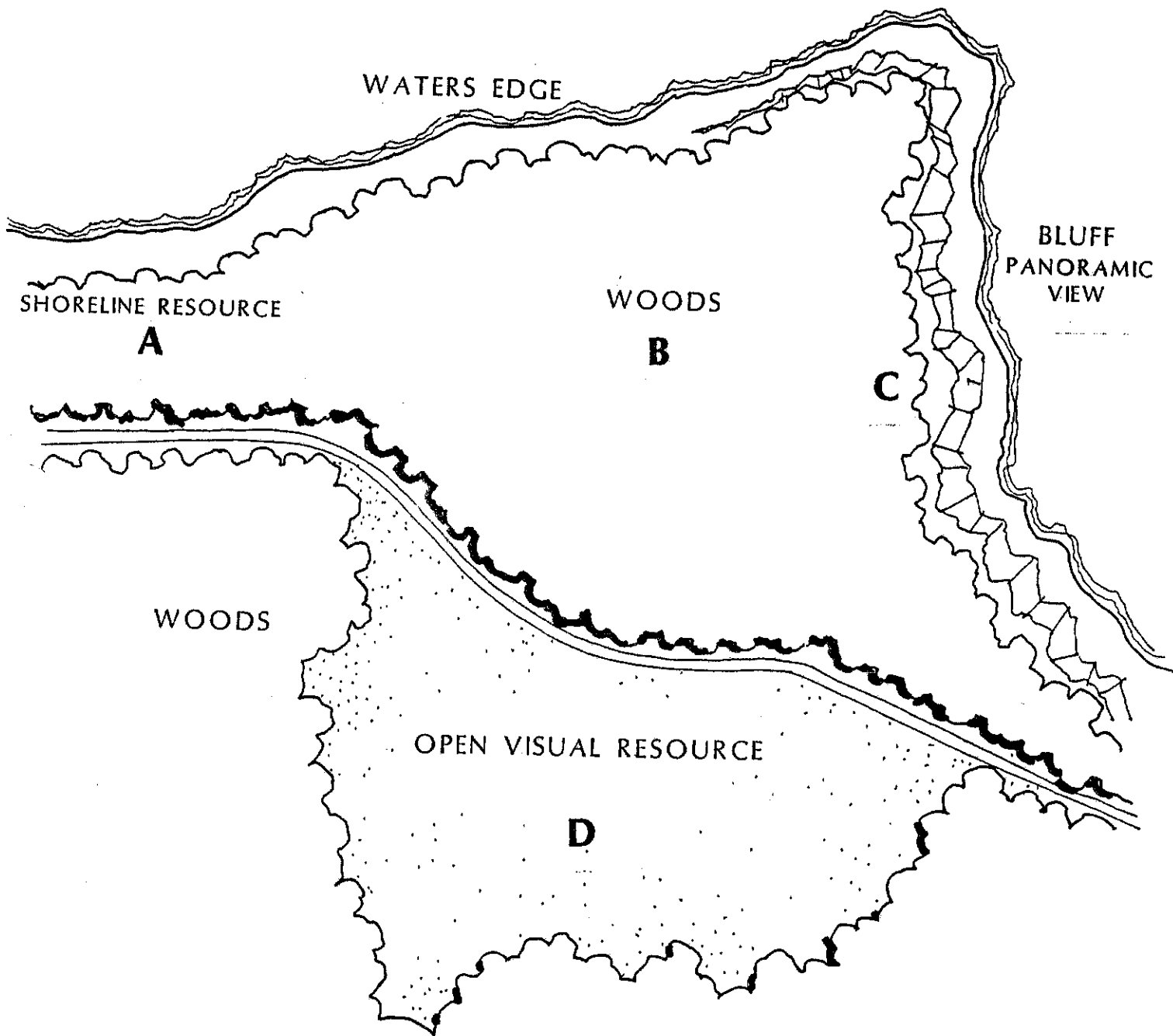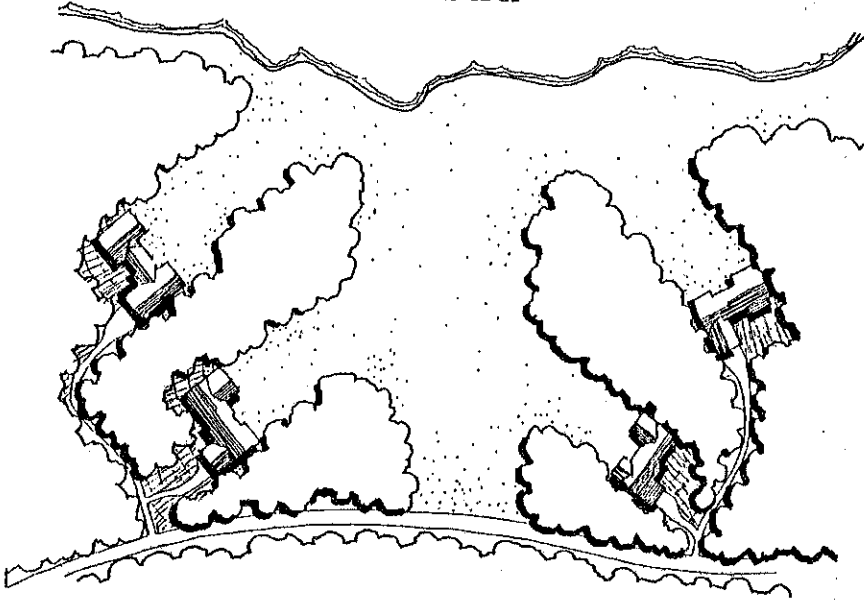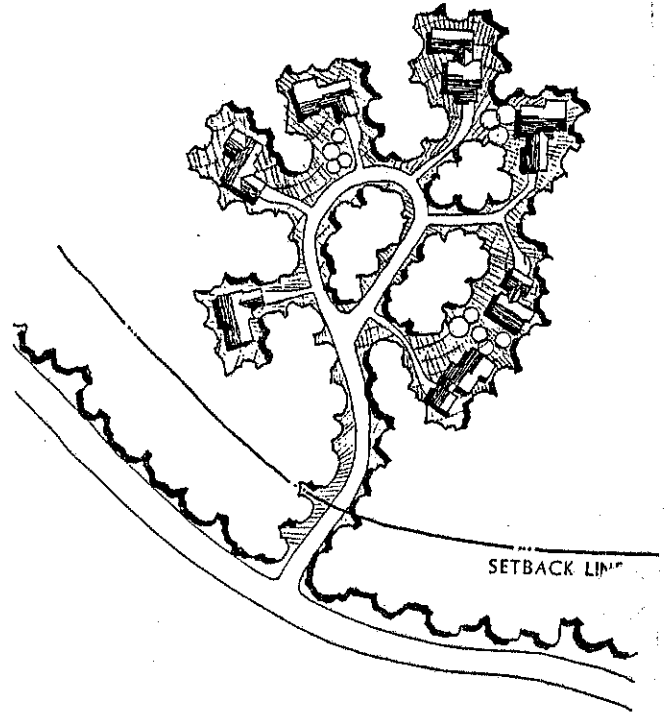
Figure 17

Existing Resources

WATERS EDGE

SHORELINE RESOURCE

A

WOODS

B

BLUFF
PANORAMIC
VIEW

C

WOODS

OPEN VISUAL RESOURCE

D

Figure 18

Performance Standards

A WATERS EDGE

B WOODS

SETBACK LINE

C BLUFF

D OPEN/FOREST EDGE

EXTEND WOODLANDS

HEIGHT AND COLOR LIMITATIONS
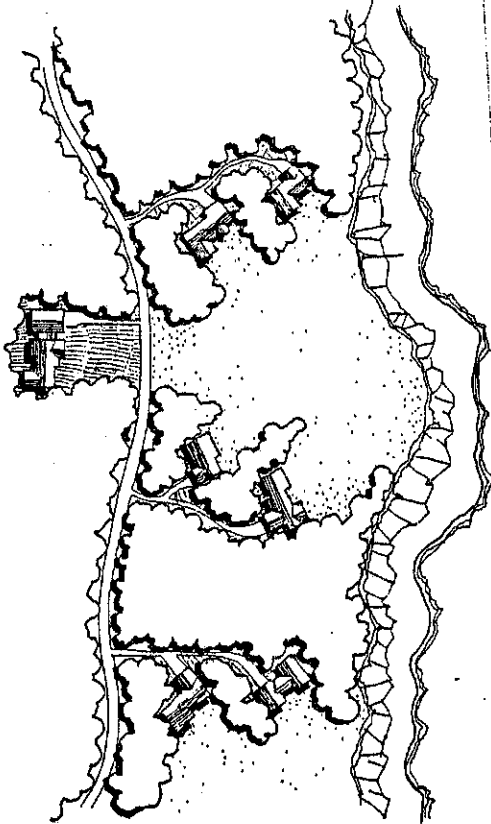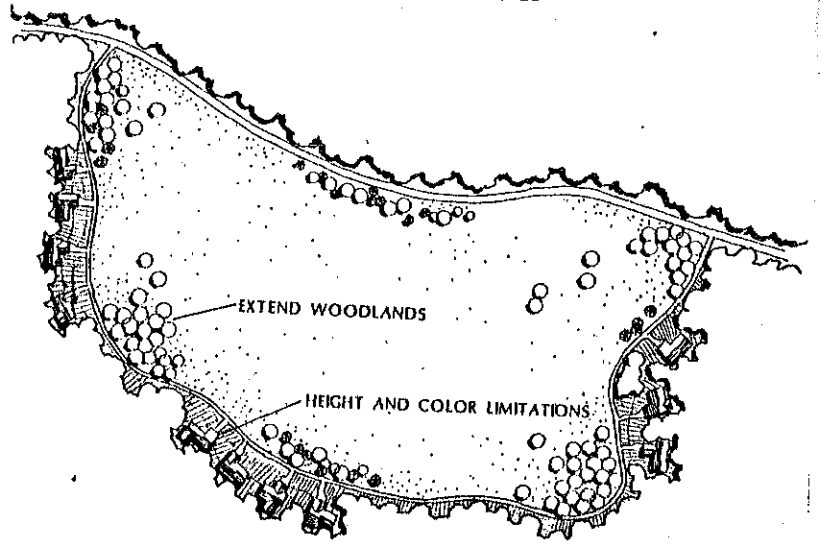
3. Conditional Uses

Some communities have zoned the entire jurisdiction at a low density, and then a conditional use permit is needed for any higher intensity use--residential and nonresidential alike. The major problem with using the conditional use permit is the lack of consistency achieved in issuing permits (see issues paper Number II). This problems is magnified when issues of design or visual resources come into the picture.

Human factors are partially responsible for inconsistency; aesthetic issues tend to be treated as a matter of personal preference. Everybody believes themselves to be an expert in design. Deferral to personal preference in areas of critical visual resources will ultimately lead to their degradation.

The other problem with this approach is that conditional uses are generally discretionary. That is, there is no certainty as to the outcome of a particular application. In Door County, there is considerable unhappiness in the development community with this process. One of the problems with discretionary reviews is that they can be used by citizens to obstruct projects. Concerns raised by citizens carrying more weight with elected officials than accurate technical information is not uncommon. With visual resources, this is a particularly difficult problem since there are very personal reactions that can be introduced. This places the developer at an even greater disadvantage. Very specific criteria should accompany the regulation so that it is clear, to both the developer and elected officials, when a project should be permitted to develop.

Design Review

In reaction to the inability of conventional zoning or conditional uses to deal with design issues, communities are beginning to explore the possibility of a design review procedure. Critical design issues are identified and a two level zoning and design process is used. The first level imposes standards, in the normal zoning sense, that are designed to have the effect of preventing the worse design excesses. Then, recognizing that this approach has limited ability to encourage superior design, a second level gives the planning commission the power to permit deviations, within specific limits, if the project meets specific design standards. Use of such standards would primarily be in areas where mitigation is needed. A land owner would be free to develop without mitigation by going through the first level of review. By doing so, however, the land owner would not be able to achieve the maximum density in the district. Only by going through the second level of review, with mitigation, would a land owner be able to reach the higher densities permitted in a district.

These new design standards are much more specific and precise than has historically been the case with density systems such as the Ft. Collins, Colorado ordinances. To date, all these regulatory efforts have been in rather urban types of areas. The same techniques, however, can be adapted to visual resources in rural areas.

1. Design Controls

Design controls for rural areas must aim at maintaining the landscape-quality of the environment. There are several obvious strategies. First, buildings should generally be in the middle or background; therefore, very large setbacks in conjunction with clustering should be used. Second, invisibility is a great visual tool. Buildings that are not visible cannot destroy the landscape; therefore, design regulations that require buildings to be screened from view, and control their height, scale, and color, can be used to reduce building visibility. The horizon is an important aspect of the rural environment that is sensitive to the frequency with which it is visually interrupted by buildings. Clustering is a third strategy that is very effective in controlling this aspect of rural design.

Some rural landscapes, however, are of a lower quality than others. There is an enclosure problem much akin to that of urban spaces. The enclosing space, as it gets larger and larger, eventually will become undifferentiated space. The selective planting of trees can break up undifferentiated space. Since much of Door County's landscape is viewed from the road, the changing sequence of visual experiences is very important. Interest can be added to the landscape by designers via design controls. These enhancements can be required as part of the development proposal.

2. Setbacks

The yard setbacks in the Door County Zoning Ordinance are 50 feet or less, depending on the class of road. Such a short setback ensures that buildings along highways are in the foreground. This is the antithesis of good rural design. While farm buildings may be permitted in the foreground, residential development must be set back into the middle-ground, preferably in the background, of the view from the highways. The reason that farm building setback is not generally important is that farm buildings belong in a rural landscape. Only if the building's position blocks a very high quality vista is the location of agricultural buildings and farm houses important.

Residential structures, however, do not belong in the rural landscape; if they must be present in open areas, then the development should be clustered and set back between 500 and

1000 feet. This is an extreme setback and need only be used if building is to take place in wide open areas. In evergreen forests, a setback of 100 to 150 feet is ample in order to hide the development entirely. In deciduous woodlands, the setback should be 150 to 200 feet. Clustering to go along with these setbacks is critical for two reasons. First, the extreme setbacks limit the amount of buildable land. In order for a developer to get a reasonable residential use from the land, clustering is needed. Second, clustering is desirable because it ensures that the development does not interrupt too much of the horizon.

3. Height Regulations

Height regulations, as found in most ordinances, are geared to an arbitrary value or one intended to ensure that available fire equipment reach the top floor of a building. For visual resource protection, there are two variations on height limitations. The first is to ensure that a building is lower than the surrounding vegetation. In areas of mature forest, a two or three story building will be completely hidden by the canopy of the forest. Regulations, therefore, can be structured to relate building height to the surrounding vegetation. But what about wide, open landscapes? The logical extreme would be to require the buildings in open fields to be earth-sheltered. That may be too extreme, but building low-profile buildings is possible. Ranch houses or homes that use moderate berming are appropriate. The "prairie" homes by Frank Lloyd Wright emphasized the horizontal to make the buildings blend into the landscape. One-story homes with flat or low pitch roofs could be required in open spaces.

Another height related element is the placement of buildings with respect to the viewer. Buildings that are downhill tend to disappear more than buildings that are uphill, or level, with the viewer. This disappearance is most pronounced when a building is positioned so that the viewer is looking at or down on the roof.

4. Scale

Scale measures were developed to ensure that buildings were "in scale" with the surrounding buildings. This measure can be adapted for use in natural areas. In Door County, one of the problems that must be addressed is that the new housing, both single-family and condominium developments, are out of scale with the traditional summer cottages and tourist facilities. There was a time when most summer cottages were small and relatively low. Today, many of the homes are ostentatious displays that rival large suburban homes. These stick out of the landscape drawing undue attention to themselves. This is a critical problem with single-family summer homes that one developer estimates are occupied only one or two weeks a year.

The scale measure sets a numerical value for housing or other structures. Units that blend into the landscape would be used as a model to set a maximum scale value for rural areas. Any further development would be prevented from exceeding this maximum scale.

There is a second way of using scale that is more akin to the methods suggested for height. The scale of both buildings and landscape can be described by a site volume ratio (SVR). The site volume ratio is the result of subtracting the building volume ratio (BVR) from the landscape volume ratio (LVR) (see Figures 19 to 21). Rural residential development that meets the countryside classification will retain a rural character if the site volume ratio is positive. The sketch (Figure 22) shows an ideal rural setting with the house blending into the landscape and a SVR of about 3.0. A major advantage in using site volume ratio requirement is that a developer may add plant material in order to produce the desired effect.

Figure 19

SITE VOLUME RATIO SVR

SVR: LVR-BVR

SVR (SITE VOLUME RATIO)
LVR (LANDSCAPE VOLUME RATIO)
BVR (BUILDING VOLUME RATIO)

Lane Kendig, Inc.
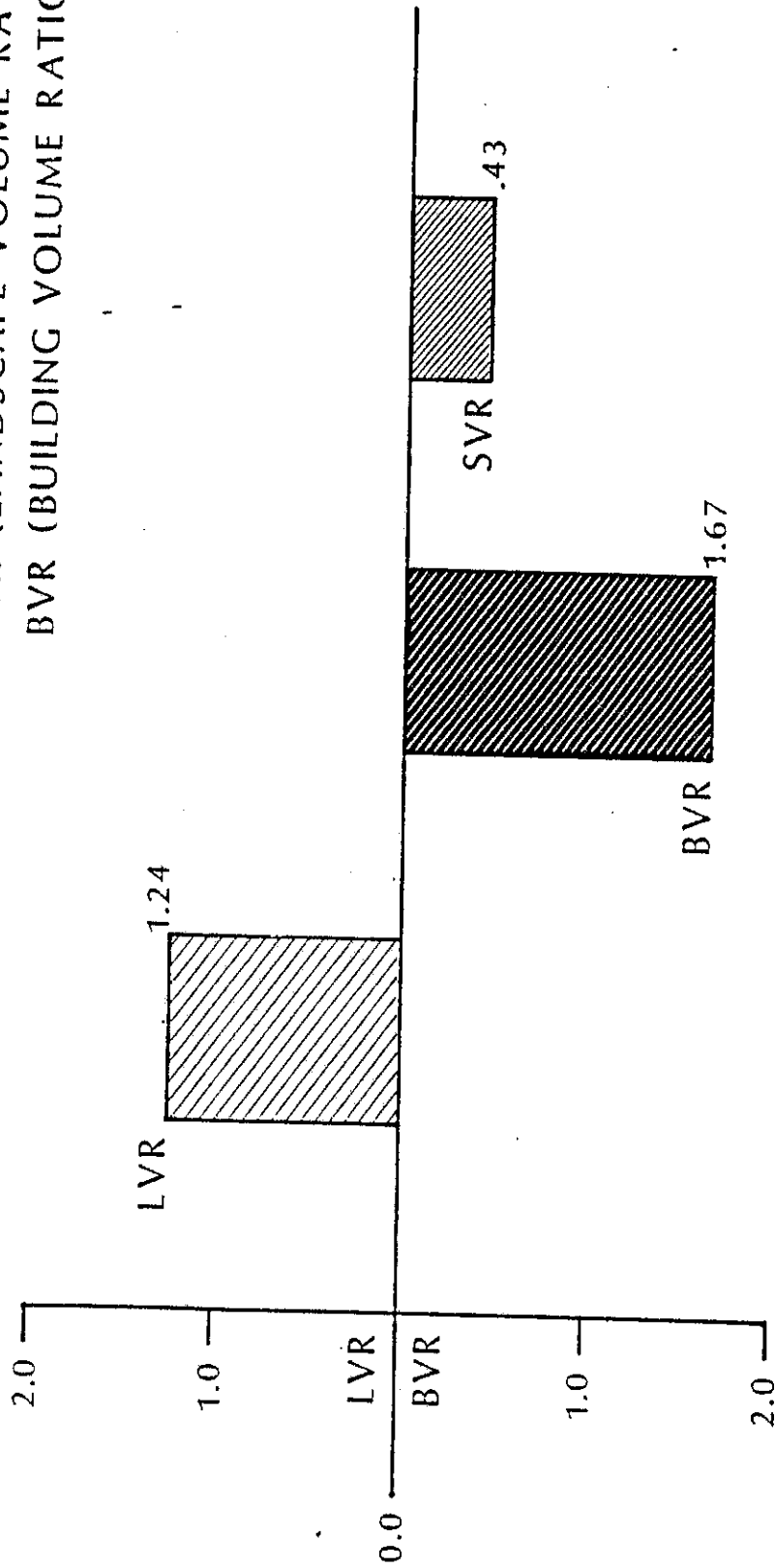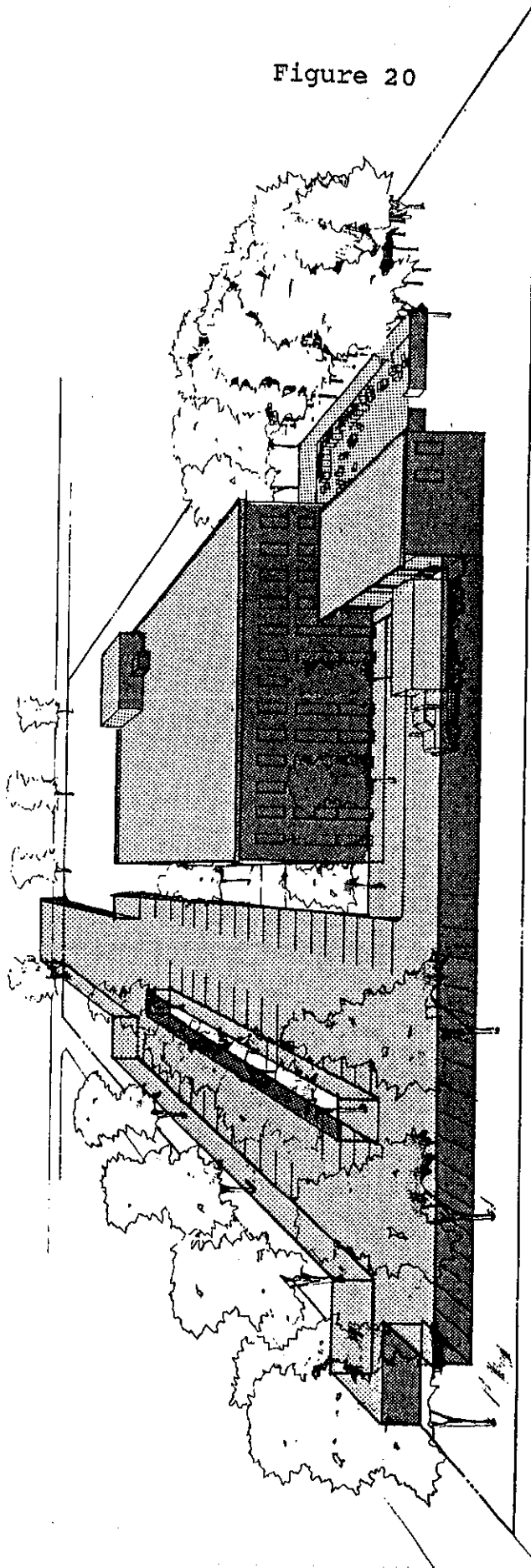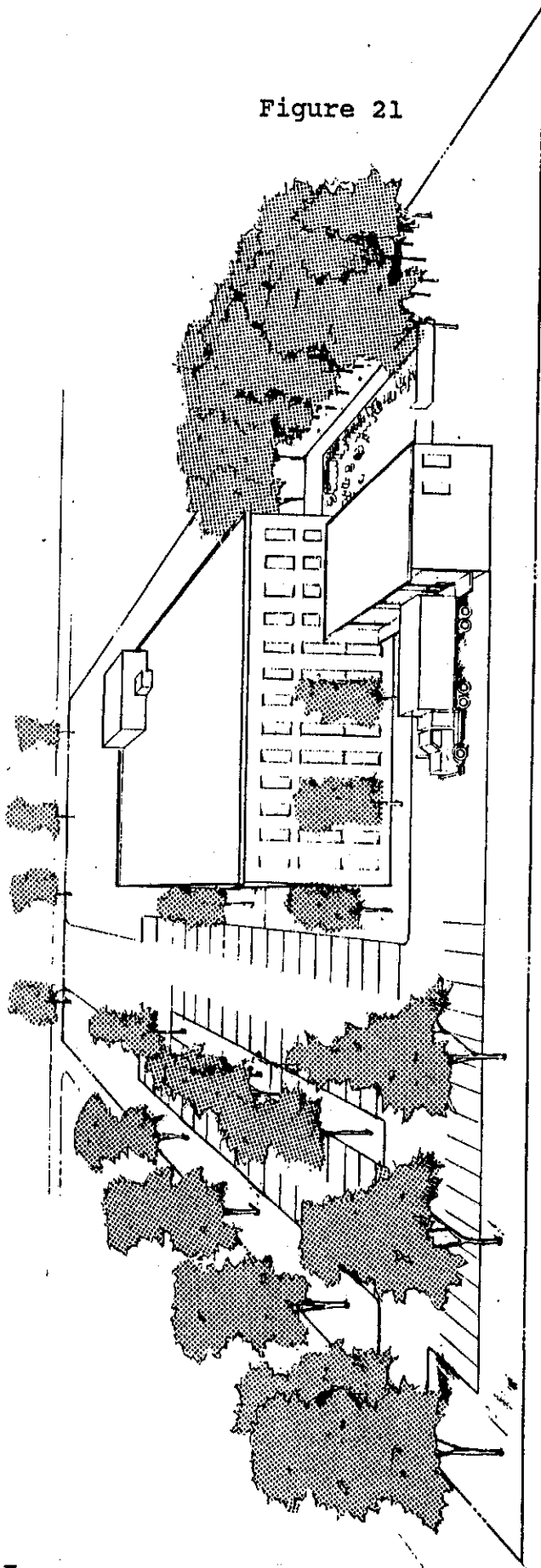
75

April 12, 1988

Figure 20

BUILDING VOLUME RATIO (BVR)

Figure 21

LANDSCAPE VOLUME RATIO (LVR)

Figure 22

5. Color

Color may be used in two ways. First, there are native materials which can give a structure a sense of belonging in the landscape. The color and form of these materials can be used as camouflage. The natural material of Door County, native stone and natural weathered wood will, in the hands of the sensitive architect, produce buildings that seem to fit into the landscape. Second, color may be used to make buildings recede and blend in with their background by using earth tones. The precise color selected must be done in conjunction with the backdrop against which the building is viewed. A major problem is that the color selection must be coordinated with a building that is also designed to fit into the landscape. Building a structure that blends into the landscape requires submerging both the architect's and the client's ego.

6. Building Orientation

Building orientation is the relationship of the floor plan to the viewer. Buildings can be designed to either thrust forward towards the viewer or to recede. A building that presents its long side to the viewer will seem larger than a building that presents its short side. In addition, perspective can be used to thrust the building forward or make it recede. Figure 23 shows the same building, oriented first with the two story section towards the viewer, and secondly, with the one story section facing the viewer. Notice how much smaller the latter building appears.

The effect of the building placement with respect to the viewer is also important. As was indicated in the height section, a building placed above the viewer creates a dominant image and one below the viewer tends to recede. Building orientation and building placement, when combined, can be effective tools for preserving the landscape.

Figure 23

IMPACT OF ORIENTATION
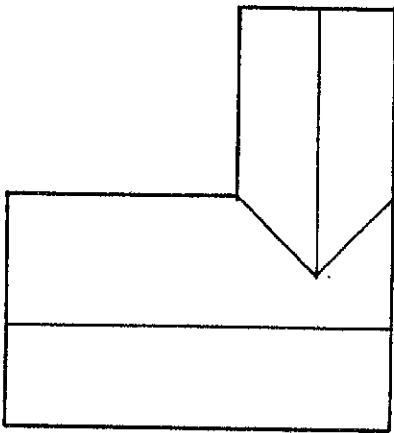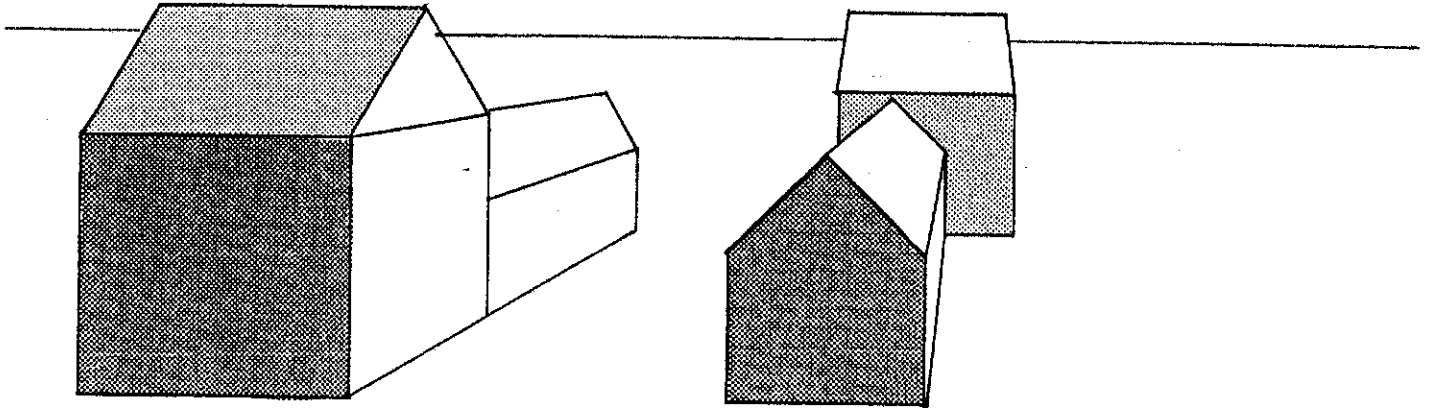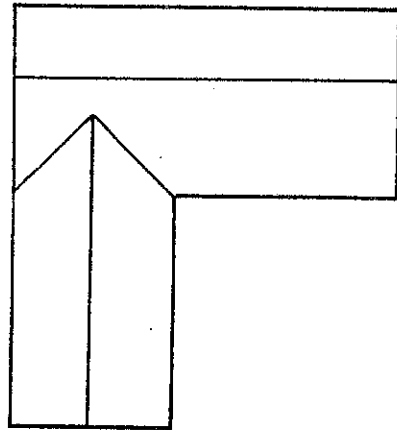
FRONT   FRONT

7. Buffers and Screening

As Frank Lloyd Wright said, "Greenery hides a multitude of sins." The use of bufferyards or the setting of development into a wooded area are both legitimate design tools. The landscaping requirements have the advantage of not requiring as much control over architecture or color, since the landscaping will hide it from view.

In most zoning ordinances, bufferyards are included as a narrow buffer strip between two zoning districts or between buildings and roads or other uses. In rural areas, the concept will have to be expanded. The notion of a strip along property lines is less appropriate. The buffers need to be more substantial in total area and they need to have a natural appearance. The traditional buffer of manicured lawn and trees is not appropriate in the rural landscape.

There are a variety of screening techniques whose primary purpose is to make development invisible within the landscape. Vegetation obviously has the effect of creating an artificial horizon. Buildings that cannot be seen, in terms of visual protection, do not cause a problem. Screening techniques clearly relate to the required setbacks and permitted intensity of development. In rural areas, the type of screening used should consist of plant materials typically found in the landscape. For example, hedgerows such as those found between farm fields would be an effective screening technique. In residential areas, effective screening can consist of more typical landscaping materials and designs. Unusual plant species and landscaping designs can be used in residential areas, however, if a more natural character is desired, then local species in a free form design should be used. Finally, in commercial areas, screening should consist of landscaping and berming; if part of the landscaping is some sort of fencing, then a berm may not be necessary. Local plant species, for the most part, should be used for screening commercial and industrial developments so that the screening does not call attention to itself and the development.

Rural Design

Zoning and design controls focus on techniques that are purely regulatory, where minimum standards would need to be set. These techniques only prevent the worst in terms of design. The best in design always occurs through active involvement of both the developer and the community, where both have a goal of achieving superior design. There are two important aspects of environmental design that must be kept in mind when dealing with rural design. First, the creation of a rural space can be effected in very much the same fashion as an urban space--the components may be different, such as buildings used in rural spaces, but the

way they are used is the same. Second, nearly all spatial experiences need to be sequential, that is there needs to be a variety among the rural design types. This design aspect is all too often totally neglected.

Since the theory behind environmental design remains essentially the same, regardless of whether the space is rural or urban, keeping in mind the basic goal of creating a rural environment is extremely important. This is especially so since most design manuals are written for urban design. Some designers forget that although the concepts remain the same, the components must be different in order to create a rural design.

1. Creation of Space

    Space in rural areas is generally thought of as natural; however, in Door County, the vast majority of spaces have been created by farmers, loggers, and others over the past one-hundred or more years. The shape of spaces in Door County is determined by whether trees were either left alone or planted along roads--whether a tract was cleared or partially cleared for agriculture. The township, section, and quarter section method of surveying land has resulted in a pattern of streets that creates its own visual form.

    Visually and environmentally more interesting patterns could be created in many areas of Door County. The different rural types of spaces detailed in this issues paper can be used to both maintain the rural character of the County and create specific spatial environments, thereby providing a variety in the landscape. Sculpting development areas out of woodlands, or positive planting can be used to create the desired spaces. Obviously, these two methods maybe combined.

    A very large space that is on the verge of becoming indeterminate can be made vastly more attractive by planting trees on the edge of the right-of-way to create a screen. A dense hedge row running perpendicular to the road can divide a large indeterminate space into two enclosing spaces. Hidden spaces can be created. One of the County's more rare physical features are the drumlins, several of which are degraded by the fact that section lines, and therefore roads, happened to cross them. If the roads had been altered to avoid them, the drumlins would have created a more interesting landscape.

2. Sequential Spaces

    The design of sequential spaces, whether they be rural or urban, requires changing spatial experiences. A trip along a road where undifferentiated spaces dominate will soon become boring. On the other hand, a road that has panoramic vistas, road tunnels, screened landscapes, and enclosing

spaces will be interesting. Even people who frequently travel such roads enjoy the road more because of the expectations created by the changing views. Designing sequential spaces is among the most difficult design problems because it requires design on a vast scale. While such coordination probably cannot be achieved on a county-wide scale, important scenic highways can be preplanned and a mechanism put in place to review other roads on a case-by-case basis.

Development Areas

Nearly all of the discussion has been correctly focused on preserving the rural character of Door County. There is, however, development pressure which cannot be ignored. The County plan must provide a place for new development or the plan will not be implemented. The development area concept balances the need for development space and the need to preserve open space. Development is directed away from areas where the visual resources are particularly vulnerable; development is directed toward areas that can best handle the encroachment.

The ideal form for development areas in the County is the village or hamlet. The historic villages and hamlets of Door County all traded on this image and did very well. If these small centers are allowed to sprawl into suburban-type communities, creeping over the landscape, they will lose their attractiveness.

The paradox of clustering is that it enables new development to be handled at relatively high density, in concentrated areas, and still retain the rural character of the area. Containing development in this form, even in areas that contain sensitive visual resources, is possible. A zoning system to implement the development area concept may have to use a number of components discussed in the Resource Protection issues paper.

Mitigation

In sensitive areas where development is inevitable, and a suburban character is likely to develop, then the preservation of visual resources is impossible. The fact is, that in Door County, even a suburban community character level will result in visual degradation. Unfortunately, such degradation will be unavoidable in some areas.

The next best strategy, however, is to apply the design review strategies as mitigation techniques. Good design will call for mitigation of the negative impacts caused by the development. Mitigation can involve the provision of natural landscaping or screening a development from view, for example. The developer can be required to provide such mitigating measures in order to limit the visual degradation of an area.