



# Toward Better Places

THE COMMUNITY CHARACTER PLAN FOR COLLIER COUNTY, FLORIDA



April 2001

# ***Toward Better Places* is the culmination of a year of intensive examination of the County's current policies and future direction in land use, transportation, and green open spaces.**

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# Toward Better Places

THE COMMUNITY CHARACTER PLAN FOR COLLIER COUNTY, FLORIDA

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## **How this Plan was Created** **page 1.1**

The Community Character Plan was developed over the course of a year using a variety of innovative methods. This chapter details the public participation techniques including hands-on workshops, focus groups, and a community image survey. The public participation was augmented by frequent input from staff and the Select Committee on Community Character and Design.



## **The Community Design Manual** **page 2.1**

The Community Design Manual is the first of the three design-oriented chapters. This document looks closely at neighborhoods, streets, centers, and the subdivided periphery in Collier County. Case studies are used to document preferred methods of developing and redeveloping in a wide variety of situations. Each case study is graphically documented and followed by specific implementation steps.



## **The Mobility Manual** **page 3.1**

The Mobility Manual addresses the transportation system in Collier County, particularly addressing the road network both functionally and in terms of its character. Suggestions are provided for each level of the transportation network, ranging from pedestrian connectedness to cross-county arterials. The Mobility Manual provides five specific strategies for creating efficient and beautiful streets in Collier County, along with implementation steps for achieving them.

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## **The Greenspace Manual: page 4.1**

This final design chapter addresses the county's green spaces, which range in size from neighborhood parks to large national preserves. The consensus driven greenspace model looks at creating a continuum of parks, natural lands, and linkages that add character. The recommended approaches are supplemented by detailed strategies for improving county parks and preserving natural habitats.



## **Implementation page 5.1**

This chapter describes specific strategic steps that will be required to integrate the Character Plan concepts into the regulations and beyond, to the built results. The Collier County government can start many of the steps immediately; others will require a number of years or will be implemented by the private sector in accordance with new land development regulations.



## **Resources: page 6.1**

This chapter features in depth documentation and further analysis from the preceding chapters. The appendices, charts, and other data in this chapter are referenced frequently throughout the document.



## Hallmarks of the Plan

### **1. Design...**

The spaces between buildings are as important as the private realms inside them. Development should be designed so that the architecture and neighborly arrangement impart an enduring image of beauty, confidence and societal continuity while making daily life more practical.

### **2. Choice...**

Provide more housing choices in Collier County by reintroducing walkable traditional neighborhood development as a counterbalance to the multitude of gated subdivisions that have been built over the past 20 years.

### **3. Balance...**

Create a balanced road network by improving Collier's principal arterial roads while simultaneously creating a secondary network of smaller roads that link neighborhoods.

### **4. Connections...**

Make frequent connections between new neighborhoods and the land around them, and fully integrate them with the secondary street network and with parks and other urban open spaces. Improve existing neighborhoods in the same way.

### **5. Growing smart...**

All new development approvals should be based on a resilient pattern of streets and lots, because the initial street and lot pattern will long outlast the first generation of buildings and land uses that are placed on them.

### **6. Hold the line...**

Make much better use of the remaining vacant acreage within the existing urban boundary before allowing new development to creep further into the countryside.

### **7. Respect environmentally sensitive places...**

Enhance the character of Collier's more rural and environmentally sensitive places through rural design techniques and further protection of the County's vital natural resources.

## THE CHALLENGE

Collier County stands at an important crossroads in its history. Its leaders can dramatically improve the future of the built environment in the county. Previous planning efforts like FOCUS\* have laid the groundwork, awaiting mainly an implementation mechanism with concise goals and milestones for judging success. This Community Character Plan simultaneously addresses land use, transportation, and greenspace planning to create a concerted plan for future growth and rejuvenation.

The Community Character Plan attempts to discern and respect the varied character of Collier County. Character is a combination of many things; it is exemplified by style, image, locale, mood, livability, connectedness, and sense of place. Many residents choose Collier County for its affluence, physical attributes, activities, or climate. Yet development and growth in recent years has threatened the county's character- not so much because of the pace of change or the number of people, but because of the physical form chosen for the development. There is a better way.

This plan seeks to define the different characters that coexist in Collier County and preserve them - by design. At the same time, this plan reaches beyond preservation, to the goal of restoring character and upgrading the experience of place in the county -- again, by design. The goal of the Community Character Plan is to protect and extend cherished aspects of Collier County by redirecting the inevitable growth into forms that enhance character rather than degrade it.

## CHARACTER: READY FOR BETTER

Collier County residents have tired of seeing new development that does not add to the County's unique setting of interesting towns surrounded by natural beauty. The regulatory systems and industry habits in place today have not proven adequate to ensure that new development becomes an asset to community character. Unsustainable development patterns have marched north and east, consuming more and more land and threatening the ecosystems that make Collier one of the most beautiful counties in the state. The disconnected development patterns have overburdened major roads, creating peak-hour demands that have almost everyone declaring a roadway emergency.

As this plan was undertaken, Collier residents clearly communicated that they don't want to stop the development that makes the County prosperous, but they want new development to enhance the community in other ways as well. This plan looks at growth not simply as an engine of prosperity, but also how it interacts with mobility, green spaces, and livable results.

This plan provides Collier County with a blueprint for building a community that improves as it grows. It cannot provide prescriptive solutions for every situation, but through illustrated case studies it provides a framework for improving development and redevelopment throughout Collier County. It also proposed specific steps to implement the community-wide vision on how to move toward a community of greater character.

\*The Future of Collier Created by Us

# How This Plan Was Created

<b>PUBLIC PARTICIPATION</b>	<b>Page 1.2</b>
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## PUBLIC PARTICIPATION

### THE COMMUNITY IMAGE SURVEY

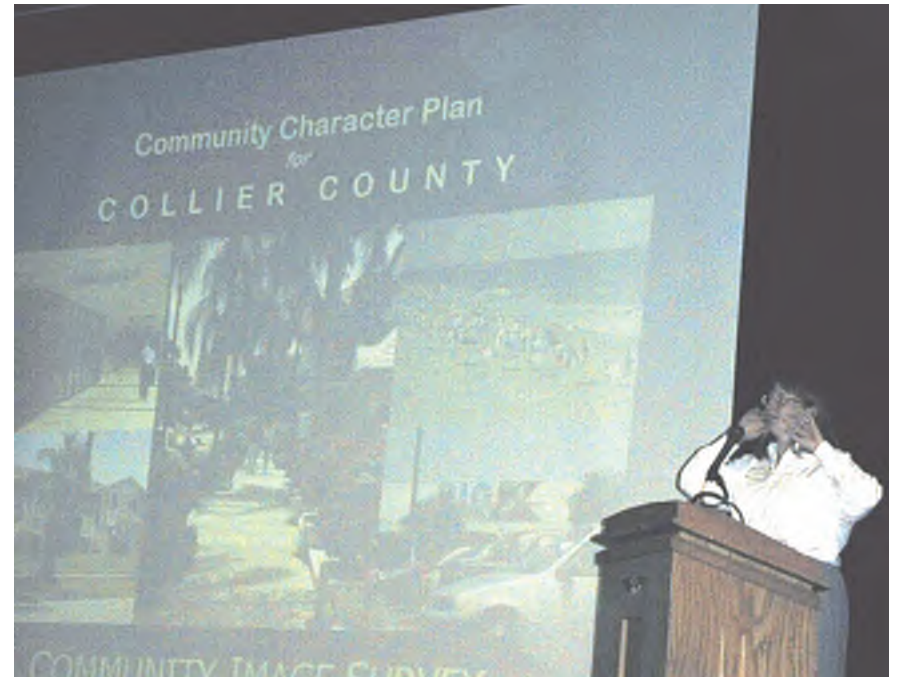
The Community Image Survey (CIS) is an effective public participation tool that uses visual images to educate community members about their choices in development types and patterns, and involve the public in a positive, collaborative, and useful way.

#### How the CIS Works

The Community Image Survey is a two-part process consisting of a slide survey and a facilitated discussion process. First, participants are asked to look at a series of slides, assign each a number value from -10 to +10 based on how much they like or dislike the image, and its appropriateness for the area. Later, participants review the slides again and are told the average "score" each image received. This time, the slides are roughly paired based on subject matter for discussion purposes. A facilitated discussion in which participants brainstorm what they like and dislike about each image helps people understand and discuss design and development alternatives.

#### A Picture Is Worth A Thousand Words"

By focusing on concrete visual images, instead of relying on words like "mixed use," "pedestrian-friendly," "higher density," and "transit-oriented" to describe development, CIS participants are able to move beyond static arguments about use and density toward more useful discussions about the specifics of a particular place. The facilitated discussion process helps CIS participants identify the design details that make a place feel more safe, livable, and walkable.



Kristen Paulsen administers the CIS at the Kickoff event.

It should be noted that the CIS is neither an endorsement nor an indictment of a particular place or city. By using real-world examples, the CIS illustrates that even with the best example, there is always room for improvement.

For the Collier County Community Image Survey, Kristen Paulsen of Communities By Design captured digital photographs in Collier County of all different types of development: from downtowns and neighborhood centers to strip commercial and shopping malls, from rural roads to residential streets to arterials and collectors, from single- and multi-family housing to office and mixed use, from transit and bikeways to parking lots and parking structures, from beaches and parks and golf courses to agriculture and nature preserves, waterways and open space. Ms. Paulsen then used the nearly 1000 digital images she collected to develop a Community Image Survey for Collier County.



Once each audience member scored the CIS pictures, the Dover Kohl team and programmer Ken Golding rapidly tabulated the results using a computer program especially written for the Character Plan

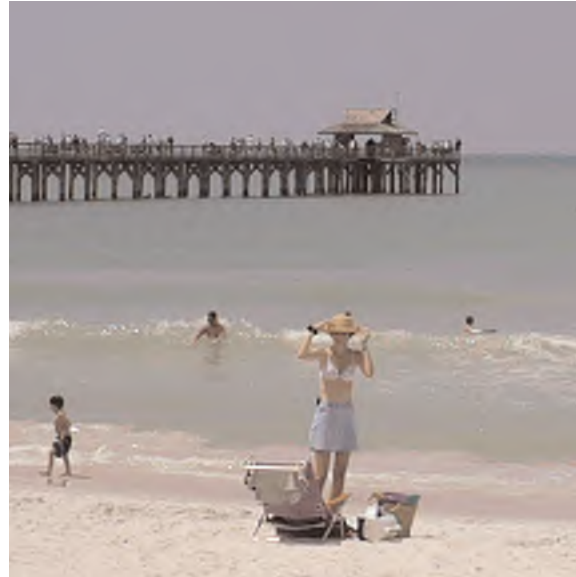
The Collier County CIS was first shown on Thursday, April 6, 2000 as part of the Community Character Plan Kick-Off presentation at Naples High School Auditorium. Following that presentation, the CIS was put on the Collier County website so that additional individuals could take the Survey and also log-on to view the results.

### **Analysis of Results**

As of January 30, 2001, 372 people had taken the Community Image Survey (CIS) [ The Collier County Community Image Survey is available on-line at [www.kengolding.com/doverkohl](http://www.kengolding.com/doverkohl) ]. The results illustrate the types of development that are valued by Collier County residents, as well as the development types that people dislike. By examining the results of the CIS, we learn what is important to local residents, and thus what they would like to see more of in future development. We also learn what things they do not like, which may also be



that which they fear most, and therefore would like to see less of in the future. At the broadest level, the CIS helps us to identify overall patterns of preferences, while at a more subtle level, the CIS can help call attention to the design details that influence whether people like or dislike a particular place.

**+8.7****+8.6****+8.4**

### **THE 3 HIGHEST RATED IMAGES**

The top three rated images in the Survey clearly indicate that the natural environment, open space, and the recreation opportunities provided by such are extremely important to Collier County residents. The images depicting a walking path at Corkscrew Park nature preserve (+8.7), a beach scene with the Naples Pier in the background (+8.6), and Outer Clam Bayou at Pelican Bay (+8.4) are the Survey's three highest rated slides.

**-7.6****-4.7****-4.6**

### **THE 3 LOWEST RATED IMAGES**

The three lowest rated images in the Survey all show places where development has not been done well. The image that Collier County residents dislike the most (which may also represent residents' greatest fear) is that of a congested roadway (-4.7), where people are stuck in traffic (this particular image happens to be from the East Tamiami Trail, but it could be Anywhere, USA). The other images which Collier County residents rated the lowest both showed places that were extremely auto-oriented, unattractive, and pedestrian-unfriendly. One of the images (taken from the Isle of Capri Road) shows an isolated sidewalk, bordered on one side by a drainage ditch and the other by parking lots and strip commercial development, with power lines and sterile cobra-head lighting overhead (-7.6). The other image shows an underutilized strip commercial shopping center (Naples Town Center), with a flat and uninteresting facade, minimal landscaping, and a very large (and mostly empty) parking lot separating the buildings from the street (-4.6).

## MORE CIS RESULTS



+6.5



-3.3

### Neighborhood Centers

Results pair #13 depicts two very different neighborhood centers. Both contain retail and restaurant uses, but in the one image (from Third Street South in Naples), the pedestrian realm is generous, with benches and outdoor dining creating interest and activity on the sidewalk, the building facades are varied and well-maintained, the landscaping is beautiful, and even details such as the street lights are attractive. (+6.5). In the other image, a view from the sidewalk of a strip commercial center in East Naples, the pedestrian realm is cold, sterile, and uninteresting, due in part to the lack of architectural details and signage, and the sterile grays and whites along the long, monotonous run of poorly marked doors and windows (-3.3).



+5.8



+1.5

### Single-Family Residential

Results pair #5 illustrates that even modestly-sized homes are more highly rated when the garage is not the dominant feature of the home. The small white house with the sidewalk leading up to the front stoop and front door, has ample windows fronting the street (+5.8). The orientation of the home, with the garage not visible from the street, combined with the mature landscaping, are the details that make this image receive a much higher rating than its pair. The dominance of the garage door and driveway cause the other single-family home to receive a much lower rating (+1.5).



+4.7



-2.2

### Multi-Family Residential

Results pair #27 illustrates that multi-family housing also becomes more highly rated with the orientation to the street, instead of to a parking lot, and with the addition of attractive landscaping. The older multi-family courtyard-style building has a pedestrian oriented entrance and is of a scale and style that is compatible with a single-family neighborhood (+4.7). Those features, combined with the colorful flowerbeds and lush greenery, make this a nice addition to the neighborhood. The other multi-family building is completely auto-oriented (-2.2). The wide, asphalt driveway and the carports/parking areas serve to set the building back from the street and leave little room for landscaping. It is as if the entrance for the vehicles was given much more emphasis than the entrance for the people who live at or visit (or even walk by) this project.



+0.3



+6.5

### Residential Streets

Results pair #7 depicts two residential neighborhood streets. One is very clearly oriented almost entirely to the automobile, with a wide street, no sidewalks, and few trees; even the housing seems to reflect this auto-orientation, with the garages being the most dominant feature (+0.3). The score for this image is so close to zero that it may reflect the fact that housing developments like this are becoming so commonplace that residents no longer know what to think of them (0 is a neutral response). In contrast, the other image of a residential street has many features which raise the rating: the street is heavily landscaped with the street edge punctuated by evenly spaced and like trees, there is a median with street trees and flowers, there is a dedicated bike lane which visually narrows the vehicle lane, and there is a sidewalk separated from the street by a landscaped planting strip (+6.5).



+5.0



-1.9

### Mixed Use

Results pair #18 show two different ways of handling office and retail. The three-story building is attractive and very pedestrian-oriented, with retail uses on the ground floor and offices above, doors and windows and balconies facing the street, the building coming up to the back of the sidewalk, and landscaping separating and protecting the pedestrian on the sidewalk from the street (+5.0). By contrast, the one-story building has a combination of retail and office uses sharing the space, which means that retail businesses are more spread out and less pedestrian-friendly. The building itself lacks architectural details and is oriented entirely to the parking lot (-1.9). A low shrub and the parking lot further separate the pedestrian on the sidewalk from the storefronts, which besides making pedestrian access dangerous, makes it nearly impossible for the pedestrian to see what is for sale.



-3.3



+6.7

### Getting Around

Results pair #24 shows how we get around, with the first image illustrating the current conditions where the automobile is the primary mode of transportation. Big, wide roads are lined by auto-oriented businesses, with the pedestrian stranded on a small strip of sidewalk at the side of the road, with nothing to protect him or her from the speeding traffic (-3.3). By contrast, the other image shows a big, wide road where the tree-lined median is the dominant feature, and pedestrians can walk or linger on the generous sidewalk in the middle of the median (+6.7). It should be noted that even though the latter does not exist in Collier County (the highly-rated photo shows Commonwealth Avenue in Boston), residents still rated it extremely positively when asked if they liked it and if the image was appropriate for Collier County.



+6.3



+7.8

### Greenspace

Almost all greenspace was positively rated by Collier County residents. Whether used for agricultural purposes or for natural habitat, as in results pair #19 which showed both grazing (+6.3) and nature preserve/habitat uses (+7.8), open space is highly regarded by residents.



+2.9



+5.7

Surprisingly, golf courses were the lowest rated of the greenspaces, though still positive (+2.9, as shown in results pair #30). Agriculture - in the form of citrus groves (+5.7, as shown in results pair #30) - consistently received high ratings. (Also see the discussion of the “3 Highest Rated Images” for other greenspace images.)





## THE DESIGN CHARRETTE

Charrette is a French word that translates as "little cart." At the leading architecture school of the 19th century, the École des Beaux-Arts in Paris, students would be assigned a tough design problem to work out under pressure of time. They would continue sketching as fast as they could, even as little carts- charrettes- carried their drawing boards away to be judged and graded. Today, "charrette" has come to describe a rapid, intensive, and creative work session in which a design team focuses on a particular design problem and arrives at a collaborative solution. Charrettes are product-oriented. The public charrette is fast becoming a preferred way to face the planning challenges confronting American communities.

The Community Character Plan used the charrette method for eliciting public input at the beginning of this yearlong process. The charrette was held from April 4 - 14, 2000, and included workshops at several widespread locations throughout the county. Over the course of this historic two weeks, the design team took up residence in Collier County, set up a studio at the Naples Beach Hotel, brainstormed concepts for the plan, and invited local citizens to share their ideas.

## THE STUDY TOUR

For the first two days of the charrette, the team of designers from around the country toured Collier County. Staff and citizens led tours that included airplane tours of the entire county, in-depth tours of ecologically sensitive areas by boat and by foot, agricultural tours, and many automobile tours of Naples and Collier County neighborhoods. The tour included rural areas and Immokalee.

## DESIGNING OUR FUTURE, HANDS-ON

### A Variety of Locations

The first public input sessions were held in remote and strikingly different parts of the County. The first evening event (held at the IFAS/UF Ag Extension facility) sought input from residents of Immokalee, Golden Gate Estates, and large agricultural landowners in the unincorporated areas to the north of the county. The second evening event (held at Lely High School in East Naples) sought input from residents of the southeast sections of Collier County, including Everglades City, Goodland, and Marco Island. These events provided a glimpse of the differences between urban and rural parts of the county, and the wide-ranging outlooks of its residents.

The largest public hands-on session took place at Naples High School on Saturday April 8, 2000. More than one hundred and fifty concerned residents from throughout the county attended this event. These participants sketched ideas for creating and maintaining character on large maps of the county. More than a dozen groups formed around tables to look at case study areas around the county, including neighborhoods, commercial, and rural lands. The input from these exercises eventually led to the case studies within this report.



### A Variety of People

The designers were aware that the turnout for public events would allow the gathering of input from a large number of adults, including retirees, homeowner activists, and those with a vested stake in development or development regulation. But what about those who will inherit this plan?

To reach some of Collier's young population, and learn how they see their built environment, two workshops were also held at schools.

On Wednesday April 5th, a hands-on session was held in the Lely High School cafeteria for over 250 high school students with an interest in planning the future of their home county. The students drew on maps and took part in a park-planning workshop. The suggestions of this enthusiastic group of students were taken seriously and can be seen in the results.

The second hands-on session for youngsters was held at St. Ann's School in Naples. About 75 third and fourth grade students offered a candid and refreshing voice that might get overlooked in planning studies. They may be young, but these young planners were well informed and not at all bashful about asking for smarter growth: they asked tough questions about sprawl and ecological problems, and called for more walkable, friendlier neighborhoods.

### Teamwork

Since many of the key decision makers in Collier County were unable to attend the hands-on sessions, the designers brought the results of the sessions to them. During the remainder of the charrette, several key groups of stakeholders were invited to the "studio" set up at the Naples Beach Hotel. These groups joined in intense design workshops that focused on creating a plan that was implementable and acceptable to the most citizens possible. These meetings included a "builder/developer forum;" workshops with County staff departments such as transportation, MPO, and long range planning; and roundtable meetings with local business leaders including architects and financiers. Other specialized sessions were held to discuss greenspace issues with environmental groups representing a wide variety of views. Throughout the process, citizens dropped in to check on the work and offer new ideas; citizens from Naples Park showed particular interest, for example.

At the conclusion of the charrette, a "work-in-progress" presentation was delivered at the Naples Beach Hotel. The presentation detailed the three major categories (*Community Design*, *Mobility*, and *Greenspace*) that are echoed throughout this document and served as an outline for this document.

The input and information gathering did not end on the last day of the charrette. During the second half of 2000, the designers and County continued presenting the ideas gathered at the charrette and soliciting input from civic groups, homeowners associations, architects and landscape architects, the development industry, and individual homeowners.



## **SELECT COMMITTEE & STAFF**

The preparation of this plan was overseen through the hard work and team effort of a dedicated multi-stakeholder group. On April 13, 1999 the Collier Board of County Commissioners established a Select Committee on Community Character & Design. This action by the Board was in part a response to a five-year community based "visioning" and planning effort sponsored by the Greater Naples Civic Association. The Board charged this group with selecting a consultant and creating the Collier County Community Character Plan. Although much of their work took place behind the scenes, it was central to the creation of the document.

Throughout 2000 and early 2001, the Select Committee dedicated themselves to disseminating information about the events, attending bi-weekly meetings of the select committee, and creating public awareness and support for the plan. As portions of the plan were readied in draft form, the committee met to discuss each piece of the plan and provided overall direction on content.

The Collier County staff played a pivotal role in the creation of this document. Staff provided assistance in all phases of the project, including the creation and dissemination of base information, the publicity and setup for all public workshops and events, and frequent assistance providing and interpreting documentation of previous planning studies.

# Community Design Manual

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## INTRODUCTION

This Manual is the backbone of the Community Character Plan. Collier County has a wonderful variety of urban and rural settings that should be planned for in different ways. Development in Golden Gate Estates is not the same in type or intensity as that in Naples, nor should it be. Successful development and revitalization in Collier County requires guidelines specifically formulated for these settings.

A map of Collier County has been prepared that identifies six primary types of settlement areas, ranging from urban activity centers to rural crossroads. These areas are defined as existing neighborhoods, new neighborhoods, corridors, activity centers, transitional lands, and rural lands, based on the unique characteristics of distinctive areas of Collier County. For the purposes of this plan, each of Collier's communities can be considered to be in one of these six types of settlement areas.

Collier County's existing growth management plan can be seen as breaking the county into three basic areas: urban, rural, and pre-existing Golden Gate Estates lots. A north-south line generally running a mile east of Collier Boulevard (CR 951) separates the urban designated areas (toward the coast) from the rural areas. This line has held for many years, but its importance is diminishing, in part because many recent developments in the urban area have been built at very low densities. At the same time, Twin Eagles and other proposed developments to the east (in rural areas) have suburban rather than rural characteristics even though their densities are extremely low. These suburban characteristics are not compatible with agriculture, rural communities, or habitat preservation, and they will also conflict with healthy urban development patterns should Collier County grow to the point that these formerly rural areas need to be urbanized.

The zoning tool of choice for implementing the Collier growth man-

agement plan has been the planned unit development, or PUD. This is a catchall zoning classification that replaces compliance with standard regulations with a negotiated approval process that is closely focused on a single development project, rather than on how that project will integrate with adjoining neighborhoods or add to the character of Collier County. The PUD approach has been successful in many ways, but Collier's reliance on this planning tool has cost many other opportunities for creating or ensuring character.

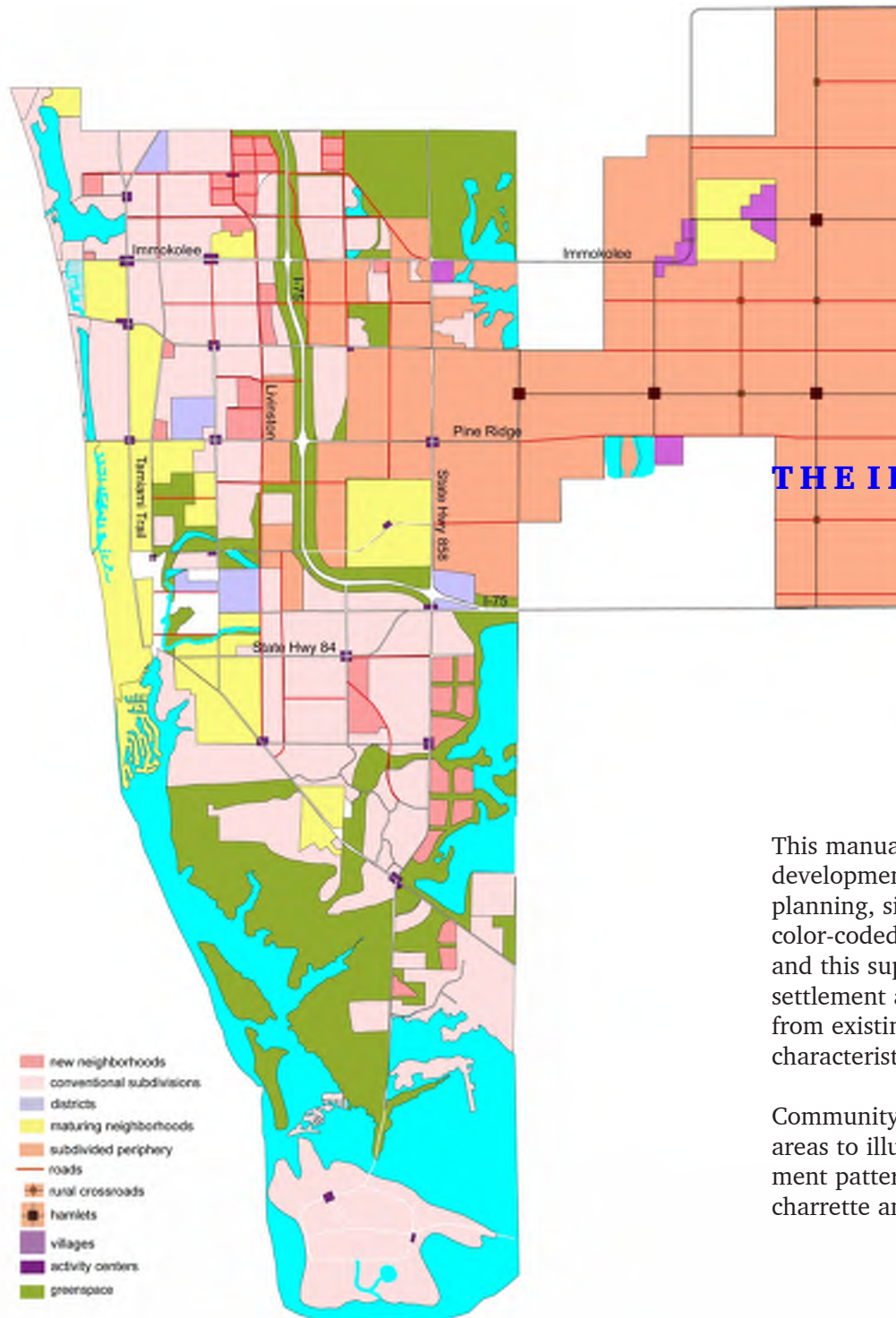
PUD zoning had been viewed as the solution to the failures of rigid conventional zoning, especially its promise of mixing uses in compatible patterns. After 25 years of use in Collier County, it is apparent that the PUD approach has not achieved this promise either, delivering mixed uses only very rarely.

Without clear character guidelines for land at various points along the urban/rural transect, a project-specific PUD negotiation cannot achieve the goal of having each new neighborhood become an important building block that adds to Collier County's constantly improving character.

Rather than viewing the county as being divided simply into urban and rural areas, or as a series of disconnected PUDs, this chapter recognizes the character variations along the entire spectrum or transect of human activities, from the most urban to the most rural. Individual design features have their places at various points along this transect. Even the most useful and beautiful design feature can be used incorrectly if these distinctions are not recognized.

Each settlement pattern illustrated in this chapter contains specific goals for development in these archetypal situations, and is followed by implementation steps that show how to start realizing its goals and designs. The result is a guidebook for creating a more memorable and livable Collier County.





## THE ILLUSTRATIVE SETTLEMENT MAP

The goal of this manual is to assist Collier County in enhancing its character by:

*revitalizing maturing neighborhoods,  
transforming conventional subdivisions,  
growing new neighborhoods,  
fixing aging corridors and commercial strips,  
growing activity centers, and  
evolving the subdivided periphery.*

This manual proposes a new framework for generating character in new development and redevelopment in Collier County, addressing urban design, planning, site design, and architecture. This framework is reflected on a color-coded map of the entire county called the *Illustrative Settlement Map* and this supporting document. Every area in the county is delineated on the settlement as having a particular settlement pattern; these patterns range from existing neighborhoods to rural lands, each exhibiting distinct typical characteristics.

Community input led to the statement of goals and the selection of specific areas to illustrate the preferred settlement patterns. Designs for the settlement patterns were informed by community wide input from the April 2000 charrette and the Community Image Survey.

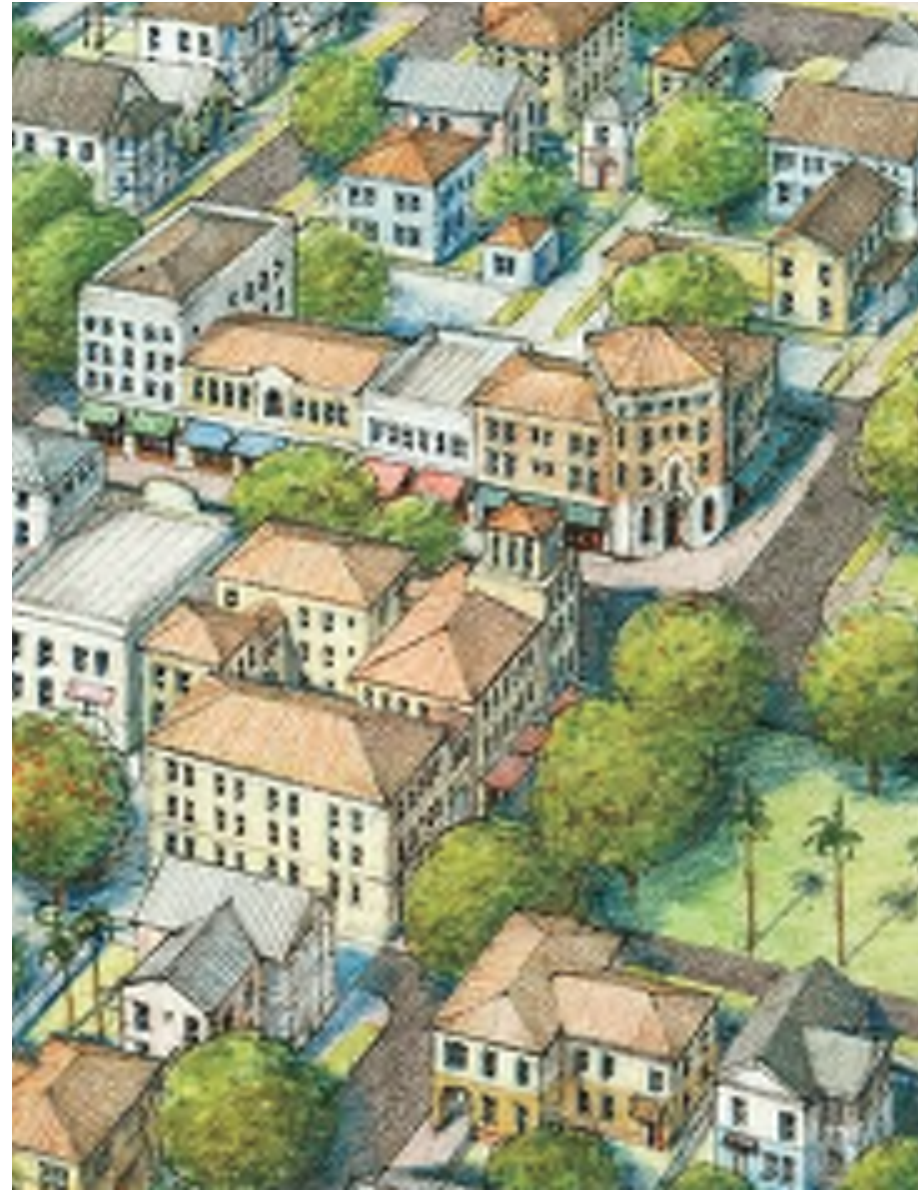
## THE IMPROVED MODEL

Collier County must upgrade several aspects of its development patterns to improve character. The primary ingredients in this “new and improved” way of generating character are:

*Great Neighborhoods,  
World-Class Streets,  
Memorable Centers, and  
Evolving the Subdivided Periphery.*

This Manual is a companion to the illustrative settlement map and explains general concepts and illustrates them with detailed case studies. Each chapter includes a primer on fundamental concepts of urban design or related background. Following the primer are one or more case studies based on actual Collier locations. These examples show desirable solutions to common difficulties encountered during the land development process and provide step-by-step implementation guidelines for creating neighborhoods and communities of character.

These examples are not intended to serve as finalized designs for their sites or as precise solutions for other similar sites. Rather they illustrate how the primary ingredients for generating character can be applied in different settings. Many aspects of each example are directly transferable to other sites; others can be interpreted and adapted to achieve similar results in a wide variety of situations.



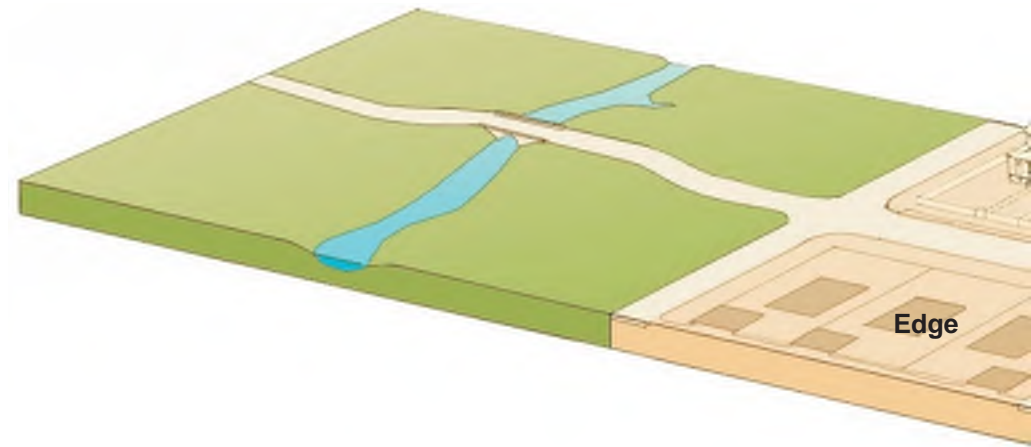


## GREAT NEIGHBORHOODS

### WHAT MAKES A GREAT NEIGHBORHOOD?

Portions of Old Naples were mentioned frequently during public participation events as good examples of neighborhoods in Collier County. These were often contrasted with gated PUDs and *cul-de-sac* subdivisions that proliferate in Collier today. The difference between these two development approaches is subtle when viewed through regulatory eyes, but profound in the three-dimensional results.

There is no single litmus test for neighborhood quality; neighborhoods of strong character are created through a variety of techniques. The most successful neighborhoods generally exhibit design conventions that are absent in conventional sprawl. These include: a legible **center and edge** to the neighborhood, an **integrated network of walkable streets**, an overall **size** to the neighborhood suitable for walking, buildings set close enough to the streets to **spatially define** the streets as public spaces, and opportunities for **shopping and workplaces close to home**. Developing and redeveloping settlements based upon a model of traditional neighborhood design principles is the first step towards great neighborhoods. These design standards and conventions have withstood the test of time. Discussed in more detail below, these ideas help create livability, a sense of community, and ultimately community character.

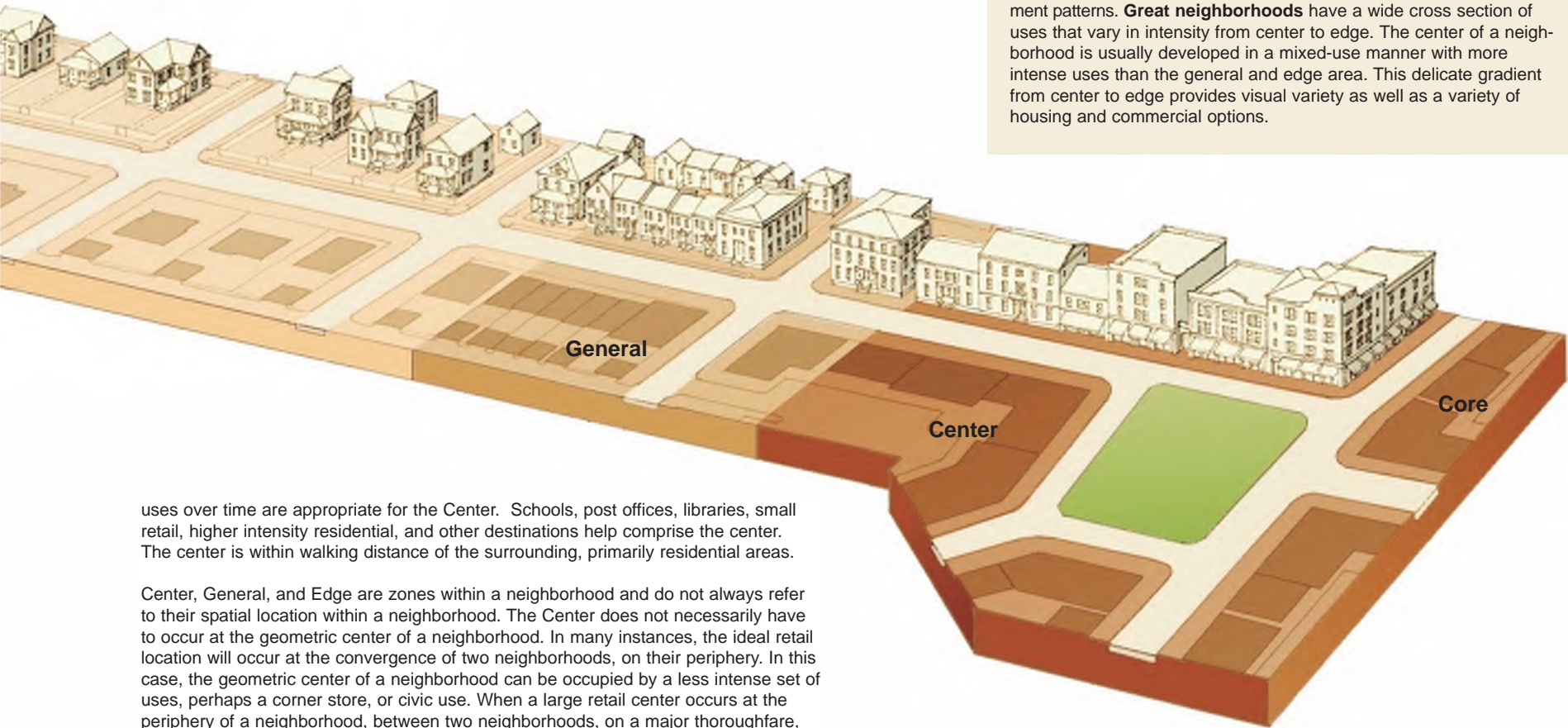


The **Edge** areas have the least activity and are single-family residential in character with a lower density than the other areas, and may even include mansion-sized houses on large lots. Edges are identified by a distinct change such as a natural feature like a river, forest, or greenway, or a man-made feature such as a thoroughfare. These features provide a physical change that forms a psychological boundary, giving each neighborhood identity.

The **General** areas are mixed use in function but are primarily residential in character. There is a mixture of single-family homes, rowhouses, apartments, and 'live-work' units for small businesses. The general area is usually the largest area of a neighborhood.

The **Center** areas are places where a greater range of uses is expected and encouraged. Day cares, post offices, libraries, small neighborhood retail, live-work spaces, and places of worship are located here. The Center is typically more spatially compact and is more likely to have some attached buildings. Multi-story buildings in the Center are well-suited to accommodate a mix of uses, such as apartments or offices above shops. Lofts, live/work combinations, and buildings designed for changing

These neighborhood zones are based on the “transect” found in the *Lexicon of the New Urbanism* created by Duany, Plater-Zyberk & Company. The Congress of the New Urbanism is promoting the use of the Transect among its members to standardize sustainable development patterns. **Great neighborhoods** have a wide cross section of uses that vary in intensity from center to edge. The center of a neighborhood is usually developed in a mixed-use manner with more intense uses than the general and edge area. This delicate gradient from center to edge provides visual variety as well as a variety of housing and commercial options.

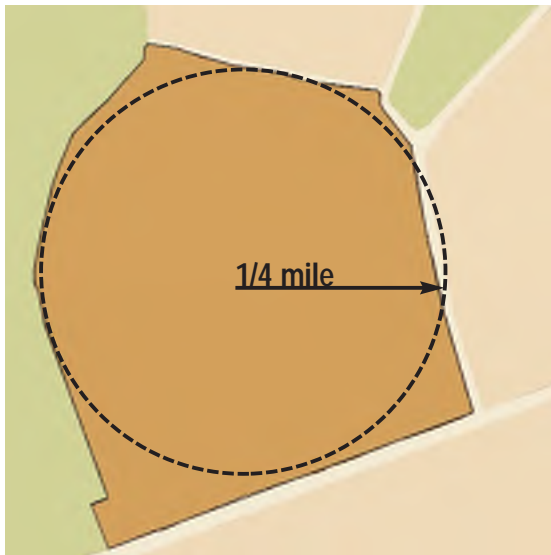


uses over time are appropriate for the Center. Schools, post offices, libraries, small retail, higher intensity residential, and other destinations help comprise the center. The center is within walking distance of the surrounding, primarily residential areas.

Center, General, and Edge are zones within a neighborhood and do not always refer to their spatial location within a neighborhood. The Center does not necessarily have to occur at the geometric center of a neighborhood. In many instances, the ideal retail location will occur at the convergence of two neighborhoods, on their periphery. In this case, the geometric center of a neighborhood can be occupied by a less intense set of uses, perhaps a corner store, or civic use. When a large retail center occurs at the periphery of a neighborhood, between two neighborhoods, on a major thoroughfare, this is referred to as the Core Area.

The **Core** areas are the densest in a neighborhood, occupied by institutional, business, and service uses. The character of the core is more urban than the center and is almost always shared by two or more neighborhoods and occurs on a major thoroughfare. The Core is usually within walking distance of several residential areas.

In traditional neighborhoods, the physical details are important. The following images and text demonstrate the main concepts and how they should be combined to create great neighborhoods.



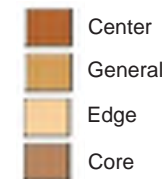
**1. Make the neighborhoods the right size.** Typically, neighborhoods are a 1/4 mile radius across, from the center to the edge. This is a 1/2 mile or 2,640 feet from one edge of the neighborhood to the other. Natural features and thoroughfares create the boundaries to the neighborhood. Because of natural features and boundaries, there is no perfectly shaped neighborhood, so actual distances within different neighborhoods will vary.



**2. Create walkable block sizes.** Create a hierarchy of streets based on the transportation network. The perimeter of blocks should be an average of 1,400 linear feet. In the more intense Core areas, the blocks perimeters can be average of 1,800 linear feet.



**3. Designate areas within the neighborhood for different intensities of use.** Neighborhoods have different areas: Core, Center, General, and Edge. These names do not refer to a single use. Instead they dictate a range of uses, building types and intensities of development allowing for a wide range of flexibility.

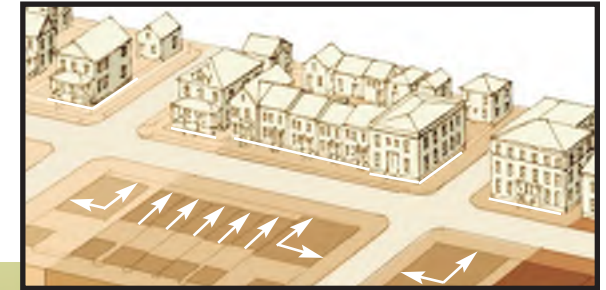




**4. Provide for common green space.** Designate general locations and sizes of public spaces for community use and enjoyment. These spaces can vary in size and shape and should not be limited to a specific minimum size. (These parks and green spaces can be coordinated with the goals of the Collier County Community Character Plan.)



**5. Designate special sites for civic buildings.** Prominent locations, like the end of a street or the top of a hill, should be set aside for civic buildings. Civic buildings provide 'community infrastructure' and daily needs and services.



**6. Orient buildings properly.** The fronts of buildings should have doors and windows facing the street. Rather than "setting back" buildings and allowing them to be located anywhere behind a line, establishing a "build-to line" determines where buildings are constructed, thus defining the street "wall." This wall, along with the floor (or street), is what makes the street space feel like a public room and helps define the sense of place. On-street parking should be provided, with additional parking and garages located behind the buildings. In the diagram, the darkened lines indicate the front side of the lot, where the build-to line would occur.



**Identifiable Center and Edge** – Neighborhoods generally have an identifiable center and edge; one can tell when one has arrived in the neighborhood, and one can tell when they have reached the heart of the neighborhood.

**Walkable Size** – Most people will walk a distance of approximately  $\frac{1}{4}$  mile (1320 feet) before turning back or opting to drive or ride a bike rather than walk. This dimension is a constant in the way people have settled for centuries. Most neighborhoods built before World War II are  $\frac{1}{4}$  mile from center to edge. This distance relates to the manner in which people define the edges of their own neighborhoods. Old Naples is just 1.5 miles long by  $\frac{3}{4}$  mile wide. A  $\frac{1}{4}$  mile radius from 5th Avenue shopping in old Naples would include Central Avenue south to 9th Avenue and 4th Street east to Tamiami Trail, for example.

Of course, neighborhoods are not necessarily circular in design, nor is that desirable. The  $\frac{1}{4}$  mile radius is a benchmark for creating a neighborhood unit that is manageable in size and feel and is inherently walkable. Neighborhoods of many shapes and sizes can satisfy the  $\frac{1}{4}$  mile radius test. It is also important to note that larger developments or master planned communities can satisfy the  $\frac{1}{4}$  mile radius by establishing several distinct neighborhoods or quarters within the community.

**Proper Building Placement** – Character-rich neighborhoods often have houses within a conversational distance of the sidewalk, producing a neighborly environment that promotes social interaction. This is an excellent strategy for overcoming the isolation and disconnectedness of which suburban householders often complain. Buildings and trees positioned fairly close to the street also yield an environment

which feels very comfortable for pedestrians; this is because a degree of spatial enclosure is agreeable to the human eye. In both residential and mixed-use settings, spatial enclosure results from the proportional relationship between the width of the space and the height of the buildings that frame the space. Houses that are built close to the street offer another fundamental benefit for a neighborhood, by providing a sense of safety through what Jane Jacobs termed “eyes on the street.” Having front porches, balconies, and windows that overlook the sidewalk and street creates a feeling of safety because one can sense that if something were to happen, someone might see or hear the event. This apparent closeness and supervision may sometimes only be a perception, but it is a potent deterrent to crime nonetheless. Security specialists and law enforcement officers call this concept “crime prevention through environmental design,” and it is especially important in a time when security concerns have driven householders behind gates and bars. Lastly, positioning buildings forward on their lots makes the householders’ private spaces more generous in size, both indoors and out.

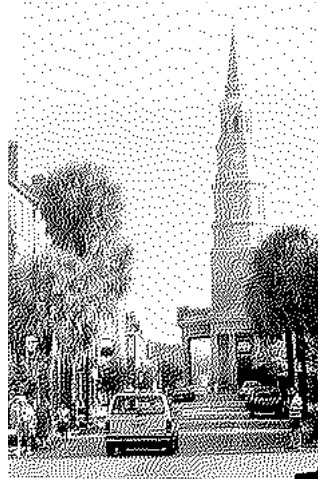
**Integrated Network of Walkable Streets** – A network of streets allows pedestrians, cyclists, and motorists to move safely and comfortably through a neighborhood. A network forms blocks that are an appropriate size for walking, and provides multiple routes. The network of streets also provides non-automobile alternatives to the two largest segments of Collier’s population: those under the driving age, and senior citizens.



Walkable streets are characterized by the separation of sidewalk and curb and/or roadway to protect pedestrians from moving traffic, they are also shaded by street trees that are usually placed between the roadway and sidewalk for added pedestrian / vehicular separation. Walkable streets also provide adequate lighting and “eyes on the street” for added security. Walkable residential streets and commercial streets differ in design and character as is illustrated in the Mobility Manual.

#### **Special Sites for Civic Purposes –**

Prominent locations, such as the terminated vista of a road or at the top of a hill, should be reserved for civic buildings. These locations include building sites at the end of a long view, terminating the view down a street, and anchoring a prominent street corner or neighborhood square. These unique settings within the neighborhoods are opportunities for community pride. Civic buildings, because they serve the entire community, should be accessible and located in areas with greater activity. Similarly, special sites should be set aside for squares, parks, and plazas. Each neighborhood should have one special gathering space at its center, such as a village green.



**Mix of Land Uses and Building Types** – Great neighborhoods have a fine-grained mix and variety of uses and building types. A assortment of uses gives residents the ability to live, work, play, shop,

and find daily needs and services within walking distance. An assortment of building types allows for people with diverse lifestyles and incomes to live in the same neighborhood without a diminishing of the character or quality of that neighborhood. For instance, in a shopfront building, the business owner or employees could live in a second floor apartment, or the upper floors could be rented as office space. Nearby, rowhouses and cottages can be located very close to detached homes and even mansions. Naturally this requires substantial design discipline; designers must work to make sure that compatible building types face one another across unified streets. Most transitions between substantially different building types should occur at the rear lot lines.



It is understood that the amount of non-residential uses will vary from neighborhood to neighborhood. In many cases, business uses will need to be located near the edge along an important traffic route, rather than the center. Some neighborhoods may have only a tiny commercial presence, but the key is providing great flexibility in land use even while tightening design controls. This shift — from focusing on land use to emphasizing design, from single-use, single-design “pods” to mixed-use, variety-rich neighborhoods — has benefits in three key areas. First, in transportation, the mixing of uses is the most powerful way to reduce unnecessary traffic congestion because many auto trips are either shortened or eliminated. Second, the mixed use scenario is far better socially, since it makes it feasible for householders to put

down roots in the community and come to know their neighbors, and housing for families of modest means is included and therefore need not be segregated into concentrations (or pushed to the next county). Third, the occupancy of the neighborhood by households with varied schedules and interests not only adds vibrancy to the place (as compared to suburbs that are deserted at certain times of the day or days of the week) but adds security, as well.

## HOW COLLIER COUNTY BUILDS NEIGHBORHOODS TODAY

Almost thirty years ago, Planned Unit Developments (PUDs) were written into the Land Development Code in response to the development boom in Collier County. Based on a national development trend, PUDs were legalized “to encourage ingenuity, innovation and imagination in the planning, design, and development or redevelopment of relatively large tracts of land under unified ownership or control” (Collier County Land Development Code, 1999). But as the next sentence in the Code indicates, this new PUD approach allowed developers to vary from the standard regulations, “PUDs produced in compliance with the terms and provisions of this code and the growth management plan may depart from the strict application of setback, height, and minimum lot requirements of conventional zoning districts...” (Collier County Land Development Code, 1999).

The intention of PUD zoning was to give the developer greater flexibility to provide innovative solutions to large-scale projects such as master planned communities. Although the code calls for a mix of uses, the result is usually quite homogeneous, one or two uses per PUD.

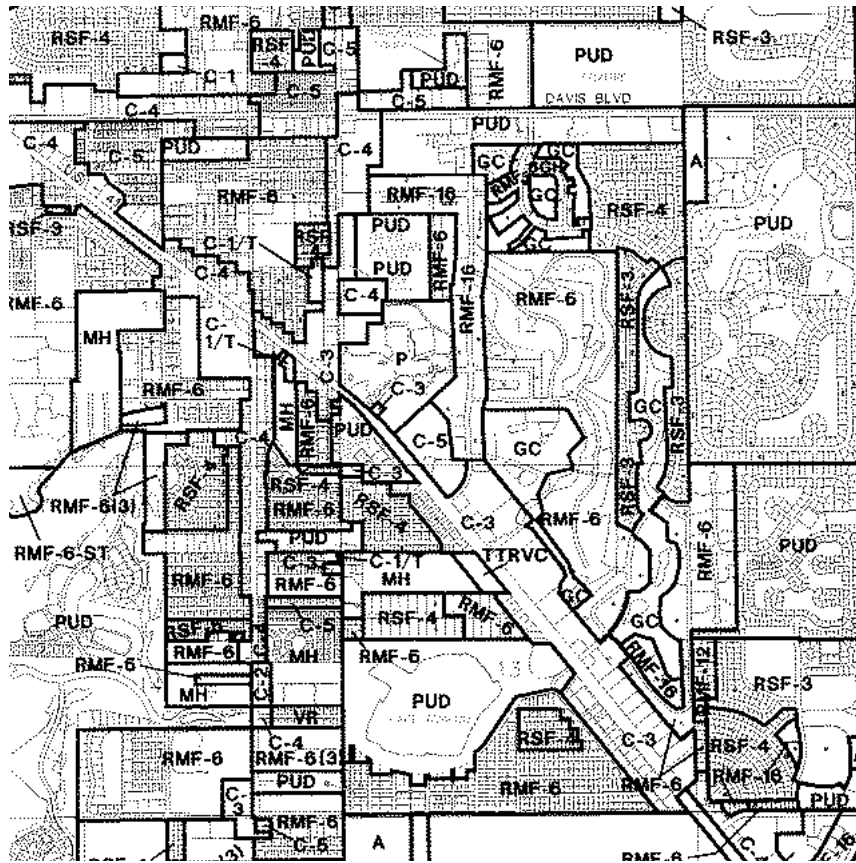


Construction begins on a golf course

Most importantly, the design conventions that generate livable communities— like walkability and interconnectedness— were applied only occasionally and haphazardly even then. Commonly the individual uses are separated in a manner consistent with conventional zoning, thus negating one objective of the PUD. In several cases the distances are too great or the access between such mixed uses is improbable or impossible for a pedestrian or bicyclist to navigate. The County has experimented with density incentives in exchange for interconnecting streets, in an attempt to reintroduce a basic norm lost to the very flexibility for which the PUD process was conjured, but the sheer marketability of low-density sprawl meant few developers, if any, opted to pursue the incentives.

The unintended consequence of the PUD trend was to create an easier approval process for pedestrian-unfriendly, disconnected, and essentially homogeneous large scale developments. Eventually, the combination of easy approvals under the PUD process and the large tracts of land under private ownership led to nearly all the developable land in the urbanized area being designated as PUDs. As these PUDs began to accumulate, so did a host of problems with traffic, disappearing open space, and loss of identity. Eventually, a public backlash, uniting environmental activists and aggrieved neighbors as critics of the PUDs, emerged in Collier County. Today, almost all PUD approvals burden





Collier County zoning map

the County Commission with a decision that causes political turmoil and engenders rancor among leaders and constituents alike. Politicians feel pressured to approve projects that resemble comparable peer projects to maintain an appearance of fairness and equality. The County needs to set reasonable standards and guidelines by which to judge PUD projects, to determine whether the design has merit and if it creates character. The yardstick for design success in Collier has become quite short.

### What Lies Ahead?

Collier County has several futures from which to choose. The least sustainable is the business-as-usual model. Left to operate within the existing rules and habits, development in the recent manner and at the current rate will cripple the road network and decimate any remaining character in Collier County. The Community Character Plan was undertaken at the urging of citizens who foresaw such a future and sought to alter it.

The currently approved PUD projects, if built out to the intended design capacity, would have a profound impact on the Collier landscape. Approved PUDs alone include 42,792 new dwelling units. This number multiplied by a 65.66% occupancy rate and the 1990 census allocation of 2.41 persons per dwelling unit produces 67,549 new Collier residents. These new residents must live somewhere. The rampant consumption of undeveloped land for sprawl-type communities coupled with current policies on density, affordable housing, and urban form will lead to a collapse of Collier County's prestige and desirability. This scenario is often compared to the disastrous change

in character experienced during the last forty years in Miami-Dade and Broward counties. Many residents spoke during the planning process about how they did not want Collier County to turn into a Gulf coast equivalent of those struggling places, and yet the development pattern exhibited in recent Collier sprawl mirrors the worst of those counties' disappointing growth patterns.

The alternative is clear. The culture of community-making and spirit of responsibility demonstrated by the County's pioneers and town founders can be reestablished. Community character should be placed at the forefront of planning decisions, not contemplated as an afterthought. Housing density must be rethought, especially in core areas and activity centers; the bias against higher density and toward planning by the numbers – with an assumption that lower density is better density – needs to be replaced with an emphasis on design. Affordable housing needs to be addressed in bricks and mortar, not lip service. Streets of such quality that they are genuine amenities in the neighborhoods they serve, instead of just utilitarian “traffic sewers,” should be customary.

### **Eight Factors Supporting Traditional Neighborhood Development**

#### ***From the developer's point of view --***

1. *Relatively higher densities enable a lower land cost per unit. Public spaces created by traditional neighborhood planning- the trade-off that allows higher densities- also serve as substantial amenities for the community.*
2. *Lower up-front infrastructure costs are required prior to building and selling the first units compared with a conventional master-planned community. The first construction phase can offer the full range of housing types in one area, rather than in separate "pods" for each housing type, each with its own associated infrastructure.*
3. *Greater product flexibility throughout the neighborhood enables quick response to changing market demand characteristics.*
4. *The market can be deeper than just "new home buyers." TNDs offer a new construction alternative that conveys the diversity and pedestrian orientation of typically highly-valued older neighborhoods. Many resale buyers find these aspects of community lacking in conventional subdivisions and master-planned communities.*

#### ***From the investor's point of view --***

5. *Residual value is enhanced. Once the TND is established, appreciation of remaining dwelling units- particularly in later phases- should occur at a higher rate than within conventional master-planned communities in otherwise similar circumstances. Appreciation is manifest as some combination of escalating sales or rising prices.*
6. *With little or no privately-owned retail common areas, neighborhood and "main street" shopping districts do not require periodic refurbishment to maintain market appeal. The environment is constantly renewed as the shopfronts change, upgrade, and evolve.*

#### ***From the municipality's point of view --***

7. *Integrated-use development creates a broader, more balanced tax base for municipalities.*
8. *Public maintenance and infrastructure costs are lower for higher-density development because of the greater economies of scale, shorter runs of lower tech infrastructure.*

*-Excerpted from [Development Feasibility and Implementation of Traditional Neighborhoods](#) by Todd Zimmerman, Laurie Volk, and Peter Katz. (reprinted with permission).*

## REVITALIZING MATURING NEIGHBORHOODS

Collier residents identified several neighborhoods in the region as being among their favorites, such as Old Naples. Old Naples has recently benefited from several years of reinvestment focused on the well-coordinated revitalization of Fifth Avenue, with its spectacular infill development and redevelopment.

### **Making Good Neighborhoods into Great Neighborhoods**

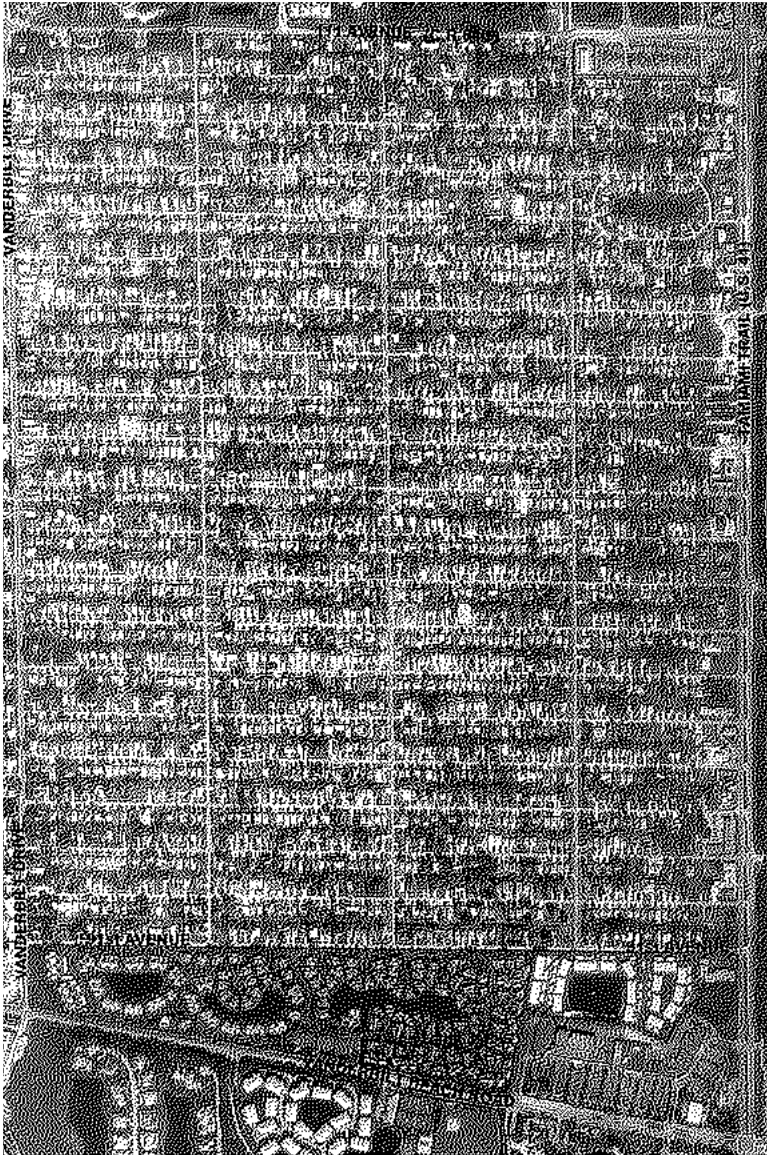
How can other neighborhoods benefit from these characteristics? Naples Park is an excellent example to study. On one hand, Naples Park enjoys an organized, diverse citizenry determined to improve the neighborhood, a close-to-the-Gulf location, a relatively connected layout, and underutilized real estate that has begun to attract the attention of builders. On the other hand, the public realm in Naples Park suffers from years of disinvestment; the tree canopy is inadequate, streets appear worn and unfinished and invite speeding, and overall the suburb is not aging as gracefully as it should. Naples Park has reached a threshold in its history. It will be either re-energized and transformed for the better or its character will continue to decline.

Naples Park is one of the older first-ring suburbs in Collier County. It is located along the U.S. 41 corridor and stands out compared with the newer developments surrounding it. Real estate here is still relatively affordable, at least for the time being. While not exactly the “inner city,” Naples Park resembles many of the older neighborhoods in cities across the US that were rediscovered by home buyers during the past twenty years and now fetch higher prices than new sprawl development. If that pattern holds true here, a strategic policy and physical

improvements designed to impart a sense of predictable return on investment will attract new generations of residents to Naples Park, and their contributions will be beneficial. (Absent such a strategy, haphazard redevelopment— in which older, smaller homes are incrementally knocked down and replaced with tracts of disappointing character— is likely, given the scarcity of land in the western parts of the county.)

Naples Park should have an officially sanctioned plan, with its details generated through the grassroots involvement of the neighbors; this plan should promote the area’s intrinsic strengths, including its openness and its connected street scene. This plan would be used to guide public and private improvements but also to reposition these neighborhoods in the marketplace as the county’s premier alternative to sprawl. Interestingly, the basic bone structure of Naples Park shows evidence of some of the same ideas underlying the latest “New Urbanist” neighborhoods that have proven so marketable around the country. In the Naples Park of the future, homebuyers should find the sense of community and authenticity lacking in the corporate, slickly packaged subdivisions built in the 1990s further east.

The key to this lies in getting the physical details right. The transformation of Naples Park from neglected older suburb to premier neighborhoods will not occur overnight. Several steps to aid the transformation are outlined below. These essential steps can be used for most older neighborhoods in Collier County. For example, these strategies should be applicable to Golden Gate City (see *Evolving the Subdivided Periphery*.)



Naples Park - Aerial plan view, 1999

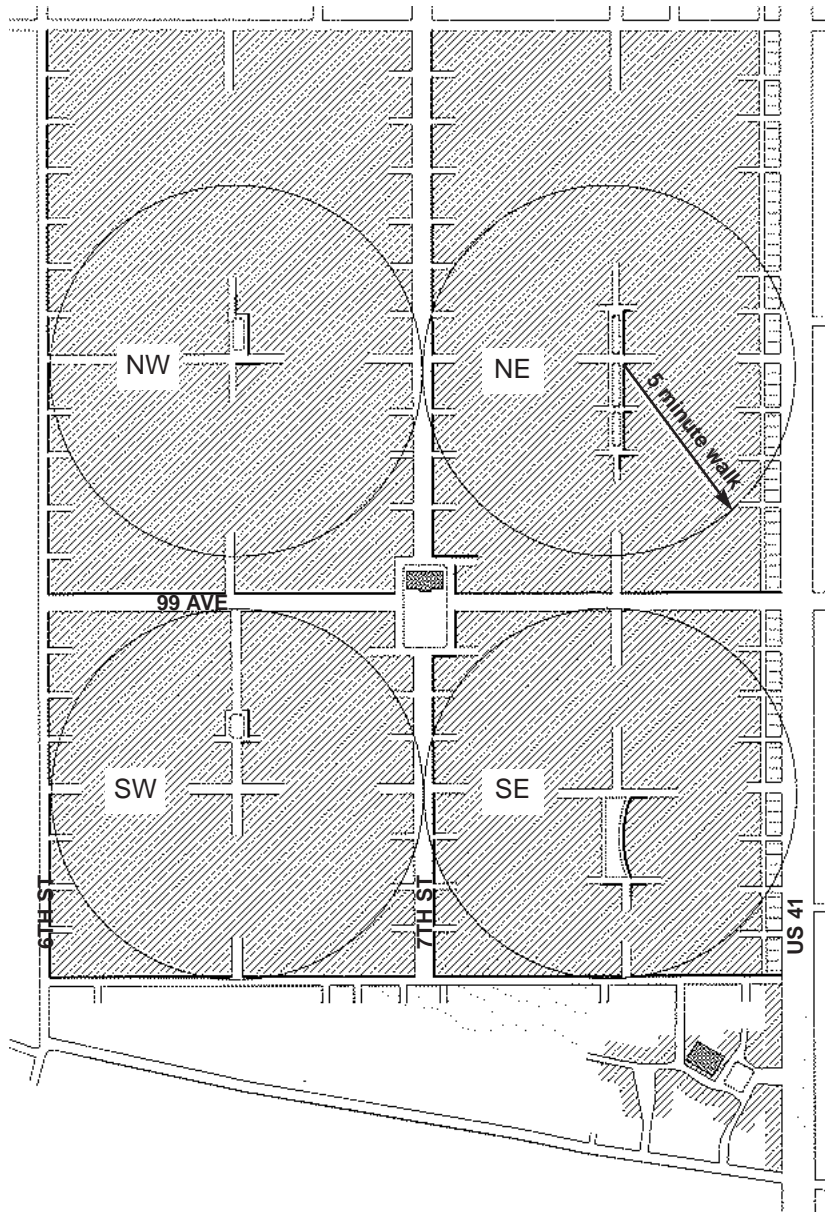
### Steps for Revitalizing Naples Park

To illustrate some of the key ideas for improving existing neighborhoods, the area where 7th Street meets 99th Avenue, Naples Park is shown as an evolving scenario. Because Naples Park is roughly one mile square, the area was conceptually divided into four neighborhood units, each with a center feature, and each with an approximately  $\frac{1}{4}$  mile radius.

The center could grow to include recreation facilities, a neighborhood store, a bandstand or meeting hall, or other useful amenities. The square should become an important place for civic activities, the psychological heart of the community. With this surgical sort of redevelopment comes the opportunity to diversify the neighborhood, accommodate growth, reduce trips on the regional road network, and create a badly needed sense of identity all at the same time.

#### **1. Conceptually divide Naples Park into four identifiable neighborhoods, and approach each as its own planning task.**

Scaled for the automobile, Naples Park is very large, as big as four traditional neighborhoods. The sense of identity suffers from a lack of discernible territories, and the area is too big to be served by only one neighborhood center. The diagrams illustrate how the larger area can be divided into a series of four neighborhoods that approximate the ideal of  $\frac{1}{4}$  mile radius. These neighborhoods should then serve as the physical and social organizing principle; each neighborhood should have its own citizens' organization or leadership group, its own plan for physical improvement and completeness, and its own spatial cen-



#### Four Neighborhoods

Conceptual breakdown of Naples Park into four neighborhoods, each with small neighborhood squares at their centers.

ter. Although the neighborhoods should not be gated off from one another, key entrances to each neighborhood could be marked with monuments or other expressions of pride and identity. The streets which form the boundaries between the neighborhoods should be treated as the most important streets in Naples Park, the shared “public face” of all four neighborhoods.

#### 2. Designate a center for each of the four neighborhoods.

The center should ideally be characterized by a mix of uses, the potential for higher-intensity uses at a pedestrian scale (four stories maximum), and community space in the form of a park or square that encourages gathering at the center. It may be possible to initiate the park or square by creatively using the generous rights-of-way and/or existing vacant lots.

#### 3. Plant street trees.

All the streets in Naples Park should undergo a tree-planting and maintenance program. Street trees should be aligned and planted with regular spacing. Consistent species should be used on a given street; neighbors might choose “signature” species to distinguish certain streets. Homes on shady streets with canopy trees enjoy substantially higher property values than identical homes on treeless streets, especially in tropical Florida. (In the early 1990s, national realtors’ organizations conservatively estimated the difference at more than \$15,000 per house in average situations; an even greater increment would probably be observed in the prestigious neighborhoods of Old Naples, Coral Gables or Winter Park, all of which have trees. With approximately 3200 homesites in Naples Park, a coherent street tree program could result in a boost of more than \$48 million to the county tax base in this small area alone, an unquestionable return on investment.)

The southeast neighborhood with traffic calming retrofit techniques.





Existing Conditions (typical)



Phase 1



Phase 2

### Existing Conditions (typical)

Drawing depicts scattered single family housing in Naples Park. This location marks the center of one of Naples Parks' four neighborhoods. These diagrams illustrate a sample technique for uniting the neighborhood and enhancing its identity.

### Phase 1

Adding street trees; just this simple and gentle change causes dramatic effects on any given neighborhood's character.

### Phase 2

A carefully planned square is added at the neighborhood center; the square is both a public space and a traffic-calming device.

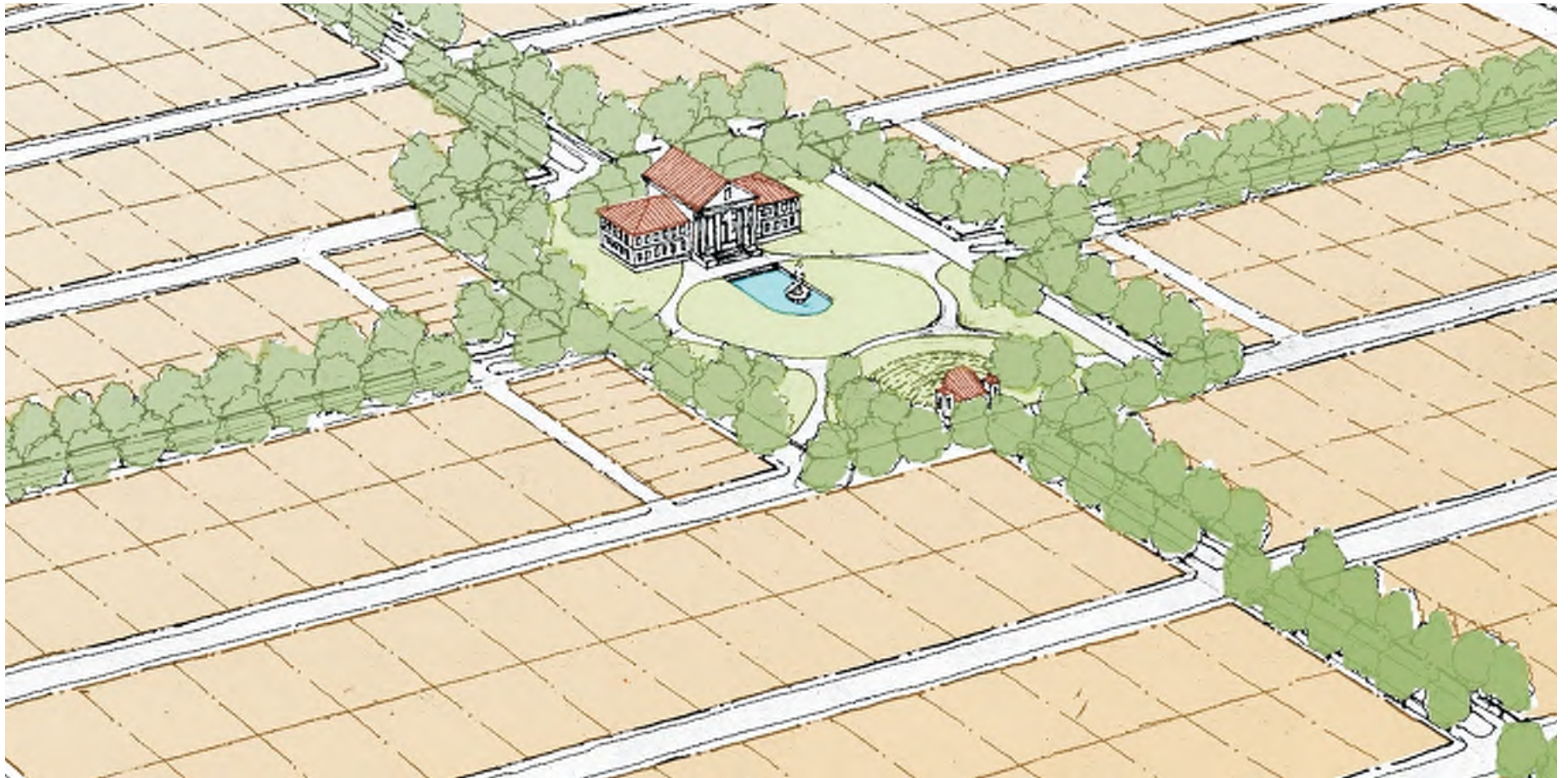
### Phase 3

Over time, redevelopment can be focused around this center, diversifying the neighborhood uses. This step is considerably more involved and requires assembly of land to create a small neighborhood square; this could be accomplished with a community land trust, county purchase, assistance from an organization like the Trust for Public Land, or by other means. Lots would have to be acquired over time, in a natural process, as they become available.

The long term step would be to add buildings or redevelop the adjacent properties with new buildings, so that architecture of town scale and of the highest possible quality faces the square. This could include perhaps one or more modest mixed-use buildings, a small apartment house, cottages on smaller lots, elegant rowhouses, or any combination of these.



Phase 3



Naples Park: a new central park, where the four neighborhoods converge at 7th Street and 99th Avenue.





#### Before Traffic Calming

The existing conditions at 99th Avenue and 8th Street are similar to most intersections in Naples Park. Long, straight roadways with minimal impedance make the neighborhood ideal for cut-through traffic and speeding.



#### After Traffic Calming

The same intersection with the addition of traffic calming devices. The roundabout forces traffic to slow to a safe speed, as opposed to stop signs which can easily be ignored. The addition of street trees along the length of the street makes it appear narrower, and thus causes most drivers to proceed more cautiously. The addition of a curb at the intersection provides a similar perceived narrowing.

#### 4. Liberally apply traffic calming techniques.

Naples Park's great strength— its connected street grid, which disperses substantial amounts of traffic compared to the snakelike maze of the typical PUDs— also imperils the neighborhoods with cut-through traffic, at least in its current form. The volume of traffic is manageable, but the long straightaways invite speeding and other recklessness. "Traffic calming" refers to a whole menu of programs and physical changes that simultaneously discourage motorists from driving too fast (and to some extent dissuade cut-through traffic), beautify the streets, and enhance pedestrian mobility. The urgent need for traffic calming coincides with an opportunity to improve the appearance of highly visible streets and express the conceptual structure of Naples Park as four neighborhoods; 7th Street and 99th Avenue should be the first priorities for traffic calming enhancements. Starting with these

more traveled streets but eventually including all or nearly of them, sidewalks and street trees should be introduced. Street trees clearly augment the physical beauty, but they also add the necessary traffic calming effect. They assist in perceptually narrowing and framing the street, thus causing drivers to slow down instinctively. Terminating the straightaways by placing the parks or squares in the abundant right-of-way is an even more obvious traffic calming device. The roadway would flow one way around the square in most such circumstances. In this way the street network may remain open and permeable but the motorists will have to behave on the neighbors' terms in Naples Park. See the *Mobility Manual* for other traffic calming techniques.



**Naples Park today** - a vacant lot at the intersection of 6th Street and 105th Avenue, an ideal candidate for a neighborhood center.

### **5. Create pedestrian and bicycle connections.**

There are too few reasons to walk anywhere, and given the lack of street trees and sidewalks, walking for pleasure is also discouraged. In recent public meetings, residents of Naples Park expressed a desire to be able to walk comfortably in their neighborhood, but because of cut-through traffic, speeding cars, and a lack of shade trees, people are often hesitant to walk, especially with children.

### **6. Sidewalks should be provided on all streets.**

Streets within the neighborhoods need not have dedicated bike lanes (although this is an option for perceptually “narrowing” the pavement for traffic calming reasons, if no other option is achievable in the short term on a given road). However, the streets in Naples Park can easily be optimized by cycling by the addition of a tree canopy and traffic calming devices.

### **7. Connections should be provided to existing commercial areas such as those on Vanderbilt Beach Road and US 41.**

The existing commercial along US 41 and on Vanderbilt Beach Road should be made more accessible for pedestrians and local car trips. Rather than having to go out on to these regional roads, residents of Naples Park should be able to access these stores and services from the alleys, from neighborhood streets, or pedestrian paths. Entrances from the alleys should be clearly marked and have sufficient lighting in order to create a safe and pleasant area.



**Adding Street Trees** - Public open space can be provided by acquiring vacant or available lots in strategic locations. The first step in transforming such a property into a park or neighborhood green is the extension of curb and sidewalk and the addition of street trees, as well as the provision for maintenance of the space. Even in this raw state, it can be used as a park.

### **8. Reorganize blocks and lots in the immediate area around centers.**

Naples Park, although based on a grid of streets, suffers from the unrelenting nature of the grid. As discussed above, while a network is a necessity, the combination of an unending gridiron, curbless streets, and the low densities and detached building types of suburbia is undesirable. The lack of variation in the pattern or appearance of the streets discourages pedestrian activity and actually encourages cut-through traffic, since the clear sight distances and straightaways incite faster driving. As the existing aerial photograph reveals, the grid of Naples Park streets is virtually uninterrupted.

**9. Create some smaller lots through subdivision and reclamation of vacant lots at the center of each new neighborhood; this will allow graceful densification over time** (in much the same way the memorable parts of Savannah or St.

Augustine were densified historically). Occasional alleys would allow some narrower lots, reducing the per-unit land cost and making redevelopment feasible. This approach also allows the creation of more affordable dwellings that are nevertheless very dignified, makes efficient use of existing infrastructure, and encourages more activity at the center. The approach also improves safety, while adding texture and interest to the neighborhood center.

### **10. Create new parks or greens in existing or enlarged rights-of-way.**

Citizens in Naples Park expressed a desire for more opportunities to know their neighbors and to venture out into the public realm without their vehicles, but there are few spots to do this. These improvements to the right-of-way will serve a triple purpose. Not only will they add to the physical beauty and add traffic calming, but also they will create an open public place for civic activities or simple recreation. Places



**Neighborhood Center** - More long term additions include reorienting neighborhood lots and adding a street on the backside of the park. These modifications will help create “eyes on the street” and make the square more pedestrian friendly. Such moves are also designed to encourage other homeowners in the area to create enhanced public faces on their homes instead of surrounding them with privacy walls and fences.

for a picnic in the park or for small children to play safely are basic equipment in livable neighborhoods, and add to our human enjoyment of the built environment. In the long term, these public places will become even more successful when the lots that surround them are turned and oriented towards the center. These lots could be filled in with, for example, townhouses with their front doors and windows facing the squares.

The planning approach illustrated above for Naples Park could be used in other neighborhoods even where there is no formal homeowners’ association or other legal entity to carry out the improvements. Collier County should declare that it wishes to assist neighborhoods in this kind of planning and set out a process for individual neighborhoods to request assistance, and also establish a cost-sharing formula to pay for planning and later implementation.



**US 41** - Adding alleys parallel to Tamiami Trail will make it possible to redevelop commercial properties on the corridor’s west side in Naples Park with street oriented buildings. Note the importance of trees even on the busy thoroughfare.

## REVITALIZING MATURING NEIGHBORHOODS

### SETTING THE COURSE

Some of Collier County's neighborhoods aren't aging as gracefully as they should be and need to be re-energized. These neighborhoods should have officially sanctioned "community plans" generated through direct involvement of local residents. These plans should promote each neighborhood's intrinsic strengths and identify their deficiencies, and then be used to guide public and private improvements.

### GETTING THERE

#### Growth Management Plan

- a. In the Future Land Use Element, adopt a new goal #2 stating that county planning efforts shall recognize the variations among Collier County's diverse communities and the special characters that are created by their physical settings, including roadsides, natural features, memorable buildings, and the public realm between buildings.
- b. Add an achievable objective #1 under goal #2 about Collier County's commitment to revitalize older neighborhoods.
  - i. Add a policy describing typical improvements for maturing neighborhoods, such as adding sidewalks and street trees, creating focal points within walkable portions of neighborhoods, improving street connections, improving pedestrian access to shopping, and traffic calming.
  - ii. Add a policy that would allow a greater variety of housing types in maturing neighborhoods, such as accessory apartments, live-work units, or townhouses.
  - iii. Add a policy that describes the various levels of involvement that Collier County can use to improve or redevelop existing neighborhoods, including a municipal service taxing or benefit district, a community plan, a community redevelopment agency, or a dependent special district.
  - iv. Add a policy under objective #4 of goal #1 adding "community plans" as a new Collier County planning process that can be requested for existing neighborhoods or commercial/industrial developments. Community plans could include the following steps:
    1. Collier County would declare that it wishes to assist neighborhoods in community planning and set out a process for individual neighborhoods to request professional assistance.
    2. The process would typically include:
      - a. neighborhood meetings to gather input and develop design and implementation ideas;
      - b. preparation of a master plan;
      - c. acceptance of this master plan by Collier County, as part of the community plan;
      - d. adoption of any amendments that are needed to the growth management plan or land development code;
      - e. determination of cost-sharing requirements for capital improvements; and
      - f. initiation of any capital improvements through normal county channels.

#### Administrative Code

- a. Adopt an administrative code establishing guidelines for community plans.

#### Land Development Code

- a. Allow single-family lots to be split when a continuous alley can be provided behind the lots to allow vehicular access from the rear.
- b. Modify the required minimum depths of lots in situations where right-of-way acquisitions have reduced lot depths.
- c. Make other changes to the land development code that are found necessary during the community planning process.

#### Financing Issues

- a. Allocate \$250,000 annually beginning next fiscal year from the unincorporated municipal service taxing district to fund community planning studies.
- b. Allocate \$750,000 from the same source beginning in the following fiscal year to be used in the capital improvements program as matching funds to implement community plans.

## TRANSFORMING PLANS FOR CONVENTIONAL SUBDIVISIONS

Much of Collier County is zoned PUD and although some PUDs are commercial and industrial, the vast majority of PUDs are “gated communities,” “golf course communities,” and cul-de-sac subdivisions. These PUDs sometimes take up entire sections (square miles) of land and, when blocked off as isolated pods, are the root of the transportation network problems outlined in the Mobility Manual. Most of the land between Tamiami Trail (US 41) and I-75 for the entire length of Collier County is either existing PUD, or approved PUD zoning, so this settlement type is here to stay. The existing PUDs sometimes have sparse street networks that lead to only one way in and one way out of entire communities, and this one location is often gated and entry by the general public is either blocked or discouraged. The predominance of large isolated pods is a deterrent to mobility and provides the biggest challenges to the successful preservation of character in Collier County.

It is recognized that transforming these PUDs and gated communities into something better is profoundly difficult, and that many of them will remain exactly as they are for several lifetimes. There is not a strong economic imperative at work today compelling investors and government to rush out and fundamentally change these subdivisions, whatever their flaws.

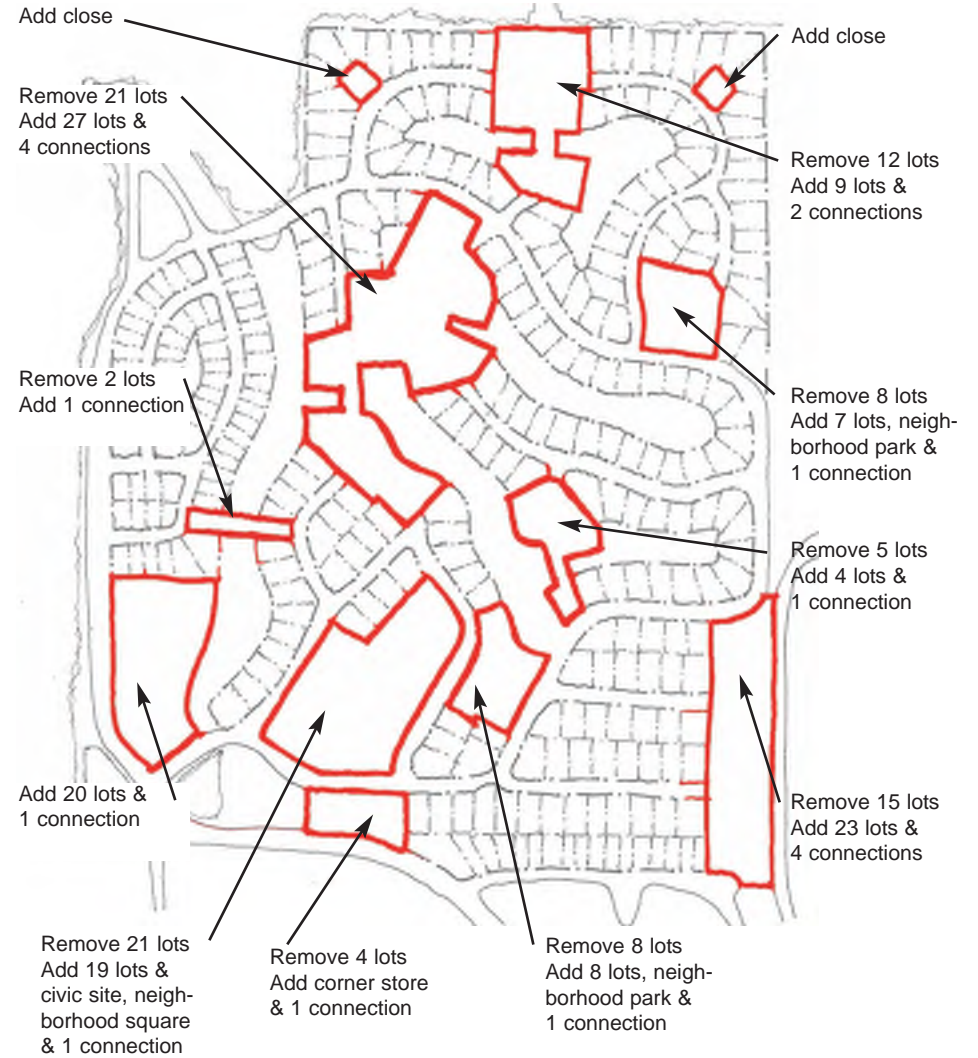
The illustrative exercise undertaken as part of the Character Plan has pointed out the many obstacles to fixing these disconnected subdivisions, and underscores the importance of ending the practice of approving disconnected subdivisions in the first place. The fundamental shift in thinking that is required is to replace the emphasis on *isolation* with an emphasis on *community*.



A conventional subdivision in Collier County



Typical PUD - A disconnected street network with many dead ends.





**Areas modified** - New street connections and replatted lots with diversified housing types.



**Resulting neighborhood** - A connected street network; these interventions provide opportunity to diversify housing types and uses and create features such as neighborhood parks.



### **STRATEGIES FOR RETHINKING P. U. D. PLANS**

The diagrams illustrate one method of improving the current land development practiced in Collier County. The redesign of expiring PUDs into great neighborhoods is a very real issue that Collier County will face in coming years. These techniques can also be employed as a means of upgrading existing PUD approvals as they expire.

It is also predictable that others of these subdivisions will eventually experience a decline, as they fall out of fashion, the housing “products” age, or lifestyles evolve. In some cases, there may even occur a precipitous decline in property values in a subdivision, accelerating the impulse to reposition the real estate in the marketplace by reinventing the character of the neighborhood. In a few cases in the distant future, the desperation over traffic congestion may even rise to the point where neighbors, government and the motoring public agree that the difficulty of creating vital connections across conventional subdivisions is outweighed by the benefits.

- 1.** Remove the gate; provide security at the block level or lot level; instead of an off-putting guardhouse or “entry feature” that is really just glorified signage, use substantial architecture to frame the entrance.
- 2.** Create additional connections to the surrounding road network and to adjacent neighborhoods.
- 3.** Create a neighborhood center or focal point, with a park or square, and possibly civic and small-scale commercial uses.
- 4.** Create an internal network of streets and blocks, by connecting missing links and street segments.
- 5.** Encourage a range of housing prices and types; where new street connections are made, single-family lots can be reconfigured for rowhouses or apartment buildings.
- 6.** Liberally apply traffic calming, street tree planting, and sidewalks to make the streets more livable and attractive.
- 7.** Improve the image of the neighborhood by modifying houses, employing front porches and de-emphasizing garage doors by moving them away from the facade of the houses to de-emphasize garage doors.

<p><b><u>Isolation Model:</u></b></p> <p>sprawl              experimental, since 1945              segregation of uses into pods              car is a prerequisite to survival              measurable in car trips              consumes wildlife habitats and farmland              horizontal zoning              confusing, ambiguous form              financed and constructed all at once              has "developers"              forgettable and disposable</p> <p><b><u>Certain to Increase:</u></b></p> <p>traffic              pollution              infrastructure costs              sameness              crime</p> <p><b><u>Certain to Reduce:</u></b></p> <p>community character              affordable housing              diversity              choice</p>	<p><b><u>Community Model:</u></b></p> <p>neighborhoods              field tested, for 5000 years              mix of uses in streets and blocks              car is an option              measurable in walking distances              conserves wildlife habitats and farmland              vertical zoning              legible public spaces              financed and constructed incrementally              has "founders"              memorable and lasting</p> <p><b><u>Certain to Reduce:</u></b></p> <p>traffic              pollution              infrastructure costs              sameness              crime</p> <p><b><u>Certain to Increase:</u></b></p> <p>community character              affordable housing              diversity              choice</p>
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**TRANSFORMING PLANS FOR CONVENTIONAL SUBDIVISIONS**

**SETTING THE COURSE**  
 Collier County's large pods of isolated development are a deterrent to mobility and a primary cause of traffic congestion. Making changes to newly built neighborhoods is extremely difficult. However, some isolated neighborhoods have been approved but not yet built; their site plans should be modified to increase the connectivity with existing and proposed roadways before Collier County extends the prior approvals.

**GETTING THERE**

**Growth Management Plan**

- a. Add an achievable objective #2 under goal #2 about Collier County's commitment to improve typical subdivision techniques.
  - i. Add a policy establishing stricter terms before extending the life of unbuilt development approvals that are no longer consistent with the growth management plan. This policy should also describe the type of modifications that are anticipated: moving gates away from major roads; improving connectivity to adjoining neighborhoods and within new neighborhoods; creating neighborhood centers or focal points within walkable portions of neighborhoods; adding sidewalks; and increasing the range of housing prices and types.
  - ii. Add a policy that requires a technical evaluation of expiring PUD rezonings as to the spacing and connectivity of local streets, percentage of land behind gates, and interconnections with adjoining neighborhoods (see the *Mobility Manual*).

**Land Development Code**

- a. Amend §2.7.3.4 to shorten the period that unbuilt PUD approvals remain valid from five years to three years, and to substantially increase the amount of continuing progress that is required to retain PUD approval for unbuilt or partially built PUDs that are no longer consistent with the growth management plan or land development code. The purpose of this change is to require the design of unbuilt portions of PUDs to be modified to comply with regulatory changes before the PUD approval can be extended.

## GROWING NEW NEIGHBORHOODS

In the twentieth century the advent of air conditioning and large-scale drainage projects paved the way for rapid population growth in the Florida peninsula. Collier County has been a hotbed of growth and development. As aerial photographs reveal, however, there is still a fairly large amount of land left in Collier County that has not yet been urbanized, even after subtracting federal, state, and locally preserved lands, regulated wetlands, and already platted land. Much of the remaining agricultural land is under intense pressure for development. With increased population projected for the near future, the present generation of developers will undoubtedly continue to build new projects in “greenfield” locations, and the debate over their character is unlikely to wane. Despite success in infill development and redevelopment east of US 41, the greenfield sites are where the action is today and in the near future. New neighborhoods will be the fulcrum upon which rests the character of Collier County.

### Breaking the Cycle

Creating new neighborhoods with interconnectivity and greater density is the only way to avoid the worst-case scenario presented by the sprawl approach. New neighborhoods must focus on both on quality and more completeness. As additional land develops in Collier County to house the increased population, development standards will become the most important aspect in creating and maintaining community character. The road congestion plaguing Collier County, further described in the Mobility Manual, is due in a large part to the type of development that has become common in the last 20 years.



Aerial view of existing conditions in 2000 of the area east of Willoughby Acres, west of I-75, and north of Immokalee Road, 1999.

Continuing with this pattern of isolated, gated, golf course subdivisions will only aggravate these troubles. New development has the benefit of starting from scratch and the ability to adhere to some simple guidelines for creating character. The extension of Livingston Road provides an excellent model development opportunity that shows how to accommodate new growth while enhancing character.

### Strategies for Creating New Neighborhoods

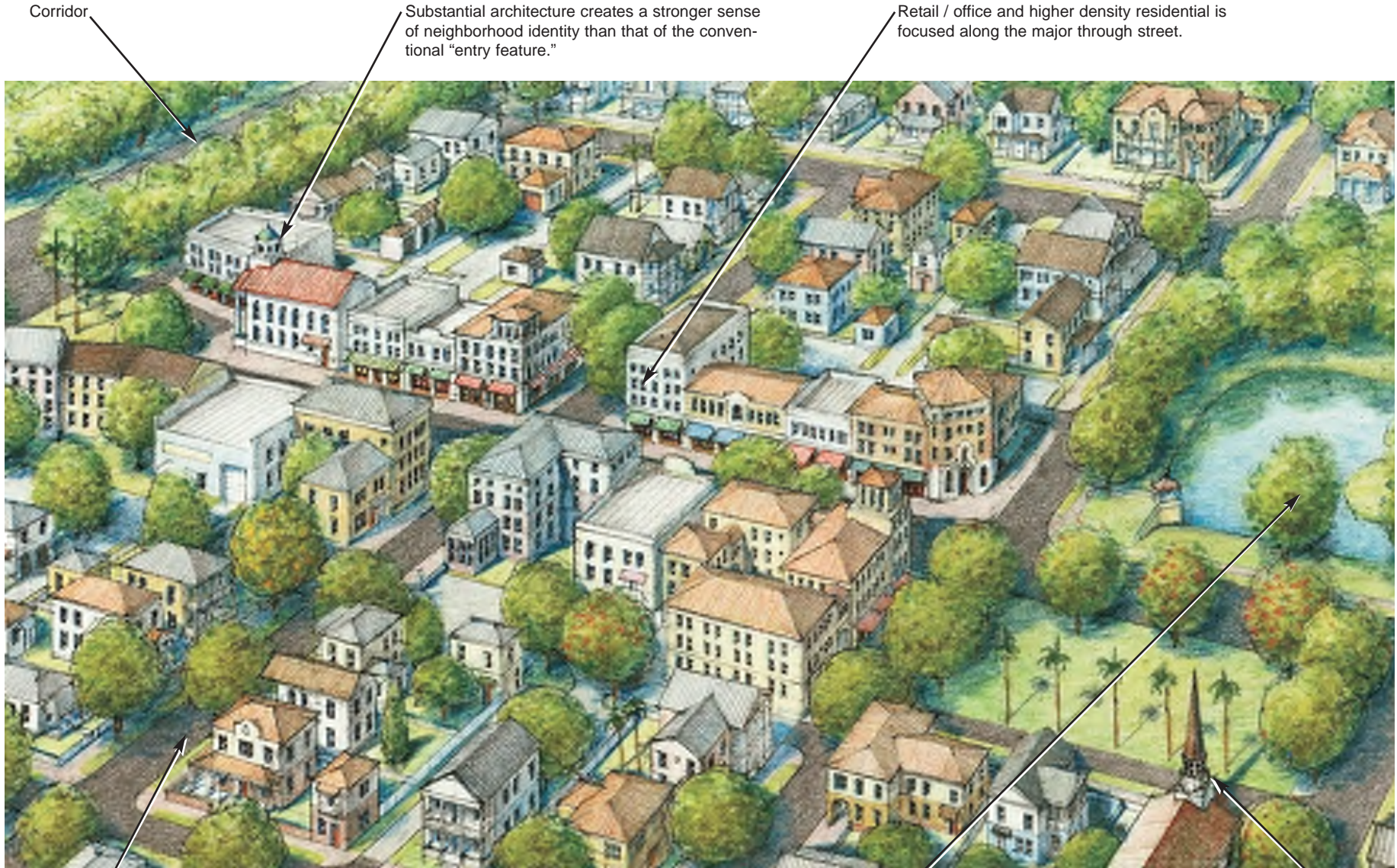
1. Begin with neighborhood centers
2. Connect center and edge with a true street network
3. Connect with existing neighborhoods
4. Provide security at the block level
5. Place houses close to the street edge
6. Provide a mix of uses
7. Provide sidewalks and bike paths

Proposed development straddling the new Livingston Road alignment. This new development illustrates the 1/4 mile neighborhood unit as a building block for larger master planned communities. The edge of these neighborhoods are connected, where possible, to the neighboring communities. Each neighborhood has center, general, and edge zones that provide a variety of housing types and sizes and a true mix of uses. A core area is also suggested at the top of the illustration, along a proposed new thoroughfare. This core area provides services and commercial uses shared by several adjacent neighborhoods.



- Center / Core
- General
- Edge

Livingston Road - where several neighborhoods converge. Connectivity, a mix of uses, and a gradient in density from center to edge.



Corridor

Substantial architecture creates a stronger sense of neighborhood identity than that of the conventional "entry feature."

Retail / office and higher density residential is focused along the major through street.

Neighborhood streets lead directly to the mixed-use "Main Street."

The neighborhood is focused around green, public, open spaces fronted by buildings.

Special sites are reserved for civic buildings

## GROWING NEW NEIGHBORHOODS

### SETTING THE COURSE

The culture of community-making demonstrated by Collier County's pioneers should be reestablished. New neighborhoods should be based on a sound pattern of streets and lots. A wider variety of housing choices should be made available by reintroducing traditional neighborhood concepts as an alternative to balance the many gated subdivisions that have been built over the past 20 years.

### GETTING THERE

#### Growth Management Plan

- a. Add an achievable objective #3 under goal #2 regarding standards for planning new neighborhoods.
  - i. Add policies endorsing the strategies for creating new neighborhoods as stated in this plan, including right-sized neighborhoods with walkable blocks, differing intensities, common public spaces, and sites for civic buildings.
  - ii. Add a policy that requires master plans in proposed PUD rezones to show a conceptual street and block pattern for the entire site.
  - iii. Add a policy that requires a technical evaluation of proposed PUD master plans and site development plans as to the spacing and connectivity of local streets, percentage of land behind gates, and interconnections with adjoining neighborhoods (see page 1-9 in the Mobility Manual).
  - iv. Add a policy that requires street connections to all fronting collector and arterial roads, except where no such connection can be made without violating intersection spacing requirements of the land development code.

- v. Add a policy clearly supporting neighborhoods with a fine-grain mix of housing types, densities, and costs.
- b. Amend the description of the "Urban - Mixed Use District and related subdistricts" (pages 18-23 of the Future Land Use Element) to reflect the county's new strategies for creating neighborhoods.
- c. Amend the description of the "Traditional Neighborhood Design subdistrict" (pages 21-22 of the Future Land Use Element) to convert this subdistrict into an option that can be used throughout the urban designated area without need for rezoning, provided a proposed development plan complies with specific regulations to be placed into the land development code.
- d. Amend Policy 9.3 of the Transportation Element to strengthen its requirement for interconnection of local streets between neighborhoods.

#### Land Development Code

- a. Amend the land development code to require newly approved developments to:
  - i. Include collector roads that are open to the public and not blocked by gates;
  - ii. Incorporate any road links shown on the thoroughfare map; and
  - iii. Provide detailed criteria for evaluating the connectivity and spacing of local streets in proposed developments.
- b. Amend §3.2.8.4.16 and §2.2.20.3.11 of the code to delete the ambiguity as to when street interconnections will be required.
- c. Require newly subdivided neighborhoods to establish a connected street pattern with only a minimum of cul-de-sacs.
- d. Adopt specific regulations to implement the revised "Traditional Neighborhood Design subdistrict."

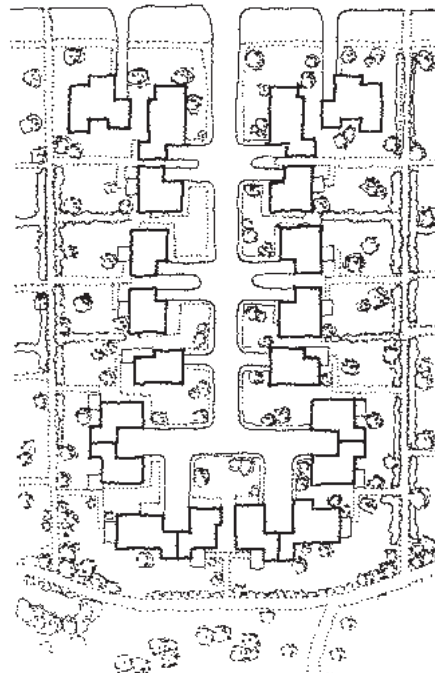
### When Public Space is Behind the House

The best layout is for public spaces (parks, golf courses, greenways) to be faced by the fronts of houses, across streets that are designed for both pedestrian comfort and vehicular access. Optimally, place an alleyway along the rear side of lots, especially on blocks with relatively narrow lots, so that garage doors do not detract from the image of the street. With wider lots, it is possible to have driveways enter the house lots from the front, as long as garage doors are pushed back well behind the principal plane of the house front.

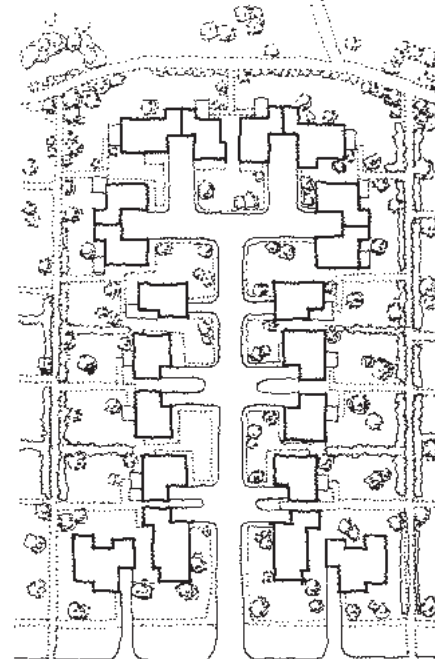
This respect for the grammar of “fronts” and “backs” is a hallmark of traditional neighborhood design and can be seen in many classic Florida communities. In Coral Gables, for example, the elegant houses on North Greenway Drive *face* the golf course instead of backing up to it.



There is another pattern, prominently introduced in the 1920s at Radburn, New Jersey by designers Clarence Stein and Henry Wright. In the Radburn model, the neighborhood's greenspace serves as the main organizing element for addresses while the streets are more like utilitarian service courts for motor vehicles. This pattern emerged from a desire to separate pedestrian and vehicular traffic and provide safer places for children to play. In Radburn's “superblocks,” the fronts of



Radburn Plan



the houses face the fingers of greenspace instead of the streets, which in turn do not connect to one another.

The Radburn social experiment, since harshly discredited by Jane Jacobs and others who objected to the lack of “eyes on the street,” nevertheless gave rise to many variations in the PUDs that came later. Gradually developers abandoned the practice of making the greenspace-side the house front, expanded the garages and moved them streetward, and replaced the finger-like parks with fairways (hence the phrase “golfing between barbecue grills”). The *cul-de-sacs* themselves, shady and orderly in their spatial geometry in Radburn, became the excessively wide, treeless, loopy, bulb-headed roads that snaked into the PUDs of the 1980s and 1990s.



Despite the limitations and traffic problems, PUDs with watered-down Radburn techniques have been popular in Collier County. There are good ways to adapt some of the features of the Radburn model (while dropping others) for parts of modern neighborhoods:



golf course



porte-cochere

**Don't give up on the street being the front of the dwelling.** The houses clustered on Santa Maria Street in Coral Gables are both street-oriented *and* back up to the public space of the Riviera Golf Course.

**Get the garage door back behind the house.** Run the driveway down the side of the lot, preferably to a detached garage/outbuilding. If the garage must be attached to the house, push it behind the principal plane of the house front, a car length or more, or even attach the garage to the rest of the house.

**Add a porte-cochere over the driveway.** This way the garage can be detached and pushed toward the rear, yet unloading of groceries is no problem in inclement weather, and results in a second shaded parking space to boot.



Newpoint Green

Newpoint "Ramble"



Map by Lombard & Spain (reprinted with permission)

**Streets can still connect.** Narrow and tree-lined, Santa Maria Street is not part of a block pattern, yet it connects to the surrounding street network on both ends.

the Newpoint Green

the "Ramble"



Newpoint Plan

**Vary the block pattern, and incorporate both midblock greenspace and normal parks and squares.** Newpoint is a Traditional Neighborhood Development that nevertheless has one scaled-down Radburn block. In the center of the block, the "Ramble" is a shared greenspace where kids play and neighbors gather.



## REGARDING "GATED COMMUNITIES"

Gated subdivisions have been a prevalent housing choice in Collier County for a few years, and there is little point debating their popularity. Although places like the prestigious neighborhoods of Old Naples feature completely open streets – and homes there resell year after year for exceedingly high prices – developers staunchly maintain that gating is essential to sales in new development. They cite the fears of Florida crime that stem from the national media reports out-of-state buyers hear, and the tendency of seasonal residents to leave their homes unattended, as reasons why the walled compounds have become common.

The security impulse in real estate is not all that new. People have been coming together in communities for their collective security (among other reasons) for as long as there have been towns. Some of the oldest, most cherished places in the world have walls or were walled at some point in their history; think of the Bastides in France or the "private places" built by wealthy industrialists in 19th century St. Louis. The territorial impulse to mark the entrances and boundaries of one's community is also grounded in history; monumental entrances were among the first features incorporated in George Merrick's "City Beautiful" design for Coral Gables in the 1920s, for example. But like other lost arts, there are major problems with the physical way subdivisions have been gated in the recent past. It is completely feasible to provide security and identity – and yes, even gates – without the level of disruption to the street system or the anti-social imagery associated with the current practice.



Gated communities are prevalent throughout Collier County

**The Community Character Plan recognizes the pervasive nature of the gate trend and does not mandate that gates should be outlawed in new development nor demand that they be removed from existing subdivisions.** Instead, the urgent need is to reinvent the way gates and other security features are employed, to avoid the many negatives linked with the way gated communities were built in the 1990s.

**1.** First among the problems with gated communities was impact on *traffic circulation*. A number of PUDs simply walled off too big an area, sometimes enclosing a square-mile section of land or even more. Motorists from outside the subdivision have to go all the way around it (and, perhaps the next one and the next, too); this is basically why a relatively manageable amount of population growth has resulted in so much traffic congestion heaped upon so few roads. Commuters from within the gated PUDs tend to all crowd through the sole entrance at peak hours. Last, the disconnected and loopy street systems of the gated PUDs make it hard for public safety vehicles to find their way quickly, costing precious minutes when the need is most urgent. The practice of cordoning off a square mile section or quarter section of land ( $\frac{1}{2}$ -square mile) must end. A street connection to the surrounding street system at intervals of every quarter mile, at a minimum, should be expected in new development (see Mobility Manual for more information).

**Solutions:** Instead of walling the whole planned community, the perimeters of each urban quarter or ward ( $\frac{1}{4}$  of the neighborhood), or just portions thereof, can be secured. Open street connections would remain about every quarter mile, if not more frequently. Even better, the interior of each block itself can be secured in the traditional architectural manner, with garden walls, hedges and attached buildings; this creates privacy and security for the private indoor and outdoor spaces of each home, rather than blocking off the street. Where alleys are employed behind houses, these can be made private with electronically controlled gates, so that access to garages is restricted but the streets in front of homes remain open. Outbuildings can be allowed to span the alley, and balconies and bay windows incorporated upstairs, so the occupants of accessory dwellings above garages have a direct line of sight down the alley, adding more natural surveillance.



Monuments which mark the entrance to the community— but do not block off the street— are hallmarks of Florida's classic 1920's neighborhoods.



**Above**

Clearly defined public and private realms, coupled with “eyes on the street.” Garden walls and gatehouses at the block level provide security while enhancing community character. By placing homes close to the street, security is enhanced both for the pedestrian and for the homeowner, and more room is available for outdoor private space behind the house. High quality architecture and a dignified street scene are basic ingredients of upscale, exclusive neighborhoods all around the world. These factors can impart more value and market appeal than any security feature.

**Top Right**

Security at the block level. Continuous garden walls and fences, along with gated alley entrances completely enclose the block perimeter while maintaining open, connected, public streets.

**Far Right**

Security at the block level is an effective way of balancing security issues and pedestrian friendliness.

**Right**

Security at the house level, low garden wall instill a sense of safety and of privacy for the residents





This kind of "garagescape" inherently lacks security.

**2.** Designers of the walled compounds have an unfortunate tendency to *back the rear sides* of buildings up to the major streets going by at their edges, then surrounding the whole with a wall. This has disastrous consequences for community character and does not help marketability, either. Everyone sees these streets, and the aggregate visual effect is unworthy of Collier County's affluence and sophistication.

**Solutions:** Design the neighborhood with proper front-back relationships between all streets and all buildings. The fronts of houses or other buildings would therefore face the streets at the edge. With the right setbacks and design, this can be accomplished even along the heavily traveled collector streets. This approach is consistent with the way many American small towns were designed; often some of the grandest houses are located along the most prominent streets that lead to the town center, in a "Bankers' Row" or "Millionaires' Row." One can see this principle in effect in brand new Florida development, too. In the new town of Celebration, some of the finest homes are aligned on Celebration Avenue, the primary collector street. (When asked why Celebration Avenue isn't gated, the developer replied, "Real towns don't have those gates.")



On Celebration Avenue, grand homes face the major collector street.



Gates and walls are common throughout Collier; they may prevent some criminal activity, but negatively impact the roads and overall sense of community.



Conceptual drawing of a "millionaire's row."

**3.** For all the hype, the walled subdivisions are probably not even all that *safe*, given the manner in which they are typically designed. From a crime prevention point of view, one gets the impression that once the street system is blockaded and a wall is erected at the edge, the designers of these PUDs let their guard down. Most other fundamental concepts of crime prevention through environmental design are absent. There is little or no natural surveillance (eyes on the street); instead garage doors are the prominent features, so a miscreant could walk down the road in the middle of the afternoon on a weekend without being noticed. Lighting is often weak. Houses back up to the golf course, despite the much-discussed technique in which burglars enter the upmarket houses by walking right off the fairway.

Security consultants often point out that a common type of suburban crime is easy to commit in the gated subdivisions. In "walk in / drive out" crime, petty criminals leap the wall in an inconspicuous place, then raid a house, then drive away in a stolen car. Even at manned guardhouses, exiting motorists are rarely challenged, particularly when others are waiting (to use that lone exit!) at peak hours. Last, the mass-produced "monocultures" of similar households in similar houses— as opposed to the diverse communities envisioned by this Community Character Plan— tend to result in long periods of time in which no one is at home, a clear invitation to crime.

**Solutions:** With or without a wall and a gate, basic design conventions for safe neighborhoods should be incorporated in each new development. The natural surveillance gained from front porches, balconies, and people walking on sidewalks creates safety without being a visual announcement of fear and suspicion. Instead, these *add* to the sense of community and fellowship among neighbors.

4. For all the expense lavished on entry features, which grow more elaborate each year, numerous citizen participants expressed disdain for the slick, overwrought follies and fountains added to offset the typical guardhouses at the entrance to PUDs. Meant to add character, these items have become a hackneyed symbol of advertising and theme parks, and are having the opposite effect. (One called it "the Stalag thing.") On the other hand, using monuments and landmarks to delineate territory and celebrate passage into a community is a normal instinct.

**Solutions:** Wherever possible, eliminate the guarded gatehouse. This becomes feasible under the scenario of securing the block instead, described above. At key streets, traditional monuments alone can serve to mark entry, without impacting residents' and visitors' ability to travel in a desired direction or imparting the wrong emotion. These can be elaborate or low-key. The best way to create an impression of both dignity and conspicuous territoriality is with real architecture, that is, framing the entrance with substantial and occupied buildings instead of fake little follies. If there must be a guarded entrance, the guard booth should be integrated with the surrounding architecture if at all possible. One awkward but common design approach is to split traffic with a median (on which the single guardhouse often sits, like a tollbooth) at the neighborhood entrance; instead, try arching over the street or framing it on both sides for a less automotive-looking effect.



The "fortified compound" look



The majestic Douglas Road Entrance in residential Coral Gables

## REGARDING GATED COMMUNITIES

### SETTING THE COURSE

Most recent developments provide only one way in and out, and install a security gate at that point. Newly approved developments should instead have open street connections along spine roads about every quarter mile. Multiple gates can be used to secure individual blocks or portions of neighborhoods, provided these gates do not block access to adjoining neighborhoods.

### GETTING THERE

#### Growth Management Plan

- a. Add a policy that requires newly subdivided neighborhoods to limit gates and other access restrictions to individual blocks or portions of neighborhoods so that even communities with gates can have street interconnections with adjoining neighborhoods. Open street connections would remain about every quarter mile, if not more frequently.

#### Land Development Code

- a. Adopt specific regulations to implement the county's new policy on gates in newly subdivided neighborhoods. Interconnections to the surrounding public street network should occur at approximately 1/4 mile intervals, even if portions of the neighborhood are gated.



## **REGARDING STORMWATER MANAGEMENT AND THE CREATION OF TRADITIONAL NEIGHBORHOODS**

Some planners and engineers object that traditional neighborhoods cannot be built today because of state and federal requirements. It is true that certain requirements pose barriers to some design features, especially in flood prone areas.

For instance, the federal government mandates minimum floor elevations along the coastline and near rivers to protect new buildings from flooding. Residential buildings absolutely must comply with these elevations; however, commercial buildings may be placed at sidewalk level if they are "dry-floodproofed," a structural process that allows the building to withstand the effects of flooding.

Florida's stringent water management rules require on-site detention of rainwater expected over the rainiest three days during a 25-year period. This strenuous requirement is usually met by creating large lakes spread throughout a new development, an aesthetically pleasing solution but one that interferes with a traditional street and block pattern and often reduces walkability.

This problem is easier to resolve in larger developments because a comprehensive surface water management system can be designed simultaneously with the street pattern and greenway system such that it provides minimum interference with streets and maximum aesthetic enjoyment. the best strategy is to locate required ponds at the neighborhood edges and inte-



grate them with coherent parks, greenbelts, and other useful open spaces, faced by the fronts of buildings. The worst strategy is to force retention ponds into canal-widths and wind them through the development, lined by the backs of houses.

In smaller developments and while retrofitting existing neighborhoods, other techniques are available such as pervious pavement, dry detention areas, exfiltration trenches, and other direct recharge concepts. These techniques return rainwater directly to the ground rather than routing it through highly engineered conveyances to drainage canals. Dry soil has much greater capacity to absorb water than a pond has; maintaining infiltration capacity throughout a site can replace the storage capacity of conventional ponds. These techniques,

## REGARDING STORMWATER MANAGEMENT

### SETTING THE COURSE

Technical regulations can inadvertently block ideal development practices. Collier County should encourage stormwater management techniques that return rainwater directly to the ground whenever those techniques can reduce runoff that would otherwise be routed to drainage canals.

### GETTING THERE

#### Growth Management Plan

- a. Add a new policy under objective 1.6 in the Public Facilities Element (drainage sub-element) to encourage the use of stormwater management techniques that return rainwater directly to the ground, such as pervious pavement, dry detention areas, exfiltration trenches, and other direct recharge concepts.

#### Land Development Code

- a. Amend any provisions of the code that inappropriately restrict the use of stormwater management techniques that return rainwater directly to the ground.
- b. Add a policy encouraging most new lakes or ponds to be located at edges of neighborhoods so as to minimize interruptions to pedestrian connectivity.

## New Traditional Neighborhoods: The Financial Outlook

Investment in traditional neighborhood development (TND) was on of the fastest growing segments of the real estate industry in the late 1900's. The TND Fund estimates that cumulative investment in this sector rose to \$2.1 billion in 1998, up 75 percent from the year before.

TND investments fall under six subcategories:

- 1) Corporate owners of large properties have funded some of the larger new towns. Examples include Disney's investment in Celebration (Orlando, Florida) and Weyerhaeuser's Northwest Landing (Dupont, Washington).
- 2) Real Estate Investment Trusts (REITs) have made sizeable investments in a handful of projects. Examples are Post Properties' investments in Addison Circle (Dallas, Texas) and Federal Realty investments in neighborhood centers.
- 3) Life insurance companies have made loans to developers. One example is Northwestern Mutual Life Insurance Company's debt financing of Haile Village Center in Gainesville, Florida.
- 4) Bank and mortgage companies were a source for such projects as Amelia Park in Fernandina Beach, Florida (First Union National Bank) and Daniel Island in Charleston, South Carolina, (National Bank of South Carolina).
- 5) Government credit agencies have put capital into projects such as Southlake near Orlando, Florida (Florida Housing Finance Agency).
- 6) Life insurance companies have contributed equity, e.g. Leucadia National Corporation (Colonial Penn holding company) financed Rosemary Beach.

### Why is TND a fast growing segment?

The New Urbanism offers economic and practical benefits to developers, buyers and local government. For the developer, walkable neighborhoods usually means higher density which can mean lower land cost per home. TND's typically attract a broader range of buyers, because they offer a wide range of housing types and prices with neighborhood commercial and retail. Developers of TND's believe that the product will have a higher value - a study by the Urban Land Institute, Valuing the New Urbanism, has shown that this assumption is well founded.

TND investments likely will continue to grow, for the following reasons. First, institutions are expected to have at least some of their portfolio in "specialty investments," including mixed-use properties. However, institutions require higher yields from such investments. Second, successful investors want to be on the next bandwagon - early and in a big way. To all appearances, the next bandwagon is TND.

Furthermore, TND will grow because it fulfills the needs of a growing number of people who see suburbia as dysfunctional and dislike sprawl. This market segment wants to break free from automobile dependence and seeks community. "Sample the attitudes of suburbanites today and you'll find a growing number who think their lifestyle is becoming more difficult and less appealing," reports ERE/Yarmouth's *Emerging Trends in Real Estate: 1998*. "And for the first time they are beginning to consider alternatives."

At the current rate of increase, the total invested in TND will rise to more than \$10 billion by 2004 - a scenario that is not unrealistic given the number of projects that are planned, financed and just beginning construction.

Investment in TND may, in fact, increase faster. One reason is that TND investment is a hedger against risk. The principles of

investment diversification found in Harry Markowitz's classic concept, *Modern Portfolio Theory (MPT)*, argue against allocating all of a real estate portfolio to conventional development. By imposing constraints on conventional investments and by diversifying into TND and New Urbanism, the portfolio risk is reduced, according to MPT.

### Short term versus long-term investments

By their nature, TND's are a longer-term investment. Although some have done well in early years, they are generally structured to yield higher returns later than conventional development. TND's are designed to be more than the sum of their parts, and it takes many years to develop all the elements, i.e. retail, mix of housing types and community amenities, which add to the value of the neotraditional projects. Also, TND's generally have no market comparables nearby - therefore little data is available upon which to base house and lot values in early years of the project, delaying the time when peak yields are achieved. The exception is Rosemary Beach, only 12 miles from Seaside, where buyers have an easily understood point of reference. Rosemary Beach in all likelihood had the best first-year financial return of any TND to date.

### Financial returns from selected TND's

Information on financial returns of TND's is sketchy, but there have been some published reports, including an analysis by Robert Chapman in the January 1998 issue of *New Urban News*. Chapman gathered data and estimates on annual returns of six projects. The returns ranged from 25 percent to 45 percent, measured by the annual increase in market value of developed property as determined by sale and resale prices. The TND returns substantially exceed the real estate investment returns reported in the National Council of Real Estate Investment Fiduciaries Property Index (just under 9 percent average annual return over the last 10 years).

The figures come from published reports and interviews with developers. The six TND's listed are not a representative sample (although they do comprise nearly 20 percent of all U.S. TND's that were far enough along to be analyzed financially in late 1997) and these figures may differ significantly from the industry as a whole. All six are located in the Southeast. More study is required to obtain defensible figures for TND's generally.

...At Newpoint, in Beaufort, South Carolina, the 130-lot, 54-acre property was purchased by developer Vince Graham for \$1.3 million, and \$1.15 million was spent on roads and infrastructure. Total development costs were estimated at \$14,600 on interior lots and \$60,000 on waterfront lots. Interior lot prices began at \$20,000 in 1992, and recently have sold for \$85,000. Some waterfront lots have sold for as high as \$369,000. "We generated a pretty hefty return in the first year," Graham told the *WSJ*.

The project features homes close to the street, wide and deep porches, traffic calming devices and architecture based on the historic town of Beaufort. Graham estimates that the project is performing 30 to 40 percent better than expected, from a pure financial standpoint. Moreover, Newpoint has become a local civic amenity, with neighboring subdivisions advertising their proximity, and youngsters from surrounding suburbia overrunning the place on Halloween.

By Robert Chapman III, partner of the TND Fund, an equity investment group for neotraditional developments

Excerpted from "New Urbanist Projects Attract Investment," *New Urban News Comprehensive Report & Best Practices Guide*. Reprinted by permission.



Newpoint, a highly successful traditional neighborhood development (TND) in a growing coastal region where golf, retirees, and resort lifestyles are big factors in real estate



**TND<sup>1</sup> returns (selected projects)**

Project/ Location	Developer	Annual return (%) <sup>2</sup>	Term (yrs)
Haile Village Center Gainesville, FL	Robert Kramer	25	4
Newpoint Beaufort, SC	Vince Graham, Robert Turner	45	5
Seaside Walton County, FL	Robert Davis	35 <sup>3</sup> 25 <sup>4</sup>	14
Rosemary Beach Walton County, FL	Leucadia National Corp.	273	1
Southern Village Chapel Hill, NC	D.R. Bryan	12	3
Tannin Orange Beach, AL	George Gounares	26	7

<sup>1</sup>Traditional neighborhood development

<sup>2</sup>Based on published reports, discussions with developers and best available estimates

<sup>3</sup>Same type lot, weighted average

<sup>4</sup>Same type house, weighted average

## PRECEDENTS: Traditional Neighborhood Developments

Around the United States, successful TND housing is emerging in many forms.



**I'On, South Carolina**  
Single family house



**Abacoa, Florida:**  
Attached townhouses



**Miami Lakes, Florida**  
Multi-family housing



## WORLD CLASS STREETS: A PRIMER

*It is not surprising that, given their multiple roles in urban life, streets require and use vast amounts of land. In the United States, from 25 to 35 percent of a city's developed land is likely to be in public right-of-way, mostly streets. If we can develop and design streets so that they are wonderful, fulfilling places to be, community building places, attractive public places for all people of cities and neighborhoods, then we will have successfully designed about 1/3 of the city directly and will have an immense impact on the rest.*

– Allan Jacobs, *Great Streets*



## WHAT MAKES A GREAT STREET?

Much of the Character Plan is devoted to transportation issues such as enhancing and improving the street network and creating access management standards. There is, however, a second way to think about streets, as the backbone of urban design. Great streets are environments that, more than any other, define a community's sense of self.

In recent years, some folks in Collier have defined 'great streets' as those that are wide, uncongested, and move traffic efficiently, period. Roadways, especially key routes, are commonly seen as conveyance systems for automobiles only, not as a viable human habitat capable of more. This purely utilitarian view is understandable given the traffic tie-ups that occur during parts of the peak season. But in light of the amount of time people spend on these thoroughfares, it seems reasonable to ask why they cannot provide a more pleasing experience on top of performing their traffic circulation duties.

Memorable primary streets provide good addresses for sustainable commerce, and convey the lasting images required to maintain the loyalty of tourists and seasonal residents so crucial to the Collier County economy. Streets in Naples such as 5th Avenue and 3rd Street exemplify this use of public rights-of-way as high-quality urban habitat. High-quality secondary streets, as the residential avenues, are key to livability in neighborhoods.

There are various ways to judge the quantitative effectiveness of

### Beauty and This Beast

*Editor, Naples Daily News:*

"It's a shame to see the creeping development as you go north on U.S. 41. We have been coming to Naples for three years and have watched the destruction of beautiful, scenic land. We wonder if the Collier County commissioners realize how ugly this is becoming. It is hard to understand how more strip malls are allowed to be developed, especially when the seedy ones, such as those from 93rd through 109th Avenues north, are allowed to continue to deteriorate.

Soon Naples will look like Fort Myers along the 41 corridor. Makes one want to go somewhere else, where good building codes are in place and followed. It really is a shame."

-- Bob Bauer / North Naples

Letter to the editor, *Naples Daily News*, February 3, 2001

streets; their size, capacity, and levels of service are often discussed. But how does one judge the subtle *quality* of a street for human habitat and visual character? This section will help judge the character and quality of existing and proposed streets in Collier.

### The Basics

Great streets provide for the well-being of those who use them, and the formula for this is simple. Safe, comfortable streets are *shaped, shaded, naturally surveilled, traffic-calmed, connected, and interesting.*



Big Sur, Pacific Coast Highway, Northern California

## WHY STREETS MUST BE MEMORABLE

The best streets are those that leave a lasting positive impression on visitors and residents alike. Worth Avenue in Palm Beach is one such memorable street, perhaps the most remarkable thing about Palm Beach. Fifth Avenue is often cited as the most memorable location in Collier County. Great streets gain special acceptance and are even cherished by the people in their communities.

The Community Image Survey results show marked dissatisfaction with the quality of the pedestrian experience on Collier thoroughfares, especially along arterials. Following successive road widenings, these arterials have become the most hostile pedestrian environments and the worst streets in Collier County.

### **Why not make urban arterial streets so attractive and compelling that they become landmarks in themselves?**

This is **not** simply an aesthetic idea or a luxury item. Collier County's economy is inextricably bound to its character, and it must continually improve its image to remain competitive for the dollars of seasonal residents and tourists. In an interview about the Character Plan, one elected official worried aloud about what might happen to the local economy should freedom return to nearby Cuba, with its supe-



Worth Avenue, Palm Beach

rior beaches, history, and cultural pizzazz. As for permanent residents, groups like the Greater Collier Economic Development Council stress the importance of high-wage, high-knowledge jobs in the new economy. Technology is evolving to make it possible for information-based businesses to locate where their workers want to live; the indelible quality-of-life impression left upon a visitor by arterial streets can make all the difference. Collier County's blighted arterial corridors are out of sync with the goal of attracting the best workforce and, in turn, retaining successful, growing employers.



Beverly Hills: Why not make urban arterial streets so attractive and compelling that they become landmarks in themselves?

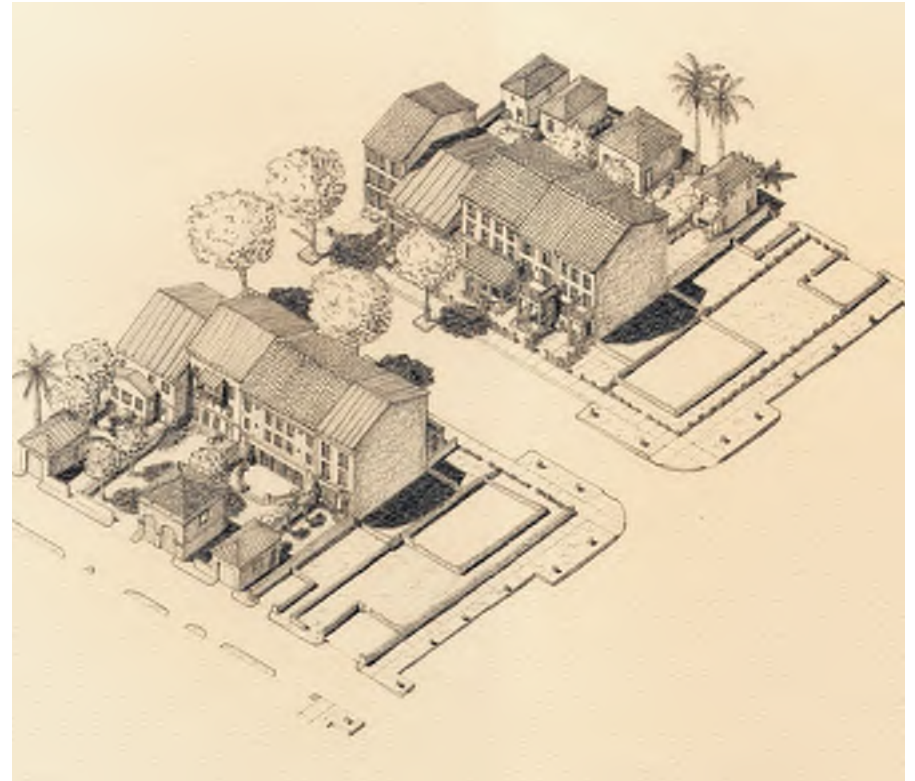


Coral Gables: Why not design streets as good addresses, public space amenities that add value to the real estate?



**A Street of Detached Houses**

Note that on one side of the street, lots are served by alleys, and no garage doors are in front of the houses.

**A Street of Attached Houses**

Note that the rowhouses sit forward on their lots, spatially defining the street, and creating private gardens behind the houses.

## STRATEGIES FOR DESIGNING GREAT STREETS

### 1. Design for pedestrians first

The configurations of great streets consistently provide a high-caliber experience for pedestrians as a base-line obligation, and go on from there to accommodate all the other required modes of travel.

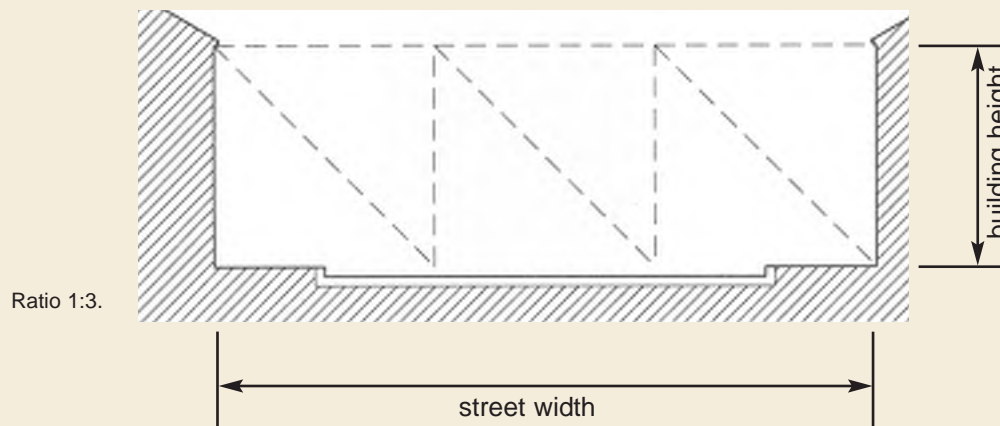
### 2. Scale Matters

A street should function as a three-dimensional outdoor room, surrounding its occupants in a space that is welcoming and useable, especially for pedestrians. A ratio of 1:3 for building height to street width is often

#### Proportions of Street Space

*The height-to-width ratio of the space generates spatial enclosure, which is related to the physiology of the human eye. If the width of a public space is such that the cone of vision encompasses less street wall than sky opening, the degree of spatial enclosure is slight. The ratio of 1 increment of height to 6 of width is the absolute minimum, with 1 to 3 being an effective minimum if a sense of enclosure is to result. As a general rule, the tighter the ratio, the stronger the sense of place and, often, the higher the real estate value. Spatial enclosure is particularly important for shopping streets that must compete with shopping malls, which provide very effective spatial definition. [emphasis added]. In the absence of spatial definition by facades, disciplined tree planting is an alternative. Trees aligned for spatial enclosure are necessary on thoroughfares that have substantial front yards.*

Excerpted from *AIA Graphic Standards*



Pedestrian mobility in Collier County should become the first priority.



The Champs-Élysées, Paris



Winter Park



Town planners and developers from all over the world study Church Street in Charleston, which is very narrow.



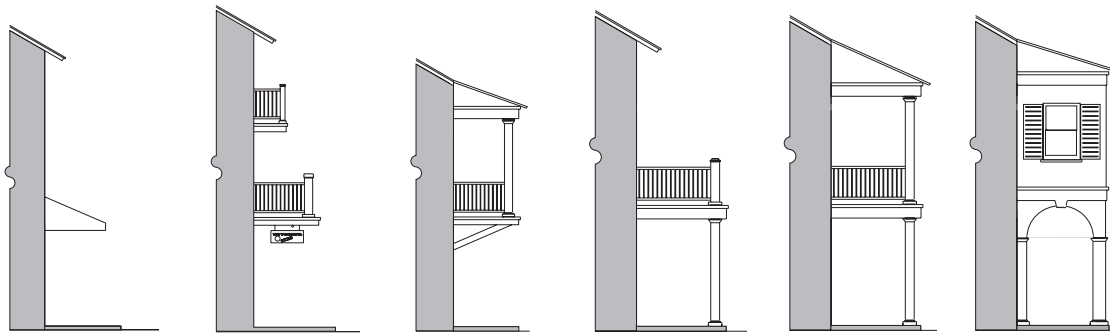
Myers Park

cited as a benchmark of success.

Although pedestrians are invariably more comfortable on narrower streets, great streets vary in size and shape and are successful in many different configurations. Width is only part of the recipe. From an urban design point of view, there are extremely successful eight-lane roads just as there are miserable failures two lanes wide. Streets need to be sized properly for their use and matched in proportion to the architecture and/or trees that frame them. The Champs-Élysées in Paris, for example, is 230 feet wide, wider than any right-of-way in Collier County, but it is considered a “great street;” the scale of the boulevard is defined three-dimensionally. Buildings on the Champs-Élysées are 75 to 80 feet tall, creating an effective sense of enclosure. By contrast, intimate residential segments of Church Street in Charleston have a right-of-way only twenty-two feet wide -- just seventeen feet curb-to-curb, plus a sidewalk -- and the houses that line both sides are two stories tall. Classic streets in American streetcar suburbs feature shallow front yards, broad planting strips for trees, and relatively narrow pavement; the trees on both sides enhance the spatial definition. The designed ratio of height to width is followed on most great streets around the world.

### **3. Design the street as a unified whole.**

An essential distinction of great streets is that the whole outdoor room is designed as an ensemble, including utilitarian auto elements (travel lanes, parking, curbs), public components (such as the trees, sidewalks, and lighting) and private elements (buildings, landscape, and garden walls). As tempting as it may be to separate these issues, by for example leaving building placement and orientation out of the discussion when planning new thoroughfares, all the public and private elements must be coordinated to good effect. For example, the best city streets invariably have buildings fronting the sidewalk, usually close



Diagrams of architectural treatment for encroachments over Main Street sidewalks: awning, balcony(s), colonnade(s), arcade.

to the street. The random setbacks generated by conventional zoning only rarely produce this effect, so the land development regulations along a given corridor must be rethought in conjunction with any road improvement (especially widenings). In some cases, *minimum* height of buildings should be regulated to achieve spatial definition, almost impossible to attain with one-story buildings. Similarly, the old routine of widening roads but citing last-minute budget problems as the reason to leave street trees or sidewalks “for later” is unacceptable, comparable to building a house with no roof.

#### 4. Include sidewalks almost everywhere.

Without sidewalks, pedestrian activity is virtually impossible. The design matters, too. One of the simplest ways to enhance the pedestrian environment is to locate the sidewalk at least 5 or 6 feet away from the curb, with the street trees planted in between. Pedestrians will be more willing to utilize sidewalks if they are located a safe distance away from moving automobile traffic. The width of the sidewalk will vary according to the location. On most single-family residential streets, five feet will usually suffice, but more width is needed on rowhouse streets to accommodate stoops. On Main Streets, fourteen feet is usually most appropriate, but the sidewalk must never fall below an absolute minimum of eight feet wide.

#### 5. Shade!

Motorists, pedestrians, and cyclists all prefer shady streets. No higher priority exists in the pursuit of community character. Street trees should be placed between automobile traffic and pedestrians, for an added layer of psychological security for pedestrians. (As basic as this principle sounds, many arterial roads in Florida are still designed with the sidewalk attached immediately back of the curb and gutter, as if the pedestrians were expected to



St. Augustine (photo by Dan Burden)



Fifth Avenue

### Regarding Trees and Overhead Utility Lines

Overhead utility lines and possible conflicts with street trees have concerned utility companies for the past 30 years. The companies have generally discouraged the use of large shade trees on urban streets where there are power lines. This does not seem justified. In many towns the large trees and utility lines co-exist in close proximity, with the wires running through the crown, close to the main tree trunk.\* Sometimes the tree trunks provide additional support for the wires. A more objective look at this condition may show that the air-conditioning effect and other benefits of large trees more than justify whatever additional maintenance costs are incurred. Recent evidence shows that large spreading tree canopies can provide substantial cooling by reducing the “heat island effect” in cities and towns. (Sampson; Akbari) Studies also suggest that the more severe practice of clearing, sometimes used in the past to make wires safe from trees, is not necessary. A less costly practice of selective pruning may be the preferred option. It has also been suggested that the practice of planting small street trees popular in many municipalities be reexamined. (McPherson)

...Trees growing under the utility lines. Where the tree trunk is directly beneath the wires, the tree can actually provide support for the wires, with the wires running through a crotch. There are very few overhanging branches, and the largest possible area of pavement is shaded.

\*The open nature of most deciduous tree crowns poses very few points of potential conflict between wires and falling branches. Few branches on a tree growing close to the wires run exactly parallel to and immediately above the wires. These are the only branches that would pose a conflict if they fell. Healthy, closely spaced street trees growing almost centered on the utility lines offer the least risk and the most benefit. Older individual trees and trees growing 10 to 20 feet away from the lines pose the greatest hazard of occasional falling branches. Therefore, planting trees on the sidewalk opposite the utility lines offers less protection to the wires and less shade from the trees. For streets with above-ground utility lines, it is best to plant the trees directly under the wires.

Excerpted from *Trees in Urban Design*  
by Henry F. Arnold (reprinted by permission)



Aix-en-Provence, France



Old Naples

protect the trees instead of the other way around.) Pedestrians are unwilling to walk long distances without some protection from the sun, especially in Collier County’s hot climate. In traditional Caribbean towns, the narrow streets and relatively tall, attached buildings combine to make shade, and this technique can be employed here in a few circumstances such as activity centers and snug new villages. This idea is illustrated by Aviles Street in St. Augustine, for example.

For the rest of Collier’s thoroughfares, street trees with fairly continuous canopies that extend over the travel lanes and the sidewalks should be the norm. This is especially vital on arterial roadways or other wide streets that contain expanses of concrete and asphalt and depend on trees for spatial definition.

The Character Plan repeatedly refers to “street trees” and “shade trees,” not just “landscaping.” While engineering practice has been gradually reintroducing green elements, and there is greater acceptance of street trees today among transportation officials than was the case a generation ago, the county needs to make it completely clear that the goal is to grow substantial trees alongside its roads and in its medians, not just ground cover or diminutive ornamental species here and there. Even parts of the median along segments of US 41 in Naples demonstrate why cultivating substantial trees is both desirable and achievable under modern standards. Do not take no for an answer.

Main Streets are a special case, in which excessive tree plantings can interfere with clear views to signage and merchandise. In areas like these where continuous plantings of street trees are undesirable or inappropriate, architectural encroachments over the sidewalk like awnings, arcades and colonnades, and cantilevered balconies can be used in



#### **The Esplanade, Chico, California**

This scenic boulevard is perennially ranked by Chico citizens as their favorite street in the city, even though it is wide and carries a lot of traffic. The center through-lanes (left) provide for fast-moving regional traffic, while the slow-moving side access lanes (right) handle local trips in an attractive setting, great for real estate. (Photos by John Anderson)



place of trees to protect pedestrians from the elements and shield storefronts from glare. The taller buildings and tighter height-to-width ratio on Main Streets also produce some shade. In downtown areas, streetlights, bus shelters, benches, and other street furniture occupy the wider sidewalks and provide the appropriate separation between pedestrians and the curb.

#### **6. Make medians sufficiently wide.**

Where divided thoroughfares are unavoidable, the medians must be generous enough to serve as a community character amenity. For street trees to thrive and for pedestrians to have adequate refuge when crossing streets, the medians need to be sized accordingly.

#### **7. Plant the street trees in an orderly manner.**

Great streets are not the place to experiment with random, romantic, or naturalistic landscaping. Urban trees should be planted in aligned rows, with regular spacing, using consistent species. This will not appear rigid or mechanistic, for trees do not grow identically; rather, the power of formal tree placement is that it at once shapes the space, reflects conscious design, and celebrates the intricacy and diversity within the species. More importantly, the shade produced by the trees will be continuous enough to make walking viable, and the spatial impression of aligned trees also has a traffic calming effect.

#### **8. Use smart lighting.**

Streets should be well lit at night both for automobile safety and pedestrian safety.



Landscaped, wide median

On-street parking is a common sight on streets with character. It creates a positive pedestrian environment and aids sidewalk-oriented retailing.



Main Street, Miami Lakes

Pedestrians will avoid streets where they feel unsafe. “Cobra head” light fixtures on tall poles spaced far apart do not provide for pedestrian safety and are universally unpopular (see Community Image Survey results). Shorter fixtures installed more frequently are more appropriate, and can provide light under the tree canopy as street trees mature.

### 9. Allow on-street parking in suitable locations.

On-street parking provides further separation between pedestrians and moving cars and also serves as a traffic calming device because of the “visual friction” and alertness it triggers. Parallel parking is often better than head-in or diagonal parking because it requires less space. Parking near the fronts of buildings also encourages people to get out of their cars and walk, and is essential to leasing street-oriented retail space.

### 10. Resist parking lots in front of buildings.

The bulk of a building’s parking supply should not be up against the sidewalk or facing the street but should occur behind the building instead (or in a few cases, beside the building). The acres of surface parking between storefronts and the street are responsible for the negative visual impact of the typical commercial “strip” (see Community Image Survey results). Such a disconnected pedestrian environment is in part due to bad habits on the part of auto-oriented chain stores, but also reflects the large setbacks and high parking requirements in conventional zoning. If the rules are changed to provide “build-to” lines rather than mandatory front setbacks for commercial buildings, it is possible to grow streets in Collier County with real cachet, like Park Avenue in Winter Park.



Parking lots in front



Parking lots behind

## STRATEGIES FOR DESIGNING GREAT STREETS

### SETTING THE COURSE

Great streets are the backbone of a well-designed community. Streets are critical conduits for vehicles but they are also important public spaces that should be designed as a unified whole, with sidewalks and street trees never being mere afterthoughts. Streets should be of such quality that they are genuine amenities to the neighborhoods they serve.

### GETTING THERE

#### Growth Management Plan

- a. In the Future Land Use Element, establish a new goal #3 promoting "great streets" for Collier County and memorable commercial centers that combine resilient traditional buildings, customer convenience, diversity of offerings, and a complementary mix of uses.
- b. Add an achievable objective #1 under goal #3 of the Future Land Use Element regarding the design of great streets and adjoining buildings.
  - i. Add policies that endorse the basic strategies for designing great streets as stated in this plan.
  - ii. Add a policy that recognizes the following features as desirable for development along roads: buildings fronting sidewalks with little or no setback; parking lots moved behind or aside buildings; and buildings more than one story tall.
- c. Add a policy in the Transportation Element that commits to include the following basic amenities in the design and construction of all new roads to be built by Collier County: ample sidewalks away from curbs, street trees in uniform rows; attractive lighting fixtures that will not conflict with mature trees, and on-street parking along boulevards and collector roads and in other locations where buildings are (or are planned to be) close to the road.

#### Land Development Code:

- a. Amend the code wherever conflicts are found between its current provisions and the new growth management plan policies regarding great streets.
- b. Amend the code to provide "build-to" lines rather than mandatory front setbacks for commercial buildings.



## RETHINKING THE CORRIDORS

Collier County is highly regarded throughout the United States as a destination for golf, beaches and natural beauty. The glossy sales brochures and marketing material sell the area as a heaven on earth, an affluent and exceptional community. Collier County is all of these things. But a first-time visitor from out of town is forced to ask “Where is it?” Any entry into Collier by automobile (including arrivals from the airport) forces visitors and residents alike to view the most unpleasant environments anywhere: US 41, Airport Road, Collier Boulevard, Davis Boulevard, Pine Ridge Road, and so on. These are the hard-working major arterials in Collier County, the roads that go from somewhere to somewhere else; everyone that drives, drives on these roads. Yet these are the ugliest places in the county.

These corridors cut swaths through Collier County, housing most of the area’s businesses in the kind of ordinary strip development found in nearly every US city. There is no reason that they cannot be beautiful, functional, “signature” corridors that residents are proud of and visitors envy. Without harming their important commercial mobility function, these roads can be transformed into grand boulevards, from visually blighted areas to premier public places. Over time, they can be improved by adding street trees, medians, sidewalks, new buildings closer to the street, and, in some cases, side access lanes with parking.



A forgettable corridor



A memorable corridor



## THE EVOLUTION OF A CORRIDOR

The future of the corridors in Collier County can follow many different paths. The options are one or a combination of the following:

The **Business As Usual** approach would continue the development and road building standards used in the recent past. The main corridors, useful for little else as addresses, would continue to be commercialized strips lined with the asphalt of parking lots. Traffic may improve for short periods of time after each successive road widening, but there comes a limit where more rounds of widening can't be sustained. Pedestrian quality on the business-as-usual streets will be abysmal, attracting only those that have no other choice but to walk.

The **Traffic First** approach will eventually lead to an urge to construct several grade-separated interchanges, in effect superhighway design elements on city streets, with hardly any city around them. This expensive process was used at the intersection of Colonial Boulevard and US 41 in Lee County. This approach will prove most detrimental to the areas immediately surrounding the interchange. Ramping and bridges for the intersection can extend for nearly a mile and cost many millions of dollars per interchange. The leftover chunks of unusable land at the intersection will become vacant through neglect and attrition, leaving an intractable blight on the community at the

### Tamiami Trail

US 41 at the Naples Town Center Mall, existing conditions. The newly widened Trail is a failure as a quality human habitat with character. The road in relation to the buildings' setbacks appears too wide, and the buildings are spaced too far apart to be a viable, pedestrian-friendly area.



Grade-separated interchange in Lee County



#### Tamiami Trail

The first step is adding street trees along the sides or in the center median. The trees add character to the street while providing shade.

key intersections.

The **People First** approach is also the approach that creates community character. This approach helps to generate more quality on the corridors without marginalizing their capacity as major arterials to carry traffic. It seeks to balance transportation requirements, without sacrificing public or commercial space and at the same time, begins encouraging a true mix of uses, including retail, offices, and residences. This approach is outlined below using the Naples Towne Centre strip mall and US 41 as an example.

Naples Towne Centre was chosen for this case study because of its location in East Naples and its current semi-vacant status. Many residents of East Naples were disappointed to see that most new development is occurring to the east and north of them. Many expressed the desire to be able to walk to suitable places to shop and work but discussed the terrible perils that face pedestrians who dare walk along US 41, let alone cross it. This road corridor performs its auto traffic function but not its character function.

This location is ideal for the creation of a mixed-use node along the corridor though not all locations along the corridor need be, or should be, developed at the intensity that is suggested for this one. The scenario illustrated on these pages calls for intense revitalization of the strip center parcel and a  $\frac{1}{4}$  mile stretch of the corridor. The ideal future development of the corridor would be to create such nodes of activity and higher intensity uses at one or two mile intervals. The remaining stretches of corridor in between can be developed at a lesser intensity while still incorporating character-inducing traits as outlined below.

The evolution of a corridor is slow and additive. The ultimate goal is to create a true mix of uses, and a truly pedestrian-friendly environment.

This commercial area illustrates the short life cycle of a strip mall. At first, newly constructed or widened



### Tamiami Trail

The next step in humanizing the corridor strip is to transform the 6-lane road into a true boulevard with 4 through lanes and 2 local traffic lanes. The boulevard separates local traffic from the high speed interior travel lanes, easing turning movements off Tamiami Trail and reducing speed on the side access lanes to a rate more conducive to pedestrian activities.

roads bring people. Increased traffic counts on the road mean initially high customer traffic in the stores. Then (usually following more roadbuilding downstream or on another nearby corridor) a newer or more convenient shopping center is built, cannibalizing the customer base, and after a short duration the process repeats itself. As strip centers obsolete and are replaced by newer and more convenient centers, customers are drawn away. Discount stores move in as the higher revenue producing stores migrate to new centers. These market shifts make the standard strip mall configuration cyclically obsolete, which owners combat through repeated façade renovations. Once the location becomes less desirable, though, no amount of façade renovations will bring back business. The end result is a shell or a half-used symbol of decay. The Naples Towne Centre / US 41 case study illustrates the recycling of such a key commercial parcel that has become obsolete.



The short life cycle of strip malls and big boxes.



#### **Tamiami Trail**

Allow on-street parking along the side access lanes, offering motorists convenience. The parking provides a physical and psychological barrier between pedestrians and moving traffic.

### **STEPS FOR TRANSFORMING THE CORRIDOR AND ADJACENT DEVELOPMENT:**

#### **1. Install street trees.**

The first step to make these corridors more attractive and functional for all modes of transportation is to change their character. The easiest way to begin doing this is to add street trees to the central median. Pedestrians will never consider using a street such as US 41 if they find it a hostile environment while driving. Adding street trees to the central median already present will beautify the street somewhat and spatially define two separate sectors, a step toward creating the “public room.”

#### **2. Change the traffic pattern; convert to a boulevard cross-section.**

The road is currently carrying three lanes of traffic in each direction at an officially posted speed of 45 miles per hour, though designed for a much higher speed. Presently the regional traffic making longer trips must compete for lanes with neighborhood traffic making local trips . It is necessary to re-enter the regional roadway just to travel a block or two. An excessive number of oversized curb cuts along the sidewalk make walking and biking a hazard.

Using surplus right-of-way to create a second median, between the curb and center lanes of traffic on both sides, a



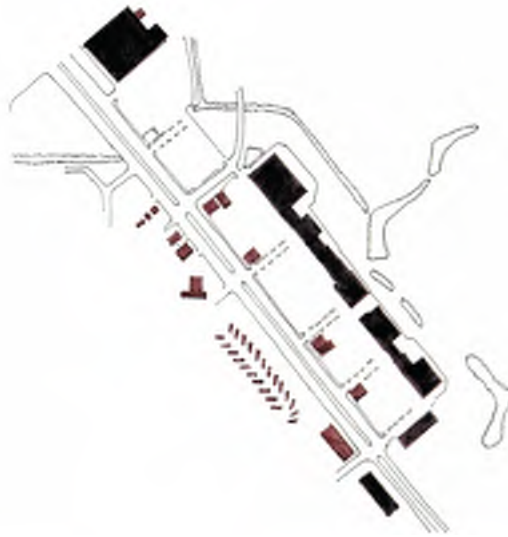
street with two motoring profiles will result. The boulevard cross-section created will have four interior lanes to move high-speed traffic along, and a slow-moving side access lane on each side for local traffic. After the side access lane is created by the additional median, on-street parking can be added to facilitate walking and support businesses. Street trees will be incorporated on the boulevard medians and along the sidewalks.

### **3. Construct buildings along the sidewalk on the side access lane.**

Ensure that buildings are built at the street edge. Sidewalk dining and retail will be viable along the corridor. (This requires a significant policy shift to embrace build-to lines instead of setbacks.) Apartments, condominiums, hotels, and office spaces can occupy the upper floors, thereby fostering additional vitality and pedestrian traffic without displacing valuable commercial space downstairs. Parking lots will be principally located midblock, in parking structures if need be, screened from view.

#### **Tamiami Trail**

This final step, a long range one, is to bring the buildings close to the street edge. The on-street parking and a viable pedestrian environment must come first for retailers to succeed. Businesses will benefit by the proximity to the street and new visual prominence.



**Naples Towne Centre**  
Existing conditions



Naples Towne Centre in 2000: one of the three lowest-ranked photos from the Community Image Survey.



**Phase 1**  
Planting street trees and addition of wider medians and side access lanes.



**Phase 2**  
Buildings along Tamiami Trail are positioned close to the street, framing it.



**Phase 3**  
Street network emerges.







Tamiami Trail as a signature boulevard, pride of the region.

## RETHINKING THE CORRIDORS

### SETTING THE COURSE

Collier County's major roads can be functional yet beautiful corridors that residents are proud of and visitors admire. Even failing commercial strips can be transformed into grand boulevards – converting visually blighted areas to premier mixed-use public places. Partnerships with adjoining landowners, and public / private development partnerships, are a key to such transformations.

### GETTING THERE

#### Growth Management Plan

- a. Add an achievable objective #2 under goal #3 encouraging the transformation of aging commercial developments into mixed-use neighborhoods.
  - i. Add a new policy stating that activity centers or aging shopping centers may qualify for "community planning" assistance as potential "town centers" as described under objective #4 of goal #3.
  - ii. Add a policy describing steps for transforming an aging commercial corridor as described in this plan.
  - iii. Add a policy specifically encouraging aging shopping centers to include moderate-cost housing that can reduce travel demand by those currently priced into remote locations for housing.

## MEMORABLE CENTERS: A PRIMER

The centers of communities have always occurred at intersections between natural transportation routes. Towns were founded historically where a waterway was easiest to cross, where a rail line meets a town, and where two major roads converge. Trade of all kinds, especially retailing, has always occurred at these locations for obvious reasons; they are the places where the most people can be served, from the most directions. Modern metropolitan areas are often home to many centers of different types and scales. Every settlement of any size will have a center, although some are more prized than others for the contributions they make to character.

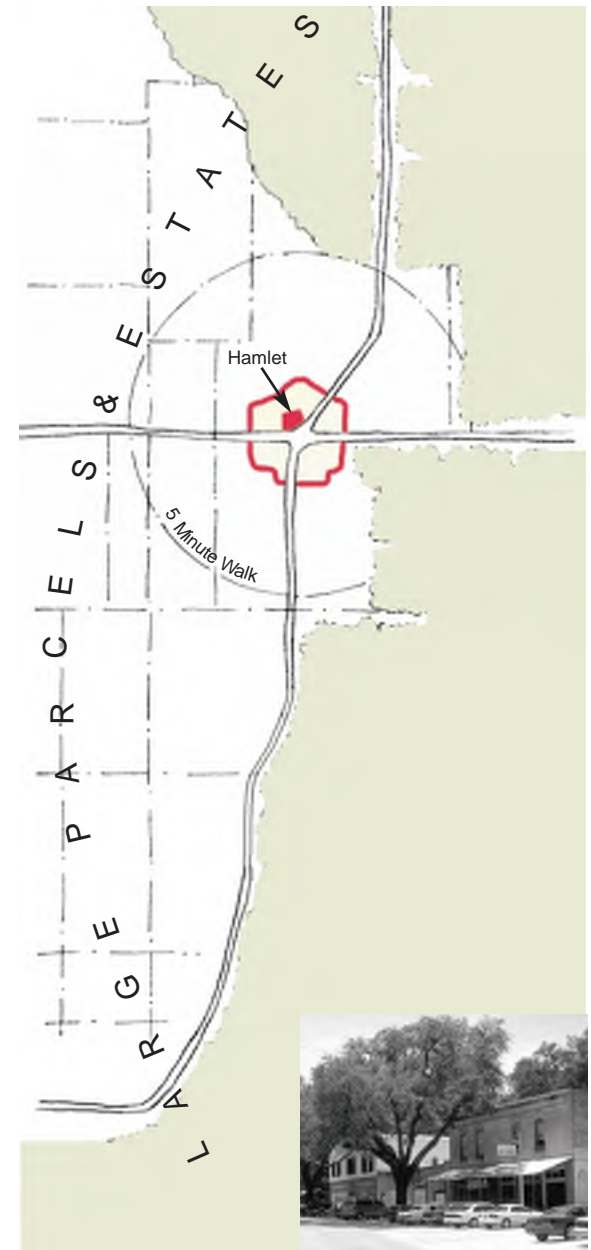
The center is a place of intensified activity that serves an important role both for economic reasons and for social interactions. The center where one shops for necessities can also be a place to greet friends, spend leisure time, or enjoy community events, and change from one mode of transportation to another. Vital centers are essential to livability, social cohesion, economic growth, efficient delivery of municipal services, and sustainable mobility. They are also good places to channel growth, reducing the pressure for sprawl. For residents of surrounding neighborhoods, a pattern of multiple centers means shorter trips on the congested roads. Linear "strip" development along corridors is at odds with the

### THE RURAL CROSSROADS



Rural Crossroads

### THE HAMLET



Hamlet

## THE VILLAGE

goal of having economically vital centers. An activity centers concept is therefore a hallmark of the county Comprehensive Plan and growth management philosophy, and an official map directs where centers are to take shape. However, development in these locations does not meet expectations for community image and character. Now the urgent need is to advance better design techniques so that the activity centers can emerge as intended.

Collier County has high quality centers and centers in the making. Fifth Avenue in Old Naples is characteristic of one type of center, a downtown. The mall is another type of a center. While these two centers serve some similar functions, both have stores and restaurants, for example, they differ dramatically in their built form and character, just as a farmer's market is quite unlike a supermarket, even though both sell fruits and vegetables. The experience each offers is markedly different. These differences reflect the subtleties of urban design and the intrinsic value of strong character; real estate on Fifth Avenue is the most valuable of any center in the region. Collier County will always offer a spectrum of experiences in its many centers, but the instructions from citizen participants who helped create the Character Plan were quite clear: they prefer to create more places like Fifth Avenue. Now revitalized, Fifth Avenue enjoys a striking customer loyalty and holds a very special place in the heart of citizens. No one suggested more strip plazas, "power centers" or regional malls.

Indeed, one critique of the unsatisfactory centers that typify commercial sprawl is that they are not lasting economic propositions that easily adapt to changing times. In an era of overbuilt retail square footage, for example, the "dead and dying malls syndrome" has become a national phenomenon. This is in part due to the ever-shifting travel patterns induced by government's own investments in highway infrastructure (see *Rethinking the Corridor*, above). It is also due in part to the fickle nature of retail customers; customers are drawn to retailing venues that are the newest and most entertaining. The challenge is to hold customers' interest when flashier offerings in the latest formats open elsewhere. Real estate consultant Peter Katz has said, "Conventional regional malls are rarely ever really worth more than on the day they open. It's all downhill from there."



Village Center

## THE NEIGHBORHOOD AND THE TOWN

The answers to this dilemma are to:

- 1) create convenient centers that are worthy of customer loyalty year after year because of the *quality of experience* they offer;
- 2) create centers that include *diverse offerings* (retailing, workplaces, housing, and other uses) so that they can appeal to multiple market segments and have more than just one profit center; and
- 3) construct these centers using *durable, flexible building types* that can be converted to new uses as markets change.

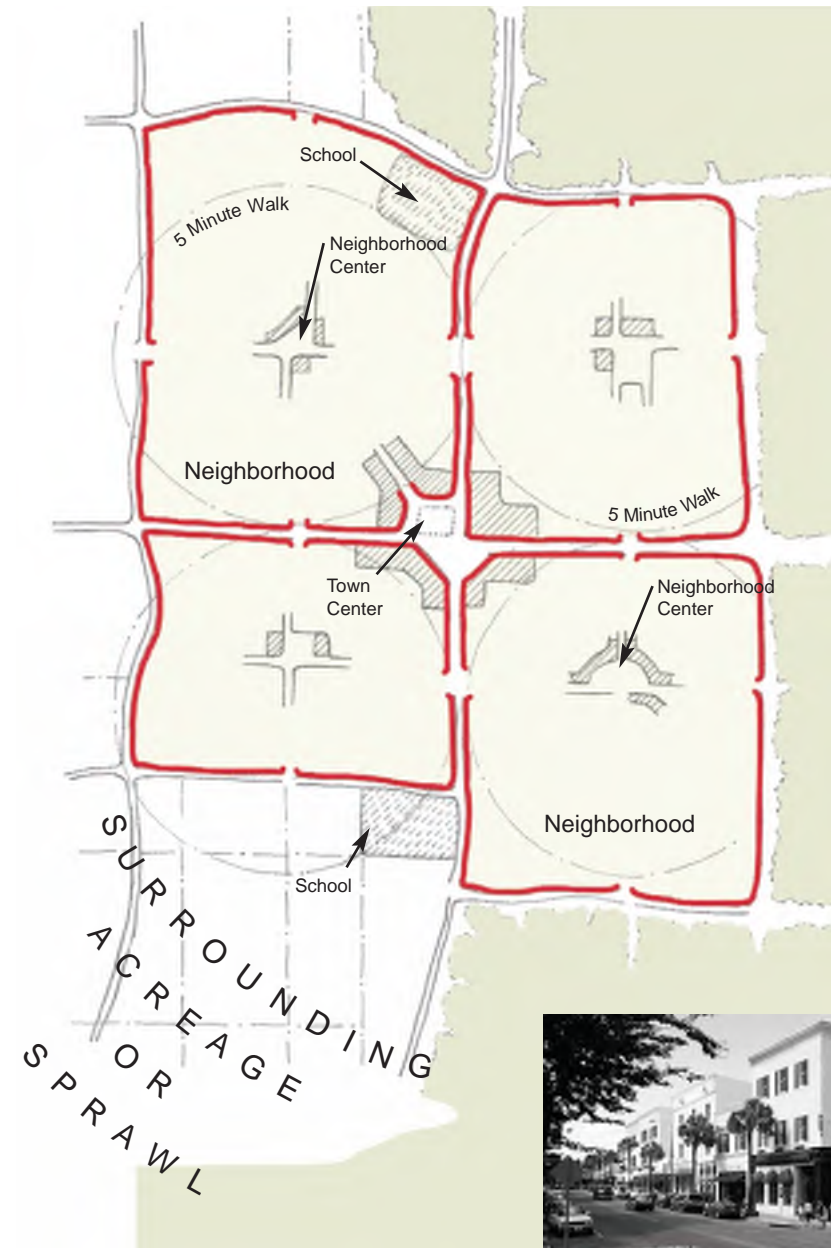
Many changes are underway that will affect the fortunes of Collier's centers. Some examples:

- a. Shifts in the channels of distribution and evolving technology (including online sales) pose significant challenges to conventional retailing, particularly discount operations, in the coming decade. "Big box" shopping centers, which seemed nearly victorious just a decade ago, have experienced plummeting returns on investment, generating lower returns every year for the past five with no end in sight (source: ZHA Economic Advisors, 2000).
- b. The multiplex cinema industry, whose movie theaters anchor most entertainment-based centers, is in disarray.
- c. The changing nature of work demands a much greater variety in office space options, including live/work combinations and highly flexible, well-wired spaces that are close to both broadband access and the active city life demanded by the new generation of employees.
- d. Today's newly created households vary widely, too, and there is a corresponding increase in the need for both affordable and upmarket homes that appeal to empty nesters and retirees, singles, couples without children, those who work from home, and others.

Fortunately, all of these changes are best addressed in centers with the urban form favored by Character Plan participants, the kind of traditional town centers that have proven adaptable over hundreds of years.



Neighborhood Center



Town Center

## THE ACTIVITY CENTER

The county should nurture several kinds of memorable centers, across a range of scales and intensities:

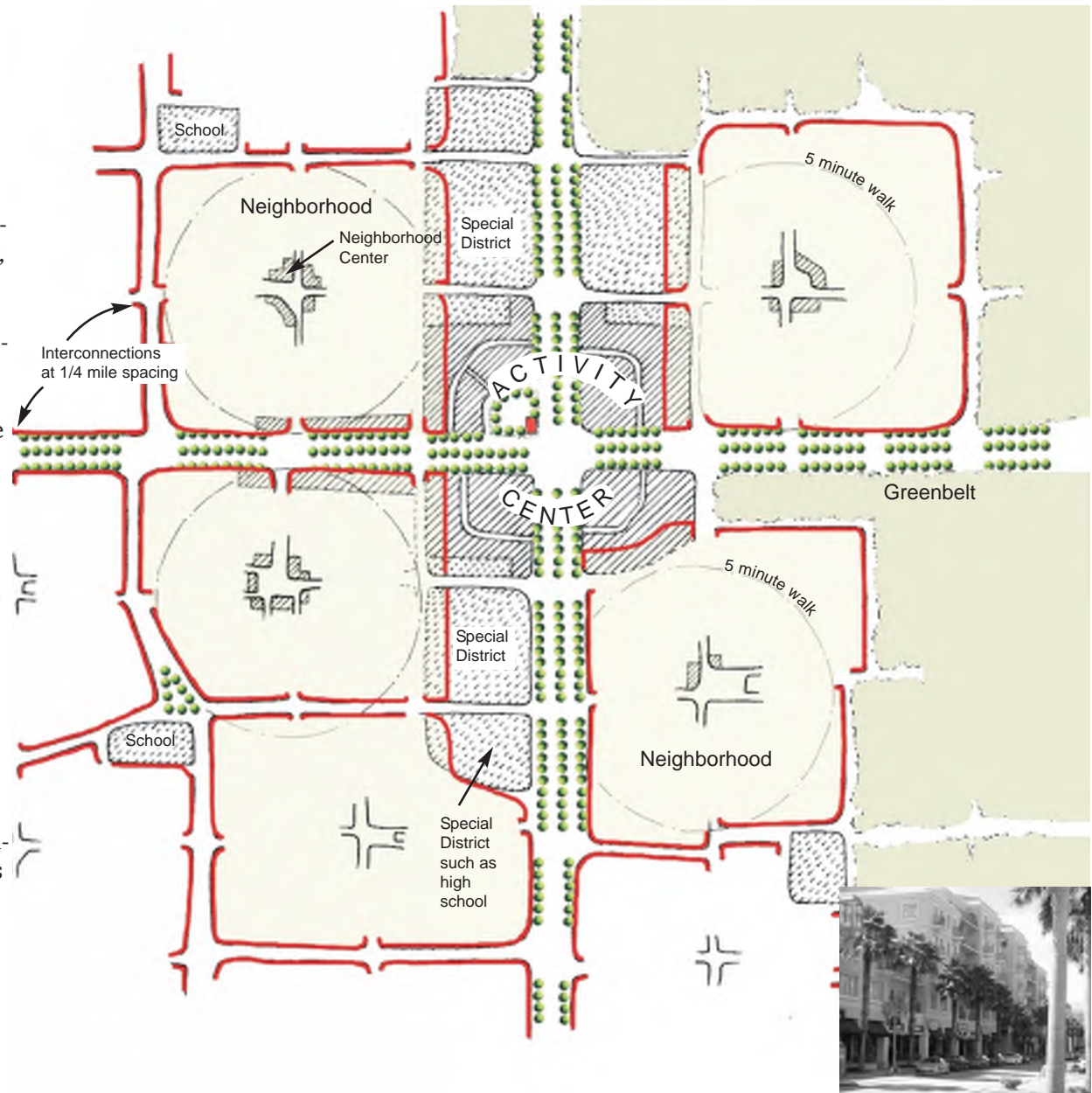
**Rural Crossroads** - A single intersection with a small roadside country store or convenience outlet in an otherwise rural setting; the commercial component must be forcefully integrated visually with the road (see *The Evolving, Subdivided Periphery*)

**Hamlet** - An informal, compact grouping of 5-20 buildings, which may be tightly focused around a small-scale commercial establishment, a place of worship, or civic building (see *The Evolving, Subdivided Periphery*)

**Village Center** - The heart of a self-contained neighborhood surrounded by countryside (see *Growing New Neighborhoods*), where provision is made for the eventual inclusion of at least a minimal commercial component

**Neighborhood Centers and Town Centers** - When multiple neighborhoods are grouped together in a town, the neighborhood centers are the quieter civic hearts of each neighborhood, while this group surrounds and shares a more commercially oriented town center that is located along primary thoroughfares

**Activity Centers** - Major settings for commerce, employment, housing, and entertainment, centered on the convergence of regional infrastructure (see *The Features of Enduring Activity Centers*); will include the "core" areas at the edges of certain neighborhoods



Activity Center

## THE FEATURES OF ENDURING ACTIVITY CENTERS

**Scale** – The center must be particularly well defined spatially, and scaled for pedestrians. Generally buildings should be between two and four stories in height. Highways and oversized parking lots must not be allowed to dominate the scene at the heart of the community. Buildings should therefore be positioned so that they help shape the spaces of streets and plazas, and where they help visually screen service areas and parking. Instead of one big parking area, parking lots should be broken down into midblock units as small as possible. Architectural elements should be sized and detailed for close-up inspection, since they will be viewed not only by passing motorists but also by pedestrians.

**Use** – A variety of stores does not constitute a sufficient mix of uses. If the center is simply a agglomeration of national chain retailers, a huge opportunity has been missed and the precious land resource will be used inefficiently. A fine mix of stores, eating places, dwellings, offices, and civic uses generates the convenience and synergy needed for a healthy center. Flexible land use and design go hand in hand. The mix of uses and multistory buildings are needed to make the place feel right, and the right feel is the key to leasing those secondary uses. Although no one wants to live or work in the middle of ugly conventional commercial sprawl, good urban design makes it feasible to blend uses because design makes what would otherwise be just a "shopping center" into a livable place of charm and character.

**Mobility** – Activity centers should be accessible and accommodating to the automobile, but not at the cost of ruling out walking or biking.

Well-connected sidewalks, minimal curb cuts, and shade will help promote walking, transit, and cycling. As Collier County's public transportation system matures, transit stops should be integrated with the centers.

**Public Space** – The character of a place is determined by its public places, the three-dimensional volumes of space between buildings. A proper center must have real public space with shade and other pedestrian amenities. There must be places where the public feels welcome and encouraged to congregate, recognizable as the heart of the community. When citizens in Collier County were asked to draw and describe what they liked and did not like about their county, the places that scored highest varied in land use and locale, but public spaces oriented for pedestrians were always perceived favorably.

Generally the activity center should include a focal plaza or square, located in a prominent position, framed by occupied buildings that open toward the space. These size of these spaces vary in size and can take on many different geometries, but the best examples feature a range of proportions instinctively comfortable to the human eye; as a rule of thumb, for example, the square or plaza should be no more than twice as long as it is wide (see Camillo Sitte, *Town Planning According to Artistic Principles*). The open space of the plaza or square should be configured in a simple way, to allow many kinds of events to take place there.

**Layout** – The activity center physical plan must incorporate basic site design techniques to establish the balance between traffic circulation, retail planning logic, loading, maintenance, control of noise or other conflicts between uses, phasing, architectural continuity, privacy, secu-

rity, and flexibility for change, all at once. It may sound too hard to accomplish this balance and reconcile all the complexities, but it is not. The tool that permits this balance is a rational pattern of blocks and lots, a fundamental instrument of town planning that has been field-tested for more than 2,000 years.

The block-and lot pattern permits unified street designs, in which transitions between incompatible uses or building types occur across rear or side property lines. The block-and-lot pattern derives naturally from the connected street network, highlighted elsewhere as an essential aid to traffic circulation, but its benefits go beyond mobility. The rational block-and-lot pattern permits a distinction to form between the public areas of the streets and plazas and the private/service areas in the middle of the block, and, when combined with time-tested traditional building types, results in both privacy and character.

Blocks should be two lots deep, so rear property lines do not abut streets. Since almost all buildings need a front side and a back side, each lot should have a clear front property line, facing a street or other public space, and a clear back side. (The rare exceptions to this rule are monumental civic buildings and other exceedingly specialized building types, but the front/back principle applies across the spectrum of housing and private commercial buildings.) The front side is the "presentation face" of the lot, where architecture matters most, where community character is principally established, and regulatory attention should therefore be focused. The back side is the place for gardens, parking, and outbuildings. The middle of the block is the less formal and more utilitarian side, and should be afforded wide latitude in the rules.

Activity centers need to be laid out with a secondary network of alleys that crosses the blocks. Alleys permit attached building types without rows of garage doors facing the streets, and efficiently accommodate service needs. Alleys are particularly useful where they coincide with a transition between residential development and mixed-use Main Street buildings, because they provide additional separation. Alleys may be publicly dedicated or privately owned, open or gated.

Because many plans in conventional suburban sprawl were laid out without this front/back discipline, 'buffering' became vogue in sprawl design. 'Buffering' attempted to use landscaping and sheer horizontal distance to shield neighboring properties from obtrusive buildings and roads. Certainly extensive landscaping of private lots should be encouraged. However, excessive buffering can have the effect of dividing and pushing apart the uses and spaces that should be well connected in a town center, and can work against pedestrian accessibility. In traditional neighborhoods, the divisions between uses and the demarcation between public and private space are properly made by garden walls, fences, and hedges, instead of by wide swales, berms and ditches used in conventional suburban buffers. The best strategy for the activity center is to design buildings and streets of such appeal, neighbors are comfortable near them instead of withdrawing from them, minimizing the impulse for buffering in the first place.

**Building Types** – The low-slung, blank-walled boxes of conventional commercial sprawl, oriented only to parking lots, do not promote character. Building types in the activity center should be street-oriented, with doors & windows facing the streets. The norm should be buildings in front, parking in back. A blend of attached and detached buildings is to be expected in a center.



Multistory buildings are best, because they help spatially define the streets. One character-promoting technique is to draft height regulations that stipulate the maximum number of floors rather than the number of feet. This encourages a more varied skyline. It also rewards investors who provide gracious floor-to-floor heights, which in turn lend buildings more elegant presence on the street, and the higher ceilings reduce energy costs, too. Further, regulating the number of floors discourages the "pancake" practice of starting with the maximum height and working backward to see how many levels one can pack in.

A rich palette of durable, traditional building types satisfies these character-building objectives. Traditional urban buildings can handle being in areas of higher traffic, are self-solving with regard to security, and adapt well. Traditional building types for activity centers include:

1. Mixed-use shopfront buildings (which can include habitable space above the arcades over sidewalks)
2. Loft office / apartment buildings
3. Classic apartment buildings (with an address on a street, not in a campus-like complex)
4. Courtyard apartment buildings (which enables high density without highrises, yet affords outdoor open space to each unit)
5. Rowhouses (including those modified for live/work combinations)



Mixed-use Shopfront Building



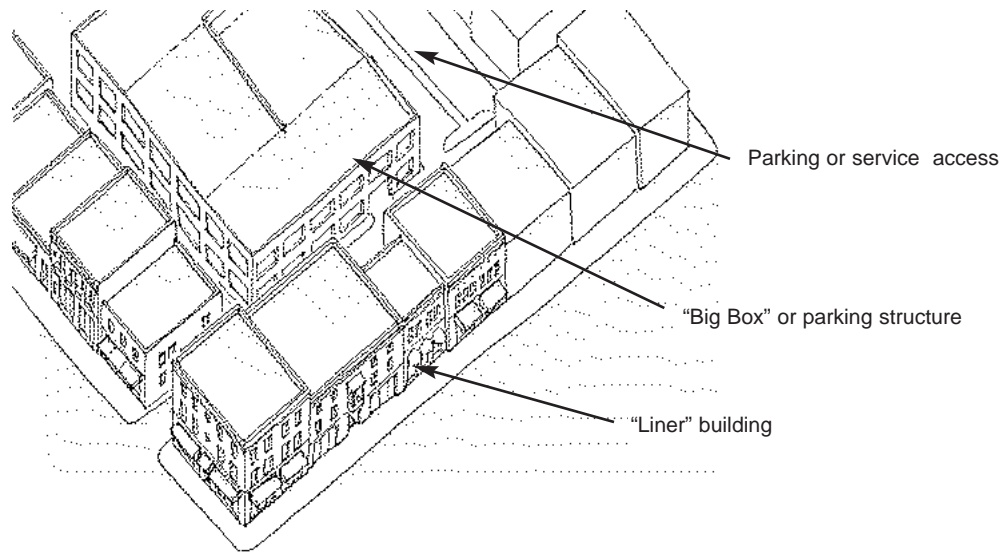
Lofts or Office Building



Urban Apartment Building



Rowhouses



Illustrative example of "liner" building, with wrap-around shopfronts lining larger big boxes or parking structures.

## HOW TO AVOID "BLANK WALL SYNDROME"

Certain functions are normal in activity centers yet limited in the extent to which they can conform to the requirement for doors and windows facing all streets, at least in their standalone configurations. These include supermarkets and other large-footprint retailers as well as cinema multiplexes, theatres, and warehouses. Parking structures also rarely project an adequate image toward the street. Yet a layer of habitable space facing the block edge is crucial to natural surveillance and character. There are two ways to surround these buildings with other uses so as to screen their inhospitable sides from the street.

The first is to size the block and position the building midblock so that its best façade fronts the street, and the remaining sides are embedded into the private/service area. Other standard buildings thus surround the blank sides of the exceptional one, with only minimal attachment. (This usually requires an oversized block, since these buildings tend to cover a considerable footprint; one or two larger-than-average blocks are acceptable in a major activity center, though restraint is warranted

to preserve pedestrian mobility.) In the case of a "big box" retailer, the footprint of the building positioned in this way restricts the area available for midblock parking.

Parking structures may not be required as a center first develops. However, to prepare for intensification of the center over time, at least one block near the Main Street or plaza should be sized for a future parking structure, located wholly within the block with standard buildings all around.

Retailers tend to prefer corner locations, and this calls for a second solution. The large store can have a primary entrance facing the corner, with the rest of its footprint embedded within a building that incorporates secondary uses in an outer layer; these secondary uses provide the doors and windows facing the street. Even better, thin "liner buildings" can be attached to the sides of the box, with housing or offices facing the side streets. This approach both reconciles the inherent front/back dilemma of the box store while reducing its visual impact, improving the scale of the street, and providing natural places for affordable housing and small businesses. Liner buildings are particularly well suited to live/work units and studio apartments, which make good "zero-commute" housing options for employees in the center.

## REGARDING LARGE-FOOTPRINT BUILDINGS

Big box retailers pose challenges to the designer, because they are difficult to arrange with the urban fabric without detracting from the overall scale, connectivity, image and walkability. Yet such stores perform a useful economic function up to a point, serving as anchors for the activity centers, bringing in sales tax revenue, and adding regional drawing power and advertising presence that benefits other businesses.

Beyond a footprint of about 20,000 square feet, the store and its associated parking inevitably begin noticeably eroding the walkability and the block pattern. Beyond 50,000 square feet, the pattern falls apart. Big box retail buildings in footprints exceeding 50,000 SF are damaging to the pedestrian nature of the activity center and should be minimized, permitted only as special cases. Megabox stores bigger than this are best consigned to warehouse districts.

The Community Character Plan nevertheless recognizes that these large-footprint store formats will be part of the Collier scene for the foreseeable future, and therefore does not propose prohibiting them, but rather prescribes that they be **(a)** designed so as to minimize their negative impacts on the center as a whole, **(b)** subject to intense scrutiny on a site-specific, case-by-case basis, and **(c)** not a pre-permitted use as of right, but a conditional use subject to review and approval.

The requirements for small blocks, façades with real doors and windows, and the discouraging of front parking lots, do not inherently prevent a big box store. These goals do mean that the store must be adapted in ways that deviate from the typical chain-store prototypes. Of par-

ticular concern is the noisy commotion that takes place on the backside of such a store, with its all-hours loading docks. Applicants proposing large-footprint buildings (larger than 20,000 SF) must demonstrate by substantial and competent evidence that all avenues have been exhausted for resolving the negative impacts, by, for example, incorporating liner buildings, dividing parking lots, and so forth.

The easiest way to accommodate the required bulk of the big box retailer, then, is to place the store on two or more levels and divide its parking so that far fewer of the spaces are in front of the store. This scenario is demonstrably workable for numerous retailers; department stores, for example, have used such an arrangement in downtowns for a century.

Because of recent trends in retailing (and in response to the rising outrage at the character of these stores from residents around the country), many big box retailers are seeking alternative formats for communities of character. One striking new trend is simple, and targeted to sophisticated communities like greater Naples: the smaller, more customized building is making a comeback. (Home Depot, for example, has introduced its small "Villagers Hardware" format in test markets where standard home-improvement megastores are increasingly tough to permit.) Retailers are reporting that their new, smaller-format stores, when well located, generate some of the best sales-per-square-foot figures in the chains. These stores reflect the evolving channels of distribution, including the "just in time inventory" system that has become common in the last fifteen years.

## COMMERCIAL ARCHITECTURAL STANDARDS

Collier County adopted architectural and site design standards for commercial buildings in 1996. This was a milestone, as architectural standards are generally attempted only in fairly homogeneous cities. County governments rarely address such design issues, in part because of the diversity of counties and the resulting difficulties in preparing appropriate design standards.

These standards have succeeded in improving how new buildings look, proving that even big-box chain stores don't have to occupy generic boxes. Adding architectural embellishments to the fronts of buildings and placing tree islands in parking lots, while far less important than proper building placement, can nevertheless improve community character.

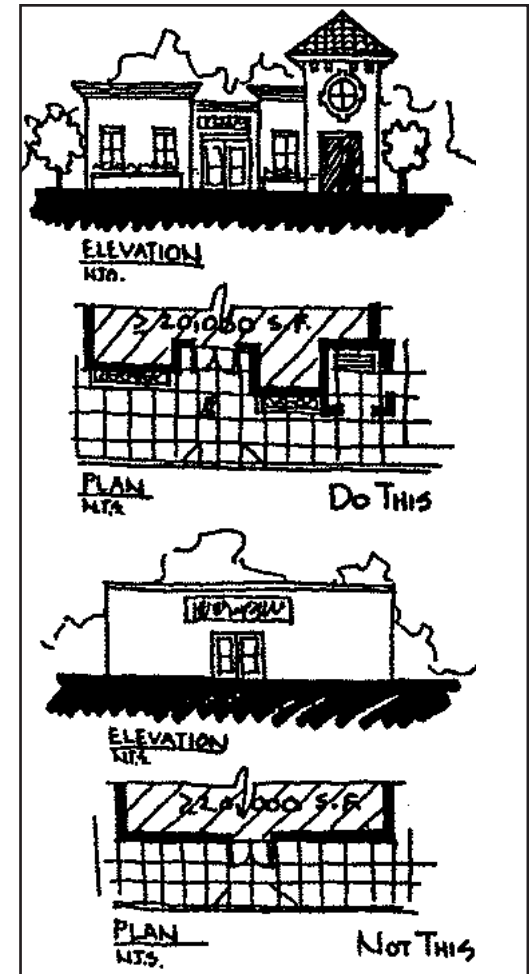
The 1996 standards also address site design - the placement of buildings, parking lots, and outparcels. The site design standards, however, have not accomplished their stated purposes: "[for commercial developments] to provide safe, convenient, and efficient access for pedestrians and vehicles... The parking area shall be integrated and designed so as to enhance the visual appearance of the community."

The site design standards have not proven effective at orienting buildings toward public spaces, nor have they moved parking lots behind build-

ings and away from public view. Interconnections for vehicles and pedestrians are now provided, but the current standards are not strong enough to make these connections as useful as they should be.

These site design standards should also incorporate recommendations of this plan's mobility manual. For commercial buildings being placed on existing lots, shared driveways and cross-accesses should be provided wherever possible. Larger commercial parcels, whether they are being subdivided or developed under single ownership, must be planned for short- and long-term goals. Buildings, parking lots, and utilities should be placed on the site in a manner that will allow them to evolve toward mixed-use neighborhood centers as retailing trends change and as prime commercial sites become too valuable to devote to large parking lots.

Collier County's architectural standards for commercial buildings can also be improved in a number of ways. For instance, buildings in core areas should be different than those in edge areas. Buildings located close to streets need larger display windows and better pedestrian access. Large buildings that are unavoidably set far back from major roads can be treated differently, but they still need display windows or liner buildings along all major faces unless they



From Collier's architectural standards, adopted 1996



The built result

are visually screened from the road.

The current standards differentiate between buildings larger and smaller than 20,000 square feet. A third class of standards is needed for larger buildings (or complexes) over 50,000 square feet. These larger buildings have tremendous impact on their surroundings, are almost never almost never carefully adapted to their sites, and usually have outparcels and access points that will affect the site far into the future, long after the initial users have departed. This is especially a problem for shopping centers and big-box retail stores that rapidly cycle out of fashion and often litter their host communities with hulks of obsolete buildings.

Ideal commercial centers use durable, resilient building types that can be converted to new uses as markets change. They are convenient to reach by automobile, public transit, and or on foot or bicycle, and offer attractions beyond a single shopping trip. Collier County should encourage this form of commercial development over all others. However, when a conventional shopping center or big-box store is unavoidable, the county should insist that its site be laid out in a rational street-and-block pattern, even if the first-generation building is placed in the standard location behind a parking lot.

To accomplish this, the county would need to amend its site design standards to describe the desired street and block pattern. For instance, the new standards could require that:

- very large parking lots would be subdivided into more than one block, with real streets between them, include side-walks, street trees, and on-street parking;
- the anchor store would be placed on a single block, with other stores fit into a liner around the anchor, or placed across a narrow street, or in an outparcel block;
- special permission would be required for an anchor store so

large that it could not fit on a standard block;

- parking would be shared between the anchor store and all others (including outparcels);
- employee parking and peak-period overflow parking would be located to the rear of the anchor store; and
- drainage and utilities would also follow the street and block pattern so as not to interfere with future buildings.

Also, the site design standards would include dimensional standards, such as the following:

- maximum block perimeter (1320 feet)
- maximum block face between pedestrian paths, alleys, or streets (450 feet)
- maximum spacing between doors (125 feet)
- maximum average spacing between all doors (100 feet)
- maximum contiguous parking in a single "parking block" (250 spaces)
- maximum parking ratio (three spaces per 1000 square feet of leasable area)

Through regulations of this type, Collier County would accommodate current retailing patterns while avoiding permanently committing prime real estate to a development pattern that has often proved unsustainable over even a single generation. The future pattern for redeveloping the site into an integral part of the community would be established in advance by the street and block pattern.

In addition to these changes, the standards should establish an appeal process to recognize that even the best architectural or site design standards will not "fit" certain situations. A well-trained design review board would be empowered to grant exceptions to the architectural or site design standards when exceptions are clearly warranted.

Civic Building

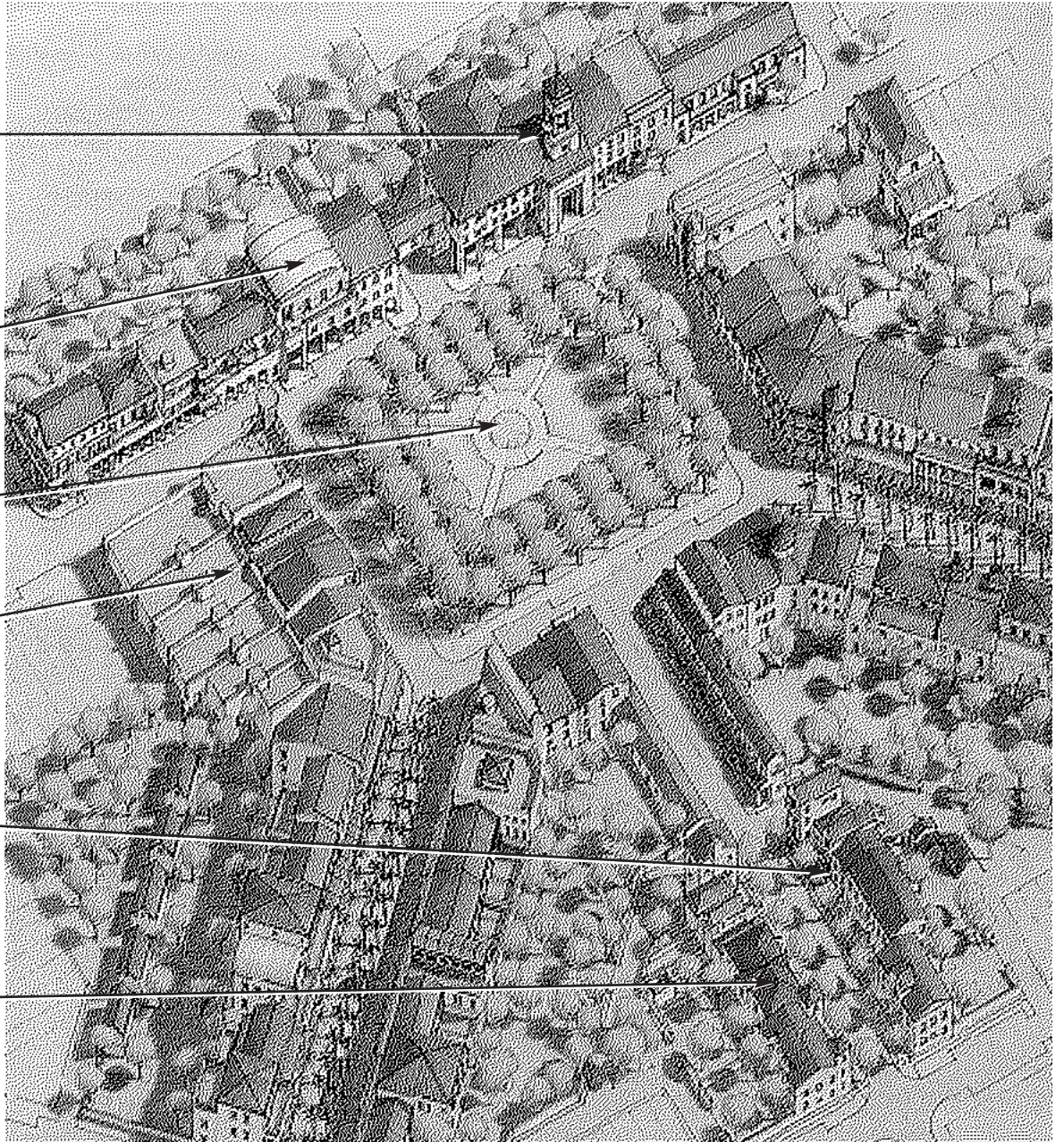
Shopfront Building,  
Apartments Above

Square

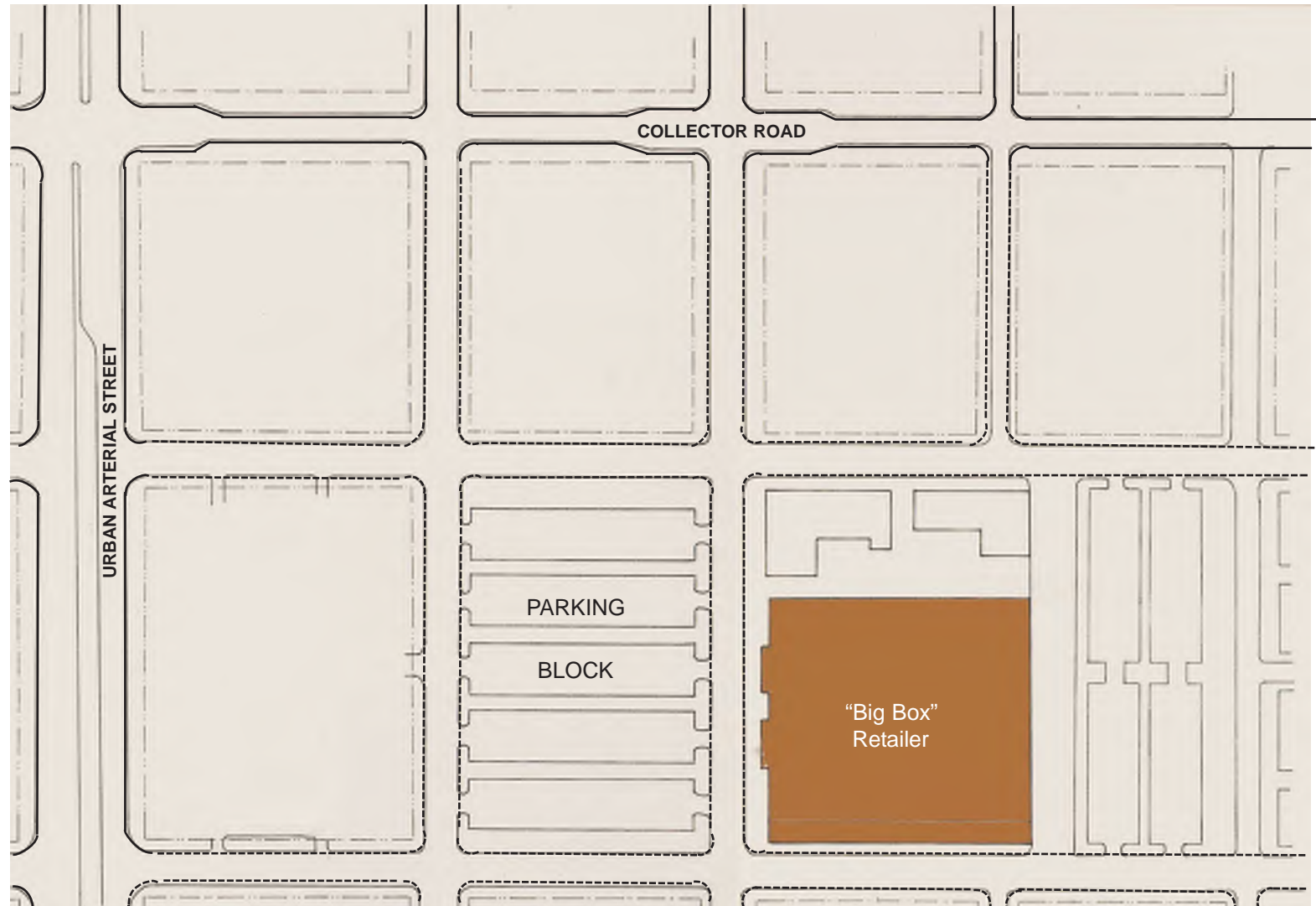
Multiplex Cinema

Apartment Building

Rowhouse



Mixed-use Town Center with a variety of street-oriented building types

**EXAMPLE: Laying Out a Shopping Center and Anchor Store**

Simplified site diagram illustrates the concept of creating blocks in a street network. Drive aisles are arranged as streets; the big box building occupies one block, with its front door facing a street, while its parking occupies a specially designated "parking block."





## COMMERCIAL ARCHITECTURAL STANDARDS

### SETTING THE COURSE

Collier County's architectural standards have improved the look of big-box retail stores, but have not been effective enough in arranging buildings on commercial sites. These standards should be upgraded to improve interconnectivity, and also should require the largest commercial buildings to be laid out on a resilient pattern of streets and blocks because that pattern will long outlast the first generation of buildings and land uses that are placed on these sites.

### GETTING THERE

#### Growth Management Plan

- a. Add an achievable objective #3 under goal #3 committing to upgrade the county's architectural and site design standards within one year.
  - i. Add a new policy to maintain architectural and site design standards in the land development code and to improve them by refining the standards based on neighborhood type, mandating interconnectivity between adjoining parcels, and orienting most buildings toward public spaces.
  - ii. Add a new policy to create new site design standards for large building complexes that require a street-and-block pattern for new conventional shopping centers and other large retailers.
  - iii. Add a new policy to require special permission for any anchor store so large that it cannot fit on a standard block.
  - iv. Add a new policy to reduce the parking requirements for truly walkable, interconnected developments that have all three primary uses (dwellings, workplaces, and storefronts), whether they are freestanding neighborhoods or segments of activity centers.

- v. Add a new policy to establish architectural and site design standards for parking garages and office buildings.

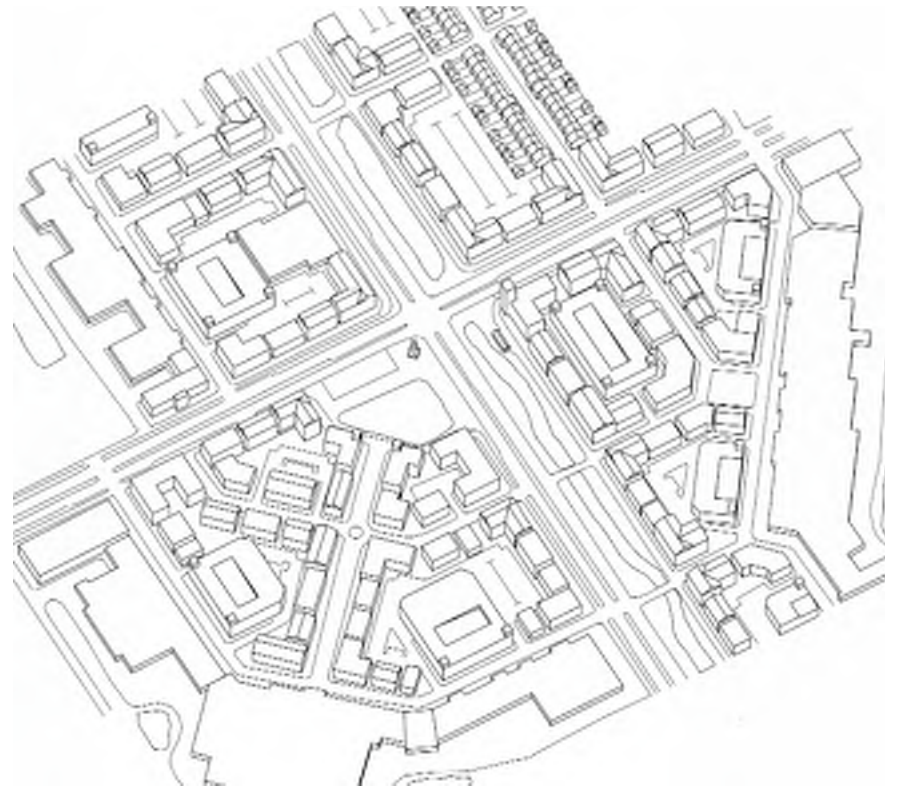
#### Land Development Code

- a. Upgrade the architectural and site design standards in §2.8 of the land development code to:
  - i. Establish standards for differing neighborhood and building types, such as mixed use mixed-use shopfronts and live/ work units.
  - ii. Include precise illustrations desirable building types.
  - iii. Rewrite the site design standards to significantly improve pedestrian access and to orient buildings toward public spaces.
  - iv. Establish special standards for building complexes larger than 50,000 square feet that requires a street-and-block pattern so that their site designs can evolve over time, and that also requires special permission for any anchor store so large that it cannot fit on a standard block.
  - v. Mandate reasonable interconnection between adjoining commercial parcels and surrounding developed or undeveloped land; these connections should be aligned to serve as future streets or alleys.
  - vi. Establish a design review board that would be empowered to grant exceptions to these standards.
  - vii. Reduce parking requirements for walkable, interconnected, mixed-use developments.
  - viii. Modify the parking requirements to minimize parking between stores and streets and to require all surface parking lots larger than the code's minimum requirements to provide substantial additional landscaping.
  - ix. Establish architectural and site design standards for parking garages and office buildings.

## ACTIVATING THE ACTIVITY CENTERS

As described above, Collier County has wisely begun to channel commercial development into 'activity centers' designated to include a mix of uses. But when the first rounds of development occurred at the activity centers, a "form follows parking" philosophy governed the design; character was secondary. Parking lots were sized around the busiest day of the year (for retail, the day after Thanksgiving), no matter the impact of those lots on the other 364 days. Parking lots dominate the appearance of these activity centers as seen by passersby because the large expanses of asphalt are placed between the road and the building. This visual blight conceals the full potential for success of these activity centers. As these activity centers mature and property becomes scarcer, the surface parking lots will come to be viewed as a land resource. With rising property values will come the realization that the vast acreage of unbroken parking is inefficient, and this lost space will be captured for infill development.

This process of transformation can begin without multi-story parking structures. Because different land uses need parking spaces at different times, mixed-use development can exploit shared parking. Today the typical center has only storefront uses (retail and restaurants) but a substantial amount of office, residential and lodging uses could be added without more parking, under a shared-parking scenario.



## EXAMPLE: Pine Ridge Road / Airport-Pulling Road Activity Center

### 1. Existing Conditions

Strip retail behind fields of parking.



Intersection of Airport- Pulling Road and Pine Ridge Road, 2000.

### 2. Redevelopment Begins

Shared parking allows infill of surface lots with street-oriented mixed-use buildings.



**Retail Logic**

A sense of success and vitality is part of memorable character, too. The psychology of commerce must be respected for the activity center to thrive. A few key rules include:

- maintaining clear views to signage and merchandise;
- avoiding excessive "streetscape" elements like decorative pavers or banners that are more distracting than helpful;
- laying out the Main Street blocks so motorists have several opportunities to make easy right turns to parking;
- incorporating on-street parking;
- keeping sidewalks spotlessly clean;
- regularly refreshing storefronts; and
- arranging tenants for synergy.

It is also important to concentrate the primary commercial heart into a focused, walkable area; the best shopping environments are about 1000 feet long or even less.

(For more on this subject, see "What Main Street Can Learn From the Mall," *The Atlantic Monthly*, November 1995.)

**3. In Our Generation**

As property values rise, infill development pressure extends to adjacent sites.



**4. Evolving to Maturity**

New development adds up to create a pedestrian-friendly, mixed-use center.



## ACTIVATING THE ACTIVITY CENTERS

### SETTING THE COURSE

For ten years Collier County has channeled commercial development into major activity centers. Despite the original mixed-use concept, most activity centers are dominated by huge parking lots for retail stores and restaurants. New activity centers should only be approved with complementary mixes of uses. As existing activity centers mature and vacant land becomes scarce, their inefficient parking lots should be converted to parking garages surrounded by mixed-use buildings.

### GETTING THERE

#### Growth Management Plan

- a. Add an achievable objective #4 under goal #3 regarding the various "center" types in Collier County.
  - i. Add policies under this goal that define and describe the variety of "center" types: rural crossroads, hamlet, neighborhood / village center, town center, and activity center.
  - ii. Add policies that incorporate the fundamental principles stated in this plan for the scale, land uses, building types, mobility needs, and site layouts for the various center types, including references to related standards for parcel-level connections, architectural requirements, and site design standards.
  - iii. Amend the description of the "urban residential subdistrict" (page 19 of the Future Land Use Element) which applies to 80% of all land west of the urban boundary, to state the conditions under which town centers and lesser-intensity centers including schools, day care, and non-intrusive workplaces can be integrated into neighborhoods. Shopping centers and office parks would still not be allowed.
  - iv. Amend the description of the "urban commercial district" and its subdistricts (pages 27-31) to state the conditions under which town centers and activity centers can be developed.
  - v. Amend the description of the "mixed-use activity center subdistrict" (pages

27-30) to no longer permit an activity center to be devoted entirely to commercial uses; a complementary mix of uses, including housing, would be included in each activity center.

- vi. Add a policy encouraging mixed-use buildings and mixed-use developments by not excluding commercial land when calculating maximum residential densities.
- vii. Add a policy modifying Collier County's policy on time extensions for unbuilt development approvals within activity centers.

#### Land Development Code

- a. Amend §2.2.20.3.1.1 so that land in PUDs that is used for commercial purposes is encouraged to include dwelling units. For purposes of computing density, the number of such units is limited by parking, drainage and other development regulations and is not deducted from the residential density limits of the PUD.
- b. Amend §2.2.20.3.4 so that on-street parking spaces within PUDs are no longer excluded when computing minimum parking requirements.
- c. Amend §2.2.20.3.5 to reduce the usable open space requirements in PUDs with fully mixed uses and to no longer exclude planting strips between internal streets and sidewalks from open space calculations.
- d. Amend §2.7.3.4 to shorten the period that unbuilt PUD approvals remain valid from five years to three years, and to substantially increase the amount of continuing progress that is required to retain PUD approval for unbuilt or partially built PUDs that are no longer consistent with the growth management plan or land development code. The purpose of this change is to require the design of unbuilt portions of PUDs to be modified to comply with regulatory changes before the PUD approval is extended.
- e. Amend the C-1, C-2, and C-3 zoning districts to no longer require "conditional use" approval for mixed residential and commercial uses and to eliminate the two-story height limit and other unnecessary barriers to mixed uses.
- f. Amend the C-4 and C-5 zoning districts to allow mixed residential and commercial uses.

## PRECEDENTS: Activating Activity Centers

Around the United States, aging strip shopping centers and malls are being changed in the ways recommended by the Character Plan.



**Mizner Park, Boca Raton, Florida:**  
before (above) and after (below)



**Winter Park Village, Winter Park, Florida:**  
before (above) and after (below)



**Mashpee Commons, Massachusetts:**  
before (above) and after (below)

## EVOLVING THE SUBDIVIDED PERIPHERY

Golden Gate Estates is profoundly different in character from the urban or rural parts of Collier County. County leaders and citizens requested that the Character Plan take a new look at this enigmatic sector and suggest customized strategies for its evolution.

### HISTORY

Golden Gate Estates and its immediate environs, including Golden Gate City, cover over 150 square miles of the county. This vast area is subdivided into large lots that range in size from 1.14 acres to 5 acres. A coarse grid of long, straight, undifferentiated roads and canals crisscrosses the area.

Golden Gate Estates was created as a variation on the "Florida land scam" lot-sales pattern that began in the 1950s. In this case, the developers marketed extra-large lots, many of which were swampy or exceedingly difficult to develop, to buyers all over the world. Apart from the minimal roads and canals, almost no infrastructure and community services were provided. Actual homebuilding on the lots occurred very slowly, in a near-random distribution.

The "north blocks" (north of Interstate 75) are now commonly known as North Golden Gate Estates (NGGE). In the past decade, NGGE homesites have become very popular as a source of moderate-cost ungated lots. But little in the way of groupings of homes resembling communities has emerged. Looking to the east from airplane flights over the area today, one can see an astonishing manmade patchwork: a house here, another



Typical undeveloped section of North Golden Gate Estates



Golden Gate Estates from the air, 2000

**“An Open Letter From Leonard Rosen,  
President of GULF GUARANTY LAND AND TITLE COMPANY**

**January 20, 1961**

*Land is the basis of all wealth. So said Theodore Roosevelt...and so, too, in other ways, said Andrew Carnegie, the Astors, the Vanderbilts, Marshall Field and many other investment-wise Americans.*

**But what they left unsaid is even more important...** because the facts are that land to be valuable must have a use... now or in the foreseeable future!

*If it is located a remote, off-the-beaten path area, distant from all indicated growth areas, it is not an **investment**. It is a risky speculation!*

*Land located in the wrong direction from a city, although it may be but 10 miles away, might as well be 100 miles away... if progress is not pointed in that direction. Actual development of an area may just be as distant now as it was 50 years ago!... and might remain as distant as 50 years from now!*

*That's why I take such pride in our **Golden Gates Estate offering**. No in-the-middle-of-nowhere land, this, Golden Gates Estates, as you all know, is strategically located in the path of progress... and what it may lack... **we will provide!***

*To that end, we, ourselves have set aside two tracts of several thousand acres each at opposite ends of Golden Gate Estates for the **proposed development of the twin cities of Golden Gate and North Golden Gate with plans, which when adopted, would provide "dream cities," modern, gracious, carefree, perfect in every well-planned detail.***

*From this you can see that Golden Gate Estates is destined to grow because it is planned to grow! That's why the acreage which is Golden Gate Estates has huge profit potential... the profit potential of excellently located choice suburban property... property that will be directly influenced by the price of homesites in suburban Naples as its outer fringe expands towards Golden Gate Estates as the twin cities of Golden Gate and North Golden Gate come into being.*

*However, although plans are already on the drawing board for our proposed twin cities, - the completion of these plans and the commencement of city development is not at this moment an accomplished fact. It is well to remember that preparatory plans for a city of qualitative stature are time consuming. Every phase and facet of modern city planning must be considered and made letter-perfect... engineered, checked and double-checked for soundness of drainage, provisions made for utilities, for intelligent protective zoning, for civic dedication of land for schools, parks, churches, playgrounds, etc. all of which requires Time, Thought, Skill, Know-how and Patience.*



*Because of this, investors are urged to consider the advisability of an investment in Golden Gate Estates only on its own merit as well-drained strategically located, prime suburban-type acreage with graded access roads to every tract... and such further merit of only what already exists around it.*

*I stress this point because I know that those of you who elect to join with us during the inceptive stages of this project are men of seasoned judgment who, like us, are prepared to ride it out as a long-range speculative venture if need be... and who recognize that the greater profit potential for early participation more than justifies its every calculated risk.*

*On that basis, I heartily and sincerely recommend Golden Gate Estates as a potential golden gateway to a prosperous future for everyone, everywhere! – and a prime opportunity here and now for the brokers, builders and investors at this gathering to profitably share in its future with us at the Special Pre-opening Wholesale Prices we are making available to you today as detailed on the following pages.*

**Sincerely,**

**(Signed) Leonard Rosen."**

*\*On January 20, 1961, Golden Gate Estates had no drainage or roads.*



there, on and on, stretching across the horizon, a gridiron of empty lots laid out against the natural backdrop beyond.

Gulf American Land Corporation, sellers of most of the territory, went bankrupt in 1979. That same year, the state inaugurated the Conservation and Recreational Lands (CARL) program and began painstakingly purchasing property in South Golden Gate Estates. State land buyers have now purchased or have contracts to buy almost 75 percent of South Golden Gate Estates, and plan a restoration that could begin as early as 2002. Eventually, it is hoped, much of this SGGE property will be restored to a semblance of its natural state as part of large-scale ecosystem restoration in the Everglades.

But a gradual march toward buildout is continuing in NGGE. As vacant lots have become relatively unaffordable in coastal areas, many county residents have turned to the Estates.

The original developers told purchasers they could subdivide their 5-acre tracts and profit further from the magic of Florida real estate. Although densification of large tracts has a long history in urban planning, in this case there was no logical pattern for converting the tracts into anything resembling a town or city. In the absence of either a logical development pattern or any commitment to provide urban infrastructure, the random subdividing of tracts into lots smaller than 2½ acres was outlawed in the early 1980s. But relatively few lots of 5 acres remain.

Collier County adopted a special Golden Gate Area Master Plan 1991 to take account of the unique problems of Golden Gate City and North Golden Gate Estates. This plan was updated in 1997 and continues to evolve today, largely as fragmented responses to petitions from individual landowners.

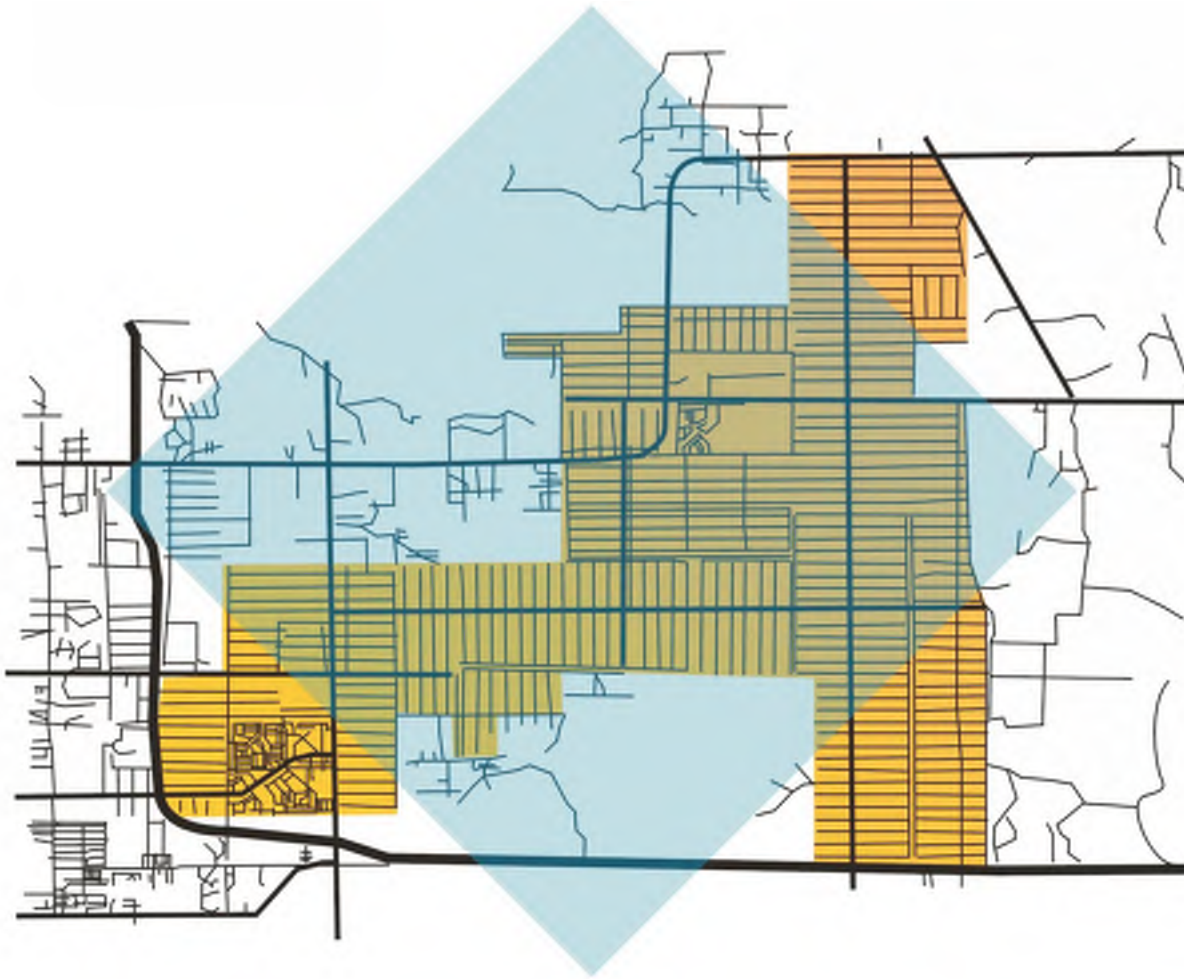
## **PROBLEMS**

### **No Longer Countryside**

Longtime residents complain about the disappearing "rural" character of NGGE, as more of the lots established decades ago are built upon. This captures the dilemma of the Estates. People were drawn to its remoteness and quiet solitude. Because so few of the tracts were built upon and even those were large, the great distances between homes fostered an initial perception of isolation and privacy, and this was very appealing to residents known for their independent spirit. But gradually, as more and more homesites are built up, the semirural charm is giving way to a very different scenario, one in which lawns replace trees, larger homes replace open spaces, and traffic mounts, year by year.

It is only now becoming apparent that the 5-acre lots themselves, originally thought to be a great feature, are now part of the problem; they are "too small to plow, too large to mow," neither farms nor neighborhoods. As they are built out, the semirural character is vanishing – one resident even talked about "crowding" – even as the low density makes it cost-prohibitive to extend conventional municipal services. Some of the newer residents, paying higher prices and building fancier houses, are accustomed to better fire protection, ambulance service, street upkeep, and shorter trips for a loaf of bread. There is an understandable tension between these newcomers and longtime residents, who for years have been filling coolers with ice back west to keep their groceries cool for the long drive home.

It is as if the Estates are beginning to feel the shortcomings of ordinary suburbia or city life, but without the advantages or conveniences.



Scale comparison: North Golden Gate Estates (background) and Washington, DC (superimposed).

the problems inherent in the original Gulf American plan, and today's residents clearly do not want that anyway. However, some affordable initiatives can be undertaken which, with patience and persistence, can have a substantial impact on the appearance of the whole and improve the quality of life in Golden Gate Estates.

### **The Absence Of Commerce**

There are almost no stores or other commercial uses within convenient distance of homes in the subdivided periphery. Residents who need to buy almost anything must drive a long way west toward town, usually on busy Golden Gate Boulevard. As more people move into the area, the additional trips exacerbate the current traffic problems; yet expanding Golden Gate Boulevard beyond its new four-lane configuration is unimaginable to people who have chosen to move to the country.

### **Size**

The sheer size of Golden Gate Estates makes planning daunting. The diagram comparing the whole of Washington, DC to the footprint of the Estates makes the point; no replanning initiative could suddenly reverse the legacy of the land scam over so wide an area and result in full-blown sustainable communities. The evolution of the Estates, given its staggering dimensions, will therefore inevitably occur slowly, and much of it will remain a patchwork of multi-acre tracts for many lifetimes, neither completely broken nor fixed. Minimal interventions are called for, recognizing that no single grand solution will eliminate

At the same time, many outspoken residents do not want any large-scale shopping centers or discount stores. In public meetings, many people have seriously objected to anything larger than country stores in the Estates. They have good reason to be suspicious of how new shopping centers might be designed; conventional shopping centers or large-format retail stores ("big boxes") with huge parking lots out front are clearly out of sync with the semirural character, natural beauty, and countrified image of the Estates.

There appears to be, however, significant support for smaller, neigh-

neighborhood-oriented stores, if they can be provided under carefully regulated circumstances. The commerce needs can be appropriately scaled to this area and provide much needed goods and services for the surrounding residents. Part of the solution is to provide additional commerce in the Estates, but with tightly controlled design and at a scale that fits the surroundings.

### Roads and Traffic

Even in areas where there are more concentrated populations in the subdivided periphery, there are relatively few roads that connect where they will be needed eventually. Some road links are missing because there was no money for canal bridges when the area was first settled, and at that time the need was not obvious because the Estates were never planned to become a bedroom community for Naples. As a result, auto trips today are longer than necessary as drivers circle out of their way and double back to one of the few roads that do connect. One long car trip can therefore have the upsetting traffic impact (as perceived by neighbors) of many normal-length trips.

Traffic is also rising due to the arrival of more residents. The amount of driving per household is growing as part of a national trend, too. Yet these are not the only reasons traffic in the Estates seems to be growing faster than the population. Living in this area reflects an inherently auto-dependent lifestyle choice made upfront, and that is apparently fine with many of the residents. Homes with four or five occupants often have five vehicles parked in the yard. No alternatives exist. The pattern of large lots, few roads, low density, and outlawed commercial uses makes walking, biking, and transit unlikely if not impossible, so ever-increasing traffic should not come as a surprise.



**Golden Gate Estates**

Typical existing buildout pattern in North Golden Gate Estates features sporadic development of single family homes.



**Golden Gate Estates**

Future hypothetical buildout of the same street shows how piecemeal single family developments on multi-acre lots can still create sprawl and traffic congestion.

### Living So Close to Nature

The swampy subdivided periphery also overlaps with critical habitats and natural flow-ways. When the Estates area was laid out, the modern environmental movement had not yet begun. Few regulations governed the transformation of the place, and scientists did not even have the tools to grasp its implications. Now with satellite imagery, infrared



Golden Gate City, aerial view, 2000

aerial photography, and radio tracking collars on endangered animals, the extent of the violence is clear, first with the draining and elevating of roads, and then with occupation. The aerial images make it easy to understand why public buyout of the lots in South Golden Gate is necessary. North of I-75, too, there are parts of the Estates that similarly obstruct the routine flow of water and the movement of wildlife. Yet these areas are steadily accumulating more homes.

Golden Gate Estates lies within the Big Cypress Swamp, which is the western part of the greater Everglades system. Berms and deep drainage canals were installed to prevent flooding, but this protection has proven inadequate. An even larger problem is that the flood protection system blocks the native flow-ways that ran southward through Golden Gate Estates. The result is that NGGE is drying out, while land to the north floods severely because it is forced to absorb more water than that land can handle.

Although a fire cycle is historically a normal part of the Everglades' process of continual renewal, the frequency of fires seems to be increasing as development dries out the swamps. Needless to say, even if one's home is not in the direct path of the fires that sweep this part of Collier County from time to time, the wildfires can be quite jarring to new human residents. Over the years the area has experienced a series of significant fires that covered thousands of acres, most recently in 2000. At least a partial solution must be found to make firefighting practical as part of striking a tenuous balance between nature and human occupancy of the subdivided periphery. One promising step would be minor road improvements that would allow more than one circulation path for residents who might otherwise be trapped by wildfires. Another would be restoring parts of the original flowways

through NGGE as firebreaks and raising groundwater levels wherever possible to maintain natural vegetation during the dry winter months.

### **Golden Gate City**

The four square miles now known as Golden Gate City were originally planned to be one of two "twin cities" in Golden Gate Estates. The other was far to the northwest and was never developed; its site is now known as Orangetree.

Golden Gate City is quite different than Golden Gate Estates; it was developed in a pattern more like Naples Park, though with a more picturesque street layout instead of a gridiron of straight streets. Many of the ideas described earlier in this manual for revitalizing maturing neighborhoods would be applicable to Golden Gate City and could be examined more closely when the Golden Gate Area Master Plan is next updated. Golden Gate City share another similarity to Naples Park: its eastern boundary runs along a major arterial road, with the same opportunities and problems faced in both communities.

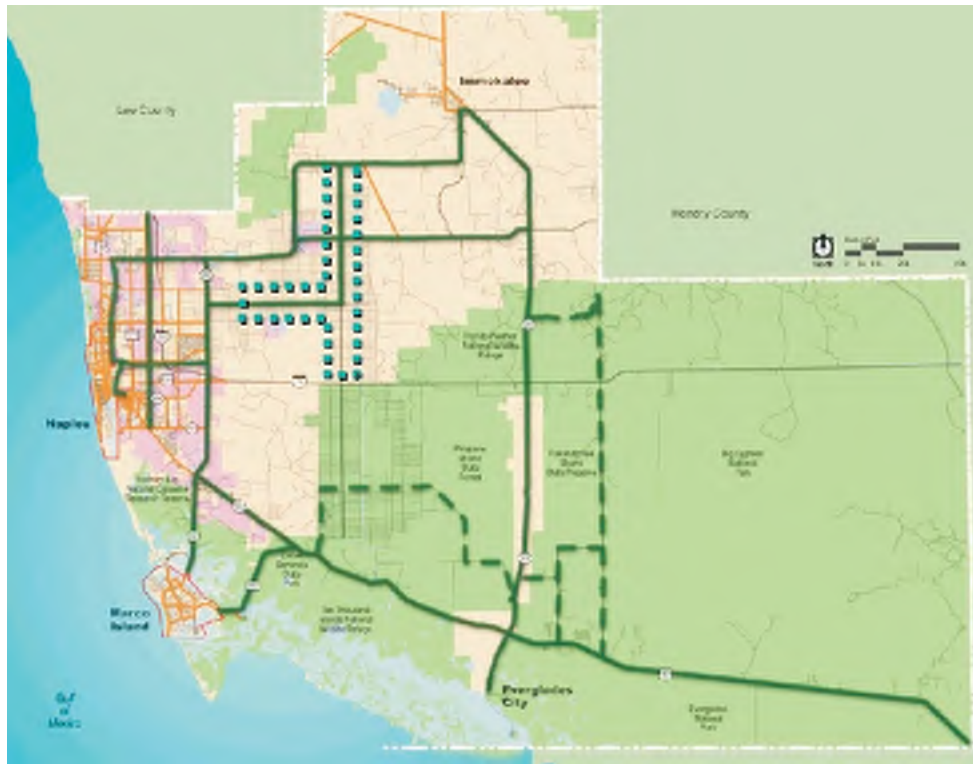
### **OPPORTUNITIES & GOOD TIMING**

In public meetings during 2000 it was very clear that citizens are interested and aware of the changing situation. Many residents of the subdivided periphery speak passionately about the future of the place and are dedicated to improving life there.

The Golden Gate Area Master Plan is clearly overdue for a major revision to address the new issues that have arisen with the 1990s population boom in Golden Gates Estates. It would also identify opportunities to improve neighborhoods in Golden Gate City and its interface with Collier Boulevard.

Another important element would be to prepare plans for land around the new interchange to be built where Interstate 75 intersects Golden Gate Parkway, which will profoundly shift traffic patterns and open new alternatives for convenient movement, yet will probably make the subdivided periphery newly attractive for even more homebuilding. Without great care and planning, this interchange could end up as a generic waystation for travelers rather than a memorable entry into Naples and Golden Gate.

The time has come to consider new options for the future of this area. The decisions made by Collier County and its residents during the next five years will affect life in Golden Gate throughout this century and beyond.



Conceptual greenway and canal system

### The "Golden Threads" Plan for Improving the Estates

This part of the Character Plan can serve as a starting point for a new policy toward the subdivided periphery. The sketches and concepts presented here are not worked out in exhaustive detail, and some might be deemed more applicable than others after further investigation, but they are provided to challenge the next step in the planning process to consider options beyond continuing the status quo.

The western stretches of NGGE are much more occupied than the eastern parts. Clearly an opportunity exists to choose a future for the eastern sections that is different from the western sections. The entire area is diverse, and should grow more so. The final plan, like those of maturing neighborhoods, should be created in close consultation with the citizenry in each

locale. Outreach should be given great consideration, so that an improvement or a minor change in the rules for a given area, if residents want it, need not be thwarted by opposition from others who live five or ten miles away.

Rather than treat this sector of the county with one-size-fits-all regulations, it would be broken for policy purposes into smaller subareas, each with carefully tailored expectations and design standards. Where some parts are naturally urbanizing, this can be recognized as an opportunity; a few of these could be made more townlike. Other areas can be kept genuinely rural. In between, some inevitably suburbanizing areas seem to resist evolving to be either town or country, but their appearance can still be improved. Another group of areas need to be restored to their natural state and linked back into the critical flow ways and habitats.

Even though no reasonable plan will set off wholesale change in all corners of the Estates, there are some larger scale elements that could serve to bind the area together and improve things for everyone. Think of these concepts as memorable "golden threads" that can unify the whole and weave a net around which the Estates can mature. The conceptual maps illustrate a possible pattern, but the exact locations of all the elements are likely to change as the plan evolves.



An existing roadway in North Golden Gate Estates that illustrates the parkway concept

### **1. Greenways and Historic Flowways / Firebreaks**

The Greenspace Manual contains maps that identify wetland systems that existed previously (or still exist today). Other maps show major historic (and existing) flowways through Collier County (see, for example, Exhibit 10 in the *Greenspace Manual*) that show the regional drainage patterns prior to the excavation of the ditches and canals that now carry most stormwater toward the south and west. Most of these lands remain in private ownership.

The Greenspace Manual also proposes an expanded open space system in North Golden Gate Estates based on the existing canal system. These canals

could be developed into a system of greenways that include bicycle/pedestrian paths as well as habitat for a variety of small wildlife species. The greenways could be created either within the existing canal right-of-ways, if space allows, or possibly through easements along canal banks. A system of neighborhood parks, approximately 1 - 2 miles apart, would also be created along the greenways. These parks would also provide wildlife habitat through the protection of existing vegetation or the restoration of disturbed sites.

It is unquestionably difficult to recreate natural flowways and to retrofit Golden Gate Estates with a greenway system. Unless started immediately, it will be nearly impossible because more and more homes are being built on the key lots that would be needed. With a concerted effort, however, both systems may still be practical. The greenways would be primarily recreational and aesthetic, with some wildlife benefits. The flowways would have little recreational value, as they must generally follow the historic patterns and would unavoidably pass through more developed areas. However, the flowways could be part of a coordinated effort to raise groundwater levels in the existing canal system, which could have significant benefits to the native vegetation that has had to adjust to very dry conditions. Wider flowways could also serve as natural forested areas and even as firebreaks, especially if groundwater levels are raised and prescribed burns reduce the fuel loads that build up in the total absence of fire.

### **2. Country Parkways**

One way to diminish the negative visual impact of continuing development in Golden Gate Estates would be to designate sever-

al key corridors as country parkways and change the development rules for the lots that front them. The idea is to preserve as much as possible of the country-road feel by screening private development from view. Along these road segments, deep setbacks would apply; the rules would require that the area between the houses and the road would be preserved (or thickly planted) with coarse native vegetation and trees. The roads would therefore remain (or become) thickly forested along their edges, and the houses would not be visible from the road. Driveways would be the most visible evidence of development. The houses will have a greater sense of privacy and solitude behind the forested setbacks, in exchange for giving up "usable" land on each lot and visibility of each house.

For this effect to be convincing, the setback will have to be deep (200 feet or more). This concept would therefore work best in contiguous locations where 5-acre lots remain the norm, but may not practical for areas where the 1.14- or 2-acre lots are less predominant.

The country parkways approach will change the visual impact of growth, but not other impacts of growth.

### 3. New Rural Road Connections

The Mobility Manual spells out the need for more road connections throughout Collier County, and this is a key part of accommodating the growth in Golden Gate Estates as well. On the conceptual thoroughfare map, several possible locations are called out for potential new connections in the western reaches of Golden Gate Estates. (The exact, most feasible alignment of each road would still need to be confirmed.) Similar two-lane



An example of a new rural roadway connection, with trees and terminated vista; a hamlet beyond

collector roads further east could also provide alternate routes for travel between Golden Gate Estates and coastal Collier County. There are also "missing links" in the Golden Gate Estates road system where short road segments or new bridges could be installed to make the existing road network more functional. All of these could be shown on the thoroughfare plan proposed in the Mobility Manual and constructed as the need and resources arise.

The Mobility Manual also explains that a network of several smaller roads is superior to one overly widened road. For the most part, the new road connections could largely resemble the country roads already in place around the estates, simple two-lane thoroughfares with swales on the sides and no fancy details.

In two ways, however, these roads should be made better than the typical roads in Golden Gate Estates:

First, native shade trees should be planted along these roads, closely spaced



in rows near the edge of the pavement. Where there is an open drainage swale or borrow ditch, the row of trees should be planted between the roadway and the ditch, not on the outside of the ditch. The tree canopy should be encouraged to overhang the roadway. This is a common feature shared by roads of rural character all around the world.

Second, these new connections should not run as straightaways for miles without interruption. While a curvy, pseudo-picturesque design is not needed, the alignment of the road can be shifted at key points to end the long vistas and provide for traffic calming. Angular shifts and offsets are preferable to high-speed curves. Only subtle offsets or grid shifts are needed, and therefore these will not show up on large-scale maps.

#### 4. Creating Rural Crossroads

The householders in North Golden Gate Estates need more convenient access to basic commercial activities, especially, for example, in the eastern sections near Everglades Boulevard. Yet residents were adamant that they do not want NGGE overrun by strip shopping centers and bright plastic convenience marts. Nobody likes the artificial image of the typical strip center or those look alike franchises. But the answer is not an across-the-board barring of commercial uses. Like so many of the other elements of community character, the answer lies in design.

Even remote country settlements typically have a general store at an important crossroads, and these can be charming. A handful of such crossroads stores can meet many of the needs for which people are driving long distances west today, and become hallmarks of Old Florida community identity at the



New rural road connections can be very narrow, with built-in traffic calming.



Rural crossroads can provide for small scale commercial needs in remote areas of the subdivided periphery.



The Commissary on Third Street South, c. 1928:  
appropriate architecture for rural crossroads

same time. These rural crossroads would have just one or two buildings each, closely associated with the roadside.

The update to the Golden Gate Area Master Plan would identify the design and locational standards for crossroads stores. An ideal style would be for the commercial buildings in the rural crossroads to emulate the best of the Old Florida style pioneer buildings around which Collier County was originally settled. Good examples for study include Ted Smallwood's Store in Chokoloskee, Anderson's Corner in the Redland, and the old Commissary on Third Street South, Naples. To accomplish this, the rural crossroads building should be two stories tall, and have a covered porch facing the road. For best results, windows should be vertically oriented and operable, with transparent glazing; ceilings should be high for good proportion; pitched metal roofs with generous overhangs should be the norm; signs should be hand painted and front-lit; pavement should be minimized; and overall lighting should be minimal. Other architectural features, such as balconies and awnings, are helpful, too. However, a simple rectangular footprint is best.

Beyond the building design, it's the position of the building and the site details that impart authenticity at the rural crossroads. It should be built up as close to the street as is technically feasible, set forward as opposed to set-back. A strict limit on the amount of parking in the front will prevent it from looking like a standard strip center. Gasoline sales and drive-through windows could simply be banned or very strictly controlled. Building footprints of the crossroads building would also be limited in size. (Today's just-in-time inventory management

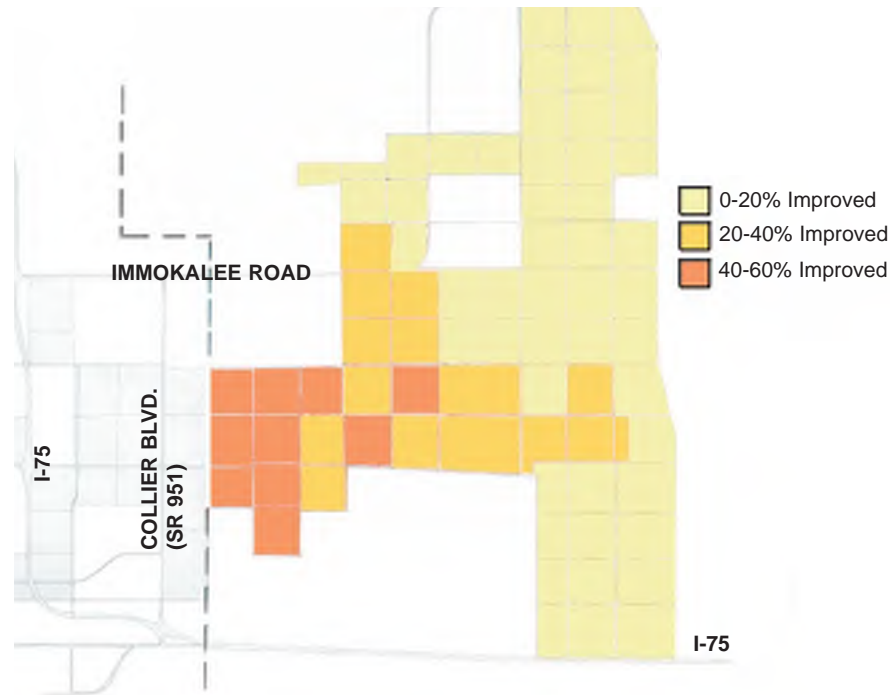


An example of a country store at a rural crossroad

systems make it feasible to offer customers a wide variety of items without storing large quantities and without enormous amounts of shelf space – just like in the country emporium of the past. Big store formats are not needed, and if a commercial enterprise wants to operate here, it will find a way to fit the requirements. If operators don't think the market is ready for a specialized store, then let them wait. There is no urgency to accept whatever someone proposes.)

Despite the intention of small-scale and tight control, the insertion of commercial uses into this vast area of residences is likely to be controversial and many people will be nervously watching the outcomes. Therefore in addition to customized standards, it would be appropriate to create a specialized design review process through which buildings proposed for rural crossroads must pass.

The spread-out nature of the limited market does in fact mean that only a few operators will be able to locate in Golden Gate Estates, but those that do will enjoy a remarkable position on an intercept course between home and competitors, in essence a captive customer base for an enterprise that thrives on convenience.



**North Golden Gate Percentage Buildout Diagram** This diagram illustrates the relatively low concentration of “improved” lots (that is, those with houses built upon them) in the eastern fringes of North Golden Gate Estates.

If these character guidelines are followed, each rural crossroads will be a visual asset to its surroundings, and will come to be recognized as a landmark. When giving directions to their home, residents will say, “turn at the country store.”

## 5. De-intensification

Although buildout has been spread out over a very long period of time in North Golden Gate Estates, it is occurring nonetheless, and eventually a house could sprout on almost every remaining lot. That would be an undesirable outcome from many viewpoints: traffic impact would increase dramatically; environmental restoration would be nearly impossible; and the image of country houses interspersed with woodlands will fade away, replaced by a suburban landscape of house after house. Yet growth needs to be accommodated, and longtime lot

owners have rights that need to be respected.

Golden Gate Estates could achieve a stronger identity, accommodate growth while avoiding a gradual buildout on every one of the remaining lots, and make life more practical by simultaneously allowing the creation of a limited number of small *hamlets* and *villages* (as described below) in targeted areas, in exchange for “retiring” platted lots in key areas. A simplified Transfer of Development Rights (TDR) strategy would be employed. The hamlets and villages would be the “receiver” areas, and lands most suitable for restoration, conservation, parks, greenways, or firebreaks would be designated the “donor” areas. In the hamlet and village areas, the subdivision of land into smaller lots than otherwise typical in GGE might be permitted, and the buildings would be clustered together to form a walkable, intimate, traditional rural settlement. In exchange, builders of these hamlets or villages would purchase lots (or development rights) in the donor areas and donate them to a community land trust or public agency.

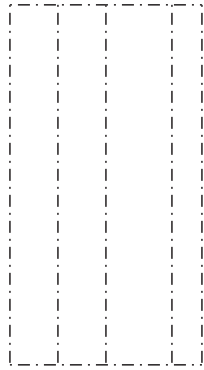
This concept would be most useful if begun in the very near future while some of the more remote portions of Golden Gate Estates are still largely undeveloped and many key lots needed for firebreaks, parks, and greenways do not yet have homes built on them.

A simplified system could be developed to accommodate this transfer of development rights. The system could be limited to only Golden Gate Estates so that all benefits would be retained within the community. Each new dwelling unit allowed on a smaller lot might be allowed only upon the retirement of the right to build one future home in a more remote location. Similarly, expanded commercial uses could require a number of homes to be retired, using a predetermined ratio of commercial square footage to homes. The entity receiving the donated lots would be allowed some latitude regarding which to keep and which to swap for other lots; in this way, small park sites or firebreaks, or even school sites, could be assembled in key locations.

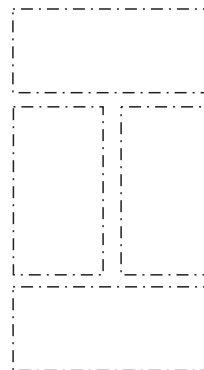
## EXAMPLE: Subdividing a Large Lot



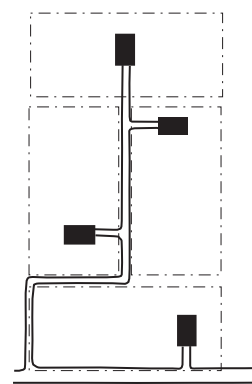
5 acre lot



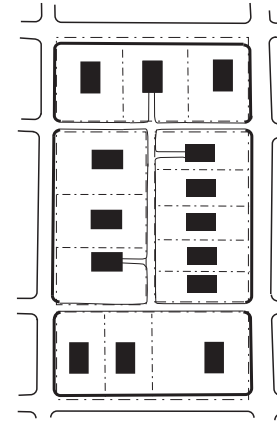
The **Wrong Way** to subdivide a 5 acre lot into four plots.



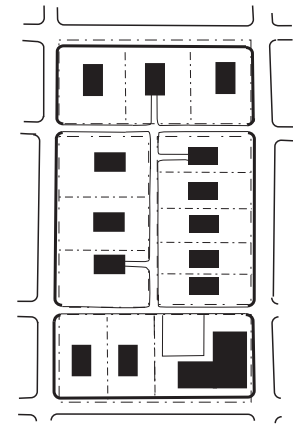
A **Better Way** to subdivide a 5 acre lot into four lots separated by *lanes*.



Subdivided lots should set up a pattern for further subdivision. Owners can make room for their children or friends. The fronts of the houses on each lot should face outward.



Over time, lots can be further subdivided. Streets can be added to accommodate traffic. The original lanes serve as alleys, providing rear access for parking and utilities.



Over time, as needs occur in the community, a corner store or day care center can be added.

## 6. Creating Hamlets

Smaller than a village or neighborhood, but larger than a rural crossroads, a hamlet is a compact collection of five to twenty houses surrounded by farms, forests or an otherwise largely undeveloped setting. The homes in a hamlet are typically clustered together around a focal element, such as a common green, or a civic facility, such as a place of worship, or a small store. Like the rural crossroads, a hamlet can contain limited commercial activity. Varied lot sizes, even attached houses, are welcome in the hamlet. Long, large lots – even those large enough for a paddock – are suitable at a hamlet's edges, provided the house is brought up to the front of the lot close to the other houses.

This intimate arrangement allows for neighborly interaction, pedestrian friendliness, and picturesque character. More importantly, it accommodates some population growth in the periphery, yet helps direct the growth away from areas where it doesn't belong.

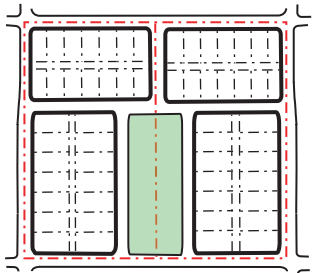
## 7. New Villages

A handful of locations around NGGE lend themselves to the creation of rural villages. These would be about the size of one small neighborhood. Each village would be a tightly focused area of compact growth surrounded by the low-density estates, agricultural tracts, or conservation lands around it. The villages would be designed according to principles of traditional neighborhood design, as described in *Growing New Neighborhoods*.

The villages should be reasonably self-contained, and preferably bounded by a greenbelt. They should be limited in size (preferably 40 to 100 acres, and approximately 200 acres maximum). Villages should incorporate commercial and civic uses, designed to serve both the village residents and neighbors in greater NGGE. This should include a grocery store, although its footprint should be limited to 20,000 square feet maximum. Other non-residential uses can be included which reinforce the Estates' semi-rural image and take advantage of the area's new role as an embarkation point for eco-tourism and wilderness recreation. For example, a general store, bait-and-tackle shop, outfitters post, or bed-and-breakfast lodge would all be appropriate for a village.

### EXAMPLE: How to Subdivide Groups of Large Lots to Create Hamlets & Villages

Two 5-acre lots

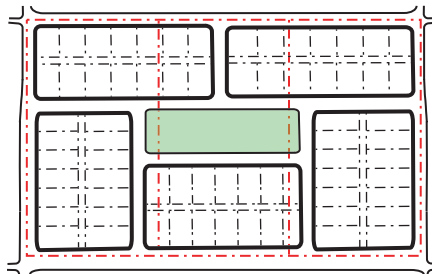


example 1

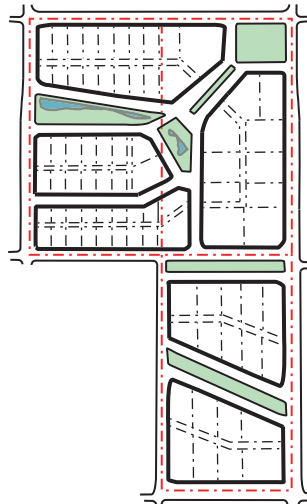


example 2

Three 5-acre lots

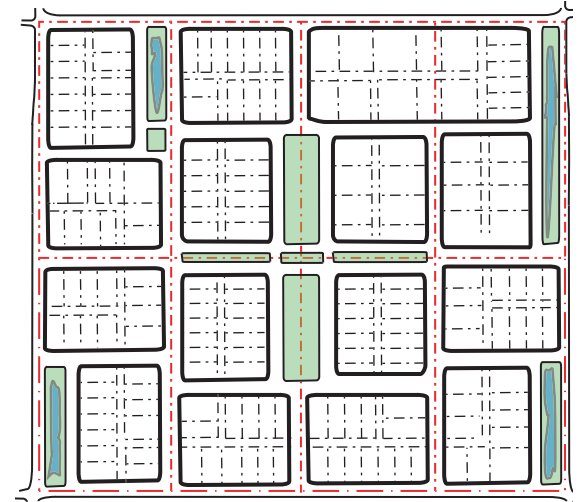


example 1



example 2

Eight 5-acre lots -- (one "ward" or "quarter")



example 1



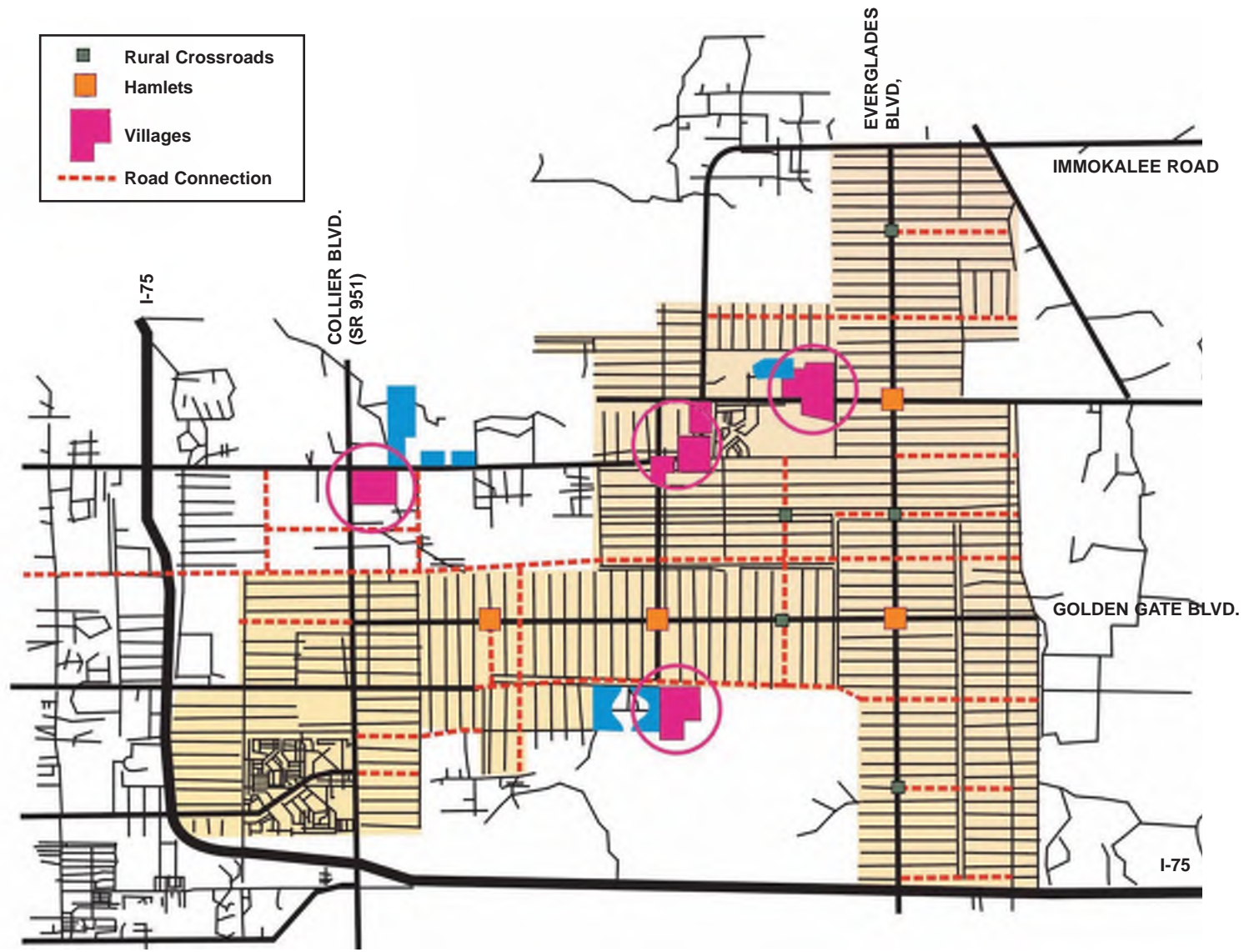
example 2



Illustrative plan of a typical hamlet, centered around a small green and civic building.



A hamlet is a loosely knit collection of homes, clustered together in an otherwise rural context.



Hypothetical plan of villages in North Golden Gate Estates

## EVOLVING THE SUBDIVIDED PERIPHERY

### SETTING THE COURSE

The Golden Gate Area Master Plan needs to be updated in response to rapid growth. Special rural design techniques should be worked out, in consultation with residents and property owners, to meet the demands of growth while maintaining valuable natural resources and rural character. Some initial ideas are presented here for residents to consider when updating this master plan.

### GETTING THERE

#### Growth Management Plan

- a. Update the Golden Gate Area Master Plan, as follows:
  - i. Develop a plan for land surrounding the future interchange of Interstate 75 and Golden Gate Parkway so that it can provide a dramatic entry into Naples and Golden Gate instead of conventional interstate commercial uses.
  - ii. Define generalized alignments for two-lane collector roads and "missing links" in the NGGE road system and illustrate cross-sections for these roads that include rows of native shade trees that will grow together to form a tree canopy.
  - iii. Delineate general subareas of Golden Gate Estates having differing characters so that the updated master plan can consider appropriate treatments for each.
  - iv. Identify suitable locations for minor commercial uses in the form of rural crossroads, hamlets, or rural villages.
  - v. Prepare general criteria for a design review system for all new commercial development in Golden Gate Estates.
  - vi. Identify any specific areas of environmental sensitivity where further development

would be undesirable and other areas that may be suitable for a transfers of development rights into areas designated for minor commercial uses. Include the new "proposed publicly owned natural lands" acquisition area just north of Alligator Alley as shown in the greenspace manual.

- vii. Include a refinement of the trail and greenway system and proposed neighborhood parks as shown in the Greenspace Manual.
  - viii. Develop strategies for raising groundwater levels and reestablishing at least parts of the original flowways that ran through Golden Gate Estates. Flowways could be reestablished on public lands as actual sloughs or could remain as forested greenbelts running across private lands.
  - ix. Identify potential locations for new neighborhood centers that could serve Golden Gate Estates. These locations could include land within or near the Orangetree settlement area or unplatted land west of 12th and 14th Avenues SE.
- b. When republishing the county-wide future land use map, include an outline or hatched-pattern to indicate the regulatory area included in the Golden Gate Area Master Plan so that its special provisions would be immediately apparent.

#### Thoroughfare Plan

- a. Include on the county's new thoroughfare plan:
  - i. a series of two-lane collector roads that will provide alternate routes for travel between Golden Gate Estates and coastal Collier County; and
  - ii. "missing links" in the Golden Gate Estates road system where short road segments or new bridges could be installed to make the existing road network more functional.

#### Land Development Code

- a. Establish a design review system for new commercial development in Golden Gate Estates.



# Mobility Manual

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## INTRODUCTION

In less than ten years, the population of Collier County has increased by fifty percent. This growth has occurred in a spread-out development pattern that requires an automobile for most daily trips. These factors, combined with a sparse network of major roads, have given Collier County residents a taste of big-city traffic congestion.

Collier County's response to this congestion will shape its future. This plan proposes mobility strategies that will begin to improve the sparse road network while enhancing community character.

The county's transportation strategy has been to create a system of wide arterial roads to serve a sprawling development pattern in the absence of a secondary road network. Unfortunately, wide roads are very difficult to make into positive features for our communities, and the sparse network requires motorists to travel greater distances to reach everyday destinations, thus worsening traffic congestion. This plan recommends the simultaneous creation of a network of secondary roads and proposes designs for these roads that would make them welcome near and through residential neighborhoods.

The benefits of better networks accrue at smaller levels as well. New neighborhoods should emulate the best older neighborhoods by having multiple street connections, rather than a single entrance that is inconvenient to the residents and tends to overload the arterial network.

The pattern of connections between individual parcels and neighborhoods to the major road network is very long lasting. Once lots are subdivided to create neighborhoods, the street pattern is very difficult to change. Individual buildings can be replaced through time, and

land uses can evolve to meet changing needs, but these future actions will be constrained by the initial street pattern. Where this opportunity hasn't already been foreclosed, Collier County should insist that the original street pattern in new neighborhoods be designed to allow healthy changes during future generations.

This chapter provides an overview of Collier County's framework for making transportation decisions in the recent past and at present and then describes five specific mobility strategies to further improve this framework. All five strategies are designed to forge a strong link between transportation and land-use planning.

## TRANSPORTATION PLANNING IN COLLIER COUNTY

Collier County residents are very troubled by increasing congestion on their roads. During the past five years, many roadway projects were planned and designed, but some had fallen severely behind schedule.

Last winter, rush-hour delays at major intersections were declared unacceptable and a "roadway emergency" was declared. Local officials reevaluated the previous system for improving county roads and established a new Transportation Services Division which immediately set into motion an aggressive construction program to widen and extend many roads far sooner than previously planned.

Traffic congestion is caused by a growing population forced to use inadequate roads and is aggravated by development patterns that require local residents to get in a car and drive long distances to meet

everyday needs. Collier County's response to congestion should address all of these causes. If not, an aggressive roadbuilding program may still not provide the level of mobility that Collier County residents have come to expect.

### **STANDARD METHODS FOR PREDICTING THE NEED FOR FUTURE ROADS**

For long-range road planning, Collier County has followed the standard process used by Metropolitan Planning Organizations (MPOs) across the state. Like other MPOs, the Naples (Collier County) MPO is a multi-jurisdictional entity involving the cities, Collier County, and the Florida Department of Transportation.

MPO planners use a computer model that assesses future road needs by projecting 20-25 years into the future the development patterns and driving habits of the recent past. The model assumes the indefinite continuation of these practices (for example, Collier's pattern of segregating land uses into large gated communities, isolated office complexes, and strip shopping centers at major intersections, and the absence of a collector road system). The computer model then simulates the travel behavior of the expected future population on the arterial road network, helping decide which roads will need to be widened or extended.

If the cost of these new roads exceeds road-building revenues during the same period, two different road networks are created. One is called a "needs plan," a road network that might be built if unlimited funds were available. The other is a "financially feasible plan" that is

limited to roads that can be paid for by transportation revenues to be generated during the same period. This fiscal limitation means that the result in twenty years may be similar or worse delays than are currently being experienced.

Financially feasible plans created by MPOs are then adopted into county and city growth management plans, and the road improvements shown on them are designed and built individually, mainly by county and state agencies.

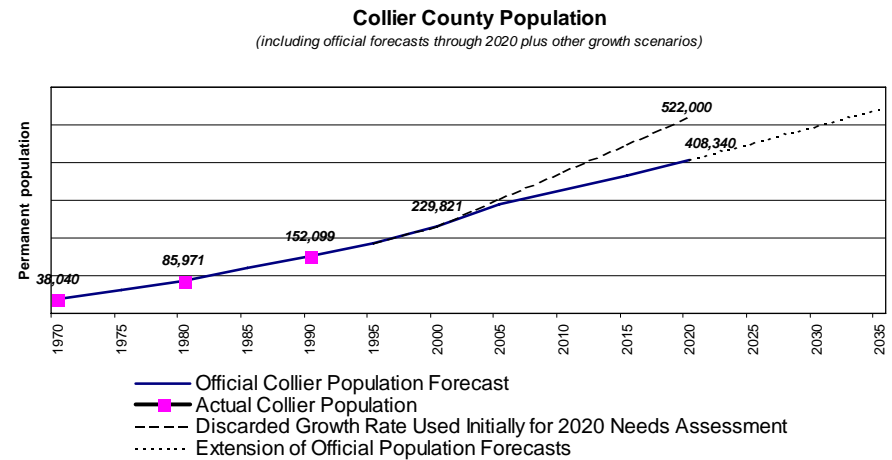
MPO computer models give little consideration to non-auto travel modes, and are only rarely used to test the effectiveness of growth patterns other than the low-density disconnected form that has been popular across Florida in the past fifteen years. Yet Collier County's pattern of new neighborhoods being connected to major roads at only a single point may well change in the future; a primary hypothesis of the Focus planning process and this Community Character Plan is that this disconnected pattern is overdue for reexamination. The next section describes these and other factors about Collier County's framework for making transportation improvements.

### SOME REASONS WHY GROWTH MANAGEMENT HASN'T STOPPED CONGESTION

The "concurrency" growth management technique that was pioneered by the state of Florida in the 1980s promised to avoid road congestion by forcing a building permit moratorium along a road that has reached its capacity. The unexpected result of this system has been to make infill development more difficult by increasing uncertainty on the part of developers, while spurring development in outlying areas.

Concurrency is narrowly focused on the short-term capacity of adjoining roads, rather than community character or the long-term functioning of the entire road network. This planning approach, combined with the recent popularity of low-density golf course subdivisions, precludes the creation of a normal road network. The result has been today's situation in Collier County where roads are passing the formal concurrency test but the physical form of much new development will have serious long-term consequences for mobility. Collier County is now beginning to pay the price of the resulting discontinuities in its road network that will ultimately limit residents' ability to drive on uncongested roads.

During this same period, Collier County has experienced record growth. The total volume of traffic might be expected to increase proportionately with this rate of growth. However, traffic has actually grown at a significantly faster rate than population when measured in "vehicle-miles traveled," a measure of both the number and length of trips made. This relative increase is also occurring nationwide due to increasing prosperity and the number and length of individual trips as jobs, housing, and services grow further apart.



**Figure (1)** Collier County Population

Sources: U.S. Census; Collier Co. Planning Dept.; Naples (Collier Co.) MPO; Ord.. 00-31

The future rate of growth in population and jobs is of course difficult to determine. In 1995, Collier County began its last major MPO plan update with an extremely high population forecast for the year 2020 (522,000 permanent residents, as shown in **Figure 1**). A "needs plan" was created to provide roads for this population, but its cost was \$1.23 billion, more than double the available transportation revenue by the year 2020. This unrealistically high population forecast was quickly abandoned in favor of the current 2020 forecast of 408,340 people.

When the financially feasible plan was tested using the lower population, it functioned so well even with existing revenues, that there was no longer any reason to have a separate needs plan. In fact, several unnecessary road widenings were then deleted and the financially feasible road network still functioned well, even through the year 2024. However, the original needs plan for a population of 522,000 was never formally repealed, and that needs plan is sometimes mistaken for a prediction of travel demand for the year 2020.

Until a recent policy shift, Collier County had chosen through its growth management plan to wait to widen roads until they reached full capacity, putting the county in a reaction-to-crisis mode which was not able to fulfill community demands for free mobility during recent

winter seasons. This reaction mode made it difficult to balance community character with desired mobility levels, because once traffic conditions have deteriorated to such an extent, there is overwhelming citizen pressure for immediate action. With this pressure, there was little time to consider roadway or land-use alternatives that might respond to additional traffic more effectively than simply widening the existing road.

### **FUTURE ROAD EXPANSIONS & COMMUNITY CHARACTER**

The breakdown of the previous road planning system has caused a major swing of the pendulum, with the previous approach of not widening roads until they reach capacity recently replaced with a highly accelerated road expansion program. The new approach is focused on widening the network of principal arterial roads as quickly as possible, which will require funds far beyond those available from the previous "pay as you go" approach. The county has begun engineering design on fifteen separate road improvements and is considering many more. The county has budgeted \$83 million for road construction in the current fiscal year, including a proposed \$58 million bond issue to be repaid from as-yet unidentified sources.

The new approach may also make it difficult to include citizen-driven corridor management plans to evaluate alternatives before final roadway design is undertaken. Acceleration of the most important projects is appropriate; however, if some roads were widened beyond the number of lanes shown on the adopted "financially feasible" road plan, it would require changes to the county's self-imposed prohibition against borrowing to build excess road capacity.<sup>1</sup> While that change is being

made, time will be available to conduct corridor management plans as suggested later in this chapter.

Roads greatly affect community character. Many roads in Collier County have already been expanded in response to actual and anticipated growth. Because many county roads serve only high speed traffic and lack street trees, sidewalks, and other features that make streets inviting places to be, both developers and taxpayers often install expensive berms and landscape buffers to protect themselves from those roads. Without a closer link between mobility and land use, increases in roadway capacity may lead mainly to continued development that consumes the roadway capacity without contributing in return the creation of road frontages that will be beautiful and positive community attributes. Also, building more lanes than are needed will encourage development in the furthest reaches of the county, supporting further urban sprawl, because excess road capacity in remote areas spurs land speculation, which leads to development proposals that often are later approved.

Development in isolated pods often maximizes its private realm but contributes little to the public realm. Collier County contains some of the state's highest quality residential and commercial development, but, with several notable exceptions, its major roads are taking on a generic look and feel rather than enhancing local character. This trend should be reversed, so that the public realm improves as the community grows.

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<sup>1</sup> Capital Improvements Policy 1.2.4 in the Growth Management Plan



**Figure (2)** Colonial Blvd. at US 41, Lee County  
Grade separations destroy intersections and retail while creating purely automobile oriented environments

## GRADE SEPARATED INTERCHANGES FOR COLLIER

Grade separated interchanges have been mentioned frequently as a possible solution to Collier's congestion. There are several negative impacts caused by grade separation that should be considered carefully before such a solution is pursued. These are:

1. *Poor Cost Effectiveness* - Even a budget grade separation is likely to yield only a marginal cost / benefit ratio (1.0-1.5). A long list of other transportation investments (new collector streets, valuable address streets, etc.) yield more on initial investment.
2. *Loss of Street Frontage* - Grade separations pre-empt all of the fronting uses along the arterial street for about one-quarter mile in both directions, on both sides of the street. Impact on commercial property value, tax base, residential property value and tourism are likely to be immense and negative.
3. *Appearance* - Aesthetics are a primary concern with grade separations. These are frequently detailed in a similar manner to highway overpasses. This type of street detail is not conducive to great streets that support thriving retail, mixed-use, and pedestrian environments.

The fundamental, overarching objection to grade separations is that they are a step backward, introducing freeways back into the city. The grade separation is the most often cited cause of disruption to neighborhood fabric in existing cities. Freeways in cities, and therefore

grade separated interchanges, fail because of:

1. *Loss of control over land use* - Urban form is no longer set by local preference and vision, but by the realities of intersection placement. Growth and re-distribution follows major roads, not community plans.
2. *Increase in traffic congestion* - A supporting network is non-existent or lagging in Collier County; therefore, existing arterials will have to support a huge increase in travel on grade separated routes, and will likely fail in this role.
3. *Deformed retail environment* - Deprived of attractive arterial frontage and promised high speed, cross county traffic, retailers will have little choice but to create character destroying big box structures clustered around cross streets at the grade separated interchanges.
4. *Delay in doing the right thing* - When Collier County begins placemaking according to the principles of character and design found in this document, a grade separation program could retard, by a generation, the resolve to deal with root issues (community) rather than fix symptoms (traffic congestion).

Collier County is continually improving its system of selecting and building better roads. This mobility manual offers a variety of suggestions to continue this evolution and to respond to the citizen-developed visions of community character that are expressed in this plan. These suggestions are grouped into five major mobility strategies

## **MOBILITY STRATEGIES FOR MAXIMUM COMMUNITY CHARACTER**

This section suggests mobility strategies that Collier County can undertake to enhance its current framework for making transportation decisions. By adding these strategies to its current approach, Collier County will begin making lasting progress toward resolving its current transportation problems.

The mobility strategies are organized into five groups:

*Connecting neighborhoods*

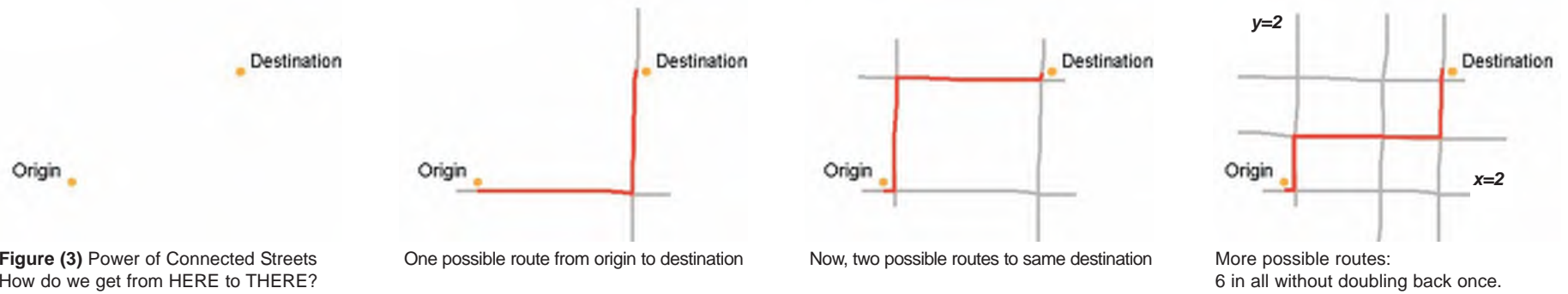
*Enhancing Collier's road network*

*Designing great streets*

*Balancing character with congestion*

*Planning road corridors*

Each strategy section is followed by specific recommendations. *Setting the Course* provides a broad summary of the strategy's goals. *Getting There*, provides the step by step modifications that are suggested changes to specific countywide regulations and policies.



## MOBILITY STRATEGY #1: *Connecting Neighborhoods*

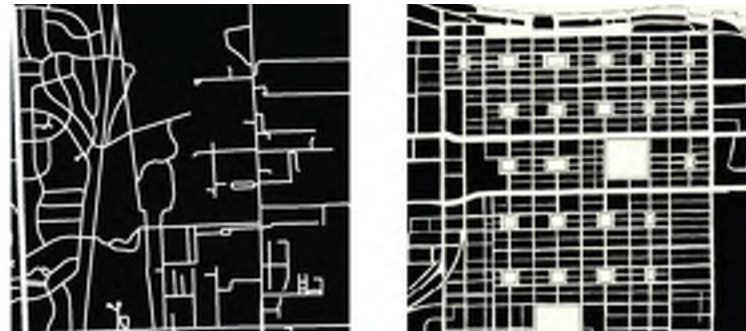
This mobility strategy addresses the streets that form and connect individual neighborhoods, known as local and minor collector streets. The layout of major collector streets and other larger roads are addressed in the second mobility strategy; and the third strategy illustrates a palette of street types of all sizes.

### TRADITIONAL STREET NETWORKS

While preceding the automobile by centuries, the traditional way of laying out streets is proving to be an excellent model for accommodating automobile traffic. A dense network of well-connected streets at the neighborhood level provides a large number of possible routes for neighborhood traffic, thereby dispersing the traffic to a number of routes rather than concentrating it on a single route. Further, the dense and well-connected neighborhood street system affords a myriad of opportunities to "keep local traffic local," so that travel to many destinations comprising the most local of community needs (daily shopping, day care, etc.) can be accomplished on local streets, eliminating unnecessary use of chronically overcrowded arterial roads. As traditional towns grew into cities, their street networks continued

to grow in their pattern of dense and well-connected links. Some of the links then evolved into collector streets and arterial streets, taking on the role more of mobility (far and fast) as opposed to access to immediately adjacent properties. The hierarchy of "arterial," "collector," and "local" streets, still the basis of the street classification system, is patterned directly after the functional use of streets as they evolved historically.

Examples of towns and cities built on the principle of a dense and well-connected network of streets are abundant here in Florida. Naples offers a fine example of a town street network that grew over time, with the accretion of numerous pieces of street fabric as subdivisions were built. The pattern of providing a dense and well-connected network of streets continued even with the first era of large subdivision building. The mid-century layouts of Marco Island, Golden Gate, and Naples Park, while not grown "organically" in a piece-by-piece manner, still exhibit the street connectivity of the traditional town.



**Figure (4) Street Network Comparison**  
1 sq. mile in Collier County (left) and 1 sq. mile in Savannah (right).



$$\frac{(x+y)!}{(x!)(y!)} = \text{\# of possible routes}$$



The Casey Hawthorne Traffic Routes Equation (only accounts for one direction)

As you continue enhancing and expanding the network: 5 x 4 grid yields 126 routes using the traffic route equation



Make a town NOT "pods" 8 x 8 grid yields 12,870 routes...



...as can be seen in the actual plan of Beaufort, SC.

### THE RETURN OF WELL-CONNECTED LOCAL STREET NETWORK

The traffic advantages of a dense and well-connected street network are becoming more appreciated as it becomes apparent that such networks outperform the modern unconnected layout that is sometimes assumed to be superior or inevitable. Several high-tech developments (most notable cellular telephone systems and the internet) exploit the advantages of dense networks of low-capacity links, illustrating how the same principles can apply to street networks.

Perhaps the most compelling argument for a dense connected network is dispersal - its ability to spread traffic over an immense mileage of streets- rather than focus it all onto small "bottleneck" links or single subdivision entrances.

The ability of a network to disperse traffic is apparent from simple arithmetic. Residential development (regardless of whether in a traditional town or new suburb) requires around 25 miles of local street to service each square mile of new development, simply to provide access to residential lots. In a fully connected street system, all 25 miles are usable for travel from residential origins to daily destinations (daily shopping, school, day care, access to the arterial system, and so forth). If, on the other hand, the streets are laid out in an unconnected manner so that only a few of them are usable, then all of the travel becomes focused on those few streets that are connected. As the size of the unconnected areas begins to approach a square mile (as in Collier County), the disadvantages of the unconnected system quickly

become apparent. Instead of the local traffic demand being diffused over 25 miles of street (a fully-connected network), the same volume of travel demand is concentrated onto just one or two miles.

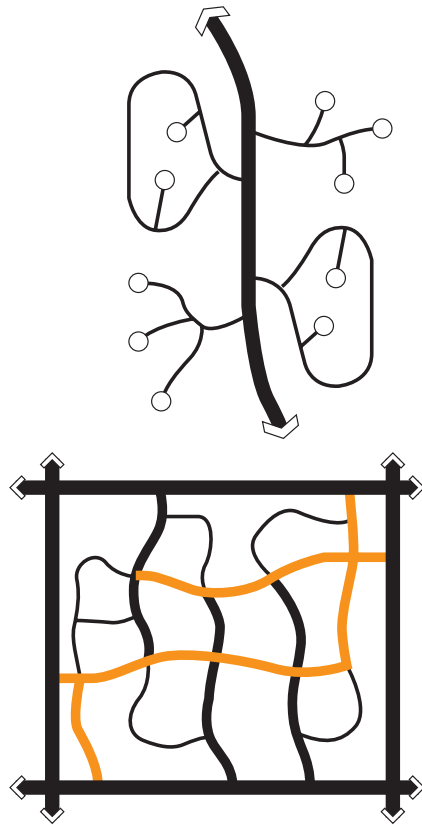
Another advantage of the highly connected street system is its ability to provide a "driving neighborhood." With the connected street system, motorists are able to travel to their daily destinations (which comprise almost two-thirds of all travel) on local streets. Drivers need not contend with multi-lane arterial highways for their daily travel needs, an increasingly important advantage for older drivers, inexperienced drivers, and visitors. The large volume of short trips and associated turning movements on arterial streets, arising from travel that must now use the arterials, can be greatly reduced, freeing the arterial streets for their intended purpose of longer-distance mobility. Further, providing access to daily travel destinations from streets other than the major arterials is a powerful factor in the ability to have such destinations in patterns such as neighborhood commercial and village centers, rather than arrayed in a linear fashion (strip development) along the major multi-lane arterials.

A well-connected network of local streets is one of the most effective measures that can be taken to accommodate travel by walking, bicycling, and transit. The enormous number of possible routes through a well-connected street system assures that attractive walking and bicycling routes can always be found (**Figure 3**). These streets are almost always two lanes and have low traffic volumes due to dispersal of traffic. The multitude of available routes between any given origin and

**Figure (5)**  
Bicycle / pedestrian access forbidden. No more physical barriers precluding access to adjacent land uses



**Figure (6)**  
Bicycle / pedestrian access welcomed. Connections between land uses accommodating non-auto modes



**Figure (7)** A "New" Pattern  
(top): Discontinuous and impermeable  
(bottom): Discontinuous, but Permeable  
(same lane miles.)

destination provide an almost endless variety of paths that can be taken by walkers and bicyclists. This last feature is being appropriated by the latest generation of shopping malls, which are now creating "blocks" and multiple levels so that pedestrians need not ever retrace their steps.

The low volumes of vehicular traffic on local streets, resulting from the dispersal of traffic to a large network of streets, renders almost the entire local street system suitable for in-street bicycle use, typically as bicycle routes (i.e., bicycles simply sharing the street space with motor vehicles). A further option for the accommodation of bicycle travel on local streets is to designate the on-street bicycle lane along parts of the preferred route. The well-connected network of local streets puts a large number of "purposeful" trip designations (i.e., other than recreation) within bicycling range, using local streets only.

Sometimes shopping facilities are close to neighborhoods but fail to provide even minimal connections for pedestrians and bicyclists. Sidewalks and bicycle lanes not only provide better access but can also improve the physical character of the road, thus favoring pedestrians and bicyclists - and motorists - at the same time. **Figures 5 and 6** show wrong and right ways to connect adjoining land uses.

A well-connected network of local streets is also highly supportive of transit by providing good routes for transit and a high degree of connection for pedestrians between their origins/destinations and the transit stops. The connected street system permits transit routes to penetrate and connect the centers of residential concentrations and business, rather than having to either circuitously enter and exist indi-

**Figures (8 & 9)**  
 Central Avenue (right) and Crayton Road (far right) are excellent examples of efficient, multimodal, two lane collectors.



vidual subdivisions, or serve only the arterial streets fronting subdivisions. The highly connected network of local streets maximizes the number of households within walking distance of any given transit stop and provides a superior walking environment between homes and transit stops.

When neighborhoods are functionally and physically separated from each, travel between them is forced onto Collier County's sparse arterial network, as illustrated in the upper portion of **Figure 7**. By getting away from the recent pattern of single entrances to neighborhoods, multiple local streets can provide greater mobility to residents, as in the lower portion of **Figure 7**, while relieving congestion on the major arterials. Single connecting streets would not be left with unreasonable burdens.

Even gated communities with private roads can provide far better street connectivity than they do today. Instead of one gate blocking a single entrance, the main entrance would be a collector road open to the public, with gated enclaves permitted off the collector road where they don't block access to surrounding neighborhoods.

There are four major principles for connecting neighborhoods:

- Maintain existing connecting streets;
- Provide multiple entrances into and out of large residential developments;
- Create additional connections with new minor roadways (when opportunities are available); and
- Manage traffic and high vehicular speed through neighborhood traffic calming programs.

Collier County already has regulations and policies favoring interconnections between neighborhoods, although many have been weakened in recent years. Currently on the books is the following language:

**§3.2.8.4.16, Streets:** ... *Adjacent properties shall be provided with local street interconnections unless topography, other natural features or other ordinances/regulations do not allow or require said connections.... The arrangement of streets in subdivisions or developments may be required to make provision for the continuation of existing or proposed collector or arterial streets to and from adjoining properties, whether developed or undeveloped, and for their proper projection to ensure a coordinated and integrated street system per requirements of the growth management plan, this code or other ordinances and regulations.... Use of local streets by cut through traffic shall be discouraged, using methods (like traffic calming) that do not compromise connectivity or reduce the number of access points to the subdivision.* (from the Land Development Code)

**Policy 9.3:** *The County shall encourage the interconnection of local streets between developments to facilitate the convenient movement throughout the local road network unless such action will promote through traffic.* (from the Growth Management's Plan Transportation Element)

However, these provisions are somewhat ambiguous, with one reading of Policy 9.3 being that if any new through traffic might flow through the local road network, then the interconnection is suspect, regardless of how much other traffic might be removed from the network by the interconnection. Policy 9.3 needs to be modified to clearly state the



great potential of connected networks in reducing traffic congestion, and also to ensure that excessive or speeding through traffic will be limited by the layout and design of the connecting roads themselves. Many disconnected developments are already permitted and under construction. To move in the direction of better-connected neighborhoods, Collier County could use an objective tool to evaluate the street systems in applications for new development as to their level of connectivity. A tool of this type would take the form of a scorecard that developers and county staff can use to measure the following factors:

1. Internal street connectivity (more is better)
2. Connections to adjoining neighborhoods (more are better)
3. Percentage of acreage behind gates (less is better)
4. Percentage of street mileage ending in cul-de-sacs (less is better)
5. Blockage of the future street network (any is unacceptable)

This tool could also measure other factors that the county decides are appropriate in evaluating the overall merits of development proposals, such as:

6. Street widths (narrow streets work best in neighborhoods, while wide streets encourage speeding)
7. Proximity (or inclusion) of commercial uses (more is better)
8. Increase variety of housing types (more housing types, such as adding accessory apartments and live-work units, is better)
9. Percentage of wetlands saved or restored; integration of appropriate greenspaces; amount of shared parking; etc.



Figure (10)  
Classification of Traffic Calming Devices

Each development proposal would be scored by county staff, but the tool would be able in advance for developers to analyze and improve their proposals prior to submission. A fixed score for approval probably would not be appropriate because the connectivity of some sites will be severely constrained by wetlands or adjoining gated communities, but this tool would provide an objective way to compare various neighborhood designs and to show how changes to proposals would improve them.

## NEIGHBORHOOD TRAFFIC CALMING

When traffic moves at unsafe speeds through neighborhoods, traffic calming techniques can be introduced. The purpose of traffic calming is to retrofit existing streets by controlling the speed of traffic while not restricting mobility by closing streets. Traffic calming techniques generally fall into three categories: narrowing the street; deflecting the vehicle path horizontally; and deflecting the vehicle path vertically. When new residential through streets are built, they can be planned for slow speeds at the outset, whereas traffic calming is often used as a retrofit technique.

Collier County's Neighborhood Traffic Management Program (NTMP) provides a good menu of traffic calming strategies, using the following principles:

1. **Narrowing the street** reduces the speed that most drivers find reasonable and comfortable (the design speed). Actual narrowing is done by reducing the pavement width, adding parking to the street,

or adding a median. The effect of narrowing can be accomplished with street trees along the curb, a tree canopy in the median, and buildings placed closer to the street.

2. **Deflecting the vehicle path** causes drivers to slow and devote more attention to the task of driving. Deflection is done through changing the automobile's route slightly. Some measures apply at mid-block locations, while others are appropriate for intersections.
3. **Changing the pavement surface** demands attention from drivers and reduces speed. Speed humps, speed tables, and special pavement materials are common methods for changing the pavement surface.
4. **Sharing the pavement** with other vehicles slows vehicles and raises the attention level of drivers. Long a feature of traditional local streets, shared-use can be reintroduced into other streets by selective short sections of narrow pavement, either at mid-block locations or near intersections.
5. **Diverting the driver's route** makes vehicular access more difficult, and encourages the driver to use another route. Diagonal street closures, one-way streets, median closings, and turning movement restrictions are primary examples of diversion.
6. **Traffic control devices** slow traffic through regulation. STOP signs, four-way STOP signs, traffic signals, and posted speed limits are devices frequently used to calm traffic. Intensified enforcement of traffic regulations can calm traffic, generally by reminding drivers of posted speed limits and by enforcing STOP sign observance. Police officers are the best source of intensified enforcement, but neighborhood volunteers can also be effective without the high cost of continued law enforcement personnel.

This plan recommends doubling the NTMP budget in order to develop appropriate measures to enhance sub-arterial connecting streets and prevent speeding, to make the program more comprehensive in scope (rather than looking at a single street in isolation), and to use the NTMP process to prioritize future improvements on streets within and between neighborhoods. **Figures 10 and 11** illustrate a method of classifying traffic calming devices and a range of actual traffic calming techniques.

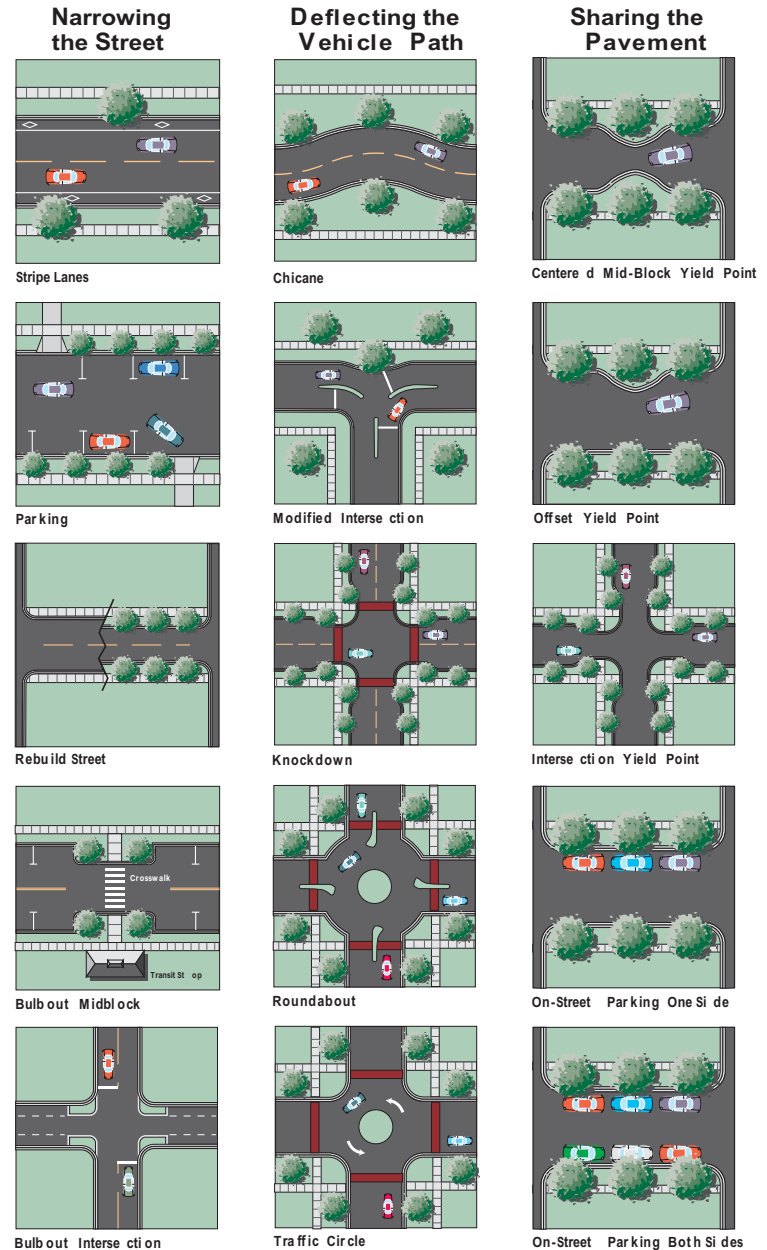
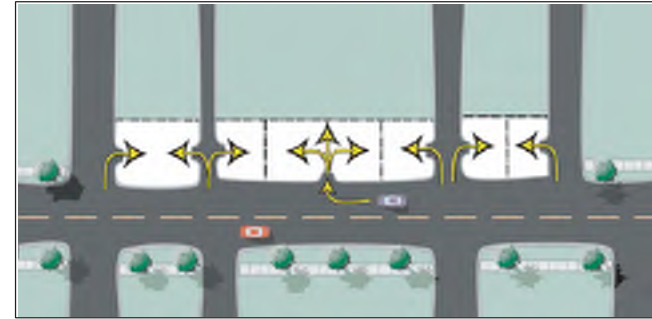


Figure (11) Typical Menu of Traffic Calming Devices

**Figure (12)**  
Connections at the Parcel Level  
showing shared driveway, cross access  
and reverse frontage conditions.



## PARCEL-LEVEL CONNECTIONS

As additional land is developed and commercial driveways are created, congestion intensifies to yet another level. Vehicles on already densely packed roads experience additional delay from interruptions to the traffic stream when vehicles use the driveways. These delays lead to longer commute times and additional complaints from residents. This report emphasizes connectivity at several scales, from pedestrian connections to shopping centers all the way to the county-wide grid of arterial roads. At the smallest scale, individual parcels in shallow strips can be better connected with shared driveways, cross access easements, and reverse frontage roads, as illustrated in **Figure 12**. These techniques reduce conflicts with the main flow of traffic by accessing commercial land from minor streets. Many commercial uses benefit from such collocation, and reverse frontage roads, when extended, form a parallel roadway.

Parcel-level connections can be taken another step when parking lots are shared by adjoining land uses. When land uses are separated physically and functionally, each use requires a full supply of dedicated parking spaces, and walking between the isolated uses is unappealing. When different land uses are closer to one another, walking is convenient, and the total number of parking spaces can be reduced when the busiest hours for each land use are somewhat different.

On a larger scale, clusters of commercial parcels should be integrated in a logical and functional pattern prior to building on individual parcels. Collier County's current system for approving new commercial development is not accomplishing this goal. Commercial PUDs are being approved with insufficient detail to show interconnections among nearby parcels; and the Land Development Code does not



clearly require new commercial activities on land zoned C-3 to C-5 to anticipate connections to adjoining parcels. This lack of foresight will cause some of Collier County's major commercial concentrations to function poorly and will forever add unnecessary trips onto major roads simply to allow movement between adjoining parcels.

## CONNECTING NEIGHBORHOODS

### SETTING THE COURSE

New neighborhoods should be connected to their surroundings rather than being isolated. Where possible, existing neighborhoods can also be connected, using traffic-calming techniques to prevent excessive or speeding traffic. Adjoining commercial parcels should have an integrated system of connections before new buildings are constructed.

### GETTING THERE

#### 1. Growth Management Plan:

- a. Clarify and strengthen the county's policy on interconnections between neighborhood by amending Transportation Element Policy 9.3 to recognize the great potential of connected networks to reduce traffic congestion and also to ensure that *excessive* or *speeding* through traffic will be limited by the layout and design of the connecting roads themselves.
- b. Add a policy that requires a technical evaluation of proposed residential PUDs and other larger rezonings as to the spacing and connectivity of local streets, percentage of land behind gates, and interconnections with adjoining neighborhoods.
- c. Add a policy that requires commercial PUD rezonings, plats, and site development plans to demonstrate reasonable integration and interconnection with adjoining developed or undeveloped land
- d. Add a policy supporting improved parcel-level connections through future changes to the land development code.
- e. Add a policy that new residential developments provide either a connection or the opportunity for a connection to support a collector road network at about one quarter mile intervals.

#### 2. Land Development Code:

- a. Provide the detailed criteria for evaluating the connectivity and spacing of local streets in proposed developments.
- b. Amend §3.2.8.4.16 of the code to delete the ambiguity as to when street interconnections will be not be required.

#### c. Require newly subdivided neighborhoods to:

- (1) Establish a connected street pattern with only a minimum of cul-de-sacs; and
- (2) Limit gates and other access restrictions to portions of neighborhoods so that even communities with gates can have street interconnections with adjoining neighborhoods and can be connected to collector roads at about one-quarter mile intervals.

#### d. Amend current code provisions that unnecessarily restrict shared parking lots or provide insufficient criteria for shared driveways and cross access easements.

#### e. Amend the code as needed to require commercial PUD rezonings, plats, and site development plans to demonstrate reasonable integration and interconnection with adjoining developed or undeveloped land

#### 3. Neighborhood Traffic Management Plan (NTMP):

##### a. Double the annual funding for the NTMP in order to:

- (1) Expand the program to develop measures that would enhance subarterial connecting streets and prevent speeding; and
- (2) Make the NTMP more comprehensive in scope, to examine neighborhood traffic patterns rather than individual streets in isolation; and
- (3) Prioritize future improvements on streets within and between neighborhoods.

## **MOBILITY STRATEGY #2:** ***Enhancing Collier's Major Road Network***

As a result of Collier County's coarse spacing of arterial roads, neighborhoods that contain a connecting street sometimes experience a high level of cut-through traffic that travels too fast for neighborhood safety. Important connecting streets such as Kings Way have been closed recently, diverting more traffic to the congested arterial network. Eliminating such a street solves one site specific problem but unfortunately increases congestion on the arterial network.

Without a network of collector streets and interconnected neighborhoods, drivers are forced to over-use Collier County's network of major arterial roads. As growth continues, the only apparent method to relieve traffic congestion is to widen those arterial roads up to the practical cap of six lanes. Although past development patterns have made many of these six-lane widenings inevitable, there are still many opportunities to:

- Ensure that newly developing areas are provided with a proper collector network;
- Preserve existing collector roads, using traffic calming techniques where necessary to protect neighborhoods from high speed cut-through traffic; and
- Retrofit at least a minimal collector network where opportunities still exist.

## **LAND DEVELOPMENTS THAT BLOCK THE FLOW OF TRAFFIC**

The predominate development pattern in Collier County in the past fifteen years has been inward-facing communities with high amenity levels but very limited connections to surrounding land uses. This disconnected and impermeable pattern forces more cars onto the already sparse arterial network while precluding the creation of public connector roads and neighborhood interconnections.

Despite a policy to the contrary in Collier County's growth management plan, new Planned Unit Developments (PUDs) have often been approved with only a single connection in and out. This impermeable development pattern has many sections of land completely unable to serve local and regional travel demands. **Figure 13** indicates the amount of land in Collier County where the street network is inhibited such that short local trips are forced to mix with longer regional trips on the same roadways. This mixing creates a great deal of "friction" to the flow of traffic and is very inefficient in terms of circulation.

A low-density sprawling development pattern has become the norm. In place of the earlier moderate-density pattern typical of Naples, Golden Gate City, and Naples Park, new homes are going up at much lower densities in Golden Gate Estates and in golf-course communities. Very high land costs have pushed moderate-cost housing further from jobs and shopping opportunities, even into central Lee County. Travel to and from this housing adds further pressure on the sparse road network, including the difficult-to-expand roads through existing neighborhoods and wetlands just north of the county line. In addition, there has been a strong trend toward large stores and large schools, all surrounded by parking lots. These destination have





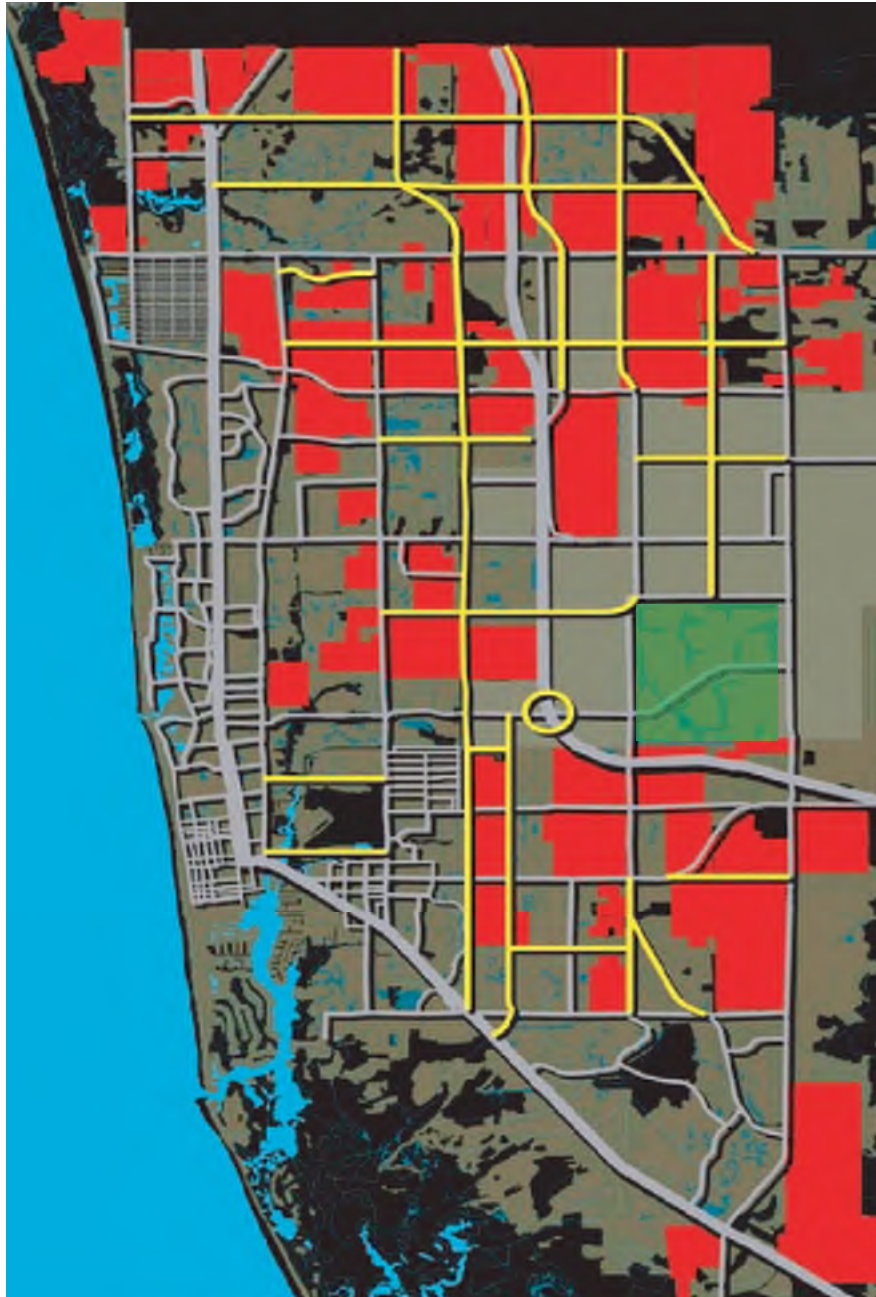
**Figure (13)**  
Existing planned unit development where no thoroughfares exist.



**Figure (14)**  
Collier has plenty of roads...



**Figure (15)**  
...unfortunately too few lead to another public thoroughfare.



**Figure (16)**

Managing mobility through increased choices: Conceptual Thoroughfare Plan for western Collier County

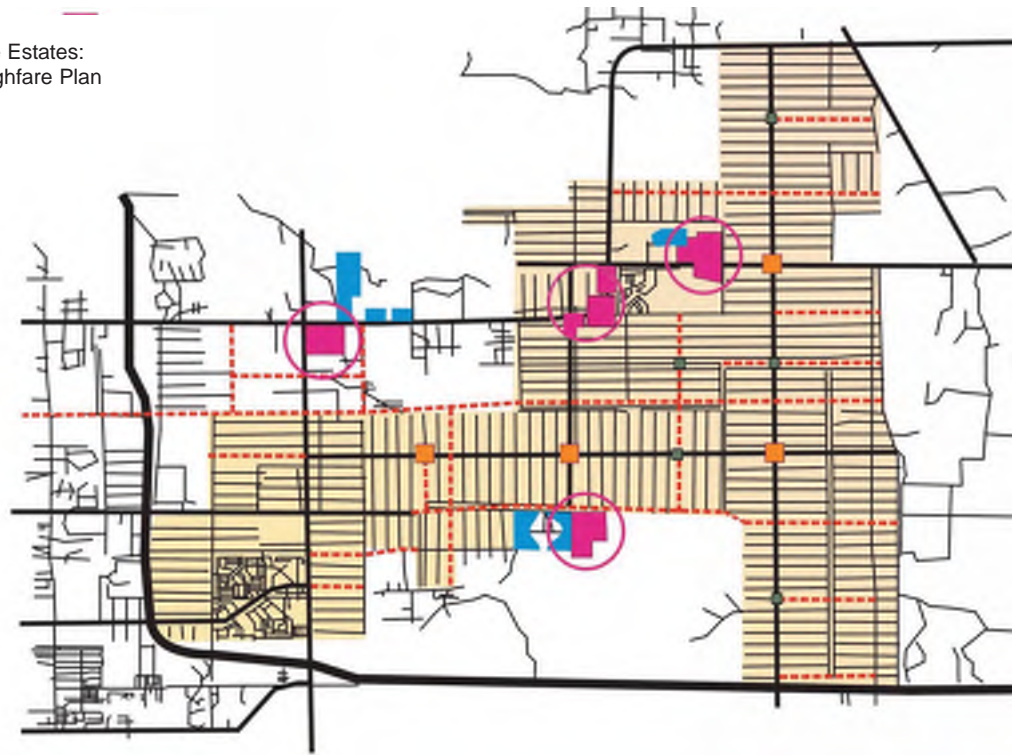
become difficult to reach except by car, forcing people to drive almost everywhere, often at increasing distances. This sprawling settlement pattern requires more roads, yet there are serious discontinuities in (and often the virtual absence of) the collector and minor arterial roads that Collier County needs.

### **CREATING A MORE BALANCED ROAD NETWORK**

A well-connected road network has less traffic friction and lower levels of unnecessary induced traffic caused by the need to go "out the main entrance and around" for most trips. For these reasons, a connected network of two and four-lane roadways spaced every mile or less apart can carry traffic considerably more efficiently than a system of four or six-lane arterials spaced several miles apart. The widest and highest-speed roads are the most difficult to design as comfortable places for pedestrians and bicyclists, further encouraging people to use their cars even for short trips. Therefore, while preparing for continued strong growth in Collier County, county officials should seek a more balanced road network and consider character-maximizing practices for new and widened roads, both of which will help establish more desirable patterns of growth.

The creation of a more balanced road network should begin immediately. There are major difficulties involved in retrofitting missing collector roads, and those difficulties will increase as privacy-seeking families build homes near potential alignments, unaware of the need for a new roads. Also, land developers will plan infill developments on vacant parcels that could take advantage of a first-class connector road if they knew it was in the planning stages. The current demand

**Figure (17)**  
 North Golden Glade Estates:  
 Conceptual Thoroughfare Plan



for reducing congestion in Collier County makes this the ideal time to identify where connector roads could be retrofitted into the road network and to begin building them with the same urgency given to widening major arterial roads. Road network planning of this kind has been upheld by the Florida Supreme Court as a valuable long-range planning tool provided it is an integral part of an adopted growth management plan.<sup>2</sup>

Collier County's growth management plan now includes three maps that show future roads, all derived from the MPO's long-range transportation plan. One is the same map as the MPO's most recent financially feasible plan, which indicates the desired road network for the year 2020. The second map shows a similar but less-developed network indicating the progress toward that network anticipated for the

year 2010. The third map shows the roads to be built or widened in the next five years.

Collier County does not currently have a thoroughfare plan that includes roads that are smaller than those contained on these three maps. A thoroughfare plan would include a map that shows all roads on these maps but would also include existing and potential collector roads and prime opportunities for interconnections between existing neighborhoods and future development. **Figures 16 & 17** show a conceptual thoroughfare plan that overlays potential connector and minor arterial roads onto the planned grid of major arterials and freeways. (The "divided connector street" described in the next section of this report would be the most appropriate type of street for the yellow "missing links" depicted on this conceptual plan.)

The adoption of a thoroughfare plan for Collier County would be a

<sup>2</sup> Palm Beach County vs. Wright (Florida, Supreme Court, 1994)

vital part of a formal policy establishing a collector road system and beginning to plan for neighborhood interconnections. The preparation of a thoroughfare plan would require the careful study of the feasibility of each potential connector road (and additional minor arterials) plus evaluating the street pattern in existing neighborhoods that adjoin undeveloped land.

To create a balanced and expanded road network, Collier County should take the following actions (each is described more fully below):

- *Prepare a county-wide thoroughfare plan and adopt its map into the land development code*
- *Encourage the use of development agreements to allocate costs of transportation improvements that are required because of new development.*
- *Amend the road impact fee ordinance to help pay for the new collector road system.*
- *Extend the county's 5-cent gas tax when it expires at the end of 2003 (this tax brings in over \$4 million each year).*
- *Direct the MPO to conduct technical evaluations of these new road proposals.*

## ENHANCING COLLIER'S MAJOR ROAD NETWORK

### SETTING THE COURSE

Collier County should create a balanced road network by improving its network of principal arterial roads while simultaneously creating a secondary network of smaller roads that link neighborhoods. The potential for this secondary network should be illustrated on a new thoroughfare plan map. Road impact fees should be increased to pay for this secondary road network.

### GETTING THERE

#### 1. Thoroughfare Plan:

- a. Prepare a thoroughfare plan identifying a secondary road network including potential collector and minor arterial roads, plus opportunities for interconnections between existing neighborhoods and future development.

#### 2. Growth Management Plan:

- a. Add policies to the GMP to describe the purpose of the thoroughfare map, direct its creation, and outline how it will be implemented, including:
  - (1) Not issuing any development approvals that would block future roads;
  - (2) Requiring unbuilt PUDs to modify their site plans upon expiration of their rezoning approval to provide future roads on the thoroughfare map and to improve internal connectivity; and
  - (3) Requiring developers to build links on the thoroughfare plan that run through their properties at the time of development.
- b. Modify GMP financing policies as follows:
  - (1) Establish an appropriate priority for public construction of links on the thoroughfare plan, by amending Policies 1.1.2.D and 1.1.4 of the Capital Improvements Element (CIE) and Policies 1.1 and 1.2 of the Transportation Element; and
  - (2) Delete the prohibition on borrowing funds to build any connector roads that might be deemed as providing "avoidable excess capaci-





### **MOBILITY STRATEGY #3:** ***Designing Great Streets***

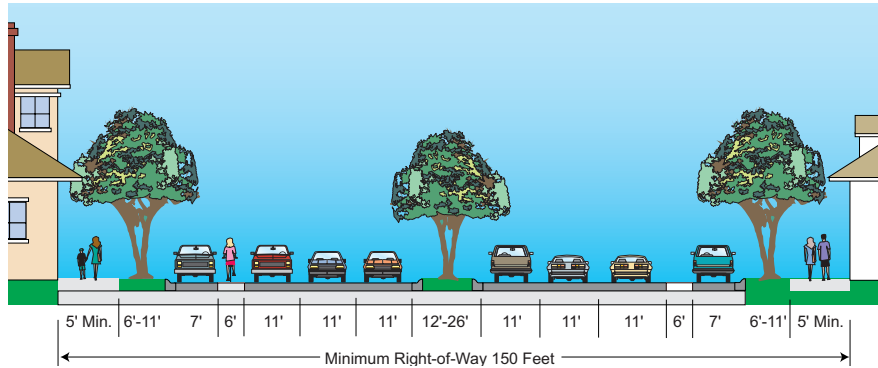
A community's streets represent a large portion of its public land. First and foremost, streets provide mobility, but they also are critical public spaces that help form a community's image, for itself and its visitors. Negative images result from overcrowding, plainness, ugliness, and lack of public amenities. This is widely understood in Collier County, as evidenced by the broad consensus to make the new intersection of Interstate 75 and Golden Gate Parkway into a beautiful gateway to Naples, rather than a typical commercial interchange.

Most great streets result from great design, although an occasional street may be good or even great because of happenstance, such as natural vegetation or attractive development along the street. The design of great streets combines vehicular movement with other roles that the street will play in forming the town. To expedite the road design process, Collier County has adopted a standard cross-section for a six-lane arterial road. This single design should be replaced with a palette that includes parkways and minor arterial roads as well as connector and local streets.

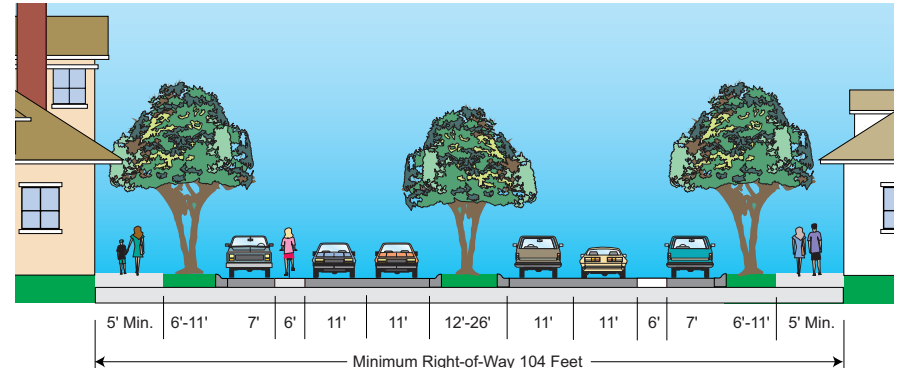
#### **A PALETTE OF "GREAT STREETS"**

A palette of "Great Streets" for Collier County should include the following range of street types. Each type is described and illustrated by one or two examples.





**Figure (18)**  
6 Lane Major Arterial



**Figure (19)**  
4 Lane Major Arterial

**MAJOR ARTERIAL**

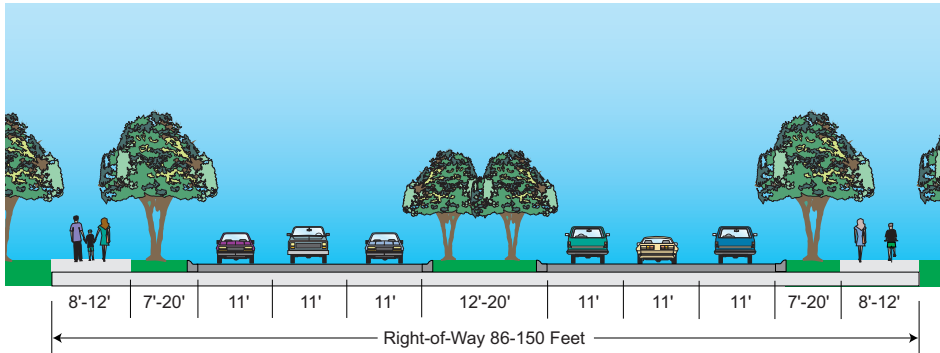
The primary function of the major arterial street is through movement; that is, moving the maximum number of vehicles at the highest reasonable speed. Access to adjacent properties is not a major function of arterials. Rather, most access is intended to be provided by the network of intersecting streets (connectors) and the even-more intricate network of local streets of various types.

The divided four-lane or six-lane cross-section of the major arterial emphasizes its function as a provider of mobility rather than access. The median limits the amount of conflict with intersecting traffic and channels this conflict into intersections where it can be best managed by signals and other traffic control devices. In addition to being a traffic control measure, the median provides the important benefits of narrowing the apparent width of the road (an aesthetic value) and in providing a refuge for pedestrian crossings (a safety advantage).

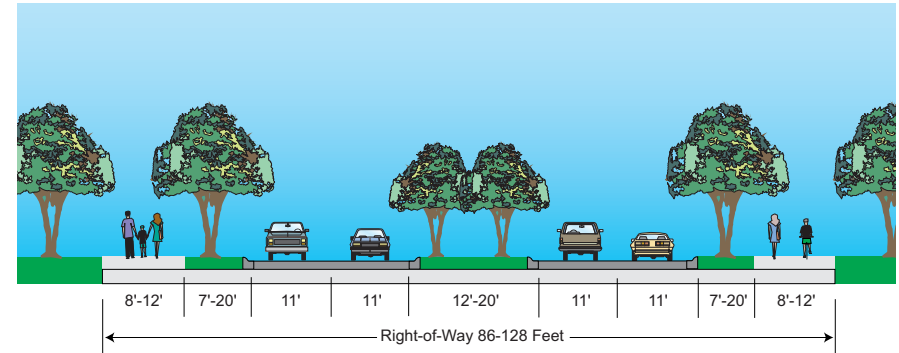
Variations of the major arterial reflect the nature of the adjoining lane uses. Depending on the adjacent lane uses, the drainage can either be accommodated with an enclosed (i.e., curb and gutter) system or with open swales. Bicycles are accommodated in an off-street side path, or in a off-street combination bicycle/pedestrian side path. While street trees are included in the county's current cross-section, these cross-sections move them to the traditional location, the planting strip between

the sidewalk and the road.

It is entirely reasonable that, at selected locations, the major arterial also serves as a "Main Street" for a business or institutional district. Florida abounds with good examples of four-lane and six-lane arterial streets that are valuable addresses for occasional concentrations of businesses while remaining attractive and valued public spaces. When serving as a commercial street, the major arterial cross-section has curb and gutter edges, with generous (12-15 feet) sidewalks extending to the curb. On-street parking is permitted and even encouraged through the major business district. The on-street parking lane can be shielded by "bulbouts" at intersections and at mid-block locations, thereby lending a sense of security for users of the parking lane, as well as narrowing the apparent width of the street for all users (a traffic calming and pedestrian crossing advantage). Bicycles are accommodated in either a pair of bicycle lanes between the parking lane and the outer driving lane, or, alternatively, in a combination bicycle / pedestrian side path on one side of the street.



**Figure (20)**  
6 Lane Parkway



**Figure (21)**  
4 Lane Parkway

### PARKWAY

In addition to the cross-sections described above, the major arterial can also take the form of the parkway, a divided highway bordered by rural, forested, park-like, or other natural environment. As is the case with all arterial streets, the primary function of the parkway is through movement, that is, moving large volumes of traffic at the highest reasonable speed. The absence of fronting activity along the parkway further reinforces its function as a conduit for through traffic.

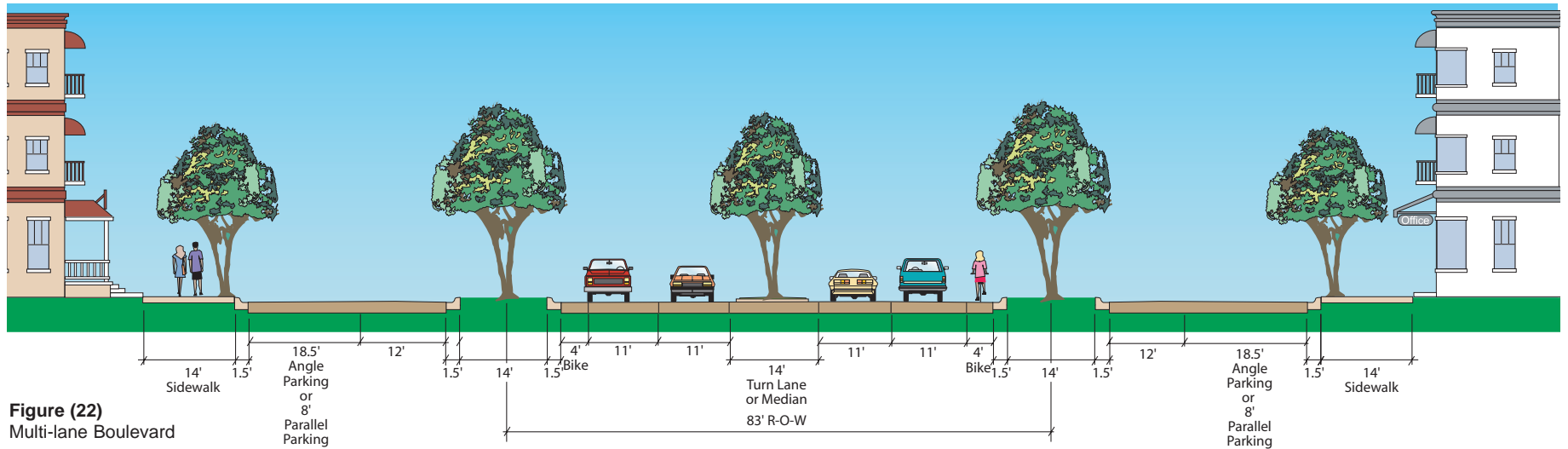
Parkways, once a standard component in urban and suburban street systems, have become a rarity. This scarcity, however, is not justified. Parkway could be used for substantial portions of Collier County's major arterials given the wide rights-of-way being acquired, the abundant rural and natural features, and the desire by many private developers to "hide" from the road rather than face it. Parkway are a powerful and memorable signature of an area.

Parkways can contain a median of varying width, to accommodate natural features (for example, patches of wetlands) or to accommodate new vegetation intended to promote the "park-like" environment. Almost always, the drainage is accommodated with open swales, and curbs are not used. Exceptions can be made for segments in which a smaller clear zone (i.e., distant between pavement edge and trees) is desired. Bicyclists are accommodated on a bike path, which can take advantage of natural features to meander within the right-of-way. Combination bicycle/pedestrian side paths are also appropriate.



The scenic George Washington Parkway leading into Washington DC.





**Figure (22)**  
Multi-lane Boulevard

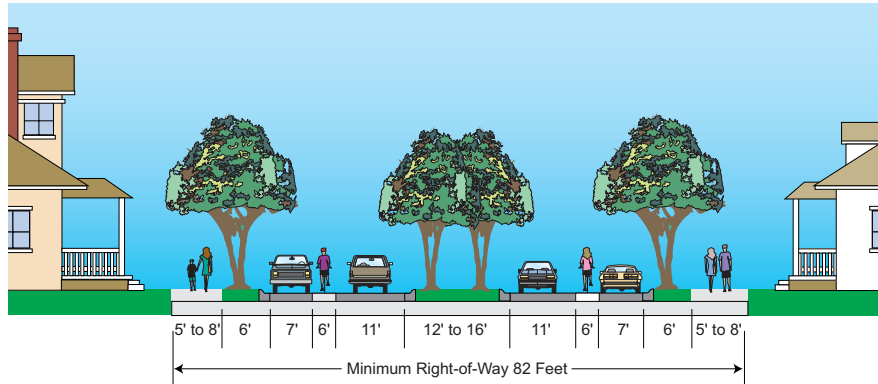
**MULTI-LANE BOULEVARD**

The multi-lane boulevard serves the high traffic demands commonly found in areas with big box retail and a lack of dense street network. In areas that are growing quickly in the conventional strip development, nonresidential multi-lane boulevards are the preferred option for retrofitting the road and spurring redevelopment. Found in cultural capitals of the world, as well as in significant corridors in small American cities, multi-lane boulevards provide for mobility along with the dramatic landscaping and pedestrian-serving opportunities.

The provision for on-street parking depends on traffic volume and the nature of traffic using the roadway. For roadways operating at or above an acceptable level of service with a high percentage of local internal trips, on-street parking is recommended. On-street parking is less appropriate for roadways with a large number of through traffic and turning movements.



Aerial picture of a grand boulevard, the Champs Élysées in Paris.



**Figure (23)**  
Divided connector street

### **DIVIDED CONNECTOR STREET**

This street type provides a prominent address for residential development while also connecting neighborhoods with each other and to travel destinations such as shopping areas and arterial streets.

These two functions are accommodated by a street design that provides for a free flow of traffic, but reduces the impact of the traffic by dividing the street with a median, thereby minimizing the apparent size of the street and its impact on adjacent properties. On the divided connector street, each direction of traffic has its own lane, and traffic flow is therefore never impeded by parked vehicles, even when parking is present. This contrasts with the street (to be described shortly), where, by design, the presence of a parked vehicle slows traffic flow.

The median in the divided connector street improves traffic flow by organizing the points of access to the street. The median also controls vehicular speeds by reducing the apparent width of the street, by providing space for an additional row of street trees, and by facilitating the crossing of the street by pedestrians. These design features make the divided connector street an appealing residential address.

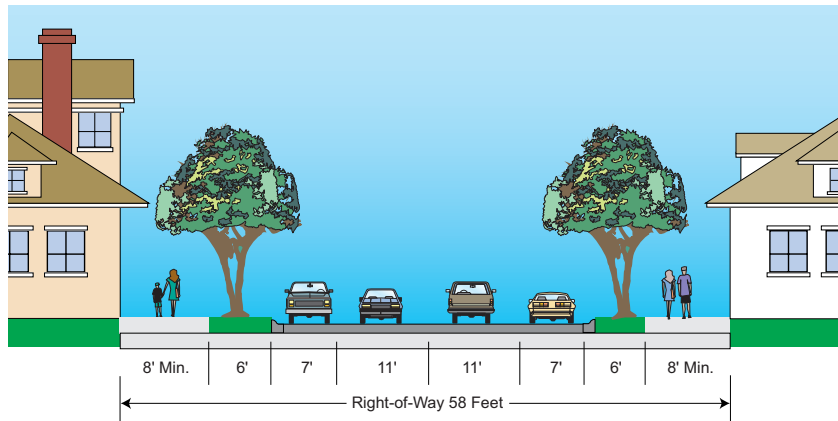
Traffic flows freely at 25-30 miles per hour on the divided connector street. Bicycling is accommodated either through a 6-foot on-street bicycle lane (adjacent to the parking lane or adjacent to the pavement



**Figures (24 & 25)** Examples of divided connector streets in Collier County. Central Blvd (above) and Park Shore Drive (below)



edge if there is no parking) or through an off-street bicycle/pedestrian side path on one side of the street. The divided connector street accommodates pedestrians with sidewalks on both sides of the street or with a combination of sidewalk on one side and bicycle/pedestrian side path on the other.



**Figure (26)**  
 Connector street without median

**CONNECTOR STREET WITHOUT MEDIAN**

The connector street without median, a two-lane free flowing street, is similar to the connector street with median (on the previous page) in its role of connecting neighborhoods to other neighborhoods and to arterial roads. In addition to these functions (i.e., connecting streets and neighborhoods), the connector street without median is highly appropriate for neighborhood and small community commercial areas. The connector street without median provides for one lane of traffic in each direction and separate marked parking lanes on both sides of the street.

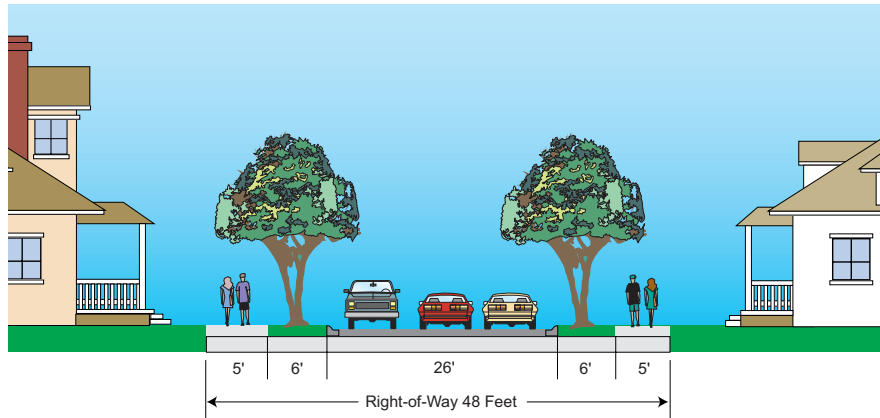
Bicycles can be accommodated in the traffic lane, or, on important bike routes or where traffic volumes are high, in a separate lane located between the parking lane and the traffic lane. Sidewalks are provided on both sides of the street. In residential areas, a 6-8 foot planting strip, intended for street trees, separates the sidewalk from the street. In business districts, an appropriate sidewalk design would be a 12-15 foot sidewalk extending all the way to the curb, with street trees and other street furniture inserted into the sidewalk intermittently.

The connector street without median is readily recognizable as the neighborhood and small-town "Main Street." This street figures prominently in imagery such as tourism materials that intend to convey the home-town atmosphere of a place.



**Figures (27 & 28)**  
 Examples of connector streets without medians in Collier County





**Figure (29)**  
Street

### STREET

The street is by far the most important building block for building neighborhoods, and therefore in building towns and cities. The 24-26 foot street, with well proportioned (6 foot) planting strip and sidewalks on both sides is an American classic found throughout the country, with a long history of acceptance and celebration in art, photography, motion pictures, and imagery of all sorts.

The street is the basic armature on which most of a town's residential development should be arranged. The compact size of the street, the availability of on-street parking, and the provision for well-formed street trees and sidewalks on both sides are all elements that support homes fronting on the street.

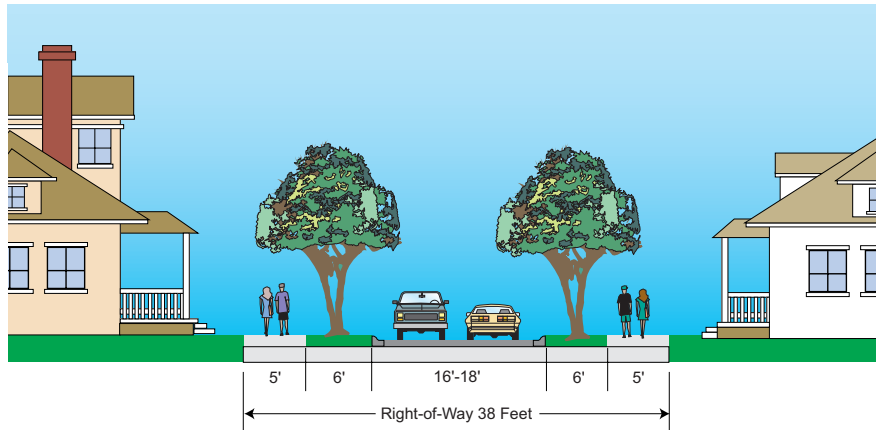
Where parking is not present, the street permits unhindered traffic operations in both directions. When parking is present on one side of the street, traffic operations are typically slowed, as drivers in opposing directions maneuver around the parked vehicles. When vehicles are parked on both sides of the street, opposing traffic goes into a "yield" operation, with one or the other drivers needing to stop and yield to allow the passage of the opposing driver. Rather than being seen as a detriment to traffic flow, this "yield" operation on local streets is a decided advantage in controlling vehicle speeds and making the street more inviting for all other users.



**Figures (30 & 31)** Two types of neighborhood streets. A local street (above) and 7th Avenue North (below)



The street invites bicycle travel mixed with vehicular travel, due to the compact size and low vehicular speeds. Sidewalks on both sides accommodate pedestrians, although pedestrians frequently choose to walk in the pavement on lower volume streets.

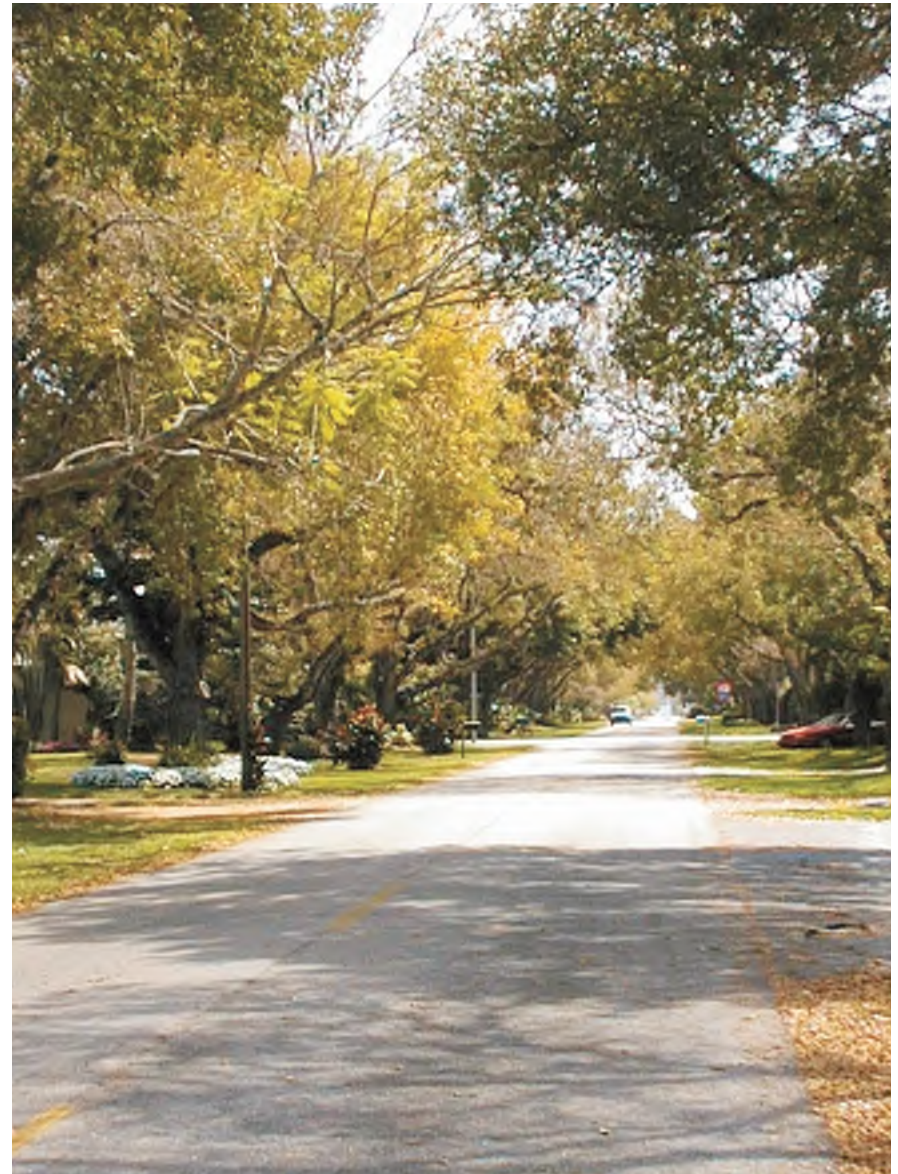


**Figure (32)**  
Lane

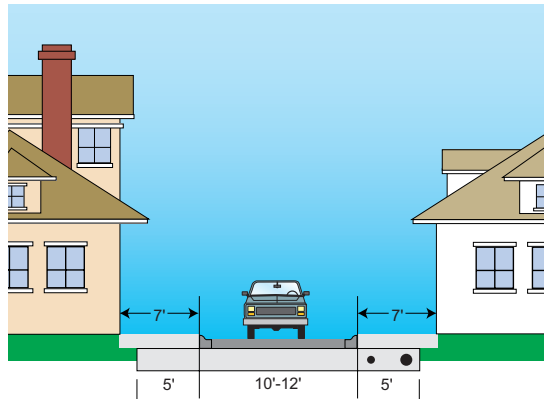
**LANE**

The smallest of streets, the lane is suited to rural villages and hamlets, to town and city streets that are only one or two blocks long, and in areas of particular environmental concern. The lane is most appropriately bordered by low-density residential development. As densities rise, the lane becomes inappropriate due to the demand for on-street parking which begins to interfere with traffic flow.

The 16-18 foot width of the lane allows for a single moving traffic lane and space for parked vehicles on one or the other side of the lane. Where parked vehicles are present, traffic in opposing direction slows (or stops) and yields right-of-way. Because of its narrow width and low operating speed (20-25 miles per hour), the lane is an inviting route for bicycle travel. Lanes include a sidewalk or side path on at least one side of the lane.



**Figure (33)** A local example of a lane



**Figure (34)**  
Alley

### ALLEY

Although seldom built in Collier County in recent years, the alley should be a desirable option for private development. By bringing all vehicular access to the rear of properties, the alley permits an unbroken curb face along the front of the blocks. This, in turn, permits a far more gracious street appearance, with unbroken rows of trees, a useful planting strip, and an improved pedestrian environment. While often (and mistakenly) thought of as an appropriate design only for large "estate" homes, the alley is perhaps even more appropriate for modest homes on small lots, where otherwise the intrusion of driveways and garage fronts would seriously degrade the appearance of the community from the street.

The 10-12 foot pavement in the alley allows for a single lane of traffic. Passing is accomplished within the 20-foot width of the alley.



**Figures (35 & 36)**  
2 local examples of alleys





**Figure (37) left**  
Street trees are an important part of Collier's character.

**STREET TREES**

Quality street trees are a valuable component of each of the Community Character development prototypes produced for the Community Character Plan. Street trees are valuable community assets that contribute significantly to the visual and environmental character of neighborhoods and commercial thoroughfares. Mature street trees help soften the landscape in urban areas and tree lined streets serve to enhance the ambiance of a neighborhood. In addition, studies have shown that trees increase property values for both residential and commercial areas. Other benefits of developing a comprehensive street tree program in Collier County include:

*Pedestrian amenity* - Street trees should be placed in a linear fashion between the roadway curb and sidewalk. Placement in this position buffers the pedestrian from moving traffic, provides shade protection from the tropical sun, and creates an enclosed environment that fosters pedestrian activity.

*Traffic calming* - Street trees limit sight distances on roadways and therefore are a valuable tool for slowing traffic to speeds appropriate for different development settings.



**Figure (38) above**  
Recent road building projects in Collier County have not included street trees.

*Environmental benefit* - Street trees will provide both practical and aesthetic environmental benefits to the county by providing urban wildlife habitat and providing valuable green space that buffers roadways from adjacent development. Since street trees require significantly less irrigation than other forms of roadside landscape, valuable water resources are also conserved.

Street trees are not luxuries, nor are they expensive to maintain. Shrubs and ground cover are expensive to maintain, because of this, they should be limited to applications where funding and maintenance is available (in accordance with the county's streetscape master plan)

A street tree program for Collier must be implemented as part of the roadway design process and must include drought-resistant tree species that have sufficient heights and spreads to eventually frame both auto and pedestrian spaces.

*Trees in the city are living building materials used to establish spatial boundaries. They make the walls and the ceilings of outdoor rooms, but with more subtlety than most architectural building materials. They create a spatial rhythms to heighten the experience of moving through outdoor spaces.*

-- Henry F. Arnold, in *Trees in Urban Design*



**Figure (39) above**  
Roadway elements are as important as the roadway section in generating character and should be considered carefully



**Figure (40) right**  
Sidewalks, lighting, and signage should be considered carefully in all new road building projects.

## ROADWAY DESIGN FEATURES

The AASHTO Green Book is the reference that almost all roadway engineers use as a guide for designing streets and highways. However this reference is not an exhaustive source of street design standards. The Green Book is primarily concerned with travel lane widths, median design, and turning radii. There are a number of important elements that all roadway corridors must contain that are not addressed in the Green Book. These elements include:

- *Design within the appropriate context*
- *Street trees*
- *Aesthetic treatments*
- *Landscape development*
- *Determination of functional classification*
- *Selection of light fixtures*
- *Roadside development*
- *Traffic operations, and*
- *Selection of appropriate guardrail/ bridge rail*

The development of character enhancing streets does not adapt well to a "one size fits all" model for design of either the physical roadway or for roadway-related elements located in the right-of-way. Therefore, each new project for either a capacity improvement or new

facility should include a detailed design palette of right-of-way design features that include elements that might be included in the entire right-of-way or corridor design envelope.

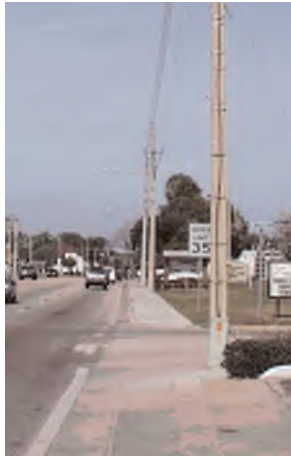
In order for Collier County to build more character enhancing streets, the roadway design process should begin during the project development phase of a new project and be expanded to include design features within an entire right-of-way. This expansion of the design envelope should include non-road improvements to bridges, guardrails, sidewalks, lighting and signage. The selection of a palette of desirable right-of-way design features should begin early in the corridor management planning process.





**Do...** use streetlights as a tool for creating a distinct identity for the roadway corridor. Fixture height and spacing should be scaled to human, not automobile, proportions and should be placed on the street side of the sidewalk.

**Do not...** treat streetlights like any other utility. High, widely spaced cobra head lights placed on the outside edge of the sidewalk yield no character enhancing return on public investment and frames an uncomfortable pedestrian space.



**Do...** utilize stylized bridges and guard rails. Where possible, design bridges to be slightly above grade to breakup site distances and calm traffic.

**Do not...** use standard guardrails as the only vertical element along side a roadway. When they must be used, use landscaped hedges to screen their visual impact.



**Do...** size directional and traffic control signs to scale appropriate to desired travel speeds. Poles should be fashioned in a manner that helps tie together the overall streetscape.

**Do not...** use oversized street or directional signs or place on plain metal poles.



### Street Design: More than Just Pavement

Character-enhancing streets incorporate many more design elements than just the pavement between curbs. All elements of the Community Character Plan emphasize the street's vital function as public space. In order for Collier's streets to retain this important role, it is necessary to expand the envelope of street design to include not only pavement, but also the design elements that make a street a public amenity. There are two categories of design elements that Collier County should consider when planning for new or expanded streets:

*Right-of-way design elements* including lighting, bridge design, street trees, physical barriers and sidewalk furniture. Right-of-way design elements should be included either as part an overall capital improvement program or added on through a special assessment or benefit assessment district.

*Peripheral elements* are specific to a roadway corridor and provided by private property owners. These elements include signage standards and landscape screens to soften the visual impact of parking lots and commercial structures. Private design elements should be specified in the county's land development code and should be specific to the character of the type of roadway being served.

### Public Right-of-Way Design Elements

#### Lighting

Streetlights provide a sense of safety for pedestrians and motorists alike, while providing the opportunity for meaningful streetscape. Lighting fixtures must be appropriately sized and spaced so that they not only increase safety, but also enhance the pedestrian experience and attractiveness of the street.



**Do...** design transit facilities to attract new customers and provide shelter.

**Do not...** banish the transit customer to facilities that are undignified or exposed to traffic and inclement weather.



**Do...** design signs that blend in with the architecture of the buildings.

**Do not...** utilize signs that stick out from parking lots and were designed just to be seen at 45 miles per hour.



**Do...** use colonnades, walls, hedges, and street trees to define pedestrian space and increase address value for commerce.

**Do not...** not treat sidewalks as a mere extension of either parking lots or the automobile's right-of-way.



### *Bridges and Guardrails*

Bridges and guardrails should be viewed as an opportunity to use public investment as a tool for improving the aesthetic quality of the corridor. Whenever possible, roadway designers should view these vertical elements as an opportunity to increase the aesthetic quality of the street. Standard or "off the shelf" designs, while less expensive, represent a missed opportunity for Collier County as it proceeds towards enhancing its community character.

### *Public Signs*

The use of non-standard street signs and poles is a popular and effective tool for establishing a unique identity for a roadway corridor. These elements should not be overlooked and incorporated into the corridor plan for any new or improved roadway.

### *Transit Stops*

Public transit stops should be safe, dry and dignified. High-quality transit stops not only provide positive exposure for the county's new system, but attract new customers as well.

## **Peripheral Elements**

### *Commercial Signs*

Buildings should be the most visual and important part of any commercial corridor. Unfortunately, when each building attempts to make up for its poor relation to the street by erecting large freestanding signs, visual clutter is often the result.

### *Landscape Screening*

Landscape standards should also be addressed during the corridor planning process. Historically, Collier County has used landscape requirements to buffer or hide development from the street. The Community Character Plan suggests that landscape be used to enhance pedestrian mobility, and to create public space that connects buildings to the street.

## DESIGNING GREAT STREETS

### SETTING THE COURSE

Great streets come in all sizes and types. Even the widest roads—major arterials—can be configured as parkways, or as boulevards, or as conventional highways with occasional urban segments that have on-street parking and buildings close to the road. Collier County should adopt a “palette” of street types that can be used (or improved upon) during the road design process.

### GETTING THERE

#### 1. Road Cross Sections:

- a. Replace the six-lane arterial cross-sections adopted by Resolution 2000-77 with the "Great Street" palette suggested in this report for arterials, parkways, and connector streets. These cross-sections would become acceptable road types for public construction projects and for privately built roads; they are not intended to limit road designs, but to illustrate desirable features and right-of-way requirements for each type of roads.

#### 2. Growth Management Plan:

- a. Add one or more policies supporting the frequent use of regularly spaced street trees throughout Collier County and requiring them on public road construction projects.

#### 3. Land Development Code:

- a. Amend §3.2.8.3.2 of the code to allow alleys to provide the principal vehicular access in residential subdivisions.
- b. Amend §3.2.8.4.16.5 of the code to allow and encourage the use of the alley, lane, street, and connector cross-sections from the "Great Street" palette in this report.

## **MOBILITY STRATEGY #4: Balancing Character With Congestion**

### **DEFINING CONGESTION**

Congestion is defined generally as an unacceptable level of delay in travel time between a trip's origin and its destination. Delay is usually measured in terms of a roadway's "level of service" which is measured from "A" (free flow operation) to "F" (less than one-quarter free flow speed).

In accordance with state law, Collier County sets minimum acceptable levels of service in its growth management plan. These are the minimum levels that should not be exceeded during the busiest part of the winter tourist season. Future road networks are designed to achieve these levels of service. If traffic congestion on a road exceeds these levels at any time, the "concurrency" law requires the county to halt building permits along that road for short periods until that road is widened. The plan currently sets the minimum level of service at "D" for most county roads<sup>3</sup> and "E" for the most congested portions of Airport-Pulling Road, Golden Gate Parkway, Goodlette-Frank Road,

Pine Ridge Road, and Tamiami Trail<sup>4</sup>. The plan also designates a "traffic congestion boundary," generally west of Airport-Pulling Road, where long-term traffic congestion is expected because the existing development pattern may make it impossible to retrofit a road network that would provide the most desirable levels of service.

### **CONCURRENCY**

Florida's original concurrency law required level-of-service standards to be met on every major road at all times. When congestion already exists, that approach often spurs urban sprawl because there is usually some excess road capacity in outlying areas even when roads closer in are near capacity. When growth is pushed further outward, new residents have to make ever-lengthier car trips to get to work, school, and shopping; thus, a sprawling development pattern usually worsens congestion rather than solving it. At worst, increased interregional traffic brought about by development in more distant locations could ultimately force Collier County to transform some of its arterial roads into urban expressways with numerous grade-separated interchanges, seriously damaging property fronting on those arterials and diminishing overall community character.

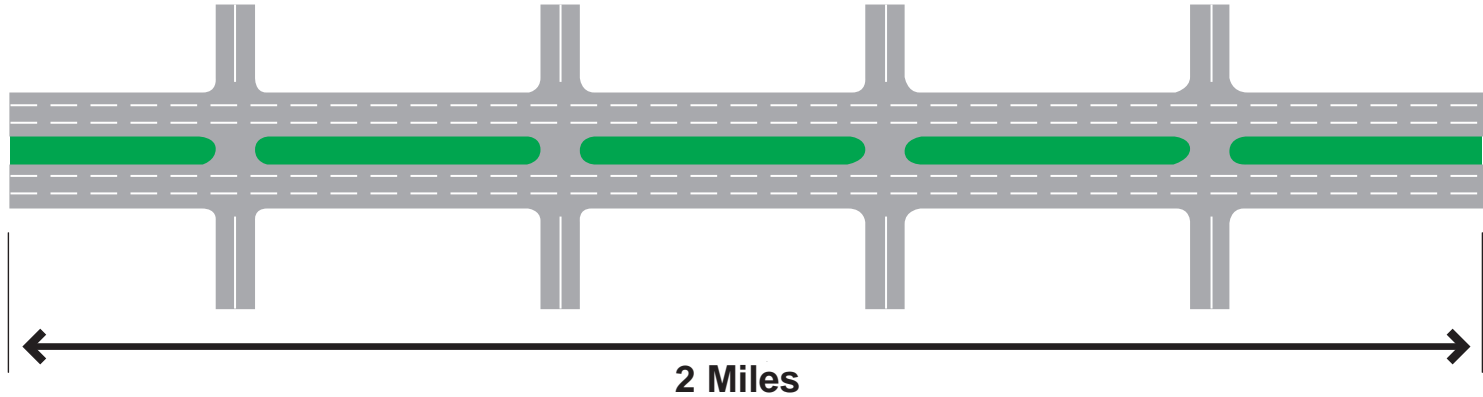
<sup>3</sup>Collier's growth management plan defines level of service "D" as follows:

*Approaching unstable flow. Tolerable operating speeds are maintained but subject to considerable and sudden variations. Freedom to maneuver and driving comfort are low because of increased lane density. The probability of accidents has increased and most drivers consider this level of service undesirable.*

<sup>4</sup>Level of service "E" is defined as follows:

*The upper limit of LOS "E" is the capacity of the facility. Operation at this level of service is unstable, and speeds will fluctuate widely from point to point. There is little independence of speed selection and maneuverability. Driving comfort is low and accident potential is high.*

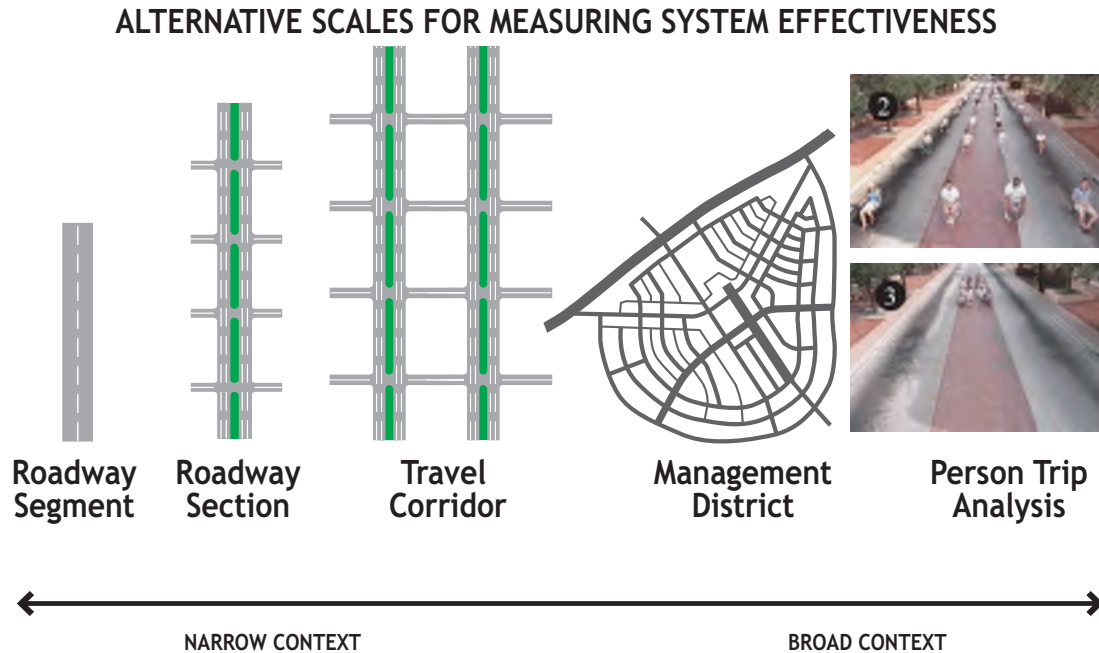
“Acceptable” Travel Time:	7 Minutes
“Unacceptable” Travel Time:	9 Minutes
Difference:	2 Minutes



**Figure (41)**  
 Goodlette Frank Road: U.S. 41 to  
 Golden Gate Parkway

The original concurrency approach seemed to a fair and objective way to ensure that road capacity keeps up with growth. However, in addition to its sprawl-inducing effects, concurrency has other subtle effects that offset its value. It replaces broader approaches to improving mobility with a narrow focus on the flow of cars. Adding more lanes to a road nearing capacity is sometimes not desirable for a variety reasons including community character, yet a narrow concurrency-driven approach can make widening seem like the only alternative to a legally risky building permit moratorium that severely penalizes abutting property owners. (Those property owners are not the only users of an overcrowded road, yet they would pay the biggest price for its congestion.)

Measuring concurrency separately on each road segment is sometimes known as a "link-level" analysis, which breaks each road into segments between major intersections. For concurrency purposes, each segment's level of service is measured numerically, irrespective of the availability of parallel roads that can serve the same trips. This simplistic analysis then drives the prioritization of capital improvements and forces some results that are incompatible with the ideals of this plan. Link-level analysis sometimes provides only minor improvements in travel time. For instance, the difference between level of service "C" and "D" represents a decrease in average travel speed of approximately five miles per hour (22 to 17 m.p.h.). **Figure 41** shows that this difference on a short road segment can be only a short period of time.



**Figure (42)**  
Alternative scales for measuring system effectiveness.

### **BROADER APPROACHES TO CONCURRENCY**

Recognizing these flaws and the potential for inducing urban sprawl, the state now allows counties a number of alternative means of assuring acceptable road conditions, which have in common an attempt at taking into account a road segment's context (or potential context) in the larger urban setting. These new approaches can be more complicated to set up but they can expand the range of decisions a community has available to it when planning new roads. Several of these approaches use "aggregate" level-of-service measurements that consider the diversity of routes available for any single trip, in effect broadening the definition of a transportation facility beyond each individual road segment. Some examples are shown in **Figure 42**. The practical effect of an aggregate approach is to allow public investments to be focused on road improvements that enhance the county's overall carrying capacity and character rather than simply ensuring incremental availability of roadway capacity to accommodate short-term growth. The most promising concurrency alternative available to Collier

County is a "transportation concurrency management area." Under this approach, the county would designate in its growth management plan one or several areas where it intends to improve mobility, for instance by interconnecting local streets, adding connector roads, or offering public transit. The areas so designated must be compact and must have existing or proposed multiple travel paths. Within such areas, the level-of-service standard for roads can use the aggregate approach.

The benefit to Collier County would be the ability to carry out the mobility alternatives recommended by this plan without fear of causing an arbitrary building moratorium due to link-level concurrency. If there is no threat of a concurrency-based moratorium, this alternative need not be pursued. If such a threat exists, however, this alternative could provide the time to carry it out without penalizing landowners in congested areas. Because this approach to concurrency must be placed into the county's growth management plan before being used, it is a lengthy process and is subject to state approval.

## BALANCING CHARACTER WITH CONGESTION

### SETTING THE COURSE

Community character should be at the forefront of all planning decisions. For example, concurrency, the system used to determine road capacity, can inadvertently aggravate urban sprawl, or force auto-dominated solutions to broader planning problems. By developing “transportation concurrency management areas,” Collier County can ensure that concurrency contributes to the character-enhancing planning solutions identified by elected officials.

### GETTING THERE

#### 1. Modified Concurrency Approach:

- a. If any year's Annual Inventory and Update Report (AUIR) determines that a concurrency-induced building moratorium may occur within the next 2-3 years, Collier County should initiate the studies needed to support the establishment of one or more “transportation concurrency management areas” that would provide mobility alternatives and promote infill development.

#### 2. Growth Management Plan:

- a. If warranted by the outcome of these studies, begin steps to amend the growth management plan to:
  - (1) Formally designate and map the transportation concurrency management areas.
  - (2) Modify Objective 1.5 and Policy 1.5.3 of the capital improvements element to explain the transportation concurrency management areas and authorize modification of the county's Adequate Public Facilities Ordinance to include techniques to implement this new system.

#### 3. Long Range Transportation Plan:

- a. Direct the Naples (Collier County) Metropolitan Planning Organization to expand its computer modeling during the next update of its long-range transportation plan to test the effects of different levels of service on the cost, size, and type of roads needed through the year 2025.

### **MOBILITY STRATEGY #5: *Planning Entire Road Corridors***

In Collier County, roadway design and land development approvals often are distinct processes, with only concurrency and access management standards formally linking them. The concurrency link tends to be crisis-driven, leaving little time to develop roadway plans that do more than solve an immediate congestion problem. Thus there often is little time to consider anything outside the actual right-of-way.

Uniform design standards for highways are useful for expediting the design process when road widening is overdue. However, in communities of character, no two roads have exactly the same needs or constraints, or serve the exact same land uses. Whenever possible, the design of roads and intersections should be linked to their context and the desired pattern of adjoining land uses.

Collier County has completed corridor management plans for three major roads as an urban design initiative, seeking better ways for commercial and other development to interact with major roads. This kind of plan can be expanded to address the physical design of a new or expanded roadway and the adjoining land uses simultaneously, ensuring that the roads' existing capacity is being used to its fullest and that the improved road will support a pattern and mix of development that maximizes community investment and character. The development of the new road's exact cross-section would be an important step in the corridor planning process, but just as important would be planning for right-of-way enhancements, access and parking management, signage, and more detailed land planning.

Components of a typical corridor management plan would include:

- 1.** A physical master plan, including roadway cross-sections and perspective drawings;
- 2.** An access management plan that will control traffic from adjoining land uses; and
- 3.** An action plan with detailed implementation strategies, including land development code amendments where warranted.

A more detailed description of the components of expanded corridor management plans is found in Appendix C. Corridor management plans containing these elements could be performed either by county staff or outside consultants and should take about six months to complete.



## PLANNING ENTIRE ROAD CORRIDORS

### SETTING THE COURSE

Road design and land development approvals usually are distinct processes. A closer link between adjoining land uses and the character of the road would benefit both, with the improved road able to support a development pattern that maximizes community investment and character. Collier County should expand its involvement in such “corridor management plans.

### GETTING THERE

#### 1. Growth Management Plan:

- a. Amend Policy 4.4 of the future land use element to expand the scope of corridor management plans to include plans conducted concurrently with, or integrated into, the project development process of major roadway improvements. The purpose of these expanded plans is to integrate land-use issues (including access management) with the selection of optimal right-of-way and cross-sections for road improvements.
- b. Unless specifically exempted by the board of county commissioners, the county would prepare a corridor management plan for major roadway improvements, especially for road expansions that are not shown on the 2010 or 2020 road expansion maps as adopted into the growth management plan (Maps TR-6AW and TR-7AW).

#### 2. Land Development Code:

- a. Amend the land development code to implement corridor management plans when so indicated by the results of those plans.



# Greenspace Manual

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## OBJECTIVES OF THE GREENSPACE PLAN

The objective was to develop a long-range vision that:

- Has broad-based public consensus
- Identifies greenspace needs in newly developing areas
- Identifies opportunities for linkages and partnerships
- Provides recreation opportunities for all residents
- Includes a comprehensive variety of facility types
- Protects targeted natural communities
- Creates opportunities for recreation and education programs
- Accommodates changing demographics
- Respects individual neighborhood needs
- Develops an implementation strategy
- Establishes priorities for land acquisition and park development

Elements of the plan include:

- The long-range vision for Collier County's greenspace system, which includes identification of proposed parks, greenways, trails and open spaces
- The cost to implement and operate the vision
- The top priorities and strategies for funding these priorities.
- Natural resource management strategies
- Top priority projects that could be completed in the near future

Our development of a vision and implementation strategy for the Collier County Greenspace System began with an idealized, prototyped model based on visions from other communities. The model (**Exhibit 1**) shows that an ideal system is comprised of a variety of



Exhibit 1 - The Greenspace Model

parks, natural lands, urban open spaces and other greenspace "nodes," linked by a network of greenways, trails, bikeways and other greenspace "connectors." The task of this study was to determine what variation of the model is appropriate to meet the specific needs and priorities of residents in Collier County, and to determine the most effective means of implementing the model.



FACILITY NAME	TYPE	ACRES	PARKING	RESTROOMS	BEACH ACCESS	PLAYGROUND	PICNIC TABLES	PICNIC SHELTER / PAVILION	OPEN FIELD / SPACE	BASEBALL/SOFTBALL	BASKETBALL
Frank E. Mackle Community Park	Public-Community	29	X	X		X	X	X			1
Marco Island Racquet Club	Public-Community	5	X	X							
Winterberry Park	Public-Community	5	X							1	
Leigh Plummer Park	Public-Neighborhood	5	X								
M. Jane Hittler Park	Public-Open Space	0.25	X								
Tommie Barfield Elementary School	School-Neighborhood	3	X							1	
YMCA	Private-Community	9	X	X		1				1	1

Source: Recreation facility data provided by City of Marco Island  
 \* Managed by Collier County

Exhibit 3 - City of Marco Island Park Facilities Analysis Source: Marco Island Parks and Open Space Master Plan

## ANALYSIS OF EXISTING CONDITIONS

To test our model, we analyzed the following components of Collier County's existing Greenspace system:

1. Parks
2. Natural Lands
3. Linkages

### EXISTING PARKS

A total of 45 Community, Neighborhood, and Open Space Parks are managed by the County for a total of 1,235 acres. Private recreation providers such as condominiums, hotels, churches, and non-profit nature centers provide additional recreation opportunities including swimming pools, tennis courts, basketball courts, trails, and community center facilities.

Furthermore, other facilities throughout southwest Florida managed by the City of Naples, Marco Island, the State of Florida and the federal government are available to Collier County residents. **Exhibit 2** provides a detailed inventory of the County's Community Parks, Neighborhood Parks and urban open spaces, as well as regional and private recreation facilities. The total acreage and types of recreation activities available within the County's recreation system are included.

Larger Community Parks, as well as well-maintained beach access points generally characterize the County's existing park system. For the most part, the County has not been in "the business" of creating and maintaining Neighborhood Parks. Most existing Neighborhood Parks are city parks, owned and managed by the City of Naples or Marco Island (**Exhibit 3**). This trend, however, is beginning to change through the County's Neighborhood Park Assistance Program - a program where a neighborhood can request the creation of a Neighborhood Park. Currently, this program creates one new County Neighborhood Park per year.

FACILITY NAME	TYPE	ACRES	PARKING	RESTROOMS	WATER/BEACH ACCESS	PLAYGROUND	PICNIC AREA	OPEN FIELD / SPACE	BASEBALL/SOFTBALL	BASKETBALL	RACQUET / HANDBALL
Eagle Lakes Community Park	Public-Community	32	X	X		1	X	X	2	1	
East Naples Community Park	Public-Community	47	X	X		1	X	X	1	4	4
Golden Gate Community Park	Public-Community	35	X	X		1	X		4	2	4
Gulf Coast Community Park	Public-Community	5	X	X		1	X		2		
Immokalee Community Park	Public-Community	23	X	X		1	X	X	3	3	2
Max A. Hasse Jr. Community Park	Public-Community	20	X	X		1	X	X	4	1	
Pelican Bay Community Park	Public-Community	15	X	X		1	X	X	1	1	4
Tony Rosbough Community Park	Public-Community	6.8	X	X					2		
Veterans Community Park	Public-Community	40	X	X		1	X		4	2	4
Vineyards Community Park	Public-Community	35.5	X	X		1	X		2	2	4
Golden Gate Aquatic Complex	Public-Special Use			X							
Immokalee Sports Complex	Public-Special Use	14	X	X						1	
Barefoot Beach County Park	Public-Beach Access	342	X	X	X						
Barefoot Beach Beach Access	Public-Beach Access	5	X	X	X		X				
Clam Pass County Park	Public-Beach Access	35	X	X	X						
North Gulf Shore Boulevard Beach	Public-Beach Access	0.5	X		X						
Tiger Tail Beach County Park	Public-Beach Access	32	X	X	X	1	X				
South Marco Beach	Public-Beach Access	3	X		X						
Vanderbilt Beach County Park	Public-Beach Access	5	X		X						
Bayview Park	Public-Water Access	4.2	X	X	2*	1	X				
Caxambas Bay	Public-Water Access	4.2	X	X	2*		X	X			
Cocohatchee River Park	Public-Water Access	7.2	X	X	4*	1	X	X			
Lake Trafford Park	Public-Water Access	2.3			1*		X				
State Road 951 Boat Ramp	Public-Water Access	0.5	X		2*						
Aaron Lutz	Public-Neighborhood	3.2	X			1	X	X		1	
Coconut Circle	Public-Neighborhood	1.2	X			1	X	X		1	
Copeland Park	Public-Neighborhood	0.5				1					
Dreamland	Public-Neighborhood	0.5				1					
East Naples Tot Lot	Public-Neighborhood	0.3				1					
Rita Eaton Neighborhood Park	Public-Neighborhood	5				1		X			
Immokalee Airport Park	Public-Neighborhood	5	X	X		1	X				

Exhibit 2 - Collier County Park Facility Analysis Source: Collier County Park and Recreation Department

The following are some additional general observations and issues regarding existing park facilities:

1. Collier's Community Parks are generally in good condition and appear to be well-attended;
2. Collier's newest Community Park, Eagle Lakes Park, is a state of the art, high quality facility that can be used as a model for future development of active parks;
3. Because of the growing demand for active facilities in the urban areas, Community Parks are in danger of losing multipurpose open space in favor of sports fields and other recreational facilities;
4. Some prime beaches are limited to members only (such as Residents Beach in Marco Island);
5. Many beach areas have limited parking, such as South Beach in Marco;
6. Boat ramp access is probably adequate - user surveys are needed to verify the adequacy of existing boat ramps and related parking areas;
7. Walking access to the beach is difficult in some areas, and there are limited direct routes from neighborhoods;
8. The parks system already takes advantage of partnerships with the School Board - such as the joint use / programs at East Naples Community Park;
9. Not every resident has easy access to a Neighborhood or Community Park.



Playgrounds are one of the many pieces of Collier County's recreational facilities.



## NATURAL LANDS

Collier County has a variety of natural upland and wetland habitats. Since early settlers began colonizing the area in the middle nineteenth century, much of the upland habitats have been converted to agricultural uses, residential or mixed-use development. The majority of development has occurred in the western side of the County associated with the US 41 and I-75 corridors. Approximately 60% - 70% of the County has been preserved in its natural state by the federal, state and private agencies. The majority of preserved or protected lands occur in the following areas (See **Exhibit 4**):

1. Big Cypress National Preserve
2. Florida Panther National Wildlife Refuge
3. Fakahatchee Strand State Preserve
4. Picayune Strand State Forest
5. Corkscrew Swamp Sanctuary
6. CREW Trust Lands
7. Rookery Bay National Estuarine Research Reserve
8. Ten Thousand Islands Aquatic Preserve and National Wildlife Refuge
9. Everglades National Park
10. Collier Seminole State Park
11. Several state, local and private preserves along the gulf coast and beaches
12. Collier County regulatory overlay zones over areas of environmental concern [Natural Resource Protection Areas (NRPA)].

The parks and wildlife refuges were designated to restore the

Everglades ecosystem, protect water quality and aquifer recharge, and protect listed species, such as the Florida panther (*Felis concolor coryi*), Florida black bear (*Ursus americanus floridanus*), and other species, which utilize this region for their migrations and home ranges. In addition, several of the preserves have been established to protect marine fisheries and the diverse freshwater and brackish estuarine habitats. Although these areas are already under preservation, or in the process of being acquired, the imminent long-term conversion of natural and agricultural lands to urban and rural development has the potential to negatively impact the listed species and water quality in southwest Florida. A variety of upland and wetland habitats still remain throughout the County.

The upland habitats include:

- Coastal Dune and Strand
- Dry Prairies
- Pine Flatwoods
- Xeric Scrub
- Hardwood Hammocks
- Tropical Hammocks
- Agricultural Lands

The wetland habitats include:

- Coastal Saltmarshes
- Freshwater Marshes and Wet Prairies
- Scrub Cypress
- Cypress Swamps
- Hardwood Swamps
- Mangrove Swamps



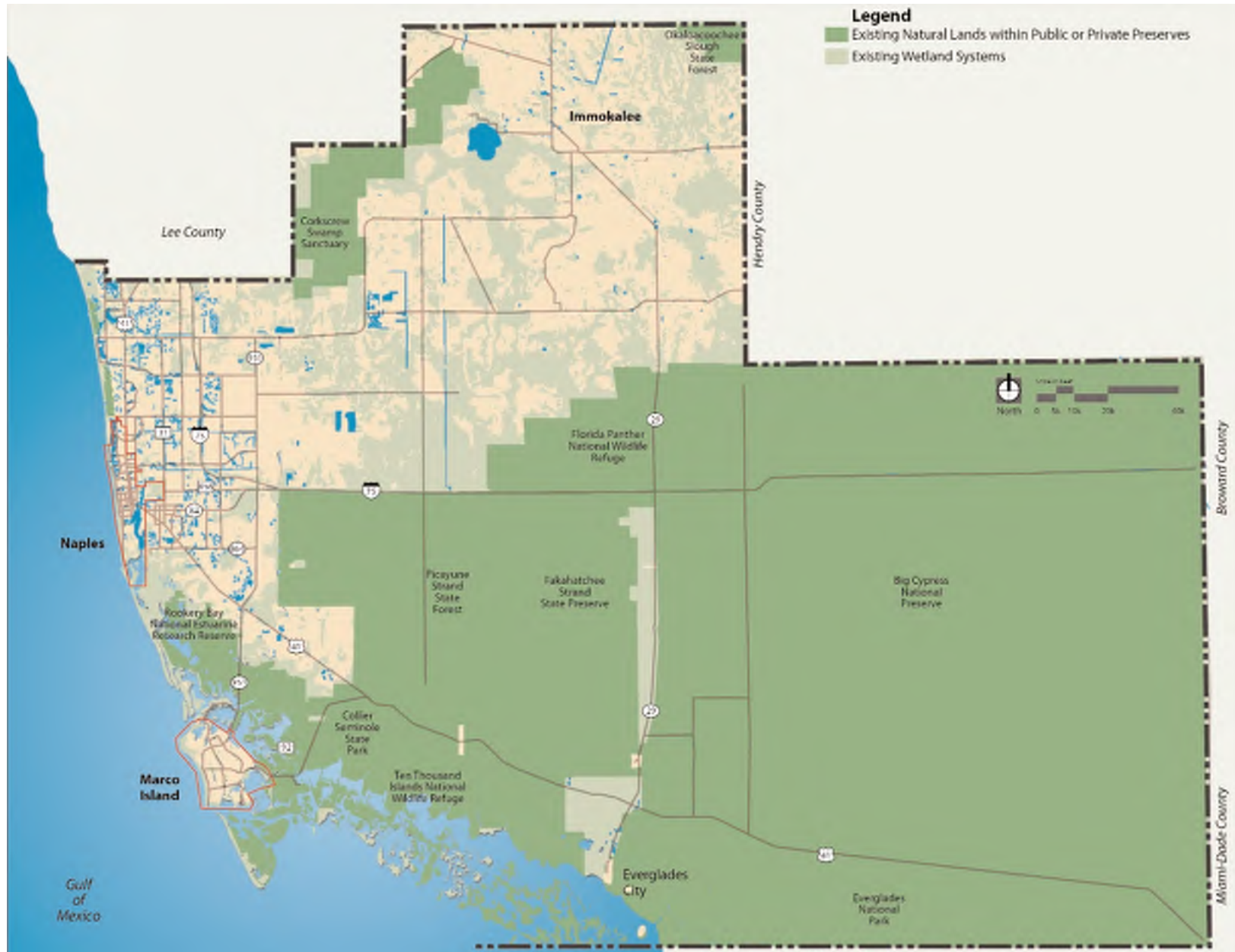


Exhibit 4 - Natural Lands Inventory

As a result of the diversity of the habitat types throughout the County and the low density development in the east side of the County, many species classified as threatened or endangered (T & E) and Species of Special Concern (SCC) occur throughout the County. Some of the more notable species include the Florida panther, Florida black bear, red-cockaded woodpecker (*Picoides borealis*), sandhill crane (*Grus canadensis pratensis*), Florida scrub jay (*Aphelocoma coerulescens*), gopher tortoise (*Gopherus polyphemus*) and associated commensals and many other listed plant species.

## LINKAGES

Collier County's roadway system can be characterized primarily as a connected network of major roadways with wide rights of way. Few areas of the County, such as the traditional neighborhoods mostly west of US 41, have interconnected networks of smaller, local streets. While the County continues to build segments of sidewalks and bike-ways, they do not yet constitute an interconnected sidewalk/bikeway system. Sidewalks are continuous along most major roadways, but are fragmented and incomplete within the residential neighborhoods. The urbanized areas of the County lack a system of dedicated bicycle paths or bike lanes. Although there are some bike lanes and paths, the system, on the whole is fragmented. Also, shade trees are absent from most of the major roadways.

Regarding transit linkages, the County is starting to run its new bus system, and private shuttles are operated within the Cities. Not all of the County's parks and open space are accessible via transit, however.



## POPULATION AND GROWTH CHARACTERISTICS

In 1980, the population of Collier County was only 85,000 - about the equivalent of a medium-sized city. Over the last 20 years, the population has more than doubled. Overall, there are several important trends in the growth of Collier County:

The overall population growth is steady. Collier County has grown to over 220,000 residents today. By 2010, the anticipated population is estimated at over 300,000 residents, or an increase of 26% within this decade (see **Exhibit 5**).

The Naples Metropolitan Area is the fastest growing area in the State. While the population growth pattern is relatively steady, the actual percentage of growth is the highest in the State of Florida, with the Naples Metropolitan Area population growing an estimated 35% between the years 1990 and 1998. This dramatic growth rate emphasizes the need for public services to keep pace with development.

The Collier County population is getting older. Although population growth and land use trends are expected to remain constant, it is anticipated that the median age will continue to rise.

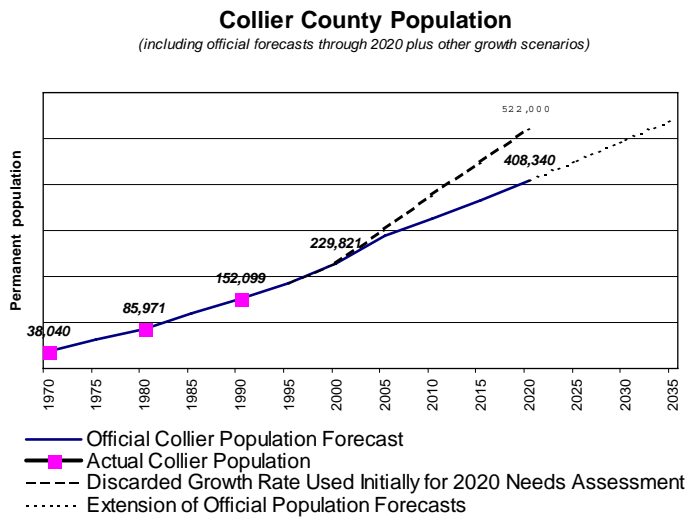


Exhibit 5 - Population Trends

## SUMMARY OF EXISTING CONDITIONS

By analyzing the population growth and demographic trends of the County, and the inventory of existing facilities, the following conclusions can be made:

1. Population is increasing;
2. The ability of the County to keep up with the demand for additional parks lands and facilities will continue to be tested by the fast pace of development;
3. The population is getting older, therefore public facilities must be flexible to accommodate changing needs;
4. The existing Parks and Open Space System facilities are of generally high quality;
5. The County's Parks and Recreation Department does a good job of taking advantage of partnerships with other local governments and entities;
6. Existing pedestrian and bicycle links are fragmented and are not well connected;
7. The existing system of natural lands protects a large portion of Collier County. However, new development has already negatively affected natural habitats and water quality and continues to have detrimental effects on the current population of listed species;
8. Currently about 60-70% of Collier County's land is being preserved through ownership by public and private agencies. This is a fairly high percentage, but most of that land is part of the western Everglades or coastal wetlands and would not be developable regardless of ownership. The western half of Collier County contains vast environmental resources that are mostly in private ownership. Many of the most valuable lands, especially uplands, are not protected under any governmental or private habitat protection program;
9. Public "green" open space in urban areas is in danger of disappearing due to the demands for active sports fields and through the development of new neighborhoods and communities.

## IDENTIFICATION OF NEEDS AND PRIORITIES

The next step in the Greenspace Planning process is to identify the parks, recreation and open space needs and priorities of the community. Needs assessment is not an exact science. Therefore, a number of techniques were used to determine countywide needs and priorities, including the following:

1. Comparison to State Standards
2. Level of Service Analysis - Population
3. Service Areas Analysis
4. Public Workshops
5. Natural Lands Needs and Priorities (Identification of target plant communities, wildlife population and associated habitat, and natural areas including those that have been significantly altered from historic conditions)

## COMPARISON TO STATE STANDARDS

In addition to collecting input from recreation users, recreation providers and interested stakeholders, it is helpful to examine the supply of various recreation facilities to identify specific recreation needs. To further analyze recreation facility needs in Collier County, the existing inventory of the County's recreation facilities were compared to recreation and park guidelines provided in the State of Florida Comprehensive Outdoor Recreation Plan, 1994 (SCORP). Population guidelines are estimates of the amount of outdoor recreation resources and facilities that are required to support a given population.

Although every community has different recreation priorities, the State guidelines do provide a valuable technique to evaluate the potential recreation needs of an area. The guidelines help assess community recreational needs by determining the minimum number of resources and facilities required to serve the local population. The guidelines provide low, medium and high standards so they may be adjusted for application to different types of communities.

The following is a summary of the analysis based on state standards (refer to the tables included in **Appendix G** for detailed analysis):

- Collier County is deficient in several facility types, including football/soccer fields, tennis courts, basketball courts, swimming pools, volleyball courts, shuffleboard courts, and jogging and hiking trails. It is important to note, however, that many of these facilities, such as swimming pools and tennis courts, are being provided through residences and private communities;
- Including the Naples and Marco Island populations and park facilities in the total count, deficiencies in tennis courts are reduced;

User surveys should be conducted to further analyze the County's recreation needs for specific recreation facilities. User surveys would provide data on patterns of use of existing facilities, allowing for a true assessment of deficient facilities as well as identifying possible management strategies to accommodate unmet recreation demand. For example, tennis is more popular in the winter than in the summer, but the hot summer weather changes the demand patterns. In Marco Island, for example, existing public and private facilities reach capacity during the morning hours due to excessive heat in the afternoons. Covering the tennis courts may allow current use to be distributed throughout the day, alleviating the need for the construction of more facilities.

**LEVEL OF SERVICE ANALYSIS - POPULATION**

Another method for evaluating needs is to review the Level of Service (LOS) included in the County's Comprehensive Plan. It is important to note, however, that LOS is a planning term used to establish a community's minimum requirement for certain services, and often has no relation to actual community needs and priorities.

Collier County's LOS, based on total park acreage of 1,2882 acres of developed parkland per 1,000 residents, is used for this analysis. Based on this guideline and the existing park system of 1,235 acres, the County will have a "surplus" of 814 acres of parkland by 2010 considering the projected population of 283,000 permanent residents. However, this includes the 342 acres of Barefoot Beach, as well as undevelopable land in existing community parks, which tends to give a "false" reading of actual level of service. **Exhibit 6** summarizes the LOS analysis for the County's current parks system.

**LEVEL OF SERVICE ANALYSIS - SERVICE AREAS**

Service areas are used to determine how far people have to walk, bicycle or drive to get to area parks and green spaces. The service areas of the various elements of the recreation system were analyzed to identify potential service voids. The approximate geographic areas served by Neighborhood Parks and Community Park facilities were reviewed using the service area radii adopted by the National Recreation and Parks Association. According to the adopted guidelines, there should be a Neighborhood Park and/or open space within a ½ mile distance,

considered easy walking distance for most residents (**Exhibit 7**). In addition, there should be a Community Park within 3 miles, considered an easy driving distance for most residents (**Exhibit 8**).

Conclusions from the Service Area Analysis include:

1. Most urban areas of Collier County have access to Community Parks. However, Golden Gate Estates does not have sufficient access to Community Parks.
2. Most residents do not have access to a Neighborhood Park within walking distance of their home. Older areas in Naples and on Marco Island are generally sufficiently served. However, a majority of other neighborhoods do not have access to Neighborhood Parks within this specified radius.

	1997	2005	2010
<b>Population</b>	165,608	288,198	326,452
<b>Park Acres Owned</b>	1,235	1,235	1,235
<b>(2000)</b>	213	371	421
<b>Acres Needed</b>	1,022	864	814

(Based on Collier County Level of Service for Developed Acreage = 1.28 acres per 1000 population for Community Parks)

**Exhibit 6** - Collier County Level of Service for Park Acreage

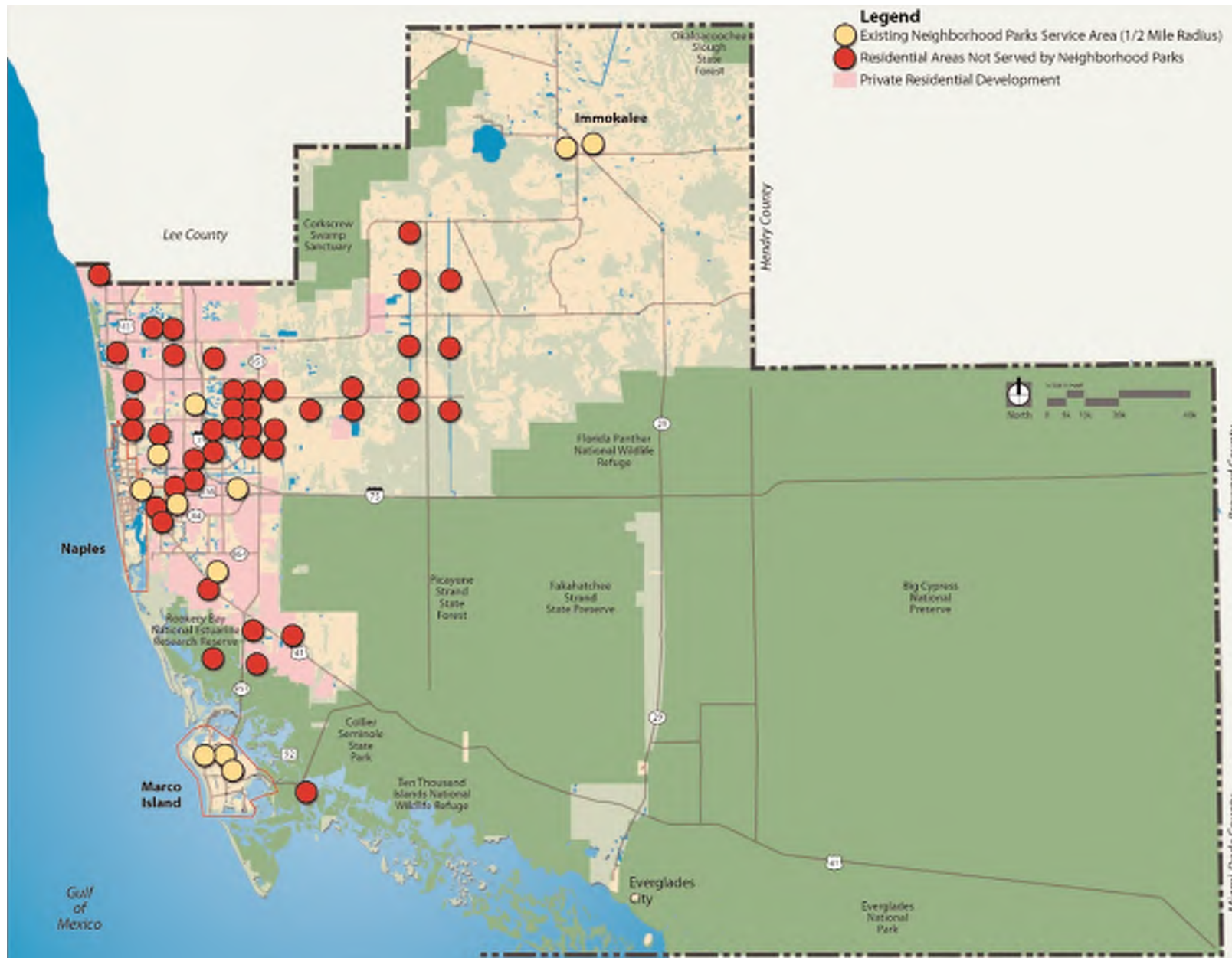


Exhibit 7 - Neighborhood Parks Service Areas Source: Collier County Parks & Recreation Department

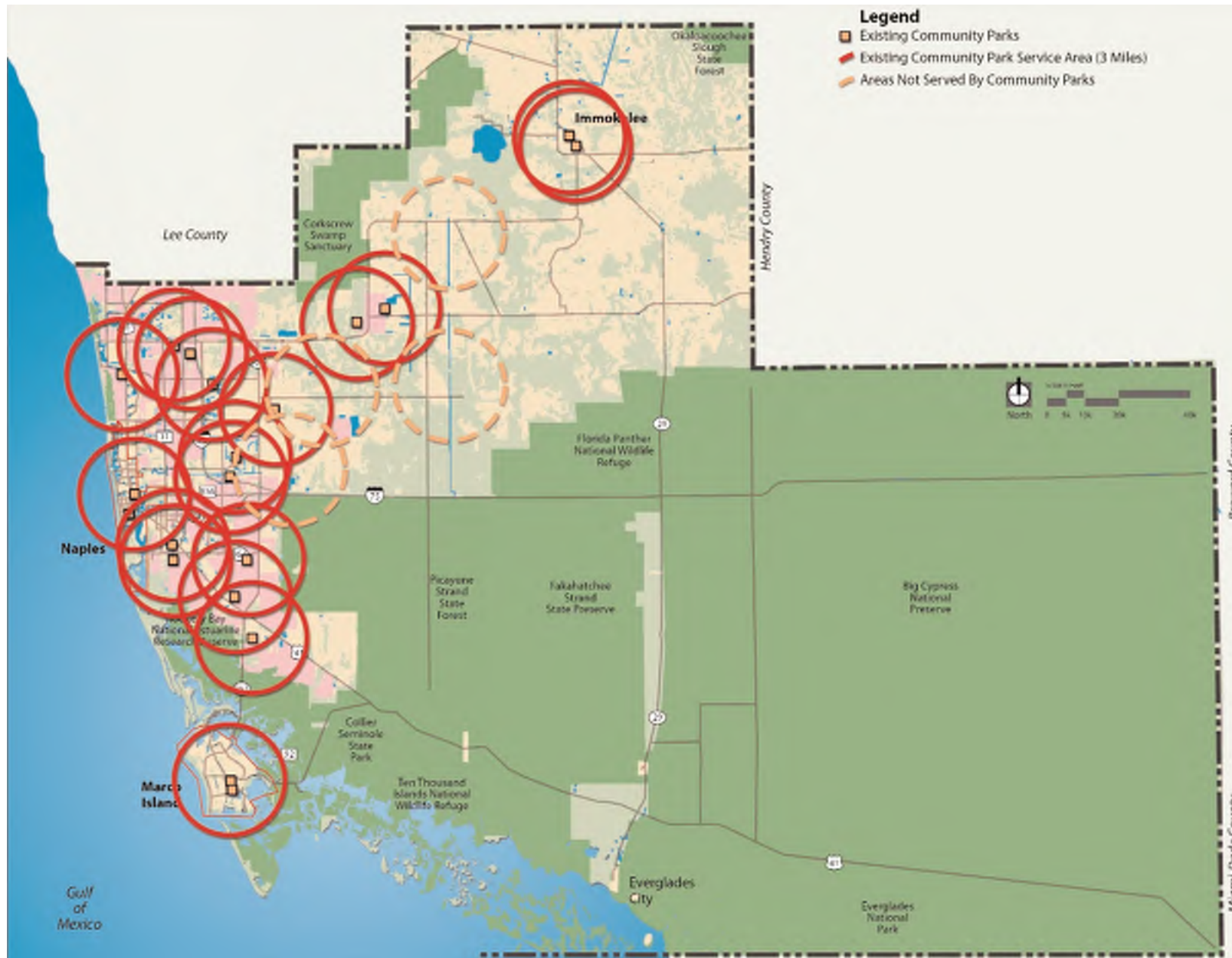


Exhibit 8 - Community Parks Service Areas Source: Collier County Parks & Recreation Department, Glattig Jackson

## PUBLIC WORKSHOPS SUMMARY

The following workshops were held to gather input from the community concerning the character of Collier County:

- Parks, Recreation and Open Space Needs
- Immokalee / Golden Gate Workshop
- Lely / Southeast Collier Workshop
- Lely High School Workshop
- Ready, Set, Draw Hands-On Workshop
- Greenspace Focus Group
- Collier County Parks and Recreation Department Interview

As a part of this process, the following questions were asked of the participants regarding the existing Greenspace system, as well as potential needs:

1. What's special about living in Collier County?
2. What parks, recreation facilities and/or programs do you currently use the most?
3. What types of parks, recreation facilities and/or programs do you wish were available in Collier County?
4. Do you have adequate:
  - Mini Parks / Urban Open Spaces?
  - Small Neighborhood Parks?
  - Large Community Parks?
  - Sports complexes, aquatic centers and/or other special purpose facilities?
  - Bikeways, sidewalks and trails?
  - Beach and river access (including boat ramps)?
  - Natural areas?
5. Of those listed above, which are most important to you?



Community members and planners at the Ready, Set, Draw Workshop

The results of these workshops indicated that the highest priority needs included:

- Safe bike and pedestrian paths and sidewalks to parks, greenspaces, commercial areas, etc.
- Neighborhood Parks in areas that are not currently served
- Additional Conservation Lands and preservation of greenspaces
- Additional multi-purpose open spaces in Community Parks
- Additional facilities in Community Parks
- Additional beach parking / access
- Urban Open Spaces that could accommodate concerts, art shows, etc.
- Additional special use facilities, such as skate parks

In addition, interviews with Collier County Parks staff indicated that programmed sports have been on the rise with an increase of over 200 teams in the last two years. The greatest increase (average 30%) in team sports were for softball and soccer.



## NATURAL LANDS NEEDS AND PRIORITIES

A significant amount of natural resources data was compiled to determine the need for the protection and/or acquisition of Natural Lands in Collier County. This information was obtained from the Collier County Department of Natural Resources, the US Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, National and Florida Wildlife Federations, The Conservancy of Southwest Florida, the South Florida Water Management District (SFWMD), The US Army Corps of Engineers, the Florida Department of Environmental Protection, the US Department of Agriculture (Natural Resource Conservation Service), US Geological Survey, and a variety of other engineering and environmental consultants, and non-governmental organizations.

Site visits were conducted throughout the County to generally characterize the conditions of the habitat. Site visits were conducted on the parks and preserves previously listed above, the agricultural regions, Lake Trafford area, Golden Gate Estates, Belle Meade, Everglades City, Immokalee, the beaches, Naples, Marco Island and the US 41 corridor. An aerial reconnaissance was conducted by a fixed wing aircraft to obtain an overview of the development patterns, the character, and the connectivity of wildlife habitat in the County. This aerial reconnaissance was immensely valuable to obtain an overview perspective of the remaining habitat in the County, particularly in Golden Gate Estates and agricultural regions.

The consultants also used Geographic Information Systems (GIS) by overlaying data files from federal, state and local agencies, private



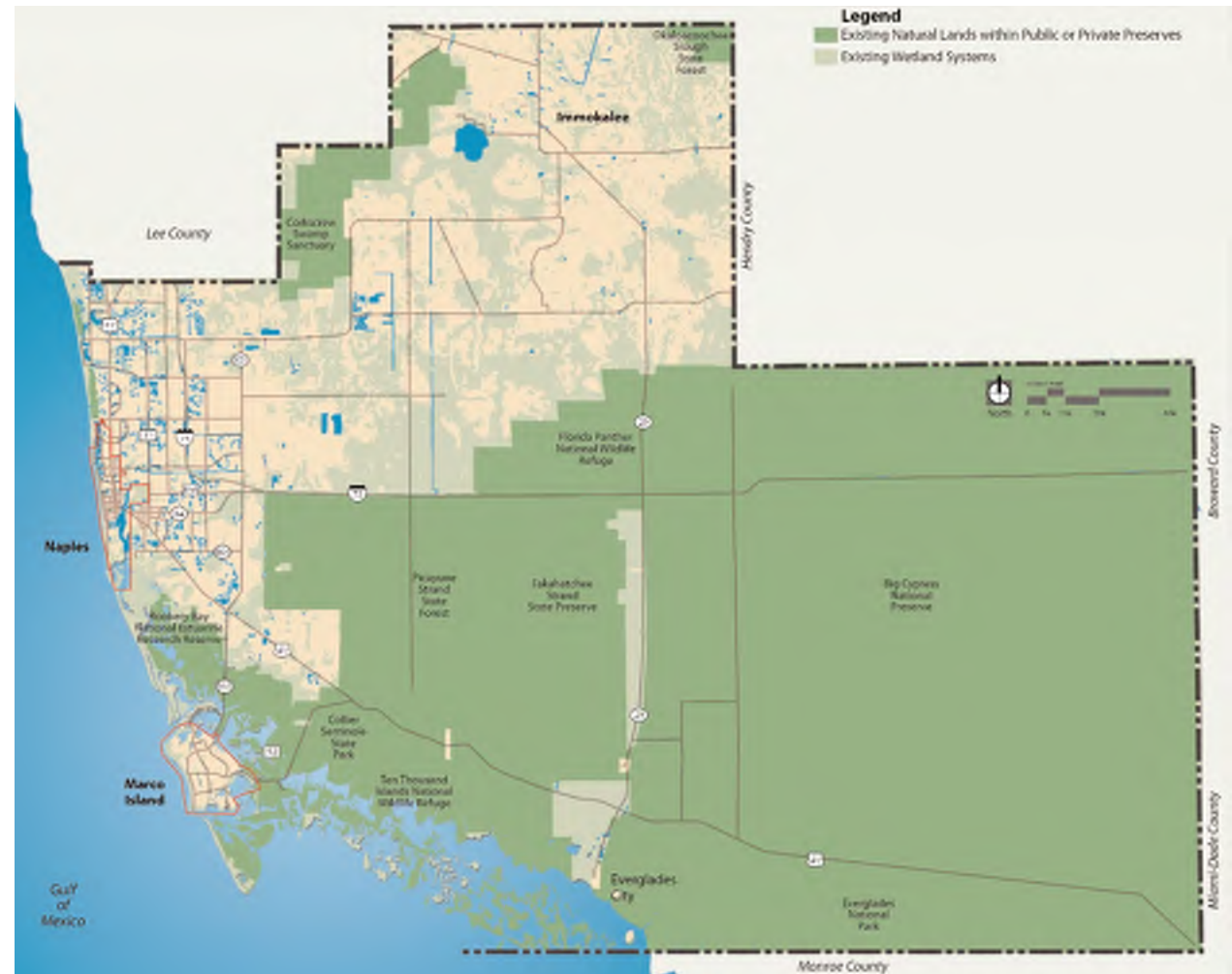
One of Collier County's natural areas

consultants, and non-profit environmental groups, including:

- Soils
- Current and historic flowways
- Wetlands and floodplains
- Collier County Future Land Use Map
- Non-developed and non-agricultural habitat
- Approved development not yet constructed
- Listed species locations and their movements
- Biodiversity "hot spots"
- Strategic Habitat Conservation Areas (SHCAs)
- Proposed state and federal land acquisition projects
- Collier County's Natural Resource Protection Area (NRPAs regulatory overlay zones )

To further develop the analysis, meetings were conducted with a variety of federal, state and local agencies and non-governmental organizations. These meetings allowed the design team to collect and better understand site-specific information and gauge public opinion on current environmental issues.

The existing wetlands in the County, as identified by the SFWMD (**Exhibit 9**), were overlaid on the existing and proposed state and federal land acquisitions. The major existing and historic flowways were then mapped through the County (**Exhibit 10**) to understand regional drainage patterns prior to the excavation of the miles of ditches and canals. The known locations of listed species and existing data on wildlife movements were added (**Exhibit 11**) to develop a strategy for maintaining existing wildlife corridors throughout the County. Finally, the existing Collier County NRPA regulatory overlay zones (**Exhibit 12**) were added to depict areas which have already been identified as needing additional protection. The natural lands acquisition and protection zones were identified as a result of this analysis (**Exhibit 13**). The creation of these zones provides the vision for protecting wildlife corridors throughout the County. Most of these lands are in private ownership, and cooperation with the landowners will therefore need to occur in order to develop innovative strategies for wildlife protection.



**Exhibit 9 - Existing Wetlands** Source: South Florida Water Management District

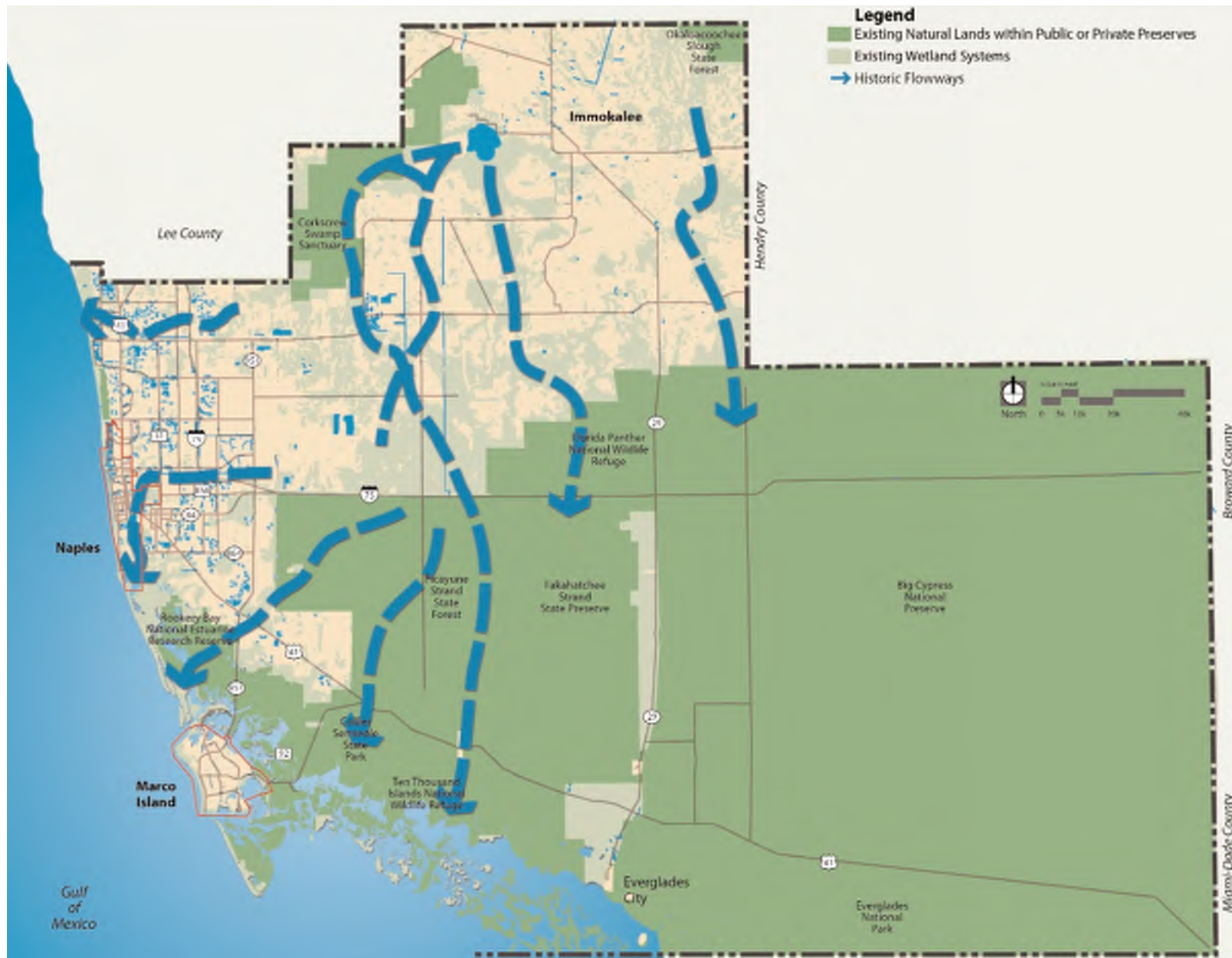


Exhibit 10 - Major and Historic Flowways (Conceptual) Source: US Soil Conservation Service

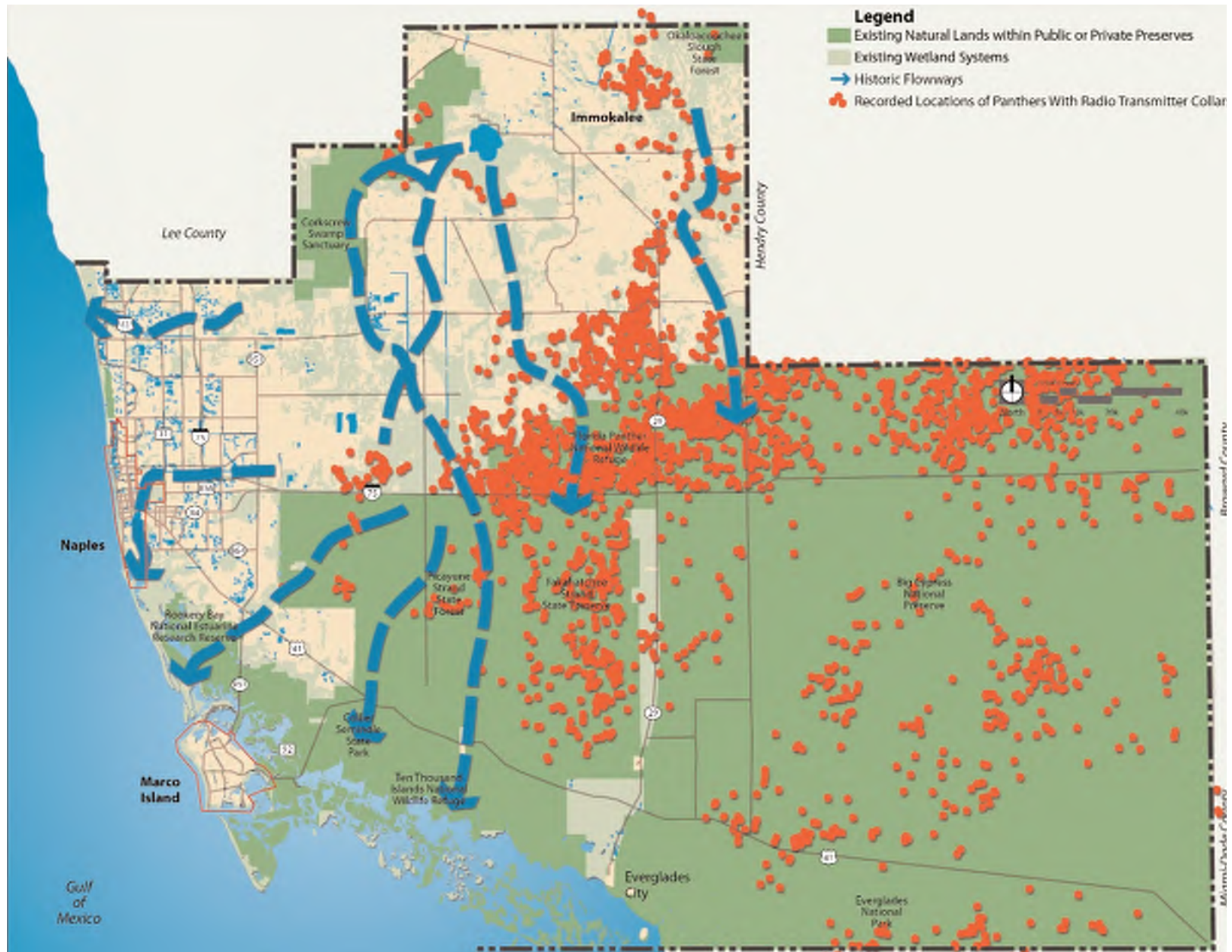


Exhibit 11 - Panther Telemetry (Recorded location of panthers with radio transmitter collars) Source: US Fish and Wildlife Service

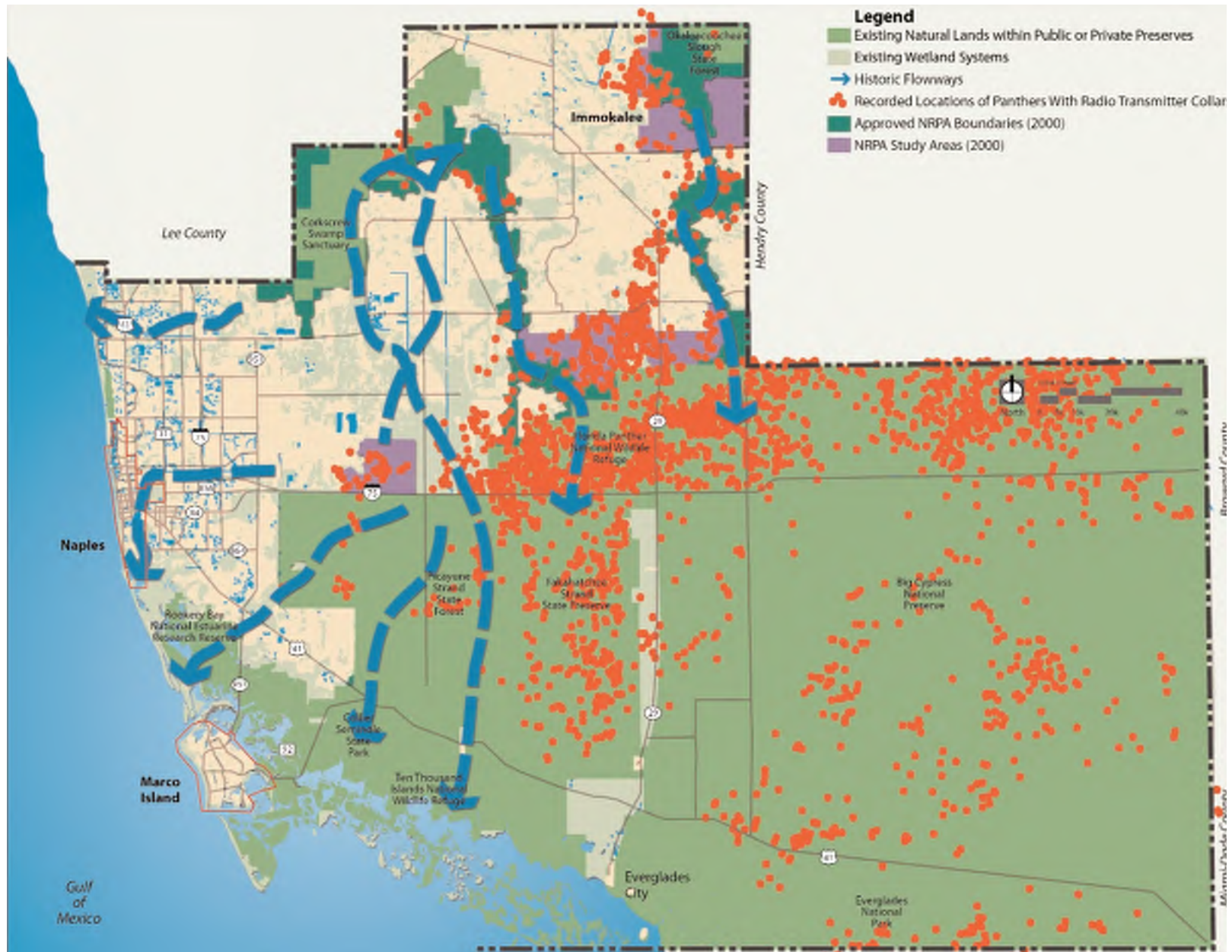


Exhibit 12 - NRPA Zones (Proposed) Source: Collier County

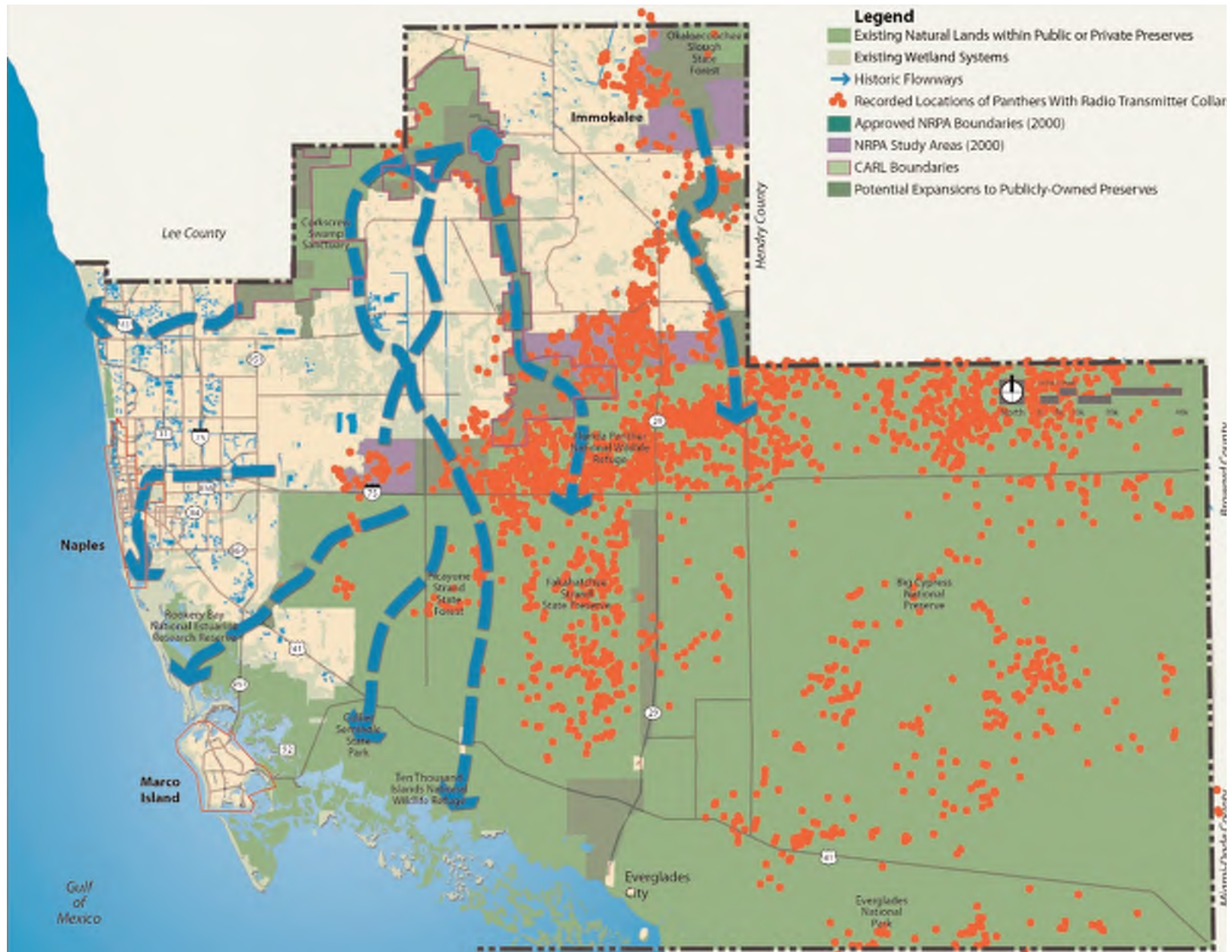


Exhibit 13 - Potential Zones for Protection Source: Glatting Jackson

## SUMMARY OF NEEDS ASSESSMENT

A wide variety of greenspace needs were identified through the needs assessment techniques outlined in this section. Following is a summary of our findings:

- 1. Comparison to State Standards:** According to State standards, and based on estimated population, the County will be significantly "deficient" in many types of public recreation facilities within the next ten years, including tennis courts, baseball/softball fields, football/soccer fields, handball/racquetball courts, basketball courts, swimming pools, shuffleboard courts, jogging/hiking trails, play areas, and multipurpose fields and courts.
- 2. Level of Service Analysis-Population:** According to the County's Comprehensive Plan, there is adequate parkland to serve both existing and future needs. Level of Service (LOS) is an arbitrary number, however, and does not necessarily reflect the needs or desires of County residents. The County's parkland acreage also includes undevelopable park and beach lands.
- 3. Service Area Analysis:** The Service Area Analysis indicated that many County residents do not have easy access to neighborhood and/or community parks. Approximately thirty additional neighborhood parks are required to provide a neighborhood park for every resident within ½ mile of their home, and four additional community parks are required to provide a large 50+ acre park within three miles of every resident.
- 4. Public Workshops:** Public workshops with residents, youth sports representatives, parks and recreation staff and others indicated that there is a significant need and/or desire for additional bicycle/pedestrian paths, neighborhood parks, conservation lands, open spaces, recreation facilities, beach parking/access areas, urban open spaces, and special use facilities such as skate parks.
- 5. Natural Lands Assessment:** The assessment of the County's natural areas by the consultant identified the need to acquire, protect and/or restore large, connected greenways and agricultural areas.

With the exception of the Level of Service Analysis in the County's growth management plan, the findings from the needs assessment techniques outlined above were consistent; the County needs to acquire and develop more park lands for both active and passive recreation, and protect and/or acquire more conservation lands for habitat protection. Based on the results of the needs assessment techniques, the following conclusions can be made:

- 1.** New development, both commercial and residential, are generally not providing sufficient urban open spaces;
- 2.** Additional neighborhood parks are needed to serve deficient areas. At least 16 additional neighborhood parks are needed (not including the potential for approximately 14 additional parks in the Golden Gate Estates area). Based on a 3-acre average per park, approximately 48 acres of parkland is needed;
- 3.** There is a need for additional active recreation facilities such as basketball courts and soccer/football fields. These deficiencies may be met through expansion and modification of existing park facilities, continued partnership with the school board for the use of existing and future facilities, and the addition of new facilities;
- 4.** There is a need to complete the sidewalk network countywide;
- 5.** There is a need for additional safe bicycle facilities (bike lanes, bike paths);
- 6.** Improved public access should be provided to existing conservation lands;
- 7.** There is a need for additional preserved public land to ensure the continued viability of the natural ecosystems present in Collier County as well as maintaining the character of Collier County;
- 8.** Additional special use facilities are needed (i.e. skatepark);
- 9.** Public access to the beach and waterway system should be enhanced.

## COLLIER COUNTY'S GROWTH MANAGEMENT PLAN

Collier County's current growth management plan has specific goals and policies relating to the greenspace system, including:

### **Parks** *(from the recreation and open space element)*

- Provide sufficient parks, recreation facilities and open space areas to meet residents/visitor needs (Goal 1)
- Encourage developers to provide recreation sites/facilities consistent with park and recreation guidelines (Policy 1.4.1)
- Acquire suitable lands for new park sites in areas where major population growth is expected (Policy 1.1.4)
- Provide 1.2882 acres of community park land per 1,000 population (Policy 1.1.1)
- Provide 2.9412 acres of regional park land per 1,000 population (Policy 1.1.1)

### **Bicycle/pedestrian ways** *(from the transportation element)*

- All future capacity improvements will include provisions for bicycles and pedestrians (Policy 4.6)
- The subdivision regulations provide for bicycle and pedestrian facilities throughout developments (Policy 7.3)
- The pathway plan provides for the systematic completion of an integrated system by the year 2020 (Policy 4.3)

### **Natural resource areas** *(from the conservation and coastal management element)*

- Identify, protect, conserve and appropriately use native vegetative communities and wildlife habitat (Goal 6)
- Create incentives to allow development to continue but also ensure that some of the most ecologically sensitive habitat and

vegetative communities are retained (Policy 6.1.8)

- There shall be no unacceptable net loss of viable naturally functioning marine and fresh water wetlands, excluding transitional zone wetlands (Objective 6.2)
- All wetlands are designated as environmentally sensitive areas (Policy 6.2.2)
- Support the efforts of the U.S. Fish and Wildlife Service's Panther Recovery Plan by designating a significant portion of the known habitat for the Florida Panther as "Areas of Environmental Concern" on the Future Land Use Map (Policy 7.3.9)

### **Natural resource areas** *(from the future land use element)*

- Delineate "Natural Resource Protection Areas" as overlays on the Future Land Use Map (pages 34-35)
- A "Conservation Designation" is applied to certain primarily publicly owned natural resource areas on the Future Land Use Map (pages 37-38)
- An "Area of Critical State Concern" overlay on the Future Land Use Map indicates the boundaries of the Big Cypress area of critical state concern (pages 38-39)
- Another overlay indicates "Areas of Environmental Concern," primarily beaches, marshes, hardwood swamps, cypress forests, wet prairies, and low pinelands; this overlay is for informational purposes only and has no regulatory effect (page 40)

Collier County's growth management plan should be expanded to provide the framework for the future greenspace system recommended in this report. Of primary importance are new parks in developing areas and a county-run natural lands program.



## THE FUTURE GREENSPACE SYSTEM

### VISION

Collier County's high quality of life continues to draw visitors and new residents. To ensure that this high quality of life is maintained, this plan proposes a long-range greenspace vision that will:

- Provide useable outdoor open spaces within a 5 minute walk of urban Collier County residents;
- Provide Golden Gate Estates residents a system of recreational greenways and restored flowways;
- Provide access and multi-modal linkages to and between all community green spaces and natural areas;
- Provide large community parks and centers for active and passive recreation within a 15 - 20 minute drive of every resident;
- Protect and restore regionally significant wetlands and flowways;
- Protect habitat and corridors used by Florida panthers and other species listed as endangered, threatened, or "of special concern."

### CHARACTER OF BUILT AND NATURAL ENVIRONMENTS

Collier County can be seen as having five distinct built and natural environments. Moving from west to east, these can be generalized as:

- Traditional neighborhoods (mainly near US 41)
- Suburban planned communities (mainly between US 41 and Collier Boulevard)
- Semi-rural North Golden Gate Estates
- Immokalee
- Rural and agricultural lands

Following is a description of the greenspaces within each "character zone," with implications for the character of the built environment.

**TRADITIONAL NEIGHBORHOODS** (mainly near US 41, but also including Golden Gate City)

Many of these neighborhoods display the desirable traits of traditional neighborhoods, such as calm, pedestrian-friendly streets; mature tree canopies; interconnected sidewalks; small neighborhood parks; and a broad range of well-designed housing types, oriented to the street. Those areas lacking these traits can be retrofitted, over time, through both public and private actions. The County can purchase a cluster of vacant lots or deteriorating homes to create a neighborhood park, for example, or build new sidewalks along existing streets. A private developer can build traditional homes on infill lots, or establish a corner grocery for the neighborhood.



It is important that the greenspaces in these neighborhoods – neighborhood parks, village squares, community gardens, etc. – are developed in such a way as to be compatible with the surrounding neighborhoods, and to be safe and inviting for residents to use. Traditional neighborhood park elements include paved walkways (concrete, pavers, etc.), clipped lawns, shady canopy trees, comfortable benches (with backs), play structures, picnic tables and/or shelters, and fountains or other focal features. Incompatible elements include dense veg-

etation that blocks views into the park, fencing (except low decorative fencing around tot lots), large parking lots or structures, and other harsh or out-of-scale elements.

In traditional neighborhoods, habitat may be provided or restored for urban wildlife species such as songbirds, rabbits and squirrels, but will probably not be sufficient to support threatened or endangered species such as gopher tortoises or scrub jays.

#### **SUBURBAN PLANNED COMMUNITIES** (mainly between US 41 and Collier Boulevard)

Many of the planned communities between US 41 and Collier Boulevard have private neighborhood-oriented open space and recreation facilities for the use of their residents.

Communities wishing to change the character of their green spaces can do so through their neighborhood or community associations without the involvement of the county.



#### **SEMI-RURAL NORTH GOLDEN GATE ESTATES**

Northern Golden Gate Estates (NGGE), with its existing configuration of large platted lots, has a different character than either the urban or rural areas of the county. The greenspace vision would maintain the

current lot/street configuration and build on the existing canals, wetlands, and wooded areas to provide opportunities for social interaction, alternative transportation, recreation, and wildlife habitat.

The backbone of the proposed North Golden Gate Estates open space system is the existing system of canals. These are proposed to be developed into a system of greenways that include bicycle/pedestrian paths as well as habitat for a variety of small wildlife species. The greenways could be created either within the existing canal right-of-ways, if space allows, or possibly through easements along canal banks.



A system of neighborhood parks, approximately 1 - 2 miles apart, would also be created along the greenways. These would not be manicured parks such as those in urban and suburban areas, but would be natural parks, more suited to passive recreation and similar activities such as casual sports and family picnics. Depending on the site, these parks could also serve as neighborhood gathering places or could provide wildlife habitat through the protection of existing vegetation or the restoration of disturbed sites.

Enforcement of existing regulatory requirements and development of new recommended best management practices are other tools that can

be utilized to enhance the character of the North Golden Gate Estates greenspace. Wherever possible, existing wetlands, wooded areas and other open spaces should be preserved, protected and enhanced to maintain the natural character of the area and to provide wildlife habitat. The Greenspace Master Plan identifies historic flowways that would be of particular value as natural forested areas. These flowways could even serve as firebreaks, especially if groundwater levels could be raised and prescribed burns could reduce the fuel loads that build up in the total absence of fire.

### **IMMOKALEE**

The Immokalee Area Master Plan envisions the expansion of Immokalee in accordance with traditional town planning principles, much as outlined in the previous discussion of coastal traditional neighborhoods. An important part of Immokalee's character is its role as this agricultural region's traditional town center rather than an extension of commonplace suburban sprawl.



Immokalee's greenspace system should include neat, well-maintained, high quality parks and recreation facilities to meet residents' needs. The greenspace system also includes its prosperous agricultural belt which can be enhanced with interconnected areas of natural open spaces.

### **RURAL AND AGRICULTURAL LANDS**

The health of Collier County's rural and agricultural lands and the economy they support are very important to the entire county. Unless agriculture ceases to be economically feasible, a mosaic of farmed and forested land, wetlands, and natural preserves can function together to provide a healthy farm economy, wildlife habitat, rural



lifestyles, and open space aesthetics. There is no need for public agencies to acquire and manage active farmland except where needed to restore natural systems or if the county proves unable to successfully balance the demands of farming and protection of the natural environment. The county and private landowners need to work together to ensure the preservation of the most important natural systems while meeting the economic demands of continuing agriculture. It is particularly important that landowners avoid disruptive activities directly adjacent to the conservation greenway corridors to minimize impacts to wildlife.

## COMPONENTS OF THE GREENSPACE PLAN

The proposed greenspace master plan is illustrated conceptually in **Exhibit 14**. It includes the following components:

- Urban open spaces
- Neighborhood parks/school parks
- Community/regional parks
- Sidewalks, bikeways, and trail networks
- Natural lands

The following general recommendations form the basis for implementation of the Greenspace System:

1. Incorporate the Greenspace System plan into the recreation and open space element of the County's Comprehensive Plan and Capital Improvements Program (CIP).
2. Maintain the urban boundary to protect the rural/natural character of east Collier County, and ensure that future land uses are compatible with proposed greenways and natural areas.
3. Complete the neighborhood parks system to provide useable open space within a 5 minute walk of every County resident in the urban areas, and within a 10 - 15 minute walk in the Golden Gate Estates.
4. Provide large community parks and centers for active and passive recreation within a 15 - 20 minute drive (or bike ride) of every county resident in the urban areas.
5. Provide interconnected network of sidewalks, bikeways and transit routes to provide multi-modal access to/between all greenspaces.
6. Provide convenient access to public beaches and waterways for all county residents.
7. Protect and restore regionally significant wetlands and flow ways, as well as habitat/corridors used by Florida panther and other listed (endangered, threatened, special concern) species.

The next section describes each component of the greenspace system and outlines specific recommendations toward the implementation of the system.

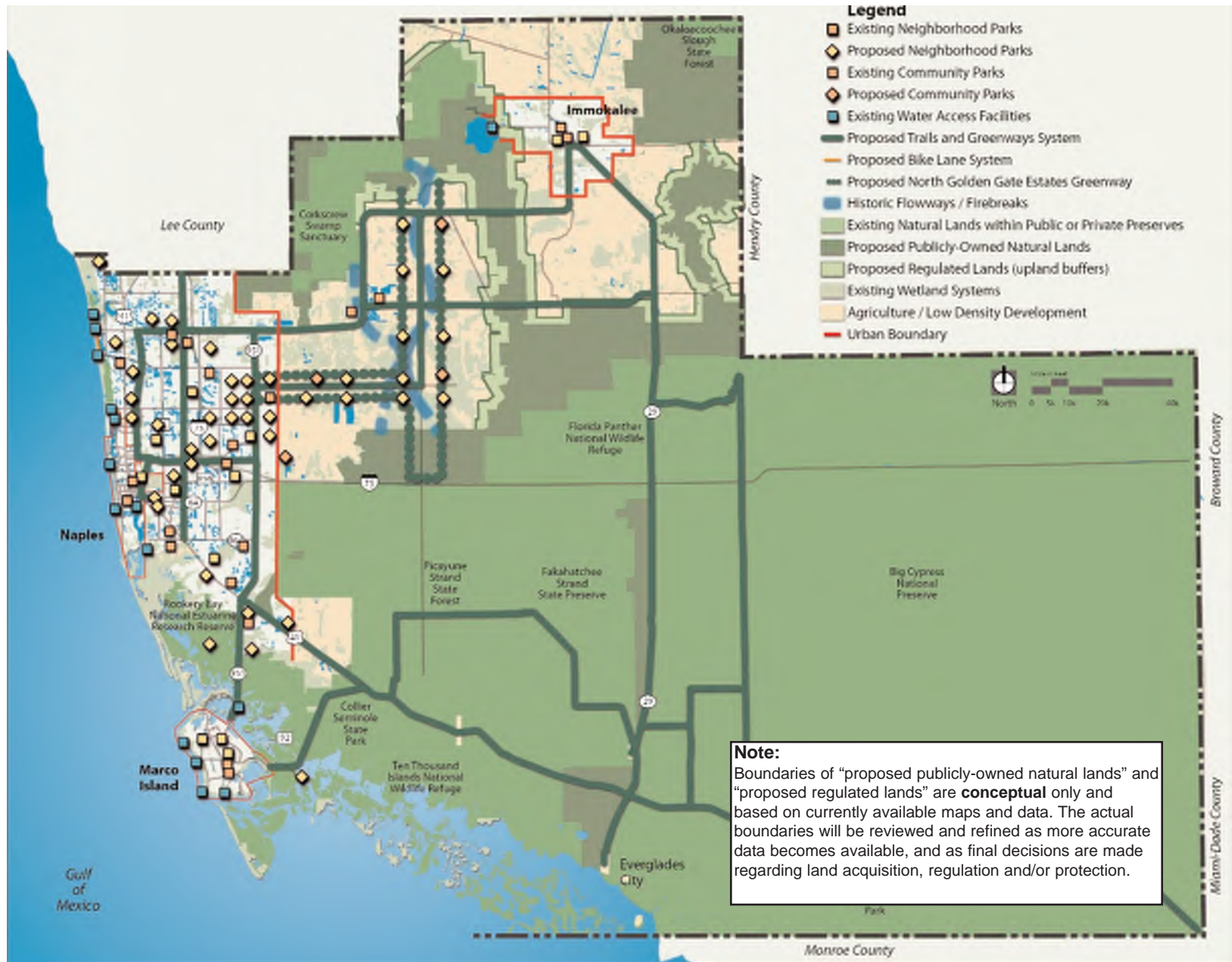


Exhibit 14 - Conceptual Greenspace Master Plan



### URBAN OPEN SPACES

Small urban parks or plazas can be developed in or near town centers to provide a setting for planned and spontaneous community activities and as physical and visual relief from the surrounding buildings and pavement.

Urban open spaces are small "pockets" of public space in an urban area. These spaces are attractive and have safe pedestrian access, are generally one-half acre or less in size, and include urban plazas, gateways, and small urban parks. Some may have simple park furnishings such as park benches, picnic tables, or play equipment.

Cambier Park in Naples is an ideal example of the impact that an attractive urban open space can have on the overall appearance of a city. Currently, there are no true urban open spaces in the unincorporated county. As development continues to intensify throughout the county, the need for urban open spaces - or "people spaces" - will become more evident.

### NEIGHBORHOOD / SCHOOL PARKS

Every Collier County resident living in the urban designated area (generally west of Collier Boulevard) should have access to a neighborhood park within walking distance from home. A neighborhood park is a place where neighbors get together, a place where residents may walk or bicycle to the park within a given neighborhood. Due to the low population density of Golden Gate Estates, neighborhood parks there would be spaced one to two miles apart.

Neighborhood parks can be as large as five acres and may be associated with an elementary or middle school. In older neighborhoods



where existing homes might need to be purchased and demolished to provide land for a neighborhood park, they may be only an acre or less.

### Existing Neighborhood Parks

Collier County's existing neighborhood parks are mainly passive spaces and range from 0.3 acres to the 6-acre Palm Springs Park. They allow diverse recreational opportunities such as playgrounds, picnic areas, court and field games, as well as landscaping and gardens. Existing neighborhood parks include:

1. Aaron Lutz
2. Coconut Circle
3. Copeland Park
4. Corkscrew Elementary/Middle School
5. Dreamland
6. East Naples Tot Lot
7. Rita Eaton Neighborhood Park
8. Immokalee Airport Park
9. Oil Well Park
10. Palm Springs
11. Poinciana Village
12. South Immokalee Park

Also included in the inventory of neighborhood facilities are several schools:

1. Big Cypress Elementary School
2. Naples Park Elementary School
3. Vineyards Elementary School

### **Potential Neighborhood Parks**

Potential neighborhood park sites have been identified within existing neighborhoods that are not currently served (see the Greenspace Master Plan, Exhibit 14). These sites include 16 new parks in the urban areas of the county and the potential for up to 14 in Golden Gate Estates, ensuring that as neighborhoods are fully built, residents will have neighborhood parks available. Total costs for the neighborhood parks are estimated at approximately \$12.3 million over the next twenty years, assuming that all of the sites must be purchased and developed. This estimate assumes a cost of approximately \$380,000 per park for land acquisition, design and construction of each facility. Costs can be reduced significantly, however, by utilizing existing County/school/church sites, joint-use agreements, grants, and donated land. Private funding can be leveraged by using county funds as matching grants for local contributions; or special assessments can be charged to neighborhood residents. This plan assumes that through these methods, the county's average cost can be reduced to \$250,000 per neighborhood park

### **GENERAL RECOMMENDATIONS ON NEIGHBORHOOD PARKS**

Neighborhood parks should be integral parts of new neighborhoods, designed and built with other essential public facilities rather than being retrofitted years later. Where this has not taken place, neighborhood parks can still be created; Collier County can purchase a suitable

site and develop the park itself or through a partnership with the school board or another entity.

Collier County can purchase land for neighborhood parks using its property or other general taxes, grants, and special taxing districts. Although national standards suggest five acres for each neighborhood park, it is more realistic in developed urban areas to acquire smaller sites, as small as two to four building lots. This can be accomplished over time, as vacant lots or homes come on the market in a targeted area, or as owners express a willingness to sell.

Many communities are successfully partnering with elementary schools and churches to plan or upgrade recreational facilities and make them available to the public. Generally the school or church provides the land, the county upgrades or constructs the facilities, the two entities negotiate maintenance responsibilities, and public hours of operation are discussed and posted.

A requirement to include neighborhood parks in new land developments can be placed in the county's land development regulations, or developers can be required to simply dedicate a suitable vacant site. Collier County's land development code currently states that dedications of park and school sites may be required through the PUD process (§2.2.20.3.7), but this has not occurred as standard practice because for many years new neighborhood parks have not been a priority of Collier County.

Impact fees could also be charged to pay for neighborhood parks that would be built by Collier County. Presently, the County charges a park

impact fee for all new development, but those funds are used mainly for community and regional parks, not neighborhood parks (as the impact fee ordinance is currently written). With most new development occurring in planned communities that already provide their own neighborhood recreational facilities, there would be serious problems in establishing a separate impact fee to build only neighborhood parks in already developed areas. Therefore, in undeveloped areas, emphasis should be placed on the development of neighborhood parks as a developer responsibility at the time of new development.

Collier County has been creating one new neighborhood park per year through its Neighborhood Parks Assistance Program using \$100,000 in property taxes from the general fund to buy land and \$95,000 in community park impact fees for improvements. At the rate of one park per year, it would take 16 years to correct the backlog of neighborhood parks described in this plan, not including any neighborhood parks in Golden Gate Estates. To speed up this process, the county should allocate \$500,000 each year to the Neighborhood Park Assistance Program to acquire and improve land for two neighborhood parks per year, in the approximate locations shown on the Greenspace Master Plan. (Some grant funds are available to construct park improvements, but they rarely can be used for site acquisition.)

All new parks will result in additional operational and maintenance costs. At present, Collier County operates its parks using a property tax that is levied only on land in the unincorporated area. If neighborhood park expansions outpace the natural growth in those property tax revenues, this expansion program will have to be slowed down or other recurring revenues will have to be allocated to neighborhood parks.

Many existing neighborhoods do not have organized associations, and new neighborhood parks should be seen as a critical component of the county's redevelopment/infrastructure initiatives. Often the county can generate multiple benefits through the development of a neighborhood park, such as the removal of derelict housing; additional areas for stormwater storage; improvement of neighborhood appearance; improved resident safety and security; creation/enhancement of neighborhood identity and spirit; and opportunities for new social/recreation programs. Through such joint efforts, additional funding may be available to the County.

County staff members specializing in parks, public works, and planning should meet with school board planners to carefully review the proposed neighborhood park locations on the Greenspace Master Plan and to develop a coordinated strategy to acquire land in the selected areas over the next several years. Actual park improvements can be phased thereafter as funds become available.



Year 2000-2001	Lead Responsibility	Funding Source(s)
Amend the growth management plan as described above.	Planning Services	(staff time)
Include the parks staff in the development review process.	Planning Services	(staff time)
Amend the capital improvements program as described above.	Parks / Rec. Dept.; OMB	General Fund
Inventory and analyze school and church sites to determine accessibility and suitability for neighborhood parks.	Parks / Rec. Dept.	(staff time)
Contact school board and churches regarding their interest/willingness to develop joint-use neighborhood parks.	Parks / Rec. Dept.; School Board	(staff time)
Identify vacant/candidate sites for new neighborhood parks, (including those in North Golden Gate Estates) as shown on Greenspace Plan.	Parks / Rec. Dept.; Planning Services; School Board	(staff time)
Upgrade existing school/park/church facilities to meet neighborhood "standards."	Parks / Rec. Dept.; School Board	Grants; General Fund
Continue the joint planning of new school/park facilities to serve as neighborhood parks.	Parks / Rec. Dept.; School Board	(staff time)
Evaluate the existing interlocal agreement between the county and the school board; create a new interlocal agreement for joint development of additional facilities.	Parks / Rec. Dept.; School Board	(staff time)
Develop a "parks & schools buildout plan" with detailed costs and a specific financial strategy, which might include a referendum to raise funds to accelerate park construction.	Parks / Rec. Dept.; Consultants	(staff time)
Survey neighborhood residents to determine neighborhood park needs (for both new and redeveloped facilities).	Parks / Rec. Dept.; Consultants	(staff time); General Fund
Amend the land development code as described above.	Planning Services	(staff time)
<b>Year 2002-2005</b> Improve existing neighborhood parks to meet the needs of area residents.	Parks / Rec. Dept.	General Fund; Grants; Partnerships
Begin acquiring land for all proposed neighborhood parks.	Parks / Rec. Dept.	General Fund; Grants
Develop park master plans and begin improvements on half of proposed neighborhood parks	Parks / Rec. Dept.; Consultants	General Fund; Grants
Fund additional staff for new neighborhood and school parks.	Parks / Rec. Dept.	Unincorporated; MSTD
<b>Year 2006-2010</b> Develop park master plans and begin improvements on the remainder of the neighborhood park system as shown on the greenspace plan.	Parks / Rec. Dept.; Consultants	General Fund; Grants; Partnerships
Fund additional staff for new neighborhood and school parks.	Parks / Rec. Dept.	Unincorporated; Grants

## NEIGHBORHOOD PARKS

### SETTING THE COURSE

Small parks make ideal centers for neighborhoods. Collier County should require neighborhood parks in new neighborhoods and should increase its existing program that creates small parks in existing neighborhoods.

### GETTING THERE

#### Growth Management Plan

- a. Add a new goal to the recreation and open space element supporting a neighborhood park goal to complete the neighborhood park system in order to provide useable open space within a five-minute walk of residents in urban areas.
- b. Add an achievable objective to the recreation and open space element that can be used to measure progress toward this goal. Measures might include: park sites identified; park sites acquired; park improvements installed; expenses incurred for neighborhood parks; etc.
- c. Add new policies to the recreation and open space element about the following activities:
  - i. Require recreational or civic facilities in all new residential developments.
  - ii. Carefully site new neighborhood parks for maximum integration into existing neighborhoods and/or in conjunction with schools, churches, or other recreational facilities.
  - iii. Include a map showing generalized locations for proposed neighborhood parks over the coming ten years.
  - iv. Increase the current public funding level for the Neighborhood Park Assistance Program.

#### Land Development Code

- a. Amend the land development code to require recreational or civic facilities in new neighborhoods; these facilities can be privately owned and maintained, or can be a publicly owned neighborhood park if the location and design is approved by Collier County.

#### Capital Improvements Program

- a. Beginning in Fiscal Year 2001-2002, allocate \$500,000 annually for the Neighborhood Park Assistance Program to begin funding two new neighborhood parks per year. (Current-year funding for this program comes from the county's general fund, part of about \$8 million traditionally allocated to capital improvements. This \$8 million is fully allocated for FY 2001-2002, but has only been partially allocated for the remainder of the five-year capital improvements program.)



### COMMUNITY/REGIONAL PARKS

Collier County's goal should be to provide its residents with a 50-acre or larger community/regional park within a 15 to 20 minute drive from their homes. These are multi-purpose parks that include recreation centers, athletic fields and courts, swimming pools, and other facilities for all age groups. At least 50% of each park should remain in passive open space (lawns, natural areas, lakes) to provide opportunities for passive recreation such as picnicking, walking, nature study, sunning, etc.

Community and regional parks constitute the majority of existing parks within Collier County. In response to resident needs, Collier has aggressively expanded its community park system. Recently, the county secured 208 acres south of Immokalee Road near I-75 to serve as the county's largest regional park. In addition, 7 acres were added adjacent to Golden Gate Community Center. The county is in the initial design phase at both locations. Max A. Hasse Jr. Community Park's Community Center is also in the design phase with a projected opening in October 2001, and the county recently dedicated the new Eagle Lakes Community Park in South Naples.

#### Existing Community Parks

1. Eagle Lakes Community Park
2. East Naples Community Park
3. Golden Gate Community Center
4. Golden Gate Community Park
5. Gulf Coast Community Park

6. Immokalee Community Park
7. Immokalee Sports Complex
8. Max A. Hasse Jr. Community Park
9. Pelican Bay Community Park
10. Tony Rosbaugh Community Park
11. Veterans Community Park
12. Vineyards Community Park

#### Existing Regional Parks

1. North Naples Regional Park (site acquired but not yet developed)
2. Sugden Regional Park

#### Potential Regional Parks

Three additional community park sites have been identified on the Greenspace Master Plan (**Exhibit 14**). Community parks should be developed in these general locations, plus on the additional site recently purchased by Collier County. Construction of these parks will necessarily be phased over time. Total costs for the community parks are estimated at approximately \$22.5 million. This estimate assumes a design and construction cost average of about \$5,450,000 per park.

### GENERAL RECOMMENDATIONS ON COMMUNITY PARKS

Collier County charges a park impact fee for all new development. It charges each new dwelling unit in the unincorporated area \$821 for community parks, and all dwelling units in the county \$250 for regional parks. These funds are dedicated solely for park acquisition and development. Last year Collier County collected park impact fees

of \$5,700,000 from the unincorporated area and \$175,000 from the cities. As acquisition and construction costs increase, the fee schedule for impact fees should be adjusted accordingly.

The county can also use other revenue sources to build community parks, including grants and property taxes. Many counties and cities borrow funds to build community parks, or establish special taxing districts for this purpose.

All new parks will result in additional operating and maintenance costs. At present, Collier County operates its parks using a property tax that is levied only on land in the unincorporated area. If community park expansions outpace the natural growth in those property tax revenues, this expansion program will have to be slowed down or other recurring revenues will have to be allocated.

Some partnerships can be developed with the school board to develop joint middle and high school community parks, but the logistics are much more difficult than elementary schools because middle schools and high schools program their facilities so heavily already, and security is much more difficult to maintain.

As suggested for neighborhood parks, county staff members specializing in parks, public works, and planning should meet with school board planners to carefully review the proposed community park locations on the Greenspace Master Plan and to develop a coordinated strategy to acquire land in the selected areas over the next several years. Actual park improvements can be phased thereafter as impact fees become available.

Year 2000-2001	Lead Responsibility	Funding Source(s)
Amend the growth management plan as described above.	Planning Services.	(staff time)
Amend the capital improvements program to begin acquiring three community park sites as described above.	Parks / Rec. Dept.; OMB	Impact Fees
Amend the capital improvements program to begin developing additional community parks as described above.	Parks / Rec. Dept.; OMB	Impact Fees
Inventory and analyze private neighborhood parks and school/church sites to determine their suitability to serve neighborhoods.	Parks / Rec. Dept.; School Board	(staff time)
Continue the joint planning of new school/park facilities to serve as community parks.	Parks / Rec. Dept.; School Board	(staff time)
Create a new interlocal agreement between the county and the school board for joint development of additional facilities.	Parks / Rec. Dept.; School Board	(staff time)
Identify potential sites for three additional community parks as shown on the greenspace plan.	Parks / Rec. Dept.	(staff time)
Develop a "parks & schools buildout plan" with detailed costs and a specific financial strategy, which might include a referendum to raise funds to accelerate park construction.	Parks / Rec. Dept.; Consultants	(staff time)
Year 2002-2005		
Acquire additional land contiguous to existing community parks where needed for expansion.	Parks / Rec. Dept.	CIP, Bonds, Grants, Impact Fees
Develop park master plans and construct two community parks as shown on the greenspace plan.	Parks / Rec. Dept.; Consultants	General Fund
Fund additional staff for new community and school parks.	Parks / Rec. Dept.	Unincorp. MSTD
Year 2006-2010		
Develop park master plans and construct final two community parks as shown on the greenspace plan.	Parks / Rec. Dept.; Consultants	CIP, Bonds, Grants, Partnerships
Fund additional staff for new community and school parks.	Parks / Rec. Dept.	Unincorp. MSTD

## COMMUNITY PARKS

### SETTING THE COURSE

Collier County needs four more community parks to serve its residents. Sites for three of these parks have not yet been selected. These sites should be selected and purchased in the very near future, and all four parks should be constructed as quickly as recreation impact fees become available.

### GETTING THERE

#### Growth Management Plan

- a. Add a new goal to the recreation and open space element supporting a community park goal to provide large community parks for active and passive recreation within a 15 - 20 minute drive of residents in urban areas.
- b. Add an achievable objective to the recreation and open space element that can be used to measure progress toward this goal. Measures might include: park sites identified; park sites acquired; park improvements installed; expenses incurred for community parks; etc.
- c. Add new policies to the recreation and open space element about the following activities:
  - i. By 2006, acquire three additional community park sites in the general locations shown on the greenspace master plan, with sufficient land to allow 50% of each site to remain as passive open space.
  - ii. Design and construct four new community parks as quickly as impact fees become available.
  - iii. Consider available options for combining community parks with new or existing schools.
  - iv. Regularly update the recreation and open space impact fee rates to match increases in land and construction costs.

#### Capital Improvements Program

- a. Beginning in Fiscal Year 2001-2002, schedule the acquisition of one community park site every two years so that all three needed sites will be available in advance of demand (funding source: recreation and open space impact fees).
- b. Also beginning in Fiscal Year 2001-2002, schedule the design and construction of four additional community parks in accordance with anticipated recreation and open space impact fee collections.



### **LINKAGES (SIDEWALKS, BIKEWAY, TRAILS, AND TRANSIT)**

An interconnected system of concrete sidewalks, on-street bike lanes, and both paved (asphalt) and unpaved (mulch, shell, grass, lime rock, etc.) trails should be developed for both recreation and transportation. Residents may use the system to commute from their home to work or school, or drive to strategically located trailheads for recreational bike riding, walking, or skating. Once completed, this system would allow residents to walk, skate, or bicycle between the county's parks and natural lands. In some areas of the county it will not be feasible to provide connections between segments of sidewalks, bikeways, or trails. A good county public transit program can bridge the gap, especially if transit vehicles are equipped with bicycle racks.

The countywide interconnected system of pedestrian-friendly facilities should include shaded sidewalks in all neighborhoods, safe facilities for bicycle use, and improved safety at pedestrian crosswalks. The system of sidewalks and bikeways should connect neighborhoods to town centers, parks, public buildings, and natural areas. The benefits of an interconnecting alternative transportation system include:

- Improved safety for pedestrians and cyclists
- Less dependence on cars and other motorized travel
- Better air quality
- Improved quality of life for residents

### **GENERAL RECOMMENDATIONS ON LINKAGES**

Shaded sidewalks are needed within neighborhoods along residential

streets, especially near schools and commercial areas. Consistent with the proposed improvements in the county's Pathway Plan, multi-purpose sidewalks will be constructed along major roadways. These walkways can accommodate cyclists, walkers, joggers, and skaters. The design of these paths should also include "trailheads" consisting of a bike rack, water fountain and possibly a pavilion.

Opportunities exist in the urbanized areas for the creation of an urban "greenways" network along existing major canal banks and existing major power easements. These greenway corridors could be developed with a wide multipurpose path as well as landscaping and other amenities, such as drinking fountains, air stations, etc. The location of these multipurpose paths within the developed areas created unique opportunities to connect to local businesses, schools, and neighborhoods, as well as create a meaningful outdoor recreation experience.

A multi-purpose looped path could be created in the Golden Gate Estates area. This path, which would allow for safe pedestrian, bicycle, and jogging within Golden Gate Estates, could be routed along the major canal system. These paths would be a major recreation amenity as well as allowing for the safe movement of residents.

Total costs for a County-wide system of bikeways and trails are estimated at approximately \$32 million over the next twenty years. It is anticipated that many of the proposed segments along road rights-of-way can be constructed as part of proposed roadway improvement plans. Typical greenway segments consisting of paths on average of 8'-14' in width typically run about \$200,000 per mile. As an example, the cost of completing the approximately 50 miles of the Golden Gate Estates Greenway could cost up to \$10,000,000.



Year 2000-2001	Lead Responsibility	Funding Source(s)
Amend the growth management plan as described above.	Planning Services	(staff time)
Continue to implement the county's Pathway Plan by including its proposals in the county's capital improvements program.	Transportation Dept.	Gas Taxes; Grants
Modify the land development code to require community interconnectivity through pedestrian/bicycle facilities and meandering off-road pathways.	Planning Services.	(staff time)
Design desirable buildout typical sections in ROW manual, including separated sidewalk/path, off-street and on-street bicycle facilities where appropriate.	Transportation Dept.	(staff time)
Consider aesthetics in future transit develop (i.e., shade, benches, lighting) at transit stops, in transportation projects.	Transportation Dept.	(staff time)
Include landscaping in standard cost of construction (i.e., not as optional or an afterthought).	Transportation Dept.	(staff time)
Inventory existing easements and rights-of-way available for pathway improvements (e.g., canals, power lines, greenways).	Transportation Dept/MPO/Consultant	(staff time)
Create neighborhood and regional connection opportunities plans.	MPO's citizen committee	(staff time)
Refine plan through interdepartmental and agency task force.	County Appointments	(staff time)
Prioritize available grant funds (i.e., Collier County TEA-21 funds) towards priority projects.	MPO; Citizen committee	(staff time)
Establish public-private partnerships for developing and sustaining funding.	MPO, SFWMD etc., SW FL Land Preservation Trust, Naplescape, others	(staff time)
Combine stormwater, roadway, utility and landscaping functions while improving public roads.	Transportation Dept.	(staff time)

Year 2002-2005		
Develop the landscape treatments, multi-purpose sidewalks – and possibly bicycle lanes – identified in the county's Pathway Plan.	Transportation Dept.	Gas Taxes; Grants
Continue construction of sidewalk improvements countywide.	Transportation Dept.	Gas Taxes; Grants
Designate the north-south power easement through eastern Naples as a "greenway."	Transportation Dept.	(staff time)
Designate the major north-south canal through eastern Naples as a "greenway."	Transportation Dept.	(staff time)
Allocate funding within the CIP for improvements to the power easement and canal greenways.	Transportation Dept.	General Fund; Grants
Allocate funding within the CIP for the creation of the North Golden Gate Estates greenways.	Transportation Dept.	General Fund; Grants
Encourage the planting of street trees within neighborhoods through neighborhood/partnership agreements including the efforts of the city of Naples' tree planting program.	Transportation Dept.	General Fund; Grants Partners
<b>Year 2006-2010</b>		
Continue to partner with local businesses, neighborhoods, and service organizations to complete a continuous canopy of shade trees throughout the county.	Natural Resources; Transportation Dept.	General Fund; Grants Partnerships
Coordinate all long-term roadway improvements on state roads with FDOT to ensure compliance with Collier County's vision.	Transportation Dept.	(staff time)
Implement construction of trails within the power easements, canal ROWs, and North Golden Gate Estates.	Parks / Rec. Dept.	General Fund; Grants Impact Fees; Partnerships

## LINKAGES

### SETTING THE COURSE

Collier County has a pathway plan to build sidewalks, bike paths and lanes. The plan should be fully funded and include shade trees and design features suitable for pedestrian comfort and safety in relation to the adjacent roadway type and land uses. Shaded sidewalks are also needed within neighborhoods, especially near schools and shopping. In addition, an interconnected system of sidewalks, bike lanes, and trails should be developed for both recreation and transportation.

### GETTING THERE

#### Growth Management Plan

- a. Amend Objective 4 of the transportation element to provide an objective measure of progress toward the goal of providing an interconnected network of sidewalks, bikeways and transit routes to provide multi-modal access to/between all greenspaces. Measures might include miles of sidewalks, bikeways, and trails constructed.
- b. Modify Policy 4.4 to ensure that the five-year pathway work program is funded through the five-year capital improvements program.
- c. Add new policies about the following activities:
  - i. Encourage shaded sidewalks along residential streets, especially near schools and commercial areas.
  - ii. Explore the creation of an urban greenway network along existing major canal banks and powerline easements.

#### Land Development Code

- a. Amend the land development code to require community interconnectivity through pedestrian/bicycle facilities and meandering off-road pathways.

#### Capital Improvements Program

- a. Beginning in Fiscal Year 2001-2002, include all projects on the five-year pathway work program in the county's five-year capital improvements program.



## BEACH AND BAY ACCESS FACILITIES

Collier County's sparkling beaches and waterfront homes are one of the main attractions for residents and visitors. Access to the Gulf of Mexico, the Ten Thousand Islands, and surrounding estuarine waters provide numerous recreation opportunities. Fishing, diving, and cruising are extremely popular recreational activities for residents and visitors. It is critical that access to Collier County's natural assets be preserved as the County continues to grow.

### Existing Facilities

1. Barefoot Beach County Park
2. Barefoot Beach Beach Access
3. Clam Pass County Park
4. North Gulf Shore Boulevard beach
5. Tigertail Beach County Park
6. South Marco Beach
7. Vanderbilt Beach County Park
8. Bayview Park
9. Caxambas Bay
10. Cocohatchee River Park
11. Lake Trafford Park
12. State Road 951 Boat Ramp

There are additional public and private marinas within Collier County that offer a variety of amenities and services to visitors and residents.

## GENERAL RECOMMENDATIONS ON BEACH AND BAY ACCESS

Collier County is blessed with beautiful beaches, but there is a severe shortage of access points for the public. For instance, a single county park at Vanderbilt Beach is forced to provide access to several miles of public beachfront, which is inconvenient to beach users and causes severe traffic problems and neighborhood impacts to those living near the park.

The county should aggressively investigate opportunities to provide additional water access, especially to the beaches along the Gulf of Mexico. Alternatives include acquiring vacant parcels or easements across privately owned properties. In some cases, an access point might be available but not have sufficient land to provide parking; frequent public transit could be provided from locations with surplus parking (such as underused shopping centers).

Total costs for improving existing water access facilities (boat ramps, picnic areas, boardwalks, etc.) are estimated at approximately \$600,000. This does not include the costs of acquiring new access points; however, the County needs to investigate the feasibility of providing additional access points in order to refine the estimated costs.



Year 2000-2001	Lead Responsibility	Funding Source(s)
Amend the growth management plan as described above.	Planning Services.	(staff time)
Identify alternatives to relieve parking congestion at the beaches, including the purchase of additional public access points.	Parks / Rec. Dept.	(staff time)
Identify existing or new parking facilities that could be linked to beach access points by public transportation.	Parks / Rec. Dept.; Transportation Services Dept.	(staff time)
Survey boat ramp and beach users to determine specific needs; willingness to pay user fees; and other information needed to make informed decisions.	Parks / Rec. Dept.	(staff time)
Identify opportunities to provide additional beach/bay access within easy walking/bicycle distance of residents.	Parks / Rec. Dept.	(staff time)
Year 2002-2005		
Upgrade beach access parks by providing higher quality/ additional facilities and amenities, including additional parking or public transportation.	Parks / Rec. Dept.	General Fund; Grants Tourist Tax
Year 2006-2010		
Acquire and/or negotiate easements or out-parcels of land for public /beach/water access as properties become available.	Parks / Rec. Dept.	General Fund; Grants Tourist Tax

## BEACH AND BAY ACCESS

### SETTING THE COURSE

Collier County is blessed with beautiful beaches, but there is a severe shortage of public access. A single park at Vanderbilt Beach provides access to several miles of beachfront. The county should aggressively pursue additional access, either by acquiring land for a new park, or through access easements.

### GETTING THERE

#### Growth Management Plan

- a. Expand Objective 10.2 of the conservation and coastal management element to include a measure of progress toward increasing public access to the beaches and waterways of Collier County. Measures might include: additional access points acquired in fee simple or by easement; access improvements installed, including parking lots; and public transit provided to access points.
- b. Add new policies under this objective about the following activities:
  - i. Aggressively seek additional public access points to the Gulf beaches.
  - ii. Expand public transit to provide regular service from parking facilities to beach access points.



## NATURAL LANDS

An improved system of natural lands would protect Collier County's incredible natural resources while also providing opportunities for recreation and tourism. The greenspace plan provides a conceptual plan that would target lands for acquisition or protection based on the following specific objectives:

- Protect targeted wetlands and uplands
- Preserve and enhance biological diversity
- Protect the habitat and corridors for the Florida panther and other listed species
- Protect rare or unique habitats
- Protect the quality of surface water and aquifers
- Protect watersheds
- Protect scenic views
- Provide opportunities for passive recreation and tourism

The proposed north-south greenways in the central and eastern areas of the county connect the Florida Panther National Wildlife Refuge and other public lands to the south with the protected lands in northwestern Collier County and southern Lee County. The greenways follow natural drainage patterns, and are comprised of both wetlands and upland buffers. The greenways are ideally a mile or more wide, with a minimum 3,000-foot-wide "core reserve" area, and adjacent minimum 1,000-foot-wide buffer zone on both sides of the "core reserve." Both the core reserve and the buffer zones need to be revegetated, wherever necessary, with native vegetation, including pine flatwoods, hammocks, and wet prairies to provide adequate habitat for panthers, deer, and other mammals. The buffer zones will separate development activities from the core reserve area and must accommodate wildlife movement.

## GENERAL RECOMMENDATIONS ON NATURAL LANDS

Public agencies do not need to purchase all of the natural land protection zones shown on the greenspace plan in order to protect those lands. Other protection techniques include stricter land-use regulations, management agreements, purchase of development rights, tax incentives and donations. This plan has not examined whether stricter regulations might provide the protection that is needed for sensitive natural lands.

However, a county-run public acquisition program could complement lands already protected by public ownership, and could greatly enhance passive recreational opportunities. Valuable regional water recharge areas, flowways and wildlife habitat could be much better protected with a fairly modest expansion of existing public lands. Existing preserves could be connected to other outstanding natural resources or expanded to match natural boundaries that may have been overlooked when the preserves were originally created. The greenspace master plan has identified the most important additional land that would benefit from public ownership; it includes considerably more land than could be acquired by Collier County acting on its own.

A successful county-run land acquisition program would require funds beyond those available from current taxes. Elected officials are typically reluctant to raise taxes for anything that might be deemed non-essential, yet in recent years voters across the country have strongly supported new taxes to preserve open spaces and wildlife habitat (see data on recent special taxes approved last year by Florida voters).

*Voters overwhelmingly approved ballot measures to fund open space protection in 2000, according to the Land Trust Alliance, which has gathered the results of such elections for the past three years.*

*Land Trust Alliance data show that 167 of 204 such ballot questions passed in 2000, providing more than \$7 billion for land conservation. In most of these referenda, voters approved tax increases to pay for land conservation.*

*The 2000 results reflect voters' continuing support for open space protection.*

*In 1999, voters passed 90 percent of the 102 referenda, authorizing more than \$1.8 billion in local taxing authority and bonds for open space preservation.*

*In 1998, voters passed 84 percent of 148 referenda across the country, providing approximately \$8.3 billion to open space protection.*

**YEAR 2000 FLORIDA RESULTS:**

*Alachua County, 11/7/00, Open space acquisition, \$29,000,000, Passed  
Boca Raton, 3/14/00, Land acquisition & recreation, \$30,000,000, Passed  
Broward County, 11/7/00, Land acquisition & other, \$400,000,000, Passed  
Jacksonville, 9/5/00, Part of sales tax for land acquisition \$50,000,000, Passed  
Leon County, 11/7/00, Part of sales tax for land acquisition, \$400,000,000, Passed  
Seminole County, 11/7/00, Part of bond issue for open space, \$25,000,000, Passed  
Volusia County, 11/7/00, Property tax for land acquisition, \$40,000,000, Passed  
West Palm Beach, 3/14/00, Bond issue for parks, \$20,000,000, Passed*

*- Nov. 15, 2000, Land Trust Alliance, Washington, D.C.*

In 1996, a similar referendum was defeated in Collier County, and as a result there has been considerable reluctance to approach local voters again. As a practical matter, the Collier County Commission can provide valuable assistance to local environmental and business groups and private citizens who have already begun to explore the potential for a conservation lands acquisition program. Questions that need to be answered include:

- What funding source would be most appropriate (ad valorem property tax or sales tax)?
- What level of taxation should be proposed?
- Should land be acquired on a pay-as-you-go basis, or should funds be borrowed to speed up acquisitions?
- What type of lands should be the highest priority for purchase?
- Should specific types of lands (or specific parcels) be identified prior to a referendum?
- How many decisions on what land should be purchased should be made before a referendum, and how much flexibility should be retained until later?
- What degree of recreational activities should be allowed on purchased land (passive vs. active)?
- Would Collier County be wise to make joint purchases with state and federal agencies?
- How would the perpetual maintenance of natural lands be funded?

It would be very helpful for county government to assist this grass-roots movement to develop, with county staff involvement, in order to propose the most viable land acquisition program possible, because a technically sound proposal that will also meet with strong public support would be needed for a referendum to succeed at the polls.

If a referendum is not held in Collier County, or is not approved by the voters, there are still opportunities to expand the existing natural preserves. The State of Florida has active land acquisition programs and has increased funding for them through the new "Florida Forever" initiative, which funds the existing Florida Communities Trust, Conservation and Recreational Lands (CARL), and Save Our Rivers programs. Because these programs have a statewide focus, they would never be able to replace a successful local acquisition program; however, they respond to their perception of what local communities want, and in the past Collier County has been less than supportive of their efforts and sometimes even antagonistic. With a reversal of that attitude, additional funds may become available for natural lands preservation in Collier County.

Some other opportunities are available for acquiring land. Environmental agencies sometimes accept mitigation funds for unavoidable damage to wetlands. These funds can be used within Collier County if suitable lands have been identified in advance for purchase and/or restoration.

If public agencies were to acquire all of the approximately 120,000 acres of lands identified on **Exhibit 14**, at an average cost of \$3,000 per acre, then the total estimated cost would be \$366 million. Obviously, the costs can be reduced significantly by utilizing the alternative resource protection techniques discussed above, and by leveraging acquisition funds through state and private partnerships.

Year	Lead Responsibility	Funding Source(s)
Year 2000-2001		
Amend the conservation and coastal management element of growth management plan as described above.	Planning Services.	(staff time)
Conduct a natural lands workshop for the County Commission, including the Environmental Advisory Council, Planning Commission, Select Committee on Community Character, and other stakeholders.	Natural Resources; Conservancy of Southwest Florida	(staff time) Private donations
Conduct a poll of citizens as to determine their willingness to support a referendum to acquire natural lands.	Conservancy of Southwest Florida	Private donations
Approach major landowners to determine availability of land for acquisition.	Citizens' committee	Private donations
Suggest general priorities for a county land acquisition program, including land to be acquired (such as core greenways land and land that is contiguous to existing natural lands, as shown on Exhibit 18); type of funding (ad valorem vs. sales tax); and use of funds (bonding vs. pay-as-you-go).	Citizens' committee	Private donations
Consider placing a referendum on the ballot to establish a special tax to fund a natural lands acquisition program	County Commission (upon request by citizens' committee)	Ad valorem or sales tax; Private donations
Prepare formal outline of land acquisition criteria and identify alternative funding sources and acquisition techniques/roles.	Natural Resources; Citizens' committee	(staff time) Private donations
Conduct a program to inform voters about the merits of a natural lands acquisition program.	Citizens' committee	Private donations
If voters approve the referendum, determine the county's exact role in negotiations and real estate closings, considering potential advantages of all alternatives including a staff function; local real estate agencies; or non-profits groups such as Trust for Public Land, Nature Conservancy, Conservancy of SW Florida, local land trusts, etc.	Natural Resources; Citizens' committee	(staff time) Private donations
Year 2002-2005		
If voters approve the referendum, prioritize land for acquisition on a parcel-by-parcel basis and begin negotiations with landowners.	[acquisition agency]	Referendum proceeds
Initiate land management activities to restore and preserve acquired lands.	Natural Resources	Referendum proceeds
Whether or not a referendum is approved, seek acquisition funding from state and federal sources; identify lands to be acquired by others; generate letters of support for acquisition.	Natural Resources; Conservancy of Southwest Florida	(staff time) Private donations
Work with private landowners to develop "best management practices" for privately owned buffers along "core" greenway lands.	Natural Resources; Conservancy of Southwest Florida	(staff time) Private donations
Year 2006-2010		
Continue land acquisition.	[acquisition agency]	Referendum proceeds
Continue land management activities.	Natural Resources	Referendum proceeds

## NATURAL LANDS

### SETTING THE COURSE

Voters in many communities enthusiastically support special taxes to set aside valuable natural lands. A similar program in Collier County could connect existing preserves and improve recreational opportunities, as suggested in the Greenspace Master Plan. County government should assist the citizens' movement that is exploring this idea and should place a referendum before the voters if a sound proposal results from that process.

### GETTING THERE

#### Growth Management Plan

- a. Add a new goal to the conservation and coastal management element supporting the acquisition of additional property rights where needed to protect regionally significant wetlands and flowways and to preserve habitats and corridors essential to the survival of the Florida panther and other listed species (endangered, threatened, special concern).
- b. Add an achievable objective that can be used to measure progress toward this goal. Measures might include: holding a referendum on funding sources; number of acres of natural lands purchased and protected; or number of acres of natural lands that other public agencies are able to protect within Collier County.
- c. Add new policies about the following activities:
  - i. COUNTY LAND ACQUISITION:
    1. If presented with a credible proposal from a citizens'

group, place a referendum on the ballot for a county-run program to acquire and manage natural lands.

2. If approved by voters in a referendum, establish a county-run land-acquisition program and manage those lands in their natural state.

#### ii. ACQUISITION BY OTHER AGENCIES:

1. Formally express support for legitimate efforts by other government agencies or non-profit entities to acquire lands for preservation purposes, including the use of less-than-fee acquisitions for the same purpose.

#### Financing Issues

- a. If a land-acquisition referendum is approved by the voters:
  - i. Dedicate a portion of the proceeds for restoration and continuing maintenance of acquired land.
  - ii. Commit the remainder of the proceeds through the county's capital improvements program for the sole purpose of acquiring natural lands.
- b. If a land-acquisition referendum is not held or not approved by the voters:
  - i. Seek whatever acquisition funding can be obtained from state and federal sources.
  - ii. Work with private landowners to develop "best management practices" for privately owned buffers along "core" greenway lands.

# Implementation

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2. ADVISORY COMMITTEES	Page 5.3
3. GROWTH MANAGEMENT PLAN	Page 5.3
4. LAND DEVELOPMENT CODE	Page 5.12
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## INTRODUCTION

The process of building communities of character will be the ultimate public-private partnership; individuals, developers large and small, and multiple government agencies will all make investments. The private dollars expended will greatly exceed the public ones. For their part, the development industry will have to seize the opportunity to regain the public trust and confidence, by building better places and more functional communities as the norm. If citizen activists, political leaders, and environmentalists want communities of character, they will either need to work collaboratively with the developers already active in Collier County to get them to try something new, or recruit developers from elsewhere who have demonstrated their skill at creating better places, or both. This will be much easier if the adversarial relationship between developers and everybody else, steadily escalating during the sprawl era, can be replaced with a mutually reinforcing culture of community building.

Yet the role of coordinating the efforts by so many groups on so many fronts falls to local government, and the county is the enabler, catalyst, and keeper of the vision. Therefore the whole process begins with Collier County, which wields enormous power over the outcomes through its regulations, public works projects, and coordination with other agencies. The county is the leader, and must act first.

Leadership and partnerships are particularly important because realizing the goals of the Community Character Plan will require a significant shift, on the part of both developers and government, away from a whole series of habits that create characterless sprawl. Government's part of the required retooling is outlined in this chapter.

Specific recommendations have been provided throughout the three manuals to describe how Collier County can begin converting the vision into reality. Many of these actions will require separate public hearings and legislative actions, such as amendments to Collier

County's growth management plan and its land development code. Some are budgetary in nature, requiring appropriations from various funding sources, while others involve planning activities or general governmental operations.

This final chapter of the plan compiles all the recommendations from the three manuals and organizes them by type of action. Thus, all amendments to the growth management plan are repeated here in a single section, with a reference to the page where each was initially discussed. This organization should prove useful to those carrying out these recommendations and those wishing to monitor Collier County's progress.

Implementation of this plan will be a multi-year process that will require the efforts of county staff members from many departments. The first recommendation below is for the County Manager to report to the Board of County Commissioners as to which departments will be responsible for implementing each task listed below. The second recommendation is to extend the life of the Select Committee On Community Character and Design, the advisory committee responsible for this plan, for two additional years to assist in the plan's implementation. The third is to allocate \$175,000 next fiscal year to carry out the required changes to the growth management plan and land development code. The remainder of the recommendations below are reprinted from the three manuals in this plan.

<b>RECOMMENDATION</b>	<b>PAGE</b>	
<b>1. DIRECTION TO COUNTY STAFF:</b>		Collier County's diverse communities and the special characters that are created by their physical settings, including roadsides, natural features, memorable buildings, and the public realm between buildings.2.26
a. Within 60 days after adoption of this Community Character Plan, the County Manager is to present the Board of County Commissioners with an outline of departmental responsibilities for carrying out the recommendations in this plan.	5.2	
<b>2. ADVISORY COMMITTEES:</b>		
a. Modify Resolution 99-203 (which established the Select Committee on Community Character and Design) to extend the committee's life for two additional years for these purposes:	5.2	
i. To oversee Collier County's progress in implementing the Community Character Plan;		
ii. To provide outreach to neighborhoods and other groups (developers, chambers of commerce, shopping center owners, industrial park tenants) to encourage involvement in pursuing the goals of the Community Character Plan; and		
iii. To provide a forum for discussing additional long-range planning ideas to further the goals of the Community Character Plan.		
<b>3. GROWTH MANAGEMENT PLAN:</b>		
a. In the Future Land Use Element, adopt a new goal #2 stating that county planning efforts shall recognize the variations among	2.26	Add an achievable objective #1 under goal #2 about Collier County's commitment to revitalize older neighborhoods. <ul style="list-style-type: none"> <li>i. Add a policy describing typical improvements for maturing neighborhoods, such as adding sidewalks and street trees, creating focal points within walkable portions of neighborhoods, improving street connections, improving pedestrian access to shopping, and traffic calming.</li> <li>ii. Add a policy that would allow a greater variety of housing types in maturing neighborhoods, such as accessory apartments, live-work units, or townhouses.</li> <li>iii. Add a policy that describes the various levels of involvement that Collier County can use to improve or redevelop existing neighborhoods, including a municipal service taxing or benefit district, a community plan, a community redevelopment agency, or a dependent special district.</li> <li>iv. Add a policy under objective #4 of goal #1 adding "community plans" as a new Collier County planning process that can be requested for existing neighborhoods or commercial/industrial developments. Community plans could include the</li> </ul>



**RECOMMENDATION****PAGE**

following steps:

- (1) Collier County would declare that it wishes to assist neighborhoods in community planning and set out a process for individual neighborhoods to request professional assistance.
- (2) The process would typically include:
  - (a) neighborhood meetings to gather input and develop design and implementation ideas;
  - (b) preparation of a master plan;
  - (c) acceptance of this master plan by Collier County as part of the community plan;
  - (d) adoption of any amendments that are needed to the growth management plan or land development code;
  - (e) determination of cost-sharing requirements for capital improvements; and
  - (f) initiation of any capital improvements through normal

county channels.

- (3) An administrative code would be adopted with the details of the community planning process, such as the application process, suggested timeframes, and whether the group would be assisted by county staff, consultants selected for each neighborhood, or consultants on retainer; and
- (4) General guidelines for cost-sharing of community improvements would be provided. Improvements of community-wide benefit would generally be paid for by the county (such as new connector streets and associated sidewalks and street trees), whereas improvements of local benefit may require matching funds contributed by a private entity, another public source, or charged to property owners through a municipal service taxing or benefit district.2.26

- c. Add an achievable objective #2 under goal #2 about Collier County's commitment to improve typical subdivision techniques.
  - i. Add a policy establishing stricter terms before extending the life of unbuilt development approvals that are no longer consistent with the

2.31

## RECOMMENDATION

## PAGE

- growth management plan. This policy should also describe the type of modifications that are anticipated: moving gates away from major roads; improving connectivity to adjoining neighborhoods and within new neighborhoods; creating neighborhood centers or focal points within walkable portions of neighborhoods; adding sidewalks; and increasing the range of housing prices and types.
- ii. Add a policy that requires a technical evaluation of expiring PUD rezonings as to the spacing and connectivity of local streets, percentage of land behind gates, and interconnections with adjoining neighborhoods (see page 1-9 in the Mobility Manual).
- d. Add an achievable objective #3 under goal #2 regarding standards for planning new neighborhoods. 2.35
- i. Add policies endorsing the strategies for creating new neighborhoods as stated in this plan, including right-sized neighborhoods with walkable blocks, differing intensities, common public spaces, and sites for civic buildings.
- ii. Add a policy that requires master plans in proposed PUD rezones to show a conceptual street and block pattern for the entire site.
- iii. Add a policy that requires a technical evaluation of proposed PUD master plans and site development plans as to the spacing and connectivity of local streets, percentage of land behind gates, and interconnections with adjoining neighborhoods (see page 1-9 in the Mobility Manual).
- iv. Add a policy that requires street connections to all fronting collector and arterial roads, except where no such connection can be made without violating intersection spacing requirements of the land development code.
- v. Add a policy clearly supporting neighborhoods with a fine-grain mix of housing types, densities, and costs.
- vi. Add a policy encouraging most new lakes or ponds to be located at edges of neighborhoods so as to minimize interruptions to pedestrian connectivity. 2.46
- e. In the Future Land Use Element, establish a new goal #3 promoting “great streets” for Collier County and memorable commercial centers that combine resilient traditional buildings, customer convenience, diversity of offerings, and a complementary mix of uses. 2.61
- f. Add an achievable objective #1 under goal #3 of the Future Land Use Element regarding the design of great streets and adjoining buildings. 2.61
- i. Add policies that endorse the basic strategies for designing great streets as stated in this plan.
- ii. Add a policy that recognizes the following features as desirable for development along roads: buildings fronting sidewalks with little or no set-

**RECOMMENDATION****PAGE**

- back; parking lots moved behind or aside buildings; and buildings more than one story tall.
- g. Add an achievable objective #2 under goal #3 encouraging the transformation of aging commercial developments into mixed-use neighborhoods. 2.71
- i. Add a new policy stating that activity centers or aging shopping centers may qualify for “community planning” assistance as potential “town centers” as described under objective #4 of goal #3.
  - ii. Add a policy describing steps for transforming an aging commercial corridor as described in this plan.
  - iii. Add a policy specifically encouraging aging shopping centers to include moderate-cost housing that can reduce travel demand by those currently priced into remote locations for housing.
- h. Add an achievable objective #3 under goal #3 committing to upgrade the county’s architectural and site design standards within one year. 2.86
- i. Add a new policy to maintain architectural and site design standards in the land development code and to improve them by refining the standards based on neighborhood type, mandating interconnectivity between adjoining parcels, and orienting most buildings toward public spaces.
  - ii. Add a new policy to create new site design standards for large building complexes that require a street-and-block pattern for new conventional shopping centers and other large retailers.
  - iii. Add a new policy to require special permission for any anchor store so large that it cannot fit on a standard block.
  - iv. Add a new policy to reduce the parking requirements for truly walkable, interconnected developments that have all three primary uses (dwellings, workplaces, and storefronts), whether they are freestanding neighborhoods or segments of activity centers.
- i. Add an achievable objective #4 under goal #3 regarding the various “center” types in Collier County. 2.90
- i. Add policies under this goal that define and describe the variety of “center” types: rural crossroads, hamlet, neighborhood/village center, town center, and activity center.
  - ii. Add policies that incorporate the fundamental principles stated in this plan for the scale, land uses, building types, mobility needs, and site layouts for the various center types, including references to related standards for parcel-level connections, architectural requirements, and site design standards.
  - iii. Amend the description of the “urban

**RECOMMENDATION****PAGE**

- residential subdistrict” (page 19 of the Future Land Use Element) which applies to 80% of all land west of the urban boundary, to state the conditions under which town centers and lesser-intensity centers including schools, day-care, and non-intrusive workplaces can be integrated into neighborhoods. Shopping centers and office parks would still not be allowed.
- iv. Amend the description of the “urban commercial district” and its subdistricts (pages 27-31) to state the conditions under which town centers and activity centers can be developed.
- v. Amend the description of the “mixed-use activity center subdistrict” (pages 27-30) to no longer permit an activity center to be devoted entirely to commercial uses; a complementary mix of uses, including housing, would be included in each activity center.
- vi. Add a policy encouraging mixed-use buildings and mixed-use developments by not excluding commercial land when calculating maximum residential densities.
- vii. Add a policy modifying Collier County’s policy on time extensions for unbuilt development approvals within activity centers.
- j. Add a policy that requires a technical evaluation of proposed residential PUDs and other larger rezonings as to the spacing and connectivity of local streets, percentage of land behind gates, and interconnections with adjoining neighborhoods.
- k. Add a policy that requires commercial PUD rezonings, plats, and site development plans to demonstrate reasonable integration and interconnection with adjoining developed or undeveloped land. 3.15
- l. Amend Policy 4.4 of the future land use element to expand the scope of corridor management plans to include plans conducted concurrently with, or integrated into, the project development process of major roadway improvements. The purpose of these expanded plans is to integrate land-use issues (including access management) with the selection of optimal right-of-way and cross-sections for road improvements. 3.41
- m. Amend the description of the “Urban - Mixed Use District and related subdistricts” (pages 18-23 of the Future Land Use Element) to reflect the county’s new strategies for creating neighborhoods. 2.35
- n. Amend the description of the “Traditional Neighborhood Design subdistrict” (pages 21-22 of the Future Land Use Element) to convert this subdistrict into an option that can be used throughout the urban designated area without need for rezoning, provided a proposed development plan complies with specific regulations to be placed into the land development code.2.35
- 3.15

**RECOMMENDATION****PAGE**

- o. Update the Golden Gate Area Master Plan, as follows:
- i. Develop a plan for land surrounding the future interchange of Interstate 75 and Golden Gate Parkway so that it can provide a dramatic entry into Naples and Golden Gate instead of conventional interstate commercial uses.
  - ii. Define generalized alignments for two-lane collector roads and “missing links” in the NGGE road system and illustrate cross-sections for these roads that include rows of native shade trees that will grow together to form a tree canopy.
  - iii. Delineate general subareas of Golden Gate Estates having differing characters so that the updated master plan can consider appropriate treatments for each.
  - iv. Identify suitable locations for minor commercial uses in the form of rural crossroads, hamlets, or rural villages.
  - v. Prepare general criteria for a design review system for all new commercial development in Golden Gate Estates.
  - vi. Identify any specific areas of environmental sensitivity where further development would be undesirable and other areas that may be suitable for a transfer of development rights into areas designated for minor commercial uses. Include the new “proposed publicly owned natural lands” acquisition area just north of Alligator

2.109

Alley as shown in the greenspace manual.

- vii. Include a refinement of the trail and greenway system and proposed neighborhood parks as shown in the greenspace manual.
  - viii. Develop strategies for raising groundwater levels and reestablishing at least parts of the original flowways that ran through Golden Gate Estates. Flowways could be reestablished on public lands as actual sloughs or could remain as forested greenbelts running across private lands.
  - ix. Identify potential locations for new neighborhood centers that could serve Golden Gate Estates. These locations could include land within or near the Orangetree settlement area or unplatted land west of 12th and 14th Avenues SE.
- p. When republishing the county-wide future land use map, include an outline or hatched pattern to indicate the regulatory area included in the Golden Gate Area Master Plan so that its special provisions would be immediately apparent.
- q. Add a policy that requires newly subdivided neighborhoods to limit gates and other access restrictions to individual blocks or portions of neighborhoods so that even communities with gates can have street interconnections with adjoining neighborhoods. Open street connections would remain about every quarter mile, if not more frequently.

2.109

2.44

<b>RECOMMENDATION</b>	<b>PAGE</b>		
r. Add a new policy under objective 1.6 in the Public Facilities Element (drainage sub-element) to encourage the use of stormwater management techniques that return rainwater directly to the ground, such as pervious pavement, dry detention areas, exfiltration trenches, and other direct recharge concepts.	2.46		ment to provide an objective measure of progress toward the goal of providing an interconnected network of sidewalks, bikeways and transit routes to provide multi-modal access to/between all greenspaces. Measures might include miles of sidewalks, bikeways, and trails constructed.
s. Amend Policy 9.3 of the Transportation Element to strengthen its requirement for interconnection of local streets between neighborhoods.	2.35	w. Modify Policy 4.4 to ensure that the five-year pathway work program is funded through the five-year capital improvements program.	4.37
t. Add a policy in the Transportation Element that commits to include the following basic amenities in the design and construction of new roads to be built by Collier County: ample sidewalks that are separated from curbs (except where parallel parking is allowed), street trees in uniform rows; attractive lighting fixtures that will not conflict with mature trees, and on-street parking along boulevards and collector roads and in other locations where buildings are (or are planned to be) close to the road.	2.61	x. Add policies to the GMP to describe the purpose of the thoroughfare map, direct its creation, and outline how it will be implemented, including: <ul style="list-style-type: none"> <li>i. Not issuing any development approvals that would block future roads;</li> <li>ii. Requiring unbuilt PUDs to modify their site plans upon expiration of their rezoning approval to provide future roads on the thoroughfare map and to improve internal connectivity; and</li> <li>iii. Requiring developers to build links on the thoroughfare plan that run through their properties at the time of development.</li> </ul>	3.20
u. Clarify and strengthen the county's policy on interconnections between neighborhoods by amending Transportation Element Policy 9.3 to recognize the great potential of connected networks to reduce traffic congestion and also to ensure that excessive or speeding through traffic will be limited by the layout and design of the connecting roads themselves.	3.15	y. Add a policy supporting improved parcel-level connections through future changes to the land development code.	3.15
v. Amend Objective 4 of the transportation ele-	4.37	z. Add a policy that new residential developments provide either a connection or the opportunity for a connection to support a col-	3.15

<b>RECOMMENDATION</b>	<b>PAGE</b>		<b>PAGE</b>
lector road network at about one-quarter mile intervals.		rency management areas and authorize modification of the county's Adequate Public Facilities Ordinance to include techniques to implement this new system.	
aa. Add one or more policies supporting the frequent use of regularly spaced street trees throughout Collier County and requiring them on public road construction projects.	3.35		
ab. Modify GMP financing policies as follows:	3.20	ad. Unless specifically exempted by the board of county commissioners, the county would prepare a corridor management plan for major roadway improvements, especially for road expansions that are not shown on the 2010 or 2020 road expansion maps as adopted into the growth management plan (Maps TR-6AW and TR-7AW).	3.41
i. Establish an appropriate priority for public construction of links on the thoroughfare plan, by amending Policies 1.1.2.D and 1.1.4 of the Capital Improvements Element (CIE) and Policies 1.1 and 1.2 of the Transportation Element;			
ii. Delete the prohibition on borrowing funds to build any connector roads that might be deemed as providing "avoidable excess capacity," by amending CIE Policy 1.2.4; and		ae. Add a new goal to the recreation and open space element supporting a neighborhood park goal of complete the neighborhood park system to provide useable open space within a five-minute walk of residents in urban areas.	4.31
iii. Adopt a policy encouraging the use of development agreements (as authorized by F.S. 163.3220) to allocate costs of transportation improvements resulting from new development to the benefitting parties."			
ac. If warranted by the outcome of these studies, begin steps to amend the growth management plan to:	3.39	af. Add an achievable objective to the recreation and open space element that can be used to measure progress toward this goal. Measures might include: park sites identified; park sites acquired; park improvements installed; expenses incurred for neighborhood parks; etc.	4.31
i. Formally designate and map the transportation concurrency management areas.			
ii. Modify Objective 1.5 and Policy 1.5.3 of the capital improvements element to explain the transportation concur-		ag. Add new policies to the recreation and open space element about the following activities:	4.31
		i. Require recreational or civic facilities in all new residential developments.	
		ii. Carefully site new neighborhood parks for maximum integration into existing neighborhoods and/or in con-	

RECOMMENDATION	PAGE		PAGE
<ul style="list-style-type: none"> <li>junction with schools, churches, or other recreational facilities.</li> <li>iii. Include a map showing generalized locations for proposed neighborhood parks over the coming ten years.</li> <li>iv. Increase the current public funding level for the Neighborhood Park Assistance Program.</li> </ul>			
ah. Add a new goal to the recreation and open space element supporting a community park goal to provide large community parks for active and passive recreation within a 15 - 20 minute drive of residents in urban areas.	4.34		
ai. Add an achievable objective to the recreation and open space element that can be used to measure progress toward this goal. Measures might include: park sites identified; park sites acquired; park improvements installed; expenses incurred for community parks; etc.	4.34		
aj. Add new policies to the recreation and open space element about the following activities: <ul style="list-style-type: none"> <li>i. By 2006, acquire three additional community park sites in the general locations shown on the greenspace master plan, with sufficient land to allow 50% of each site to remain in passive open space.</li> <li>ii. Design and construct four new community parks as quickly as impact fees become available.</li> <li>iii. Consider available options for combining community parks with new or</li> </ul>	4.34	existing schools.	
		iv. Regularly update the recreation and open space impact fee rates to match increases in land and construction costs.	
		ak. Add new policies about the following activities: <ul style="list-style-type: none"> <li>i. Encourage shaded sidewalks along residential streets, especially near schools and commercial areas.</li> <li>ii. Explore the creation of an urban greenway network along existing major canal banks and powerline easements.</li> </ul>	4.37
		al. Expand Objective 10.2 of the conservation and coastal management element to include a measure of progress toward increasing public access to the beaches and waterways of Collier County. Measures might include: additional access points acquired in fee simple or by easement; access improvements installed, including parking lots; and public transit provided to access points.	4.39
		am. Add new policies under this objective about the following activities: <ul style="list-style-type: none"> <li>i. Aggressively seek additional public access points to the Gulf beaches.</li> <li>ii. Expand public transit to provide regular service from parking facilities to beach access points.</li> </ul>	4.39
		an. Add a new goal to the conservation and coastal management element supporting the acquisition of additional property rights where needed to protect regionally signifi-	4.43



**RECOMMENDATION**

**PAGE**

cant wetlands and flow-ways and to preserve habitats and corridors essential to the survival of the Florida panther and other listed species (endangered, threatened, special concern).

ao. Add an achievable objective that can be used to measure progress toward this goal. Measures might include: holding a referendum on funding sources; number of acres of natural lands purchased and protected; or number of acres of natural lands that other public agencies are able to protect within Collier County. 4.43

ap. Add new policies about the following activities: 4.43

- i. COUNTY LAND ACQUISITION:
  - (1) If presented with a credible proposal from a citizens' group, place a referendum on the ballot for a county-run program to acquire and manage natural lands.
  - (2) If approved by voters in a referendum, establish a county-run land-acquisition program and manage those lands in their natural state.

- ii. ACQUISITION BY OTHER AGENCIES:
  - (1) Formally express support for legitimate efforts by other government agencies or non-profit entities to acquire lands for preservation purposes, including the use of less-than-fee acquisitions for the same purpose.4.41

**4. LAND DEVELOPMENT CODE:**

- a. Allow single-family lots to be split when a continuous alley can be provided behind the lots to allow vehicular access from the rear. 2.26
- b. Modify the required minimum depths of lots in situations where right-of-way acquisitions have reduced lot depths. 2.26
- c. Adopt the thoroughfare plan's map into the land development code. 2.35
- d. Amend the land development code to require newly approved developments to: 2.35
  - i. Include collector roads that are open to the public and not blocked by gates;
  - ii. Incorporate any road links shown on the thoroughfare map; and
  - iii. Provide detailed criteria for evaluating the connectivity and spacing of local streets in proposed developments.
- e. Require newly subdivided neighborhoods to establish a connected street pattern with only a minimum of cul-de-sacs. 2.35
- f. Adopt specific regulations to implement the revised A Traditional Neighborhood Design subdistrict. 2.35
- g. Amend the C-1, C-2, and C-3 zoning districts to no longer require "conditional use" approval for mixed residential and commer-

<b>RECOMMENDATION</b>	<b>PAGE</b>		
cial uses and to eliminate the two-story height limit and other unnecessary barriers to mixed uses.		n. Upgrade the architectural and site design standards in §2.8 of the land development code to:	2.86
h. Amend the C-4 and C-5 zoning districts to allow mixed residential and commercial uses.	2.90	i. Establish standards for differing neighborhood and building types, such as mixed-use shopfronts and live/work units.	
i. Adopt specific regulations to implement the county's new policy on gates in newly subdivided neighborhoods.	2.44	ii. Include precise illustrations of desirable building types.	
j. Amend any provisions of the code that inappropriately restrict the use of stormwater management techniques that return rainwater directly to the ground.	2.46	iii. Rewrite the site design standards to significantly improve pedestrian access and to orient buildings toward public spaces.	
k. Amend the code wherever conflicts are found between its current provisions and the new growth management plan policies regarding great streets.	2.61	iv. Establish special standards for building complexes larger than 50,000 square feet that requires a street-and-block pattern so that their site designs can evolve over time, and that also requires special permission for any anchor store so large that it cannot fit on a standard block.	
l. Amend the code to provide "build-to" lines rather than mandatory front setbacks for commercial buildings.	2.61	v. Mandate reasonable interconnection between adjoining commercial parcels and surrounding developed or undeveloped land; these connections should be aligned to serve as future streets or alleys.	
m. Amend §2.7.3.4 to shorten the period that unbuilt PUD approvals remain valid from five years to three years, and to substantially increase the amount of continuing progress that is required to retain PUD approval for unbuilt or partially built PUDs that are no longer consistent with the growth management plan or land development code. The purpose of this change is to require the design of unbuilt portions of PUDs to be modified to comply with regulatory changes before the PUD approval can be extended.	2.31 & 2.90	vi. Establish a design review board that would be empowered to grant exceptions to these standards.	
		vii. Reduce parking requirements for walkable, interconnected, mixed-use developments.	
		viii. Modify the parking requirements to minimize parking between stores and streets and to require all sur-	

<b>RECOMMENDATION</b>	<b>PAGE</b>		
face parking lots larger than the code's minimum requirements to provide substantial additional landscaping.		u. Amend §3.2.8.4.16.5 of the code to allow and encourage the use of the alley, lane, street, and connector cross-sections from the "Great Street" palette in this report.	3.35
o. Establish a design review system for new commercial development in Golden Gate Estates.	2.109	v. Make other changes to the land development code that are found necessary during the community planning process.	2.26
p. Amend §2.2.20.3.1.1 so that land in PUDs that is used for commercial purposes is encouraged to include dwelling units. For purposes of computing density, the number of such units is limited by parking, drainage and other development regulations and is not deducted from the residential density limits of the PUD.	2.90	w. Provide the detailed criteria for evaluating the connectivity and spacing of local streets in proposed developments.	3.15
q. Amend §2.2.20.3.4 so that on-street parking spaces within PUDs are no longer excluded when computing minimum parking requirements.	2.90	x. Require newly subdivided neighborhoods to: <ul style="list-style-type: none"> <li>i. Establish a connected street pattern with only a minimum of cul-de-sacs; and</li> <li>ii. Limit gates and other access restrictions to portions of neighborhoods so that even communities with gates can have street interconnections with adjoining neighborhoods and can be connected to collector roads at about one-quarter mile intervals.</li> </ul>	3.15
r. Amend §2.2.20.3.5 to reduce the usable open space requirements in PUDs with fully mixed uses and to no longer exclude planting strips between internal streets and sidewalks from open space calculations.	2.90	y. Amend current code provisions that unnecessarily restrict shared parking lots or provide insufficient criteria for shared driveways and cross access easements.	3.15
s. Amend §3.2.8.3.2 of the code to allow alleys to provide the principal vehicular access in residential subdivisions.	3.35	z. Amend the code as needed to require commercial PUD rezonings, plats, and site development plans to demonstrate reasonable integration and interconnection with adjoining developed or undeveloped land.	3.15
t. Amend §3.2.8.4.16 and §2.2.20.3.11 of the code to delete the ambiguity as to when street interconnections will be required.	3.15 & 2.35		

**RECOMMENDATION****PAGE**

- aa. Amend the land development code to require newly approved developments to:
- i. Include collector roads that are open to the public and not blocked by gates;
  - ii. Incorporate any road links shown on the thoroughfare map; and
  - iii. Prior to renewal of rezoning approval for unbuilt PUDs, require the modification of their site plans to provide collector roads that are open to the public.
- ab. Amend the land development code to implement corridor management plans when so indicated by the results of those plans.
- ac. Amend the land development code to require recreational or civic facilities in new neighborhoods; these facilities can be privately owned and maintained, or can be a publicly owned neighborhood park if the location and design is approved by Collier County.
- ad. Amend the land development code to require community interconnectivity through pedestrian/bicycle facilities and meandering off-road pathways.

3.21

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4.31

4.37

**5. ADMINISTRATIVE CODE:**

- a. Adopt an administrative code establishing guidelines for community plans. 2.26

**6. FINANCING ISSUES:**

- a. Allocate \$250,000 annually beginning next fiscal year from the unincorporated municipal service taxing district to fund community planning studies. 2.26
- b. Allocate \$175,000 next fiscal year from the general fund for Collier County's use in implementing the recommendations of the Community Character Plan. 5.15
- c. If a land-acquisition referendum is approved by the voters: 4.43
- i. Dedicate a portion of the proceeds for restoration and continuing maintenance of acquired land.
  - ii. Commit the remainder of the proceeds through the county's capital improvements program for the sole purpose of acquiring natural lands.
- d. If a land-acquisition referendum is not held or not approved by the voters: 4.43
- i. Seek whatever acquisition funding can be obtained from state and federal sources.
  - ii. Work with private landowners to develop "best management practices" for privately owned buffers along "core" greenway lands.

<b>RECOMMENDATION</b>	<b>PAGE</b>		
<b>7. NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM (NTMP):</b>			
a. Double the annual funding for the NTMP in order to:	3.15		
i. Expand the program to develop measures that would enhance sub-arterial connecting streets and prevent speeding;			
ii. Make the NTMP more comprehensive in scope, to examine neighborhood traffic patterns rather than individual streets in isolation; and			
iii. Prioritize future improvements on streets within and between neighborhoods.			
<b>8. THOROUGHFARE PLAN:</b>			
a. Prepare a thoroughfare plan identifying a secondary road network including potential collector and minor arterial roads, plus opportunities for interconnections between existing neighborhoods and future development.	3.20		
b. Include on the county's new thoroughfare plan:	2.109		
i. a series of two-lane collector roads that will provide alternate routes for travel between Golden Gate Estates and coastal Collier County; and			
ii. "missing links" in the Golden Gate Estates road system where short road segments or new bridges could be installed to make the existing road network more functional.			
		<b>9. ROAD IMPACT FEE ORDINANCE:</b>	
		a. Conduct a new impact fee rate study that includes an evaluation of the use of road impact fees to pay for the expanded road network shown on the thoroughfare map.	3.21
		b. Amend the road impact fee ordinance to:	3.21
		i. Increase impact fees to pay for these roads and for sidewalks and bike paths;	
		ii. Offer impact fee credits to developers who build these roads through their property;	
		iii. Regularly update the impact fee rates to match increases in construction costs; and	
		iv. Ensure that impact fee credits are not granted for road improvements that benefit only private parties.	
		<b>10. CAPITAL IMPROVEMENTS PROGRAM:</b>	
		a. Allocate \$750,000 from the same source beginning in the following fiscal year to be used in the capital improvements program as matching funds to implement community plans.	2.26
		b. Extend Collier County's 5-cent gas tax beyond its current expiration at the end of 2003 and pledge its proceeds to borrow funds, part of which can be used to immediately begin building links shown on the thoroughfare plan map.	3.21
		c. During each annual budget cycle, review a schedule of proposed capital improvements	3.21

**RECOMMENDATION****PAGE**

- to roads for the next five years:
- i. This schedule should include road improvements needed to avoid a concurrency moratorium and other priorities in the growth management plan, plus acquiring land and building those links shown on the thoroughfare plan that are not likely to be built by private developers;
  - ii. The full five-year schedule should be published in Collier County's annual budget book and incorporated into the growth management plan immediately after budget adoption. This schedule should include a map plus details for each road project such as:
    - (1) the starting and ending points for the project;
    - (2) the number of existing and proposed lanes;
    - (3) the general character of the project; and
    - (4) whether the project includes design, right-of-way acquisition, construction, or all three steps.
- d. Beginning in Fiscal Year 2001-2002, allocate \$500,000 annually for the Neighborhood Park Assistance Program to begin funding two new neighborhood parks per year. (Current-year funding for this program comes from the county's general fund, part of about \$8 million traditionally allocated to capital improvements. This \$8 million is fully allocated for FY 2001-2002, but has only been partially allocated for the remainder of the five-year capital improvements program.)
- e. Beginning in Fiscal Year 2001-2002, schedule the acquisition of one community park site every two years so that all three needed sites will be available in advance of demand (funding source: recreation and open space impact fees). 4.34
- f. Also beginning in Fiscal Year 2001-2002, schedule the design and construction of four additional community parks in accordance with anticipated recreation and open space impact fee collections. 4.34
- g. Beginning in Fiscal Year 2001-2002, include all projects on the five-year pathway work program in the county's five-year capital improvements program. 4.37
- d. Beginning in Fiscal Year 2001-2002, allocate \$500,000 annually for the Neighborhood Park Assistance Program to begin funding two new neighborhood parks per year. (Current-year funding for this program comes from the county's general fund, part of about \$8 million traditionally allocated to capital improvements. This \$8 million is fully allocated for FY 2001-2002, but has only been partially allocated for the remainder of the five-
- 4.31

**RECOMMENDATION****PAGE****11. LONG-RANGE TRANSPORTATION PLAN:**

- a. Direct the Naples (Collier County) Metropolitan Planning Organization to expand its computer modeling during the next update of its long-range transportation plan in order to:
  - i. evaluate the expanded collector road network and better-connected neighborhoods, as proposed in this plan; and
  - ii. test alternate land-use scenarios such as a trend toward more compact mixed-use neighborhoods.

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- b. The MPO should continue its traditional role of integrating a wide range of land-use and environmental goals into transportation planning, and its staff director should report directly to the elected officials who comprise the MPO's governing board.

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- c. Direct the Naples (Collier County) Metropolitan Planning Organization to expand its computer modeling during the next update of its long-range transportation plan to test the effects of different levels of service on the cost, size, and type of roads needed through the year 2025.

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**12. ROAD CROSS-SECTIONS:**

- a. Replace the six-lane arterial cross-sections adopted by Resolution 2000-77 with the "Great Street" palette suggested in this report for arterials, parkways, and connector streets. These cross-sections would become acceptable road types for public construction projects and for privately built roads; they are

3.35

not intended to limit road designs, but to illustrate desirable features and right-of-way requirements for each type of roads.3.33

**13. MODIFIED CONCURRENCY APPROACH:**

- a. If any year's Annual Inventory and Update Report (AUIR) determines that a concurrency-induced building moratorium may occur within the next 2-3 years, Collier County should initiate the studies needed to support the establishment of one or more "transportation concurrency management areas" that would provide mobility alternatives and promote infill development.

3.39

# Resources

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## HOW THIS PLAN WAS CREATED - APPENDIX A

### PREVIOUS PLANNING STUDIES

One of the mandates for the designers of the Community Character plan was to create a plan that could move into the action phase missing in past efforts. The designers were also asked to build upon the consensus and goodwill that was created with many of these past planning efforts. The following is a summary of the most prominent of these efforts:

#### **FoCuS - The Future of Collier Created by Us (1994-1999)**

This grassroots initiative focused on seventeen goals that were addressed by five task forces. The task force charged with the most diverse scope was the Community Character Task Force, which looked at urban design, transportation, and greenspace in Collier County. This initiative and this particular task force laid the foundation for the Community Character Plan. Implementation of recommendations and citizen input were limited, however, despite widespread public involvement and support for its vision. Tools for implementation and physical change, necessary for the program's success, were incomplete. The Community Character Plan seeks to continue where FoCuS left off.

#### **Davis Triangle (1999)**

The Davis Triangle redevelopment study led by county staff and Landers-Atkins Planners outlines an initiative to redevelop a close-in neighborhood using tax increment financing. The intent is to create a town center and entertainment center in East Naples that will include

a mix of uses, plus model projects that would stimulate future healthy development. One goal of the Community Character Plan is to highlight similar implementation opportunities in other close-in neighborhoods in Collier while promoting the overall character of the county.

#### **Immokalee Master Plan (1997)**

The Immokalee Area Master Plan and associated comprehensive plan amendments of 1997 identified Immokalee and its environs as a unique location in greater Collier County. The demographics and economics of Immokalee differ significantly from the rest of greater Collier County. This sector's economic base is largely dependent on agriculture and a transient workforce. The plan sought to enhance the quality of life in Immokalee through improving environmental quality and the strength of existing neighborhoods. The plan is further defined by the Immokalee Future Land Use Plan, which specifies residential, commercial, and industrial land use designations. Given the completeness of that plan, it was not necessary to create a separate character case study for Immokalee in the Character Plan. However, the Immokalee planning initiative reflected an approach that became a hallmark of the Community Character Plan, which is that different parts of Collier County should be addressed in customized ways, respecting the character of each individual place.

#### **Golden Gate Area Master Plan (1991)**

The Golden Gate Area Master Plan, begun by staff and a citizen steering committee and updated several times in the 1990s, is a detailed 'sector plan' for Golden Gate Estates as mandated by the official

growth management system. The staff and committee identified several issues calling for amendments to the county's Growth Management Plan, addressing provisional uses, commercial uses, corridor commercial, and land uses in Golden Gate City. Recommendations were devised through public workshops and surveys circulated to residents. The Character Plan takes into account these recommendations.

#### **Collier County Comprehensive Pathway Plan (December 1994)**

Citing a need for increased mobility connections as well as humanizing the transportation network, the report lists specific projects for 2020 that support walking and biking in Collier County. For the county jurisdiction, the plan lists greenways in rural areas and sidewalks and bike lanes in Immokalee.

#### **Collier County Neighborhood Traffic Management Program (July 1995)**

This report effectively describes the rationale behind traffic calming techniques, including each technique's advantages and disadvantages. The program does not identify funding, and installation is based solely on independent citizen complaints.

#### **Collier County 1990 Model Validation and Long-Range Plan Update (June 1996)**

The 2020 Needs Assessment costs \$1.23 billion, compared to estimated revenues of \$582 million. However, even with full funding of 2020

Needs Assessment, the traffic that the Collier County model predicts for 2020 cannot be accommodated. While 87 percent of 2020 Financially-Feasible Plan investments is to be spent on highway improvements, the report calls for a reconsideration of transit, bicycling, and pedestrian facilities.

#### **FoCuS Roads and Pathways Report (1997)**

As a citizen-based review of the 2020 Needs Assessment, the FoCuS group recommended a more integrated transportation network that incorporates non-motorized travel. The report describes typical sections that support integrated and human-scale transportation facilities.

#### **Collier / Naplescape '90's (January 1997)**

The landscaping recommendations of this report are based on character zones, with particular emphasis on gateways and highly traveled routes. The inclusion of xeriphytic and native Florida plant materials lowers maintenance expenses and improves environmental fit.

#### **Collier County Growth Management Plan: Transportation Element (October 1997)**

This element of the GMP describes the current performance of the transportation network and lists scheduled improvements through 2020. All improvements are the widening of existing roads, with the exception of Livingston Road. The Transportation Element defers to Comprehensive Pathway Plan for non-motorized transportation planning.

### **Collier County Public Transportation Development Plan (June 1999)**

After a fairly thorough examination of 1990 census data and a 1997 update, the report recommends four deviated fixed-route services, a commuter assistance program, and a vanpool program. The demographic analysis points to a real need for public transportation in Immokalee, where the population is considerably younger and less wealthy and has less access to private automobiles.

Previous efforts can be separated by their concentration on solution sets. Two of these reports - the Growth Management Plan Transportation Element and the 1990 Model Validation and Long-Range Plan - concentrate on expanding the automobile-moving capacity of the network, primarily through road widening. The remainder looks to expand people-moving capacity of the network through the creation of transit, bicycle facilities, and walkable streets.

### **Recent Park Projects**

The Character Plan team reviewed the many parks initiatives underway. Recently, the county secured 208 acres near I-75 south of Immokalee Road to serve as the county's largest regional park. In addition, seven acres were added adjacent to Golden Gate Community Center. Max A. Hasse Jr. Community Park's community center is also in the design phase with a projected opening in June 2001. Finally, the county recently dedicated the new Eagle Lakes Community Park in East Naples.

### **Other Agency Efforts**

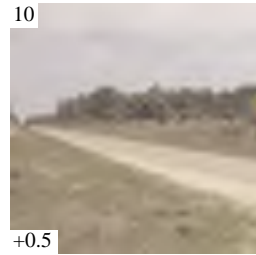
Since Collier County's territory includes large tracts of state and federal public lands, there are numerous planning efforts being conducted by these agencies that affect the county. The National Park Service, Florida State Park Service, Florida State Forest Service, the National Estuary Program, and the National Fish and Wildlife Service all have a dominant presence in the county, and their planning efforts for public access and natural resource management was reviewed.

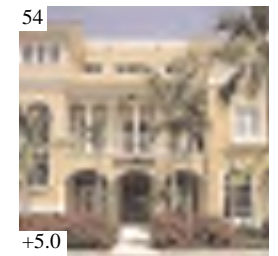
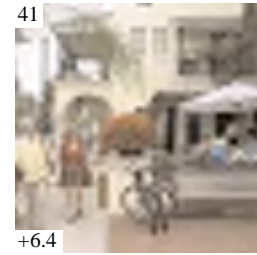
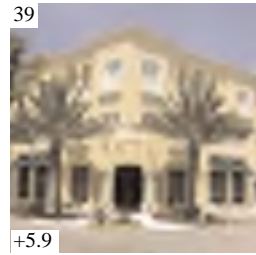
### **Marco Island Parks and Open Space System Master Plan**

As the Character Plan was being created, Marco Island was in the process of identifying parks and open space needs and priorities for the island's residents.

**HOW THIS PLAN WAS CREATED - APPENDIX B**

Community Image Survey: list of images and scores





## MOBILITY - APPENDIX C

### Components of Corridor Management Plans

- 1. PHYSICAL MASTER PLAN** - The overall vision for a road corridor is presented in a professionally rendered master plan at a scale where it is possible to reference changes in land development patterns. For specific areas of concern within the corridor, eye-level perspectives can illustrate the relationship between existing conditions and the planned future. The illustrations communicate existing trends, needed first steps, and the potential for an "in our generation" (50-year) realization of the plan.
  - (a) Vision Plan** - The vision plan is a complete summary of the corridor that locates and illustrates specific projects and actions, including existing buildings, property lines, roads, driveways, medians, sidewalks, and typical landscaping. Future development may be placed on the plan but is visually distinguishable.
  - (b) Perspectives** - Bird's eye and eye-level perspectives aid in the visualization of proposed strategies and provide a "sense of place" that aids citizens in locating specific improvements.
  - (c) Cross-sections** - Cross-section(s) illustrate the fully dimensioned roadway design and the placement of adjoining buildings.
- 2. ACTION PLAN** - The Action Plan contains implementation strategies, which can include land development regulations, design guidelines, development incentives, capital improvement program suggestions, and a monitoring program to track achievement of the plan's vision. These strategies can address three general categories of related transportation and land-use activities: non-roadway improvements, including capital investments such as streetscape

and lighting enhancements; roadway improvements, including roadway design guidelines; and land development actions, including access management and development regulations.

- (a) Roadway Design Guidelines** - The character of an area, the values of the community, and the needs of the highway users, are unique factors that designers must consider with each road project. Among the options available to achieve a balanced road design is a recognition that design expectations are more flexible than environmental constraints; decisions made during the planning phase may require adjustment prior to engineering design; lower design speeds than those initially anticipated may be appropriate; and alternate standards should be considered for scenic roads (U.S. Department of Transportation, *Flexibility in Highway Design*, 1997).
- (b) Land Development Guidelines and Regulations** - Land development regulations that are useful in the implementation of a corridor management strategy include sign guidelines, setback requirements, maximum parking requirements, minimum floor area ratios, architectural standards, landscape standards, and viewshed preservation guidelines.
- (c) Access Management Plans** - Each corridor management plan should include access management policies, implemented as needed through the county's land development code to ensure compliance by private development. Driveways, median openings, traffic signals, and their relative spacing should be balanced so that important roadways maintain an appropriate balance between local access and through trip capacity. A roadway's physical capacity can be increased through access management techniques such as driveway location and design, driveway spacing standards, corner clearance, joint and cross access, reverse frontage roads, frontage roads, and medians. See further details in Appendix B.



## MOBILITY - APPENDIX D

### Model Access Management Standards

Access management is a technique for balancing a roadway's dual role in serving both traveling motorists and adjacent land uses. It seeks to preserve a roadway's ability to provide through travel without decreasing the viability of the shops, places of business and neighborhoods fronting the street. With access management, a roadway's physical capacity can serve more vehicles without additional travel lanes, therefore maximizing the value of a community's infrastructure.

The following model access management standards are provided as a general guide.

#### **Corner Clearance**

1. Corner clearance for connections shall meet or exceed the minimum connection spacing requirements for that roadway.
2. New connections shall not be permitted within the functional area of an intersection or interchange as defined by the connection spacing standards of this code, unless:
  - a. No other reasonable access to the property is available, and
  - b. The connection does not create a safety or operational problem.
3. Where no other alternatives exist, construction of an access connection along the property line will be allowed farthest from the intersection. In such cases, directional connections (i.e. right in/out, right in only, or right out only) may be required.

#### **Joint and Cross Access**

1. Adjacent commercial or office properties classified as major traffic generators (e.g. shopping plazas and office parks) shall provide a cross access drive and pedestrian access to allow circulation between sites.
2. A system of joint use driveways and cross access easements shall be established wherever feasible and the building site shall incorporate the following:
  - a. A continuous service drive or cross access corridor extending the entire length of each block served to provide for driveway separation consistent with the access management classification system and standards.
  - b. A design speed of 10 MPH and sufficient width to accommodate two-way travel aisles designed to accommodate automobiles, service vehicles, and loading vehicles;
  - c. Stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross-access via a service drive;
  - d. A unified access and circulation system plan that includes coordinated or shared parking areas wherever feasible.

*Source: City of Orlando, Florida*

**Reverse Frontage**

1. Access to double frontage lots shall be required on the street with the lower functional classification.
2. When a residential subdivision is proposed that would abut an arterial, it shall be designed to provide through lots along the arterial with access from a frontage road or interior local road. Access rights of these lots to the arterial shall be dedicated to the public and recorded with the deed. A berm or buffer yard may be required at the rear of through lots to buffer residences from traffic on the arterial but shall not be located within the public right-of-way.

**Access Connections and Driveway Design**

1. Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes and tapers is discouraged due to the potential for vehicular weaving conflicts.
2. Driveway width and flair shall be adequate to serve the volume of traffic and provide for rapid movement of vehicles off of the major thoroughfare, but standards shall not be so excessive as to pose safety hazards for pedestrians, bicycles, or other vehicles.
3. Commercial subdivisions shall be designed with shared access points to and from the highway.

**Connectivity**

1. The street system of a proposed subdivision shall be designed to coordinate with existing, proposed, and planned streets outside of the subdivision.
2. Wherever a proposed development abuts unplatted land or a future development phase of the same development, street stubs shall be provided as deemed necessary by the county to provide access to abutting properties or to logically extend the street system into the surrounding area.
3. Collector streets shall intersect with collector or arterial streets at safe and convenient locations.
4. Sub-collector and local residential access streets shall connect with surrounding streets to permit the convenient movement of traffic between residential neighborhoods or facilitate emergency access.

*Source: Model Land Development and Subdivision Regulations that Support Access Management for Florida Cities and Counties, 1994, Center for Urban Transportation Research / Florida Department of Transportation*

## GREENSPACE - APPENDIX E

### References

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- Tears, Clarence S. 2000. *South Florida Water Management District, Big Cypress Basin. Five Year Plan -2000-2004.* 91pp
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- Logan, Todd, et al. 1993. *Florida Panther Habitat Preservation Plan South Florida Population.* Prepared for the Interagency Committee. U. S. Fish and Wildlife Service. 44pp.
- Krakowski, Jim. *Florida Panther National Wildlife Refuge, Draft Comprehensive Conservation Plan.* 1998. U. S. Fish and Wildlife Service.
- Collier County Growth Management Plan. *Capital Improvement Element, Eighth Annual Update and Amendment.* 1998. Comprehensive Planning Section.
- Collier County Rural Assessment Notebook, *Board of Count Commissioners (BCC) Packet for March 19, 1999 Workshop on Density Reduction, Clustering, Natural Resource & Agricultural preservation Policies, and the Proposed Remedial Amendments in Response to DCA Findings of Noncompliance Assessment Area Oversight Committee ("Berry Committee"), and Final Order/comprehensive Plan noncompliance.* 1999.
- U. S. Department of the Interior National Park Service. *Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors, A Resource Book.* 1995. Rivers, Trails and Conservation Assistance, National Park Service.

## **GREENSPACE - APPENDIX F**

### Additional Funding Sources

- Lerner, Steve, and William Poole. The Economic Benefits of Parks and Open Space. 1999. The Trust for Public Lands.
  - Florida Department of Environmental Protection. Thinking Green, A guide to the Benefits and Costs of Greenways and Trails. 1998. Office of Greenways and Trails
- The following list provides potential sources for greenspace funding.

#### Pay as You Go

- Property Taxes
- Income Taxes
- Sales and Use Tax
- Real Estate Transfer Tax
- Special Assessments Districts
- Business Improvement District
- Benefit Assessment District
- User Charges
- Reserves
- Mitigation Financing
- Negotiated Exactions or Impact Fees (hookups, systems development or capital fees)
- Grants (\*see list of Florida grants on following pages)
- Public-Private Ventures

#### Borrowing

- General Obligation Bonds -- Limited or Unlimited Tax
- Revenue Bonds (or "rate-supported" bonds)
- Taxable Bonds
- Tax Increment Financing Bonds
- Lease Purchase and Certificates
- Revolving Loans
- Bond Bank

GRANTS**Recreation:****Name**

Artificial Fishing Reef Program  
 Beach Erosion Control Program  
 Conservation and Recreation Lands Acquisition  
 Community Services Block Grant Program  
 Derelict Vessel Removal Grant Program  
 Florida Coastal Management Grants Program  
 Florida Communities Trust Program  
 Florida Greenways and Trails Program  
 Fl. Inland Navigation District Waterways Program  
 Fl. Inland Navigation District - Cooperative Asst.  
 Florida Recreation Development Assistance Prgm.  
 Land and Water Conservation Fund Program  
 Transportation Enhancements Program  
 West Coast Inland Navigation District Project

**Agency**

Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Community Affairs  
 Department of Environmental Protection  
 Department of Community Affairs  
 Department of Community Affairs  
 Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Transportation  
 Department of Environmental Protection

**Environment and Natural Resources:****Name**

Aid to Water Management Districts  
 Artificial Fishing Reef Program  
 Beach Erosion Control Program  
 Conservation and Recreation Lands Acquisition  
 Derelict Vessel Removal Grant Program

**Agency**

Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Environmental Protection  
 Department of Environmental Protection

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Ecotourism/Heritage Tourism	Department of Environmental Protection
Florida Advisory Council on Environmental Educ.	Department of Environmental Protection
Florida Coastal Management Grants Program	Department of Community Affairs
Florida Communities Trust Program	Department of Community Affairs
Florida Forests & Environmental Education	Dept. of Agriculture and Consumer Services
Florida Greenways and Trails Program	Department of Environmental Protection
Fl. Inland Navigation District Waterways Program	Department of Environmental Protection
Fl. Inland Navigation District - Cooperative Asst.	Department of Environmental Protection
Florida Recreation Development Assistance Prgm.	Department of Environmental Protection
Highway Beautification Grants Program	Department of Transportation
Institutional Conservation Program	Department of Community Affairs
Land and Water Conservation Fund Program	Department of Environmental Protection
Marine Resources Grants Program	Department of Environmental Protection
Nongame Wildlife Contracts Program	Game and Freshwater Fish Commission
Science Museum Program	Department of State
Urban and Community Forestry Matching Grant	Dept. of Agriculture and Consumer Svcs
Water Management District	Water Management Districts
West Coast Inland Navigation District Project	Department of Environmental Protection

The following tables summarizes additional general funding strategies:

### LOCAL

<b>FINANCING SOURCE</b>	<b>DEFINITION</b>	<b>PROVIDES FUNDS</b>	<b>REPAYMENT</b>	<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
<b>General Obligation Bonds -- Limited or Unlimited Tax</b>	Loan taken out by a city or county against the value of taxable property	Immediately	By all taxpayers over 10-30 years	Makes funds available immediately; distributes cost of acquisition; ties payment to benefits received; potentially lowers interest costs	Increases taxes; competes with other local services for limited resources; separates payment from benefit; involves finance charges, so may be politically difficult; constrained by debt ceilings
<b>Revenue Bonds (or "rate-supported" bonds)</b>	Loan paid from the proceeds of a tax levied for the use of a specific public project, or with the proceeds of fees charged to those who use the facility that the bonds finance	Immediately	By rate payers over 10-30 years	Makes funds available immediately; ties payment to benefits received; may not need voter approval; not constrained by debt ceilings	Increases rates or fees; interest costs potentially higher than GO bonds
<b>Taxable Bonds</b>		Immediately	By all taxpayers over 10-30 years	Not subject to requirements of Tax Reform Act;	Highest interest rates of all bond types

<b>FINANCING SOURCE</b>	<b>DEFINITION</b>	<b>PROVIDES FUNDS</b>	<b>REPAYMENT</b>	<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
<b>Property Taxes</b>	Tax on real property	Immediately	Commercial and residential property owners	Steady source of revenue, less affected by changes in the economy than other taxes; relatively easily administered; revenues easily predictable; tax burden is fairly equitably distributed	Least popular tax since it is paid in a large lump sum check as opposed to small additions to purchases; may not relate payment to benefits received
<b>Income Taxes</b>	Tax on individual income	Immediately	Individual taxpayers	Preserves borrowing capacity; saves interest cost	Funds may be insufficient; may not relate payment to benefits received; earmarked for general fund, causing parks to compete with other public services
<b>Sales and Use Tax (including school sales tax)</b>	Tax on sales of goods or services	Immediately	Purchaser of goods or services	Easy to collect; reporting costs are low; a small percentage can generate substantial revenue; most popular tax among taxpayers	Funds may be insufficient; may not relate payment to benefits received



<b>FINANCING SOURCE</b>	<b>DEFINITION</b>	<b>PROVIDES FUNDS</b>	<b>REPAYMENT</b>	<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
<b>Tax Increment Financing Bonds</b>	Financing mechanism used to stimulate economic development in a blighted area – assessed valuation of real property within the redevelopment area is frozen – taxes are paid at this base level while improvements are made-any increase in the assessed value of the property or additional sales tax revenues makes up the tax increment, which is used to pay project costs or repay the bonds or other obligations that helped finance the project	Immediately	By all taxpayers within subarea of county	Ties payment to benefit received within subarea	Revenues dependent upon growth in assessed value within subarea
<b>Lease Purchase and Certificates</b>	Lease-purchase arrangements that allow a government to pay over time	Immediate use of property or facility while being purchased	By all taxpayers over 5-10 years	Provides a means of buying on credit without issuing debt	High interest rates; may not relate payment to benefits received
<b>Revolving Loans</b>	Loan that is automatically renewed upon maturity	Immediately	By rate payers over 10-20 years	Makes funds available immediately; ties payment to benefits received; potentially lower interest costs	Increase rates; reporting and administration may be burdensome; may not be in accordance with county priorities
<b>Bond Banks</b>		Varies	By taxpayers or rate payers over 10-30 years	Particularly helpful for small communities; lowers cost of issuance	Issuance of bonds may be delayed while sufficient number of communities apply

<b>FINANCING SOURCE</b>	<b>DEFINITION</b>	<b>PROVIDES FUNDS</b>	<b>REPAYMENT</b>	<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
<b>Real Estate Transfer Tax</b>	Tax on the sale of property – increases with the size of the property being sold	Immediately	Sometimes the seller, sometimes the buyer	Proceeds often deposited into land banks; Florida has led the way in requiring that a portion of the funds be used for land conservation; can create substantial funds particularly in fast growing communities	Can Inflate real estate values and slow the market; since revenues from the tax fluctuate with the market, income can be difficult to predict; politically difficult
<b>Special Assessments Districts</b>	Separate units of government that manage specific resources within defined boundaries	Immediately	By assessed customers at time of construction. If bonded, over 10-30 years	Makes funds available immediately; matches payments and benefit; predictable stream of money	Requires legislative approval; may seriously impact assessed customers
<b>Business Improvement District</b>	Assess residents within set boundaries for additional services – establish a partnership between property owners and businesses in downtown or commercial areas for the purpose of improving the business climate in a defined area.	Immediately	Assessed residents or business owners	Created and funded with the approval of residents – gives a sense of ownership, responsibility and accountability; matches payments and benefits	Politically difficult if residents feel services should already be provided by existing government structure; no dedicated city or county-wide funding stream for park facilities (doesn't address the needs of the entire system); inequitable financing method (not found in poorer neighborhoods).

FINANCING SOURCE	DEFINITION	PROVIDES FUNDS	REPAYMENT	ADVANTAGES	DISADVANTAGES
<b>Benefit Assessment District</b>	Assessment and provision of benefits to a defined community – not a separate unit of government – levy on property	Immediately	By assessed customers	Matches benefits to assessment; makes funds available immediately	No partnership, structure or separate government body which may make administration more difficult
<b>User Charges</b>	Fee that covers the cost of a service	Immediately	By rate payers immediately	Eliminates need for borrowing or reserves; exempt from tax limitation laws	Impractical for large projects; may make rates erratic from year to year; seldom covers entire cost of service
<b>Reserves</b>	Funds reserved/set-aside for specific use	In future	By rate payers each year until reserve is adequate	Eliminates need for borrowing; improves financial stability of system	Can be politically difficult; difficult to "protect" reserves for intended use; impractical for large projects
<b>Mitigation Financing</b>	Developer set-aside of land on or off-site	In future	Developers of a project	Eliminates need for borrowing; protects sensitive natural areas and has application for redevelopment including parks; one-time cost; gives local governments flexibility in their land use decisions; can protect larger areas rather than small scattered areas	Can be politically difficult due to unwillingness of private developer; may be seen as "anti-development"

FINANCING SOURCE	DEFINITION	PROVIDES FUNDS	REPAYMENT	ADVANTAGES	DISADVANTAGES
<b>Negotiated Exactions or Impact Fees (hookups, systems development or capital fees)</b>	One-time fee to offset costs of infrastructure caused by new development	Immediately	By developers or customers immediately	Requires new customers to pay for impacts they place on system	Political problems (viewed as "anti-development"); ineffective where there is little or no growth; affects housing affordability
<b>Public-Private Ventures</b>	Partnership between private investor and public sector to provide a service on public land	Varies	By private investors and by taxpayers	Total costs to county government are reduced	Coordination can be complicated and time-consuming
<b>County Road Program</b>	Funding for bicycle/pedestrian facilities and trails	Varies	Taxpayers	Coordinated effort to provide alternative transportation and recreation facilities	Coordination can be complicated and time-consuming

**STATE**

<b>Florida Forever</b>	Funding for acquiring Florida's natural and historic areas, water resources and wildlife habitat	Immediately	No repayment needed	Source of free money
<b>Florida Communities Trust</b>	Funding to local governments for various parks and recreation development and acquisition projects	Immediately	No repayment needed	Source of free money
<b>Florida Recreation Development Assistance Program</b>	Funding to local governments for various parks and recreation development and renovation projects	Immediately	No repayment needed	Source of free money

**FEDERAL (Grant Funding Sources)**

<b>Funding Source</b>	<b>Matching Requirements</b>	<b>Purpose</b>
<b>Recreational Trails Program (TEA 21)</b>	50% State/ 50% Local	Development and maintenance of recreational trails
<b>Land and Water Conservation Fund</b>	50% State/ 50% Local – (No funding currently available)	Acquisition, development & rehabilitation
<b>Urban Parks and Recreation Recovery Program</b>	70% Federal/ 30% Local	Rehabilitation of recreation facilities in lower income areas
<b>Community Development Block Grants</b>	100% Federal	Acquisition, development & rehabilitation of recreation facilities in lower income areas.

**PRIVATE**

Foundations
Individuals
Corporations
Real Estate Developers

Source: "Building Together: Investing in Community Infrastructure" by the National Association of Counties, the National Association of Homebuilders, the Government Finance Officers Association, and the Urban Land Institute and supplemented by information from the Trust for Public Land "Park Financing Techniques."

## GREENSPACE - APPENDIX G

### The Florida Panther

#### Panther Corridor Criteria

"Within the core of panther range or potential panther habitat, about dozen ranches in south Florida hold the key to the panther's future. In Collier and Hendry counties there may be as few as six. How can we explain the presence of reproducing panthers? Clearly the ownership of an area itself is insufficient when examined alone. Many of south Florida's small preserves or private ranches, 30,000 acres or less, exhibit excellent habitat quality Those that support panthers are adjacent to a larger preserve or form part a complex of privately owned panther habitat. Good habitat patches without panthers are generally islands of forest that are isolated from larger forest. Thus habitat quality alone does not tell us a lot. Even property size is not particularly helpful ? especially when we consider that panthers on the large preserve, Everglades National Park, are effectively extinct and that the second largest, Big Cypress National Preserve, has fewer panthers per unit area than anywhere else in occupied range.

There is only one factor that appears to explain consistent panther presence and steady reproduction in south Florida proximity to the

habitat core. The boundaries of this area encircle a zone of forest that supports the majority of panthers. This large habitat island, or "meta-preserve," has not experienced wide fluctuations in panther demographics like lands farther south and east where local populations have gone extinct or the land is too poor to support more than a handful of individuals. Panthers denied access to this core experience a more variable environment, exhibit irregular reproduction, have much larger home ranges, and often lead shorter lives. If a forested area falls within the core boundary, then panthers live and breed there regardless of the human activities that go on. The kind of forest that

makes up the core seems of much less importance than its context and connection to more forest. Panthers seem reluctant to traverse large tracts of treeless terrain - so the further an area is from this core and the more fragmented its forest becomes, the less likely are reproducing panthers to be found. Thus our largest public preserves cannot be expected to make significant contributions to panther recovery because these lands are mostly far from the habitat core and are themselves highly fragmented. Such lands are much more valuable for recreation, water conservation, and preservation of non-terrestrial wildlife species such as river otters, limpkins, and round-tailed muskrats. This is why the Fakahatchee Strand State Preserve, which consists mostly of avoided or tolerated wetland habitats, has continually supported panthers. Despite poor-quality habitat, it is an integral part of the habitat core." *The Florida Panther, Life and Death of a Vanishing Carnivore.* Maehr, David S., Island Press, Washington, D.C., 1997. (p. 210-211)

From the telemetry data it is apparent that panthers frequent the two

stretches of wetland that extend northward through Collier County. Panthers evidently use these wetland strands as movement corridors connecting to upland areas, public lands and the Big Cypress National Preserve in Lee and Hendry Counties. These corridors should be preserved in order to protect and preserve the range of the panther, and to ensure species viability. In view of the findings of Dr. Larry Harris as well as the research conducted in conjunction with this report it is recommended that a movement corridor that extends one-half mile from the center line of each of the two linear stretches of the wetland areas within the north-easterly portions of the County be purchased and retained as panther habitat preserve. Upland areas within this core area should remain as an undisturbed sanctuary, with minimal management activity. It is further recommended that a buffer area be designated that extends an additional 1,000 feet from the eastly and westly boundaries of these panther movement corridors. These buffer zones should be replanted with palmettos and live oak and managed as preserve. A secondary buffer zone should be established through zoning limitations. Land use within this buffer zone would be limited to low density single-family residential development or agricultural use. It is further recommended that any agricultural use be restricted to activities and engage in cultivation practices that will not degrade the quality of adjacent wetland areas.

**NOTES** from The Florida Panther, Life and Death of a Vanishing Carnivore, David S. Maehr, Island Press, Washington, DC, 1977

- Panther (Felis concolor coryi, or the currently preferred genus Puma (instead of Felis)) is a subspecies of cougar (or puma or mountain lion) and remains one of the thirty recognized subspecies within a species that enjoys the widest distribution of any mammal in the Western Hemisphere. Conditions tolerated by America's native lion range from deserts to rain forests to mountains (p 39-40)
- Bobcat (body size only about 15% that of the panther) is cousin to the panther. Bobcats, which share panther habitat but no interactions have been documented, have a home range which is tiny compared to the Florida Panther, males typically used 20 square miles, females used as little as 5 square miles (p.18)
- Panther habitat typically consists of either pine/palmetto forest or oak hammocks. Wetlands were distinctive feature of home range (p. 22)
- Everglades have never been an important panther habitat (p.24)
- Two common threads link all populations of cougar throughout their range: an abundance of remote, wild terrain and an abundance of large prey on which to feed (p.40).
- Solitary females had home ranges of between 40 and 50 square miles. When they give birth their home ranges shrink, often by as much as 80%, to less than 10 square miles to enable close supervision of kittens. As kittens grow, home ranges increase. But the size of the range tends to be directly related to foraging options and the availability and quantity of food resources and resource distribution (p.66)

- A prerequisite for permanent occupation is the availability of large herbivores, which, in Florida, tend to be white-tailed deer. These animals tend to be abundant on more fertile soils and more upland vegetation. (p.66)
- Estimated panther density at one per 42 square miles. Extrapolating this figure for the entire south west Florida range of 1,945 square miles suggests an adult population of 46, (give or take a few). Accounting for kittens, the total population is likely to be 74 (p.77-78)
- Panther activity tends to be highest around sunrise, tapers off during the day then increases toward sunset. (p.78)
- Panthers avoid certain landscape features regardless of cover, they don't like to swim. Males cross roads, females avoid them, they will occasionally cross large expanses of cattle pasture to reach other forested tracts or to pursue prey. (p.78-80)
- Human activity, increased road density, altered prey density, and removal of stalking cover may reduce range. In Golden Glades Estates a crisscrossing of roads and canals, out-of-town lot owners, unrestricted access, minimal enforcement of game laws and round-the-clock human activities have seriously degraded panther habitat, and may have caused panthers to abandon their established home ranges in this area (p.81)
- Panthers will use underpass road crossings as constructed along Alligator Alley (p.81)
- Average straight-line travel range for males is 3.4 miles and 1.4 miles for females. Maximum travel range is 24 miles for males and 15 miles for females. (p.83)
- Panthers move twice as far during the evening than during the day. (p.83)
- Because loss of resident adults is slow, there are few opportunities for young to establish home ranges (related to lack of habitat?) (p.96)
- Panthers possess high reproductive rates, their population growth is limited only by habitat quality and availability (p.96)
- Panthers have good reproductive rates and are able to increase their number rapidly (p.98)
- Ample reproduction, early female maturity and longevity all suggest a strong capability to replace and increase if and when new habitat is available (p.99)
- "Home Range" is defined as that area traversed by the individual in its normal activities of food gathering, mating and caring for young. Habitat is an aspect of home range that includes the environmental variables, such as vegetation, and topography, within which panthers interact, feed, rest and reproduce. (p.101)
- Home range areas vary from 20 to 456 square miles, with an average of 240 square miles for transient males and 67 square miles for sub-adult females. (p.102)

- Females tolerate home range overlap males do not. (p. 102-103)
- Females exhibit great stability in home range use, only death tends to wrest a female from her home, when they do shift it is apparently to avoid undue pressure on local deer populations. Males maintain a relatively larger home range and their range tends to shift frequently, typically precipitated by the presence of a neighboring male. Permanent home range shifts in adult panthers were usually related to the death of the resident. (p.104-105)
- Home tenure system, the "fabric" of home range dynamics, seems to have evolved to encourage the occasional shuffling of individuals while maintaining an overall pattern of order. The land tenure system for panthers is characterized by extensive home range overlap among females and minimal home range overlap for males. (p.105)
- Native upland forests, especially hardwood hammocks were sought out by panthers to the exclusion of all other vegetative communities. Pine, flatwood, cypress swamps and cabbage palm woodlands were also used, but not nearly to the degree of hammocks. Agricultural lands, freshwater marshes, thicket swamps and mixed swamps were usually avoided. (p106)
- The most frequented parts of panther range are associated with large, distinctive forest systems, where soil fertility, dense forest cover and habitat diversity increase, panther abundance increases (p.106-107)
- Habitat conditions in eastern Collier county and the Everglades are not capable of supporting permanent reproducing populations of panthers, forests and prey are too scattered (p.107)
- Panthers seek concealing vertical and horizontal screens such as fern beds, cabbage palms, fluted tree trunks, limestone solution holes for daytime cover. But the single most important plant species is saw palmetto which is associated with pine flatwoods and hardwood hammocks and which is found in well drained, sandy soils (p.108)
- **The suitability of panther habitat is directly proportional to the distribution and abundance of saw palmetto** (p.109)
- Soil texture, moisture and elevation are directly responsible for the patterns of plant distribution. These same factors influence lushness, productivity and palatability of plants and how they are used by herbivores. This system of interdependence is the thread that defines panther viability. Working less for more allows panthers to have a smaller home range and reproduce at higher rates. More food and less work equals larger body size and more progeny (p.109-110)
- Dense vegetation offers day beds and denning opportunities as well as stalking cover. (p110)
- Because of Florida heat food spoils quickly requiring panthers to kill more frequently than their western relatives. (p.110)
- Based on energy demands, a panther needs to kill the equivalent of one adult deer per week (p.112)
- Panthers are more abundant and have smaller home ranges where



larger prey (deer) is abundant (p.113)

- Panthers prefer wild prey to large domestic animals (such as cows) so they don't tend to be a threat to Florida ranchers (p.113)
- Maehr discovered one panther that delivered and raised kittens in a den that was located within 50 yards of a heavily used swamp buggy trail, which suggests great adaptability and a capability for coexistence. However, he points out that human activity along the trail was primarily confined to daytime hours whereas the panther tended to forage at night. The panther managed to adjust to the human activity patterns. So the issue is that human activity levels need to be compatible with panthers to ensure viability. (p.150)
- Florida Panthers make excellent wildlife creatures but they do not require wilderness for their survival...a broad range of human activity is endured by panthers so long as food and cover are adequate. (p. 161)
- In order to minimize environmental impacts on wetlands and wildlife, including panthers, U.S. Army Corps would require developer to leave significant areas of forest on the property that would adjoin neighboring conservation lands. (p. 186)
- Sunniland Farms, in northern Collier County, was a panther Eden where more kittens were reared than on any other comparable parcel, perhaps in the U.S. 50% of the property had been used for intensive land use since before 1943. However, current development on the parcel has intensified, consuming vast portions of habitat. (p. 195)
- Loss of forest cover is a primary cause for localized panther aban-

donments. Government agencies can be good at preserving isolated tracts of preserve. However, panthers require large home ranges. Nearly every panther ever captured used private land - some nearly to the exclusion of public property. The key is to look for large patches of forest and the most logical connections between them. (P. 198)

- From the perspective of panther conservation, public lands need private lands as much as the reverse. (p. 199)
- Extinction will result, not from poaching or roadkills or inbreeding or disease or competition with hunters, but from habitat loss. Given the pattern of landownership in Florida, it is clear that the private sector holds all the keys to panther recovery. The inexorable chipping away at habitat by private landowners and the inaction of natural resource agencies are a dangerous combination. (p. 200)

[see Ken Alvarez "Twilight of the Panther"]

- Many landowners may want to help in the recovery of the Florida panther but few can afford to participate unless they are compensated for the use of their lands or programs that may take portions of their property out of productive use. (pp. 200, 210)
- Mitigation programs that merely permit substitution of un-developable lands for developable parcels are clearly unacceptable. The primary reason why the National Park Service administers two of the largest tracts of land in south Florida is that their previous owners could not profitably grow tomatoes. Bad soils for vegetables will not grow productive forest cover and Florida panthers. The ultimate in south Florida wildlife mitigation would be to physically reunite

the known range of the panther with the forests of Charlotte, Glades and Highlands counties. We know that underpasses have successfully mitigated some of the influence of highway impacts in Collier County, so why not a Caloosahatchee River over-pass spanning this barrier. Plant it with palmettos and live oaks, link it with existing forest on both sides of the river, and suddenly the envelope would open and ease the pressure within the panther habitat core. (pp. 206-207)

- The most common causes of extinctions, in descending order of importance, are "contraction and modification of habitat; increased predation or hunting; competition for resources with species new to that habitat; a poison in the environment; and a disease, particularly one new to the environment" (A.R.E. Sinclair/Graeme Caughley). As far as panthers are concerned, poisons and disease seem to have little influence, they are no longer intentionally hunted, and the only new predator in the area, the coyote, has not been shown to compete. (p. 209)

From "Florida Forever Advisory Council Conservation Needs Assessment, Ranking of Strategic Habitat Conservation Areas and Lands Needed for Florida Black Bear and Florida Panther", Randy S. Kautz, Florida Fish and Wildlife Conservation Commission, June 27, 2000

- "Maehr estimated panther densities at one panther per 110 km<sup>2</sup> (1/27,000 acres) of habitat. Priority one lands include 268,562 acres, enough to support about 10 panthers....Priority two lands include 87,667 acres, enough to support 3 panthers..."

## GREENSPACE - APPENDIX H

### Comparison to State and National Standards

Table 1							
<b>Population Guidelines for User-Oriented Outdoor Recreation Activities</b>							
1997 Collier County Population 165,608							
	Median Population Served	=	Needed Facilities	=	Existing Facilities	=	Surplus/ Deficiency
Tennis (court)	2,000		83		37		-46
Baseball/softball (field)	5,000		33		29		-4
Football/soccer (field)	6,000		28		14		-14
Handball/racquetball (court)	10,000		17		22		5
Basketball (court)	5,000		33		20		-13
Swimming (pool)	25,000		7		4		-3
Shuffleboard (court)	3,600		46		18		-28
Volleyball (court)	6,000		28		8		-20
Jogging/hiking (trails)	15,000		11		3		-8
Play area	10,000		17		23		6

Source: *Level of Service Guidelines - State of Florida Comprehensive Outdoor Recreation Plan, 1994*

<b>Table 2</b>							
<b>Population Guidelines for User-Oriented Outdoor Recreation Activities</b>							
1997 Naples Population 21,202							
	<b>Median Population Served</b>	<b>=</b>	<b>Needed Facilities</b>	<b>=</b>	<b>City of Naples</b>	<b>=</b>	<b>Surplus/Deficiency</b>
Tennis (court)	2,000	=	11	=	20	=	9
Baseball/softball (field)	5,000	=	4	=	7	=	3
Football/soccer (field)	6,000	=	4	=	4	=	0
Handball/racquetball (court)	10,000	=	2	=	8	=	6
Basketball (court)	5,000	=	4	=	8	=	4
Swimming (pool)	25,000	=	1	=	1	=	0
Shuffleboard (court)	3,600	=	6	=	6	=	0
Volleyball (court)	6,000	=	4	=	11	=	7
Jogging/hiking (trails)	15,000	=	1	=	5	=	4
Play area	10,000	=	2	=	6	=	4

Source: Level of Service Guidelines - State of Florida Comprehensive Outdoor Recreation Plan, 1994

<b>Table 3</b>							
<b>CITY OF MARCO ISLAND</b>							
<b>Population Guidelines for User-Oriented Outdoor Recreation Activities</b>							
2000 Marco Island Population (Off-Peak) 12,670							
	<b>Median Population Served</b>	<b>=</b>	<b>Needed Facilities</b>	<b>=</b>	<b>City of Marco Island</b>	<b>=</b>	<b>Surplus/Deficiency</b>
Tennis (court)***	2,000	=	6	=	19	=	7
Baseball/softball (field)***	5,000	=	3	=	3	=	0
Football/soccer (field)	6,000	=	2	=	2	=	0
Handball/racquetball (court)	10,000	=	1	=	2	=	1
Basketball (court)***	5,000	=	3	=	3	=	0
Swimming (pool)***	25,000	=	1	=	1	=	0
Shuffleboard (court)	3,600	=	4	=	4	=	0
Volleyball (court)	6,000	=	2	=	0	=	-2
Jogging/hiking (trails)	15,000	=	1	=	2	=	1
Play area***	10,000	=	1	=	2	=	1
Multipurpose field	3,750	=	3	=	0	=	-3
Multipurpose court	3,500	=	4	=	0	=	-4

\*2000 Population - Bureau of Economic and Business Research, University of Florida  
 \*\* = Based on median population guidelines, except tennis and shuffleboard which are based on high or "minimum served" guidelines  
 \*\*\* = Include YMCA facilities (9 tennis courts, 1 basketball court, 1 baseball court, 1 play area, 1 swimming pool)

Source: Level of Service Guidelines - State of Florida Comprehensive Outdoor Recreation Plan, 1994