Memorandum MIAMI-DADE COUNTY

Date: February 11, 2022

To: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

From: Daniella Levine Cava *Daniella Levine Cava*
Mayor

Subject: Directive No. 190939- Revised County's Urban Design Manual pursuant to Resolution No. R-510-19

In 1998, through Resolution No. R-1360-98, the Board of County Commissioners (Board) approved the County's "Urban Design Manual," which set forth guidelines on private property and abutting streetscapes for urban form and for implementation of other Comprehensive Development Master Plan (CDMP) policies pertaining to patterns and designs for land use and housing. Through time, these guidelines have been incorporated into the County's Urban Center and Urban Area District regulations (UCDs and UADs), the Fixed Guideway Rapid Transit Zones (RTZ), and recent zoning districts such as the Employment Center Planned Area Development (ECPAD), the Mixed-Use Corridor (MCD), and the Residential Modified District (RMD).

In 2019, through Resolution No. R-510-19, the Board directed the County Mayor or County Mayor's designee to conduct a holistic review of the County's Urban Design Manual and to prepare legislation for the Board to consider an update to the Manual if needed. To that end, the Department of Regulatory and Economic Resources (RER) assessed the 1998 manual and began to work on potential updates. In addition to evaluating existing guidelines on private property from the 1998 manual, the review led to the creation of a public and civic properties component.

The final product is attached as two volumes of the revised Urban Design Manual. While Volume 1 is geared to the application of urban design principles to private properties, the new Volume 2 focuses on principles for the placement and design of civic open spaces and structures that may be utilized to significantly improve the quality of the public realm in Miami-Dade County.

In accordance with Ordinance No. 14-65, this memorandum and report will be placed on the next available Board meeting agenda. If you have any questions regarding this report, please contact Lourdes Gomez, Director, Department of Regulatory and Economic Resources, at 305-375-2886 or Lourdes.Gomez@miamidade.gov.

c: Geri Bonzon-Keenan, County Attorney
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Urban Design Manual

Volume I • Private Development

Notice:

The urban design guidelines and principles in this manual reflect the guidelines for urban form and other policies of Miami-Dade County's Comprehensive Development Master Plan (CDMP) pertaining to community land use and housing patterns and design. Although the establishment and use of sound principles of urban design are recommended in the CDMP, at this time many standards in the County's current Zoning Code (Chapter 33, Code of Miami-Dade County) are inconsistent with many of these principles and may impede, but do not necessarily prevent, their implementation. Many of these principles can be accomplished within the current standards of the Code and others may be accomplished using procedures established in the Code. These guidelines are issued to illustrate ways to accomplish the land use and housing patterns and design objectives encouraged by policies of the CDMP, and as a supplement to standards of the Zoning Code for the site plan review process provided for in the Code. Miami-Dade County has been amending the Code to more fully reflect these principles including the Traditional Neighborhood District, the Standard Urban Center District Regulations, the Planned Area Development District, Rowhouse District, Employment Center Planned Area Development, and Corridor District. Applications for zoning actions and site plan approvals should employ the principles recommended in this manual to the maximum extent practicable. In particular, request for development approvals and site plans associated with requests for district boundary changes, special exceptions, or other actions requiring public hearings, should at an early opportunity also identify any other variances to the current zoning that may be desirable or necessary to enable utilization of these recommended design principles, particularly those necessary to implement explicit provisions of the CDMP. Applicants are also advised to provide complete plans when requesting zoning or permit approvals in an effort to avoid unnecessary delays.

Urban Design Manual Volume I • Private Development

Contents

"Before attempting to consider in detail the various practical problems of town planning, it will be useful if we can understand something of the reasons which exist for the general lack of beauty in our towns, and further if we try to arrive at some principles to guide us in determining in individual cases what treatment is likely to lead to a beautiful result and what to the reverse . . . We have become so used to living among surroundings in which beauty has little or no place that we do not realize what a remarkable and unique feature the ugliness of modern life is."

Raymond Unwin, 1919, from his book Town Planning in Practice: An Introduction to the Art of Designing Cities and Suburbs.

Introduction

Purpose of the Manual

The purpose of the manual is to illustrate the basic urban design principles which can significantly improve the quality of physical development in unincorporated Miami-Dade County. The manual provides criteria to be used by designers, developers, County staff, and Community Councils, all of whom are responsible for aspects of physical development in the County. This document should be circulated widely and used as a tool to help educate the public about urban design.

The manual illustrates various urban design concepts that contribute to a cohesive, functional urban development pattern. The goal is the systematic integration of site plans that establish connectivity at the pedestrian and vehicular level through the use of consistent urban design principles. The plans depicted in this manual illustrate techniques that can be used to address specific site planning situations.

The urban design principles illustrated and described in this manual identify acceptable and preferred design examples of ways to implement the urban form

guidelines and other policies of the Miami-Dade County Comprehensive Development Master Plan (CDMP) pertaining to community land use, housing patterns, and design. Although principles of urban design are encouraged in the CDMP, many standards in the Zoning Code are inconsistent with some of these principles and may impede, but not necessarily prevent, their implementation. A long-term objective of the County is to progressively revise the Code to incorporate the guidelines illustrated in this manual. The site plan review process provided in the Zoning Code provides an immediate opportunity to employ many of the principles recommended and illustrated in this manual.

The manual has been organized according to the components of urban design, specifically as they relate to Miami-Dade County. Taken together, the concepts in this document are intended to help Miami-Dade County grow and change in a manner that is not only beautiful, but also socially integrated, environmentally responsible and economically sustainable.

A Brief History

The principles of urban design are not unique to any particular historical period. They are an accumulation of knowledge over time, based on a positive human perception of space. Spaces, both in urbanism and architecture, that are in scale with the human body result in a feeling of physical comfort within the built environment. In 1919, English designer Raymond Unwin wrote the definitive text on community design: Town Planning and Practice. The concepts described in this book provide a strong foundation for effective neighborhood and town design. Several city and town planning movements consistent with Unwin's ideas were most influential in the development of neighborhoods in the United States, including Miami-Dade County, during the early part of the 20th Century. The two most prominent were the City Beautiful Movement and the Garden City Movement.

The City Beautiful Movement emerged from the general perception, in the late 19th Century, that American cities were unattractive and unhealthy places to live, due in part to fast unplanned development responding to a rapidly growing US population. This Movement can be most clearly identified by characteristics that include monumentally scaled buildings and long, wide, tree-lined thoroughfares, both diagonal and picturesque that intersect with existing streets and converge at prominent sites and parks. The idea was to overlay these urban design principles onto existing street networks and block grids, as done in Chicago, or to be implemented in new development, as well as, other small residential subdivisions throughout the US. Though Coral Gables is South Florida's best example of The City Beautiful Movement, many other communities such as Miami Shores and Opa-Locka were designed with the same principles in mind.

The Garden City Movement initiated by Sir Ebenezer Howard promoted self-sustaining towns arranged in a concentric street and block pattern fitted with open spaces, parks and integrated business, as well as, industrial uses within walking distance from residences. The ideal garden town was limited in size and population, surrounded by agriculture or green belts and connected to major cities by rail. The Movement was a response to a growing population living in unpleasant conditions with close proximity to the heavy industrial facilities within the city. A closer look at early 20th century Florida communities such as Venice, designed by John Nolen, George Merrick's Coral Gables, Miami Shores, Opa-Locka, Miami Beach, and Miami, reveals a blend of the two movements within their urban framework.

Even as these early communities were emerging, new concepts of urban planning and design were arising, which challenged the ideas of these movements, mainly due to the increasing dependencies on the automobile. The use of the car facilitated the separation of land uses, intending to distance housing from nearby industrial areas. After World War II, mass-produced residential subdivisions comprised much of the new development in South Florida, neglecting the qualities of the earlier town planning movements. The phrase, "suburban sprawl" best describes this period of development as it continues today. While suburban sprawl has been the most prevalent type of development since the middle of the 20th Century, one exception to this pattern of development in South Florida is the Town of Miami Lakes. Miami Lakes' "nautilus" street pattern draws upon the baroque radial city plan and includes a mixed-use main street at the core of the town, surrounded by residential communities, connected by a series of concentrically arranged streets. Small pocket parks, greens and other open spaces are interspersed throughout the community providing Miami-Dade County a well designed alternative to sprawl.
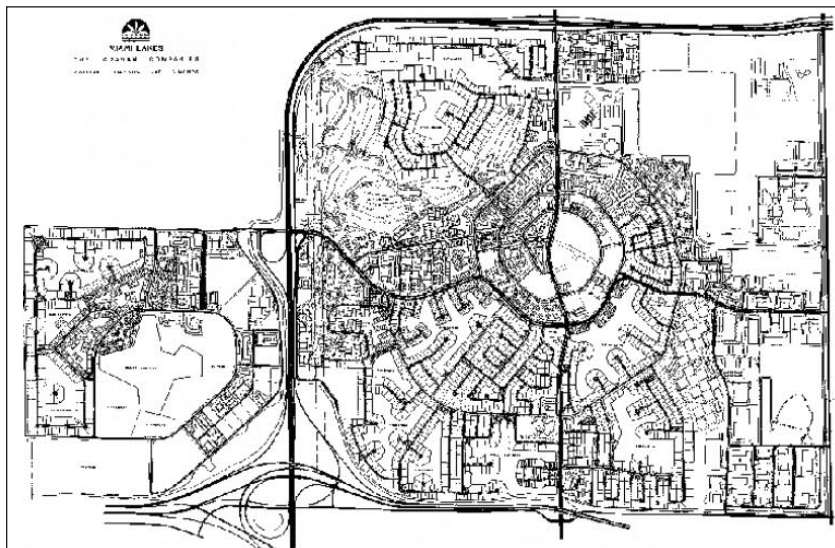
In the last several years, urban planners and design-

Coral Gables
Planned in the 1920s, Coral Gables is South Florida's best example of The City Beautiful Movement.

Venice
The plan for Venice, Florida, undertaken in 1926, has a town square framed by retail uses and is located at the end of a grand boulevard that runs to the Gulf.

Miami Lakes
The concentric plan for Miami Lakes, developed in the 1960's, was at the forefront of town planning in South Florida.


Seaside
Designed in 1980 and located in Florida's panhandle, Seaside has become the international model for Traditional Neighborhood Development.

ers have looked more towards patterns like that of Miami Lakes to guide the development of today's communities. This trend reflects a national movement in the design and redesign of communities called "The New Urbanism." The town of Seaside, in the Florida panhandle, began in the 1980's and is considered a major turning point in the practice of town planning. Miami-Dade County adopted the Traditional Neighborhood Development (TND) ordinance in 1992, largely due to the influence of Seaside. This ordinance, the first of its kind in the country, provides the guidelines for new neighborhood design utilizing the principles of good urban design. In addition, Miami-Dade County has introduced the Urban Design Center, which has been responsible for initiating and carrying out charrettes, the county's preferred planning method to encourage public participation and formulate recommendations for Small Area Plans. These Small Area Plans are the foundation for new zoning districts that codify the principles of urban design included in this manual. It is the intent of Miami-Dade County to further the implementation of these principles through its Comprehensive Development Master Plan policies and evolution of the zoning code.

1920s
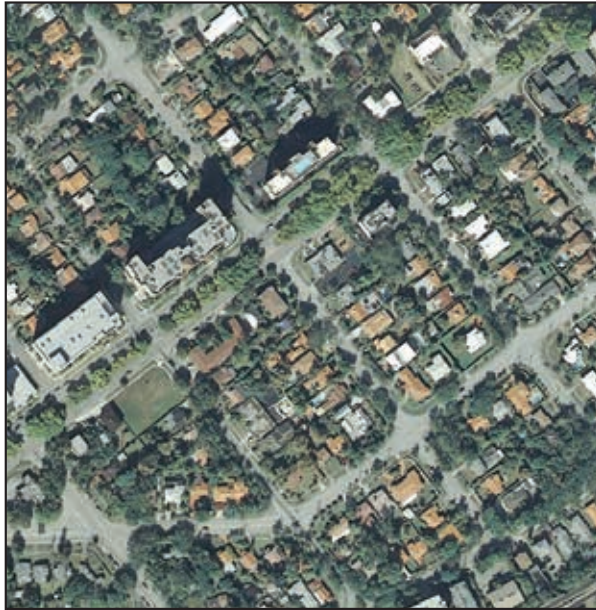
This aerial photograph of a section of The Roads community in the City of Miami shows several principles of early town planning in Miami-Dade County. The blocks are short and a hierarchy of streets interconnects the neighborhood. A mix of land uses is integrated vertically and placed on the same block or in close proximity to each other. Parking areas are small and placed in back of buildings.
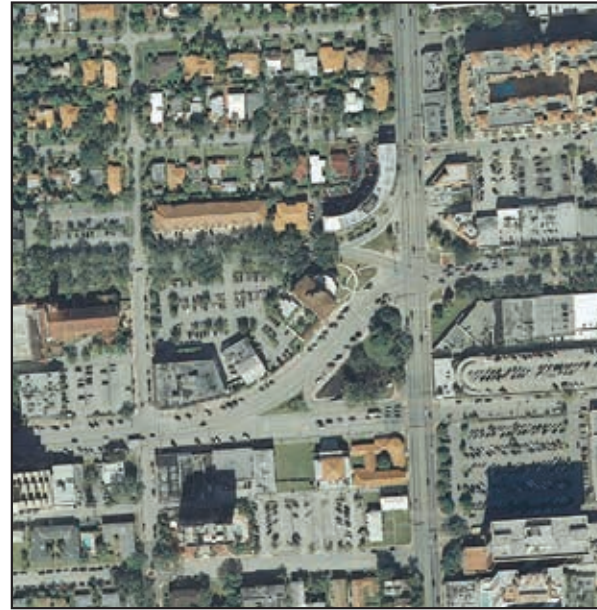
Planned by George Merrick in the 1920's, Coral Gables exemplifies the City Beautiful Movement in South Florida. A modified grid of streets converge at greens or significantly sited parcels suitable for monumentally scaled civic buildings, which also serve as focal points for the community. An interconnected network of pedestrian scaled blocks and streets provide multiple routes to access land uses and parks as well as defining corridors.

Post WWII Neighborhood

This post WWII neighborhood in the City of Miami incorporates some of the earlier principles of 20th century planning such as convenience retail services at local street intersections. Land uses are becoming less integrated in the block and parking areas adjoin streets instead of located behind buildings. As in earlier communities, blocks remain pedestrian scaled and the street network is uninterrupted.

1950s

In this 1950s neighborhood in central Miami-Dade County, the separation of uses is clear. Retail and office uses are concentrated along major corridors and single-family homes located in the blocks behind them. Neighborhood block and street lengths are longer, making the use of the automobile necessary to reach everyday services. However, in the 1950s neighborhood, the street which separates land uses also provides pedestrian and vehicular access to retail and office parcels.

1960s

1970s and 1980s

Several factors contributed to the acceleration of suburban sprawl during the 1960s. An affordable and abundant supply of land contributed to the trend of completely separating land uses as well as the practice of low-rise construction. This aerial shows the separation of business and residential uses to the extent that residents require vehicular transport to reach the retail use even when the business lies immediately behind them.
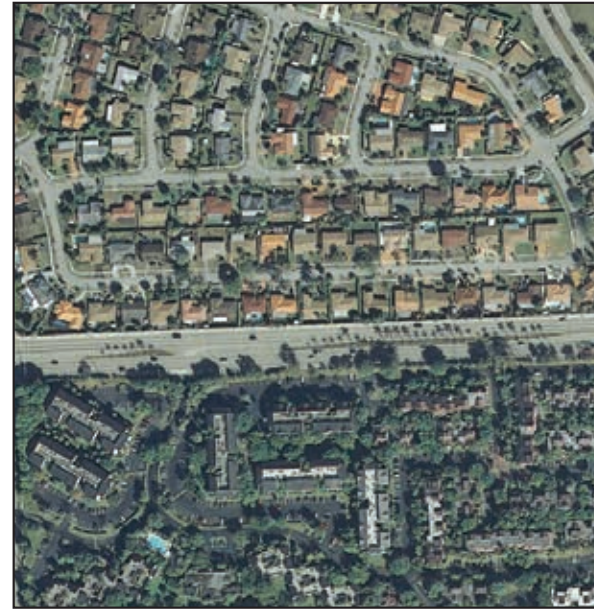
By the 1970s and 1980s, zoning codes required the separation of land uses by building types and their allocated densities, in addition to the separation of perceived incompatible uses. The physical separation of zoning districts created single-use rather than mixed-use communities, a prevalent outcome of earlier planned communities. This aerial shows the absence of interconnectivity between two residential land uses. The single-family residential area on the north side of a major corridor is walled-off as is the townhouse-only development on the south side.

1990s

This aerial shows a typical single-use residential neighborhood of the 1990s. Residential developments such as this are commonly referred to as bedroom communities, as most people drive to jobs, parks and other services. Housing variety is non-existent in communities such as this and the option for a variety of residential styles is very limited, as most are typically developed by one entity.

2000 to present day

In the last few years, Miami-Dade County has embraced principles of urban design that are prevalent in earlier 20th century neighborhoods. The aerial shows a Traditional Neighborhood Development (TND) in south Miami-Dade County. The short blocks and interconnected network of streets allow pedestrians and vehicles to access all areas of the neighborhood. Different uses are mixed within the same block or vertically in the same building.
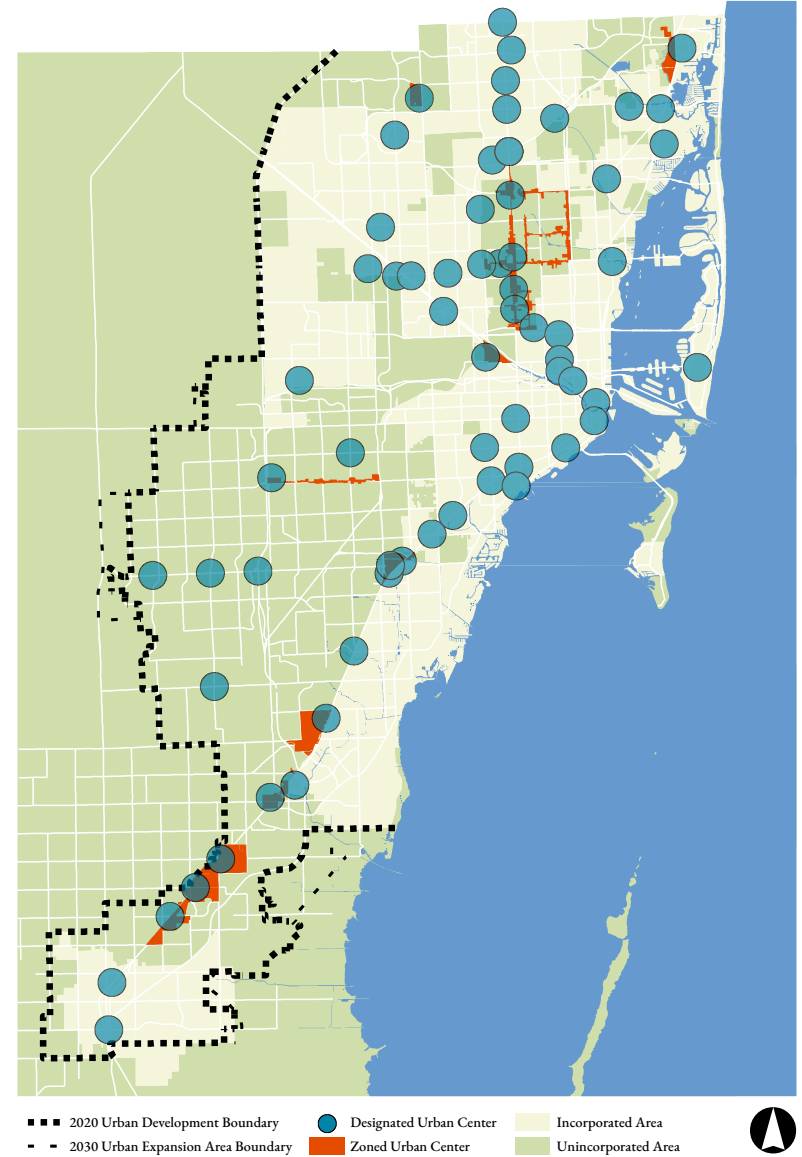

The Miami-Dade County Comprehensive Development Master Plan (CDMP) designates a number of areas around transit as Urban Centers. The aerial shows Downtown Kendall, an Urban Center evolving in and around the Dadeland Mall shopping complex. Regulating plans guide intensity of development, open space allocation and street connectivity. Strict criteria for building placement, building height, and parking provides for a pedestrian oriented public realm.
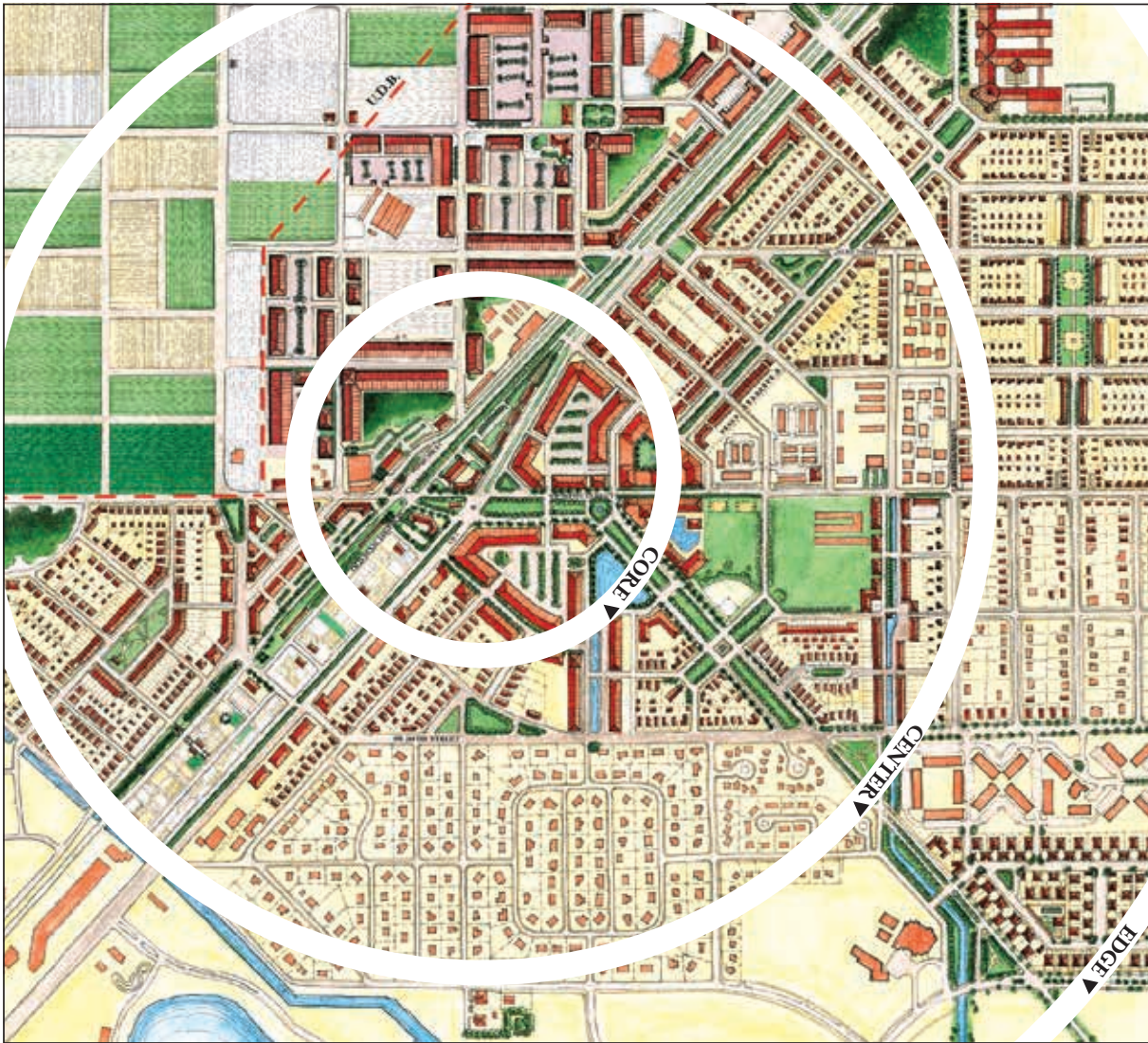
The Miami-Dade County Comprehensive Development Master Plan designates a number of locations around transit as Urban Centers. Urban Centers are planned as hubs for future urban development in Miami-Dade County, around which a more compact and efficient urban structure will evolve. These Urban Centers are intended to be moderate-to high-intensity design-unified areas, which will contain a concentration of different urban functions integrated both horizontally and vertically. Three scales of Urban Centers are defined in the CDMP: Regional, the largest, notably the downtown Miami central business district; Metropolitan, such as the Dadeland area; and Community, which will serve localized areas. Such Urban Centers shall be characterized by physical cohesiveness, direct accessibility by the mass transit service and high quality urban design. Regional and Metropolitan Urban Centers, as described below, shall have convenient, preferably direct connections to a nearby expressway or major roadways, to ensure a high level of countywide accessibility.

Urban Centers contain business, employment, civic, and/or high-or moderate-density residential uses, with a variety of moderate-density housing types within walking distance from the centers. Both large and small businesses are encouraged in these Urban Centers, with Community Urban Centers containing primarily moderate and smaller sized businesses which serve and draw from the nearby community. Design of developments and roadways within the Urban Centers should emphasize pedestrian activity, safety and comfort, as well as vehicular movement. Transit and pedestrian mobility will be increased and area wide traffic will be reduced in several daily trips. Proximity of housing and retail uses will allow residents to walk or bike for some daily trips, while provision of jobs, personal services and retail within walking distance of transit will encourage transit use for commuting.

Conveniently located retail areas will accommodate necessary shopping during the morning or evening commute or lunch hour.

The map to the right indicates the location of Urban Centers within Miami-Dade County.

- - - 2020 Urban Development Boundary
- - - 2030 Urban Expansion Area Boundary
● Designated Urban Center
■ Zoned Urban Center
Incorporated Area
Unincorporated Area

Naranja Community Urban Center Plan: This Plan demonstrates the Core, Center and Edge, the basic concept for all Urban Centers. Urban Center plans do not include areas outside of the Urban Development Boundary.

Urban Design

Urban design is the comprehensive integration of exterior spaces and structures that comprise the built environment. The intent is to produce a public realm of attractive and comfortable places in which people will feel inclined to dwell. All scales of development can be improved through the application of urban design principles. These principles help to define community character by the manipulation of blocks and streets, building setbacks, landscape, building height and massing, and architectural articulation. Applied to site planning and architecture, urban design concepts can result in public spaces, including streets, which adequately accommodate and enhance both pedestrian and automobile use. Urban design can produce communities sympathetic to human scale and corridors that significantly increase pedestrian participation. Successful urban design produces diversity, distinctiveness and a sense of place within the community.

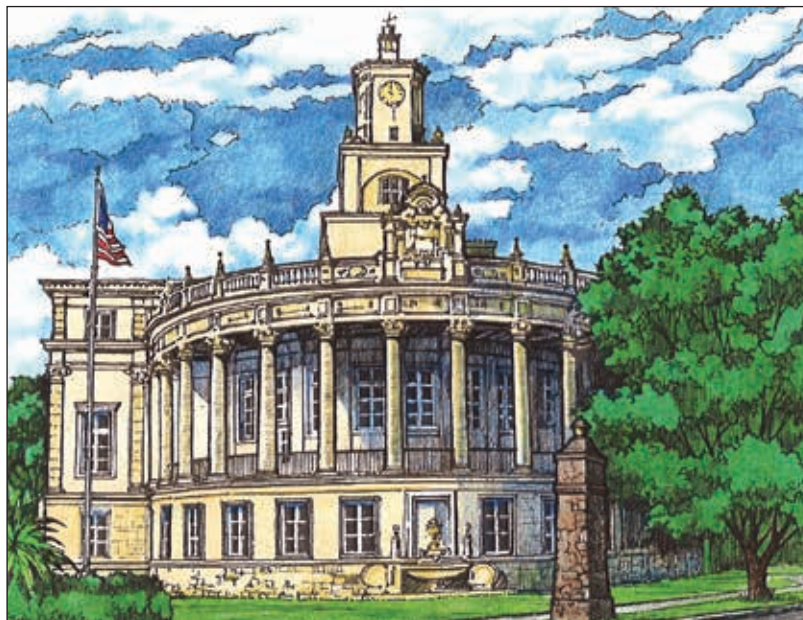Good urban design is characterized by, among other things:

- **Well-defined open spaces** - Well-defined open spaces are an important component of urban design and are an integral element of a neighborhood. Streets, buildings or landscape should clearly define the edges of open spaces. Properly planned open spaces offer areas for social interaction, recreation as well as provide the foreground for civic structures or monuments.

- **Defined block edges** - Defined block edges help form the physical containers of public space. Block edges are defined by buildings placed close to the street following uniform front setbacks. They can be reinforced by the addition of low walls, fences or hedges along the front property line or between buildings, thus clearly distinguishing the public from the private realm.

- **Interconnected street network** - An interconnected street network improves mobility by providing more options to reach a destination and the dispersal of traffic, as well as by making it easier for pedestrians to access more direct routes between destinations. Features of an interconnected network of streets include a hierarchy of streets, complete streets, shorter walkable blocks, and more frequent intersections to calm traffic.

- **Human scale** - Human scale is the relationship of space and objects to the proportion and capability of the human body. For a public space to feel comfortable, the individual must experience a positive relationship to the space. Human scale is the basis of urban design as it pertains to the dimensions of objects and spaces including block sizes, street widths, walking distances, building heights and architectural details.

- **Focal points** - Focal points are elements that provide visual identity and a sense of uniqueness within the community. They include such elements as squares and greens, fountains and statuary and important civic buildings or any other space or form that helps identify a particular neighborhood. Focal points should be placed in prominent locations or terminating street vistas.

- **Variety of building types** - A variety of building types accommodates different uses, lifestyles and enhances a sense of community. Neighborhoods should be designed to elicit a diversity of building types, uses and residents.

- **Compatibility** - A cohesive neighborhood environment depends on buildings that complement one another. The height, mass and location of buildings as well as the uses contained within them, create patterns that define neighborhood character. Buildings within a neighborhood should be compatible with the pattern of its sur-

Top: In this example, the green is clearly defined by landscaping, sidewalks, streets and the buildings that front it along its perimeter. **Bottom:** Here, the houses are positioned near to the street providing a continuous building line along the block edges and making a clear distinction between the public and private realms.

rounding context.

- **Walkability** - Walkability is a measure of ease in which pedestrians move through a community. Walkability has health, environmental and economic benefits; and it is influenced by the presence of sidewalks, block dimensions, building accessibility, traffic and safety among other factors.

- **Sustainability** - Sustainability is the ability of communities to minimize their impact on the environment, in order to create neighborhoods that endure. Sustainability incorporates a community's natural resources as integral features of its design. It combines environmental with human resources and celebrates continuity, uniqueness and place making.

Top Left: This example illustrates a mix of uses placed adjacent to the sidewalk. Pedestrian-scaled lighting, street trees and articulated building facades contribute to a sense of human scale. **Top Right:** Focal points in a community provide identity and visual orientation. In this example, the Coral Gables City Hall partially terminates the Miracle Mile axis. **Bottom Left:** Sidewalks are a vital component of a community. This example illustrates residents taking advantage of some of the benefits of a walkable neighborhood. **Bottom Right:** In this example, multi-family apartment buildings and townhouses are found adjacent to each other facing a green, providing different housing options within the same community.

An underlying assumption of urban design is that comfortable, attractive public space evolves from an intentional development process rather than a result of accidental occurrences. The concept of the "street as a room" is central to this approach. Just as the layout of the interior of a home can create a pleasant and functional indoor living environment, the design of a neighborhood can create a functional, efficient, and pleasant outdoor living environment. Squares and street space act as rooms, while building facades form the walls of the room. The relationship of building placement and scale to the width of exterior space is critical to the creation of a comfortable, inviting public realm.

The "Street as a Room" in a multi-family neighborhood
This illustration demonstrates the street as a room with buildings placed close to the edge of the street, and with defined exterior space in correct proportion to building height.

The "Street as a Room" in a low-density residential neighborhood
This illustration of a low-density neighborhood shows basic components of urban design. The homes are placed close to the sidewalk, adjacent to a green that creates the effect of an outdoor room within the neighborhood. Porches provide a transitional space between the street, sidewalk and the interior of the unit. The porch provides a space that enhances interaction among neighbors, and creates an increased sense of safety for the neighborhood through surveillance of public space.

Since streets are the most common public spaces, one of the most important goals of urban design is the control of street space. Successful spatial definition of the public realm is a direct result of the street cross section and is critical to visual enclosure and human scale. The ratio of street space width to adjacent building height is a proportion whose manipulation generates places of different character. The sense of spatial enclosure is related to the physiology of the human eye. There has been much research on the topic of spatial enclosure creating human scale. Basically, if the cone of vision encompasses less street wall than sky opening, the sense of enclosure will be minimal. If the street wall is greater than the amount of sky, a sense of enclosure will result. For example, a height-to-width ratio of 1 to 6 is the absolute maximum providing any feeling of defined space. A 1 to 3 ratio results in a feeling of defined space. Generally, the sense of spatial enclosure increases as the ratio of street wall to sky opening increases.

In South Florida, street trees are often the element that defines the road cross section. This compensates for low building heights and wide rights-of-way.

1 to 1 ratio
The 1 to 1 ratio is an ideal cross-section resulting in a positive human scale relationship. Although this section occurs in older cities, particularly in Europe, it seldom occurs along South Florida roadways. The 1 to 1 ratio is ideal for pedestrian passages.
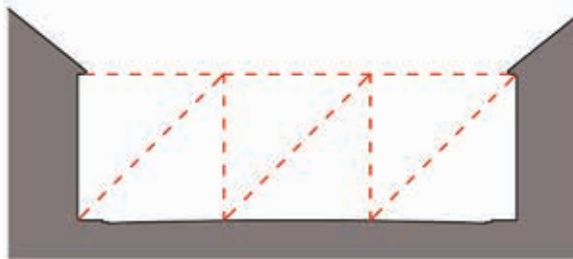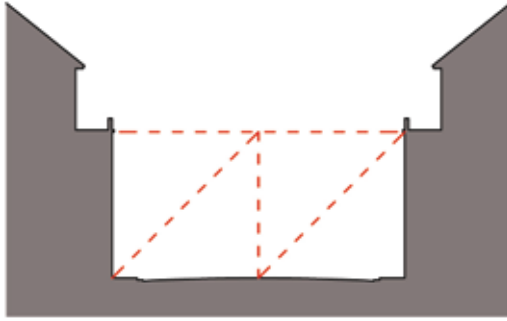
1 to 3 ratio
The ratio of 1 to 3 is an effective minimum section for South Florida roadways. It produces a sense of enclosure and a positive human-scale relationship.
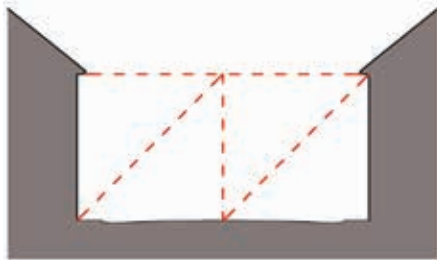
1 to 6 ratio
The ratio of 1 to 6 is the absolute maximum road section width to street wall. The use of street trees will enhance this section, and allow for the ratio to seem less severe.

Adapted from Site Community and Urban Planning Ninth Edition of Architectural Graphic Standards by Gary Greenan, Andres Duany, Elizabeth Plater- Zyberk, Kamal Zeharin and Iskander Shafie.
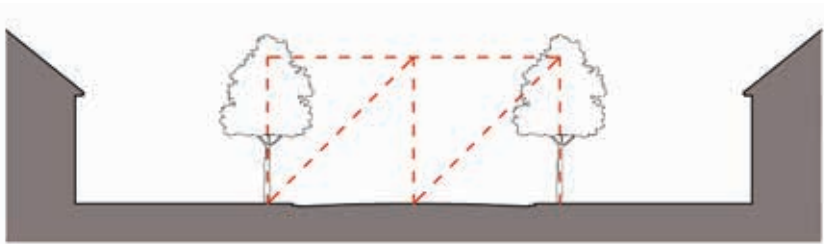
By Recess Line
Taller buildings establish an appropriate street section by the design of the building base to relate to street width. This condition can be achieved with the use of elements such as colonnades or extended overhangs.

By Facade
A 1 to 2 ratio can easily be accomplished in lower scale residential development, particularly for higher density attached residential uses such as townhouses.

By Landscaping
In this example, street trees instead of buildings produce a 1 to 2 ratio. In South Florida this is the prevalent condition in single-family detached residential areas. However, the use of buildings rather than landscape to create the street section is usually more successful in defining space. The building to building section should not exceed a 1 to 6 ratio regardless of whether trees are used. Generally, a 1 to 3 building section is most appropriate for a residential street section.

Source: Architectural Graphic Standards, Ninth Edition American Institute of Architects, p.86.

This residential neighborhood incorporates many of the elements that provide a pleasant living environment. Entrances are clearly defined and porches provide a transitional space between the public area and the interior of the unit. Parking is provided to the rear of units thereby providing uninterrupted pedestrian movement along the sidewalk.

This illustration of a low-density residential street shows successful spatial definition of the public realm, which is a result of a street cross section that produces visual enclosure and a positive human scale. The ratio of street width to adjacent building walls generates a place of singular character.

Parking in front of building   Four lane road   Parking in front of building
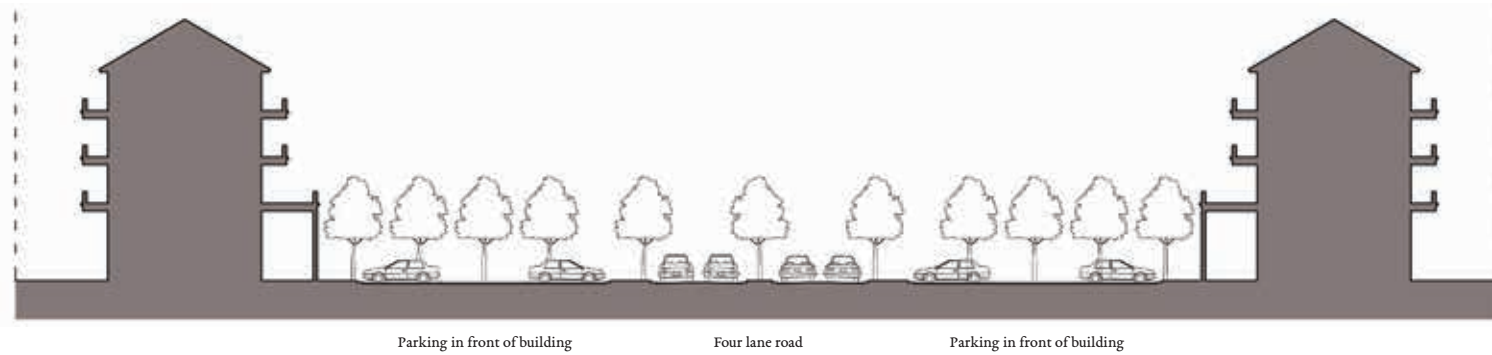
This residential cross section has a ratio of approximately 1 to 7, which falls outside the maximum ratio of 1 to 6. The sense of enclosure is lost, and human scale does not exist. Trees offer little in this broad expanse of pavement.

Parking behind building   Four lane road   Parking behind building
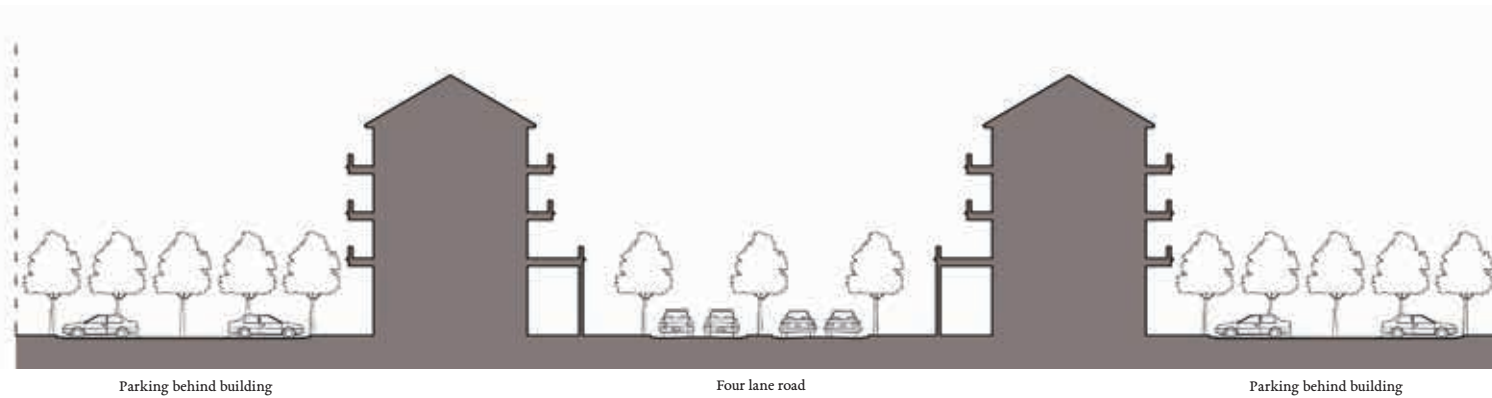
In this example, the ratio is slightly below 1 to 3, which produces a distinct sense of enclosure. Trees, a median, and balconies reinforce human scale, resulting in a comfortable outdoor room. Parking would be placed to the rear or side of buildings in this example.

Parking in front of building   Six lane road   Parking in front of building

This residential section is approximately 1 to 7. The excessive front setback with parking is the critical element making this section inappropriate.

Parking behind building   Six lane road   Parking behind building

In this example, the ratio is approximately 1 to 4 and results in a positive human scale. Trees and balconies further enhance human scale.

Although street trees make a green path through this mid-rise apartment complex, the wide road cross section minimizes a sense of human scale and eliminates neighborhood connections.

In this wide cross section, the use of landscape and usable public space in the form of a paseo, enhance human scale. Landscape and low walls provide a comfortable transition from street and sidewalk to the apartment entrances.

The design failure of this retail street section results largely from excessive setbacks and surface parking. Human scale does not exist and movement between adjacent developments must be largely achieved by automobile.

This mixed-use center fronts on an arterial road. Uniformity of the street facade is the result of similar building heights, definition of the building base and window detailing. Variety in the street facade is achieved by a slight variation of architectural detailing, variety of roof designs and the placement of articulated entrances at block corners, creating a sense of entry.

The design of communities is the result of an assemblage of blocks connected by a street network. Well-planned communities are formed by blocks that afford appropriate building sites for various uses. Block form can occur in many different configurations, but should be small to retain human scale and produce a walkable neighborhood. In general, for walkability block perimeter should not exceed 1,350 feet or a quarter of a mile. The following is an analysis of the various block types.

Sprawl Grid
Block pattern composition in a typical suburban subdivision is often a network of isolated building tracts and dead-end streets. Automobile traffic is diverted to a nearby collector street in an attempt to reduce traffic on local residential streets. The resulting street network is discontinuous, creating excessive congestion on the collectors and arterials, and is confusing and dangerous for drivers. Anomalous block shapes disorient pedestrians and decrease opportunities for creating neighborhood sociability and focal points.

Grid Block
Blocks arranged along a grid plan offer good orientation and traffic dispersal throughout the street network. To avoid monotony, some variation in block length and orientation is desirable. Grid plans benefit from highly articulated architecture to visually reinforce the grid. Small squares distributed throughout the neighborhood provide focal points for sub-neighborhood areas.

Modified Grid Block
The introduction of diagonals and curves modifies the rigidity of the grid, yielding an interesting variety in the size of blocks and open-space configuration. Long vistas are deflected by modifying the grid, affording an opportunity to create and integrate neighborhood focal points.

Single-Family without an Alley
This plan for a single-family detached residential block incorporates uniform front setbacks which reinforce the definition of the block edge. Architectural interest results from a variety of building footprints. Garages have been placed away from the front elevation to minimize the visual impact of parked cars. Variation in building heights adds interest.
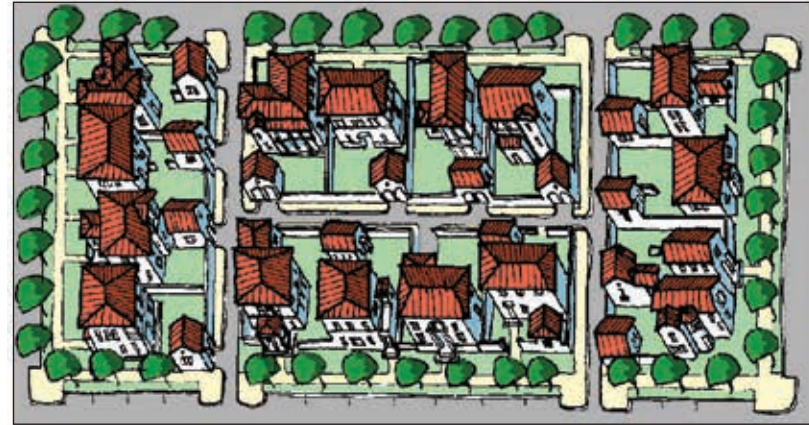
Single-Family with an Alley
This illustration shows a single family block with alleys. As in the plan without alleys, aligned front setbacks provide a disciplined block edge which is reinforced by adding low walls. A variety of house plans provide interest. Alleys eliminate the need for parking in the front yard and provide utility access. They also provide access to potential garage apartments which allow additional housing units within the neighborhood. Alleys also serve as buffers between the rear yards of units. Parallel parking on the street uninterrupted by driveways can be used for additional guest parking.

These sketches demonstrate the development of the block as a transitional element between higher and lower density residential development.
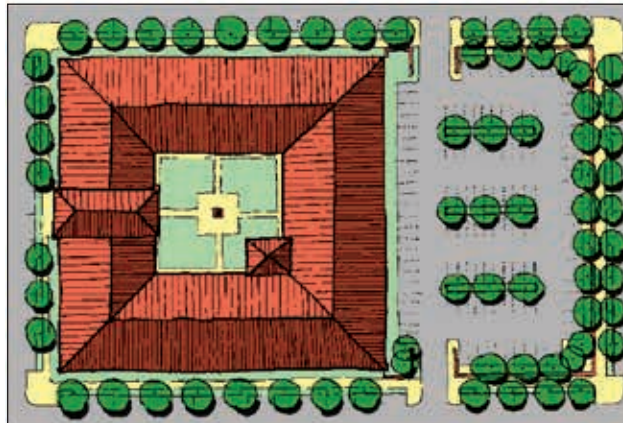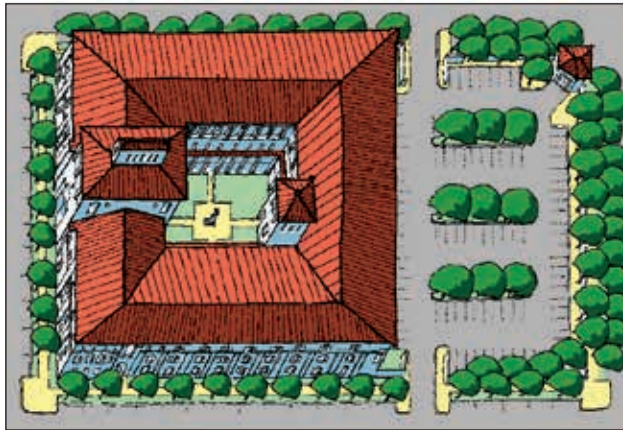

Apartment Block with Rear Parking
This sketch shows a courtyard apartment building fronting the street with parking concealed in the rear by a double row of trees. The interior court provides a focal point on which units face, creating an area for passive recreation. The building is placed close to the street to define the block edge.
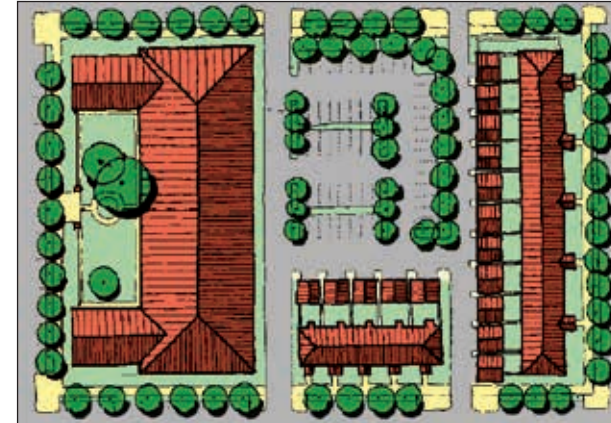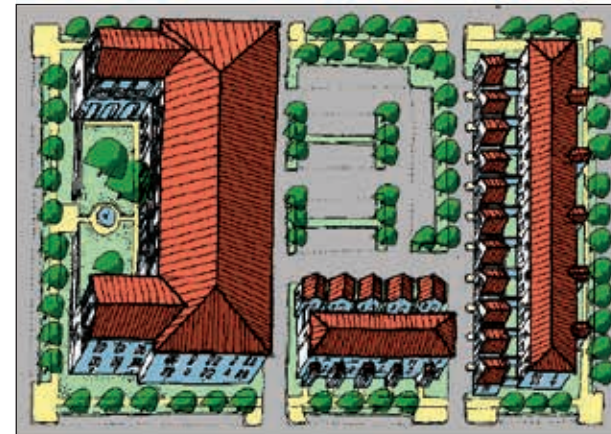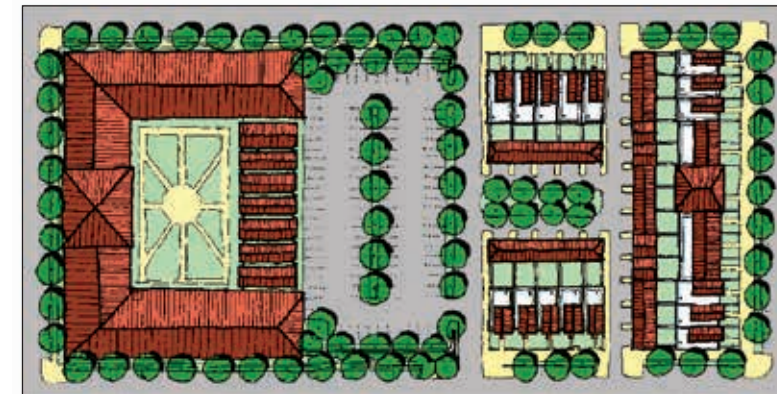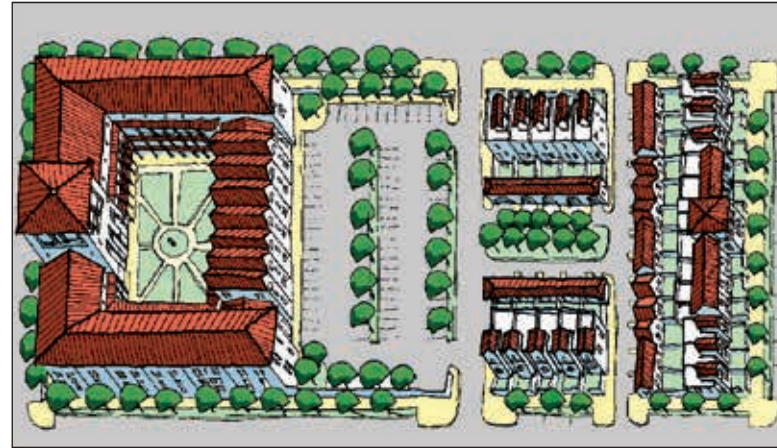
Plan of Apartment and Townhouse Block
This illustration shows a residential block with an apartment building placed adjacent to townhouses. Parking for the apartment building is in a parking lot with guest parking located along the street. Parking for the townhouses is located within garages on the rear of each lot, thereby eliminating parking in the front yard. The apartment building fronts a green that acts as a transitional element between building, sidewalk and street.
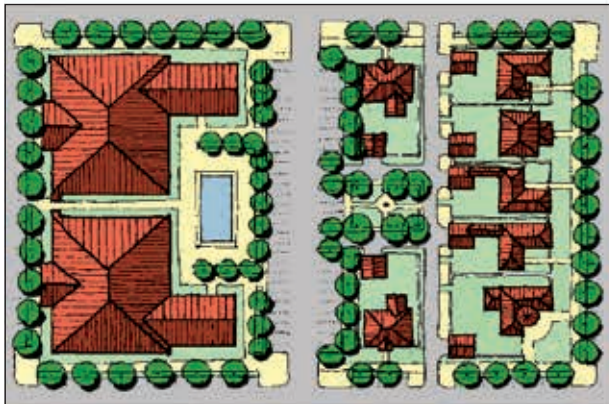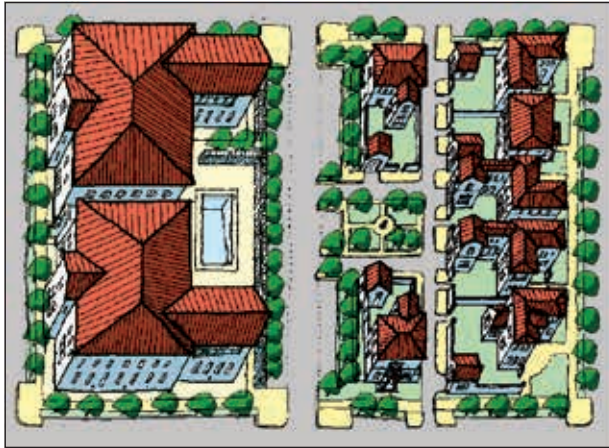
Plans of Apartment and Single-Family Block

This illustration shows apartment buildings abutting single-family units. The apartment buildings and single-family houses have uniform setbacks that reinforce the block edge. Parking for the apartments divides the two uses, while the placement of a green and pool results in a shared use of facilities. Guest spaces are provided on the street.

Courtyard Apartment Building and Townhouse Block

This sketch shows a transitional block with a courtyard apartment building and townhouses. Some of the townhouses have been attached to the rear of the apartment building and front on the green. This arrangement provides a transition to the townhouse grouping at the rear of the block.
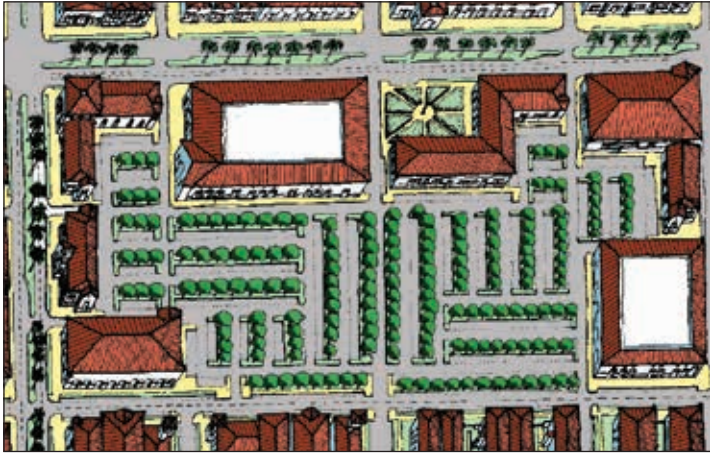
This axonometric of a community business district shows architecture, including articulated building bases and arcades that relate to the definition of the block edge.
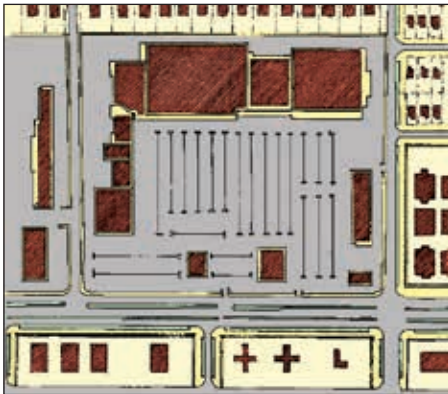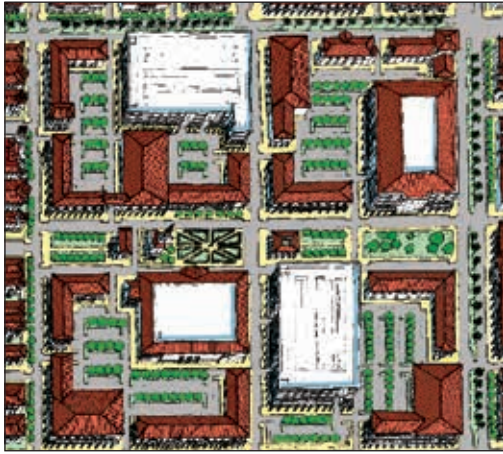

Inappropriate
The placement of the parking lot in front of the buildings creates a "gap" along the street. This condition results in a lack of block definition, and a very wide road cross-section without human scale, resulting in a hostile environment for both pedestrians and drivers. This commercial center layout is typical throughout Miami-Dade County and has resulted in a negative perception of space along many corridors.
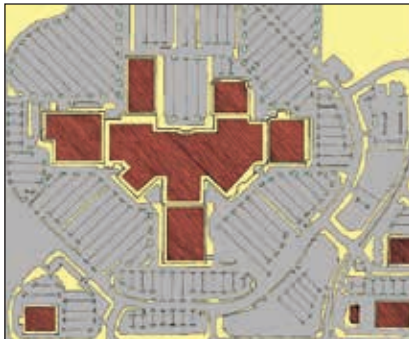

Appropriate
This plan for a 20-acre community business district shows the placement of buildings along the street edge, thereby defining the shopping block and partially concealing parking. The extensive planting of street trees helps shield the adjacent multi-family residential neighborhood from the parking area. The corner square at the center of the drawing produces a focal point for public activity including a transit stop and pickup and drop-off area, as well as a place for outdoor dining. The development of a shopping center as a series of blocks, integrates the center with the adjacent residential community.

This axonometric of a regional business district demonstrates the use of architecture that clearly defines the street and sidewalk with arcades which are used as a continuous element throughout the retail center.

Inappropriate
This shopping center lacks any relationship to adjacent development, pedestrians or transit riders. It produces no street edge definition and results in a lack of integration with adjacent areas. This design is characteristic of the regional center concepts predominant in the 1950's through the 1980's.
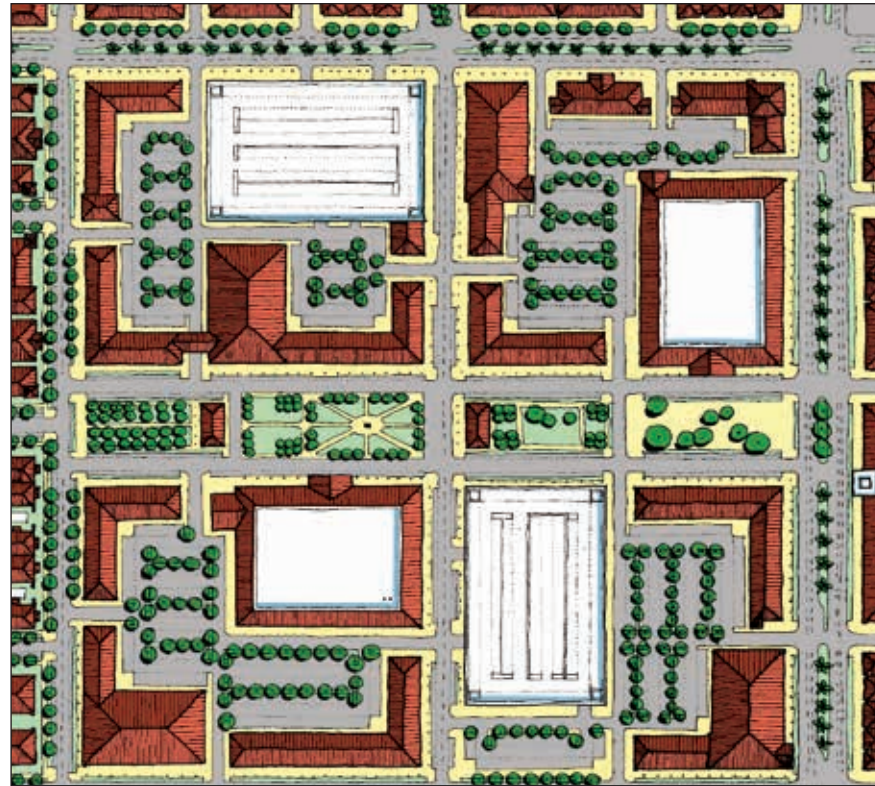
Appropriate
This regional business district is developed as a series of blocks, providing a transition to the adjacent residential uses. A green (paseo) acts as a connecting element between business and residential areas. The use of structures reduces the visual and spatial impact of surface parking. Retail and office uses front the parking structures, thereby encouraging pedestrian activity along the streets.

The vision for the Miami-Dade County Parks and Open Space System is to create a new, interconnected framework for growth, one that results in a more livable, sustainable community. Consisting of existing and proposed parks, public spaces, natural and cultural places, greenways, trails and streets, the framework will form the foundation or "bone structure" of the County to accommodate growth while also improving the quality of life for residents. The new framework will encourage the revitalization of neighborhoods; allow for the orderly redevelopment of existing land uses in response to changing markets and demographics; and ensure greater environmental protection. It will also improve the social fabric of the County, providing equitable access to parks and open spaces, and providing more opportunities for residents to meet, socialize and connect with one another.

The vision includes the following components:

1. Great Parks
2. Great Public Spaces
3. Great Natural and Cultural Places
4. Great Greenways, Trails, and Water Trails
5. Great Streets

Guiding principles to create a model park system:

Seamlessness
Every element of the County, including neighborhoods, parks, natural areas, streets, civic centers and commercial areas, should be connected without regard to jurisdiction.

Beauty
Every public space, including streets, parks, plazas and civic buildings, should be designed to be as aesthetically pleasing as possible, and to compliment the natural and cultural landscape.

Access
Every resident should be able to safely and comfortably walk, bicycle, drive and/or ride transit from their home to work, school, parks, shopping and community facilities.

Equity
Every resident should be able to enjoy the same quality of public facilities and services regardless of income, age, race, ability or geographic location.

Sustainability
Every action and improvement of the Park System, including facilities, programs, operations and management, should contribute to the economic, social and environmental prosperity of the County.

Multiple benefits
Every single public action should generate multiple public benefits to maximize taxpayer dollars.

The above criteria is from the OSMP, pages 16 through 20
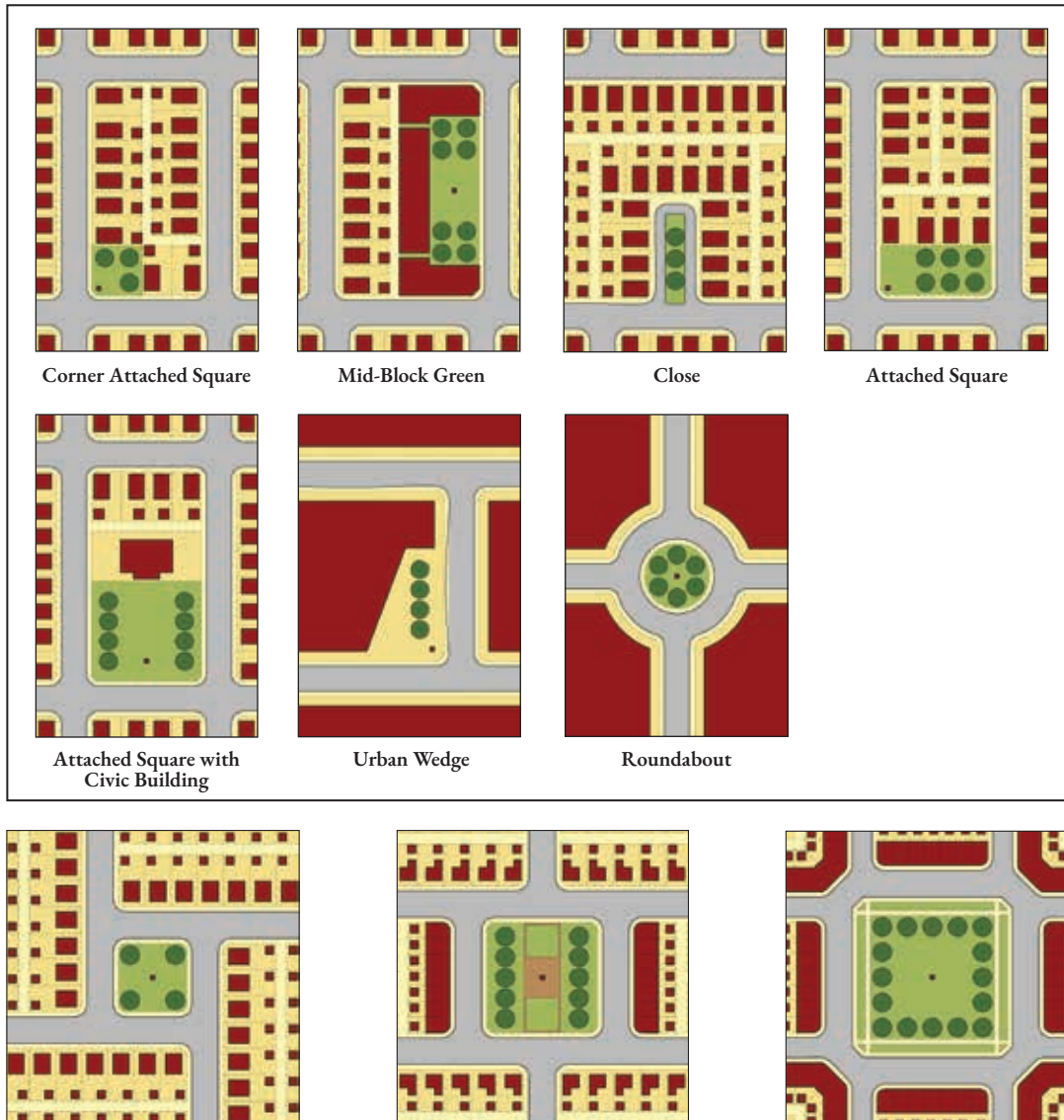

Rural

Suburban

Urban

The above images are from the MDC Park Structure and Landscape Pattern Book, pages 65 through 67.

The location (rural, suburban or urban), form and amenities offered by the type of open space available to a community fulfill a particular function and provide different experiences for its users.

Common open space is an essential element of a neighborhood and should be considered as an integral part of neighborhood design. Plazas, squares, and greens can provide urban open space at the neighborhood center, while active and passive parks should be situated at the edge of the neighborhood, between neighborhoods, or as a part of a school site. Generally, well-designed open areas are clearly defined by buildings and landscape. When properly planned, open spaces offer areas for social encounters, for recreation, as a complement to focal points, and provide foreground for civic buildings.

Corner Attached Square

Mid-Block Green

Close

Attached Square

Attached Square with Civic Building

Urban Wedge

Roundabout

Detached Squares and Greens

Various forms of detached greens that may be incorporated within the neighborhood are shown in the above example. The central green is the most prominent social area and its importance is enhanced by placement of civic and commercial buildings framing the edge of the green. Smaller detached and attached greens, such as small parks and medians, are evenly distributed throughout the neighborhood to offer additional outdoor space for residents. Squares, greens and roundabouts may also be used as traffic calming devices depending upon their placement.

Adapted from: Architectural Graphic Standards - Ninth Edition.

Market Plaza

The market plaza is a partially paved area for intensive use such as weekend markets. A plaza may also be used as a front place for public buildings and religious structures, and other buildings of public gathering.
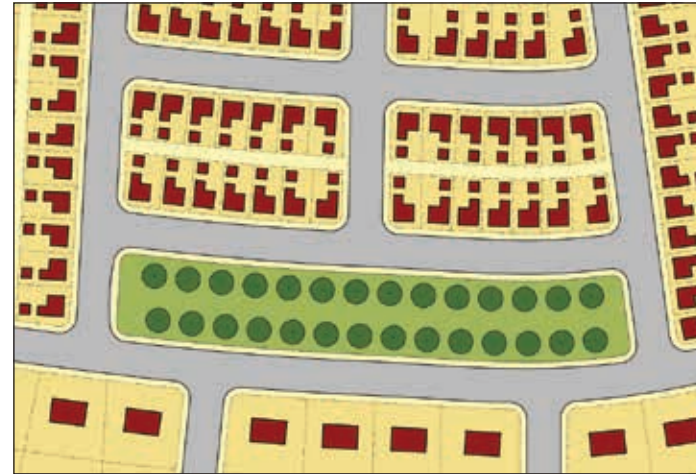
Green

Similar to a central square, the green can be used as an urban space at the center of the community. The central green was the predominant form of open space in early American towns. Central greens should be defined on all sides by a road and clearly defined by architecture and landscape. In this example, both residences and public buildings are placed overlooking the green.

Parks

Parks are naturalistic open spaces used for active and passive recreational use. Generally parks should be located at the edge of the neighborhood, preferably in natural areas, or should be landscaped in a naturalistic manner. Parks combined with schools make a logical connection between neighborhoods.

Buffer

The buffer is a form of green that reduces the impact on residential areas of traffic on an adjacent street. In this example, higher density residential development is placed around the buffer, while larger lot development with greater front setbacks buffer the traffic noise on the opposite side of the street.

Adapted from: Architectural Graphic Standards - Ninth Edition.

This is an example of a plan that equally distributes open spaces as focal points throughout the neighborhood.
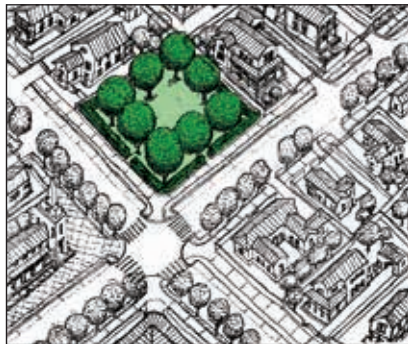

This sketch shows an attached green within a neighborhood. Such greens should be evenly distributed throughout the neighborhood, with easy access to all residents.
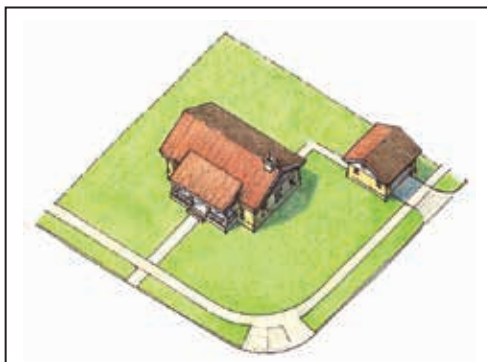

This sketch illustrates the use of a close to provide identity and passive recreation space in a sub-neighborhood area. A bosque, a formal planting of trees, acts as a focal point in this sub-neighborhood area.

The central green or square acts as the "heart" of the community. Architecture and landscape should be used to clearly define the edges.
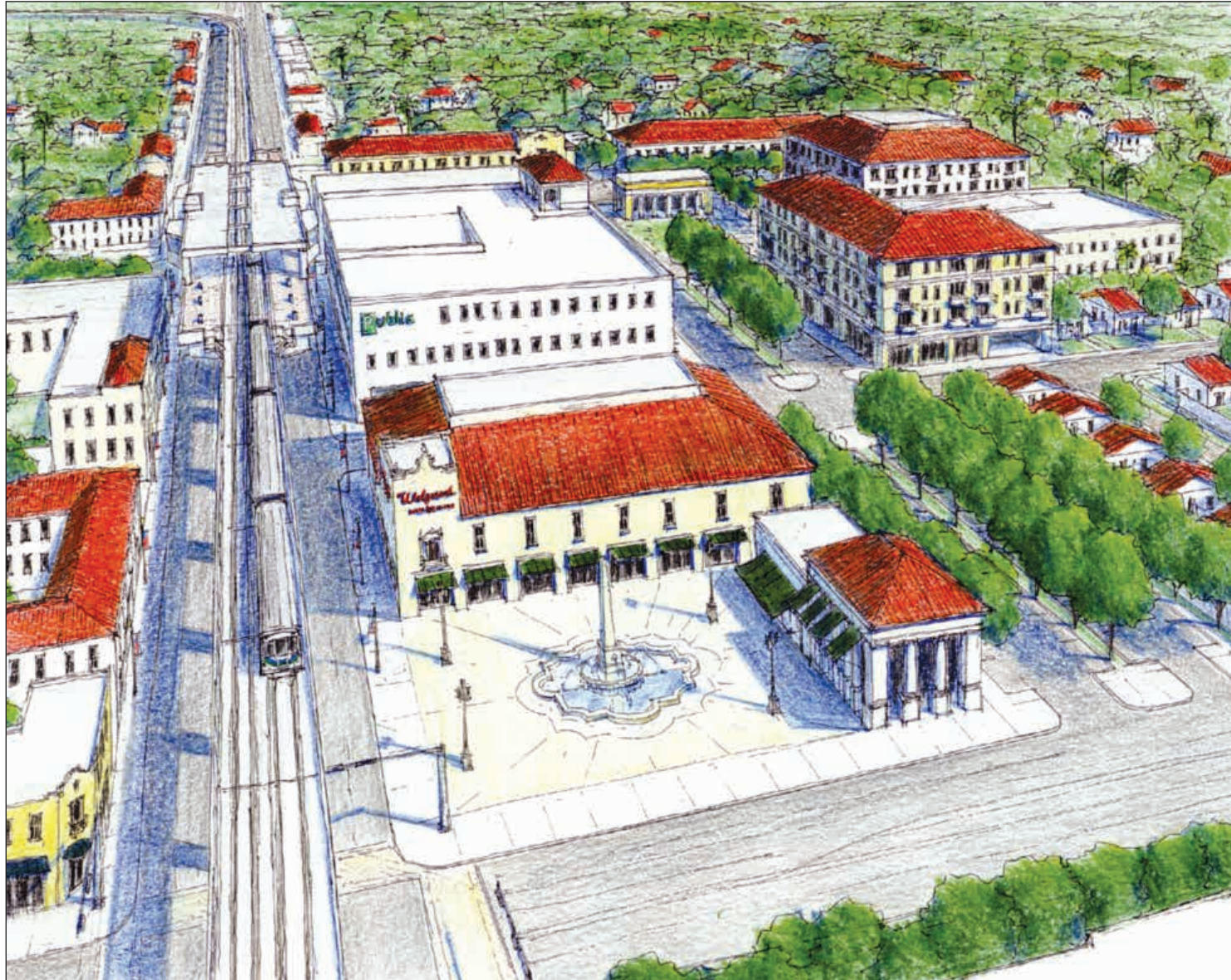
This axonometric illustrates the use of an attached commercial square to reinforce the definition of the road intersection. Additionally, the use of arcades provides shade and human scale. The square offers an area for pedestrian congregation.

Introduction

The purposes of this section of the manual are threefold: 1) to foster communication among designers and planners when discussing the various types of housing that may be included in a neighborhood; 2) to illustrate preferable ways to situate the houses on the lots; and 3) to describe desirable locations for the various building types within the neighborhood. The following sketches illustrate the basic residential building types: the rural yard, perimeter yard, duplex, courtyard, townhouse and apartment house. Each type has a preferred function and location within the neighborhood.

Rural Yard

This type is most appropriately used as a large-lot use outside the Urban Development Boundary, or as a transitional use abutting agricultural or large-lot subdivisions. Unlike other residential building types, the relation to the street is not critical and the use of the lot for agricultural purposes can reinforce the rural character.

Perimeter Yard

The perimeter yard (detached single family) has a yard space along the perimeter of all lot lines. In the first illustrated example, parking is placed at the rear of the lot off of an alley, while the unit is placed close to the sidewalk. Placement of the unit at the front of the lot helps to define the street space. In the second and third examples, parking is accessed from the street, but the garage is placed away from the sidewalk so that it does not become a dominant element on the front elevation. In all three cases, porches act as transitional elements between street and home.

Duplex

In this example, the duplex (two-family dwelling) is placed close to the front of the lot, while parking is placed to the rear behind the units, producing a good street relationship. An alley could also be used to access parking and utilities.

Side Yard

The side yard house orients the house towards the side yard space. This is an excellent building type to use on narrow lots and in zero-lot-line development. This illustration of the side yard house was adapted from the "Charleston" house, a characteristic type used in Charleston, South Carolina. The example has alley access which leaves the side yard open, thus, the unit is brought closer to the street and sidewalk, resulting in a positive road cross section and definition of the public space.

Courtyard

One or more outdoor spaces enclosed by the walls of the unit define the courtyard type. These spaces can also be defined by walls of adjacent buildings. Placing parking off an alley creates a more attractive street frontage. The courtyard unit can be either attached or detached.

Townhouse (Rowhouse)

This house type is placed parallel to the sidewalk and occupies the entire lot width. It is the most urban of the single-family residential types. The building façade defines the edge of the street, while the rear of the lot includes private open space, parking or additional living units above the garage. This drawing illustrates alley access for parking which eliminates the need for parking in the front yard. Townhouses are appropriately placed near the town or neighborhood center, particularly if developed with alleys which allow street frontage for on-street parking.

Apartment

Apartment types can be classified in three subtypes, the individual building, the courtyard building and the bar building. The courtyard type offers private outdoor spaces in the form of an internal courtyard. All apartment buildings should be placed close to the street to help define the public street space. Parking should be placed to the rear yard or concealed in parking structures. Where feasible, additional parking could be on the street.

Development Patterns

The Transect

The transect is a system of classification deploying a conceptual range from rural to urban of the typical elements of urbanism. For example, a street is more urban than a road, a curb more urban than a swale, a brick wall more urban than a wooden one, an allee of trees more urban than a cluster. This gradient when rationalized and subdivided, becomes the urban transect, the basis of a common zoning system.
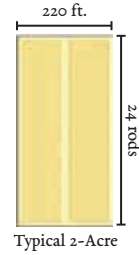
The continuum of the Transect, when subdivided, forms the basis of the zoning categories: Rural, Sub-Urban, General Urban, Urban Center and Urban Core.

RURAL ·············· ●●●TRANSECT●●●·············· URBAN

| AU GU EU-3 | EU-1C EU-1 EU-S EU-M | RU-1 RU-1M(a) RU-1M(b) | RU-2 RU-TH BU-1 | RU-RH RU-3M RU-4L RU-4M BU-1A | RU-4 RU-4A BU-2 |

| RURAL PRESERVE | RURAL RESERVE | SUB-URBAN | GENERAL URBAN | URBAN CENTER | URBAN CORE |
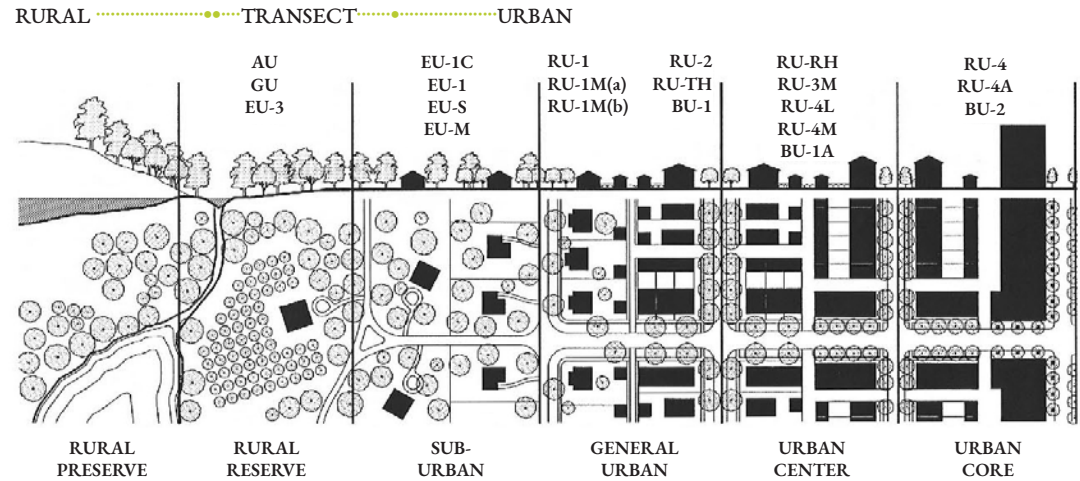
Code	Description
GU	Interim-Uses depend on character of neighborhood
AU	Agriculture-Residential 1 unit per 5 acres
EU-2	1 unit per 5 acres
EU-1C	1 unit per 2.5 acres
EU-1	1 unit per acre
EU-S	1 unit per 25,000 ft. lot
EU-M	1 unit per 15,000 ft. lot
RU-1	1 unit per 7,500 ft. lot
RU-1M(b)	1 unit per 6,000 ft. lot
RU-1M(a)	1 unit per 5,000 ft. lot
RU-2	2 units per 7,500 ft. lot
RU-TH	Townhouse- 8.5 units per acre
RU-3M	Apt. Townhomes- 12.9 units per acre
RU-RH	Rowhouses/Townhouses- 12 units per acre
RU-4L	Apartments- 23 units per acre
RU-4M	Apartments- 35.9 units per acre
RU-4	Apartments- 50 units per acre
RU-4A	Apartments, Hotels- 75 units per acre
BU-1	Neighborhood Retail
BU-1A	Limited Retail
BU-2	Special Retail

Note: The Urban Center Ordinance, the Planned Area Development Ordinance and the Traditional Neighborhood Ordinance may include several to all components of the Transect

LESS DENSITY	MORE DENSITY	
PRIMARILY RESIDENTIAL	PRIMARILY MIXED USE	PRIVATE
SMALLER BUILDINGS	LARGER BUILDINGS	
MORE GREEN SPACE	MORE HARDSCAPE	
DETACHED BUILDINGS	ATTACHED BUILDINGS	
ROTATED FRONTAGES	ASSIGNED FRONTAGES	
YARDS & FRONTAGES	STOOPS & SHOPFRONTS	
DEEP SETBACKS	SHALLOW SETBACKS	
ROTATED FRONTAGES	ALIGNED FRONTAGES	
ARTICULATED MASSING	SIMPLE MASSING	
WOODEN BUILDINGS	MASONRY BUILDINGS	
GENERALLY PITCHED ROOFS	GENERALLY FLAT ROOFS	
SMALL YARD SIGNS	BUILDING MOUNTED SIGNAGE	
LIVESTOCK	DOMESTIC ANIMALS	
ROAD & LANES	STREETS & ALLEYS	PUBLIC
NARROW PATHS	WIDE SIDEWALKS	
OPPORTUNISTIC PARKING	DEDICATED PARKING	
LARGER CURB RADII	SMALLER CURB RADII	
OPEN SWALES	RAISED CURBS	
STARLIGHT	STREET LIGHTING	
MIXED TREE CLUSTERS	SINGLE TREE SPECIES	
LOCAL GATHERING PLACES	REGIONAL INSTITUTIONS	CIVIC
PARKS & GREENS	PLAZAS & SQUARES	

220 ft.

24 rods

Typical 2-Acre

RURAL

Specific Type	villa	villa	villa / house	villa / house	house	house	house
Net Density	1 unit / 5 ac	1 unit / ac	2.42 units / ac	4.65 units / ac	5.81 units / ac	6.97 units / ac	7.75 units / ac
Zoning	EU-2	EU-1	EU-M	RU-1	RU-M (b)	RU-1M (a)	RU-1Z

URBAN

Specific Type	duplex	rowhouse/ townhouse	rowhouse/ townhouse	rowhouse/townhouse	apartment block	courtyard apt. block	apartment
Net Density	8 units / ac	8.5-12 units / ac	12.9 units / ac	4.65 units / ac	23 units / ac	35.9 units / ac	50 units / ac
Zoning	RU-2	RU-RH / RU-TH	RU-3M	RU-4L	RU-4M	RU-4M	RU-4 / RU-4A

Note: These examples do not show common open space that is required in many of the zoning districts.

Density: the theoretical capacity of a lot to accommodate residential intensity. It is a code technique to designate the number of dwellings which may be accommodated within a standard measure of land area. Usually it is expressed in units/acre.

Maximum Density: the capacity of a lot, usually determined by parking capacity and required open space, not by lot coverage or floor-area ratio. Thus the size and configuration of a lot is an important determinant of density insofar as it can efficiently accommodate parking. Generally, structured parking will be required with buildings greater than 25 units per acre.

Net Density: a dependable measure of the efficiency of a building type as it excludes the highly variable areas of thoroughfare and open space included in gross density calculations.

Gross Density: a measure of total number of units including roads and open space.

Low-Density Development
This illustration of a residential neighborhood shows houses placed close to the sidewalk defining the block edges by following uniform setbacks. The public and private realms are clearly distinguished and porches provide a transitional area between the street and the interior of the homes. A green is an integral element of this neighborhood and provides an area for recreation as well as social interaction for its residents.
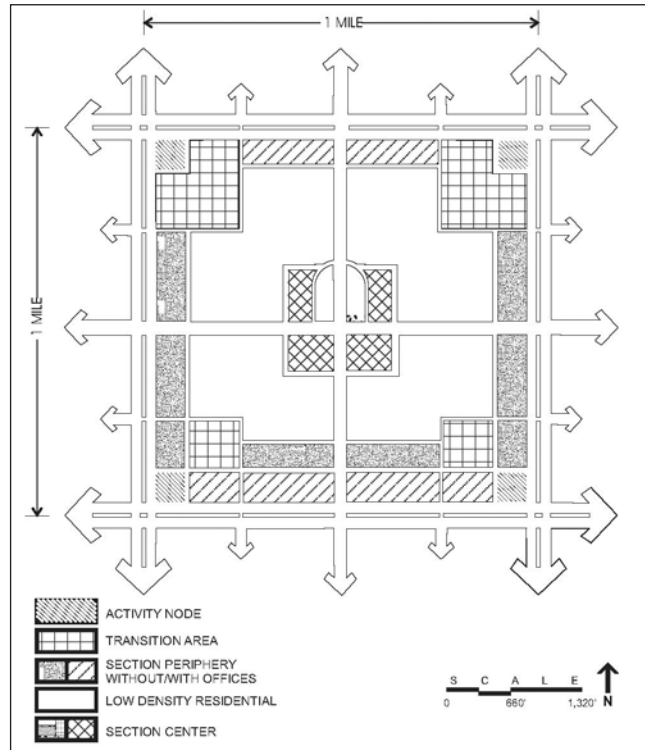
Medium-Density Development

This image illustrates a pedestrian-friendly medium-density community. An interconnected network of streets together with short block sizes, buildings placed close to the street and parking located behind them allow residents to walk with ease throughout the neighborhood. A variety of building types accommodates different uses and lifestyles, while the large central open space offers an area for social interaction and recreation.

This illustration shows a building fronting a parking lot and set far back from the street. The distance of the building from the street, and the lack of an identifiable entrance or other human scale details at the building base is negative for the pedestrian. The building is seen as an object that does not relate to adjacent development or contribute to the development of a community.

This illustration shows those design elements that result in human scale relationships including bases, colonnades for weather protection and clearly defined open spaces. Scale is also achieved with tall buildings by designing the first several stories to relate to the street and sidewalk, while the remaining stories are set further back, basically out of the view from the pedestrian. By using these urban design elements a high density community can be created.

ACTIVITY NODE

TRANSITION AREA

SECTION PERIPHERY
WITHOUT/WITH OFFICES

LOW DENSITY RESIDENTIAL

SECTION CENTER

The Generalized Neighborhood Development Pattern contained in the CDMP Guidelines for Urban Form is a schematic guide to the pattern of neighborhood land uses and relative development densities and intensities recommended by the CDMP to occur within the square-mile section grid of the County. The illustrations which follow demonstrate one of many possible physical design solutions that would comply with the CDMP criteria.

The general pattern of land use in residential communities should conform to the following guidelines consistent with the land use patterns and densities authorized and encouraged by the Land Use Plan (LUP) map. Future amendments to the LUP map should reflect the promotion of this localized form within the metropolitan pattern of urban centers and transit corridors.

1. The section line road should form the physical boundaries of neighborhoods.
2. The section line, half section line, and quarter-section line road system should form a continuous network, interrupted only when it would destroy the integrity of a neighborhood or development, or when there is a significant physical impediment. Pedestrian and vehicular traffic networks should serve as physical links between neighborhoods, with multiple points of access between neighborhoods.

3. Within a section, a variety of residential types and densities are encouraged, with higher densities being located at the periphery, and lower densities in the interior.

4. Intersections of section line roads shall serve as focal points of activity, hereafter referred to as activity nodes. Activity nodes shall be occupied by any non-residential components of the neighborhood including public and semi-public uses. When commercial uses are warranted, they should be located within these activity nodes. In addition, of the various residential densities which may be approved in a section through density averaging or on an individual site basis, the higher density residential use should be located at or near the activity nodes.

5. Areas abutting and adjacent to activity nodes should serve as transition areas suitable for higher residential densities, public and semi-public uses including day care and congregate living uses.

6. Areas located along section line roads between transition areas are also authorized for eligible higher residential densities, public and semi-public uses. When section line roads are served by adequate mass transit, these are more suitable for office uses than such properties not served by adequate transit.

7. Sites located near the center of the section at or near the intersection of half-section line roads may be utilized for neighborhood-serving community facilities such as elementary schools, day care, recreational uses, and open spaces.
8. Pedestrian circulation shall be provided between activity nodes, all public places, and all subdivisions, through connectivity of section, half-section and local ways constructed with sidewalks and supplemented by pedestrian paths.

9. Along arterials, major and high-speed roadways, pedestrian circulation should be accommodated by sheltering sidewalks from passing traffic by providing landscaping and trees at the street edge. In commercial areas, pedestrian access should be further accommodated by pedestrian pathways from the neighborhood to the business entrances as convenient as those from parking lots, and by providing awnings, overhangs or porticos for protection from the sun and weather.
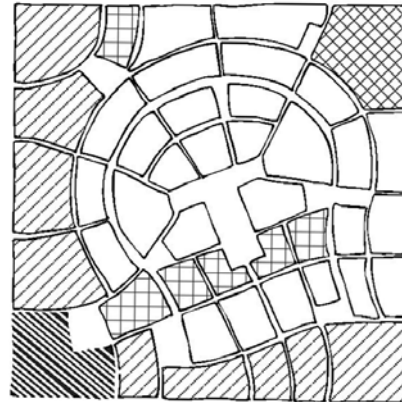
10. The walling off of neighborhoods from arterial roadways should be avoided by alternatives such as placement of other compatible uses along the periphery of suburban neighborhoods. These uses include public and semi-public uses, higher density residential building types, and office uses. If lower density residential uses are to be located on an arterial, the building lots should be provided with ample setbacks and side yards. Block ends should face the arterial and frontage roads may be utilized, or landscaping should be used in lieu of continuous walls.

11. In planning and designing new residential developments, the frontages of public canals should be designed to remain open and accessible to neighborhood residents by such measures as the provision of adjoining frontage streets, and the avoidance of platting new contiguous building lots which would back up to the canal rights of way and prevent access. Similarly, new developments should be designed so that at least a portion of the shoreline of private water bodies will remain visible and accessible to neighborhood residents.

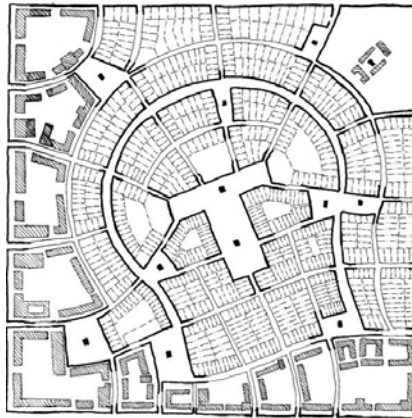The above criteria is from the CDMP, pages I-26 through I-29.

1/4 Mile

	Activity Node
	Transition Area
	Section Periphery Without/With Offices
	Low Density Residential
	Section Center

This drawing highlights land use intensities in accordance with the Generalized Neighborhood Development Pattern. Commercial and office uses are placed at the edge fronting on section-line roads. Higher intensity residential is also incorporated as a transition to lower density residential areas. A school and park site provides a connection to adjacent neighborhoods.

This plan complies with the CDMP criteria and provides a mix of uses including commercial, multi-family residential and attached and detached single family. Higher intensity has been placed along the arterials. A central green and square provide a central focus for this neighborhood. Attached and detached squares and greens are evenly distributed and provide open space and sub-neighborhood identity.

This diagram highlights the distribution of open-spaces in the form of greens, squares and parks. The placement of these spaces define and identify sub-neighborhood areas.

Low-Density Residential
Low-density residential, including courtyard, side yard, and perimeter housing, establishes a precedence for low density uses across the minor arterial. Greens have been used to designate sub-neighborhood areas and provide open space.

Multi-Family Residential
Multi-family uses placed close to the center green are buffered by lower density uses.

Retail Center
A shopping center has been placed at the intersection of two arterial roadways. Buildings have been placed to define the edge of the block, with parking screened from surrounding roadways. A green acts as a transitional element between commercial and residential uses and provides easy access from the residential area to shopping.

Transitional Area
Apartments and offices have been placed along the arterial as transitions to potential residential uses.

TODs are high-density or intensity mixed-use, commercial and residential developments designed to encourage public transit use. Transit nodes are generally found at the center of a TOD, surrounded by rather high-density development with gradually lower densities spreading outwards from the transit station or stop.
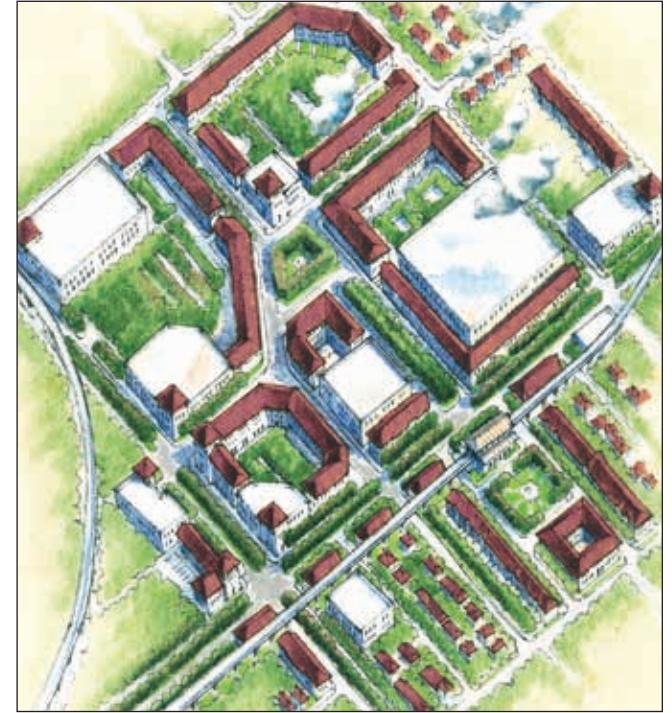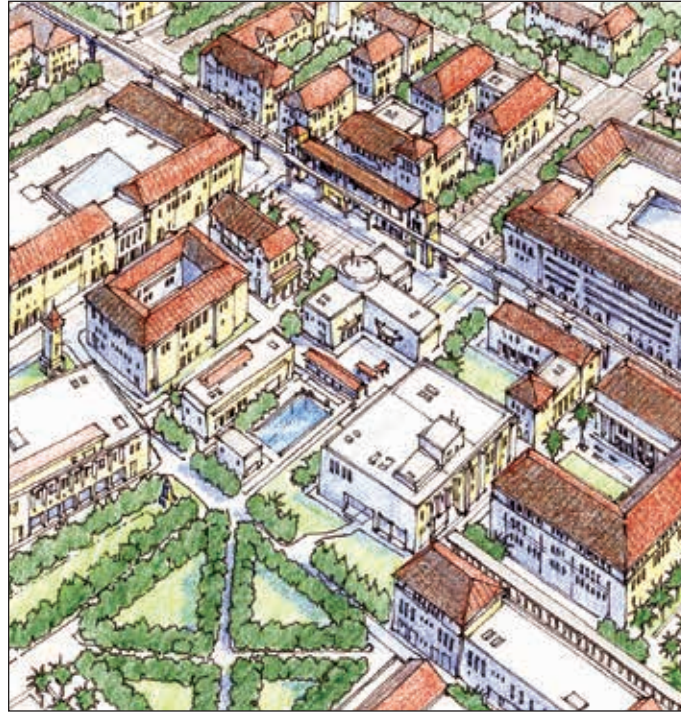
These illustrations depict design features that make it more convenient for communities to use public transportation. Adequate density, a walkable environment with mixed-use buildings and well-designed open spaces make the area around the transit station or stop feel inviting, usable and secure, therefore creating effective developments oriented to transit.
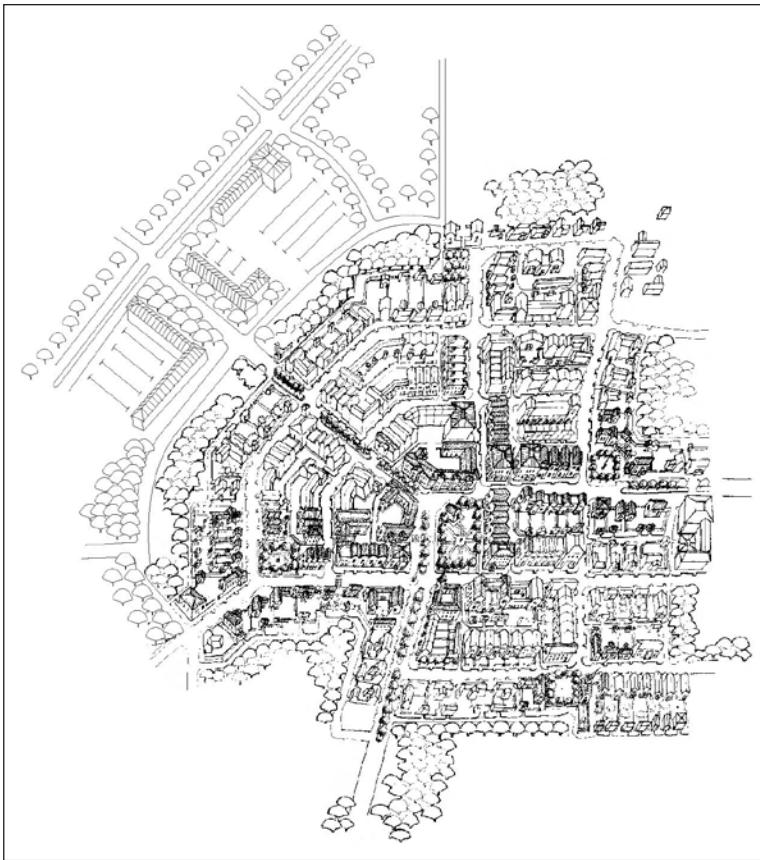
Many of the concepts expressed in this manual have been incorporated in the Traditional Neighborhood Development (TND) ordinance. This ordinance provides design criteria that produce traditional neighborhoods such as those which existed in America prior to suburban growth characteristic after 1940. The neighborhood is the basic building block of community activities and can be defined as follows:

1. The neighborhood has a center and an edge. This combination of a focus and a limit contributes to the social identity of the community. The center is a necessity, the edge less so and may not clearly exist. The center is always a public space, a square, a green, or an important street intersection located near the center of the urbanized area, unless otherwise compelled by geography.

The edges of a neighborhood vary in character and, if properly planned, may subtly blend with the next neighborhood. Neighborhood edges can be defined by larger recreational and educational uses, greenbelts, landscape buffers or large homesites.

2. The neighborhood has a balanced mix of activities: shops, work, school, recreation, and dwellings of all types. This is particularly useful for young, old, disabled, and low-income populations who, in an automobile-based environment, depend on others for mobility.

The neighborhood provides housing for residents with a range of incomes. Affordable housing types include backyard apartments, apartments above shops, and apartment buildings.

3. The optimal size of a neighborhood is a quarter mile from center to edge, a distance equal to a five-minute walk at an easy pace. Its limited area gathers the population within walking distance of many of their daily needs.

4. The location of a transit stop within walking distance of most homes increases the likelihood of its use. Transit-oriented neighborhoods create a regional network accessible to a population unable to rely on cars. Such a system can provide access to the major cultural and social institutions, a variety of shopping, and a large job base that can only be supported by the large population made up of an aggregation of neighborhoods.

5. The neighborhood consists of blocks on a network of small through streets. Streets are laid out to create blocks for appropriate building sites and to shorten pedestrian routes. An interconnecting street pattern provides multiple routes, diffusing traffic. This pattern keeps local traffic off regional roads and through traffic off local streets. Neighborhood streets of varying types are designed for pedestrian comfort and automobile movement. Slowing the automobile and increasing pedestrian activity encourages the casual meetings that form the bonds of a community.

6. The neighborhood gives priority to the public and to appropriate location of civic buildings. Public spaces and buildings enhance community identity and foster civic pride. The neighborhood plan creates a hierarchy of useful public spaces: a formal square, and informal park, and many playgrounds.

The above scheme illustrates development under the TND criteria and provides all the elements that contribute to the development of a successful neighborhood. A mix of residential, commercial, and civic uses support neighborhood activities. Squares and greens are distributed throughout the neighborhood as an integral part of the plan.

Source: Text adapted from a talk by Elizabeth Plater-Zyberk at the Aspen Institute, "Suburbs and Cities: on Changing Patterns in Metropolitan Living", 1995.

Mix of Housing
The TND ordinance provides for a mix of housing types including detached single family (perimeter yard), townhouses and apartments.
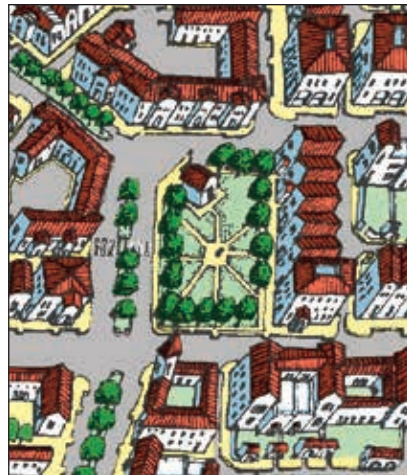
Center
The center provides a focal point for community activities. Activity in the square is enhanced by retail, a religious building and higher density residential dwellings.
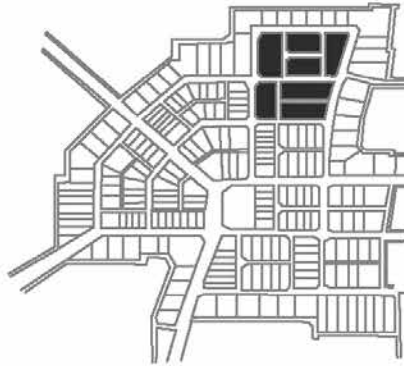
Edge
In this example, lower density single family homes have been placed adjacent to a linear park. The park provides a buffer between the residential and commercial uses placed on an arterial road.
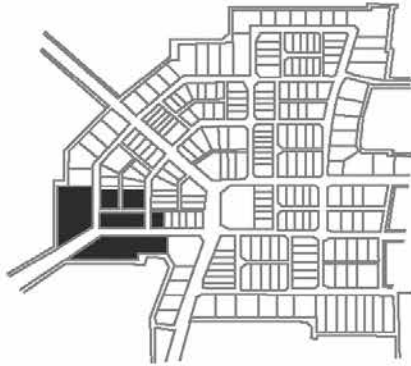
Transit Stop
The location of a transit stop within walking distance of most homes increases the likelihood of its use. Here the transit stop is conveniently located at the town square.

Blocks & Streets
The street network is made up of streets and blocks. Buildings placed close to the street define the street edge and create a street cross-section compatible with human scale.
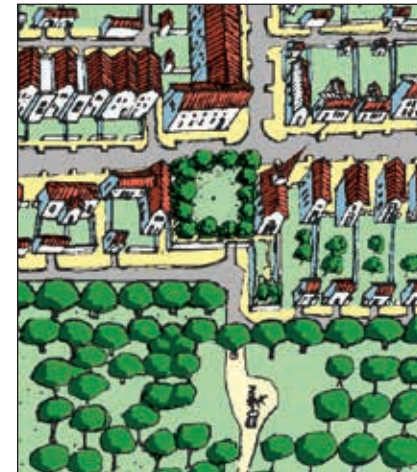
Civic Buildings
Civic buildings should be placed at prominent locations. The yard of a religious facility doubles as a multiple use area for religious and neighborhood activities.

Retrofitting is the redesign and updating of existing development to incorporate urban design principles. An existing regional shopping center was selected to show an example of the way an isolated suburban superblock development can be redeveloped incrementally over time using urban design principles to integrate the surrounding community. The illustrations depict the way in which a system of blocks can be created to enable a phased approach applied over a period of years or interrupted at any point.

Existing Condition
The first step is to establish a formal center.

Phase 2
The primary element in this phase is the development of a mixed use block and street system. Structured parking replaces surface parking. Blocks are developed following existing vehicular systems. Liner buildings with shops screen parking garages. Pedestrian passages connect to parking and future block connections.

Phase 3
In Phase 3, multi-family residential along the periphery has been added. Greens and squares act as focal points for the residential component and define sub-neighborhood areas.

Phase 4
In Phase 4, additional blocks are created. Auto and pedestrian access is increased as a result of connecting roads to development outside of the center.

Phase 5
Phase 5 shows the completed retrofit of the site into a major urban neighborhood. The layout establishes a precedent for development patterns in surrounding areas.

Phase 1
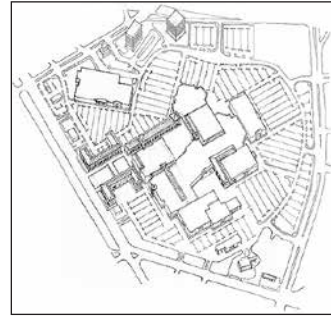
Phase 2
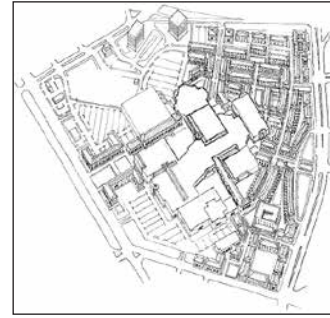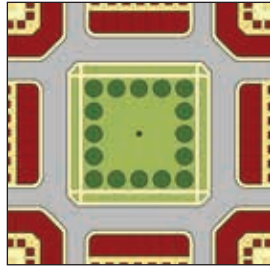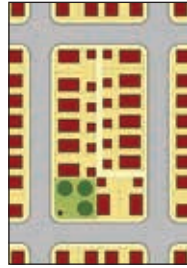

Phase 3

Phase 4
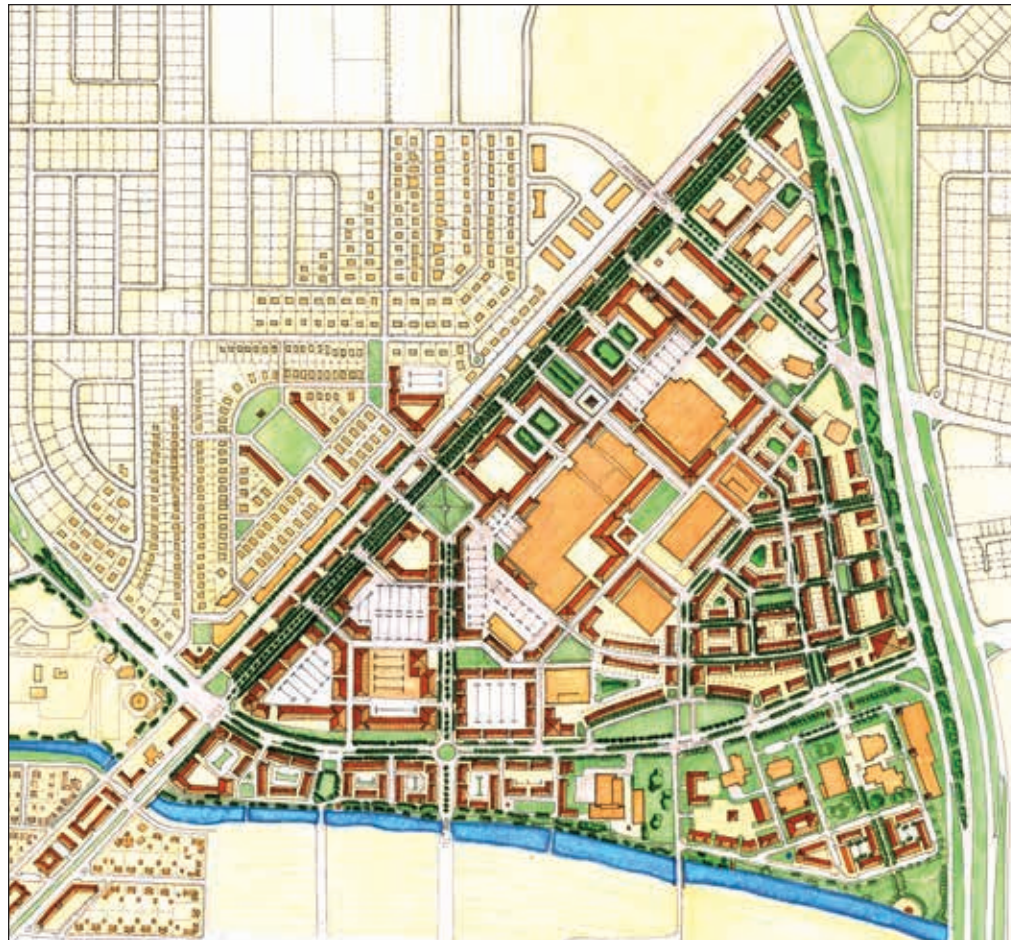
Phase 5

Infill development is building on vacant or underutilized parcels of land within an existing urban area. This promotes the betterment of the community and can be characterized by higher densities, compactness and an effective use of land. Ideal locations for infill development include major corridors, parcels adjacent or near transit, brown-fields, red-fields and existing urban neighborhoods. Infill development can complete the urban fabric of a neighborhood with projects that support transit, provide housing opportunities, revitalize neighborhoods and provide accessible services. Infill development reduces traffic congestion, preserves open space, leaves agricultural as well as rural areas undeveloped, creates a more livable community and provides an alternative to urban sprawl.

Infill development should harmonize with its surrounding buildings, enhancing the quality of the neighborhood and promoting its character.

Illustrative Examples

Open-Space Types Used:

Detached Square or Green

Corner Attached
Square or Green
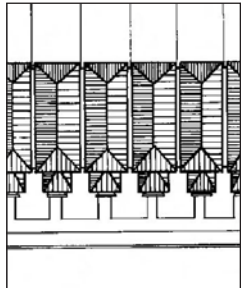
Spatial Definition:

Ratio 1:2 by landscaping

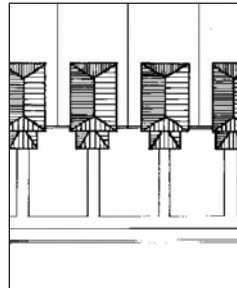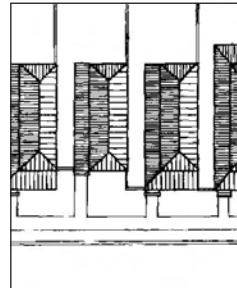

Ratio 1:3
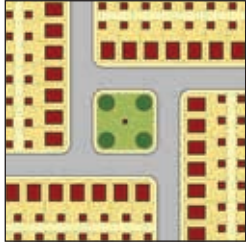
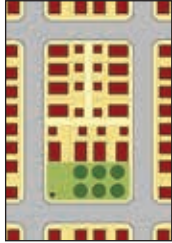**Building Types:**

Townhouse

Perimeter Yard

Side Yard

This neighborhood located in south Miami-Dade County includes the following urban design concepts:
1. The mix of housing types includes townhouses, perimeter yard units, and side yard units.
2. Porches are provided on perimeter yard houses as a transitional element between unit, street and sidewalk.
3. A civic-use building and clubhouse face plazas which act as neighborhood focal points.
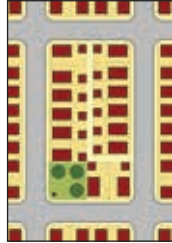4. A double-frontage road is provided to buffer townhouses from traffic along an adjacent arterial.

Open-Space Types Used:

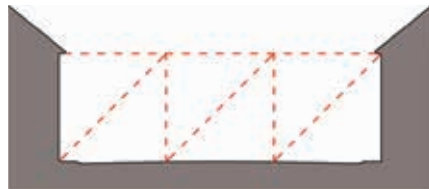Detached Square
or Green
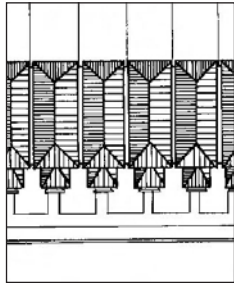
Attached Square
or Green

Corner Attached
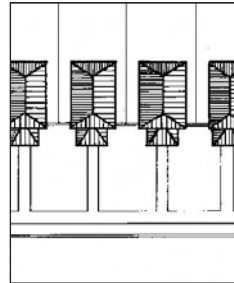Square or Green

Green

Street Spacial Definition:
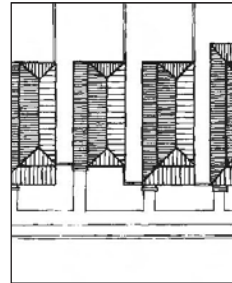

Ratio 1:3

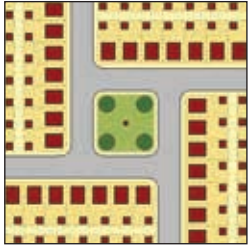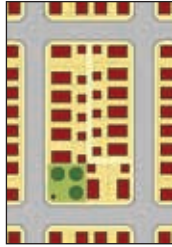**Building Types:**

Townhouse

Perimeter Yard

Side Yard

This neighborhood is located in south Miami-Dade County. The plan incorporates the following urban design concepts:

1. The site meets the storm-water retention area requirement in the form of a lake. The lake is designed as an integral and unifying element of the neighborhood rather than being placed at the perimeter.

2. The plan follows a modified grid with the addition of curved roads that add interest to a basic grid plan.

3. A mix of housing types, including perimeter yard, side yard, and townhouses, is provided.

4. All units face, or are located within, the immediate vicinity of a green or lake. All greens have direct or indirect access to the lake.

5. A sense of continuity is provided by connecting the roadway system to adjacent development.
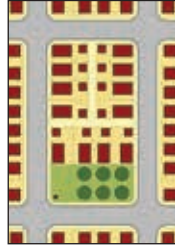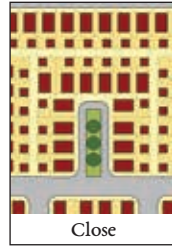
Open-Space Types Used:

Detached Square or Green

Corner Attached Square or Green

Attached Square or Green

Close

Spatial Definition:
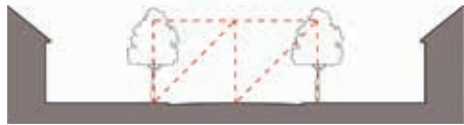
Ratio 1:2 by landscaping
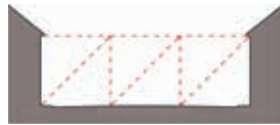
Ratio 1:3

Building Types:
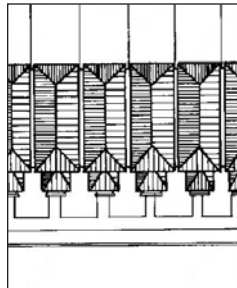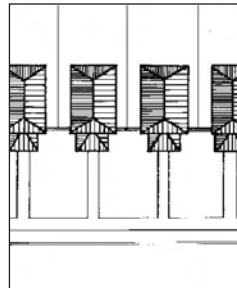
Townhouse

Perimeter Yard

This neighborhood located in south Miami-Dade County includes the following urban design concepts:

1. The mix of housing types includes townhouses, perimeter yard units, and side yard units.

2. Porches are provided on perimeter yard houses as a transitional element between unit, street and sidewalk.

3. A civic-use building and clubhouse face plazas which act as neighborhood focal points.

4. A double-frontage road is provided to buffer townhouses from traffic along an adjacent arterial.

Open-Space Types Used:
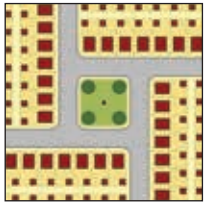
Detached Square
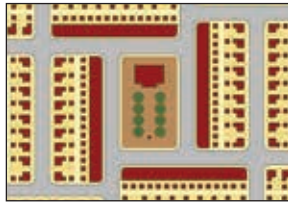
Plaza

Green and Playground

Street Spacial Definition:
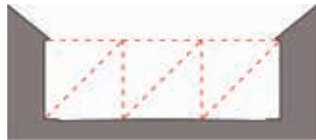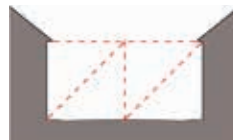
Ratio 1:3

Ratio 1:2

Building Types:
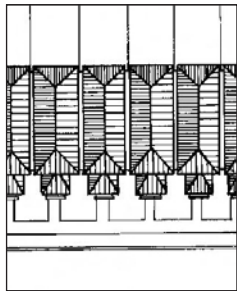
Townhouse
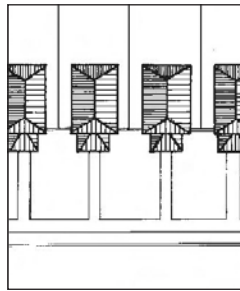
Perimeter Yard
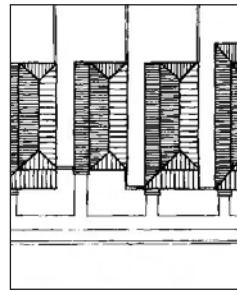
Side Yard

This 80-acre site is located in south Miami-Dade County and incorporates single-family, apartments, and retail uses. The design elements include:

1. A mix of uses, includes single-family and retail.
2. The storm-water retention area requirement is provided by a lake which penetrates the entire neighborhood in a picturesque matter.
3. Public access to the lake is provided by roadways and bridges.
4. Open space is distributed equally throughout the neighborhood.
5. The block and street network interconnects the neighborhood. Sidewalks are provided throughout.
6. Alleys provide additional parking access, trash collection and the potential for additional housing placed along the alley. Alleys eliminate the need to park in the front yard area.

Open-Space Types Used:
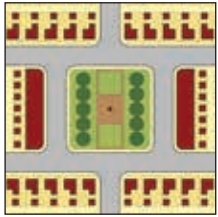


Detached Square
or Green
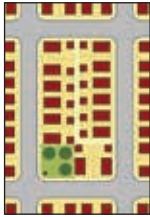
Corner Attached
Square

Park

Spatial Definition:
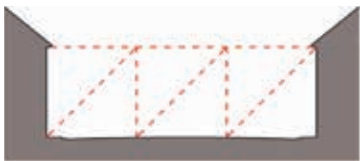
Ratio 1:3

Ratio 1:2

Building Types:
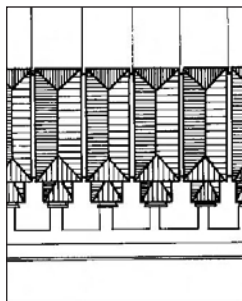
Townhouse

This site, located in north Miami-Dade County, is adjacent to a golf course/park and comprised entirely of townhouses. The urban design elements include:

1. A central square and two attached squares provide neighborhood focal points.
2. All cross streets terminate on the golf course, thus visually linking the golf course to the neighborhood.
3. A sidewalk along the golf course provides direct visual access to open space.

Open-Space Types Used:
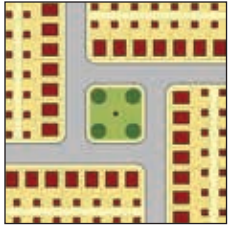
Detached Square
or Green
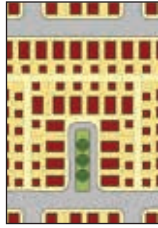
Close
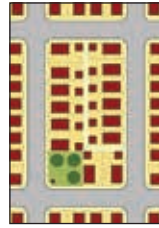
Corner Attached
Square or Green

Street Spacial Definition:
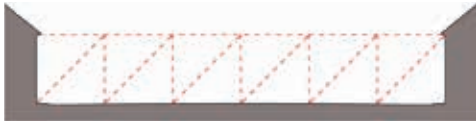
Ratio 1:6

Ratio 1:3
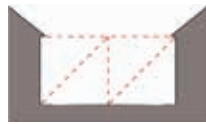
Ratio 1:2

Building Types:
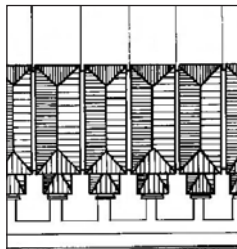
Townhouse

This mixed-use development located in south Miami-Dade County includes the following design elements:
1. Mixed uses include retail and townhouses.
2. The storm-water retention area is developed as a central lake and acts as a focal point for the development.
3. Retail has been designed with double frontage for direct access from the residential area.
4. Greens are provided for passive recreational activities and as neighborhood focal points.

Open-Space Types Used:
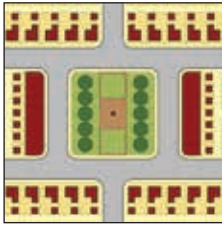
Detached Square
or Green
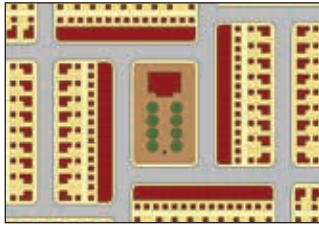
Plaza

Roundabout

Spatial Definition:

Ratio 1:3

Building Types:
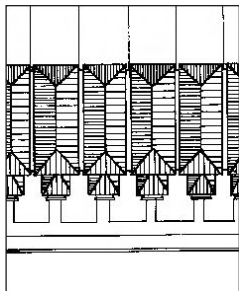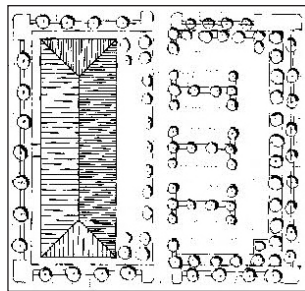
Townhouse

Apartment
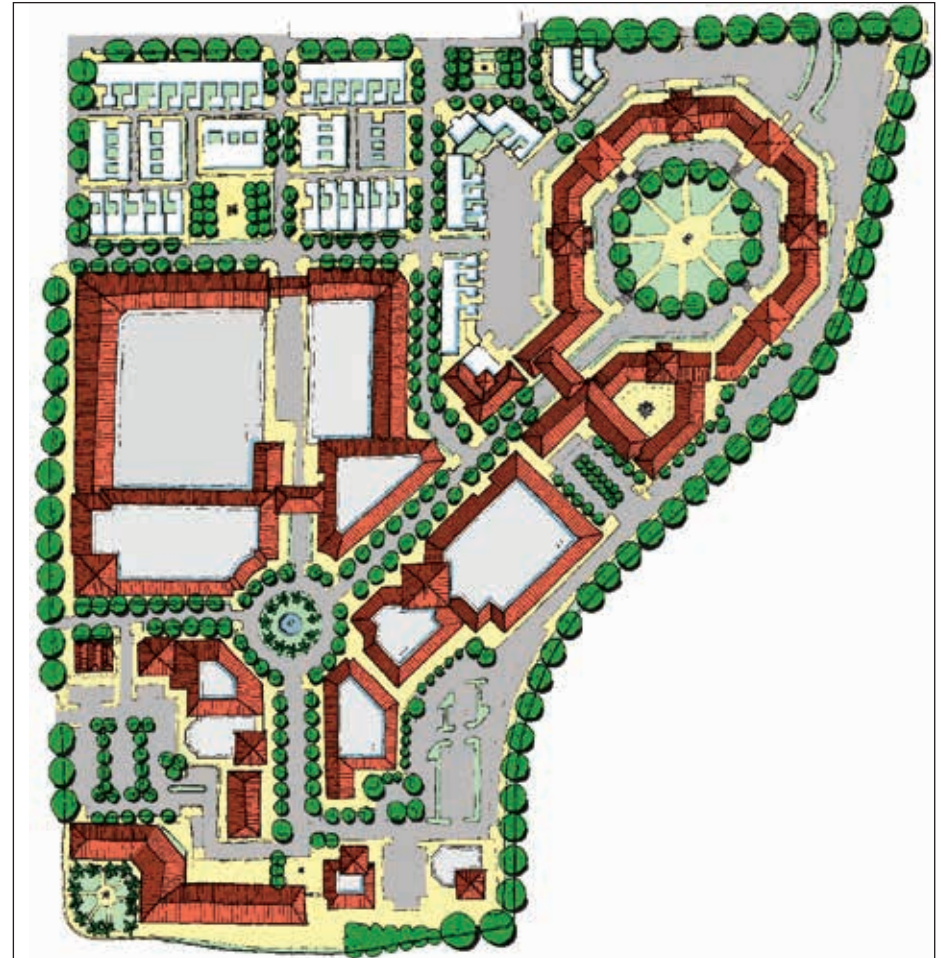
This site is located in south Miami-Dade County. It is a mixed-use development including at hotel, retail, townhouses, and apartment units. Design concepts include:

1. Parking structures are used to resolve parking requirements. Liner shops are provided on the ground floor of parking garages to create activity along the street.

2. Various open-space types, including an octagon shaped detached green, a roundabout, attached squares and a close, are incorporated as open spaces throughout the neighborhood.

3. A diagonal boulevard running from the octagon to the roundabout provides a unifying element for this scheme.

Open-Space Types Used:
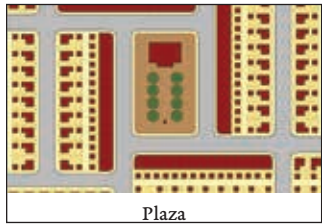
Plaza
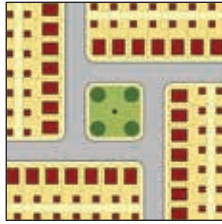
Detached Square or Green
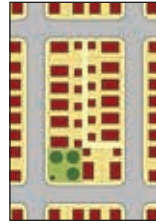
Corner Attached Square or Green

Street Spacial Definition:
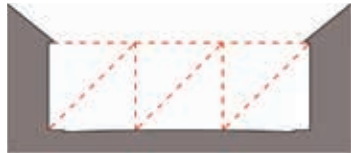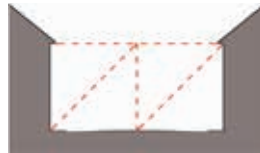
Ratio 1:3

Ratio 1:2

Building Types:
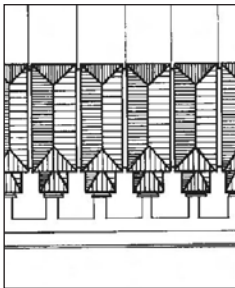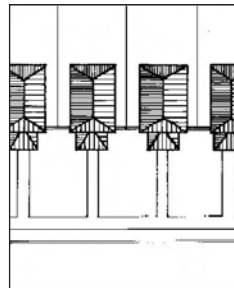
Townhouse

Perimeter Yard


This development, located in south Miami-Dade County, combines apartments, townhouses, perimeter yard, and retail uses. The urban design elements include the following features:

1. The town square provides the connection between the residential and retail uses.

2. Additional greens provide passive recreational uses and act as focal points within the neighborhood.

3. A shopping center is located at one edge of the site and is integrated with the neighborhood through the use of squares and pedestrian walkways.

Open-Space Types Used:
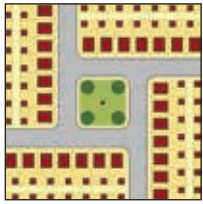
Detached Square
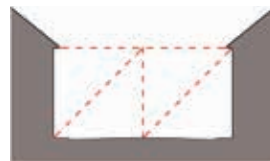or Green
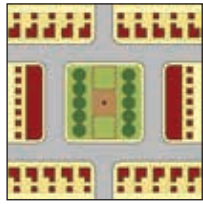
Detached Square
or Green
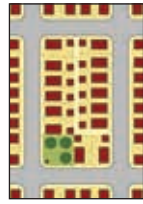
Corner Attached Square
or Green
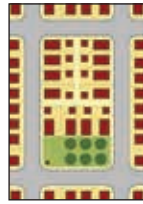
Attached
Square

Spatial Definition:
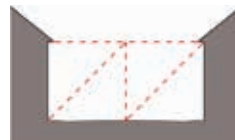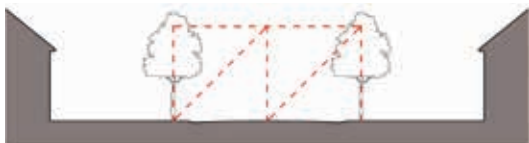
Ratio 1:3

Ratio 1:2

Ratio 1:2 by Landscaping

Building Types:
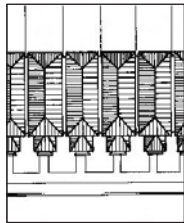
Townhouse
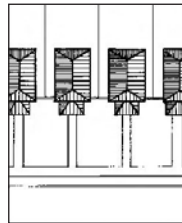
Perimeter Yard

This 120-acre site is located in west Miami-Dade County and incorporates the following urban design concepts.
1. The site meets the storm water retention area requirement in the form of a lake. The lake is designed as an integral and unifying element of the neighborhood.
2. Public access to the lake is provided by roadways and bridges.
3. Open-space is distributed equally throughout the neighborhood as focal points for sub-neighborhood areas.
4. The neighborhood center is defined by townhouses arranged along a circular roadway.
5. Housing types include apartments, perimeter yard units and townhouses.
6. Alleys provide additional access for parking and trash collection as well as a potential for additional housing units. The use of alleys eliminates the need to park in the front yard area and act as buffers between rear yards.

Open-Space Types Used:

Detached Square
or Green

Attached
Square

Close

Market
Plaza

Park
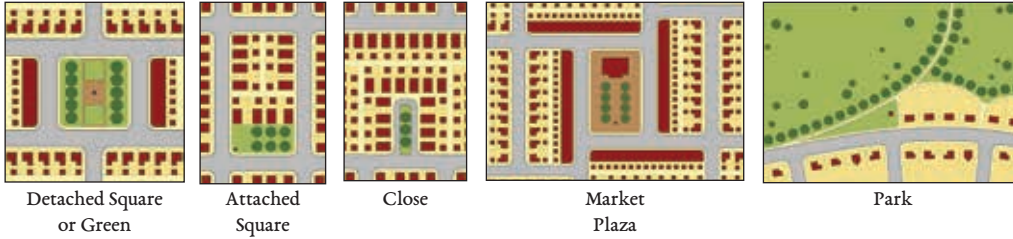
Street Spacial Definition:
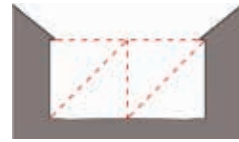
Ratio 1:2

Building Types:
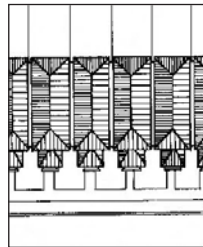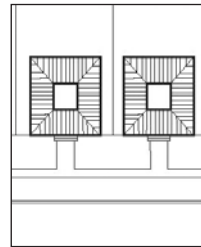
Townhouse

Courtyard
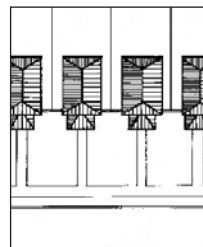
Perimeter Yard
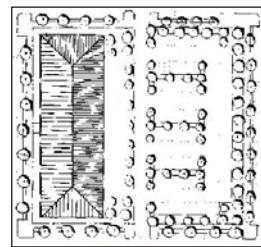
Apartment

This 400 acre site located in northwest Miami-Dade County includes a mix of townhouses, perimeter yard units, apartments and courtyard units. The plan incorporates the following urban design elements:

1. The stormwater mitigation requirement has been met by the design of a series of canals surrounding a connected system of blocks and streets.
2. Squares and greens are strategically placed to define sub-neighborhood areas.
3. A street grid is modified with curved roads which add interest to the plan.
4. Focal points placed along the canal system have been provided throughout the plan.
5. Alleys provide rear access for additional parking, trash collection and act as buffers between rear yards.
6. A number of streets have been placed adjacent to the canal to provide visual access.

Architecture

This manual cannot be complete without a basic discussion of architecture. It is not intended to suggest architectural style or philosophy but rather to demonstrate methods of design that reinforce the urban design concepts incorporated. Modern, traditional and regional architecture can be designed to create viable neighborhoods.

"Architecture and design have always involved a search for general laws of beauty. Is beauty in the eye of the beholder or does it come about through intrinsic properties of space? Three general principles: repetition, harmony, and variety lie at the basis of beautiful designs. Repetition is achieved by using a system that provides a set of proportions that are repeated in a design or building at different scales. Harmony is achieved through a system that provides a small set of lengths or modules with many additive properties which enables the whole to be created as the sum of its parts while remaining entirely within the system. Variety is provided by a system that provides a sufficient degree of versatility in its ability to tile the plane with geometric figures. Any system that provides the means to attain these objectives has a chance to produce designs of interest."

Citation: Kappraff, Jay. Systems of Proportion in Design and Architecture and their Relationship to Dynamical Systems Theory. Department of Mathematics, New Jersey Institute of Technology. 23 December 1998.

This elevation demonstrates the use of architectural composition in community design unified by an expression line at the second floor.

This traditional example demonstrates the use of architectural elements that visually anchor the building to the ground. Windows are vertical in composition, roofs are pitched and the elevation is articulated with architectural elements.

This example of modern architecture demonstrates balance of fenestration to building mass that results in an exquisite composition. Modern architecture can easily be incorporated in community design.

Florida Vernacular

Roof slope 6:12 to 12:12

Deep overhangs (typ.)

Simple double-hung windows
Metal shutter latch
Wood siding (cementitios siding alternative)

Attached front porch
Front door with glazed opening with possible screen door
Spindled balustrade

Gabled roof with shingles or hip roof alternative
Exposed rafter tails or continuous fascia at eave
Operable, boarded shutters sized to the window opening
Vertical corner boards
Exposed rafter tails or continuous thin fascia at porch overhang
Square wooden posts with chamfer
Latticed base

Mission Style

Shaped mission dormer or roof parapet

Tile roof cantilevered from wall surface
Porch roof supported by large square piers

Arched openings

Red tile roof covering
Wide overhanging eaves, usually open (not boxed) exposed rafters
Wall surface usually smooth stucco

Neighborhoods exist in South Florida that have remnants of earlier architecture that define a specific neighborhood character. The reinforcing of regional architecture can reestablish unique architectural features that provide for a sense of place. Additionally, the use of early Florida architecture can result in design features that respond to the local environment including:

· Large roof overhangs for shading of outside walls
· Porches and balconies for cooling of breezes and shade
· Pitched roofs for adequate insulation and removal of water
· Operable shutters that are sized to the window openinggive architectural scale and wind protection

Anglo/Caribbean

Projecting, Roofed Balcony

Balcony visibly supported by corbels or brackets

Hipped, Shingled Roof or Metal
Exposed Rafter Ends
Vertically Proportioned Windows

Bahama Shutter

Wraparound verandah louvered for privacy and ventilation

Symmetrically composed elevation

Hipped, Shingled Roof or Metal

Vertically Proportioned Windows
Operable Shutters

Consistency & Proportion

These examples of single family dwellings illustrate the use of consistent architectural elements in façade composition. Various proportional systems from classical to contemporary theory exist that provide structure for composing facades.

Apartment Building

Mixed Use Building
with Storefront

Corner Mixed Use Buildings
with Colonnade

Corner Mixed Use Buildings
with Storefront
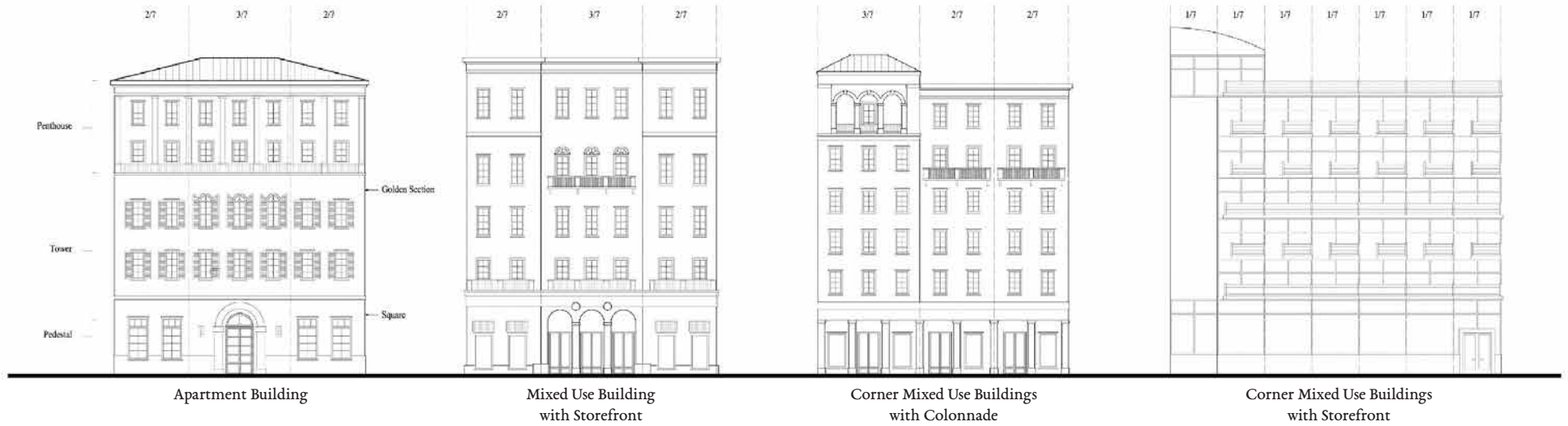
Harmony
Openings share proportions
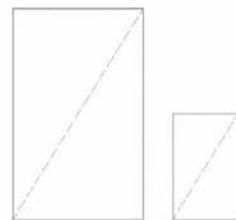
Individual elements share proportions (ie. windows, shutters, etc.)
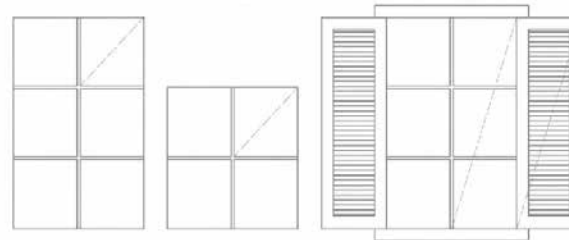
Variety Balance Context

Buildings form the context necessary to define blocks and create human-scale streets. Contextual buildings can be either contemporary or traditional but should have similar heights and consistent architecture elements. The above elevations demonstrate buildings that can be adapted to incorporate various uses. A proportional system provides repetition and visual order to elevations. An expression line above the first floor, provides visual unity while separating uses. The use of geometric configurations can provide compositional variety to the elevation.

Sustainable "Green" Development
*By: Sonia R. Cháo, Director, Center for Urban &
Community Design; Faculty, University of Miami
School of Architecture*

According to the United Nation's Brundtland
Commission, 'sustainable development' is synon-
ymous with the preservation of "livable, inspiring,
enduring and equitable places, where the quality of
life and the long-term quality of human existence
will be enhanced rather than depleted". Conscien-
tious building and urban design can mitigate the
impact on natural resources, guided by urban and
building design codes. Smart Growth, New Ur-
banism, Traditional Neighborhood Development
(TND) and 'green' building are all sustainable al-
ternatives where the product and its attributes are
measurable. Meeting the challenges of sustainable
development requires the modification of develop-
ment practices at all levels: regions, communities,
neighborhoods and buildings.

Green buildings increase the efficiency with which
buildings and their sites use and conserve resourc-
es, including land, energy, water and building ma-
terials. Sustainable design optimizes a building's
impact on the environment and human health
through appropriate orientation, floor plan and
façade design, material selection and construction
techniques, as well as its maintenance and removal
of waste taking into account the complete life-cycle
of buildings.

Green building is not merely an issue of style. It re-
quires a holistic approach in which design integrates
natural systems, urban systems, site and climatic
realities, building design, energy use, economic
considerations and technology. Environmental
conservation, building and cultural preservation
and the mindful use of resources should be part of
all future development, incorporating principles of
economic, social and ecological sustainability.

In a tropical climate, the siting of a building and
the employment of building design elements which
protect from the sun and rain while encouraging
cross-ventilation of spaces, are paramount. Con-
temporary eco-friendly building techniques and
materials compliment passive sustainable building
design typically associated with traditional typolo-
gies that use local materials. Passive design elements
commonly incorporated in tropical buildings be-
fore the proliferation of air-conditioning in the
mid 1950's, include porches, extended eaves, fins,
eyebrows, louvers, vertical windows and vented at-
tics, all of which are affordable green options. In
addition, these design techniques offer the benefit
of reinforcing our connections to south Florida's
regional architecture and heritage.

The U.S. Green Building Council has established
the LEED (Leadership in Energy and Environ-
mental Design) voluntary rating system to mea-
sure and certify a building, site or neighborhood's
performance. LEED-ND (Neighborhood Design)
provides a standard for measurement that promotes
integrated "whole" building design and urban
practices while recognizing environmental leader-
ship and raising consumer awareness.

Following is a list of basic considerations for sus-
tainable architecture:

Neighborhood Design - Mixed-use pedestri-
an-friendly neighborhoods are the sustainable al-
ternative to suburban sprawl's detrimental impact
on the environment and society.

Site Selection - Urban Infill (including brown-
fields) transit oriented development as designated
in the Miami-Dade County Comprehensive Plan
as Community Urban Center sites are preferable as
they reduce infrastructure costs, diminish car de-
pendence, contribute to revitalizing historic neigh-
borhoods and conserve open land.

Passive Design - The use of building orientation, porches, extended eaves, cross-ventilation, high ceilings and transom windows are low-cost design elements that maximize sustainable response to climate, thus reducing dependence on mechanical systems and energy consumption.

Materials - The use of locally harvested or manufactured materials reduces transportation related energy consumption and also reinforces the local economy. The preservation of historic buildings and the recycling of building material is important.

Energy and Water Use - The use of compact fluorescent bulbs, energy efficient glass and Energy Star rated appliances are recommended. When feasible the incorporation of solar panels, photo-voltaic intelligent skins, green roofs, cisterns, grey-water recycling, and wind powered alternative energies should be furthered. The tropical environment of South Florida is ideal for the use of solar panels and green roofs.

Landscape Design - Trees and shrubbery should be strategically placed to encourage the natural cooling of buildings to reduce direct heat gain. In addition, rainwater should be captured and retained on-site.

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Center of Excellence for Sustainable Development: http://www.sustainable.doe.gov
CBEP Home Page: http://www.epa.gov/ecocommunity/
Sustainable America: http://www.greenbuilder.com

Sustainable Sources: http://www.greenbuilder.com

UO Environmental Studies: http://www.darkwing.uoregon.edu/~ecostudy

ISE Research Lab: http://www.shiva.uoregon.edu/ISE_main_text.html

Architectural Record: www.archrecord.construction.com/products/green/default.asp

The Construction Specifications Institute: www.csinet.org

Building for Health: www.buildingforhealth.com

Seattle's Built Green Website: www.builtgreen.net/index.html

NOTE: See additional references in the Partially Annotated Bibliography

Single Family
Detached

Courtyard House
Detached/At-
tached

Courtyard House
Detached/At-
tached

Sideyard House
Detached/At-
tached

Rowhouse
Attached
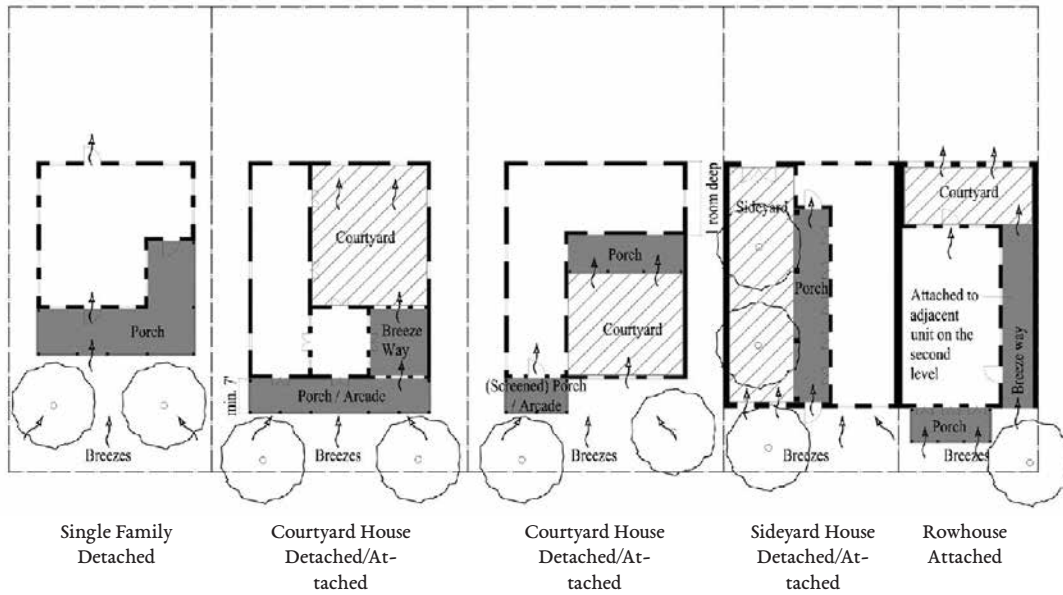
Note:

Create air movement through buildings. In rural areas, freestanding buildings with wrap-around porches are appropriate. In suburban and urban areas, buildings should incorporate courtyards and porches; size and location will vary according to orientation and size of parcel. In some areas breezeways may be necessary to provide air movement to courtyards or rear areas. Building width is preferably one room deep, otherwise incorporate operable clerestory transoms in the interiors to encourage air circulation. Porches that are a minimum 7' deep permit outdoor living. Strategically locate landscaping around building to cool prevailing summer breeze and reduce a site's micro-climate.

PASSIVE DESIGN - SMALL SCALE BUILDINGS
These techniques demonstrate methods of sustainable design for single-family and multi-family housing.
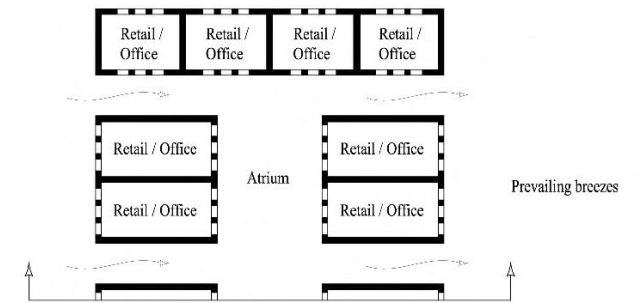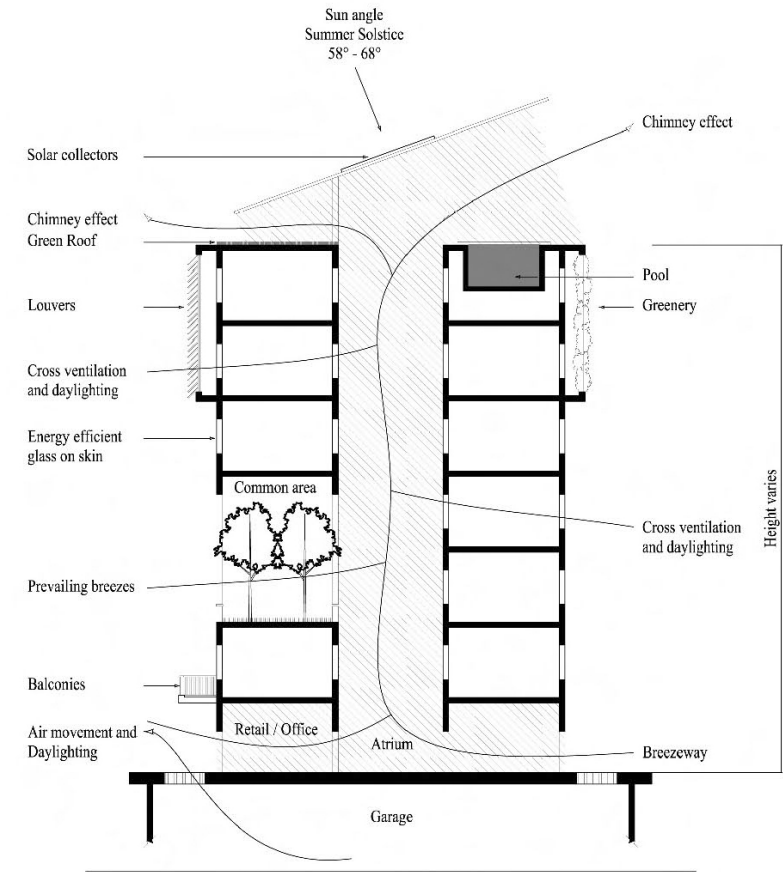
PASSIVE DESIGN - LARGE SCALE BUILDINGS

Ventilation and Shading
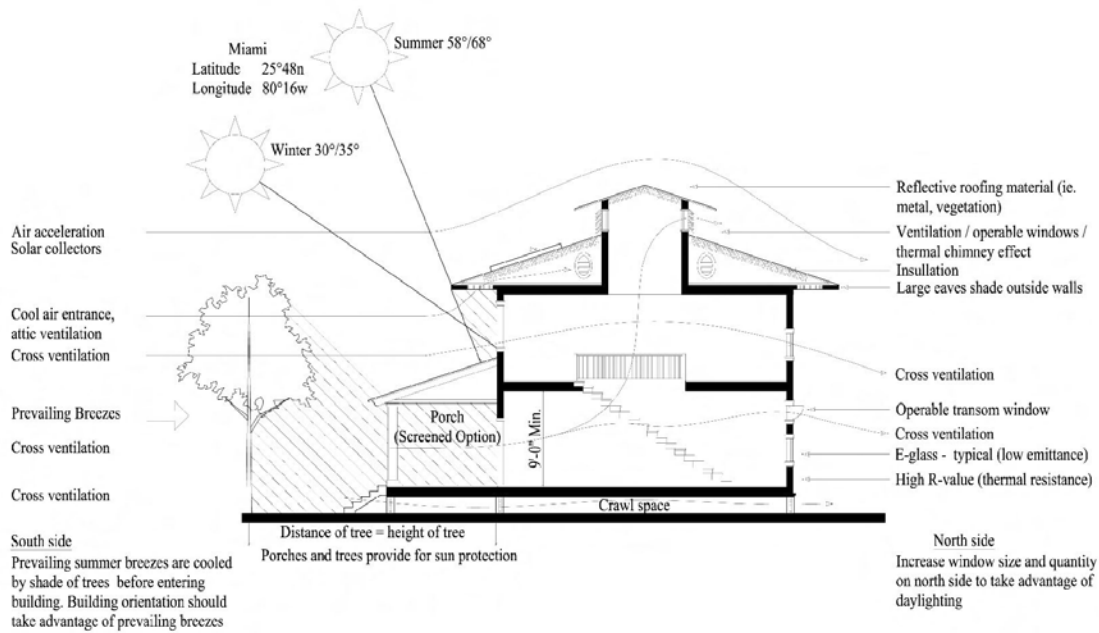
Sun Diagram (for South Florida)

Summer 58°/68°

Miami
Latitude 25°48n
Longitude 80°16w

Winter 30°/35°

Air acceleration
Solar collectors

Reflective roofing material (ie. metal, vegetation)

Ventilation / operable windows / thermal chimney effect
Insulation
Large eaves shade outside walls

Cool air entrance,
attic ventilation
Cross ventilation

Prevailing Breezes

Cross ventilation

Cross ventilation

Cross ventilation

Porch
(Screened Option)

9'-0" Min.

Operable transom window
Cross ventilation
E-glass - typical (low emittance)
High R-value (thermal resistance)

Crawl space

Distance of tree = height of tree
Porches and trees provide for sun protection

South side
Prevailing summer breezes are cooled by shade of trees before entering building. Building orientation should take advantage of prevailing breezes

North side
Increase window size and quantity on north side to take advantage of daylighting

Summer solstice
58° - 68°

Prevailing winter winds

West

North
Longitude 80° - 160'W

Solar collectors
Operable clerestory windows

Winter solstice
30° - 35°

South

East
Latitude 25° - 48'N

Prevailing summer winds

PASSIVE DESIGN - SMALL SCALE BUILDINGS

Vegetation

Contained Growing Medium

Drainage, Aeration,
Water Storage, Root Barrier

Insulation

Membrane Protection, Root Barrier

Roofing Membrane

Structural Support

Cross ventilation

Prevailing breezes

Cross ventilation

Transom   Hall

Cross ventilation

7'-0" Min.
Exterior balcony

Note:
This building section by Le Corbusier provides cross-ventilation, with openings on both ends, and mitigates the dependence on artificial lighting. This section only requires hallways and elevator stops on every other floor.

"GREEN" ROOF

PASSIVE DESIGN - LARGE SCALE BUILDINGS

Landscape Design
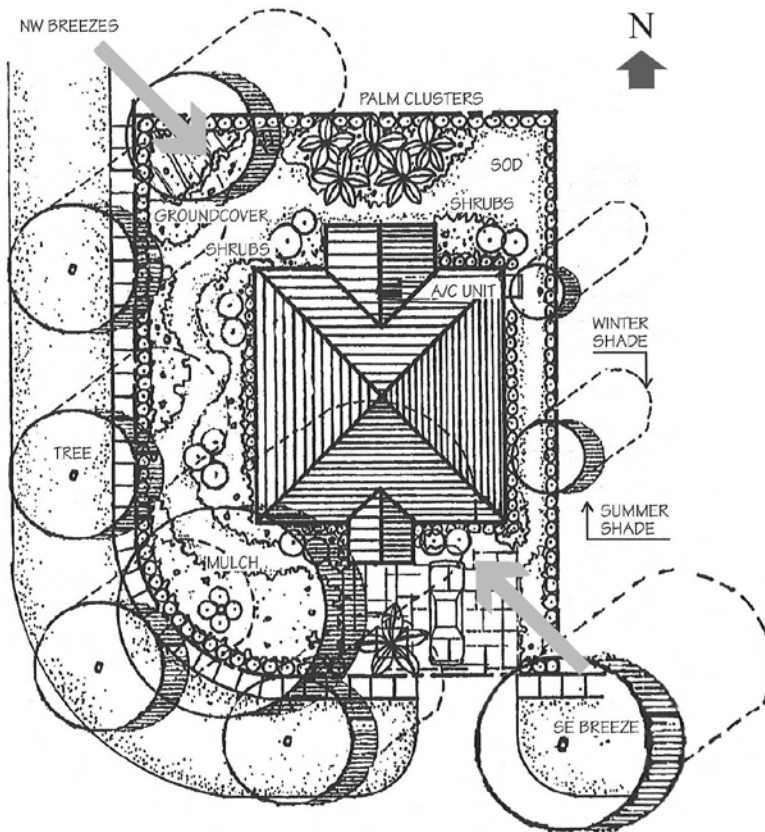
PALM CLUSTERS: Palms provide shade when clustered, they are best used in areas that require little or no shading.

GROUNDCOVERS: Can be used instead of sod. Drought tolerant species require little watering and can provide color and texture.

SHRUBS: Near windows, provide shading when the sun's angle is low and tree canopies are high. If shrubs are planted near walls and windows, they should be trimmed often to discourage crime.

TREES: In this example, trees have been placed to adequately shade a typical South Florida home. The trees to the east side of the house shade the A/C unit and the east wall as well as windows (morning hours). Trees shade windows, entrance and at the south side of the house, and to the west they provide protection from the afternoon sun. Through evaporation (loss of water from the soil by evaporation from the surface and by transpiration from the plants) trees cool surrounding areas by as much as 10° f.; noise pollution and glare are also reduced.

MULCH: Mulches provide organic nutrients to plants, and can replace sod and be used along landscape paths giving color, texture and since it's pervious, water is filtered easily into the aquifer and reduces the need for watering of plants.

BREEZES: In this example, trees are planted predominately along the east, south and west side of the unit permitting the prevailing breezes (during the warm season) to cool the surrounding unit and landscape areas.

LAWN: The use of sod should be minimized because of water consumption. Lawn areas should only be used for outdoor activities.

Note: Although the examples are single family units, the same concepts apply to other types of development, large paved surfaces such as parking lots need to avoid the heat island effects. East, South and West exposures have major heat gain and should be extensively planted with shade trees and shrubs.

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Acknowledgements

Urban Design Manual

Volume II • Civic Development

Notice:

The urban design guidelines and principles in this manual reflect the guidelines for urban form and other policies of Miami-Dade County's Comprehensive Development Master Plan (CDMP) pertaining to community land use and housing patterns and design. Although the establishment and use of sound principles of urban design are recommended in the CDMP, at this time many standards in the County's current Zoning Code (Chapter 33, Code of Miami-Dade County) are inconsistent with many of these principles and may impede, but do not necessarily prevent, their implementation. Many of these principles can be accomplished within the current standards of the Code and others may be accomplished using procedures established in the Code. These guidelines are issued to illustrate ways to accomplish the land use and housing patterns and design objectives encouraged by policies of the CDMP, and as a supplement to standards of the Zoning Code for the site plan review process provided for in the Code. Miami-Dade County has been amending the Code to more fully reflect these principles including the Traditional Neighborhood District, the Standard Urban Center District Regulations, the Planned Area Development District, Rowhouse District, Employment Center Planned Area Development, and Corridor District. Applications for zoning actions and site plan approvals should employ the principles recommended in this manual to the maximum extent practicable. In particular, request for development approvals and site plans associated with requests for district boundary changes, special exceptions, or other actions requiring public hearings, should at an early opportunity also identify any other variances to the current zoning that may be desirable or necessary to enable utilization of these recommended design principles, particularly those necessary to implement explicit provisions of the CDMP. Applicants are also advised to provide complete plans when requesting zoning or permit approvals in an effort to avoid unnecessary delays.

Urban Design Manual Volume II • Civic Development

Contents

"... there can be only one successful civic art. This will be one which joins utility to beauty. Cities are not made to be looked at, but to be lived in; and if in the decoration of them there be any forgetfulness of that, no successful civic art will follow and the effort will defeat itself. Realizing this, we should try to discover some general rules for guidance, and if we succeed, by noting the requirements and the various means that have been tried to satisfy them, we should be able to that extent to translate our art into a civic science that will be more or less exact – into the science of city-building, which is the text-book of civic art."

Charles Mulford Robinson, 1903, from his book Modern Civic Art: Or, The City Made Beautiful

Introduction

Purpose of the Manual

The purpose of the manual is to illustrate the basic design principles for the placement and design of public open space and civic structures that may be utilized to significantly improve the quality of the public realm in Miami-Dade County and the health of its community. The manual provides guidelines for community leaders, County staff, developers and designers in the development of civic spaces and buildings. This document should be circulated widely and used to not only educate the public and private sectors about the importance of providing meaningful open space for daily human interaction, but inform how such places, and the structures with-in them, define a community's character, contrib-ute to civic art and enhance the public realm. This manual illustrates design concepts that when used consistently, contribute to a seamlessly connected and sustainable open space system. The plans and il-lustrations used in this manual show how to design, using urban design principles, concepts for defining, forming and physically connecting an open space network that can be successfully accommodated within or surrounding publicly-owned and private property. The ultimate goal of this document is to provide civic building and open space development that is successfully integrated within the various ur-ban contexts of Miami-Dade County. These range from compact and intensely built downtowns or neighborhood centers to rural settings. All of which are connected by enhanced infrastructure that al-lows access and enjoyment of such environments by all County residents.

The quality of the built environment within a community makes a positive contribution to the lives of the people who live and work in it. High quality public open spaces and civic structures engender a sense of pride in a place, promote healthy living and encourage community interaction. A creative design approach and careful planning create communities that are safe, sustainable and enriching.
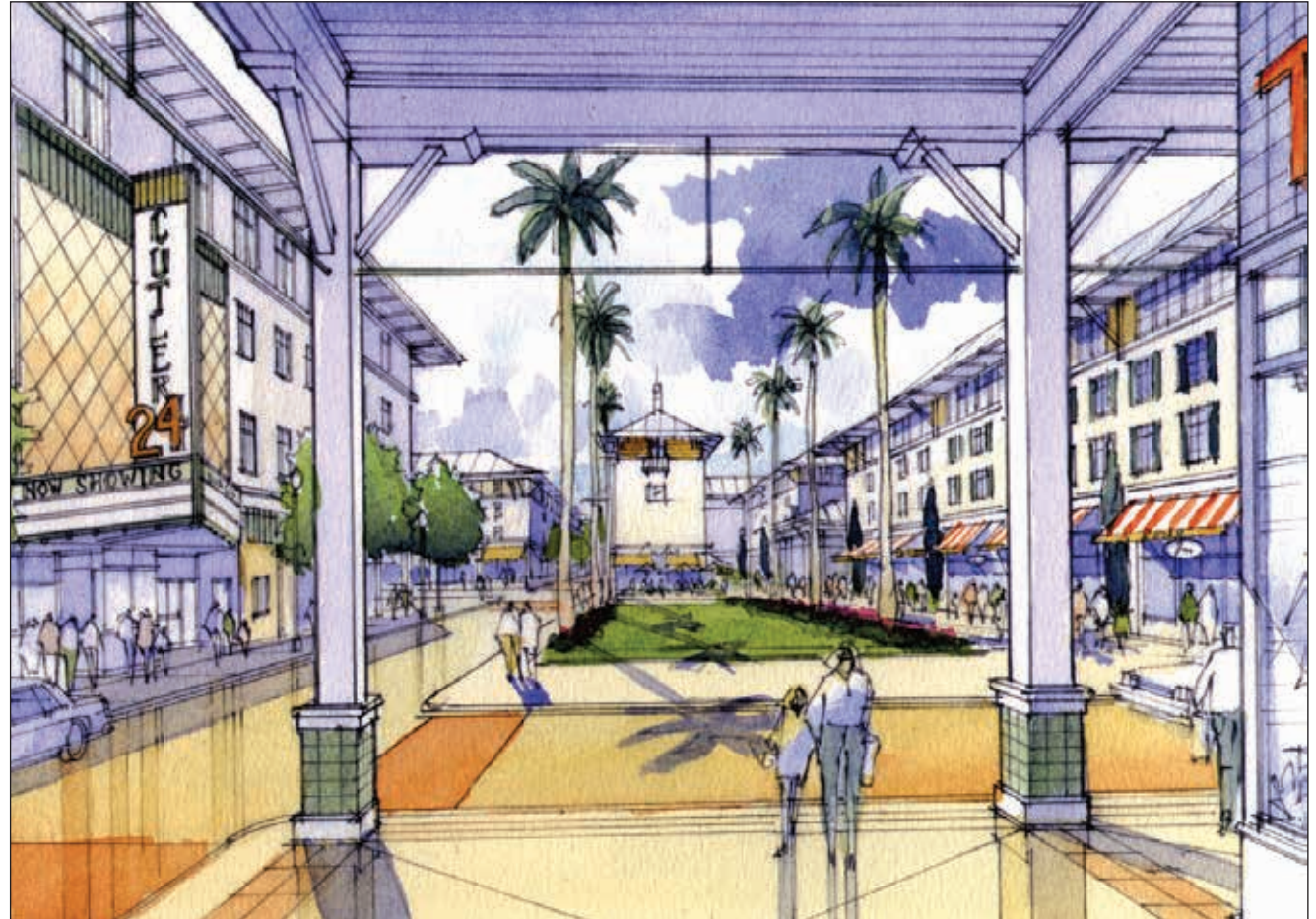
The Public Realm

The public realm consists of a community's accessible private and public open spaces including all the attributes that define their built or natural forms. The public realm is a manifestation of naturally caused environments or man-made spaces, each addressing the needs of a population. In either case, they serve as places for people to gather and socialize, exercise their freedom of expression, access daily services, engage in physical activity or for contemplation. Elements that are part of the public realm include natural features, plazas, squares, parks, streets, as well as civic buildings and structures. When designing the public realm, one should strive for public spaces, including streets that accommodate and enhance the pedestrian experience. The scale of civic development can range from the monumental to the intimate depending on the desired experience. There are instances where these public spaces or structures act as focal points or terminate vistas and can be experienced from a distance; in other scenarios, the space, whether a square or street acts as a room eliciting pedestrian participation. Successful civic design tailored to the regional context produces diverse and distinctive neighborhoods, replete with civic buildings, monuments and open spaces that constitute civic art. Civic art involves a creative approach to developing the built environment, combines function with meaning and beauty, promotes a sense of belonging and can serve as an important element in helping communities develop identity.

The public realm is a critical part of a community's infrastructure that creates significant value and distinction for a neighborhood. A well-designed public realm encourages social interaction, civic engagement, physical activity and time spent outdoors.
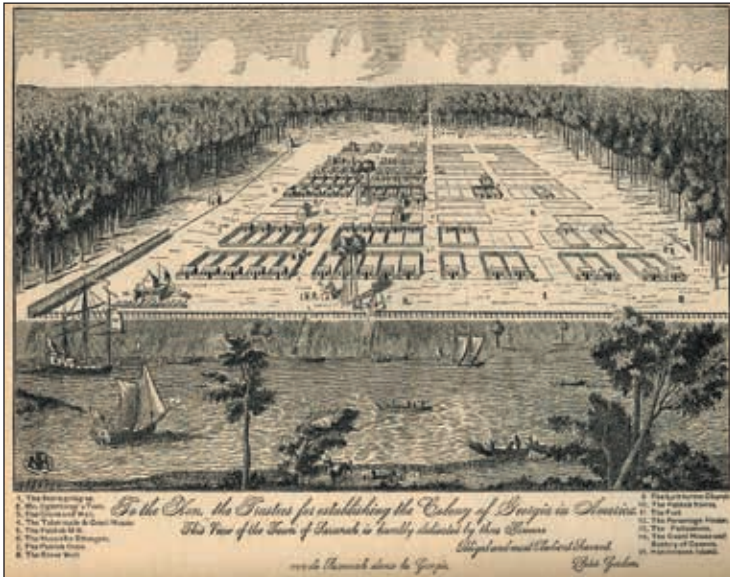
Savannah
The plan of Savannah, Georgia, founded in 1733 by General James Oglethorpe, has a grid layout and four original squares, each at the center of a ward.

Washington DC
L'Enfant's baroque plan for Washington DC developed in 1791, features ceremonial spaces and grand radial avenues resulting in a system of intersecting diagonal avenues superimposed over a grid system.

A Brief History

Civic Design Prior to WWII

Throughout the history of cities, the most importantly perceived civic spaces, and the buildings which defined them, were predominately created to celebrate governmental and religious institutions, both symbols of society's need for order and spiritual fulfillment. Open spaces in conjunction with the buildings that addressed them were used for daily services, such as commerce as well as trading activities, which were also an integral part of the urban fabric. A number of open spaces were utilitarian, but nevertheless offered opportunities for social gatherings, like spaces with fountains or wells, which provided inhabitants with water to sustain any daily needs. As a result, these open spaces became areas of daily dissemination of information and pedestrian activity. The picturesque layouts and shapes of many old city streets and open spaces were a by-product of topographical conditions, rather than the product of an educated or contrived plan. However, during the Renaissance, much would change. Architects realized that a rectilinear grid of blocks and streets, also known as the gridiron, would make perfect geometries for squares and plazas, and axial monument placement was regarded as utopian. The powerful views afforded by symmetrical building placement, monuments ending on an axis, proportioned plazas and human-scaled appointments would provide ideal open spaces for cities and cleaner living environments for their citizens. This method of town planning was exported to the New World from Europe and shaped the way towns on the American continent were built for many centuries; the United States would be no exception.

The use of the gridiron block and street system was preferred for its rationality, economic benefits, and quick method for organizing new towns in America, from its colonial roots to the settlement of the western US territories. In the haste of rapid town organization and development, especially during the 19th century, the principles of arranging buildings of civic importance was given very little importance or not provided for in the town design process. Most town grids, with exceptions of cities like Savannah, Georgia and Charleston, South Carolina, did not have lots or blocks set aside for the placement of important buildings or open spaces. Further, the US Constitution's inferred language of keeping government small and less focused on people's daily lives played a role in the people's interpretation of monument building. One exception to this is the Washington DC Plan by Pierre Charles L' Enfant, a grid interrupted with diagonal boulevards, was a baroque concept which set aside the most important sites and city lots for monuments and civic building placement. One important distinction must be made for some early colonial towns in America, such as the aforementioned Savannah and Charleston, which were developed using Old World town planning principles and trended their expansions with similar. At the turn of the 20th century, the gridiron town, especially those lacking the beauty and emotional and physical benefits associated with properly addressed civic space, was perceived as ugly by academics, architects and city leaders. With the advent and eventual industrialization of the nation some cities and towns also became overcrowded due to a fast growing immigrant population looking for work and a better life, while people moving from rural areas to cities were searching for the same. The overcrowded cities lacking significant open space and the elegance associated with places that emphasize civic art eventually led to the implementation of several city and town civic design movements in many US cities and towns.

The City Beautiful movement emerged from the general perception, in the late 19th Century, that American cities were unattractive and unhealthy places to live, due in part to fast, unplanned development responding to a rapidly growing US population. This movement can be most clearly identified by characteristics that include monumentally scaled buildings and long, wide, tree-lined thoroughfares, both diagonal and picturesque that intersect with existing streets and converge at prominent sites and parks. The idea was to overlay these urban design principles onto existing street networks and block grids, as done in Chicago, or to be implemented in new development, as well as other small residential subdivisions throughout the US. Though Coral Gables is South Florida's best example of The City Beautiful Movement, many other communities, such as Miami Shores and Opa Locka, were designed with the same principles in mind.

The Urban Parks movement beginning in the middle of the 19th century was a reaction to overcrowded urban areas where slums predominated and green spaces were absent, or located in areas far from cities. Frederick Law Olmstead's plan for Central Park in New York City best exemplifies the scale and design characteristics of open spaces encouraged by the Urban Parks Movement. Characteristics include sprawling lawns, meandering paths, monuments placed to visual advantage and areas for passive and active recreation. The park's large scale provides a refuge for the bustling urban centers which surround them, giving city inhabitants a reachable green refuge from city life much as Olmstead intended. A subsequent evolution of the large centrally located park was the idea and eventual realization in many US cities and towns of arranging a continuous network of large open spaces to connect the different neighborhoods which make up a city. Started in the late 19th century, the city of Boston's "Emerald Necklace" is an uninterrupted, connected seven-mile open space system offering a variety of passive and active recreation opportunities to many of Boston's neighborhoods. In addition to the sprawling lawns and gardens, miles of pedestrian paths, habitats for urban wildlife, and recreation areas, civic buildings and monuments in these parks were arranged in the landscape to take advantage of their visual impact. This idealized approach to park building and monument placement that emerged from the urban park movement was applied to university site planning, and is still used today in educational campus development. The principles of landscape design used in the Urban Parks movement were unprecedented in the history of civic architecture and space planning and uniquely American.

Conversely, the Garden City Movement initiated by Sir Ebenezer Howard promoted self-sustaining towns arranged in a concentric street and block pattern fitted with open spaces, parks and integrated business, as well as, industrial uses within walking distance from residences. The ideal garden town was limited in size and population, surrounded by agriculture or green belts and connected to major cities by rail. The movement was a response to a growing population living in unpleasant conditions with close proximity to the heavy industrial facilities within the city. A closer look at early 20th century Florida communities, such as Venice, Florida, designed by John Nolen, George Merrick's Coral Gables, Miami Shores, Opa-Locka, Miami Beach and Miami, reveals a blend of the Garden City and City Beautiful Movements, within their urban framework.
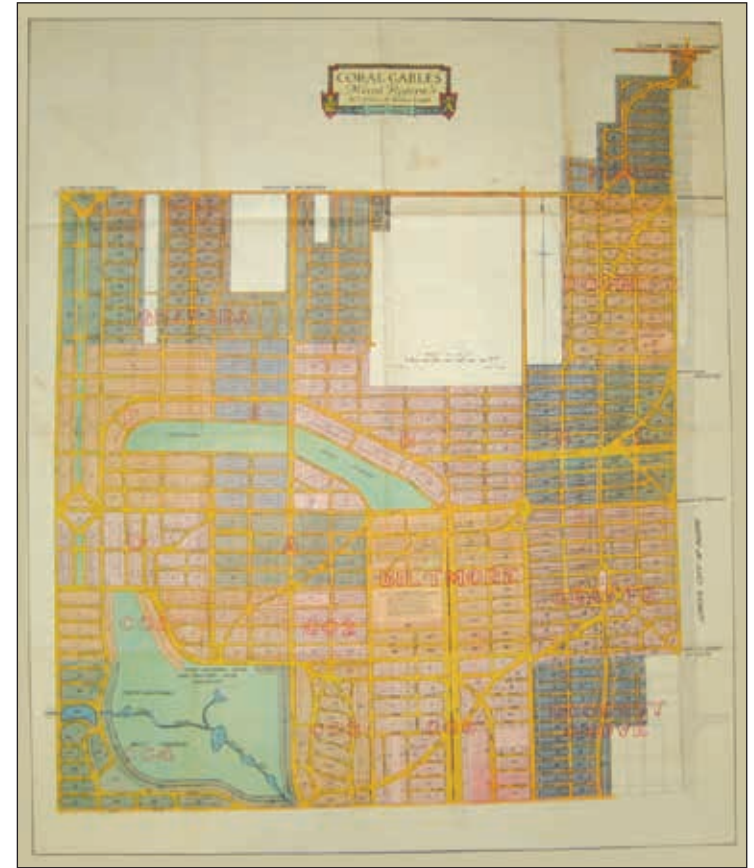
Coral Gables
Planned in the 1920s, Coral Gables is South Florida's best example of The City Beautiful Movement.
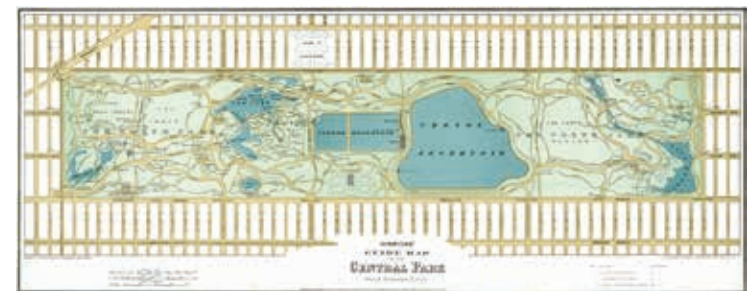
Central Park
Central Park in the center of Manhattan in New York City, exemplifies the scale and characteristics of open spaces encouraged by the Urban Parks Movement.
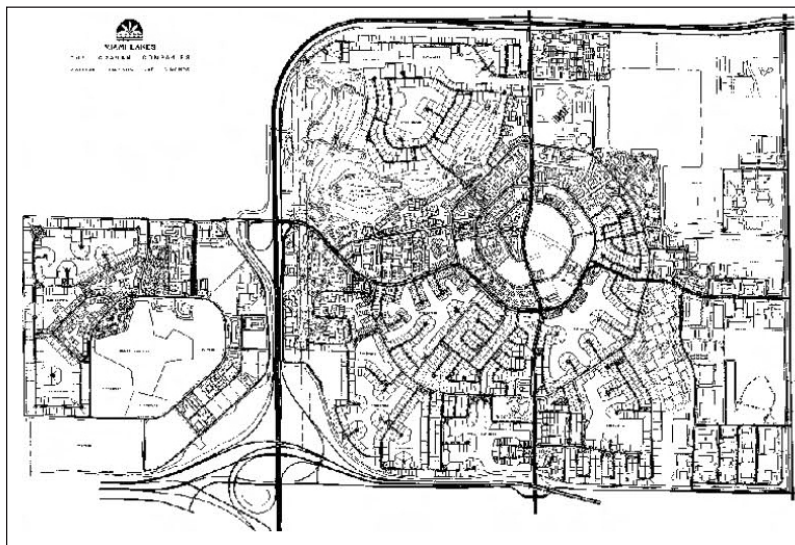
Miami Lakes
The 1960s concentric plan of Miami Lakes was at the forefront of town design in South Florida.

Civic Design After WWII

Even as these early communities were emerging, new concepts of urban planning and design were arising. They challenged the ideas of these movements, mainly due to the increasing dependencies on the automobile. The use of the car facilitated the separation of land uses, intending to distance housing from nearby industrial areas. After World War II, mass-produced residential subdivisions comprised much of the new development in south Florida and in the nation, and new communities neglected many qualities and charms of the City Beautiful Movement, the Urban Parks Movement and those of early towns developed during America's colonization. The phrase "suburban sprawl" best describes this period of development which continues today. A legacy of this type of community development has been the almost complete disregard of the important role of civic institutions and open space as community focal points. Technology allowed buildings housing residential and commercial uses to expand vertically dwarfing many institutional and civic use buildings, which have traditionally, even up to the late 19th century, been built to a scale representing grand symbols of community principles. The invention of the skyscraper posed a challenge for urban planners in the consideration of street scale and the placement of civic uses even at the turn of the 20th century. Further, local zoning and land use codes, adopted by most American towns by the middle of the 20th century, address intensity and density controls. Although easy to administer, they are rigid and unresponsive to alternative development forms and do not translate to the principles of place-making, which are imperative to the design of civic buildings and open spaces.

Few developments, after WWII, embraced the principles of urban design, civic building and open space placement, as provided in the early 20th century movements. One exception to this pattern of development in South Florida is the Town of Miami

Lakes. Miami Lakes' "nautilus" street pattern draws upon the baroque radial city plan and includes a mixed-use main street at the core of the town, surrounded by residential communities, connected by a series of concentrically arranged streets. Small pocket parks, greens and other open spaces are interspersed throughout the community providing Miami-Dade County a well design alternative to sprawl. Although Miami Lakes has a well-balanced distribution of uses, which includes public open space; the civic use open spaces and buildings were not placed in celebrated locations, such as, at the end of important streets or inside a plaza. Even less consideration is given to the design of the architecture itself.

From the late 20th century to today many cities have invested in large public works projects and complexes of civic importance. Whether intended as economic engines to attract visitors, or as new symbols of civic pride, the civic building boom has produced a number of remarkable pieces of architecture nationwide. In Miami-Dade County, some of the projects considered as part of this civic movement are the Miami Museum of Modern Art, the Science Museum, the Miami Performing Arts Center, the Miami Beach New World Symphony Center and FTX Arena. Typically, the parcels provided for the accommodation of civic art are significant in size, but are isolated from large concentrations of people and devoid of the urban fabric necessary to frame buildings of civic importance. The provision of prominent civic use lots are rarely part of a vision plan or adopted local/countywide comprehensive plans. New civic structures have to compete for architectural prominence in an urban landscape filled with both vertically and horizontally, significantly scaled buildings. The result of this competition of scales has been the emergence of conspicuous civic structures, placed randomly in the landscape. Often, these structures do incorporate some form of civic

space, contributing to the green network of the city while simultaneously sparking development and re-development, and fostering a renaissance in many of the struggling neighborhoods that they inhabit.
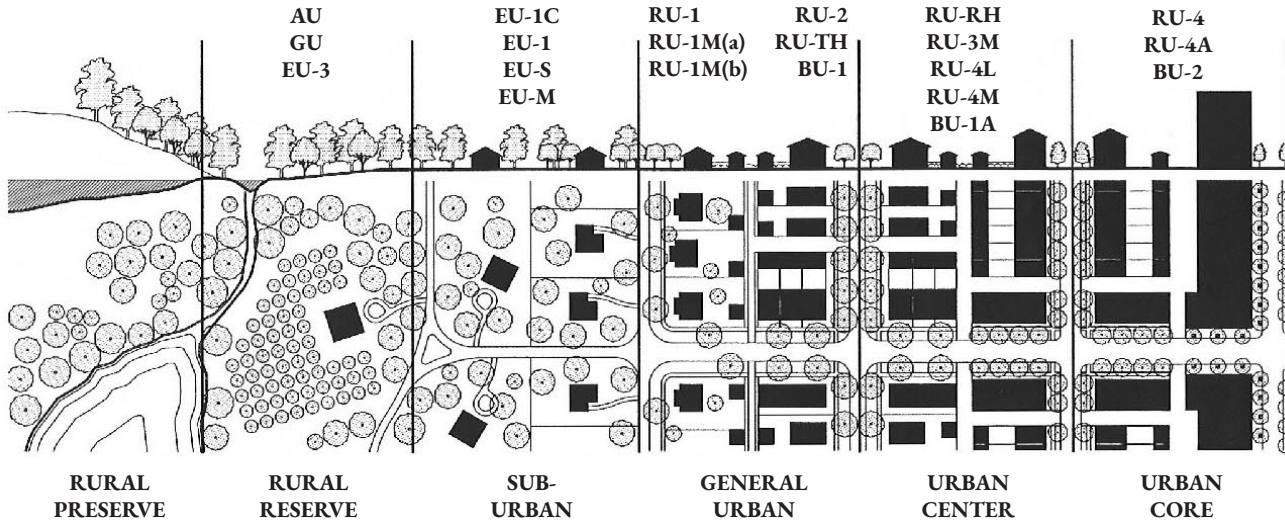
Miami-Dade has in the past years adopted plans, zoning districts, and policies that contribute to smart growth, conservation, sustainable development and creation of inviting public civic open space and their treatment. Among them are Community Urban Center districts, Rapid Transit development zones, the Open Space Master Plan, the Aesthetics Master Plan, and the Traditional Neighborhood District. Some legislation like the Traditional Neighborhood District and Community Urban Center Districts are part of zoning ordinances guiding development based on smart growth principles on private property and others such as the Open Space Master Plan, Green-print and the Aesthetics Master Plan provide guidelines for the creation and embellishment of public space and sustainable development, including how to interconnect the Miami-Dade County Metropolitan area with a network of different scaled public open spaces, create a linked transportation network and conservation of natural resources. What sets the recent legislation from those adopted in the mid part of the 20th century is the attempt at a holistic approach to planning communities from the Metropolitan to the local level. This presents an opportunity for Miami-Dade County to implement a plan that includes a network of civic spaces and art and considers the location, scale and placement of our monuments.
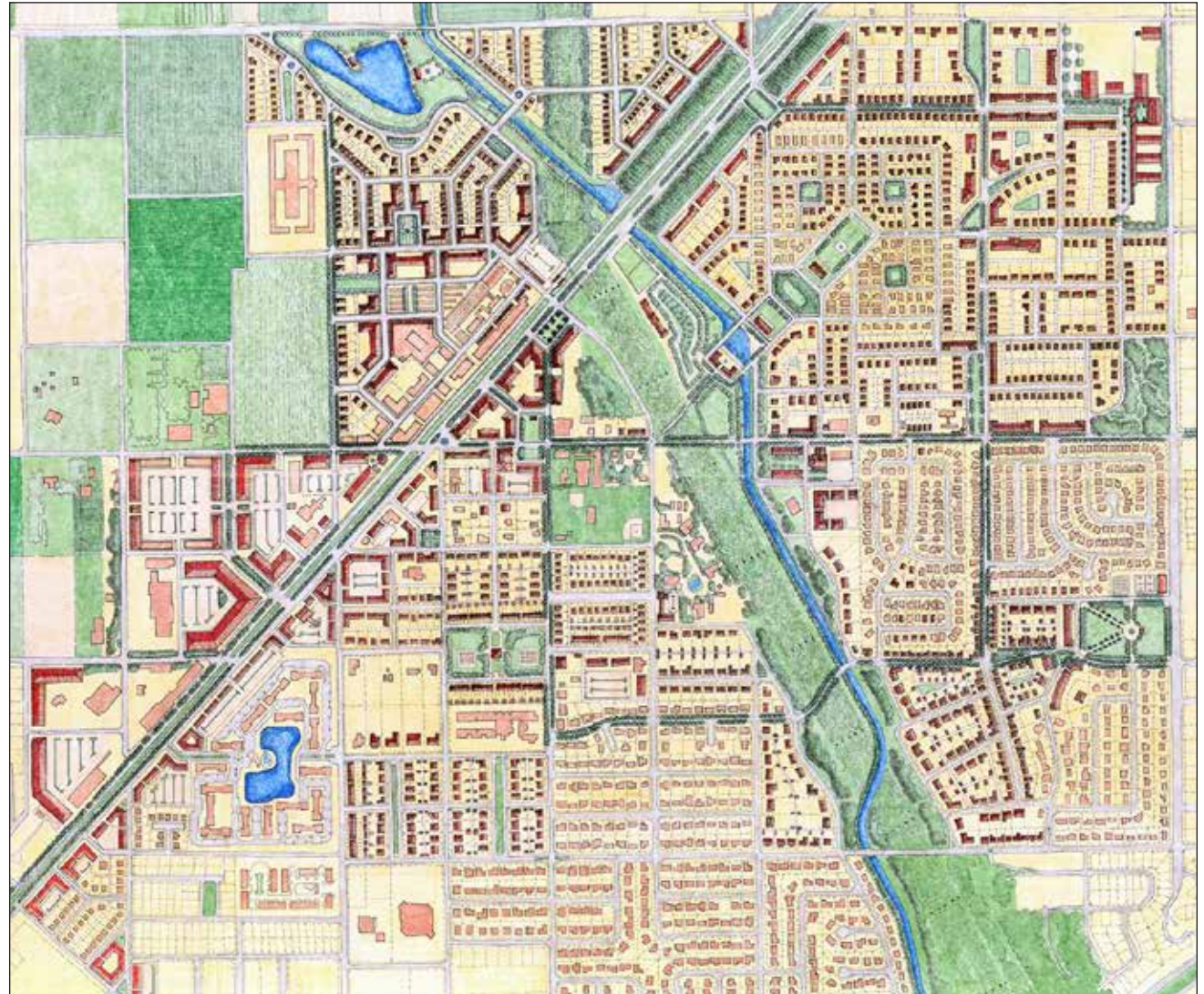
Princeton Community Urban Center District
The Princeton Community Urban Center plan promotes quality public realm and urban design that embraces economic viability, sustainability and creates a sense of place within Miami-Dade County.

RURAL ●●●●●●●●●●●●●●●●●●●TRANSECT●●●●●●●●●●●●●●●●●●●●●URBAN

AU	EU-1C	RU-1	RU-2	RU-RH	RU-4
GU	EU-1	RU-1M(a)	RU-TH	RU-3M	RU-4A
EU-3	EU-S	RU-1M(b)	BU-1	RU-4L	BU-2
	EU-M			RU-4M	
				BU-1A	

| RURAL PRESERVE | RURAL RESERVE | SUB-URBAN | GENERAL URBAN | URBAN CENTER | URBAN CORE |

LESS DENSITY	MORE DENSITY	
PRIMARILY RESIDENTIAL	PRIMARILY MIXED USE	PRIVATE
SMALLER BUILDINGS	LARGER BUILDINGS	
MORE GREEN SPACE	MORE HARDSCAPE	
DETACHED BUILDINGS	ATTACHED BUILDINGS	
ROTATED FRONTAGES	ASSIGNED FRONTAGES	
YARDS & FRONTAGES	STOOPS & SHOPFRONTS	
DEEP SETBACKS	SHALLOW SETBACKS	
ROTATED FRONTAGES	ALIGNED FRONTAGES	
ARTICULATED MASSING	SIMPLE MASSING	
WOODEN BUILDINGS	MASONRY BUILDINGS	
GENERALLY PITCHED ROOFS	GENERALLY FLAT ROOFS	
SMALL YARD SIGNS	BUILDING MOUNTED SIGNAGE	
LIVESTOCK	DOMESTIC ANIMALS	
ROAD & LANES	STREETS & ALLEYS	PUBLIC
NARROW PATHS	WIDE SIDEWALKS	
OPPORTUNISTIC PARKING	DEDICATED PARKING	
LARGER CURB RADII	SMALLER CURB RADII	
OPEN SWALES	RAISED CURBS	
STARLIGHT	STREET LIGHTING	
MIXED TREE CLUSTERS	SINGLE TREE SPECIES	
LOCAL GATHERING PLACES	REGIONAL INSTITUTIONS	CIVIC
PARKS & GREENS	PLAZAS & SQUARES	

Open Space

Miami-Dade County has developed an Open Space Master Plan (OSMP), which creates a vision for the implementation of a great system of parks and open spaces. The OSMP identifies the County's existing network of open spaces and sets goals for their improvement, expansion and preservation. A key component of the OSMP is the transformation of open spaces into significant community focal points of varying scales aimed to improve the social fabric of the County by providing equitable access to parks and open spaces, as well as more opportunities for all its residents to meet, socialize and connect with one another. The organizing tool used is the urban-to-rural transect, which establishes a framework that identifies a continuous series of zones ranging from rural to urban, and categorizes various degrees of development intended to promote growth and increase pedestrian life. The distinct built environments contained by the transect guide the design and development of parks and open spaces.

The vision for the Miami-Dade County Parks and Open Space System includes the following components:

1. Great Parks
2. Great Public Spaces
3. Great Natural and Cultural Places
4. Great Greenways, Trails and Water Trails
5. Great Streets

Placement of Open Spaces

Open spaces are vital elements of urban design and should be considered as an integral part of a community. Open space design should recognize the specific conditions of each of the rural-to-urban transect zones and be designed to reflect, as well as reinforce the character of its location. Generally, plazas and squares are suitable open space types for an urban environment, while in a sub-urban setting these open space types can also be complemented by greens or active and passive parks, which are the appropriate open space types in a rural context. Well-designed open areas should be clearly defined by buildings and landscape. The goal is to create a balanced, hierarchically defined open space network, which provides all residents convenient access to a diverse range of open spaces within walking distance from work and home, aimed to encourage social networking, physical activity and time spent outdoors. When properly placed and designed, open spaces also complement focal points, provide a foreground for civic buildings, become part of a community's civic art and contribute to the character of a neighborhood.

Quality urban design ensures residents of a community spend time outdoors, thus making the public realm of significant importance. A diverse and interconnected network of public open spaces produces a broad set of social and health benefits for all residents.
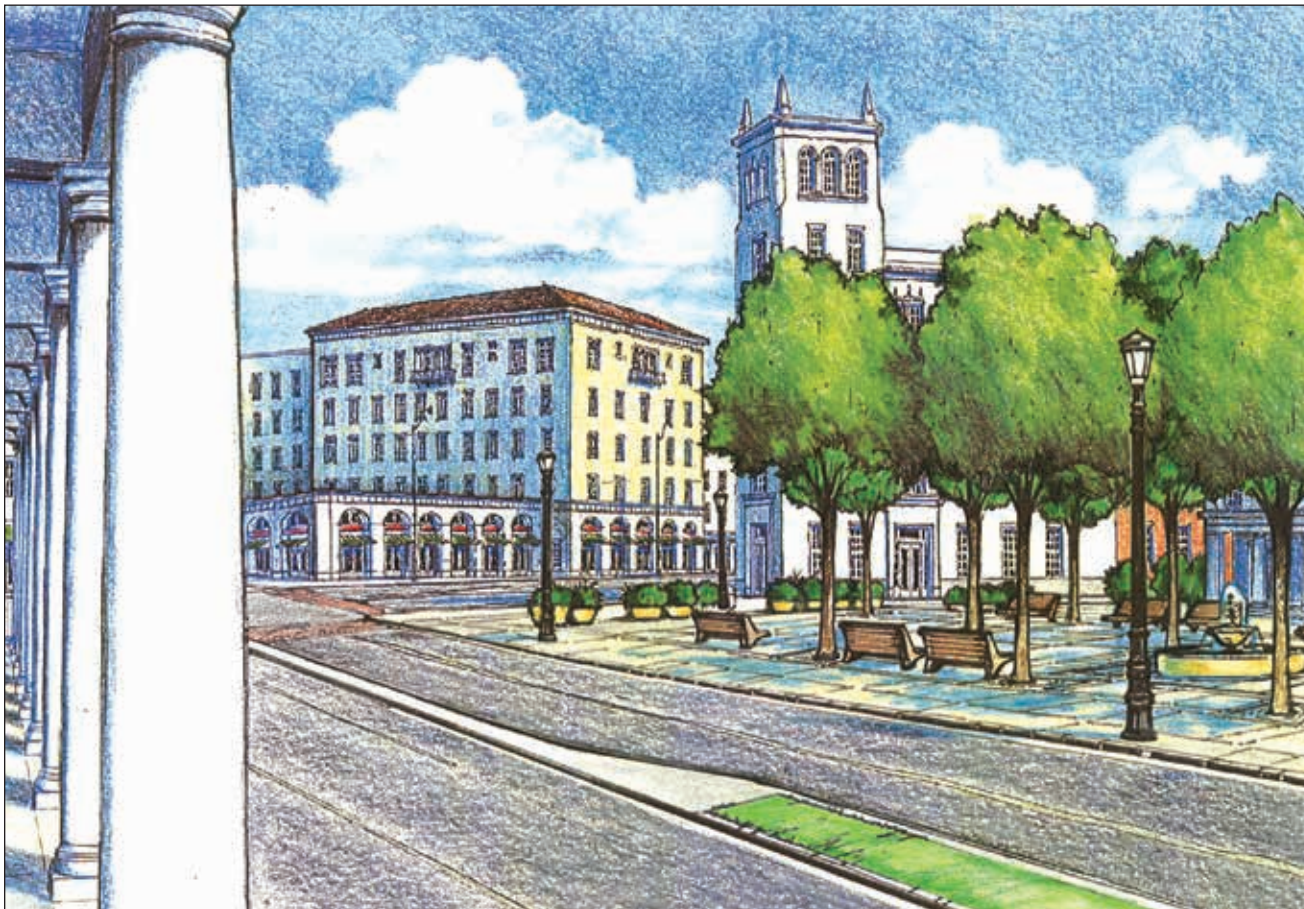
This plaza at the center of a mixed-use neighborhood provides an outdoor "room" for public enjoyment defined by the surrounding architecture. The plaza provides opportunities for recreation, social gatherings and contributes to the well-being of the community.

Plazas

Plazas are open spaces designed for public enjoyment and defined by streets and surrounding buildings. Their primary functions are to encourage a diversity of opportunities for social activities, provide relief and relaxation, expand and reinforce the public realm and contribute to the livability and general amenity of a community. A plaza may also be used as a stage for public and religious buildings or other structures of public significance.

Squares

Squares are planned open public spaces, usually rectangular in shape, commonly found in the center of a community and provide a sense of physical and environmental relief to the built environment. Well-designed squares encourage social interaction and foster a community's sense of pride. Design elements such as trees, quality of formal and informal seating, as well as lighting contribute to a square's attractiveness and character. A central square, generally consisting of a lawn area in front of buildings of civic importance, is typical in early American towns.

This rendering of the center of a community illustrates a square fronted by civic and mixed-use buildings. The square contributes to the sense of place of the neighborhood and offers its residents a formal outdoor public space of civic significance.

Greens

Greens are prominent social areas in a neighborhood and are a predominant type of open space in American urbanism. Similar to a central square, the green can be used as an urban space at the center of a community. Central greens should be clearly defined on all sides by a road, architecture and landscape. Smaller detached and attached greens can be evenly distributed throughout a neighborhood to offer additional outdoor space for residents.

This central green is clearly defined by landscaping, sidewalks, streets and the buildings that front it along its perimeter, while more intimate greens are located throughout the community to provide passive and active recreational opportunities for all its residents.

Parks

Parks are naturalistic open spaces used for active and passive recreation; they create a sense of place and connect residents to one another, as well as to their larger environment. Well-designed urban parks appear as natural spaces interrupting the urban architectural fabric. In sub-urban and rural settings, parks combined with schools make a logical connection between neighborhoods, while larger parks should be located towards the edge of the neighborhood. Parks are one of the most effective methods to build a sense of community and improve the quality of life of its residents.
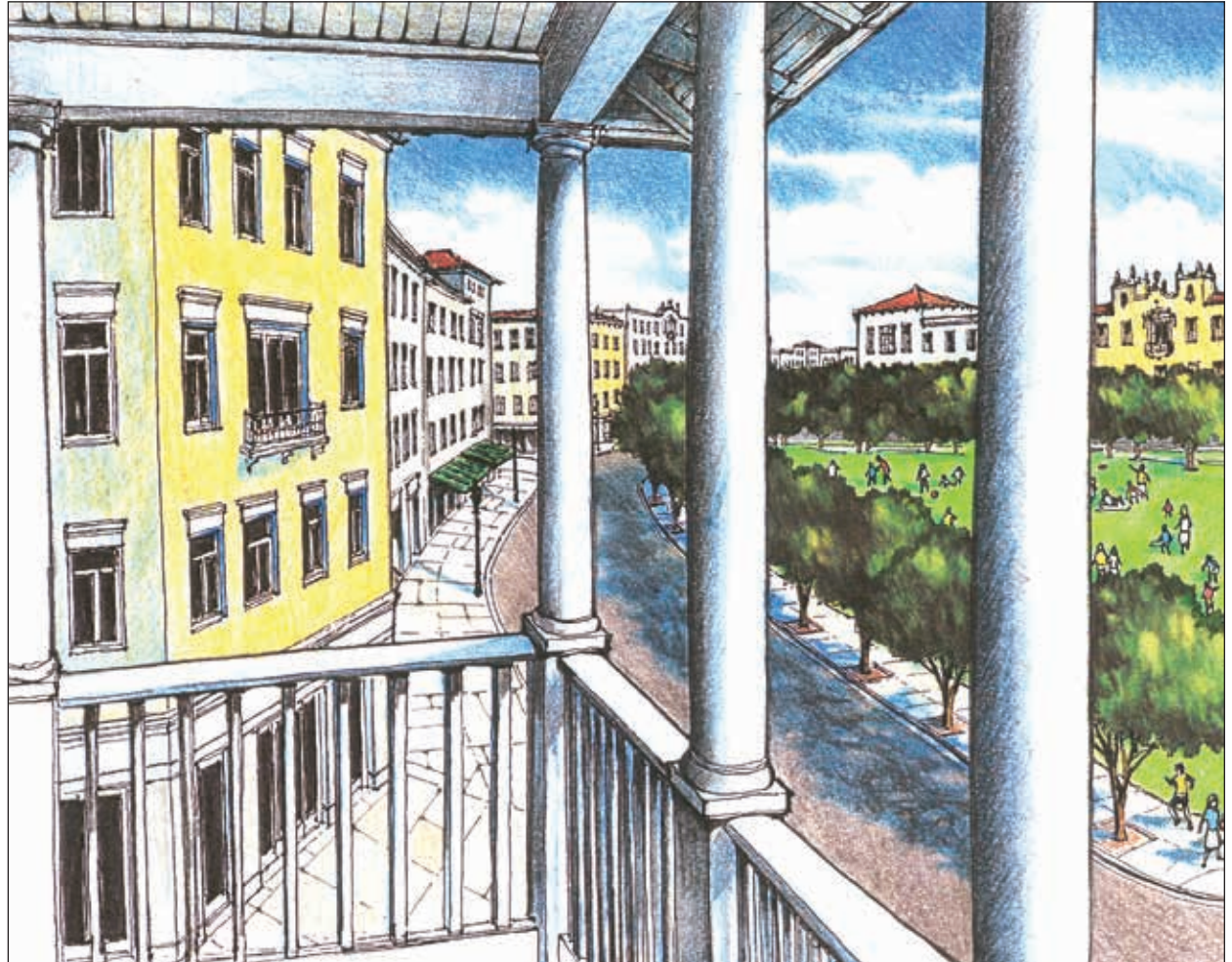
This illustration depicts an urban park within a neighborhood that provides a variety of active and passive recreational opportunities, while preserving valuable open space for the enjoyment of the residents. Parks contribute to public health, individual well-being, and help strengthen ties among community residents.

This illustration of a civic building and its corresponding public open space shows basic components of urban design. The civic building is placed close to the sidewalk, across from a green, and a loggia provides a transitional space between the street, sidewalk and the interior of the building, while complementing the quality of the public realm and promoting interaction among pedestrians.

Civic Building Design

Civic buildings are among the most pronounced components of urban design and should be placed in prominent locations within a neighborhood. They serve the public in an array of forms and settings, as well as act as community focal points. Well-designed civic buildings enhance the public realm and help communities create an identity.

The design of civic building is directly related to the location of the structure within the urban-to-rural transect. There are distinctive qualities of civic building design, whether in an urban context or a rural setting, that impact the relationship between the building and the built environment, as well as the people who occupy both. For example, civic structures in urban settings should enhance and be designed appropriately to fit this context, frame the street and promote a high level of pedestrian activity. As the location moves from an urban to a rural environment, design issues could shift from pedestrian oriented to how to situate the building on the site, in a more informal setting.

The following pages summarize the elements of civic building design that should respond to context, as well as renderings representing idealized conditions. This section will address the following elements:

• Building Placement
• Main Building Front
• Service Area
• Parking
• Landscape

Building Placement

The placement of public buildings within a site should give them a civic presence and complement the quality of the public realm. The interaction of civic structures with the built environment can differ as one progresses through the urban-to-rural transect. Civic buildings in urban conditions should be located adjacent to sidewalks in a manner that allows for effective land utilization, helps enclose the street, creates visual interest, enhances the pedestrian experience and establishes appropriate scale. While in a sub-urban context, it is also important that civic buildings address the street and contribute to a pattern of pedestrian activity; in rural settings, they should be allowed flexibility and could be set back away from the street, creating a more relaxed character.

This example of a civic building in a sub-urban environment shows the structure placed parallel to the street and sidewalk, behind a small setback. A loggia encroaches into the setback creating visual interest and providing a transition between the sidewalk and the interior of the building.
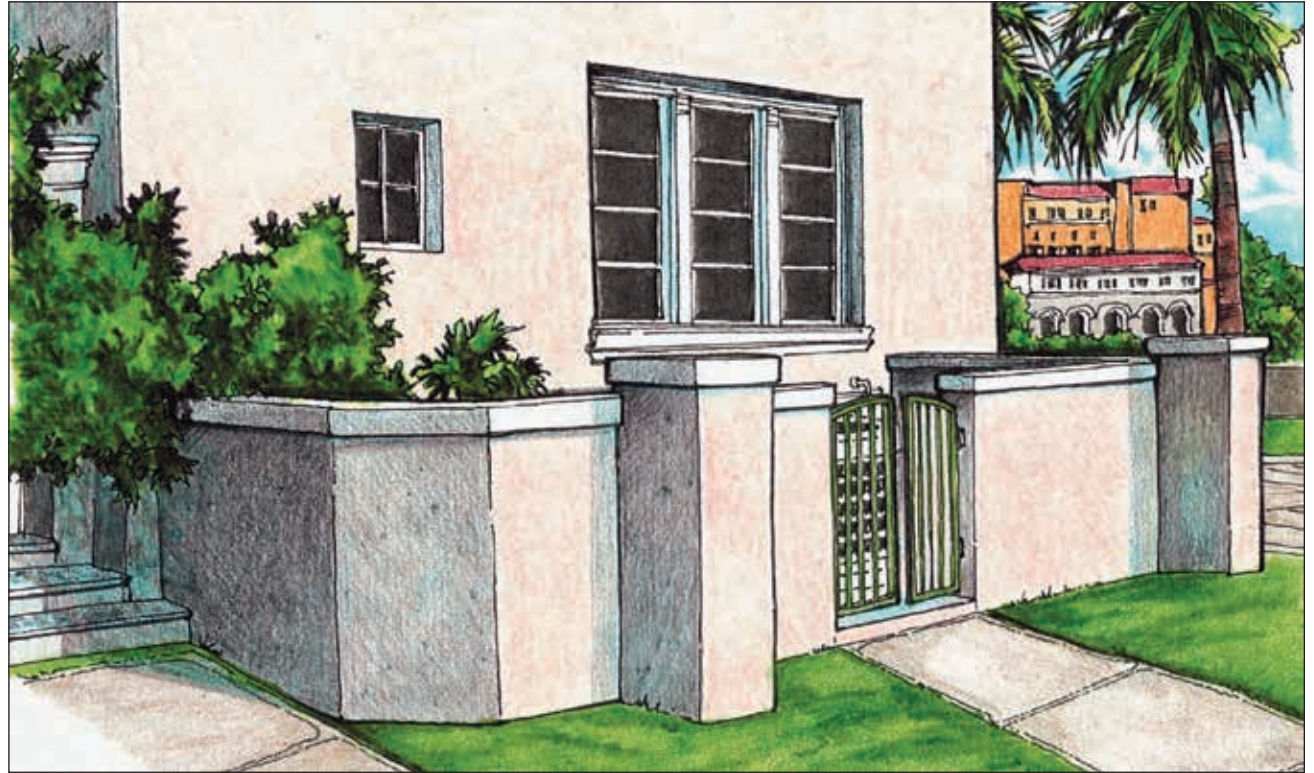
This illustration of a civic building shows design elements that express prominence, reveal the civic nature of the structure and enhance the public realm. The first floor of the building sits several steps above the public open space it fronts; the height of its floors is taller than that of the surrounding buildings; the main front has a symmetrical composition and there is a relation among the proportions of the elements of the facade and the volumes of the structure.

Main Building Front

The architecture and presence of public buildings should inspire civic pride among the residents of a community. Civic buildings should be designed to enhance the public realm and their main front should be oriented towards the street or associated with a significant public open space. The main front must be designed to physically express prominence, reflect the structure's civic nature and to be clearly identifiable through the use of architectural design elements. The building's primary entrance must be located on this front and should promote a natural interaction with pedestrians, while a secondary entrance can serve the parking area or garage. In order to achieve a coherent built environment, civic buildings should have clearly defined fronts and backs independent of their location in the transect.

Service Area

The design of civic buildings should incorporate an appropriate method for consolidating and screening utilities and service areas from public view. The service frontage of a civic building should occur on the least visible building side. Utilities should be located in areas enclosed within the building or architectural elements. Landscaping on its own is not sufficient to conceal utilities and service areas from pedestrian view; integrating them as part of a structure can provide opportunities to create civic art as well as serving a practical function.

This illustration shows a low wall and gate enclosing the mechanical equipment area of a civic building, screening these utilities from pedestrian view. Service areas and utility equipment should be designed to be screened from public view, away from the street front and their access should not preside over the pedestrian environment.
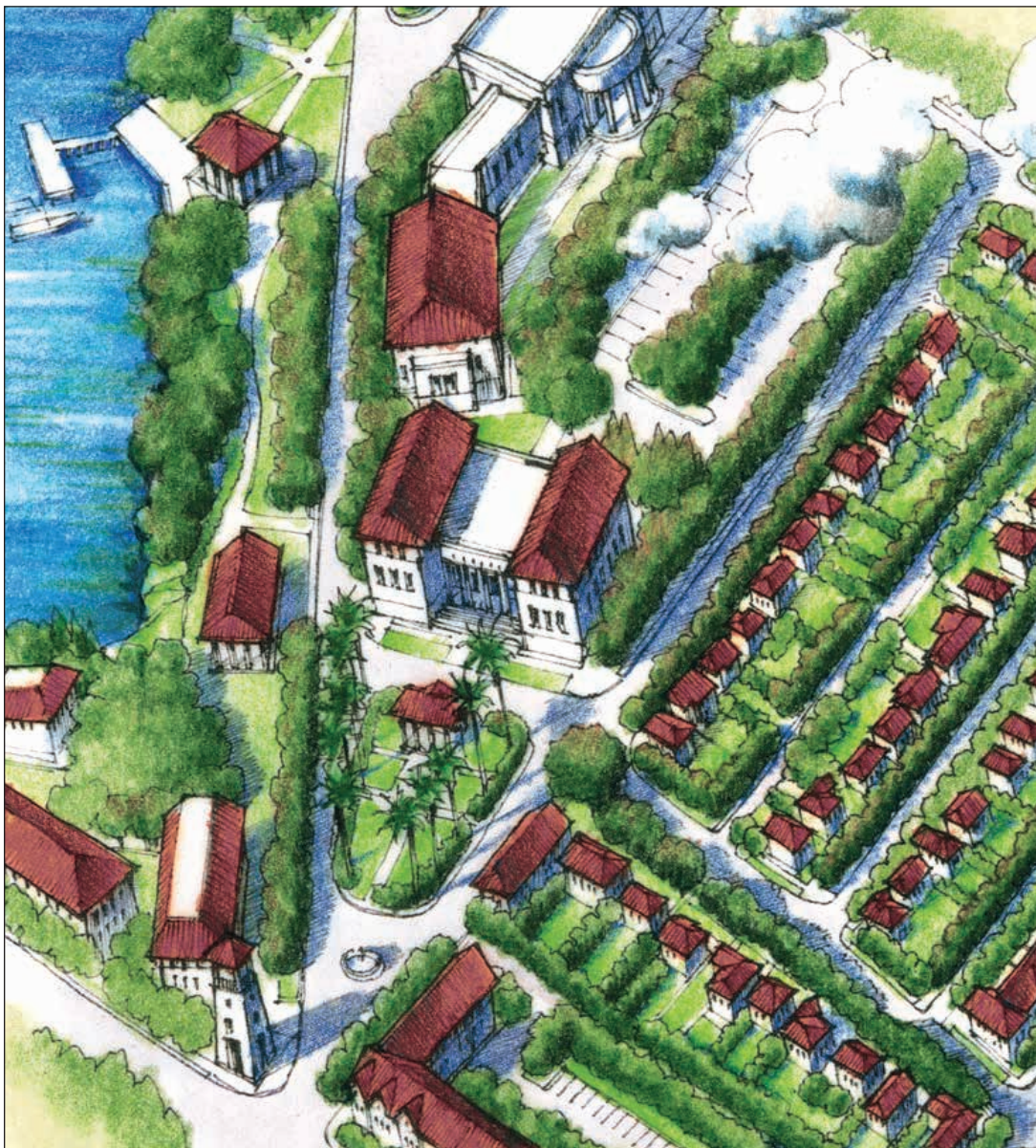
In this example, off-street vehicular parking is provided behind a group of civic buildings, while on-street parking is available along the side streets. Parking lots should be located to the rear of buildings or in the interior of a block and should not dominate the frontage of pedestrian-oriented streets, interrupt pedestrian routes or negatively impact the surrounding neighborhood.

Parking

Parking facilities should be designed and located so that they are convenient, safe, efficient and do not disrupt pedestrian activities and walkability, but still provide the adequate amount of vehicular storage needed. Off-street parking facilities should be situated at the rear or side of buildings; screened by buildings, low walls or vegetation from view of neighboring streets. Access to parking should minimize curb cuts and driveways onto streets to avoid disruptions to traffic flow and the pedestrian experience. On-street parking should be present around civic facilities and should count towards meeting the required number of parking spaces for that use. In urban environments shared parking could help satisfy parking demands and mitigate parking requirements.

Landscape

Landscaping should complement civic buildings in order to achieve successful spatial definition of the public realm. Appropriate landscaping is an important element of civic buildings and necessary to promote pedestrian activity or gatherings. Well-designed landscaping has the ability to control urban character. In an urban setting landscaping should be formal and orderly to help maintain definition of the street edge. In a rural context, irregularly interspersed trees are a sign of the casual character that could be suitable for this environment.

This light rail transit station located within a transit oriented development (TOD) fronts a public open space. The palm trees along the perimeter of the open space are planted in a formal pattern, complementing the design of the station and contributing to the urban character of the neighborhood.
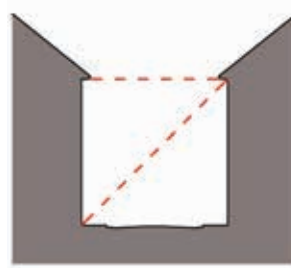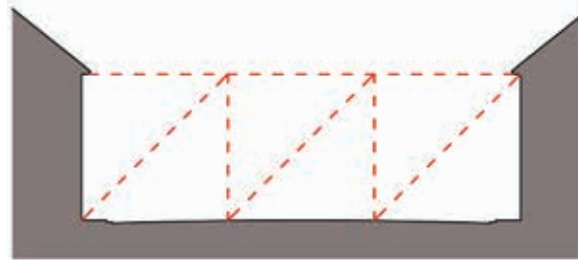
Streets

Spatial Definition and Enclosure

Since streets are the most common public spaces, one of the most important goals of urban design is the control of the street space. Successful spatial definition of the public realm is a direct result of the street cross section and is critical to visual enclosure and human scale. The ratio of street space width to adjacent building height is a proportion whose manipulation generates places of different character. The sense of spatial enclosure is related to the physiology of the human eye. There has been much research on the topic of spatial enclosure creating human scale. Basically, if the cone of vision encompasses less street wall than sky opening, the sense of enclosure will be minimal. If the street wall is greater than the amount of sky, a sense of enclosure will result. For example, a height-to-width ratio of 1 to 6 is the absolute maximum providing any level of defined space. A 1 to 3 ratio results in a feeling of defined space. Generally, the sense of spatial enclosure increases as the ratio of street wall to sky opening increases.

In South Florida, street trees are often the element that defines the road cross section. This compensates for low building heights and wide rights-of-way.
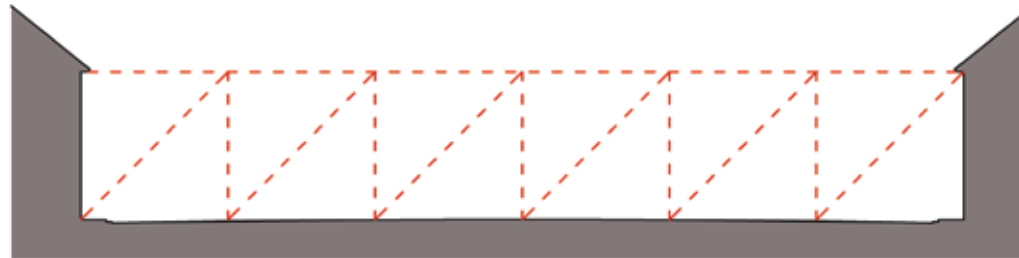
This street in a mixed-use neighborhood incorporates many of the elements that provide a sense of spatial definition, visual enclosure and create an appealing outdoor "room" for pedestrians. Buildings that frame the public realm and engage the street, active street level uses, prominent doors and windows, as well as a height-to-width ratio of approximately 1 to 1 contribute to an enjoyable and pleasant environment.

1 to 1 ratio

The 1 to 1 ratio is an ideal cross-section resulting in a positive human scale relationship. Although this section occurs in older cities, particularly in Europe, it seldom occurs along South Florida roadways. The 1 to 1 ratio is ideal for pedestrian passages.
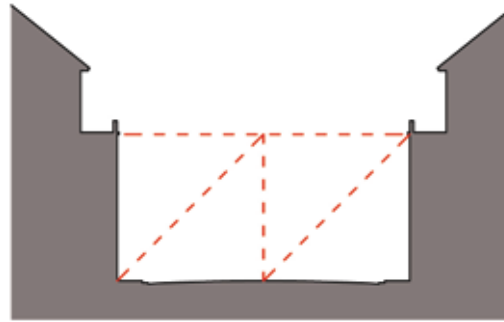

1 to 3 ratio

The ratio of 1 to 3 is an effective minimum section for South Florida roadways.
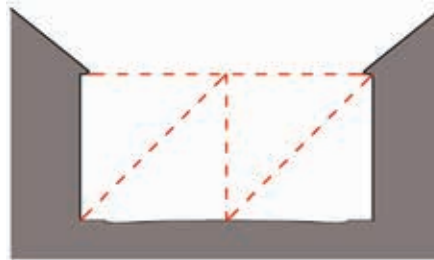It produces a sense of enclosure and a positive human-scale relationship.

1 to 6 ratio

The ratio of 1 to 6 is the absolute maximum road section width to street wall. The use of street trees will enhance this section, and allow for the ratio to seem less severe.
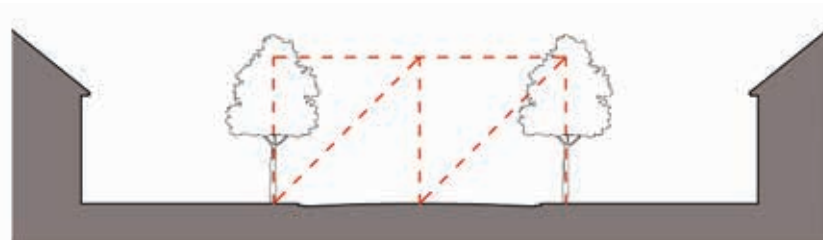
By Recess Line

Taller buildings establish an appropriate street section by the design of the building base to relate to street width.
This condition can be achieved with the use of elements such as colonnades or extended overhangs.

By Facade

A 1 to 2 ratio can easily be accomplished in lower scale residential development,
particularly for higher density attached residential uses such as townhouses.

By Landscaping

In this example, street trees instead of buildings produce a 1 to 2 ratio. In South Florida this is the prevalent condition in
single-family detached residential areas. However, the use of buildings rather than landscape to create the street section is usually
more successful in defining space. The building to building section should not exceed a 1 to 6 ratio regardless of whether trees
are used. Generally, a 1 to 3 building section is most appropriate for a residential street section.

Source: Architectural Graphic Standards, Ninth Edition American Institute of Architects, p.86.

Streets are an important component of the livability of a community and the public realm. They should be designed to accommodate safe, convenient and attractive travel for all users. Pedestrians, bicyclists, motor vehicle drivers and transit riders alike ought to be able to comfortably move along and across complete streets. Well-designed streets encourage healthy lifestyles, improve social interaction, foster walkable communities and create a sense of place.

A complete street is comprised of many different elements, which may include: sidewalks, street trees, bicycle lanes, on-street parking, center medians, vehicular travel lanes, dedicated bus lanes, crosswalks and more. The elements used can differ from street to street, but the end result should achieve a connected network that is safe, effective and balances all modes of travel.


This image illustrates an example of a mixed-use thoroughfare which has a positive appeal. Wide sidewalks, perimeter roads that incorporate parallel parking, landscaped medians, trees at uniform spacing, clearly defined pedestrian crossings, as well as architectural continuity through buildings of similar heights and detailing make immeasurable contributions in terms of creating a safe and pleasant street environment.
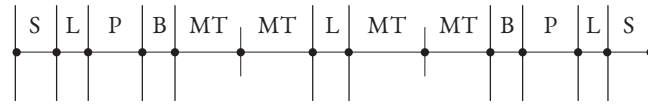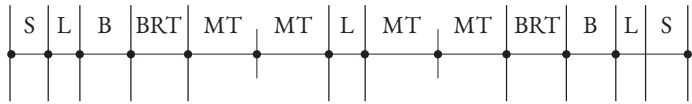

An appropriately designed street is safe, convenient and attractive for all users, regardless of their mode of travel. Consideration must be made to ensure that all vehicles have ample space to travel efficiently and safely, but also so that pedestrians are protected from the vehicles. Shade trees, human-scaled lighting and street furniture should be situated in a manner that provides separation between pedestrians and motor vehicles.

Boulevard

A boulevard is a high-capacity thoroughfare, divided by a landscaped median, dedicated public transit lanes or a combination of both in walk-able sub-urban or urban environments. Boulevards should be designed to carry both through and local traffic, pedestrians and bicyclists, and can also accommodate different modes of public transportation. Along boulevards fronted by uses associated with heavy pedestrian traffic, a frontage street and/or on-street parking can be implemented to maintain pedestrian safety. Regularly planted landscaping, street furniture and lighting should also be incorporated into the design of a boulevard.
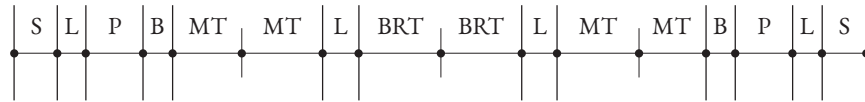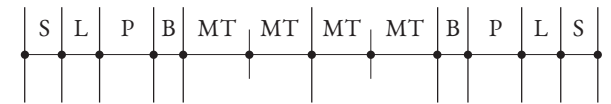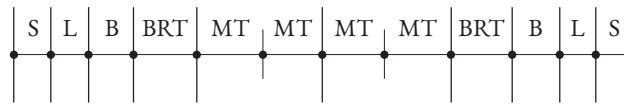

S L P B MT MT L BRT BRT L MT MT B P L S

S - SIDEWALK
P - PARKING
B - BICYCLE
MT - MIXED-TRAFFIC
L - LANDSCAPE
BRT - BUS RAPID TRANSIT

S	L	B	BRT	MT	MT	L	MT	MT	BRT	B	L	S

S	L	P	B	MT	MT	L	MT	MT	B	P	L	S

S - SIDEWALK
P - PARKING
B - BICYCLE
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Avenue

Typically shorter than a boulevard, an avenue is a medium-high capacity thoroughfare that serves as primary pedestrian and bicycle routes and some local transit routes. Avenues are the most commonly occurring thoroughfare types, because they serve the widest variety of land uses. Avenues usually contain curbed, on-street parking, in addition to high quality pedestrian and bicycle accommodations. Landscape, street furniture and lighting should enhance both the vehicular and pedestrian experience within the section. Avenues can achieve a great balance for all modes of transportation, from shoppers on foot to some forms of public transportation.

| S | L | B | BRT | MT | MT | MT | MT | BRT | B | L | S |

| S | L | P | B | MT | MT | MT | MT | B | P | L | S |

S - SIDEWALK
P - PARKING
B - BICYCLE
MT - MIXED-TRAFFIC
L - LANDSCAPE
BRT - BUS RAPID TRANSIT

| S		L	P	B	MT	MT	B	P	L		S

Main Street

A main street is a walkable thoroughfare adjacent to mostly commercial and office uses with some higher intensity residential. Vehicles and bicyclists can be accommodated within the right-of-way and allow for connectivity to public transportation routes on higher capacity boulevards and avenues. On-street parking is encouraged to mitigate parking requirements and also, when combined with landscaping and other elements function as an extra layer of protection for pedestrians on foot.

S - SIDEWALK
P - PARKING
B - BICYCLE
MT - MIXED-TRAFFIC
L - LANDSCAPE
BRT - BUS RAPID TRANSIT

Local Street
A local street is a walkable thoroughfare that primarily serves abutting neighborhoods. They collect and distribute vehicular, as well as bicycle traffic at the neighborhood level and disperse them onto higher capacity thoroughfares like boulevards, avenues and main streets. Local streets should be landscaped, curbed and contain some on-street parking, but can have naturally landscaped swales instead.
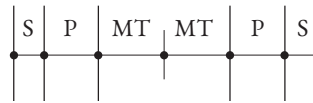

| S | L | P | B | MT | MT | B | P | L | S |

S - SIDEWALK
P - PARKING
B - BICYCLE
MT - MIXED-TRAFFIC
L - LANDSCAPE
BRT - BUS RAPID TRAN-

| S | P | B | MT | MT | B | P | S |

| S | L | B | MT | MT | B | L | S |
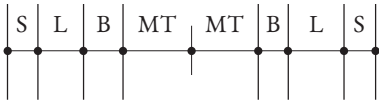
S - SIDEWALK
P - PARKING
B - BICYCLE
MT - MIXED-TRAFFIC
L - LANDSCAPE
BRT - BUS RAPID TRAN-

Neighborhood Street

A neighborhood street, typically of lower capacity and speed, is primarily used to connect residential uses on a block to block level, within single neighborhoods. Neighborhood streets may be curbed or swaled and should include sidewalks or paths, as well as street trees. Both vehicles and bicyclists should feel comfortable using neighborhood streets, however, there are no accommodations made to formally distinguish between the two.

| S | P | MT | MT | P | S |

| S | L | MT | MT | L | S |

S - SIDEWALK
P - PARKING
B - BICYCLE
MT - MIXED-TRAFFIC
L - LANDSCAPE
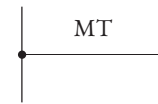BRT - BUS RAPID TRANSIT

Road

A road is a small scale, local thoroughfare fronted by lower intensity buildings. A road tends to be rural in character without curbs or on-street parking and has naturally planted landscaping and paths versus sidewalks and street trees.
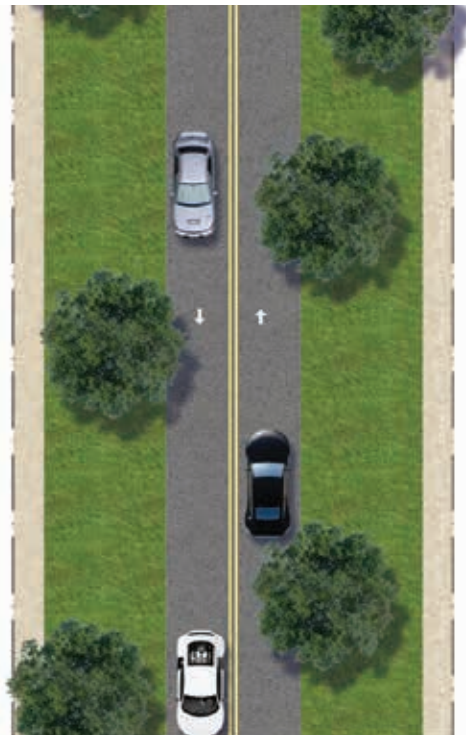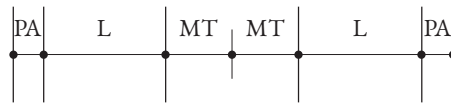
Service Lane

Service lanes are narrow access roads found in urban or sub-urban areas and run between or behind buildings. They provide side or rear access to properties where parking and utilities are located.

PA	L	MT	MT	L	PA

MT

S - SIDEWALK
PA - PATH
B - BICYCLE
MT - MIXED-TRAFFIC
L - LANDSCAPE
BRT - BUS RAPID
TRANSIT

Building Types

The functions and programs provided by civic structures typically occur in four distinct building types. These building types are classified as perimeter yard, courtyard, sideyard and rear yard. All of these building types can be located in urban, sub-urban or rural environments, but differ in scale depending on their civic function.
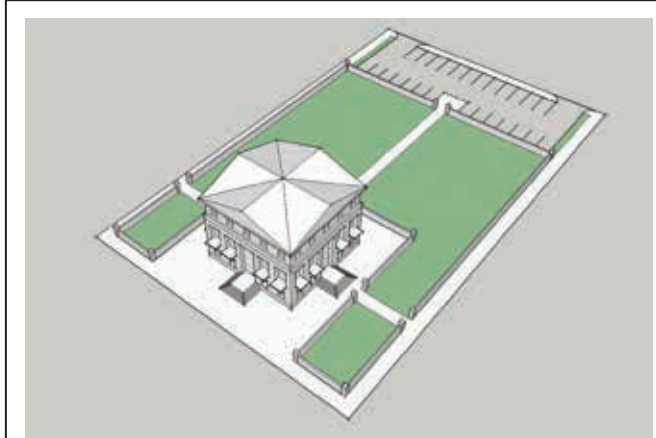

Perimeter Yard

The perimeter yard building is an object building, with open space completely surrounding the structure. Parking should be placed at the rear of the building, off of an alley, while the building is placed close to the sidewalk. Placement of the structure at the front of the parcel helps to define the street space. Design features such as a loggia, can act as transitional elements between the sidewalk and the interior of the building.
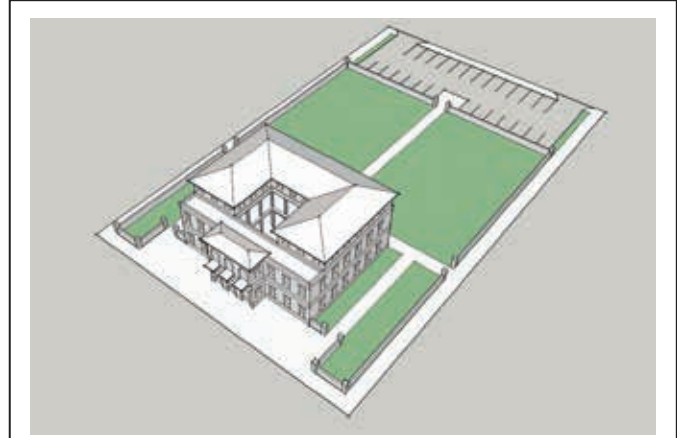

Courtyard

One or more outdoor spaces enclosed by the walls of the building define the courtyard type. These spaces can also be defined by the walls of adjacent buildings and provide light, air, as well as open space views to the internalized functions of the building. The placement of parking at the rear, off an alley, creates a more attractive street frontage. The courtyard building can be either attached or detached.
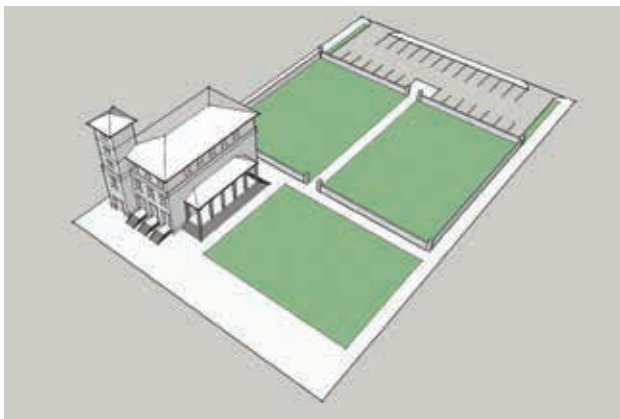
Sideyard

The sideyard building is positioned on a side property line and occupies one side of the parcel leaving a generous side area reserved for open space or providing access to other buildings behind. Placing the building close to the sidewalk and street, with parking at the rear, results in a well proportioned road cross section and definition of the public realm.
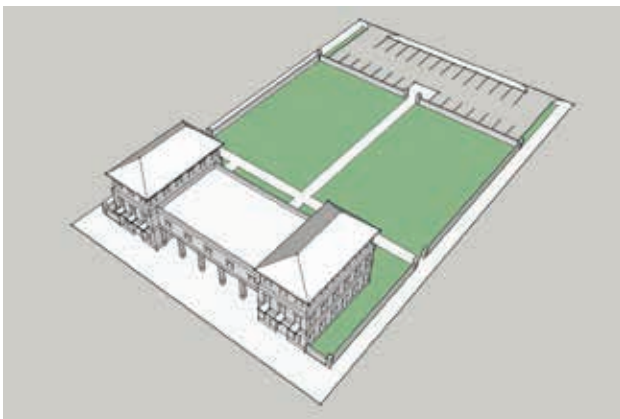

Rear Yard

The rear yard is a series of attached habitable spaces placed towards the front of the parcel with the open space placed behind the building. The bar building is an intense form of the rear yard type found in urban environments. The bar-like structure can accommodate a variety of functions over multiple floors. Parking located at the rear, off an alley, creates a more attractive street frontage.

Architecture

The architecture of civic structures should reflect their civic nature, convey to the observer their significance and contribute to civic art. Civic architecture should be of a scale and sophistication that is noticeable from the consistent urban fabric. Object or foreground civic buildings can be expressed more freely than their background counterparts. The detachment allows the objectification of the structure, providing designers with the ability to express civic buildings more freely, while civic buildings proposed in infill conditions should respond to the architectural characteristics of the adjoining structures. Good architecture is, in part, the result of carefully studied and well executed building proportions. Commonly applied proportioning systems in the development of civic buildings include the golden ratio, human scale, as well as geometric and mathematical formulas. The architecture of civic structures can help enhance neighborhoods, strengthen communities and provide character to the public realm.


This traditional example of an infill civic building complements the architectural vocabulary and materials used in the adjoining historic structure. The building's stone base and vertical openings emulates its neighbors facade, while anchoring the building to the ground.
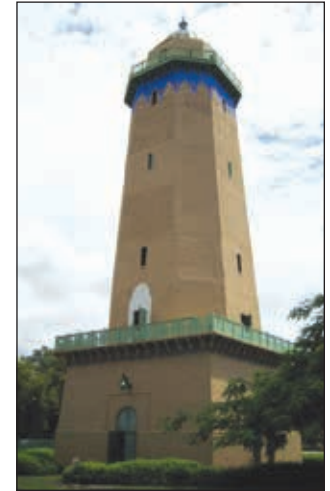
Civic art that successfully expresses its function can act as an icon for residents by visually relating its purpose through design and architectural composition.

These examples of foreground civic buildings demonstrate modern architecture can easily be incorporated into civic design. It is important that close attention be paid to the design of all facades of a foreground building, regardless of its architectural style.
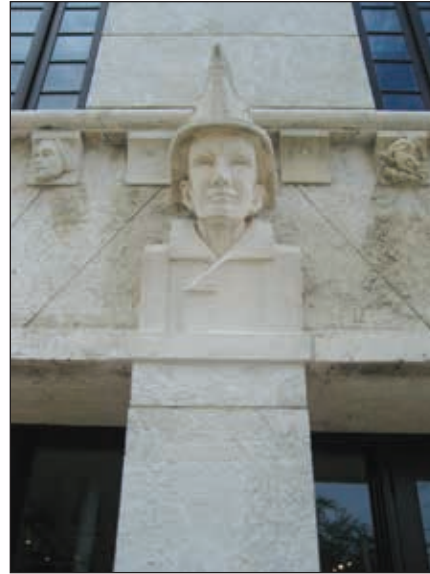
Signage

Signs, as well as the letters and supporting elements within them, should be designed to complement the architecture of civic structures. Signs identifying paths and other open space functions should blend with the landscape and be constructed of materials compatible with the natural and manmade features of the open space. A wayfinding signage program for civic buildings and open spaces within a neighborhood helps define the community's character and enhance the public realm.

This example shows a well-designed building facade created by the careful coordination of signage and architectural design. The sign is integrated with the design of the building, creating a positive visual image for the structure, while architectural details enhance the physical appearance of the building and convey its use to the community.

A wayfinding sign program that incorporates art, landmarks, signage and environmental cues helps residents and visitors experience a community without confusion. These cues should be well planned, seamlessly connected and esthetically pleasing, creating a positive impression, as well as a sense of security and comfort.

Acknowledgements