



Urban Design Manual

Volume I - Private Development





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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 Community Urban Center, the Planned Area Development District and recently the Rowhouse 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.

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URBAN DESIGN MANUAL

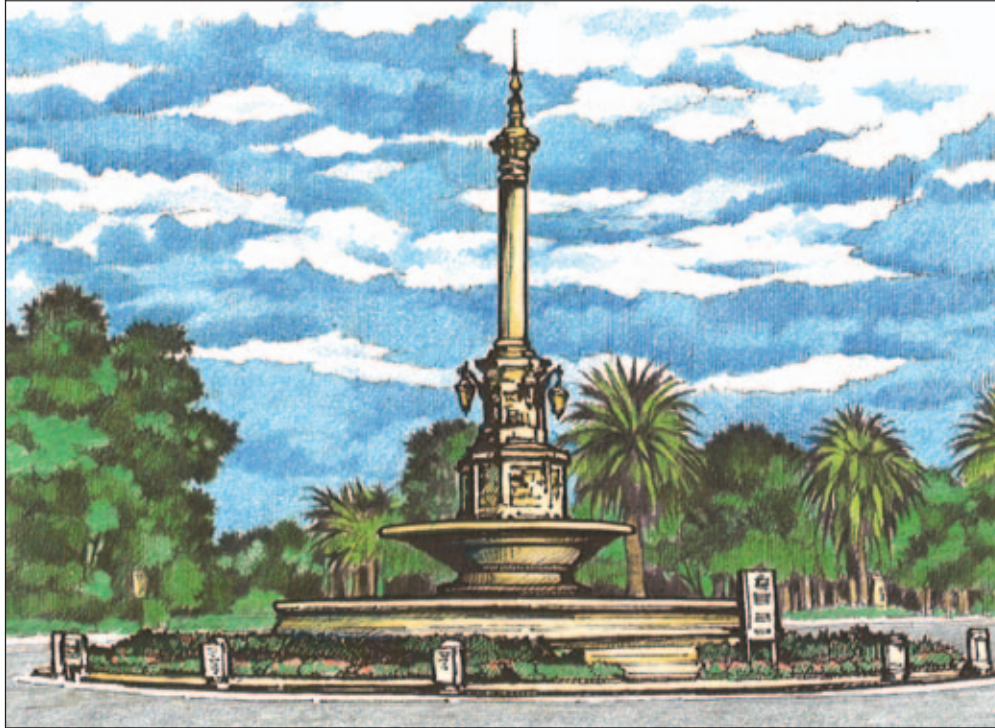
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Urban Design Manual: Volume I- Private Development

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“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. Al-

though 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



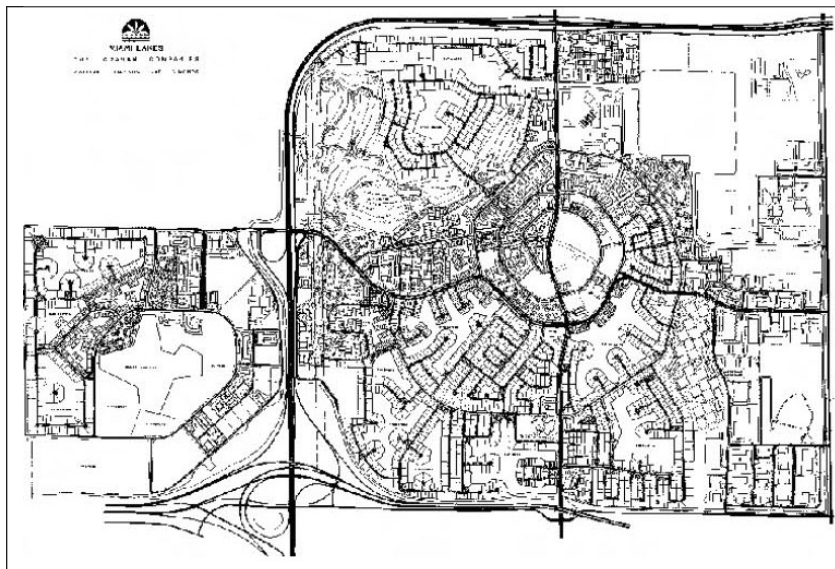
Coral Gables

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.



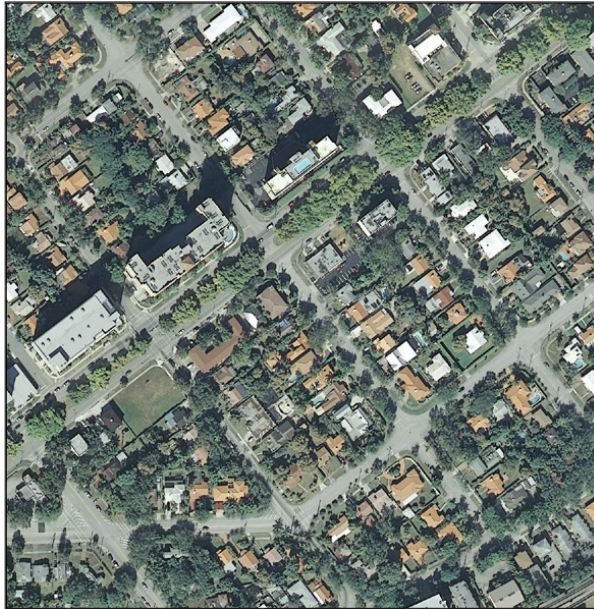
Seaside

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

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 designers 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

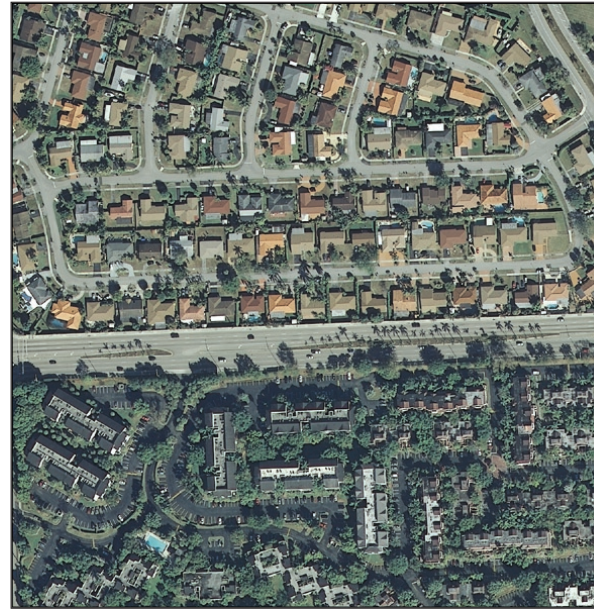
In this 1950s neighborhood in central Miami-Dade County, the separation of uses is clear. Retail and office uses are concentrated along major corridors and single-family homes located in the blocks behind them. Neighborhood block and street lengths are longer, making the use of the automobile necessary 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



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.

1970s and 1980s



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.



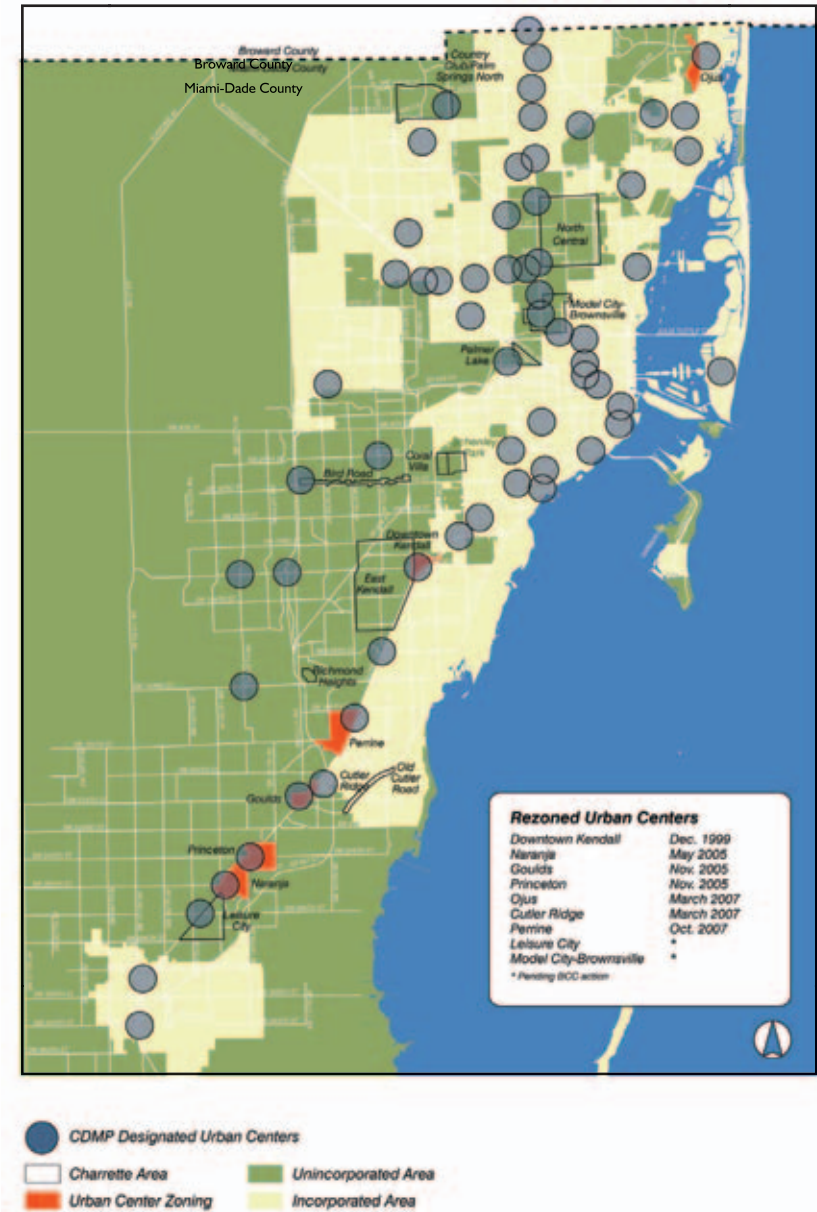
The Miami-Dade County Comprehensive Development Master Plan (CDMP) designates a number of areas around transit as Urban Centers. The aerial shows Downtown Kendall, an Urban Center evolving in and around the Dadeland Mall shopping complex. Regulating plans guide intensity of development, open space allocation and street connectivity. Strict criteria for building placement, building height, and parking provides for a pedestrian oriented public realm.

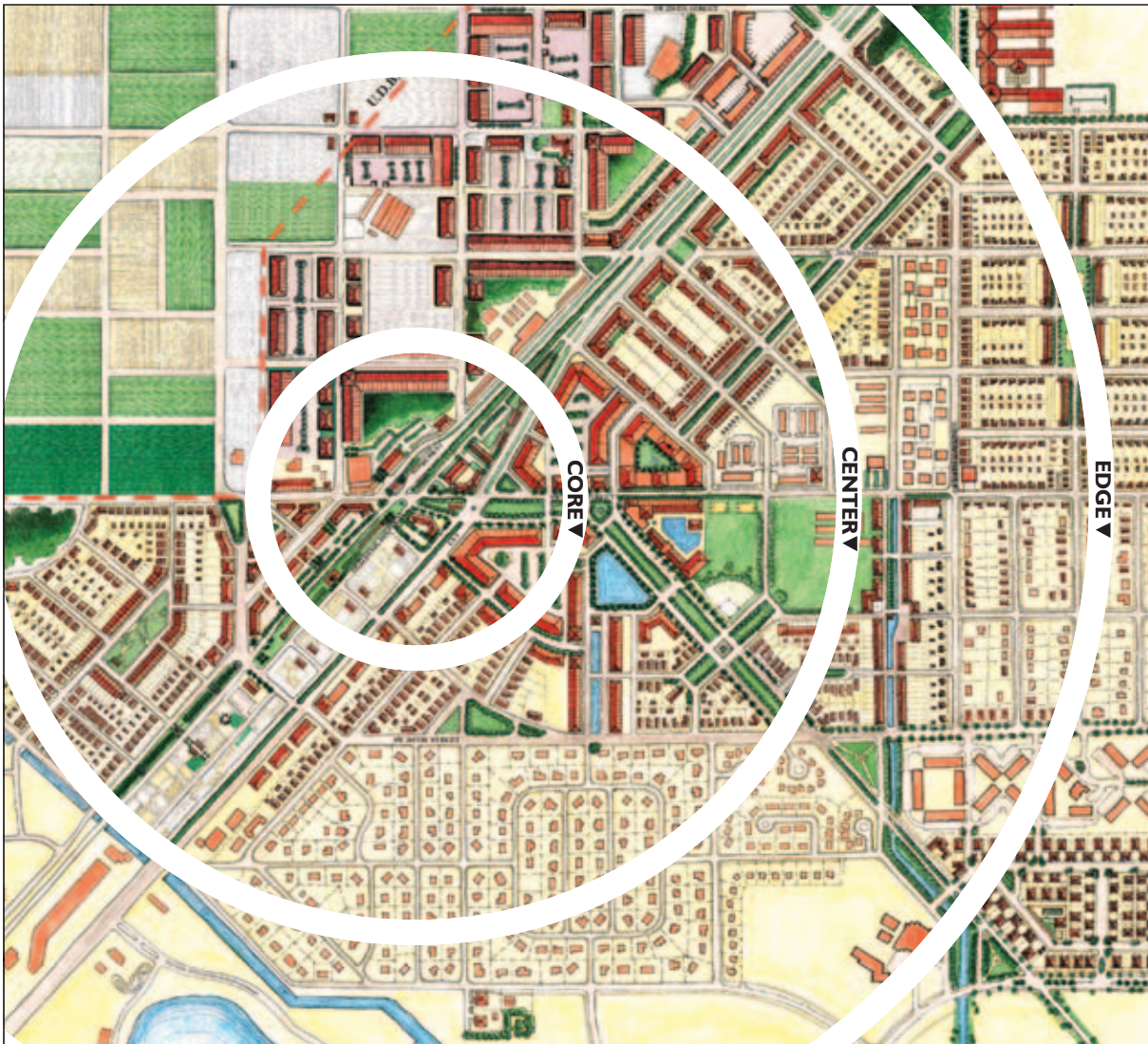
The Miami-Dade County Comprehensive Development Master Plan designates a number of locations around transit as Urban Centers. Urban Centers are planned as hubs for future urban development in Miami-Dade County, around which a more compact and efficient urban structure will evolve. These Urban Centers 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 en-

courage 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.





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.

This example of a Community Urban Center adopted by the Board of County Commissioners based on criteria in the Comprehensive Development Master Plan. The CUC effort established a major focus in the Sustainability, Planning and Economic Enhancement Department for the establishment of the physical layout of specific areas.

The procedure for the establishment of an adopted plan follows:

1. Designation of an area as a CUC through the County Commission.
2. Establish a Steering Committee of neighborhood Citizens.
3. Support by staff to the steering committee.
4. Charrette with staff.
5. Presentation of Charrette proposals.
6. The development of the final plan by staff.

Urban Design

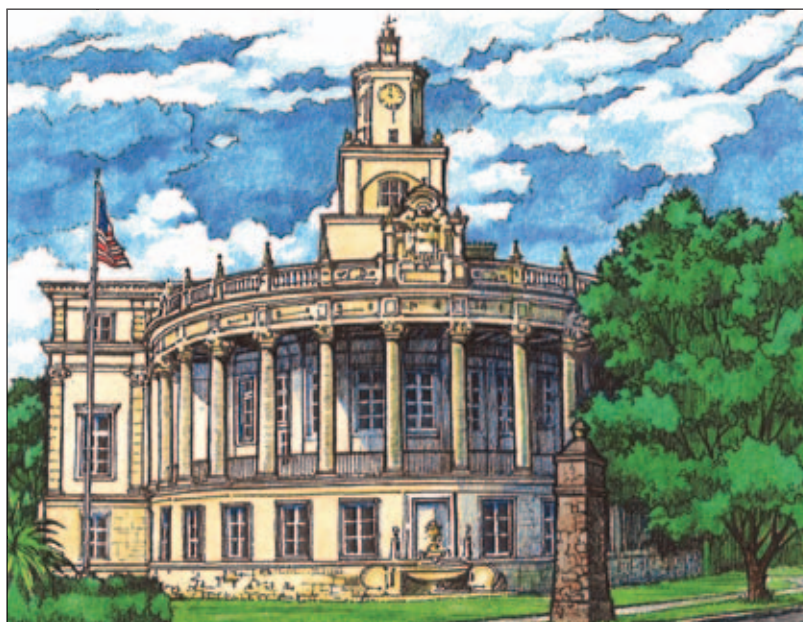
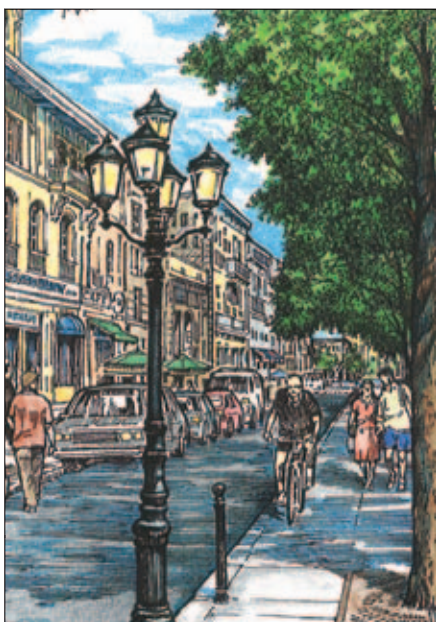
Urban design is the comprehensive integration of exterior spaces and structures that comprise the built environment. The intent is to produce a public realm of attractive and comfortable places in which people will feel inclined to dwell. All scales of development can be improved through the application 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



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.



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.

define neighborhood character. Buildings within a neighborhood should be compatible with the pattern of its surrounding 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.

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.

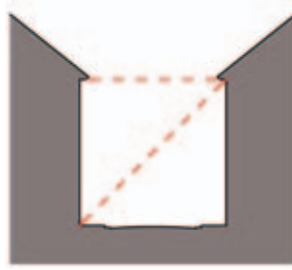


The “Street as a Room” in a low-density residential neighborhood

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.

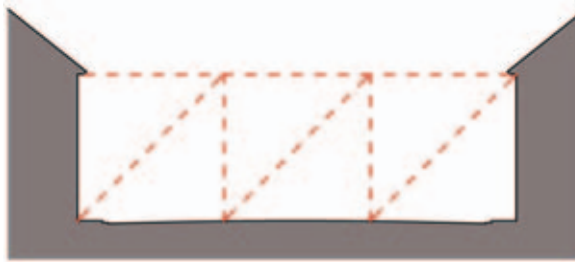
Since streets are the most common public spaces, one of the most important goals of urban design is the control of street space. Successful spatial definition of the public realm is a direct result of the street cross section and is critical to visual enclosure and human scale. The ratio of street space 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.



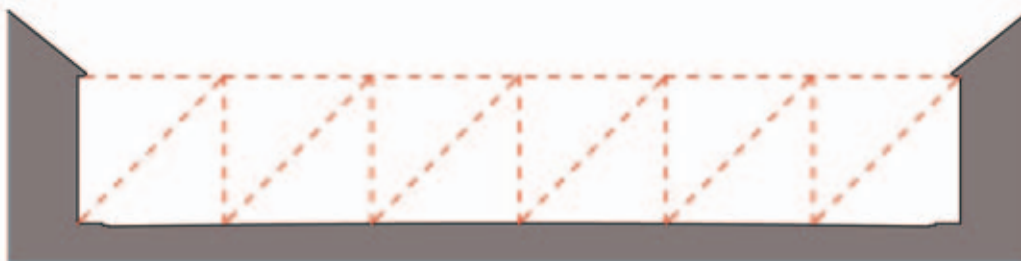
1 to 1 ratio

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.



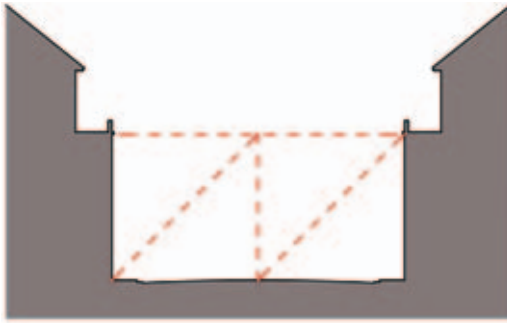
1 to 3 ratio

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.



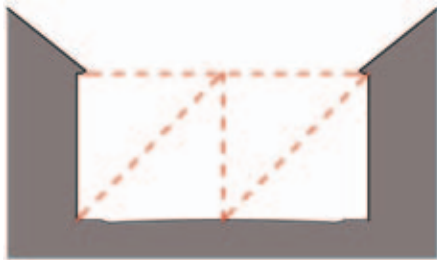
1 to 6 ratio

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.



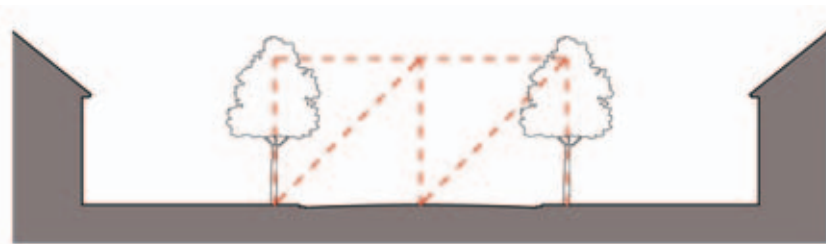
By Recess Line

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.

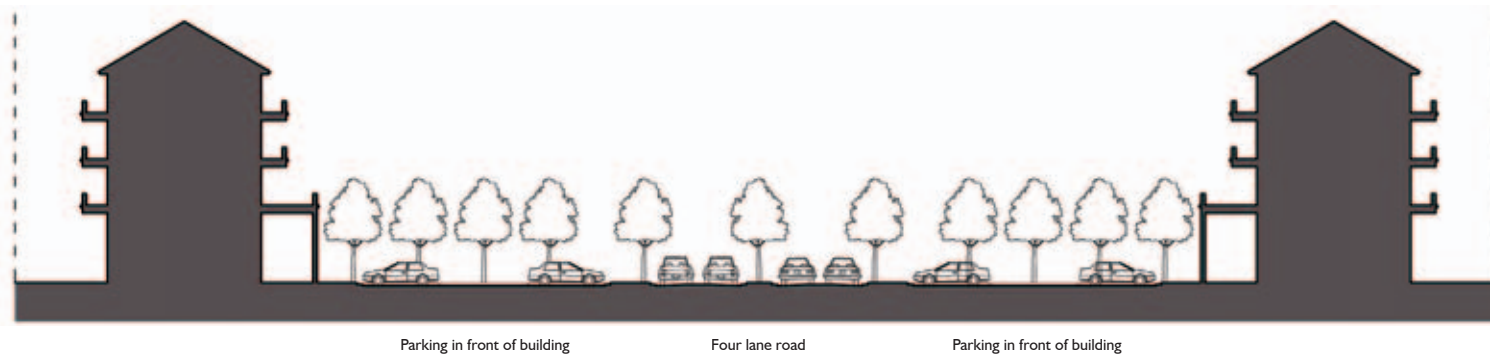
Source: Architectural Graphic Standards, Ninth Edition American Institute of Architects, p.86.



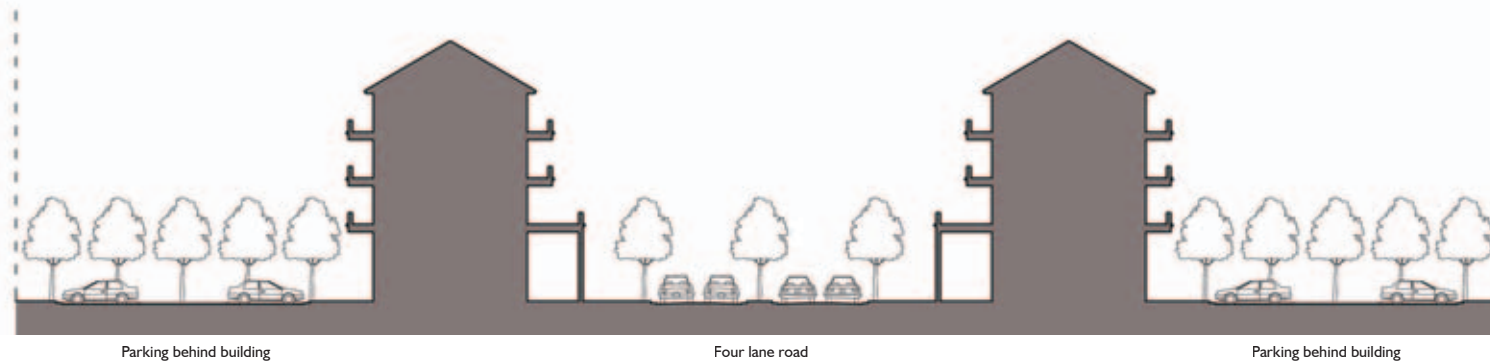
This residential neighborhood incorporates many of the elements that provide a pleasant living environment. Entrances are clearly defined and porches provide a transitional space between the public area and the interior of the unit. Parking is provided to the rear of units thereby providing uninterrupted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



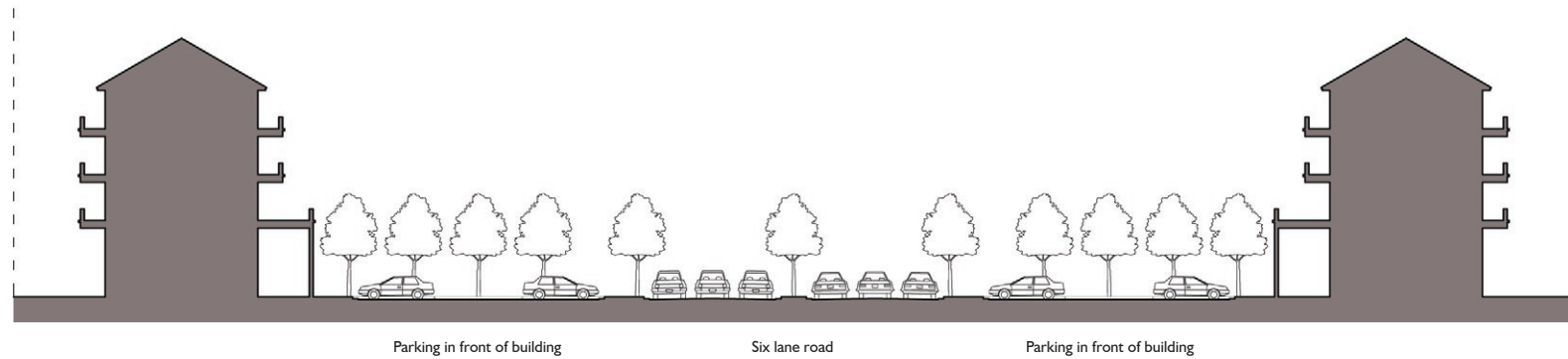
This illustration of a low-density residential street shows successful spatial definition of the public realm, which is a result of a street cross section that produces visual enclosure and a positive human scale. The ratio of street width to adjacent building walls generates a place of singular character.



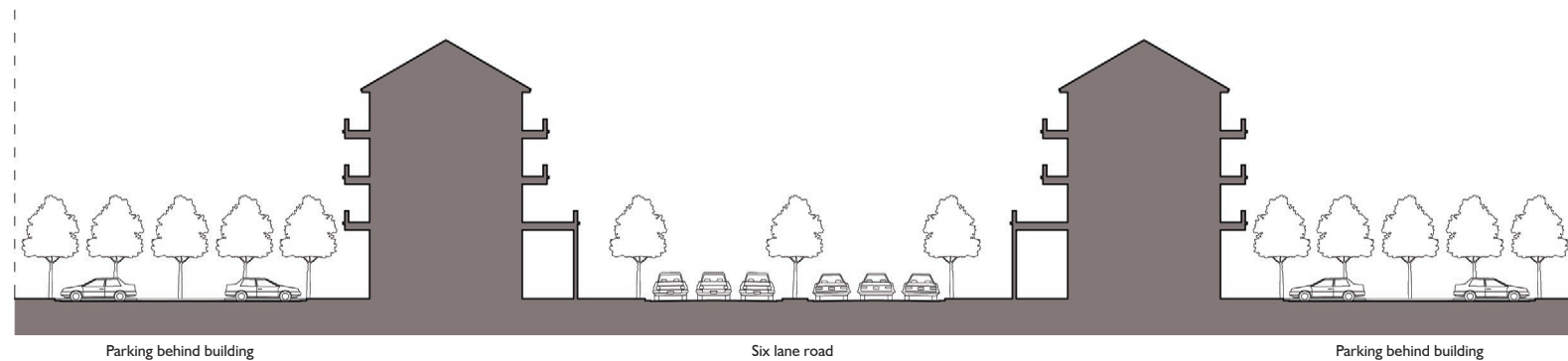
This residential cross section has a ratio of approximately 1 to 7, which falls outside the maximum ratio of 1 to 6. The sense of enclosure is lost, and human scale does not exist. Trees offer little in this broad expanse of pavement.



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.



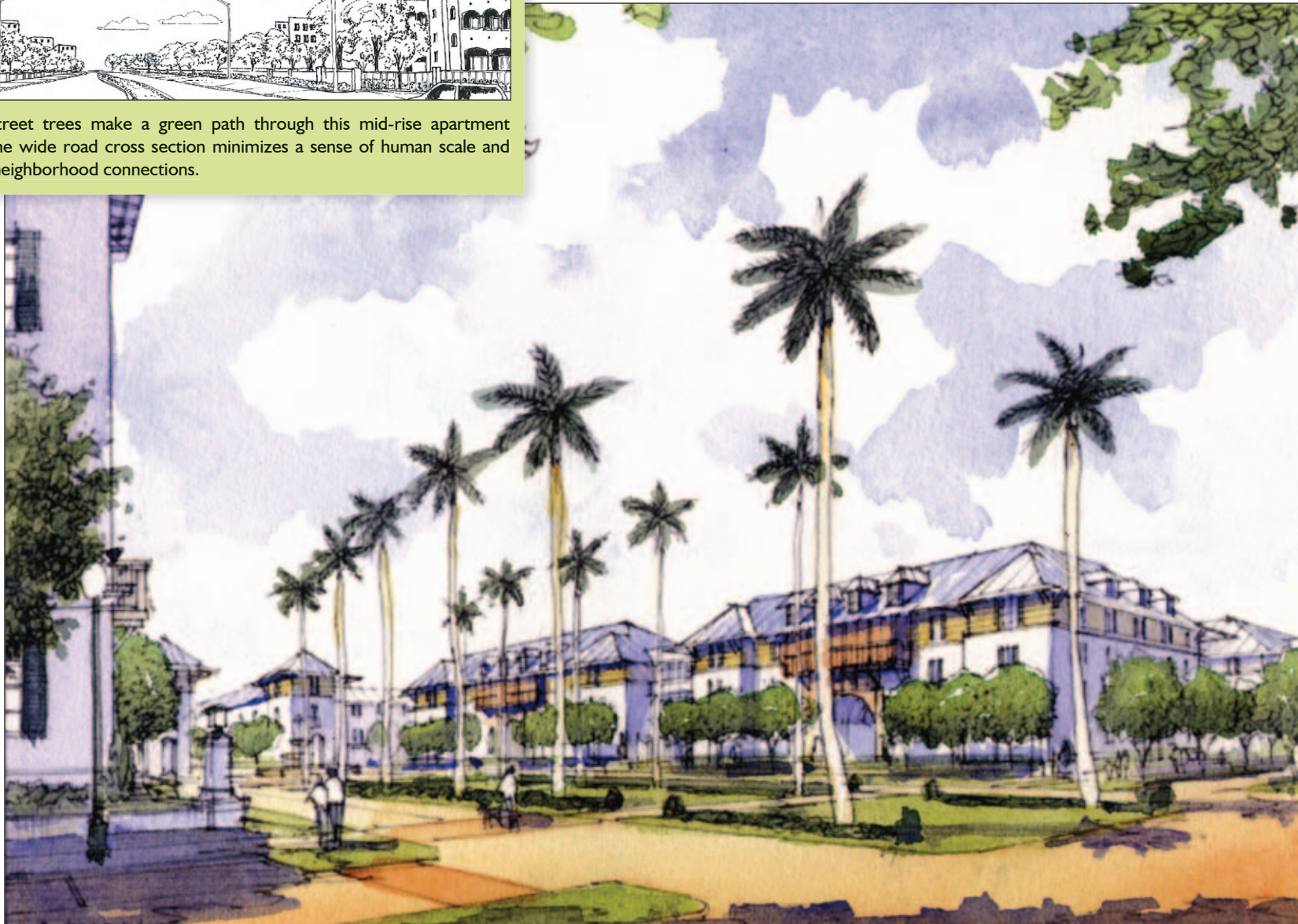
This residential section is approximately 1 to 7. The excessive front setback with parking is the critical element making this section inappropriate.



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.

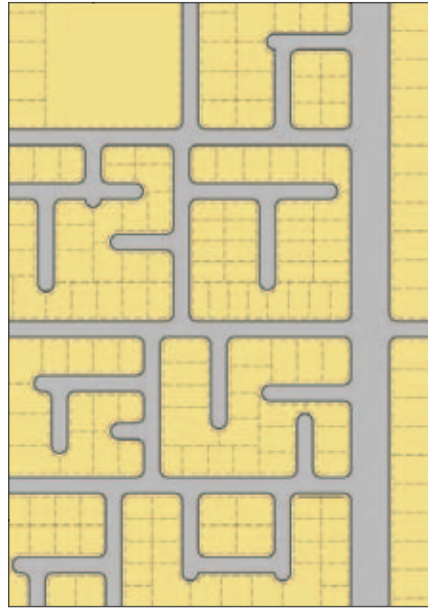


The design failure of this retail street section results largely from excessive setbacks and surface parking. Human scale does not exist and movement between adjacent developments must be largely achieved by automobile.



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.



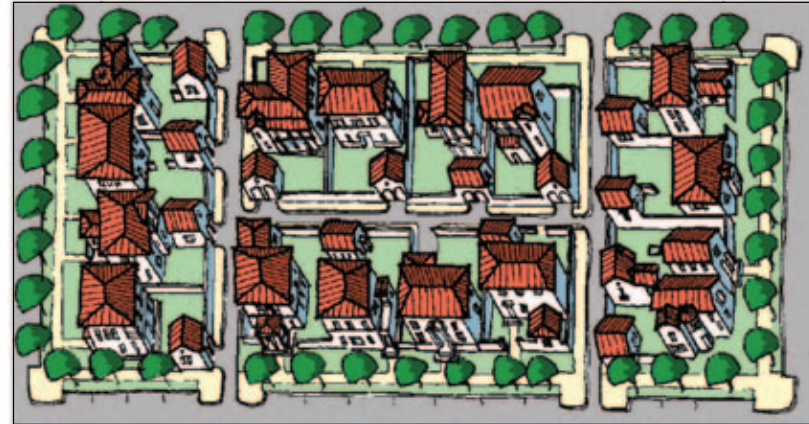
Modified Grid Block

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

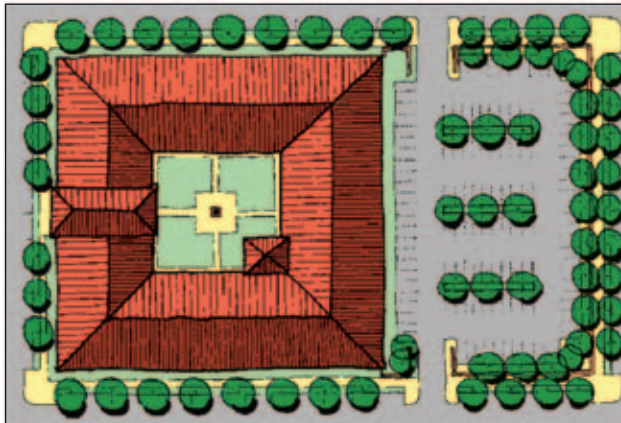
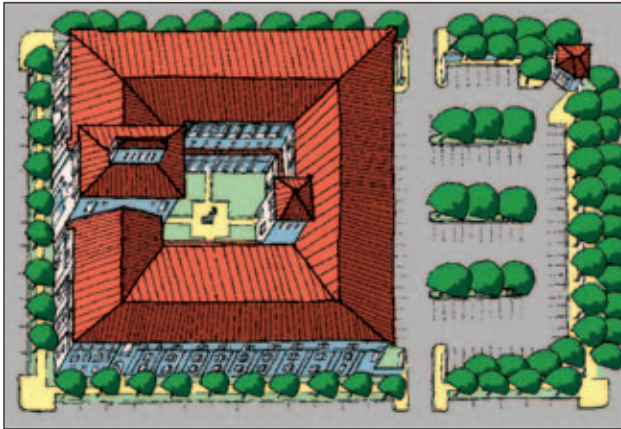
This plan for a single-family detached residential block incorporates uniform front setbacks which reinforce the definition of the block edge. Architectural interest results from a variety of building footprints. Garages have been placed away from the front elevation to minimize the visual impact of parked cars. Variation in building heights adds interest.



Single-Family with an Alley

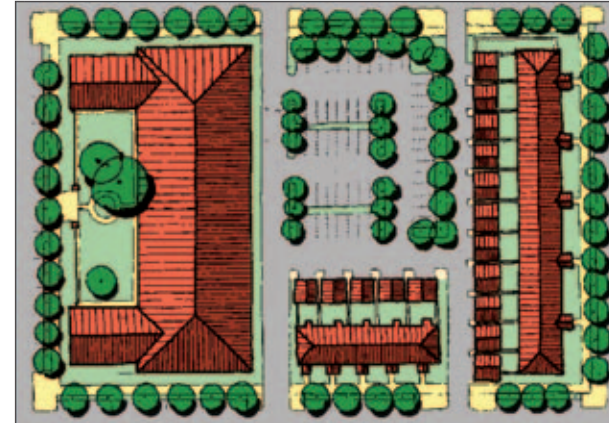
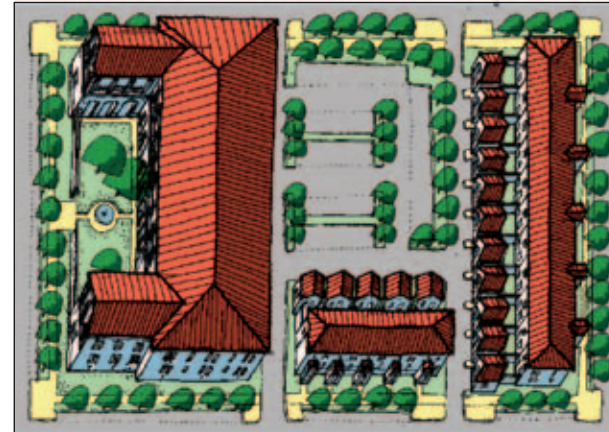
This illustration shows a single family block with alleys. As in the plan without alleys, aligned front setbacks provide a disciplined block edge which is reinforced by adding low walls. A variety of house plans provide interest. Alleys eliminate the need for parking in the front yard and provide utility 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.



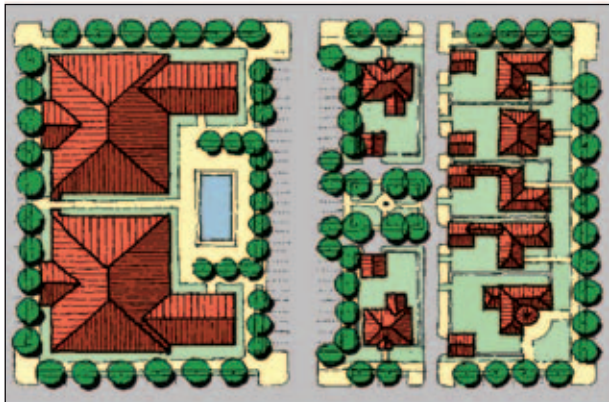
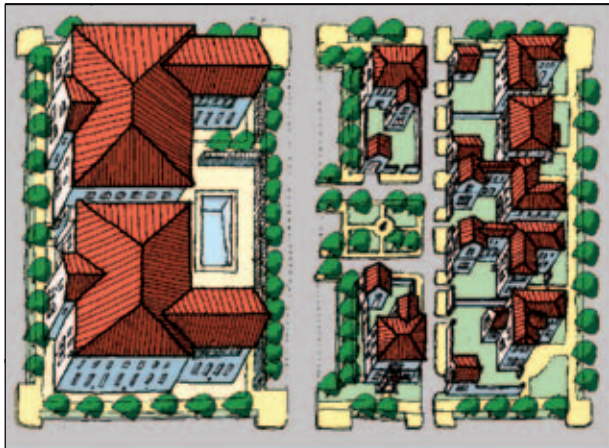
Apartment Block with Rear Parking

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.



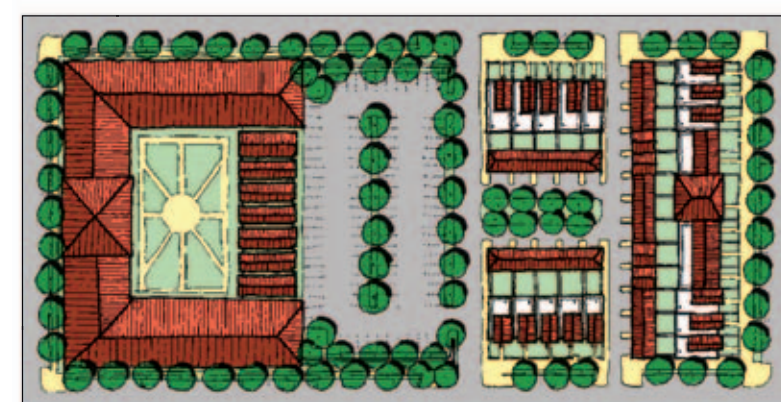
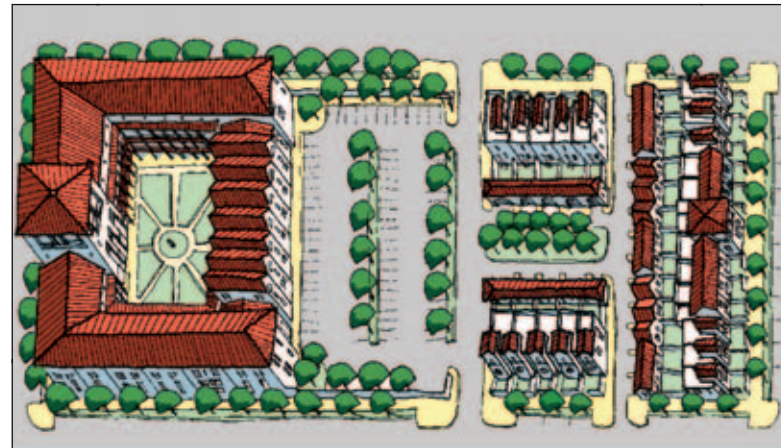
Plan of Apartment and Townhouse Block

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.



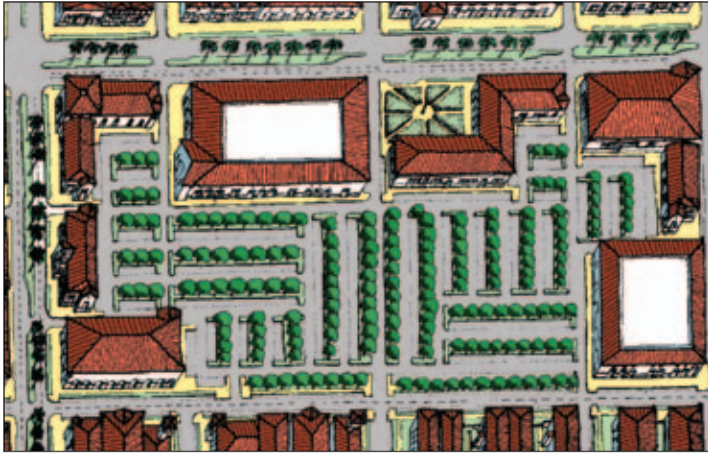
Plans of Apartment and Single-Family Block

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.

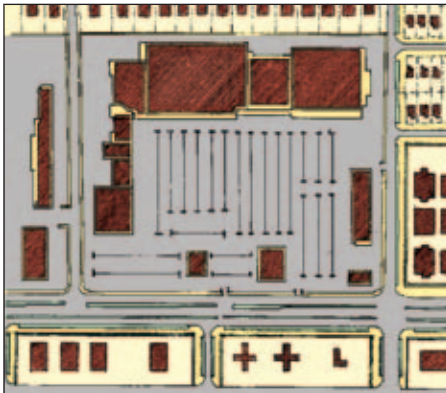


Courtyard Apartment Building and Townhouse Block

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.



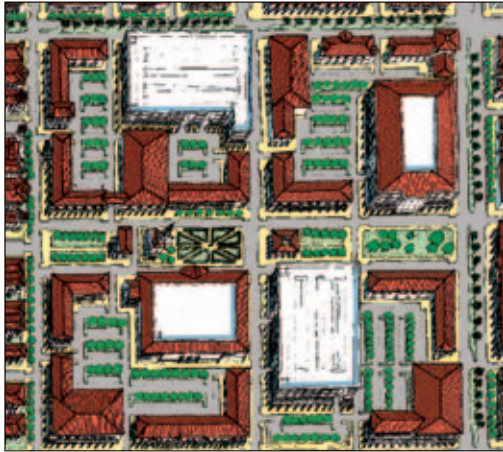
Inappropriate

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.

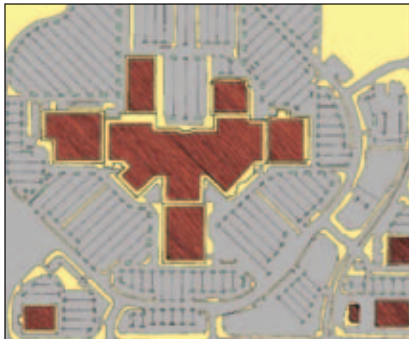


Appropriate

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.

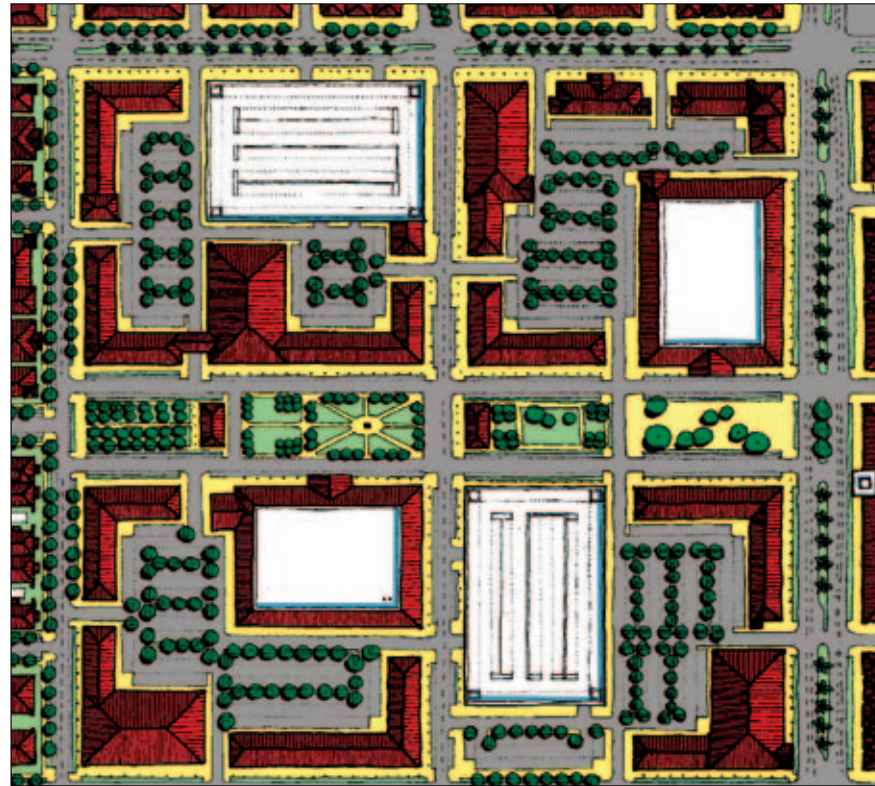


This axonometric of a regional business district demonstrates the use of architecture that clearly defines the street and sidewalk with arcades which are used as a continuous element throughout the retail center.



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 complement 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.

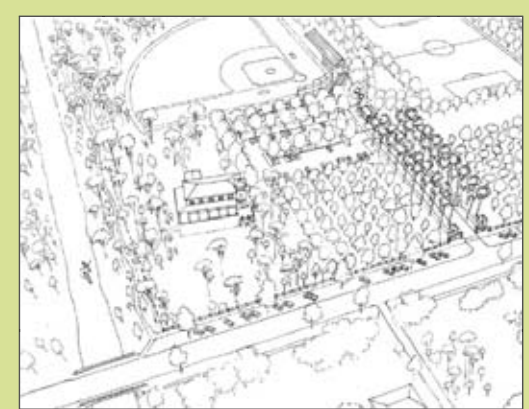
Sustainability

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



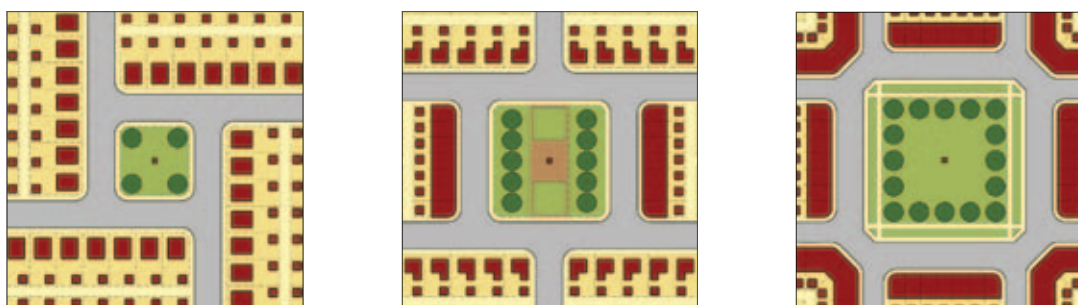
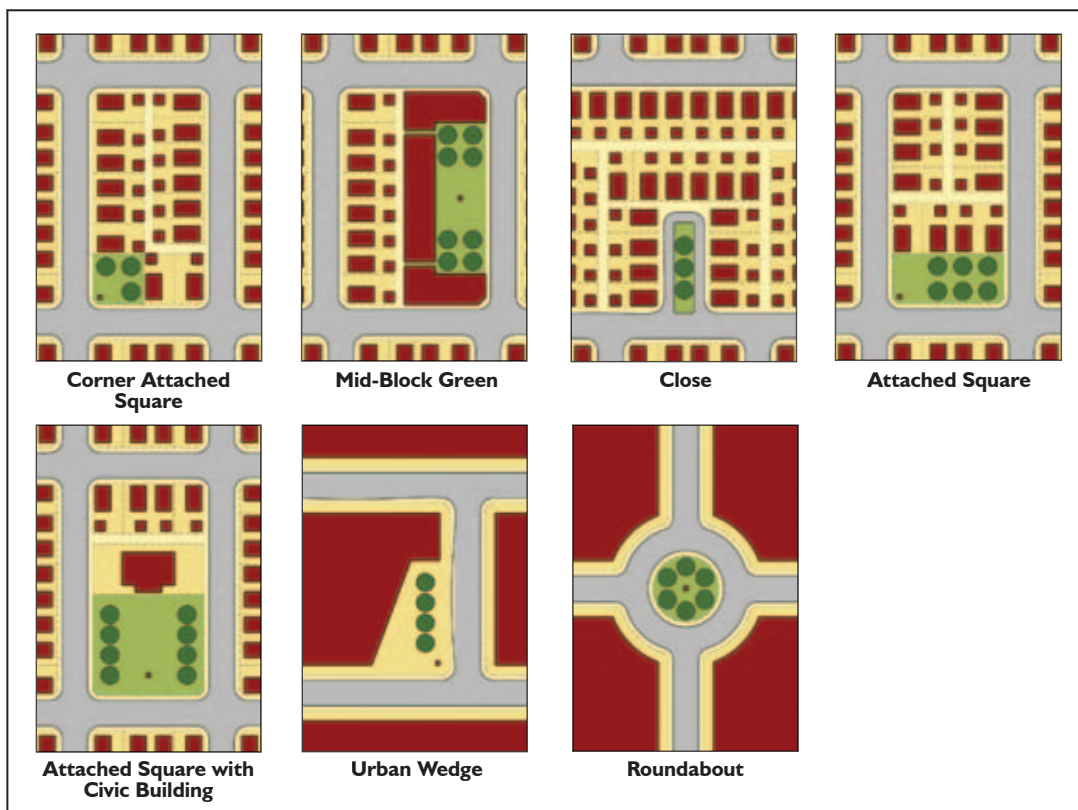
Sub-urban



Urban

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

The location (rural, sub-urban 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.

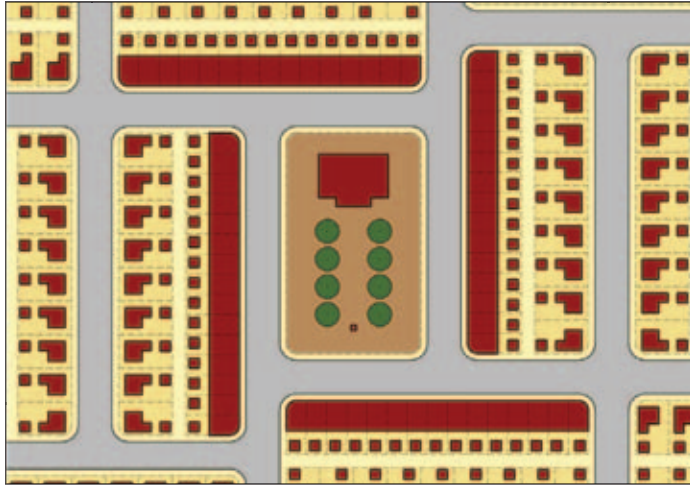


Detached Squares and Greens

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.

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.



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.



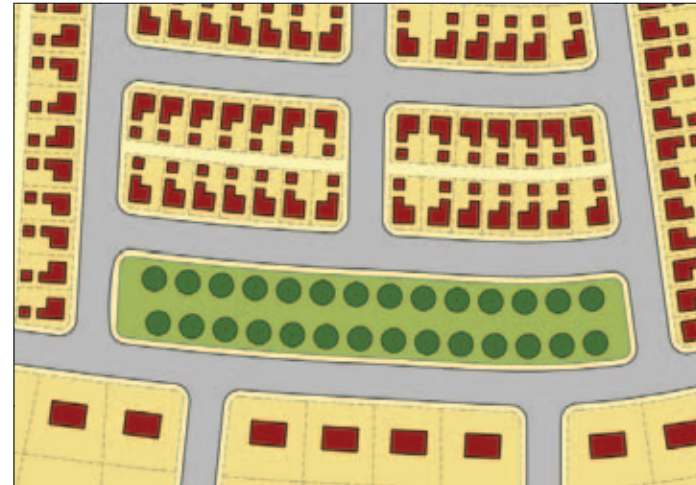
Green

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.



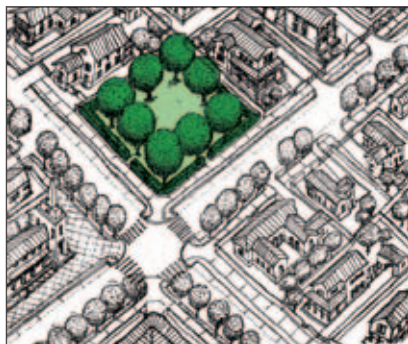
Buffer

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.



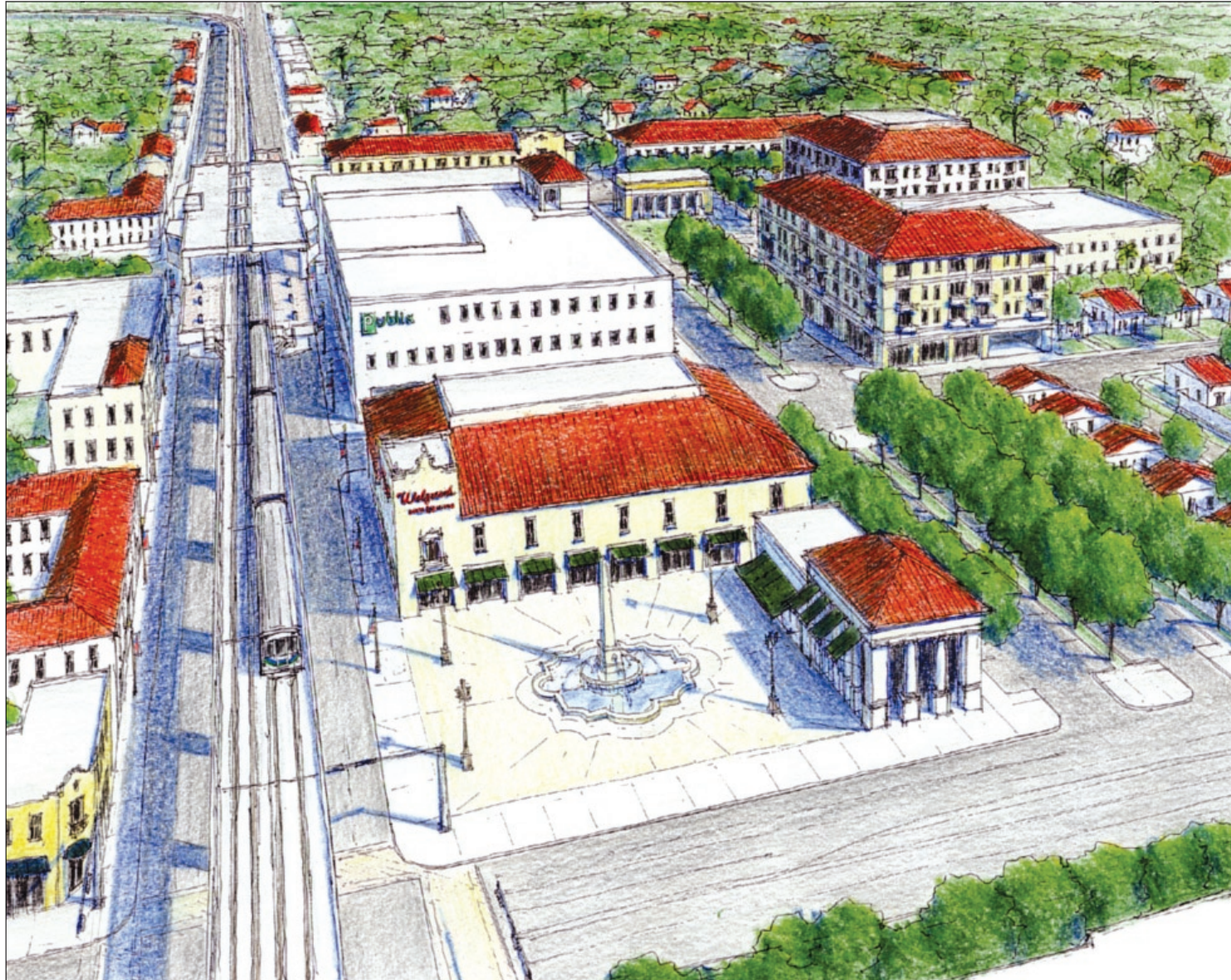
This sketch shows an attached green within a neighborhood. Such greens should be evenly distributed throughout the neighborhood, with easy access to all residents.



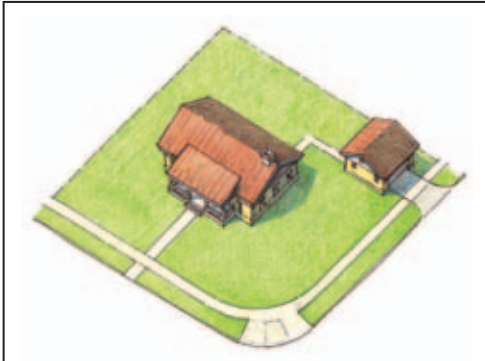
This sketch illustrates the use of a close to provide identity and passive recreation space in a sub-neighborhood area. A bosque, a formal planting of trees, acts as a focal point in this sub-neighborhood area.



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.



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.

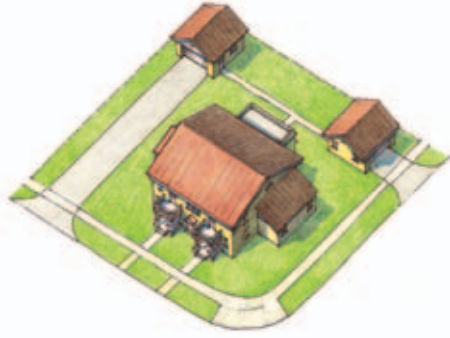


Perimeter Yard

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.

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.



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.



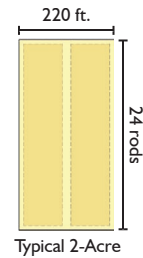
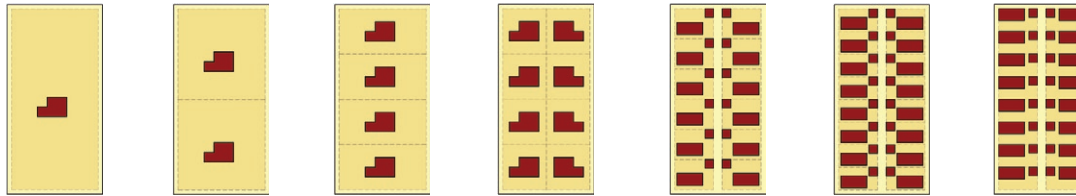
Townhouse (Rowhouse)

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.

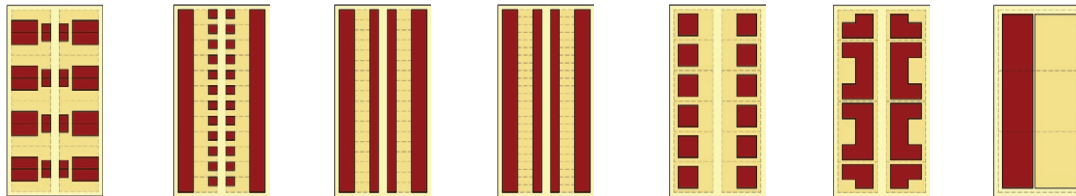


Apartment

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.

**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 |

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.

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



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**

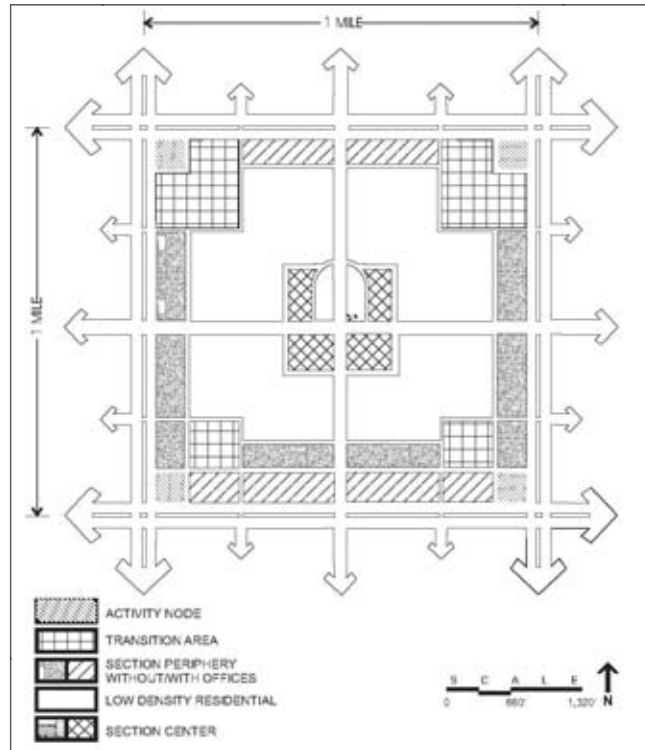
This image illustrates a pedestrian-friendly medium-density community. An interconnected network of streets together with short block sizes, buildings placed close to the street and parking located behind them allow residents to walk with ease throughout the neighborhood. A variety of building types 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.



The Generalized Neighborhood Development Pattern contained in the CDMR Guidelines for Urban Form is a schematic guide to the pattern of neighborhood land uses and relative development densities and intensities recommended by the CDMR 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 CDMR 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.

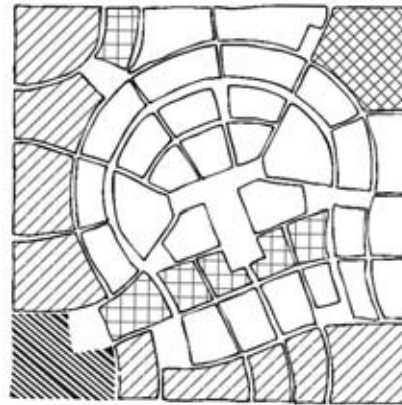
10. The walling off of neighborhoods from arterial roadways should be avoided by alternatives such as placement of other compatible uses along the periphery of suburban neighborhoods. These uses include public and semi-public uses, higher density residential building types, and office uses. If lower 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 CDMR pages I-26 through I-29.



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.



- 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 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

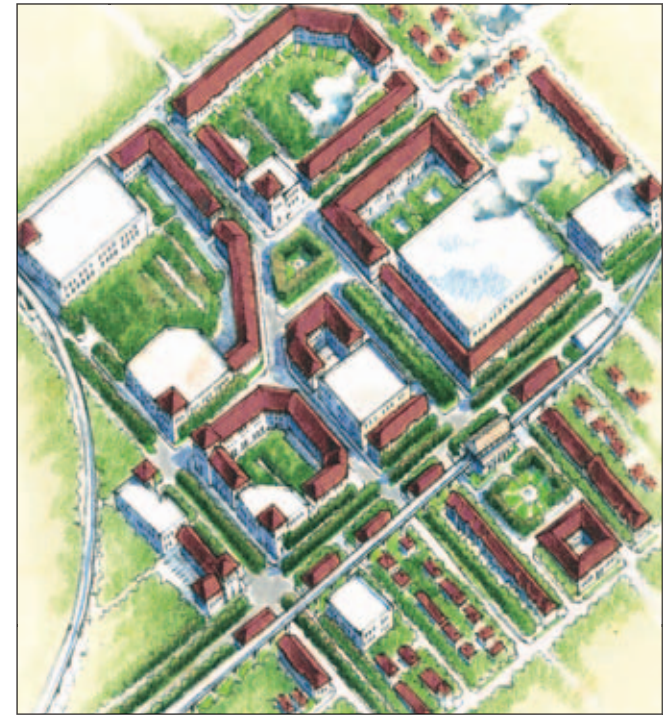
A shopping center has been placed at the intersection of two arterial roadways. Buildings have been placed to define the edge of the block, with parking screened from surrounding roadways. A green acts as a transitional element between commercial and residential uses and provides easy access from the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



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.

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.



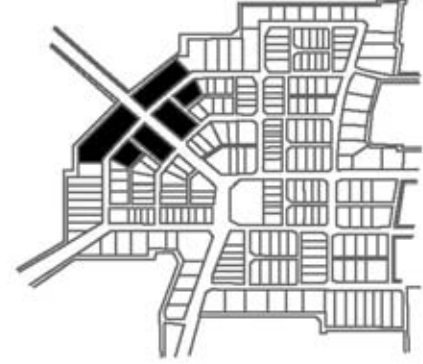
Mix of Housing

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.



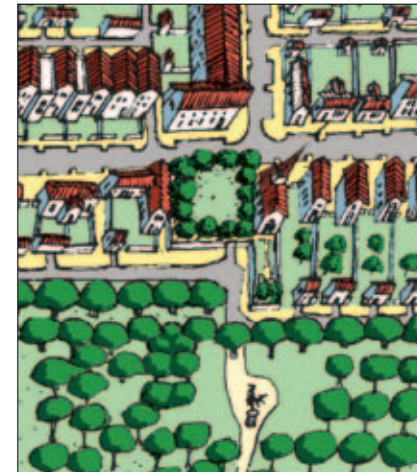
Transit Stop

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 superbloc 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



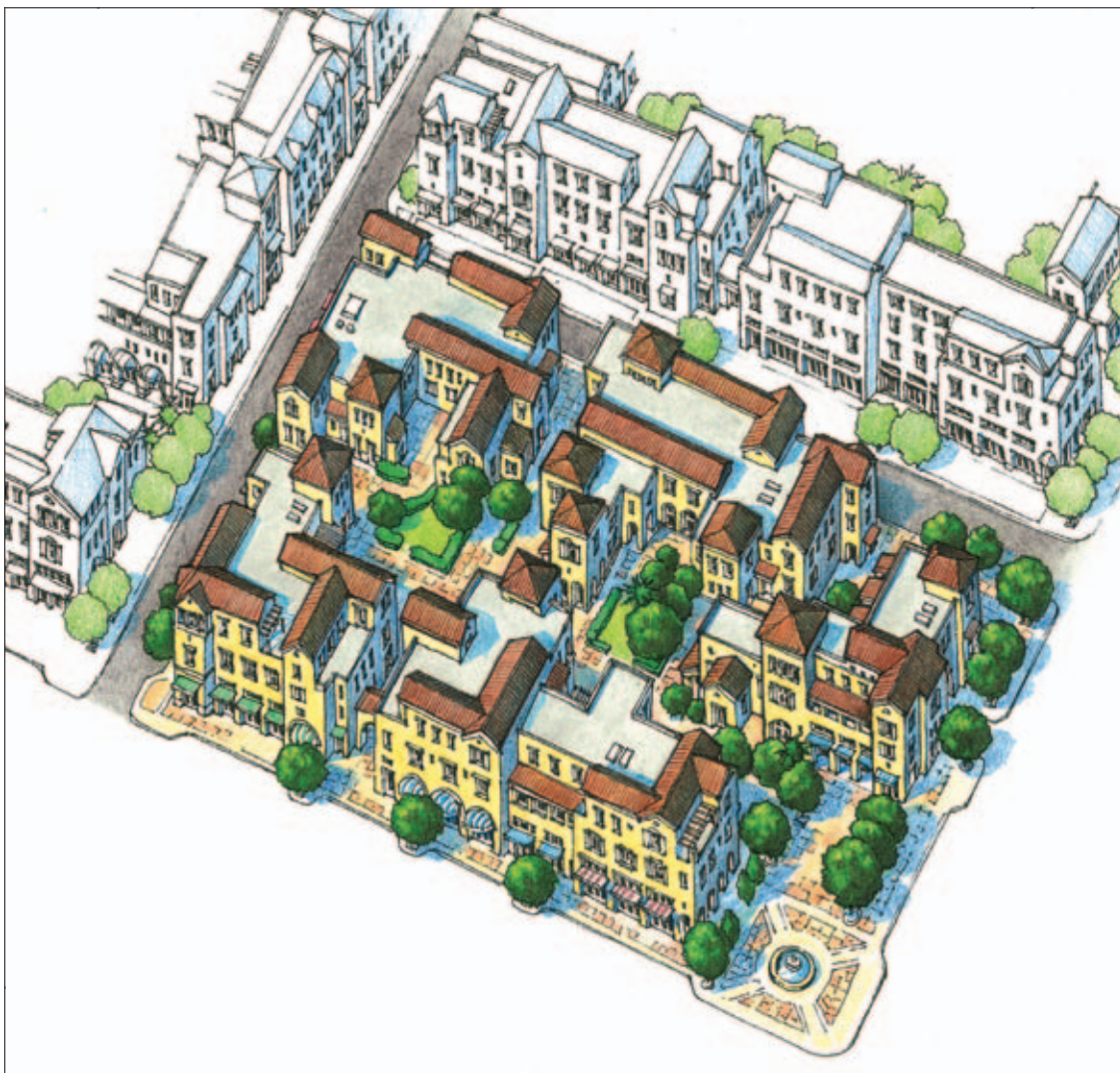
Phase 3



Phase 4



Phase 5

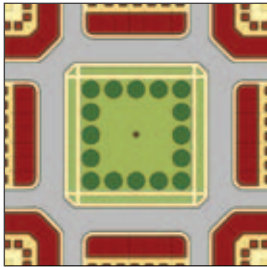


Infill development should harmonize with its surrounding buildings, enhancing the quality of the neighborhood and promoting its character.

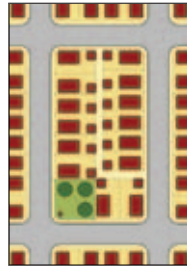
Infill development is building on vacant or underutilized parcels of land within an existing urban area. This promotes the betterment of the community and can be characterized by higher densities, compactness and an effective use of land. Ideal locations for infill development include major corridors, 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.

Illustrative Examples

Open-Space Types Used:

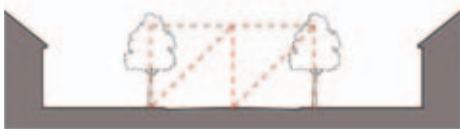


Detached Square or Green

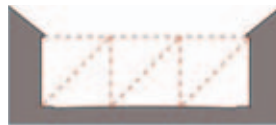


Corner Attached Square or Green

Spatial Definition:

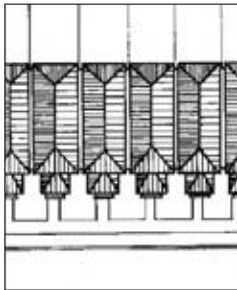


Ratio 1:2 by landscaping

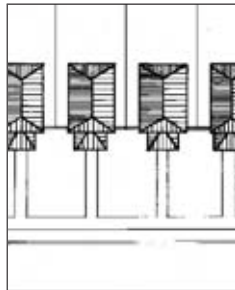


Ratio 1:3

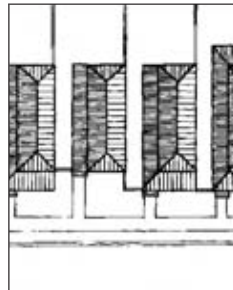
Building Types:



Townhouse



Perimeter Yard

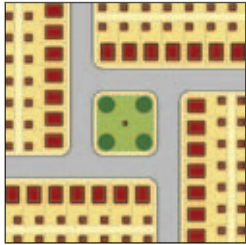


Side Yard

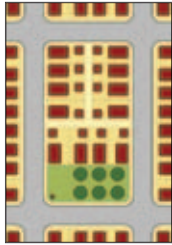


- This neighborhood located in south Miami-Dade County includes the following urban design concepts:
1. The mix of housing types includes townhouses, perimeter yard units, and side yard units.
 2. Porches are provided on perimeter yard houses as a transitional element between unit, street and sidewalk.
 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

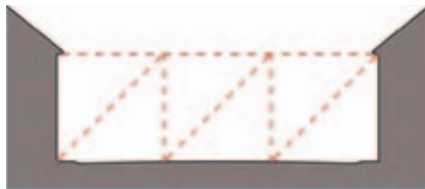


Corner Attached
Square or Green



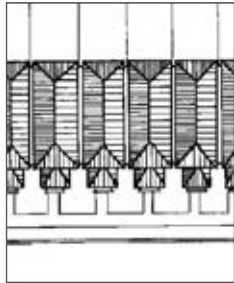
Green

Street Spatial Definition:

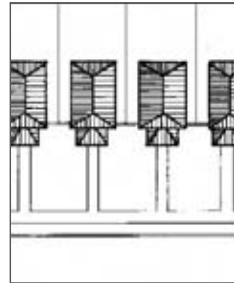


Ratio 1:3

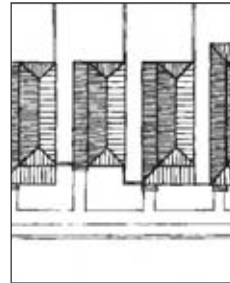
Building Types:



Townhouse



Perimeter Yard



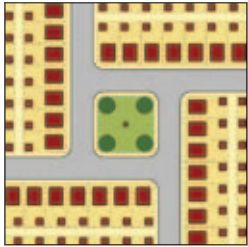
Side Yard



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.

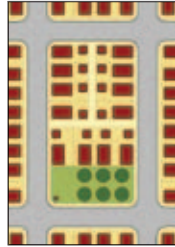
Open-Space Types Used:



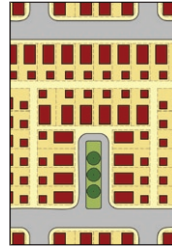
Detached Square or Green



Corner Attached Square or Green

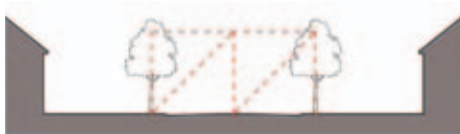


Attached Square or Green

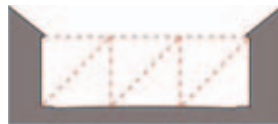


Close

Spatial Definition:

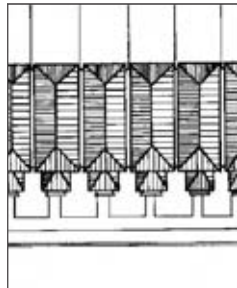


Ratio 1:2 by landscaping

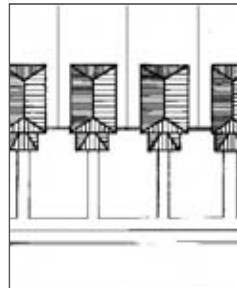


Ratio 1:3

Building Types:



Townhouse

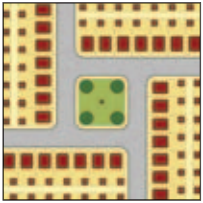


Perimeter Yard

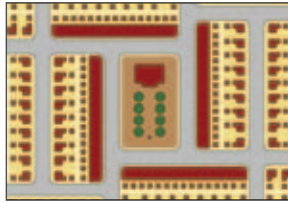


- This neighborhood located in south Miami-Dade County includes the following urban design concepts:
1. The mix of housing types includes townhouses, perimeter yard units, and side yard units.
 2. Porches are provided on perimeter yard houses as a transitional element between unit, street and sidewalk.
 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 Spatial Definition:

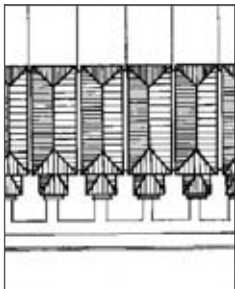


Ratio 1:3

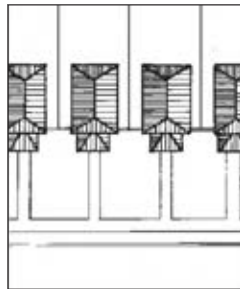


Ratio 1:2

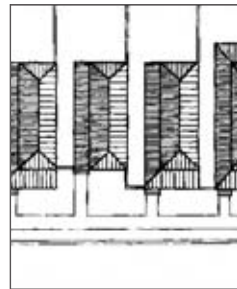
Building Types:



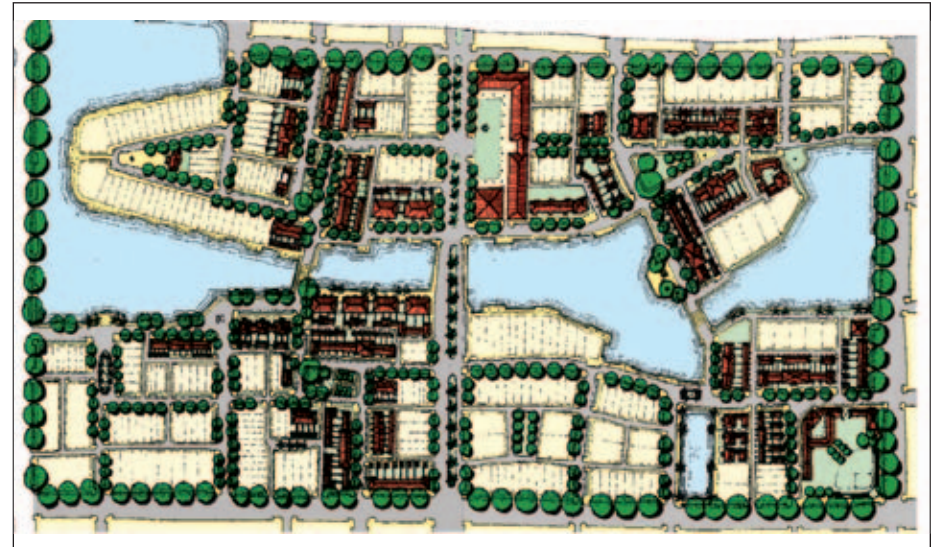
Townhouse



Perimeter Yard



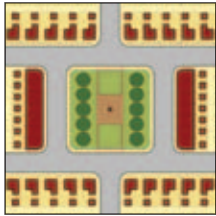
Side Yard



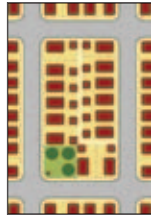
This 80-acre site is located in south Miami-Dade County and incorporates single-family, apartments, and retail uses. The design elements include:

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

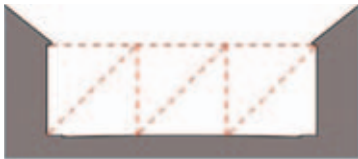


Corner Attached
Square

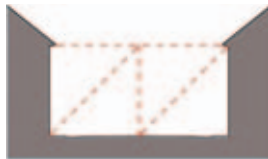


Park

Spatial Definition:

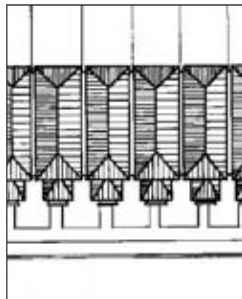


Ratio 1:3



Ratio 1:2

Building Types:



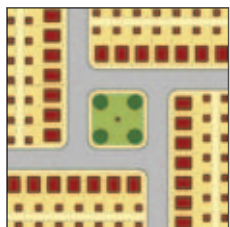
Townhouse



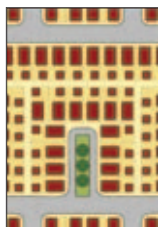
This site, located in north Miami-Dade County, is adjacent to a golf course/park and comprised entirely of townhouses. The urban design elements include:

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.

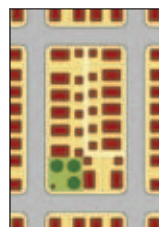
Open-Space Types Used:



Detached Square
or Green



Close



Corner Attached
Square or Green

Street Spatial Definition:



Ratio 1:6

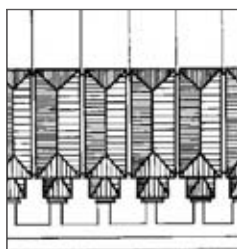


Ratio 1:3

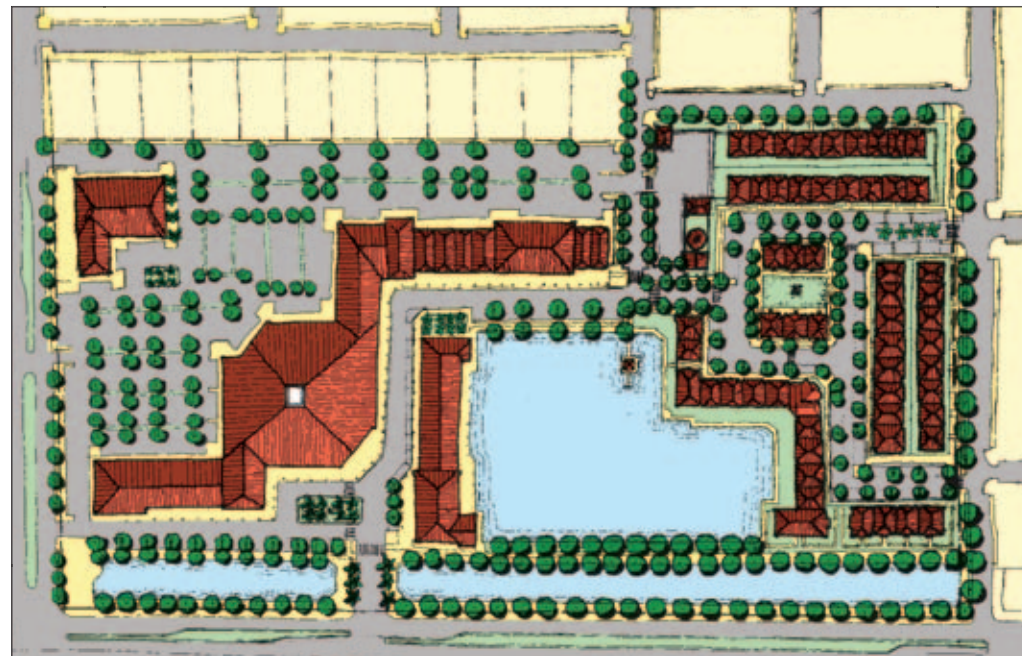


Ratio 1:2

Building Types:



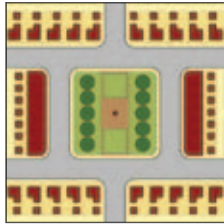
Townhouse



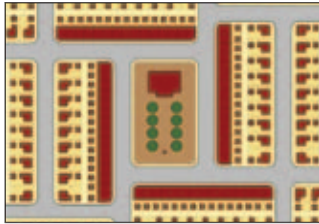
This mixed-use development located in south Miami-Dade County includes the following design elements:

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

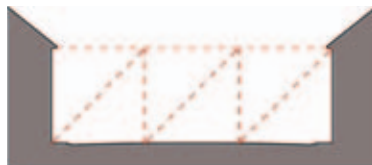


Plaza



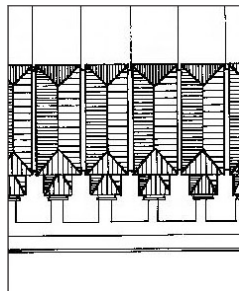
Roundabout

Spatial Definition:

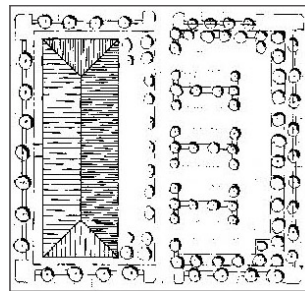


Ratio 1:3

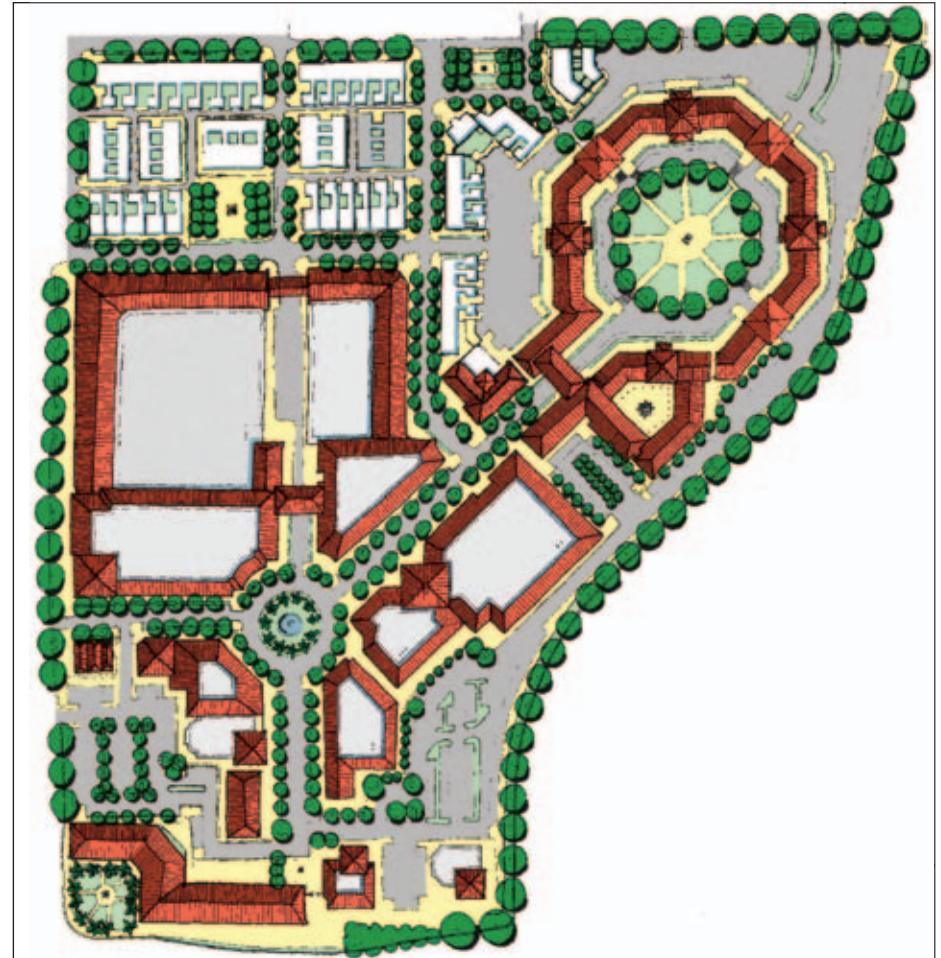
Building Types:



Townhouse



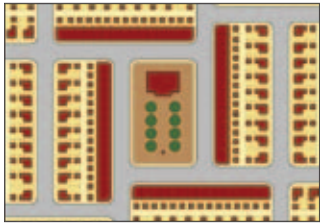
Apartment



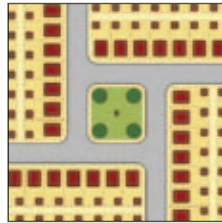
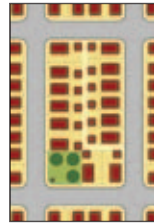
This site is located in south Miami-Dade County. It is a mixed-use development including at hotel, retail, townhouses, and apartment units. Design concepts include:

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.

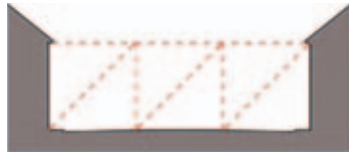
Open-Space Types Used:



Plaza


Detached
Square or Green

Corner Attached
Square or Green

Street Spatial Definition:

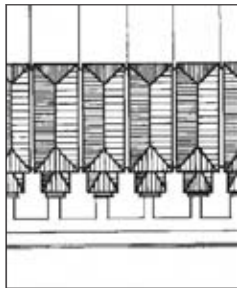


Ratio 1:3

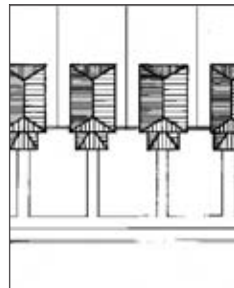


Ratio 1:2

Building Types:



Townhouse



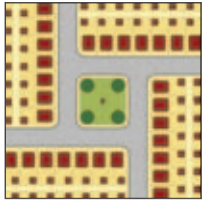
Perimeter Yard



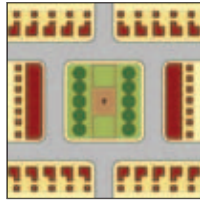
This development, located in south Miami-Dade County, combines apartments, townhouses, perimeter yard, and retail uses. The urban design elements include the following features:

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.

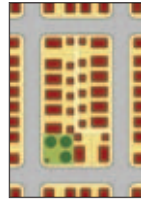
Open-Space Types Used:



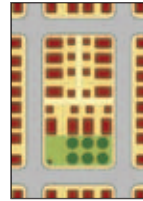
Detached Square or Green



Detached Square or Green

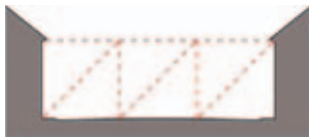


Corner Attached Square or Green



Attached Square

Spatial Definition:



Ratio 1:3

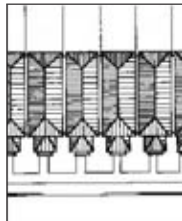


Ratio 1:2

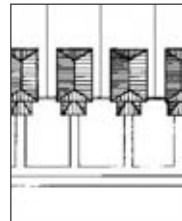


Ratio 1:2 by Landscaping

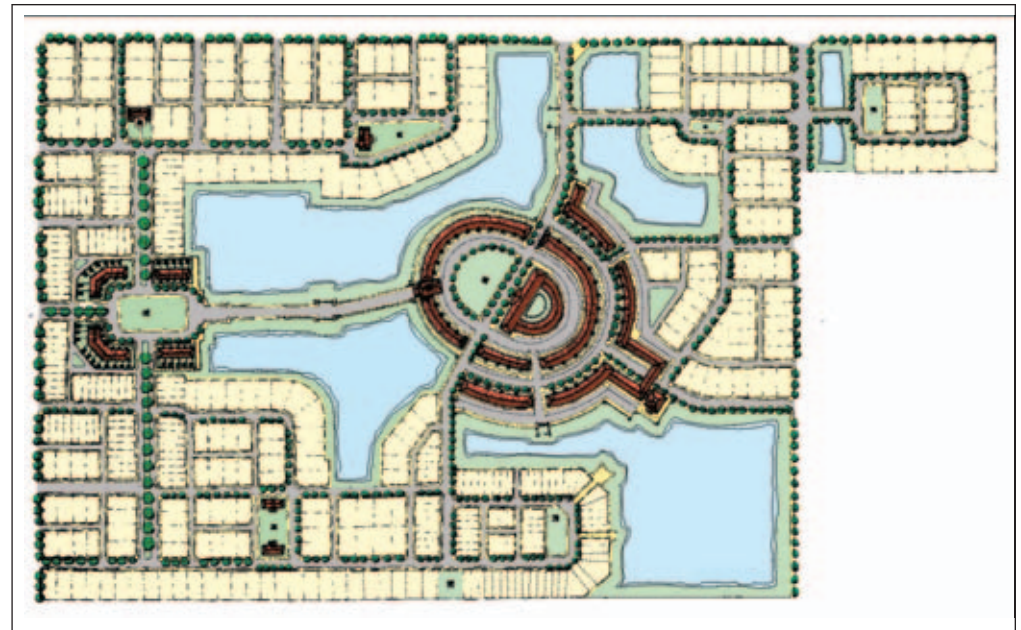
Building Types:



Townhouse



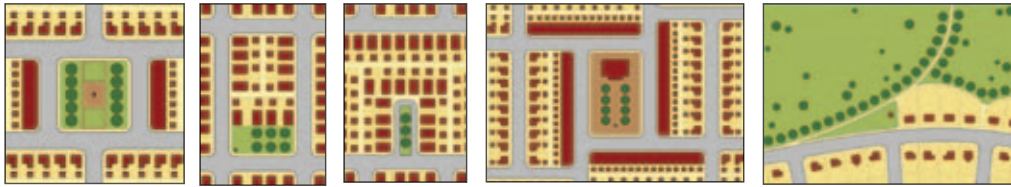
Perimeter Yard



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

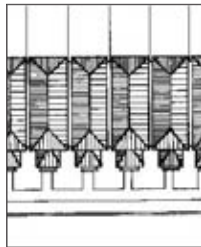
Park

Street Spatial Definition:

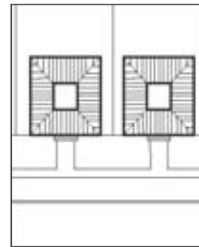


Ratio 1:2

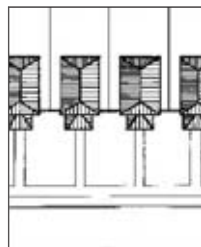
Building Types:



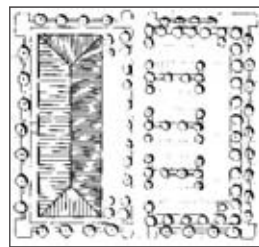
Townhouse



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.



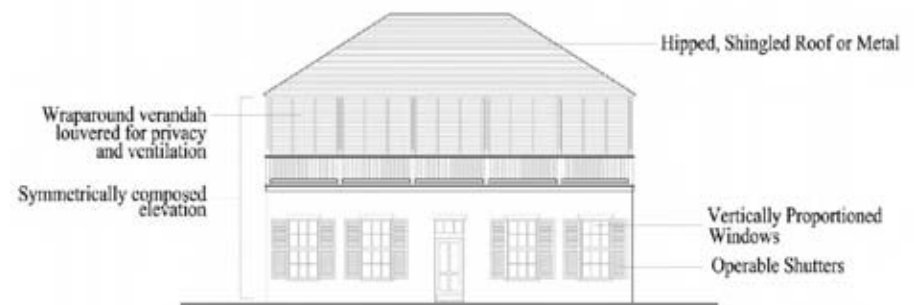
Florida Vernacular



Mission Style



Anglo/Caribbean



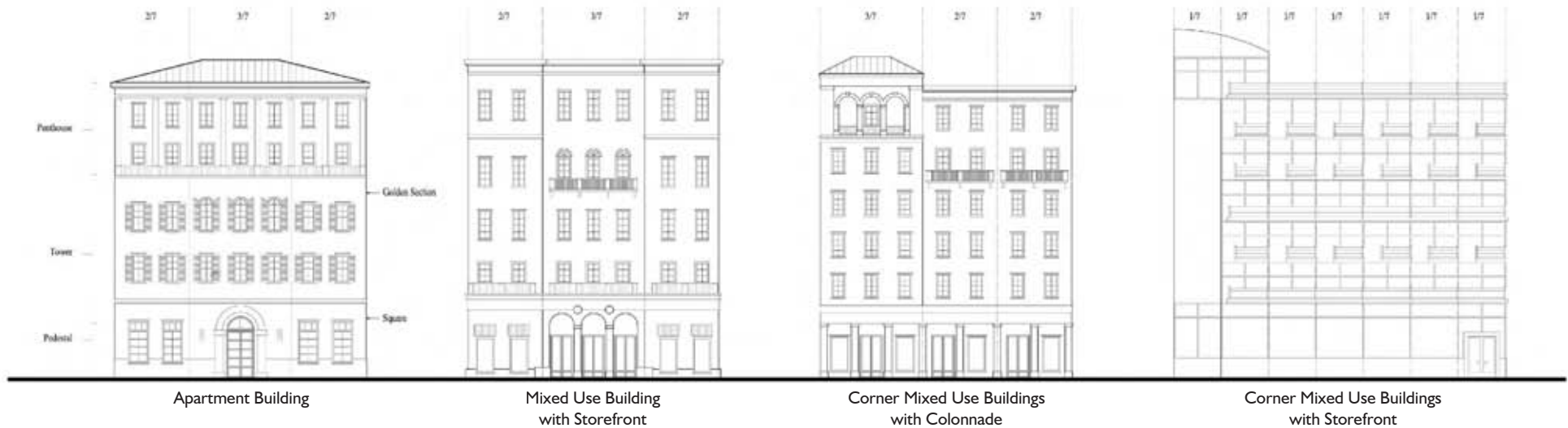
Neighborhoods exist in South Florida that have remnants of earlier architecture that define a specific neighborhood character. The reinforcing of regional architecture can reestablish unique architectural features that provide for a sense of place. Additionally, the use of early Florida architecture 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 opening give architectural scale and wind protection



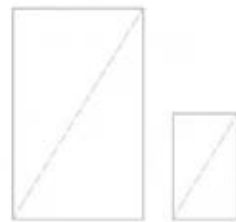
Consistency & Proportion

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.

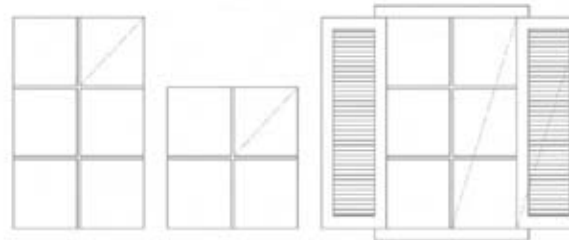


Harmony

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 synonymous 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”. Conscientious building and urban design can mitigate the impact on natural resources, guided by urban and building design codes. Smart Growth, New Urbanism, Traditional Neighborhood Development (TND) and ‘green’ building are all sustainable alternatives where the product and its attributes are measurable. Meeting the challenges of sustainable development requires the modification of development practices at all levels: regions, communities, neighborhoods and buildings.

Green buildings increase the efficiency with which buildings and their sites use and conserve resources, including land, energy, water and building materials. 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 requires 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. Contemporary eco-friendly building techniques and materials compliment passive sustainable building design typically associated with traditional typologies that use local materials. Passive design elements commonly incorporated in tropical buildings before the proliferation of air-conditioning in the mid 1950’s, include porches, extended eaves, fins, eyebrows, louvers, vertical windows and vented attics, 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 Environmental Design) voluntary rating system to measure 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 leadership and raising consumer awareness.

Following is a list of basic considerations for sustainable architecture:

Neighborhood Design - Mixed-use pedestrian-friendly neighborhoods are the sustainable alternative 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 dependence, contribute to revitalizing historic neighborhoods 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.

References:

University of Miami, School of Architecture,
Center for Urban & Community Design:
www.arc.miami.edu/cucd

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

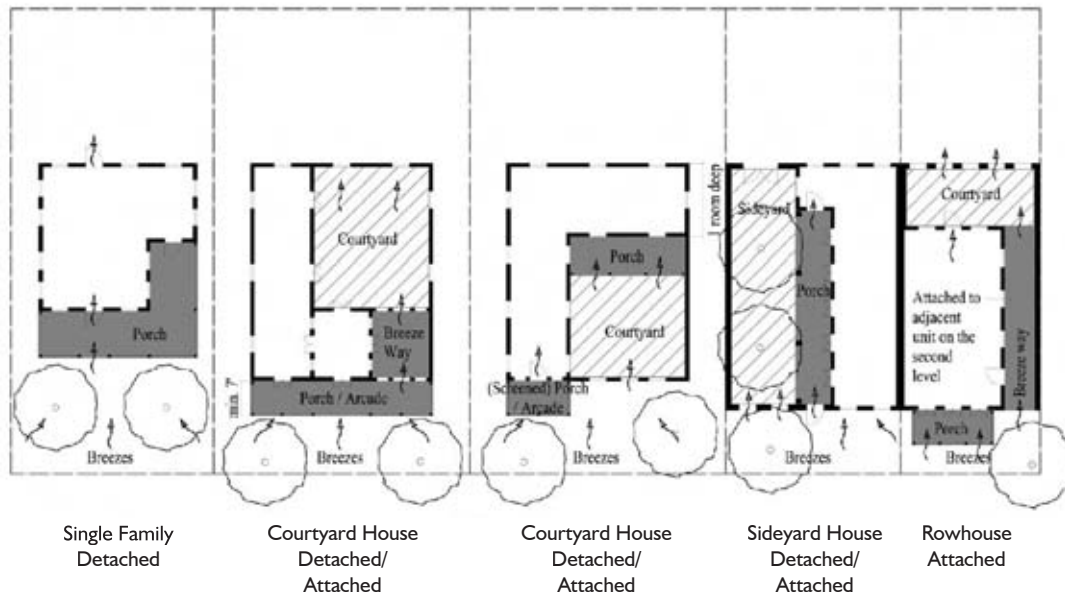
Architectural Record: www.archrecord.construction.com/products/green/default.asp

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

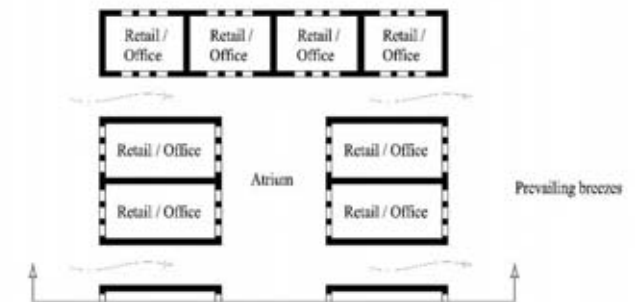
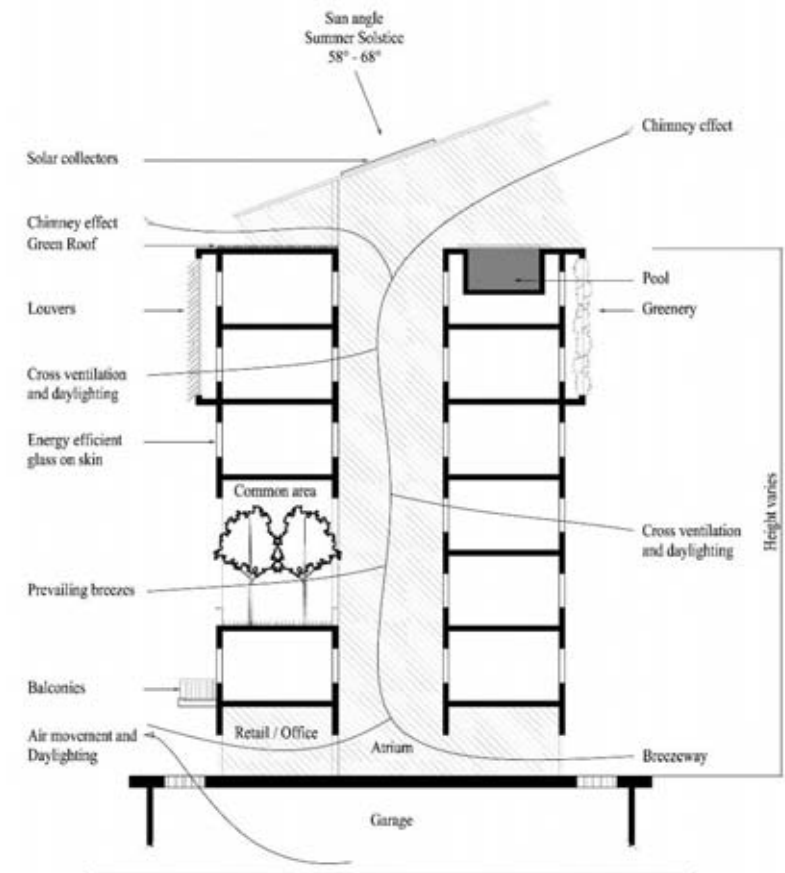


Note:

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.

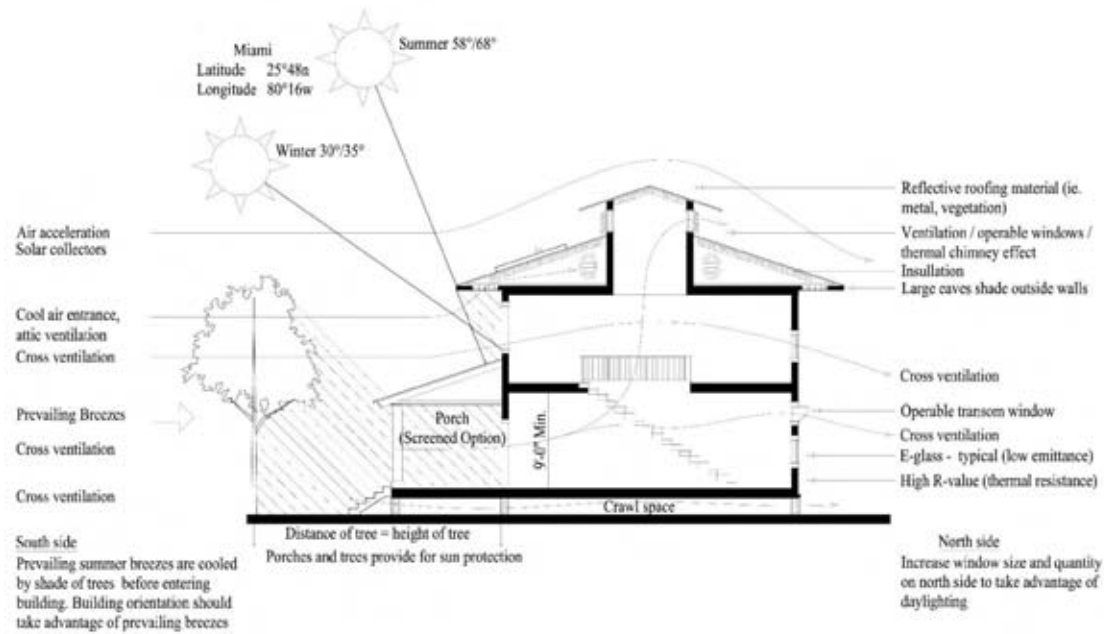
PASSIVE DESIGN - SMALL SCALE BUILDINGS

These techniques demonstrate methods of sustainable design for single-family and multi-family housing.

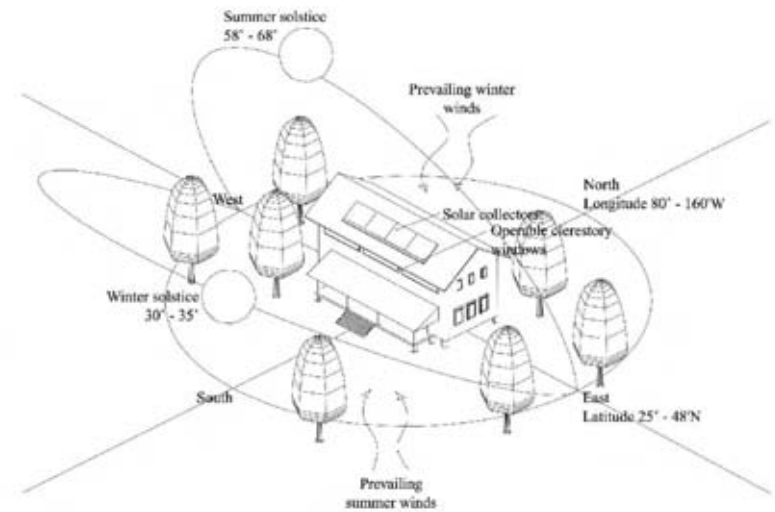


PASSIVE DESIGN - LARGE SCALE BUILDINGS

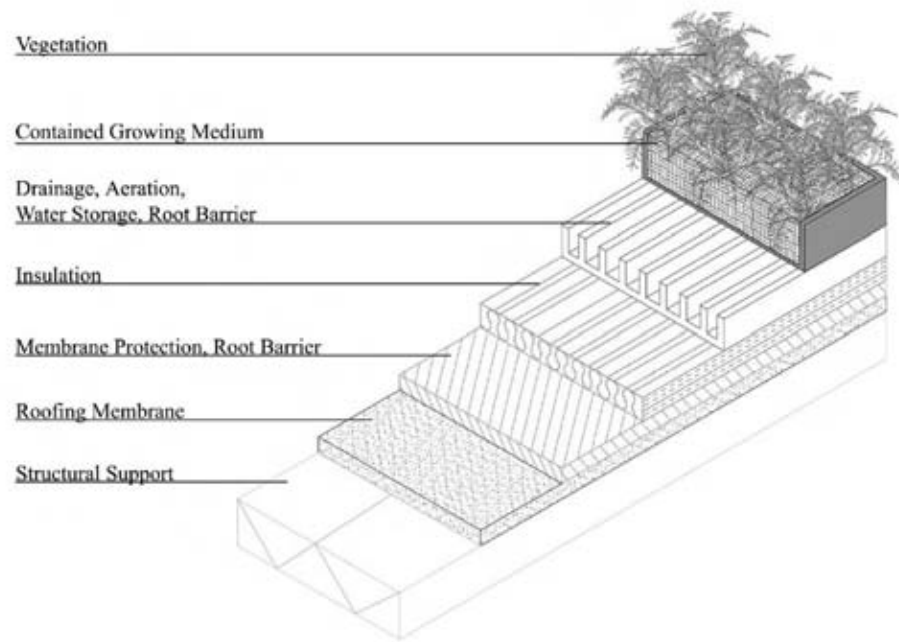
Ventilation and Shading



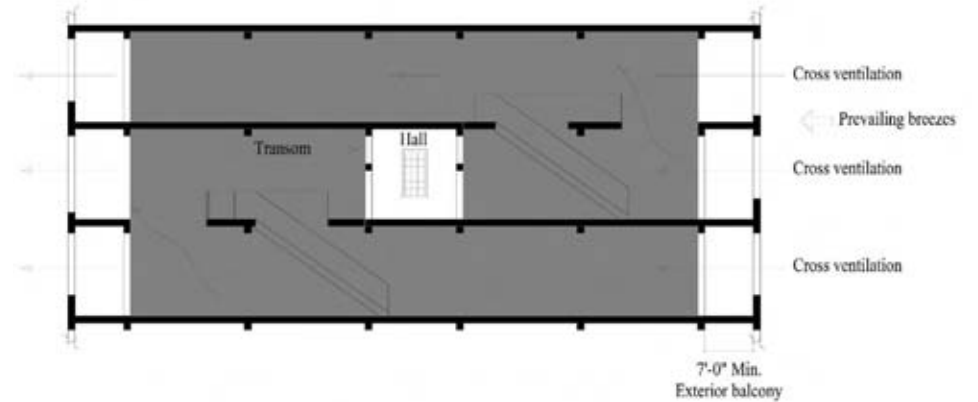
Sun Diagram (for South Florida)



PASSIVE DESIGN - SMALL SCALE BUILDINGS



“GREEN” ROOF

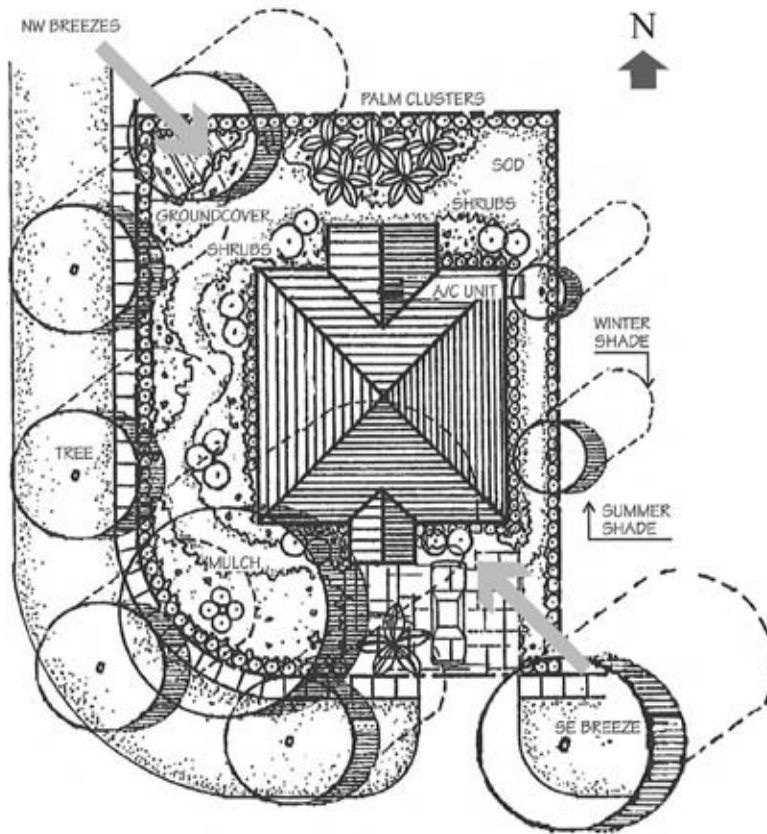


Note:

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.

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.

A Partially Annotated Bibliography

Alexander, Christopher.

A Pattern Language: Towns, Buildings, Construction, New York University Press, 1977.

The American Institute of Architects.

Architectural Graphic Standards, Ninth Edition, 1994. Site Design By Gary Greenan, Andres Duany, Elizabeth Plater-Zyberk Zaharin and Skander Shafic. [This classic work established the basic elements of the Traditional Neighborhood concept. Much of the material in this manual was adapted from this source].

Anderson, Bruce N.

Solar Energy in Building Design. Harrisville NH: Total Environment Action, 1975.

AIA Research Corporation.

Regional Guidelines for Building Passive Energy Conserving Homes, Washington: U.S. Government Printing Office, 1978.

Arendt, Randall.

Rural by Design: Maintaining Small Town Character. Planners Press, 1994. [Randall Arendt participated in the development of Architectural Graphic Standards relative to cluster developments].

Baldassare, Mark.

Trouble in Paradise: The Suburban Transformation in America, Columbia University Press, 1988.

Baker, Nick V.

Passive and Low Energy Building Design for Tropical Island Climates, Commonwealth Secretariat Publications, London, UK.

Balcomb, J. Douglas.

Passive Solar Buildings Cambridge MA: MIT Press, 1992.

Barnett, Jonathon.

The Fractured Metropolis: Improving the New City, Restoring the Old City, Reshaping the Region, Harper Collins, 1995.

Benevolo, Leonardo.

1981 Transit-Oriented Development Guidelines, Sacramento County Planning and Community Development Department.

Bentley, I. Alcock, A. Murrain, P. Mc Glynn, S. Smith, G. Responsive Environment: A Manual for Designers, Butterworth Helnermann Ltd., Oxford, England, 1985.

Beny, Jeffrey, et. Al.

The Rebirth of Urban Democracy, Brookings Institution, 1993.

Beveridge, Charles E., et. Al.

Frederick Law Olmsted: Designing the American Landscape, Rizzoli, 1995. [Olmsted, the designer of Central Park, developed the "Landscape Suburb" of Riverside which became the model for large lot suburban landscaped communities].

Buder, Stanley.

Visionaries and Planners: The Garden City Movement and the Modern Community, Oxford University Press, 1990.

Burnham, Daniel.

Plan of Chicago, Princeton Architectural Press, 1994.

Butti, Ken.

A Golden Thread: 2500 years of Solar Architecture and Technology. Palo Alto: Cheshire Books, 1980.

Calthorpe, Peter.

The Next American Metropolis: Ecology, Community, and the American Dream, Princeton Architectural Press, 1993. [Peter Calthorpe is the proponent of the TOD (Transient Oriented Development) concepts of linking communities with transportation nodal points].

Cambridge Architectural Research Ltd.

Design Guide for Energy Efficient Non-Domestic Buildings, UK 1994-1995.

Carmody, John.

Earth Sheltered Housing Design. New York: Van Nostrand Reinhold, 1985.

Center for Urban Transportation Research.

1993 Impact of Community Design on Transportation. University of South Florida.

City of Ottawa.

1993 Urban Design.

City of Seattle.

1993 Design Review Guidelines for Multifamily and Commercial Buildings.

Congress for the New Urbanism.

Charter for the New Urbanism. 1993. [This charter establishes the basic goals of the "New Urbanism Movement"].

Crowther, Richard.

Ecologic Architecture Boston: Butterworth Architecture, 1992.

Downs, Anthony.

New Visions for Metropolitan America. Brookings Institution/Lincoln Institute of Land Policy, 1994.

Downs, Anthony.

Stuck In Traffic: Coping with Peak-Hour Traffic Congestion. Brookings Institution, 1992.

Duany, Andres and Elizabeth Plater-Zyberk.

The Lexicon (unpublished). [This soon to be published "set of rules" for the New Urbanism is an expansion of the work in Graphic Standards and will be the basic document for the New Urbanism movement].

Duany, Andres and Elizabeth Plater-Zyberk.

Towns and Town Making Principles. Rizzoli, 1991.

Erzioni, Amitai.

The Spirit of Community: The Reinvention of American Society. Simon & Schuster, 1994.

Fathy, Hassan; Abdel-Rahman; Ahmed Sultan; Shearer, Walter (Editors)
Natural Energy and Vernacular Architecture: Principles and Examples with Reference to Hot Arid Climates, University of Chicago Press for the United University, Chicago/London 1988.

Fisherman, Robert.
Bourgeois Utopias: The Rise and Fall of Suburbia. Basic Books, 1989.

Garvin, Alexander.
The American City: What Works and What Doesn't. McGraw-Hill, 1996.

Gauzin-Muller, Dominique.
Sustainable Architecture and Urbanism

Goddard, Stephen B.
Getting There: The Epic Struggle between Road and Rail in the American Century. University of Chicago Press, 1994.

Gratz, Roberta Brandes and Norman Minez.
Cities Back From the Edge: New Life for Downtown. John Wiley and Sons, 1998.

Heschong, Lisa.
Thermal Delight in Architecture. Cambridge MA: MIT Press, 1979.

Hillsborough County City-County Planning Commission.
Principles for Good Neighborhoods. Tampa, FL, 1992. [This publication incorporates basic urban design principles for the future growth of Tampa, Florida. It is an easily understood set of principles similar to those presented in this manual].

Hiss, Tony.
The Experience of Place. Vintage Books, 1991.

Hochstim, Jan.
Florida Modern. Rizzoli International Publications, 2005.

Holz, Jane Kay.
Asphalt Nation: How the Automobile Took Over America, and How We Can Take It Back. Crown Publishers, 1997.

Hylton, Thomas.
Save Our Land, Save Our Towns: A Plan for Pennsylvania. RB Books, 1995.

International City Managers Association.
Principles and Practice of Urban Planning, 1968.

Jackson, Kenneth T.
Crabgrass Frontier: The Suburbanization of the United States. Oxford University Press, 1987.

Jacobs, Allan B.
Great Streets. MIT Press, 1993.

Jacobs, Jane.
Cities and the Wealth of Nations: Principles of Economic Life. Random House, 1985.

Jacobs, Jane.
The Death and Life of Great American Cities. Vintage Books, 1992. [This book by a sociologist highlighted the social dangers of replacing the typical urban street neighborhood to a higher density, low-income structures.]

James & James Ltd.
European Directory of Sustainable and Energy Efficient Building, 1999.

Katz, Peter.
The New Urbanism: Toward an Architecture of Community. McGraw-Hill, 1994. [This book is a good overview of town plans, perspectives, and axonometrics of the New Urbanism Movement].

Kelbaugh, Doug.
Common Place: Toward Neighborhood and Regional Design. University of Washington Press, 1997.

Kemmis, Daniel.
Community and the Politics of Place. University of Oklahoma Press, 1990.

Kemmis, Daniel.
The Good City and The Good Life. Houghton Mifflin, 1995.

Konya, Allan.
Design Primer for Hot Climates. Lontan: Architectural Press, 1980.

Krier, Leon.
Architecture; Choice or Fate. Andreas Papadajkis, Great Briton, 1998.

Krier, Leon.
Rational Architecture: The Reconstruction of the European City. Editions des Archives d'Architecture Modernes, 1978. [This classic work was a major source in the creation of the New Urbanism Movement].

Krier, Leon.
Leon Krier, Hoses, Palaces, Cities. Architectural Design AD Editions, New York, 1984.

Krier, Leon.
Leon Krier: Architecture and Urban Design. St. Martins Press, New York, 1992.

Krier, Rob.
Urban Space. Rizzoli International Publications, New York, 1979. [Rob Krier is the designer of the town of Kirchsteigfeld in Potsdam, Germany. It is a major contribution to the New Urbanism Movement and very successful in terms of demand by East Germans to live in a well-designed community].

Krier, Rob.
Architectural Composition. Rizzoli International Publications, New York, 1988.

Krier, Rob.
Rob Krier on Architecture. St. Martins Press, New York, 1992.

Langdon, Philip.

A Better Place To Live: Reshaping the American Suburb, Harpe Perennial, 1995.

Le Corbusier.

The Radiant City. N.V. Drukkerij Kochen Knuttel. Netherlands, 1967. First published in France in 1933. [This classic book on modern architecture proposed broad redesign of cities by Le Corbusier. It is a modern classic.]

Leitmann, Josef.

Sustaining Cities: Environmental Planning and Management in Urban Design. New York: McGraw-Hill, 1999.

Lejeune, Jean-Francois (editor).

The New City, Vol. 3: *Modern Cities*, University of Miami School of Architecture/Princeton Architectural Press, 1994. [This volume includes an article by Andres Duany, Elizabeth Plater-Zyberk, and Gary Greenan on Traditional Neighborhood concepts].

Longo, Gianni.

A Guide to Great American Public Places. Urban Initiatives, 1996.

Lopez-Barnett, Dianna with Browning, William D.

A Primer on Sustainable Building. Snowmass, CO: Rocky Mountain Institute, 1995.

Luccarelli, Mark.

Lewis Mumford and the Ecological Region: Politics of Planning. New York: The Guilford Press, 1995.

Lynch, Kevin.

Image of the City. The MIT Press, Cambridge, Mass. 1960. [This is the classic book that identified elements of city composition.]

MacKaye, Benton.

The New Exploration: A Philosophy of Regional Planning. University of Illinois Press, 1994.

Mazria, Edward.

The Passive Solar Energy Book: A Complete Guide to Passive Solar Home, Greenhouse, and Building Design. Emmaus PA: Rodale Press, 1979.

McCamant, Kathryn and Durrett, Charles.

Cohousing: A Contemporary Approach to Housing Ourselves. Ten Speed Press, 1994.

McHarg, Ian.

Design with Nature. New York: John Wiley & Sons, 1992.

McKenzie, Dorothy

Design for the Environment. Rizzoli, New York, NY 1991.

Metropolitan Dade County Planning Department.

The Road Corridor. Author: Gary Greenan, 1988. [This is the first publication that addressed urban design problems in Miami-Dade County including specific methods of implementing urban design principles. The publication received the American Planning Association award of Excellence and is available from the Miami-Dade County Sustainability, Planning and Economic Enhancement Department].

Miami-Dade County Park and Recreation Department. *Park Structure and Landscape Pattern Book*, 2010.

Miami-Dade County Sustainability, Planning and Economic Enhancement Department.

The Traditional Neighborhood Development Ordinance, 1992. [This is the first TND ordinance adopted in the country and sets forth in ordinance from the elements of Traditional Neighborhood Development].

Miami-Dade County.

Urban Design, Dade County. Coordinator: Gary Greenan, 1995. [This report offers a brief analysis of urban design in Miami-Dade County and is available from the Miami-Dade County Sustainability, Planning and Economic Enhancement Department.]

Moe, Richard and Carter Wilkie.

Changing Places: Rebuilding Community in the Age of Sprawl. Henry Holt & Company, 1997.

Mohney, David.

Seaside: Making a Town in America. Princeton Architectural press, 1991. [This book analyzes the town of Seaside which was the basis for the Traditional Neighborhood movement.]

Neleson, Anton.

Visions for a New American Dream: Process, Principles, and an Ordinance to Plan and Design Small Communities. Planners Press, 1993.

The New City 1991.

The Traditional Neighborhood. Andres Duany, Elizabeth Plater-Zyberk and Gary Greenan.

New Urban News.

September / October, 1998.

Norquist, John.

The Wealth of Cities: Revitalizing the Centers of American Life. Addison Wesley, 1998.

Oldenburg, Ray.

The Great Good Place. Paragon House, 1991.

Olgyay, Victor.

Design With Climate: Bioclimatic Approach to Architectural Regionalism. Princeton: Princeton University Press, 1963.

Orfield, Myron.

Metropolitics: A Regional Agenda for Community and Stability. Brookings Institution/Lincoln Institute of Land Policy, 1997.

Pick, Maritza.

The Sierra Club Guide to Community Organizing: How to Save Your Neighborhood, City, or Town. Sierra Club Books, 1993.

- Polyzoides, Stefanos, et. al.
Courtyard Housing in Los Angeles: A Typological Analysis. Princeton Architectural Press, 1993. [A good reference in the use of the court garden house as a urban typology].
- Porter, Douglas R.
Managing Growth in America's Communities. Island Press, 1997.
- Reich, Robert B.
The Work of Nations: Preparing Ourselves for 21st Century Capitalism. Random House, 1992.
- Reps, John.
The Making of Urban American: A History of City Planning in the U.S. Princeton University Press, 1965.
- Roseland, Mark with Cureton, Maureen and Wornell, Heather.
Toward Sustainable Communities: Resources for Citizens and Their Governments. Gabriola Island BC: New Society Publishers, 1998.
- Rusk, David.
Cities Without Suburbs. Woodrow Wilson Center, 1995.
- Rybcznski, Witold.
City Life. Scribner, 1995.
- Scully, Vincent.
Architecture: The Natural and the Manmade. St. Martins Press, 1993. [This classic text provides an in-depth analysis of architecture and urban design. Vincent Scully is the foremost architectural historian].
- Sennett, Richard.
The Conscience of the Eye: The Design and Social Life of Cities. W. W. Norton, 1992.
- Sennett, Richard.
The Fall of Public Man. W. W. Norton, 1992.
- Sewell, John.
The Shape of the City: Toronto Struggles With Modern Planning. University of Toronto Press, 1993.
- Sim Van Der Ryn and Stuart Cowan.
Ecological Design, Island Press, Washington DC, 1996
- Stein, Clarence.
Toward New Towns for America. Introduction by Lewis Mumford Reinhold Publishing Corp., 1957. New York, NY [This classic text provides urban design solutions such as the layout for Radburn New Jersey and other evolving planning concepts of the 1950s-60s].
- Sucher, David.
City Comforts. City Comforts Press, 1995.
- Thomas, Randall; Fordham, Max. (Editors)
Environmental Design.
University of Miami School of Architecture 1991.
The New City. 1991 to current. [The New City publications focus on urbanism and are available from the School of Architecture at the University of Miami].
- Unwin, Raymond.
Town Planning in Practice: An Introduction to the Art of Designing Cities and Suburbs. Princeton Architectural Press, 1994. [This book first published in 1919 is the basis for the New Urbanism Movement. The "straight forward" physical design solutions can easily be applied today and are the basis for many of the concepts in this publication.]
- U.S. Department of Interior National Park Service.
Guiding Principles of Sustainable Design. U.S. Government Printing, Pueblo, CO, 1993
- Van Der Ryn, Sim and Calthorpe, Peter.
Sustainable Communities: A New Design Synthesis for Cities, Suburbs, and Towns. Sierra Club Books, 1986.
- Valle, Erick.
American Urban Typologies: Key West, Florida. Village Publishers, 1995. [This publication analyzes the urban development pattern for Key West, Florida. Key West was an early model for the concepts of the New Urbanism and Traditional Neighborhood Development concepts].
- Western Australian Planning Commission Sustainable Cities Initiative.
Livable Neighborhoods Community Design Code, 1997. [An excellent example of establishing community design criteria - available from Western Australian Planning Commission, Albert Facey House, 469 Wellington Street, Perth, Western Australia 6000].
- Wiley, John and Sons
Sun, Wind, and Light: Architectural Design Strategies. New York, 1985
- Wright, David.
Natural Solar Architecture: The Passive Solar Primer. New York: Van Nostrand Reinhold, 1984.

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