



Downtown Boca Raton

PATTERN BOOK

PREPARED FOR

Community Redevelopment Agency
City of Boca Raton

DRAFT

NOVEMBER 2009

U R B A N D E S I G N A S S O C I A T E S

Downtown Boca Raton

PATTERN BOOK

PREPARED FOR

Community Redevelopment Agency
City of Boca Raton

PREPARED BY

Urban Design Associates

NOVEMBER 2009

Preamble

Fall 2009

Boca Raton is a city known for its historic past, a lively, comfortable atmosphere, and tremendous potential. Under the careful guidance of our city founders and the creative flair of Addison Mizner, our reputation as a beautiful and vibrant destination is well earned. It is our collective responsibility to cultivate that reputation in the 21st century by making our Downtown an exciting and attractive place for businesses, institutions, residents, and visitors.

The challenges to accomplish this are significant. In a competitive South Florida environment, we must stand out by capitalizing on our strengths and making the most of our opportunities. By building on the notable Downtown precedents and learning from the lessons of the past, it is possible to create the type of place we all envision for the future of Boca Raton.

The first step in this process began in 2006 with the *Downtown Master Plan Update* that identified key characteristics and areas for improvement through public input and professional analysis. Among the many recommendations that came out of the process, improving the pedestrian environment and the character of architecture in the Downtown were clearly the highest priorities. The public response called for stronger pedestrian connections, human-scaled and articulated buildings, active street frontages, public open spaces, and a dynamic skyline. In short, we want a remarkable Downtown.

With these clearly established goals, the *Pattern Book for Downtown Boca Raton* presents tools that will allow developers, architects, and residents to convert a collective vision into our new reality. Drawing on the tradition of American planning and carefully crafted design guidelines, we will redefine the character of Downtown Boca Raton as a timeless and progressive city.



Acknowledgments

Mayor Susan Whelchel

Deputy Mayor Susan Haynie

Anthony Majhess, CRA Vice Chair

Michael Mullaugh, City Council Member

Constance J. Scott, CRA Chair

Leif J. Ahnell, C.P.A., C.G.F.O., City Manager

Diana Grub Frieser, City Attorney

Community Appearance Board

Downtown Boca Raton Advisory Committee

Planning and Zoning Board

A special thank you to the contributing residents and business owners of Boca Raton, whose participation in the public process facilitated the development of this Pattern Book.

The Purpose of this Pattern Book

The purpose of this *Pattern Book* is to provide the city of Boca Raton and its Community Redevelopment Agency with tools necessary to carry out the vision of the Master Plan process. In 2006 and 2007, city residents, officials, staff, and advisory boards worked together to create a vision for the future of the Boca Raton, and the result of this process was a series of recommendations, explained in detail in the *Downtown Boca Raton Master Plan Update*. As an extension of the *Master Plan Update*, the guidelines in this *Pattern Book* address the needs expressed by city residents and leaders: how to achieve functional pedestrian networks; create effective architectural guidelines, and design elements for a cohesive downtown.

This *Pattern Book* outlines how to design buildings through the consistent application of *scale*, *massing*, and *articulation*. Step-by-step instructions outline how to effectively design and renovate buildings without reducing development potential. This process requires careful attention to individual building details, as well as the relation of buildings to streets and public spaces. These guidelines provide a means of understanding the key elements of downtown architecture and public spaces. By means of this approach, developers and architects will enjoy greater freedom to express prominent building elements and skyline features in ways that were previously unfeasible given past design regulations.

Although development will still be permitted to proceed under the *1992 Design Guidelines*, city residents and leaders have called for the opportunity for a new approach to development in Downtown Boca Raton – development that more vividly expresses the vitality and innovative spirit of the region. This *Pattern Book* is designed to inspire creativity and possibility within this agreed upon vision. The vision reflects the voices of city residents and leaders; and these guidelines are the fruit of their collaborative efforts with community builders and designers.



Table of Contents

INTRODUCTION

Preamble	2
Acknowledgments	3
The Purpose of this Pattern Book	4
Table of Contents	5

SECTION A: MASTER PLAN UPDATE

Master Plan Update Overview	6
Improve the Quality of Public Space	8
Improve the Character of Architecture	10
Quarters and Addresses	12
Height and Placement of Buildings	13
Pattern Book Neighborhood	14
Street Types: Building Setbacks and Stepbacks	15
Articulation and Character	18
The Spirit of Addison Mizner	20

SECTION B: PATTERN BOOK

Pattern Book Overview	28
How to Use this Pattern Book	29
Elements of Mizneresque Architecture	30
Sustainability	32
Step-by-Step Instructions	34
Scoring System	36

STEP 1: SITE ANALYSIS AND DEVELOPMENT POTENTIAL

Site Analysis and Development Potential Overview	38
1.1 Site Development Potential	39
1.2 Determine Parcel Size	39
1.3 Building Placement and Envelope-Small Parcels	40
1.4 Building Placement and Envelope-Large Parcels	42

STEP 2: CREATE QUALITY OPEN SPACE

Quality Open Space Overview	44
Open Space Character by Quarter	45
Public Pedestrian Pathways	46
2.1 Open Space Requirements and Locations	47

STEP 3: MULTIPLE BUILDINGS AND FACADES

Multiple Buildings and Facades Overview	48
3.1 Establish Architectural Bays	49
3.2 Articulate Building Facades	50

STEP 4: DEVELOP MIZNERESQUE MASSING

Mizneresque Massing Overview	52
The Architectural Opportunity Zone	54
4.1 Articulate Primary Building Massing	55

STEP 5: ARTICULATE THE BUILDING ELEMENTS

Articulate the Building Elements Overview	56
5.1 Building Skyline	58
Skyline Elements Summary	59
5.2 Midsection and Common Elements	66
Midsection Elements Summary	67
5.3 Building Base	72
Building Base Elements Summary	73
Assembly and Facade Composition	78

SECTION C: SCORING SYSTEM

Scoring System Overview	80
Step Scorecards	80
Cumulative Scorecard	85

SECTION D: APPENDIX

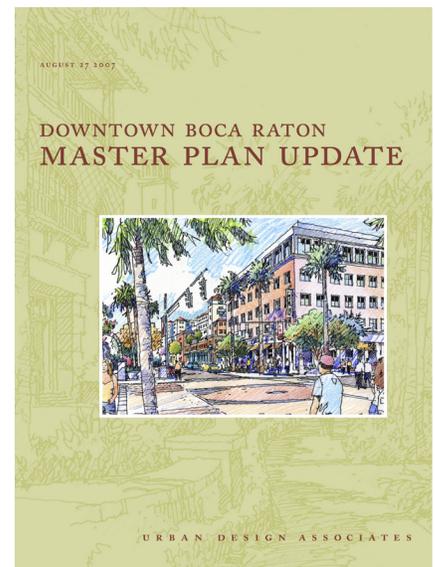
Glossary of Terms	86
A History of Pattern Books	88

MASTER PLAN UPDATE

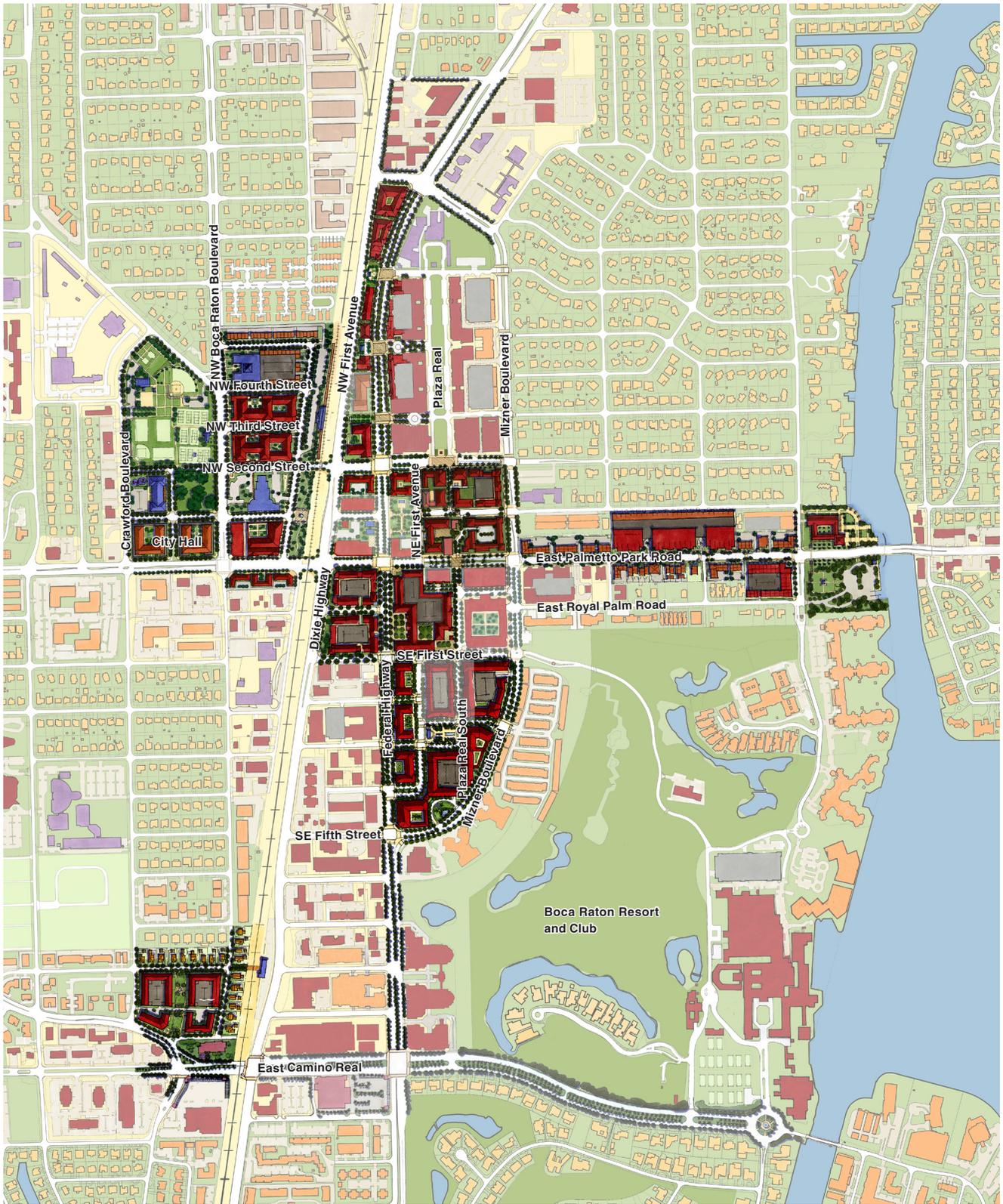
In 2006 and 2007, Urban Design Associates worked with city residents, officials, staff, and the City advisory boards to update the *Master Plan for Downtown Boca Raton*. The result of this open, public process was a new vision for the future of the Downtown. Through the process of public input and professional analysis, two basic principles arose to shape the future of Boca Raton:

- Improve the Quality of Public Space
- Improve the Character of Architecture Downtown

The following section will summarize recommendations from the *Master Plan Update* and their relation to the *Pattern Book* guidelines.



The *Master Plan Update* was produced in an open, participatory public process with residents, property owners, business owners, and public officials.



Illustrative plan developed out of the *Master Plan Update*, showing recommended development initiatives for Downtown

Master Plan Principle: Improve the Quality of Public Space

In the Master Plan process, Boca Raton residents expressed a desire for a walkable Downtown and pedestrian-scaled connections between existing city districts. Many current sidewalks are difficult to navigate and therefore unappealing to pedestrians. Residents recognized several congenial public places of appropriate scale but pointed out that these places are generally not well connected.

Solution 1: Walkable Pedestrian Networks

To establish better pedestrian connections, the design team recommended guidelines for generous, walkable sidewalks. Sidewalks should be measured to a standard dimension from the edge of street rather than the property line. In the *Master Plan Update*, street sections were drawn to illustrate suggested improvements. The creation of an interconnected network of pedestrian-scaled streets and public open space will provide much-needed connectivity between the parts of Downtown.

Solution 2: Creation of Quarters and Landmarks

To create a Downtown of distinct neighborhoods, the design team identified a series of quarters, each with its own character and types of uses. Development within each quarter should be consistent with the unique attributes of the district.



Examples of sidewalk conditions in downtown Boca Raton: these narrow sidewalks, immediately adjacent to vehicle travel lanes, are not comfortable for pedestrians.



Examples of comfortable, congenial public spaces

Master Plan Principle: Improve the Character of Architecture

“Florida is flat as a pancake. You must build with a strong skyline to give your building character.” – Addison Mizner

Many Boca Raton residents expressed displeasure with the architecture and repetitive design of recently constructed buildings. Despite architects’ efforts to build upon the legacy of the great architect Addison Mizner, the quality of design in the city has suffered as a direct result of the 1992 *Design Guidelines*. The rigid height limit and standardized setbacks required by the 1992 *Design Guidelines* resulted in large, bulky buildings with flat tops. These are unaffectionately referred to as ‘crew-cut’ buildings.

Solution: New Architectural Guidelines

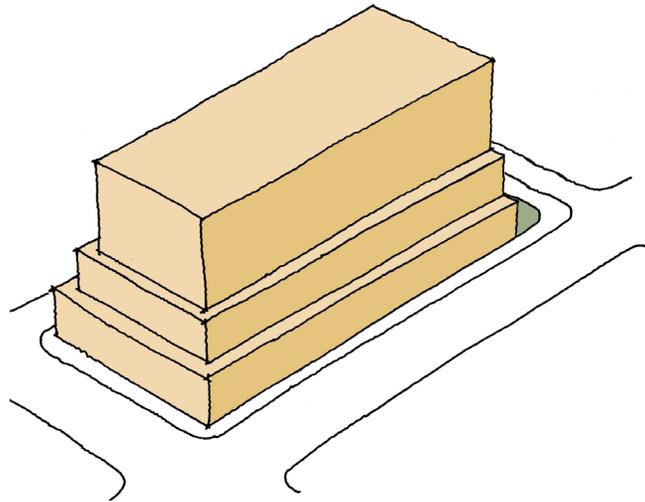
To avoid the effect of ‘crew-cut’ architecture, the *Master Plan Update* recommended modification of the building height limit to encourage design flexibility and allow for variation in the skyline of Downtown without increasing or limiting existing development potential. This variation can be achieved through shifting building mass to create lower and higher portions of development. The resulting skylines of new construction will be more varied.



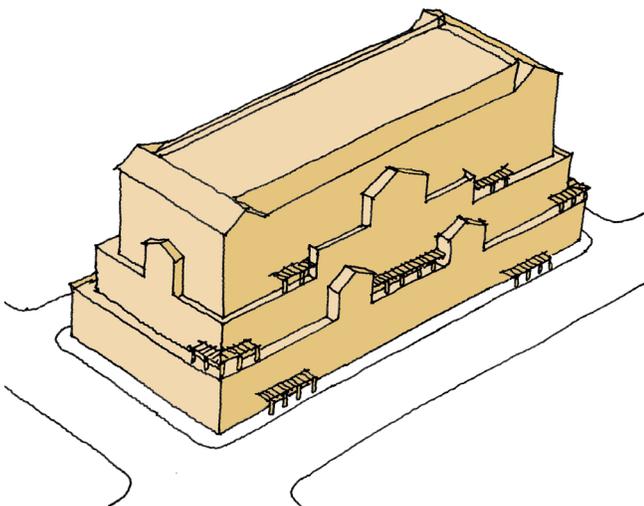
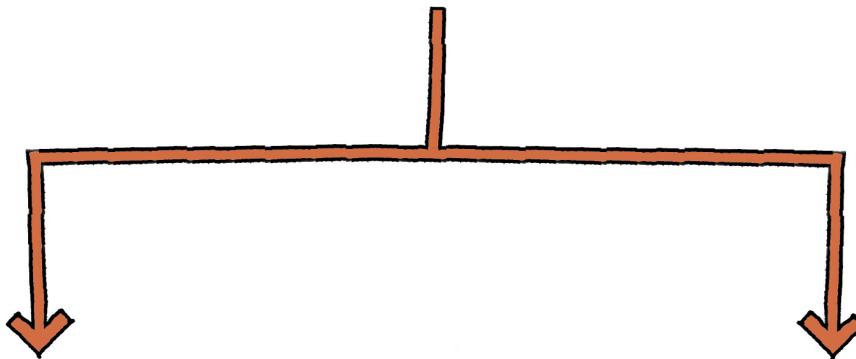
‘Crew cut’ skyline resulting from the architectural regulation of the 1992 *Design Guidelines*



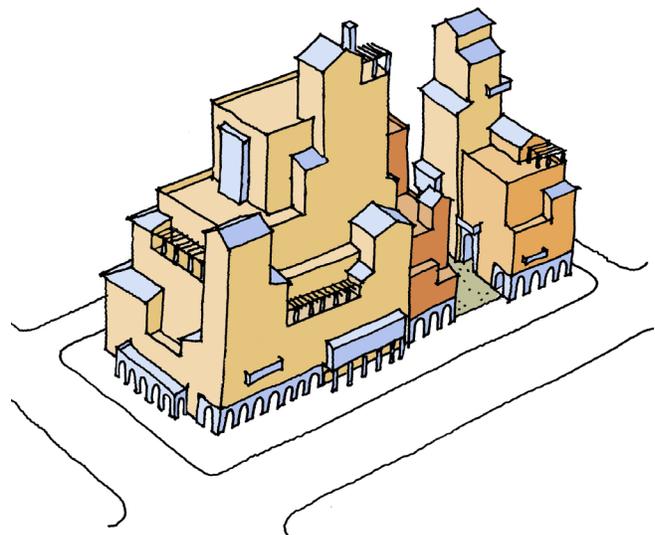
The vision for new architectural design guidelines to improve the public space and the sense of place within Downtown.



Site development potential based on height and setback requirements of the *1992 Design Guidelines*



1992 Design Guidelines with articulation



Site development and articulation with new architectural guidelines

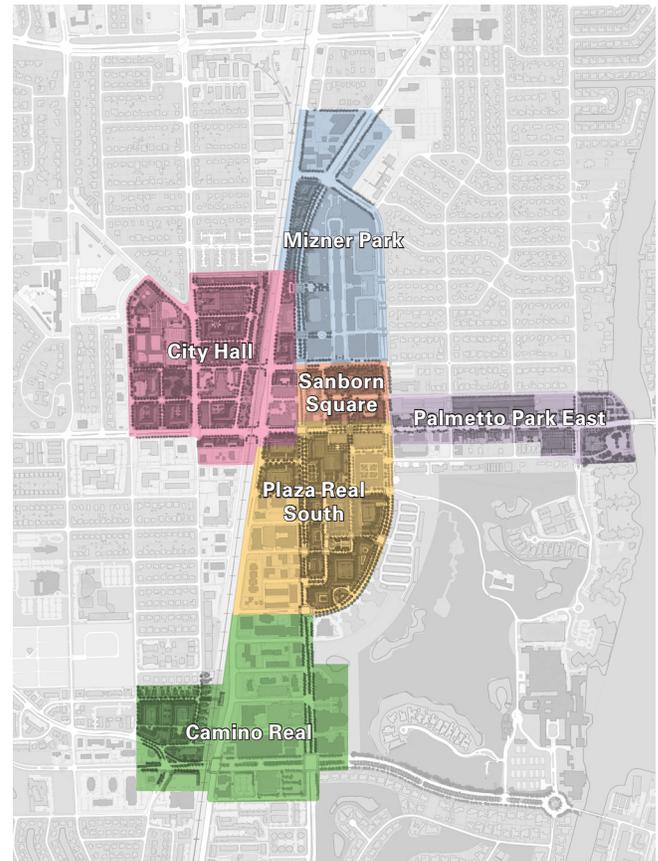
Quarters and Addresses

Quarters within Downtown Boca Raton

Successful downtowns contain a wide variety of places and addresses. Unfortunately, most new development tends to be uniform in character and scale. In Downtown Boca Raton, the *1992 Design Guidelines* have tended to reinforce this pattern of uniformity. Therefore, the *Master Plan Update* recommended a series of quarters of different character, range of use, and scale.

Addresses within the Quarters

Neighborhoods within a downtown are determined by general themes and character. Often an essential determinate of that character is a unique *address*, which can be identified by a memorable place, landmark, urban form, landscape, or range of use.



Illustrative plan with quarters identified

Height and Placement of Buildings

The height and placement of buildings contribute to the character and quality of urban spaces. Building *facades* can create comfortable street spaces along wide and busy roads. The presence of tall facades has a traffic-calming effect by creating the impression that drivers are passing through an urban room. On the other hand, lower scale buildings - those of three to four stories - provide an effective transition to adjacent residential areas. The best downtown environments have a variety of street types including small-scale, narrow streets with two- or three-story facades along them.

The *Master Plan Update* proposed a method for determining building setback and height requirements based on street types. In order to create a variety of urban environments around Downtown, this series of street types establishes a spatial hierarchy where building size corresponds to the scale of the street. Building setbacks and height requirements were presented in the *Master Plan Update* in a very conceptual and diagrammatic way, and this *Pattern Book* provides an expansion of those ideas into usable guidelines.

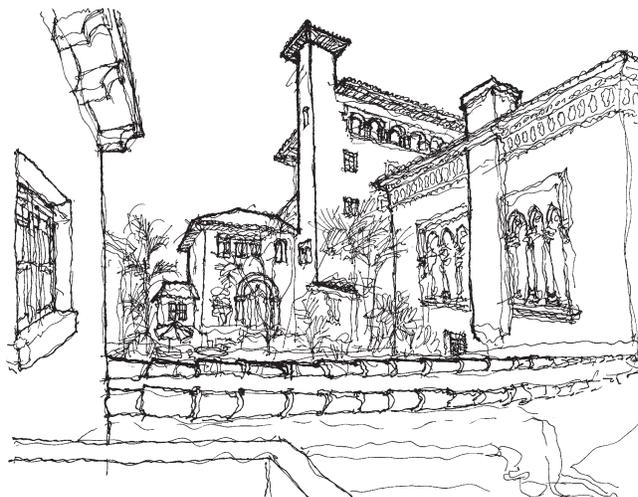
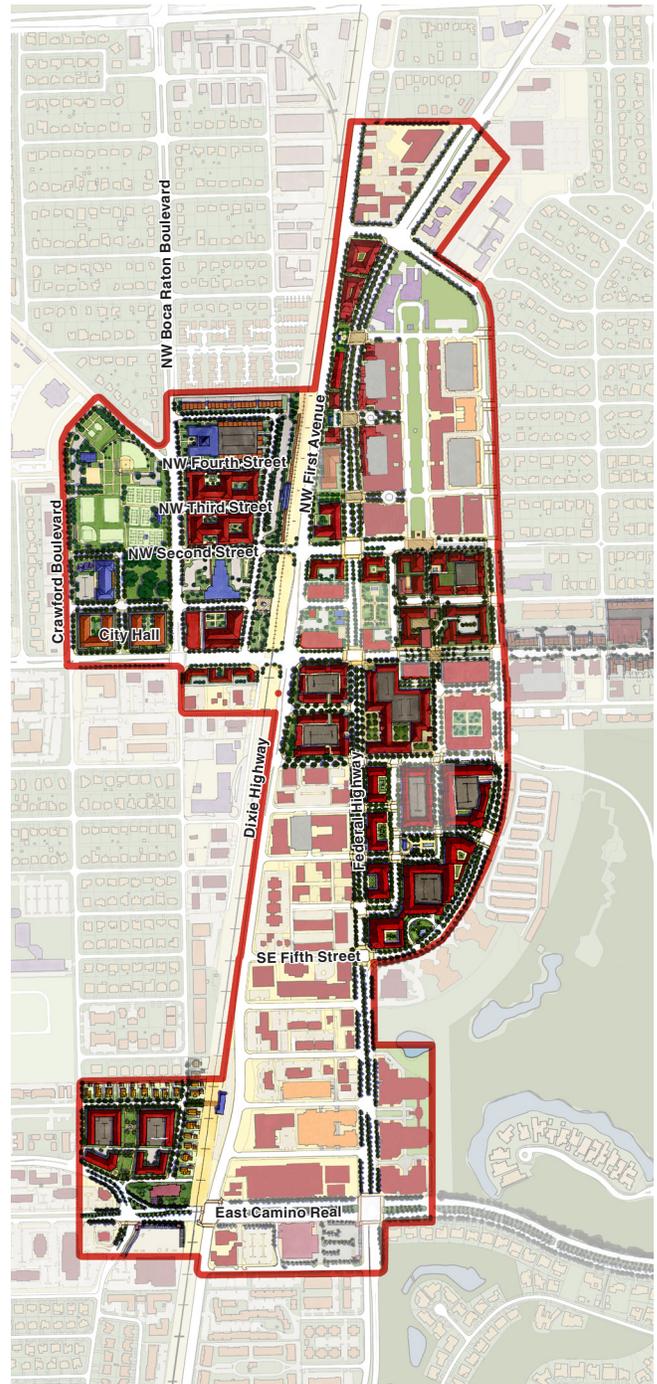


Image supplied by RLC Architects

Pattern Book Neighborhood

The *Pattern Book* for Downtown Boca Raton provides recommendations for the design and construction of new buildings. This new construction will create a cohesive, interconnected walkable downtown. Parcels within the boundary illustrated on this page are subject to the design guidelines and design review procedures presented in this *Pattern Book*.



This boundary shows the areas of Downtown Boca Raton to which the *Pattern Book* applies

Street Types: Building Setbacks and Stepbacks

The character of an urban environment is determined by two critical tools: the design of the street and the attributes of its adjacent architecture. In the *Master Plan Update*, street types were identified and building setbacks were conceptually illustrated. As an extension of the *Master Plan Update*, this *Pattern Book* contains guidelines for scale and shape of street types.

These new guidelines are a refinement of the 1992 *Design Guideline* setbacks, and although they explain how to increase building height in some areas and decrease building height in others, overall, there is no change in maximum development potential as established by the 1992 *Design Guidelines*. The new guidelines in this *Pattern Book* will help establish the spatial hierarchy necessary for the creation a comfortable, walkable Downtown.

Three street types are recognized:

- Type A: Large-scale streets with heavy through traffic
- Type B: Large-scale streets with light through traffic
- Type C: Two- and three-lane streets with mixed-use activity and light through traffic

Where a higher intensity street type turns the corner into a lower intensity street type, the block will follow the setbacks of the higher intensity street for the first 150 feet. The locations of these street type transitions are indicated in the plan by color code, on the following two pages.

Building Setbacks

To allow for large, pedestrian-friendly sidewalks the building *setback*, the distance from the street edge to the building face at street level, has been greatly increased from the 1992 *Design Guidelines*. The size of

the setback varies based on the street type, scaling the pedestrian realm in proportion to the vehicle volume and scale of the street. The street edge and building setback are dimensioned exclusive of pedestrian or landscape bulbouts. Depending on the type of street (Type A, B, or C), street-level building facades will be set back a minimum of 20, 24, or 26 feet from the curb line or 6 feet from the property line, whichever is greater.

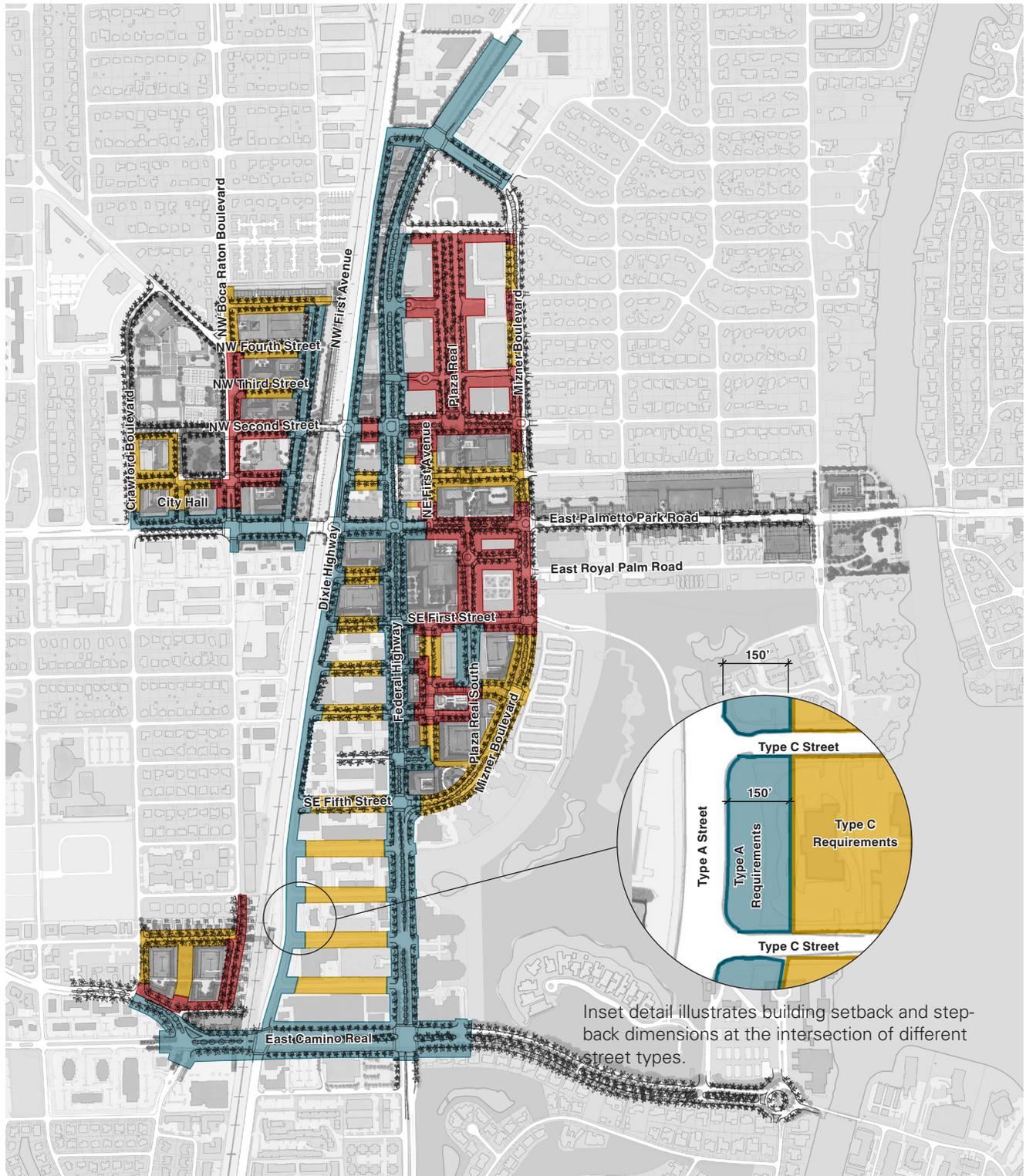
To maintain the development potential of the 1992 *Design Guidelines*, development volume has been relocated to modified building stepbacks above the street level. These changes are illustrated on the following two pages.

Building Stepbacks

The 1992 *Design Guidelines* required uniform building setbacks throughout Downtown Boca Raton. To create a downtown with appropriately scaled streets, the *Master Plan Update* recommended that building setbacks vary based on the scale of the street.



The *Master Plan Update* recommended that the character of streets vary from large scale to small scale streets.



Framework diagram showing the streets of Boca Raton based upon street type. Each street type dictates specific requirements for street width, building setbacks, and stepbacks.

TYPE A

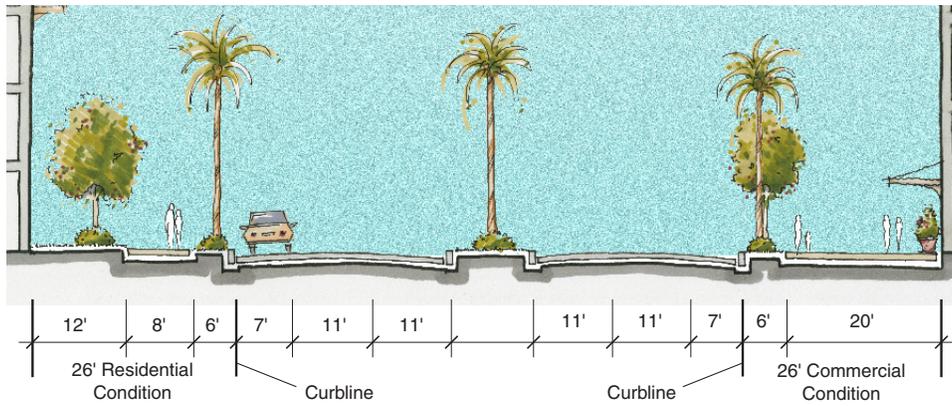
TYPE B

TYPE C

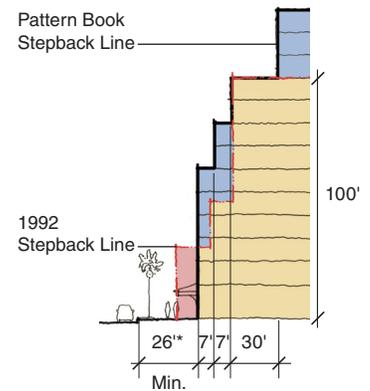
Quantitative Requirements

Street Section

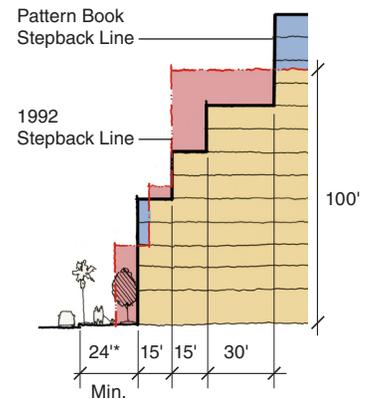
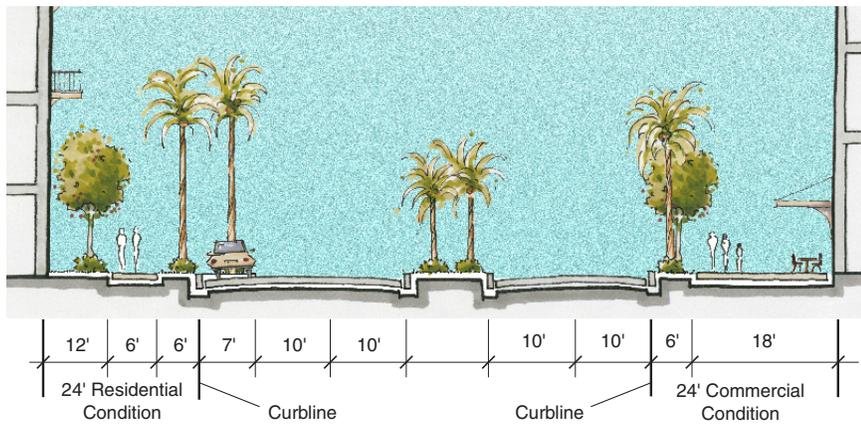
Type A



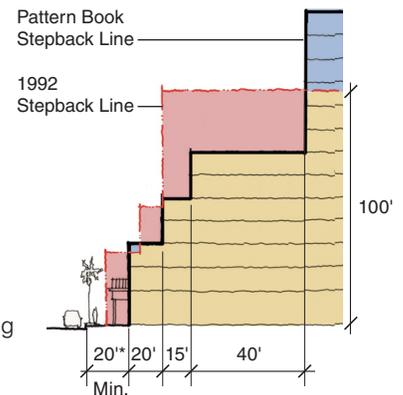
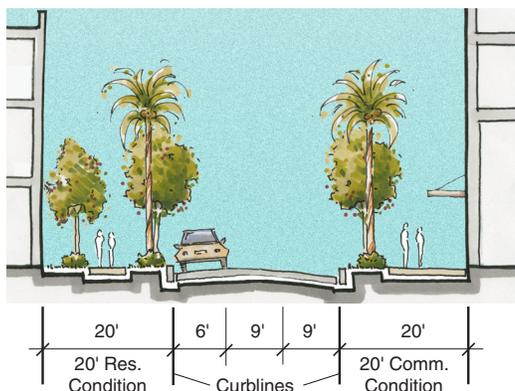
Building Setbacks and Stepbacks



Type B



Type C



*Building Setbacks represent a minimum setback from the street edge or property line, whichever is greater. Building Stepbacks are required on all primary, street-facing elevations.

Articulation and Character

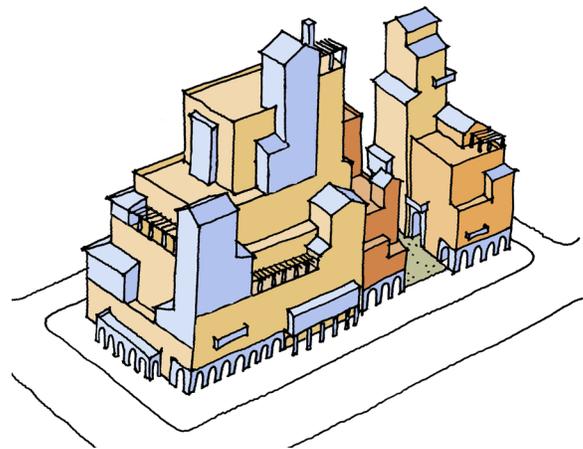
Building Articulation

The *1992 Design Guidelines* required that the streetscape of buildings conform to a uniform setback. The resulting architectural configuration did not yield the diversity and human scale needed to create comfortable, congenial public spaces. In particular, when properties occupied large development blocks, the resulting buildings were often designed as long horizontal masses with the street facade of one large building.

One of the essential qualities of a traditional streetscape is the atmosphere created by a collection of smaller, human-scaled buildings composed to create a continuous street facade. The *Master Plan Update* recommended multiple facades along a street as an important characteristic to encourage lively and active streetscapes. To achieve this character, the *Pattern Book* requires that buildings contain multiple facades. Additional building height is also allowed, and articulation of the upper floors is required.

Public Space Character

Residents agree that the visible presence of people living in a downtown greatly contributes to a sense of public security and city vibrancy. Residential windows and balconies function as “eyes on the street” when they are on the lower floors of buildings, while those that are above the fourth or fifth floor are less effective. This *Pattern Book* provides guidelines for the character and embellishment of public open space and recommendations to increase the amount of residential uses on lower floors.



This Building Articulation diagram illustrates a setback configuration elaborated with vertical elements that give the building public space character.



Image provided by RLC Architects



Examples of architecture and public spaces of human scale and the presence of people for a feeling of security



The Spirit of Addison Mizner

Mizner's Vision

Addison Mizner was one of America's most prolific and inventive architects. Mizner's historical connection to the city of Boca Raton was forged by his larger vision for the city. He saw the opportunity to develop Boca Raton as a resort town designed around a playful architecture that embraces the themes of outdoor living in South Florida.

Mizner's architecture often utilizes symmetrical elements that are asymmetrically composed. In Mizner's designs, large masses are broken up into human scale modules that can be recognized individually or as part of a larger ensemble. Horizontal compositions are often anchored by vertical tower-like forms, which contribute to the character of cityscapes and create a strong *skyline*. Mizner used functional elements, such as stairs, doors, and balconies, as non-functional decoration to add interest to his buildings. Towers, and the playful relationship between masses and massing elements, combined with the connectivity of outdoor space, yield a great model for development. These ideas, highlighted throughout Mizner's style, are applicable to modern life and contemporary architectural expression.



Sketches of Mizner's architecture in South Florida



Image supplied by RLC Architects

Examples illustrating the spirit of Addison Mizner



Perspective illustrating the experience and character of a Type A Street





Perspective illustrating the experience and character of a Type B Street





Perspective illustrating the experience and character of a Type C Street



PATTERN BOOK

This *Pattern Book* outlines instructions for the creation of public space and new architectural development within Downtown Boca Raton. As an extension of the *Master Plan Update*, the guidelines in this section address the needs expressed by city residents and leaders: how to achieve functional pedestrian networks and effective architectural guidelines through the consistent application of *scale*, *massing*, and *articulation*.

Step-by-step instructions outline how to effectively design and renovate buildings without reducing development potential. This process requires careful attention to individual building details, as well as the relation of buildings to streets and public spaces. World-class cities, towns, and neighborhoods contain public spaces and connections derived from appropriate building placement and architectural patterns. In the case of Boca Raton, the legacy of Addison Mizner drives this spatial development, and thus Mizner's architecture is emphasized throughout this *Pattern Book*.

The following section covers site development potential; quality open space; multiple buildings and facades; mizneresque massing; and articulation of building elements. These guidelines are designed to help developers and architects create the unique character and strong sense of place that residents and the CRA envision for Downtown Boca Raton.



Sophisticated articulation of the Everglades Club by Addison Mizner



Image provided by RLC Architects

Appropriate facade composition and articulation of massing for a new project in Downtown Boca Raton. This is a successful interpretation of Mizner's architecture in a contemporary design.

How to Use this Pattern Book

Step 1: Site Analysis and Development Potential

Parcel size, as defined in Step 1, will determine the following design steps and requirements.

Small Parcels

Large Parcels



Step 1.2 Determine Building Placement and Envelope - Small Parcels

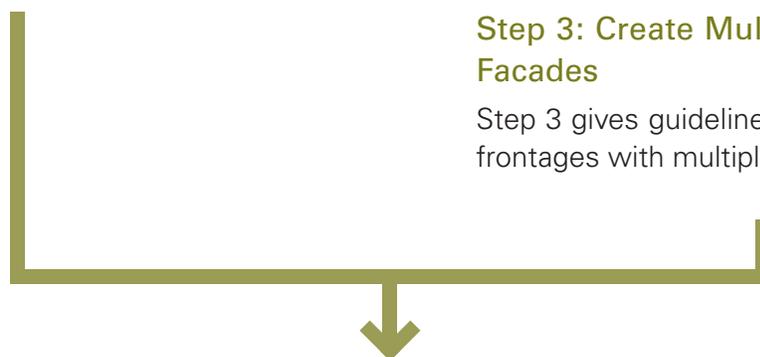
Step 1.3 Determine Building Placement and Envelope - Large Parcels

Step 2: Create Quality Open Space

Step 2 contains guidelines for creating pedestrian-friendly, connected open spaces.

Step 2: Create Quality Open Space

Step 2 contains guidelines for creating pedestrian-friendly, connected open spaces.



Step 3: Create Multiple Buildings and Facades

Step 3 gives guidelines for improving street frontages with multiple buildings or facades.

Step 4: Develop Mizneresque Massing

Step 4 illustrates guidelines for creating unique and varied building massing.

Step 5: Articulate the Building Elements

Step 5 contains guidelines for articulating the architectural elements of a building's skyline, midsection, and base.

Assemble Scorecard from "Section C: Scoring System" and Other Application Materials

Elements of Mizneresque Architecture

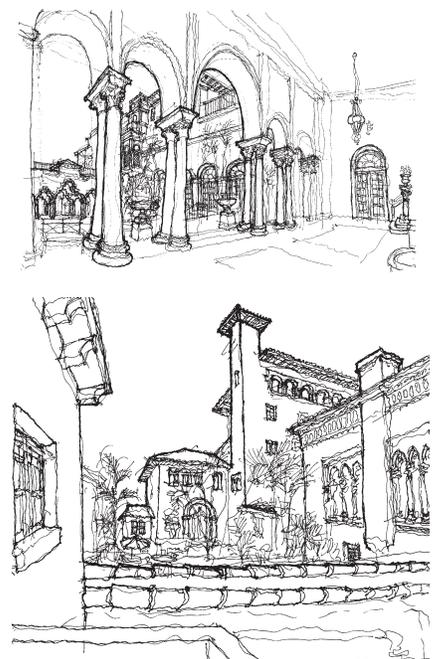
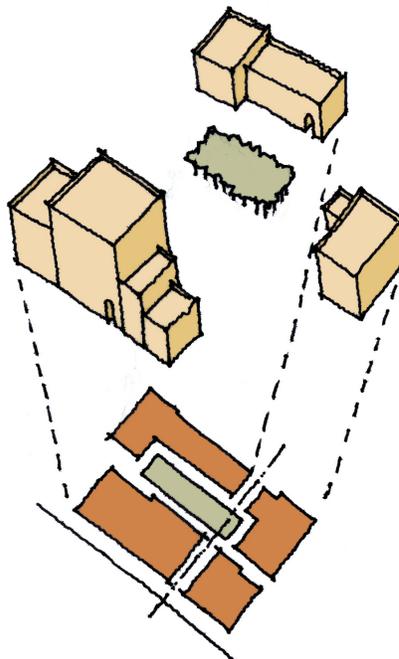
Addison Mizner's architecture in Boca Raton illustrates a successful combination of strong urban and architectural design elements. These design elements are not necessarily style specific but provide designers and architects with a model applicable to a variety of contemporary pedestrian environments in South Florida.

These pages illustrate the essential elements of Mizneresque architecture. Mizner's architectural elements combined with his urban design principles, create open and congenial street facades with shop fronts, loggias, and arcades. Mizneresque massing results in building ensembles that appear more like villages than large sin-

gular structures. Mizner designed series of buildings that vary in scale: from one-story shops to six-story, mixed-use buildings. By creating each ensemble as if it were a village, he made it possible for the buildings to fit comfortably within their context.

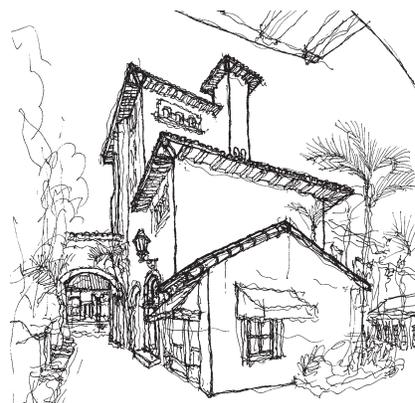
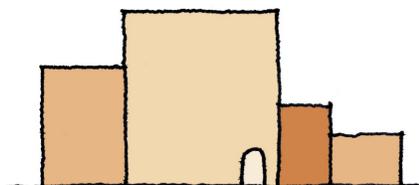
A. Use Building Elements to Create Space

When composing an ensemble of buildings, Mizner shaped the buildings to create human-scaled spaces of varied shape and character. The spaces were often connected via paseos and loggias.



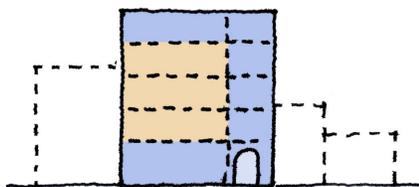
B. Compose Projects into Multiple Individual Buildings of Varied Height

Although Mizner designed some projects of considerable size, he composed such projects into multiple buildings that would reinforce a human scale. The resulting buildings create a varied, attractive skyline.



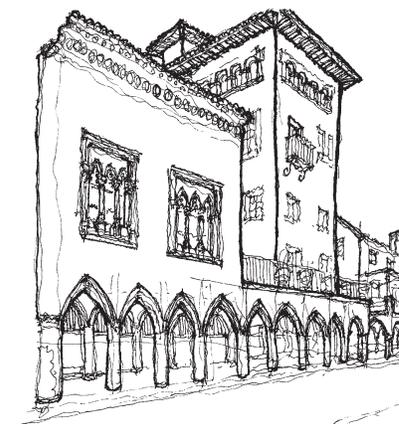
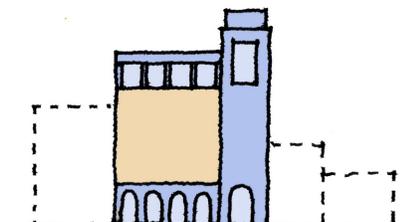
C. Highlight Building Base, Top, and Entry

Mizner focused his design energies in areas critical to comfortable, human environments. The building base and entry are detailed to increase the richness of the pedestrian experience. The top is detailed to represent human habitation, in order to improve pedestrian scale and add interest to the building's skyline.



D. Compose Facades with a Combination of Horizontal and Vertical Emphasis

Mizner created horizontal emphasis to reinforce pedestrian scale. Vertical elements are used to create landmark elements and further enhance the skyline.



Sustainability

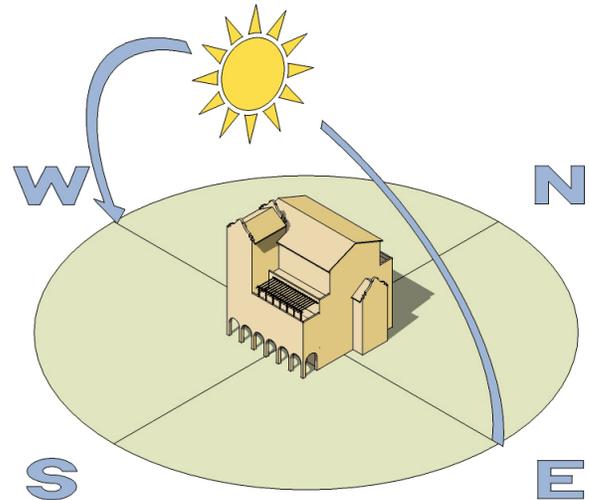
Sustainable development celebrates the connection between the built and natural environment, minimizing the impact of design, construction, and operation on natural resources and creating healthy and comfortable building environments.

Historically, Boca Raton was home to sustainable architecture: many individual buildings were designed with climate and solar orientation in mind. Today, architects and developers can contribute to resource conservation and community health by using strategies for sustainable architecture and design in Downtown Boca Raton.

Considerations for sustainable development:

- Solar and wind orientation
- Pedestrian circulation and access, bicycle use, and alternative transportation
- Reuse of stormwater and innovative water use reductions
- On-site renewable energy and green power solutions
- High-efficiency mechanical systems
- Enhanced refrigerant management for air-conditioning systems
- Reused and recycled materials
- Improved indoor environmental quality including: daylighting, views, thermal comfort, operable windows, and low chemical-emitting materials

This *Pattern Book* recommends that buildings seek certification in an energy efficient standard such as LEED® or an approved equivalent. Additional credits in Section C: Scoring System are available for projects certified by LEED® or an approved equivalent.



Understanding solar orientation and environmental patterns is a crucial element to sustainable design.



Traditionally, eaves, balconies, windows, and vegetation were sized and placed to provide shade for the building's exterior, interior, and occupants.

Sustainability Key

A. Roofs:

Utilize rooftop renewable power generation and stormwater management to reduce reliance on utilities and infrastructure. Light colored roof materials and green roofs can greatly decrease heat gain.

B. Balconies and Trellis:

Utilize architectural devices and plants to shade the building and interior spaces from the sun. This decreases energy use and provides a more comfortable living environment.

C. Windows:

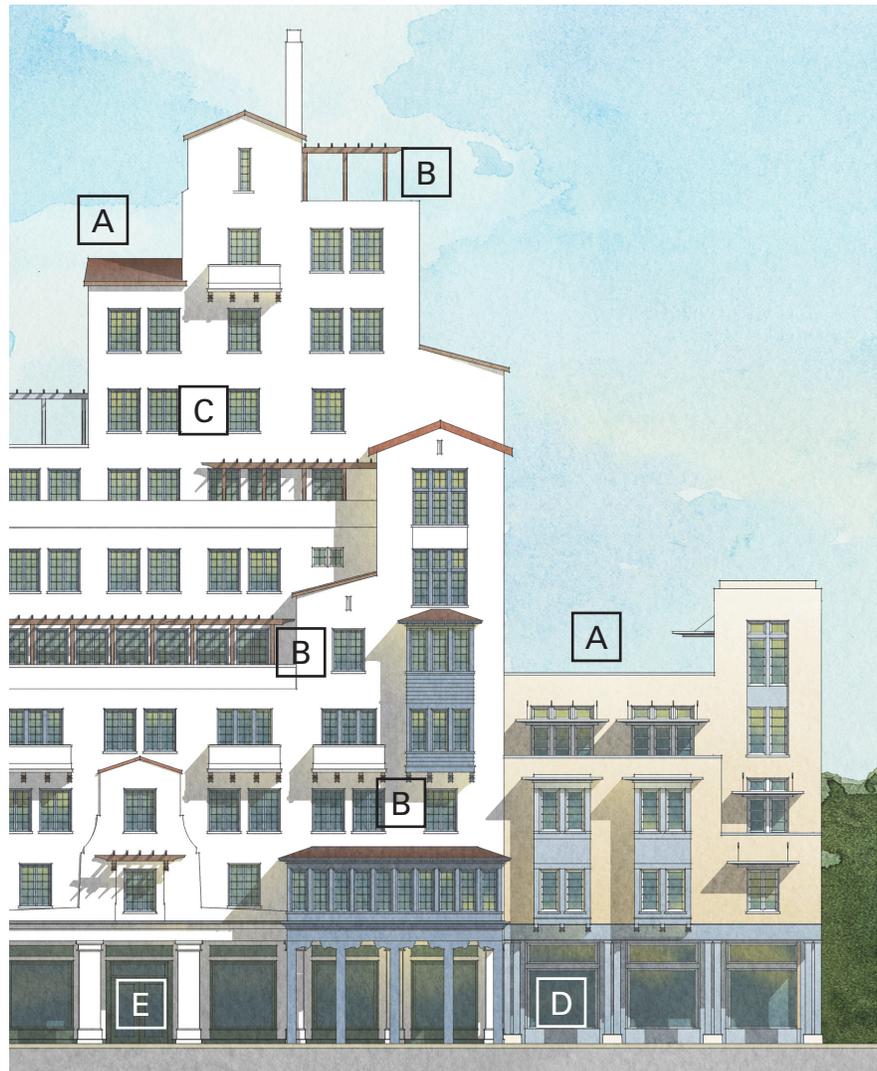
Utilize operable windows for natural ventilation, and improved indoor air quality.

D. Loggias:

Provide shade and create a comfortable pedestrian environment to promote walking within the Downtown.

E. Front Doors:

Provide easy pedestrian access to public ways to encourage pedestrian circulation and alternative means of transportation.



This elevation corresponds with the architectural elements in the Sustainability Key.

Step-by-Step Instructions

These two pages summarize the steps described in this *Pattern Book*. The following pages in this document explain and illustrate these concepts in greater detail. These step-by-step instructions outline how to design and renovate buildings consistent with principles from the *Master Plan Update*:

- Improve the Quality of Public Space
- Improve the Character of Architecture

Step 1: Site Analysis and Development Potential

The maximum amount of development permitted on a site is determined by the *1992 Design Guidelines*. Use the design parameters according to this *Pattern Book*, to establish new setbacks, open space, and building heights according to street type.

Step 2: Create Quality Open Space

Design open space in a way that encourages high volumes of pedestrian traffic, passive recreation, and connections to other open spaces and pathways. Open spaces are to be public in nature, with a preferred orientation towards public frontage. Use landscaping elements and plantings to highlight public areas and screen undesirable views as appropriate to the specific site.

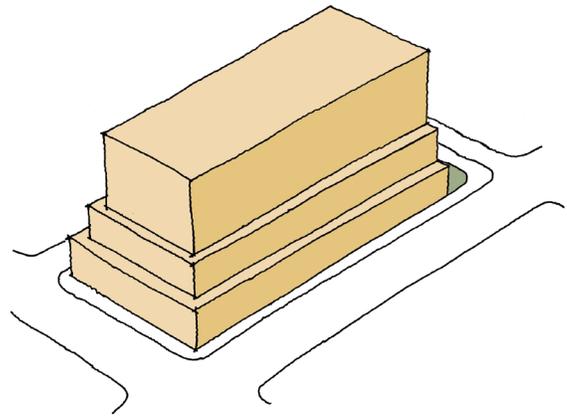
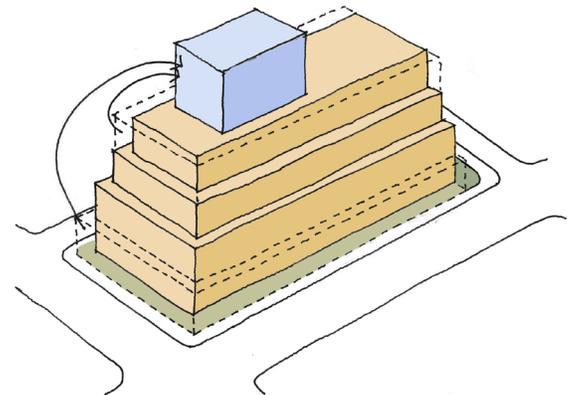
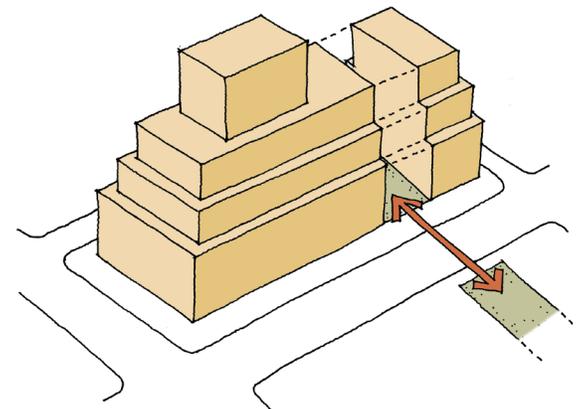


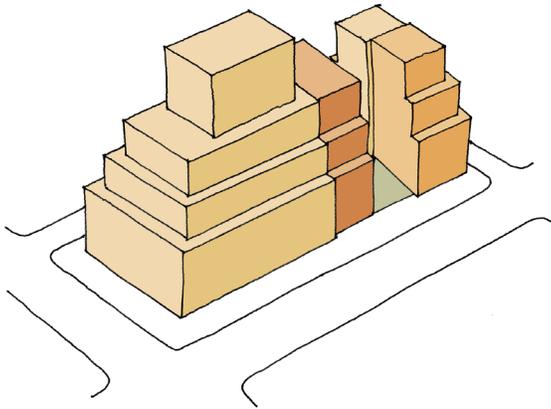
Diagram of building mass under the *1992 Design Guidelines*



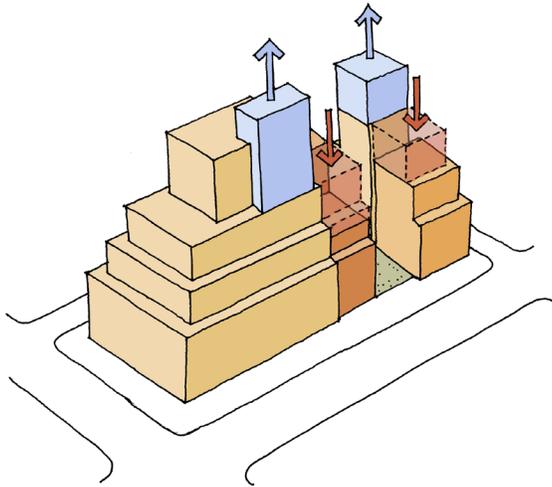
Step 1: Establish setbacks and height of the building.



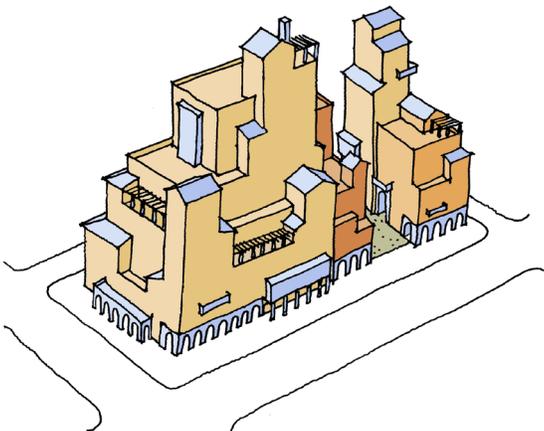
Step 2: Create new open space based on the *Master Plan Update*, linking to spaces on adjacent properties.



Step 3: Divide general building massing into a series of individual buildings.



Step 4: Create Mizneresque massing by redistributing volumes within the A.O.Z.



Step 5: Articulate the mass with building elements in the spirit of Addison Mizner.

Step 3:

Create Multiple Buildings and Facades

Divide buildings into *facades* in order to avoid a monolithic presence on street frontages. Create a series of discernible *architectural bays* to establish rhythm along a facade, and distinguish individual facades at appropriate locations.

Step 4:

Develop Mizneresque Massing

Establish basic *massing* according to setback requirements, and develop additional massing vertically within the *Architectural Opportunity Zone (A.O.Z.)* and horizontally as projecting elements. These additions allow for greater flexibility and diversity, especially along the *skyline*. Design massing gestures in the spirit of Addison Mizner.

Step 5:

Articulate the Building Elements

Establish a human scale and reinforce the stylistic character of the building. Organize buildings along the *skyline*, *midsection*, and *base* through elements such as balconies, trellises, windows, and doors.

Assemble Scorecard:

Section C: Scoring System

Based on the final design, assemble calculations in a report; complete a corresponding scorecard; and gather supporting documentation.

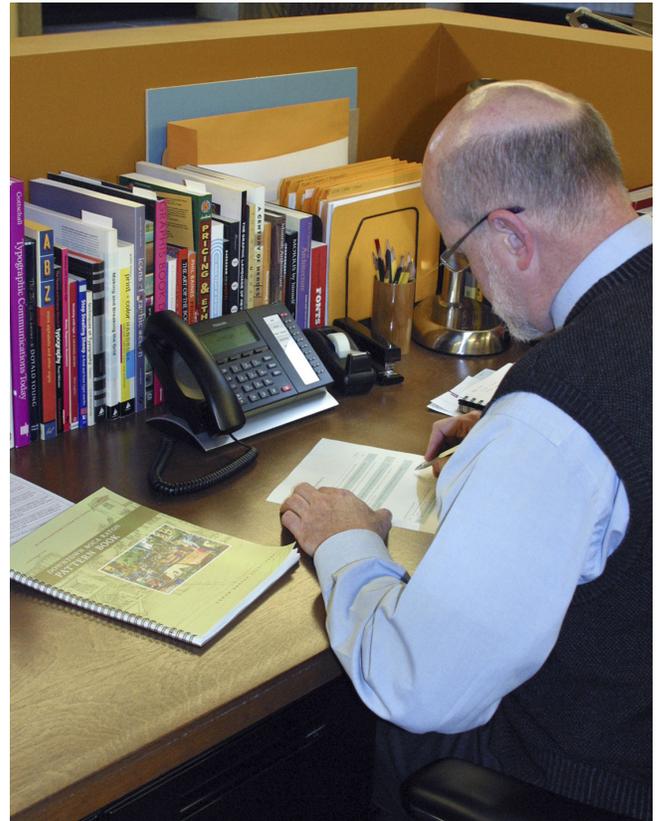
Scoring System

Introduction

The scoring system included in this *Pattern Book* provides a criteria for development ready for approval in Downtown Boca Raton. Designers will use a scorecard in the step-by-step process, which must be tabulated and verified with the City of Boca Raton. A scorecard may be copied from Section C of this *Pattern Book* or downloaded from the City website.

Use of the *Pattern Book* scorecard ensures the careful study and use of each step in the design process. Prior to submission of an application for design review, the scorecard must be filled out in detail. Supporting material will be required to illustrate how the requirements, as well as any additional credits, have been met.

The fulfillment of at least 11 of 15 additional credits for large parcels, and 9 of 12 additional credits for small parcels is required.



C SCORING SYSTEM DRAFT

SCORING SYSTEM

The following scorecard is intended to serve as a tool in the comprehensive review of projects ready for approval within Downtown Boca Raton. The cumulative scoring process verifies fulfillment of required elements as well as the additional credits described in Section B of this *Pattern Book*. The fulfillment of at least 11 of 15 additional credits for large parcels, and 9 of 12 additional credits for small parcels is required.

Step 1: Site Analysis and Development Potential

Requirements	Fulfilled
1.1.1 Establish site development potential based upon the setbacks, open space, and height requirements under the <i>1992 Design Guidelines</i> .	
1.2.1 Parcel qualifies as a small parcel according to the definition in 1.2.1.	
1.2.1 Parcel qualifies as a large parcel according to the definition in 1.2.2.	
1.3.1 For small parcels, apply the required setbacks and height limits in Step 1.3.1 to determine the revised building envelope.	
1.3.2 For small parcels, redistribute the site development potential from Step 1.1.1 within the revised building envelope, abiding by the restrictions detailed in Step 1.3.2.	
1.4.1 For large parcels, apply the required setbacks and height limits in Step 1.4.1 to determine the revised building envelope.	
1.4.2 For large parcels, redistribute the site development potential from Step 1.1.1 within the revised building envelope, abiding by the restrictions detailed in Step 1.4.2.	
1.4.3 For large parcels, portions of the building above 100 feet (but not above 140 feet) are offset by an equal or greater decrease in height and volume elsewhere on the site.	

Total Points _____

80

DRAFT
Any and All Content Subject To Change Prior To Release Of Final Document

Step 2: Create Quality Open Space

Requirements	Fulfilled
2.1.1 Analyze adjacent open space types of the project in its immediate context to surrounding parcels and create meaningful orientations and connections.	
2.1.2 Each parcel proposed for development shall maintain the percentages as detailed in Step 2.1.2.	
2.1.3 At least sixty-five percent (65%) of the required open space shall be an open and uncovered space from the ground to the sky. This open space must be integral to the public realm and have a relationship to the building program within.	

Additional Credits	Fulfilled	Points
2.1.A Connect open space by establishing pedestrian connections with adjacent properties, parks, or institutions. (1 point)		
2.1.B Embellish pedestrian connections through the use of arcades, loggias, landscaping, or other architectural features. (1 point)		
2.1.C Create a landscaped/pervious hardscaped plaza with direct public access. (1 point)		

Total Points _____

81

C SCORING SYSTEM DRAFT

Step 3: Create Multiple Buildings and Facades

Requirements	Fulfilled
3.1.1 Each street-facing building facade shall be divided into architectural bays as outlined in step 3.1.1.	
3.1.2 Each architectural bay shall be a minimum of seven (7) feet and a maximum of fourteen (14) feet wide.	
3.2.1 Each street-facing building more than twelve (12) architectural bays wide shall be composed of multiple building facades.	
3.2.2 Each building facade along any street-facing building shall be offset from one another by at least 2 feet in depth or articulated in substantially different colors, details, and/or materials.	

Additional Credits	Fulfilled	Points
3.2.A Each facade provides a distinctly different architectural character and facade composition strategy (including color, materials, window types, and architectural details). (2 points)		
3.2.B Each facade includes a minimum of four (4) of the six (6) facade treatments described in Step 3.2.B. (1 point)		

Total Points _____

82

DRAFT
Any and All Content Subject To Change Prior To Release Of Final Document

Cumulative Scorecard

Requirements	Fulfilled
Step 1 Determine Total Site Development Potential and Building Envelope	
Step 2 Create Quality Open Space	
Step 3 Create Multiple Buildings and Facades (Large Parcels Only)	
Step 4 Develop Mizznesque Massing	
Step 5 Articulate the Building Elements	

Additional Credits	Fulfilled	Points
Step 2 Create Quality Open Space		
Step 3 Create Multiple Buildings and Facades (Large Parcels Only)		
Step 4 Develop Mizznesque Massing		
Step 5 Articulate the Building Elements		
Sustainability Credit LEED® Certified, Silver, or approved equivalent (1 point) LEED® Gold, Platinum, or approved equivalent (2 points)		

Cumulative Points* _____

* At least 11 out of 15 additional credits for large parcels, and 9 out of 12 additional credits for small parcels are required for approval.

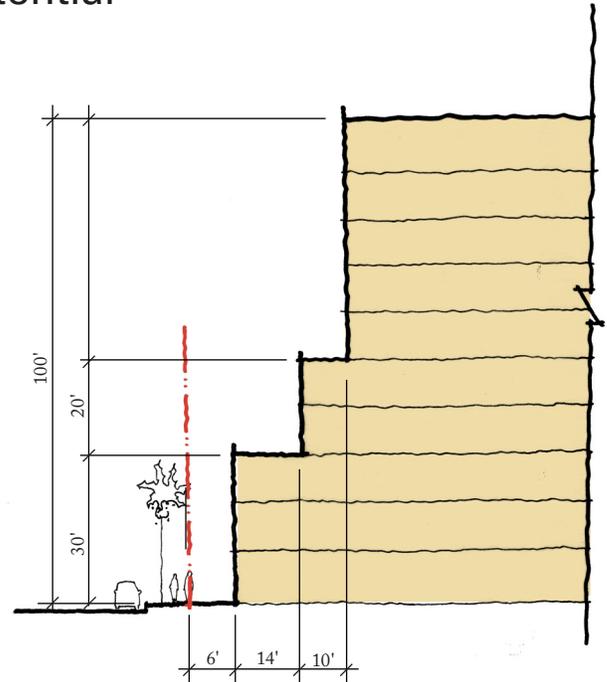
85

Sample pages from the scorecard in Section C of this *Pattern Book*

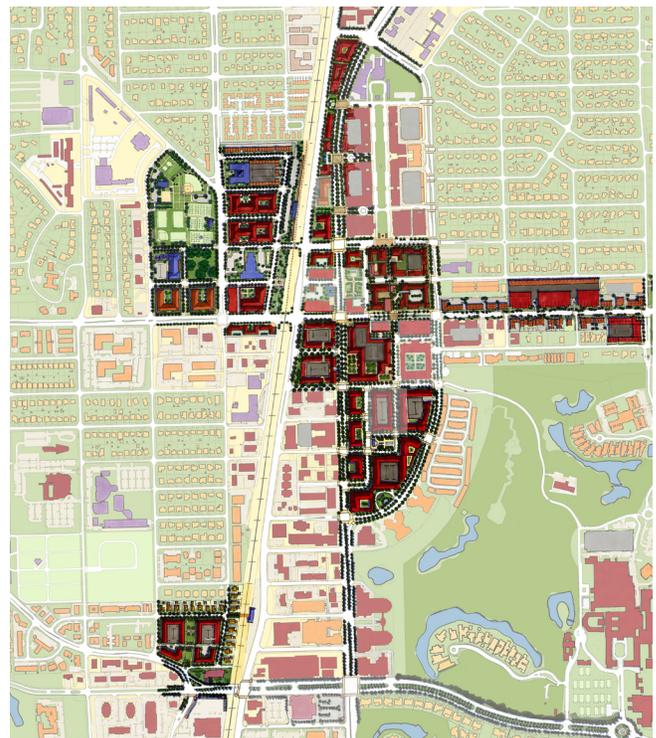
Step 1: Site Analysis and Development Potential

The maximum amount of development permitted on a site is determined by the *1992 Design Guidelines*. New design parameters according to this *Pattern Book* allow for new setbacks, open space, and building heights according to street type. Therefore, the first step is to determine the site capacity calculated in floor area, FAR, and/or volume, as appropriate.

Once the site development potential is calculated, the size of the parcel under consideration will determine the following steps. Step 1.2 provides definitions for small and large parcels. For small parcels, proceed to Step 1.3. For large parcels, proceed to Step 1.4.



Cross-section of the setback and height requirements under the *1992 Design Guidelines*

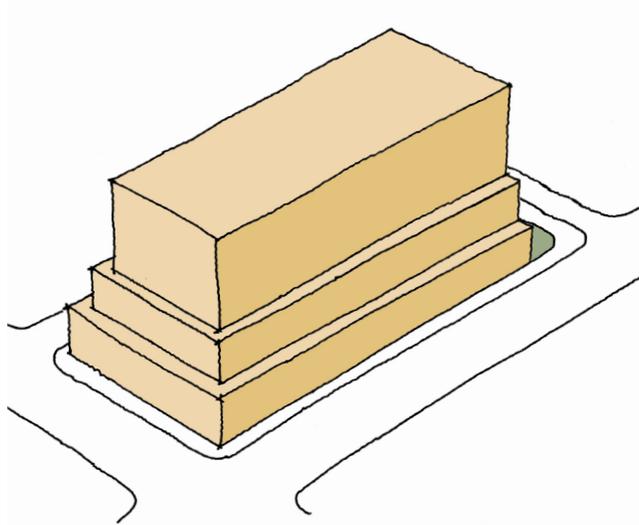


Illustrative plan of Downtown Boca Raton

1.1: Site Development Potential

Requirements

1.1.1 Establish site development potential (in floor area, FAR, and/or volume, as appropriate) based upon the setbacks, open space, and height requirements under the *1992 Design Guidelines*.



1.1.1: Site development potential, based upon *1992 Design Guidelines*

1.2: Determine Parcel Size

Requirements

1.2.1 A small parcel is defined as a parcel with 115 feet or less of street frontage and 15,000 square feet or less of area. For small parcels, proceed to Step 1.3.

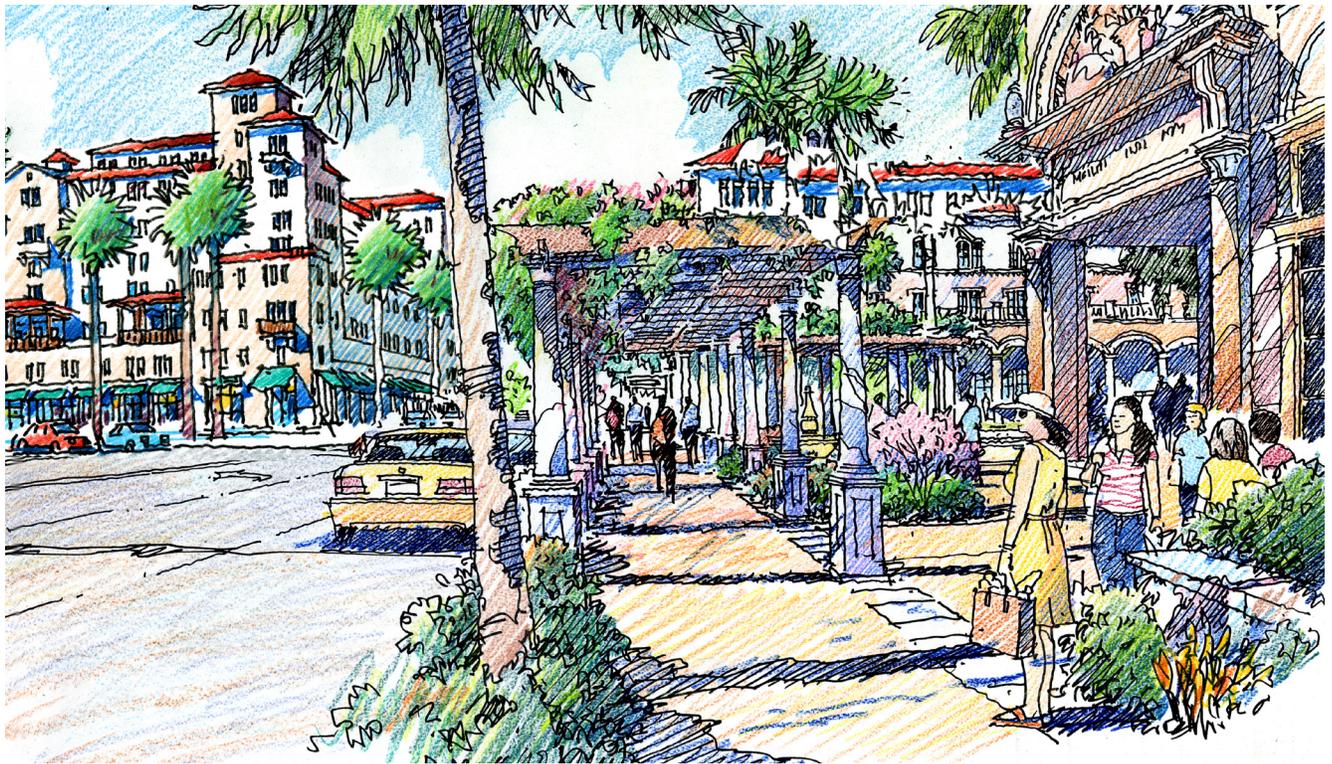
1.2.2 A large parcel is defined as a parcel with more than 115 feet of street frontage and more than 15,000 square feet of area. For large parcels, proceed to Step 1.4.

1.3:

Building Placement and Envelope - Small Parcels

A small parcel is defined as a parcel with 115 feet or less of street frontage and 15,000 square feet or less of area. Setbacks and setbacks for buildings on small parcels are detailed on the following page. Small parcels are exempt from meeting the requirements detailed in Step 3. To determine open space requirements for small parcels, proceed to Step 2; and for Mizneresque massing and architectural elements, proceed to Steps 4 and 5 of this *Pattern Book*.

The street section on the following page is recommended for small parcels. Loggias on the ground floor shall line up with neighboring loggias on nearby parcels. Architectural detailing and fenestration should be present on all facades that project over a loggia.



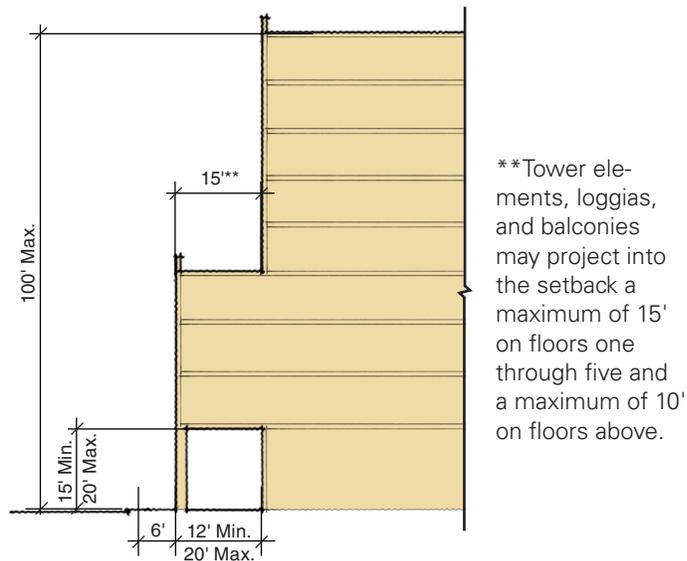
View of Downtown. Buildings of varied scale and relationship to the street create a dynamic streetscape.

Requirements

1.3.1 Apply the required setbacks, stepbacks, and height limits to determine the revised building envelope (in floor area, FAR, and/or volume, as appropriate) according to the adjacent diagram.

1.3.2 Redistribute the site development potential from Step 1.1.1 within the revised building envelope. The following restrictions apply:

- The maximum height of a primary building mass shall not exceed 100 feet. Architectural elements such as towers, chimneys, and mechanical enclosures may extend to 110 feet.
- All street-facing facades must reflect stepback requirements regardless of building setback.
- The total site development capacity shall not be increased from the *1992 Design Guidelines*.



Diagrammatic section of a small parcel building



Illustrative view of a building extending over sidewalk

1.4:

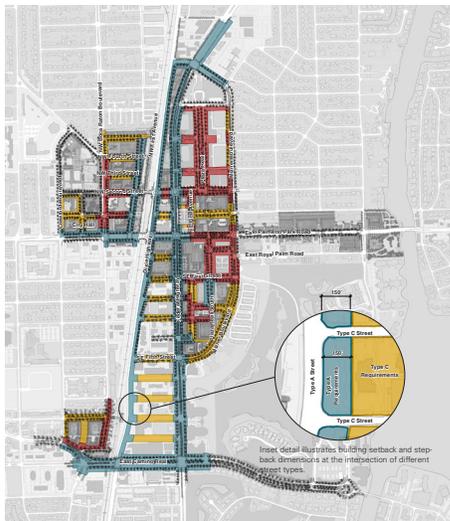
Building Placement and Envelope - Large Parcels

A large parcel is defined as a parcel with more than 115 feet of street frontage and more than 15,000 square feet of area. Requirements for setbacks, stepbacks, and building placement determine the perimeter of the building mass. Setbacks shall be measured from the curb or property line (whichever provides the greatest setback) to the building facade, based on the recommendations in the Master Plan Update.

Stepbacks are required and shall be measured from the building's main facade at street level. Quantitative requirements applicable to buildings on various street sections are illustrated on page 17 of this document. Depending on the type of street (Type A, B, or C), street-level building facades will be set back a minimum of 20, 24, or 26 feet from the curb line (exclusive of pedestrian or landscape bulbouts) or 6 feet from the property line, whichever is greater.

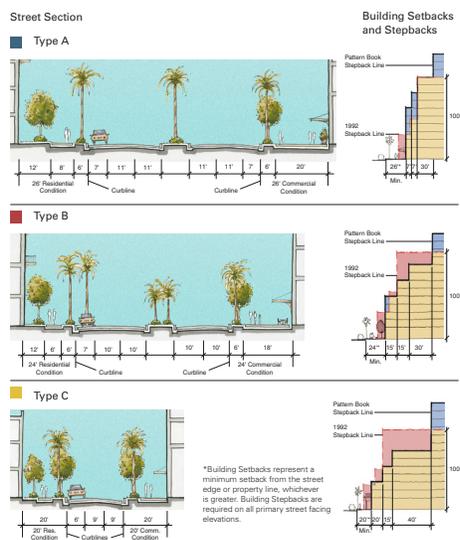


Illustrative example of setbacks and stepbacks from street level



Framework diagram showing the streets of Boca Raton based upon street type. Each street type dictates specific requirements for street width, building setbacks and stepbacks.

Quantitative Requirements



Pages 16 and 17 of this document describe setback and stepback requirements for Type A, B, and C streets.

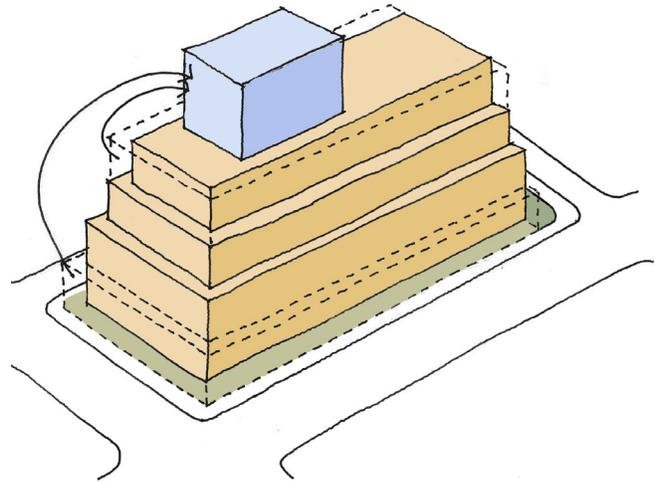
Requirements

1.4.1 Apply the required setbacks, stepbacks, and height limits to determine the revised building envelope (in floor area, FAR, and/or volume, as appropriate), as illustrated on page 17 of this document.

1.4.2 Redistribute the site development potential from Step 1.1.1 within the revised building envelope. The following restrictions apply:

- The maximum height of a primary building mass shall not exceed 140 feet for habitable volumes or 160 feet for uninhabitable volumes (including architectural elements such as towers, chimneys, and mechanical enclosures).
- A primary building mass located above 100 feet shall not exceed 33% of the buildable site footprint in area. However, if extra area is necessary to meet the site development potential from Step 1.1.1, a primary building mass located above 100 feet may increase to 50% of the buildable site footprint in area.
- All street-facing facades must reflect stepback requirements regardless of building setback.
- The total site development capacity shall not be increased from the *1992 Design Guidelines*.

1.4.3 Additional building mass may extend to heights above 100 feet (not to exceed 140 feet) when an equal or greater decrease in building height and volume is achieved elsewhere on the site.



The original site development potential is redistributed within the revised building envelope.

Step 2: Create Quality Open Space

Open space is a critical element in the development of urban centers and essential for the overall success of a downtown. Suitable vegetation, covered walks, and pervious paving can dramatically improve the character of a site. A network of well-designed, walkable green spaces has the capacity to transform the pedestrian experience of Boca Raton.

The features of an open space should reflect the uses of a given project. Commercial and retail properties will typically include more hardscape features such as site walls, loggias, and trellises; whereas residential sites focus more on the landscape elements. All street-level open spaces shall be public in nature, provide ample shade, and allow for comfortable pedestrian circulation.



Open Space Character by Quarter

Successful downtowns contain a wide variety of neighborhoods. Unfortunately, most new development tends to be uniform in character and scale. In Downtown Boca Raton, the *1992 Design Guidelines* have tended to reinforce this pattern of uniformity. Therefore, the *Master Plan Update* recommended a series of quarters of different character, range of use, and scale.

The essential qualities of each of quarter are outlined below. For more detailed descriptions, refer to Section D of the *Downtown Boca Raton Master Plan Update*.

■ Mizner Park

Mizner Park, a garden-like public space, lined with arcades and shops, is most like the gardens of the Palais Royal in Paris. Mizner Park is nearly complete but needs to be further developed at both ends and improved along Federal Highway. This quarter includes development on the west side of Federal Highway.

■ Sanborn Square

Sanborn Square is diverse a mix of old and new, small and large buildings, filled with eclectic uses. The low height of buildings and small scale of public spaces within the quarter contrast with the grandeur of Mizner Park.

■ Plaza Real South

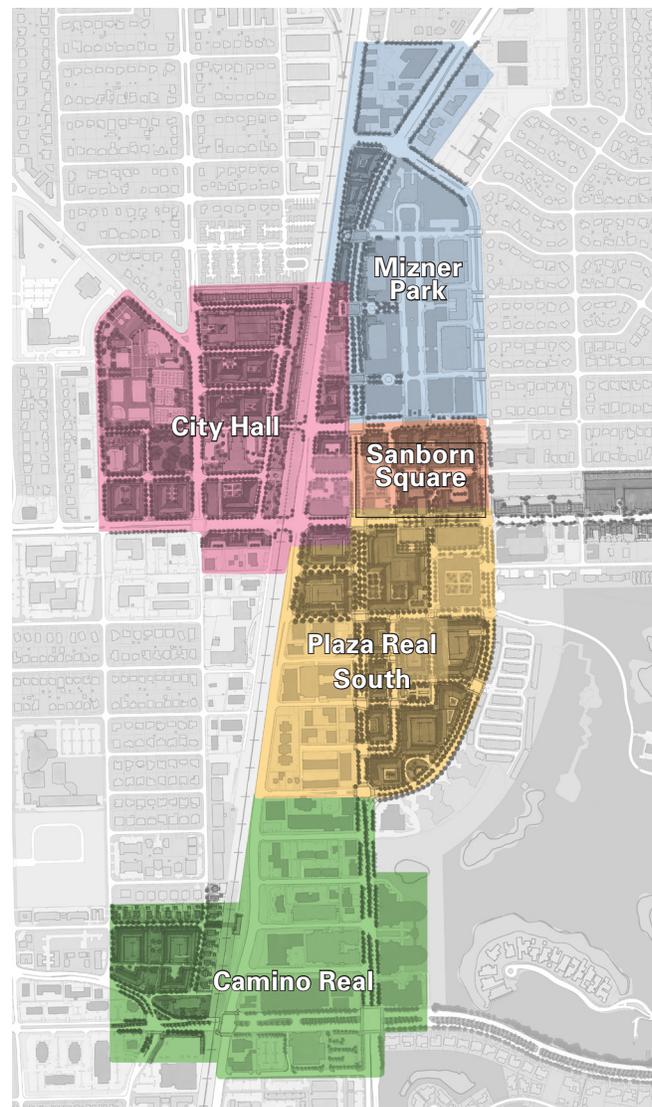
Plaza Real South is a Downtown main street, due to its character and larger buildings that provide pedestrian-scale activities at ground level.

■ City Hall Quarter

City Hall Quarter is becoming a core element of Downtown. Its larger-scale buildings combine office, residential, and civic uses.

Camino Real

Camino Real is a southern anchor for Downtown. It includes the beautifully landscaped corridor east of Federal Highway and a mix of less coordinated streetscapes. It is a collection of individual destinations rather than a single quarter.



Illustrative plan with quarters identified

Public Pedestrian Pathways

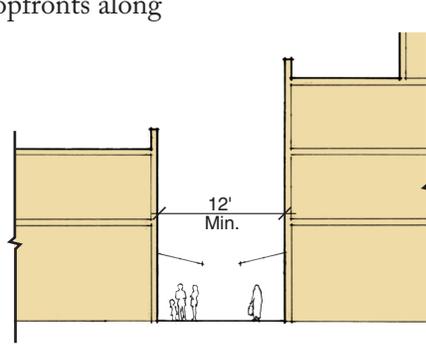
Addison Mizner designed excellent pedestrian pathways in his South Florida projects. In both Via Mizner and the Boca Raton Resort and Club, pedestrian networks include lush landscapes and intimately-scaled corridors, comfortable for walking.

Pedestrian connectivity is a key component of development in Downtown Boca Raton. Pedestrian pathways should connect among private and public properties. Between buildings they shall be punctuated with architectural elements and active ground-floor uses, and along green open spaces, pathways shall be shaded with trellises or trees.

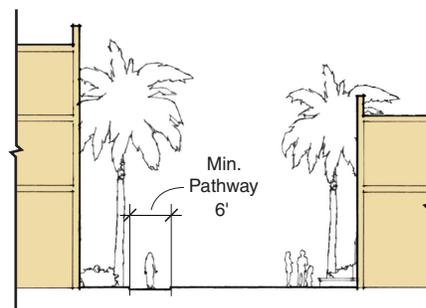
This section illustrates the essential attributes and character of public spaces and pathways between buildings necessary to create a continuous pedestrian environment. Architectural treatments and pedestrian-scaled windows, entrances, and/or shopfronts along public ways are required.

Commercial Space and Open Space Attributes

- Maximize pedestrian entries and storefront opportunities
- Create human-scale entrances and windows
- Utilize space for seating and public street furniture
- Create comfortably-lit walkways for pedestrian safety at night (multiple soft lights rather than single bright lights are encouraged).



Section: commercial pathway



Section: open space pathway



Example of commercial pathway



Example of open space pathway

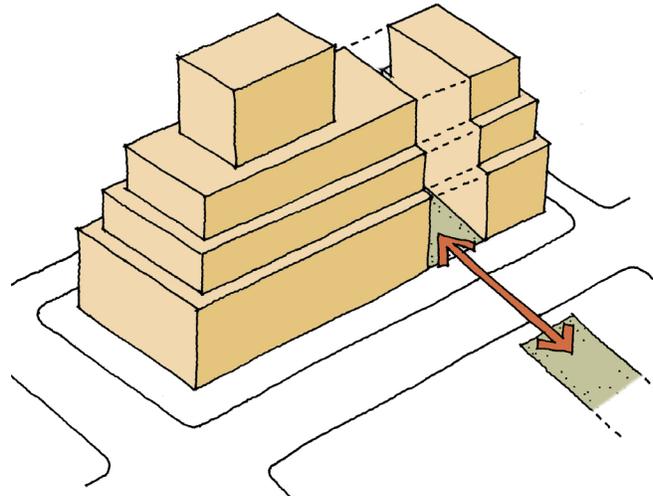
2.1: Open Space Requirements and Locations

Requirements

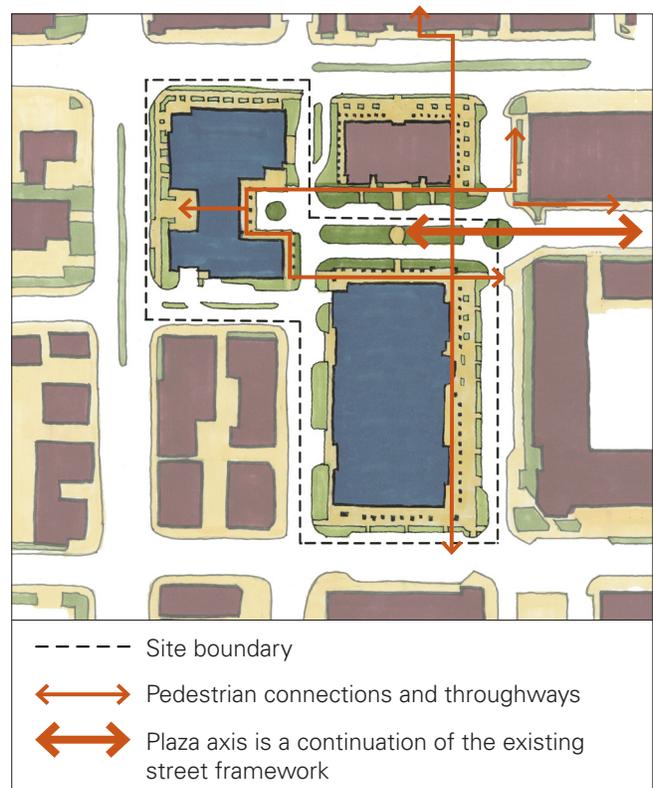
- 2.1.1** Identify open space in adjacent parcels and create meaningful connections between projects.
- 2.1.2** Each parcel proposed for development shall maintain the following percentages of land as open space as per the *1992 Design Guidelines* (no structures other than landscape features, fountains, benches, arcades, and objects of art shall be located within the open space area) :
 - 15% open space, if the building is less than 35 feet in height
 - 15% open space plus 1% for every 1.6 feet of height, if the building is between 35 feet and 75 feet in height
 - 40% open space, if the building is greater than 75 feet in height
- 2.1.3** At least 65% of the required open space shall be an open and uncovered space from ground to sky. This open space shall be integral to the public realm and have a relationship to the building program.

Additional Credits

- 2.1.A** Connect open space by establishing pedestrian connections with adjacent properties, parks, or institutions. **(1 point)**
- 2.1.B** Embellish pedestrian connections through the use of arcades, loggias, landscaping, or other architectural features. **(1 point)**
- 2.1.C** Create a landscaped/pervious hardscaped, street-level plaza with direct public access: for small parcels, a public paseo may go through the property, or a public plaza shall have architectural expression and buildings on three sides; for large parcels, a public plaza shall have architectural expression and buildings on three sides. **(1 point)**



Open spaces should be located to develop pedestrian connections



An illustrative plan of RAM project, highlighting pedestrian connections to the surrounding blocks and open space network.

Step 3: Create Multiple Buildings and Facades

A recognizable feature of notable cities, towns, and neighborhoods is a cadence of building *facades*, when smaller buildings are lined up to create a continuous *street facade*. One of the distinguishing characteristics of Mizner's architecture is the creativity and picturesque qualities of a unified and regular *bay* spacing. Taking a similar approach for new development will provide the diversity necessary for lively and active streetscapes.

All street-facing building *facades* are to be divided into *architectural bays*. An *architectural bay* is defined as a vertical division of the exterior of a building marked not by walls but by doors, windows, projections, roof compartments, etc.



Addison Mizner's architectural bays



Elevation view of a well-composed facade with a clear rhythm of architectural bays and varied facade depth

Image supplied by RLC Architects



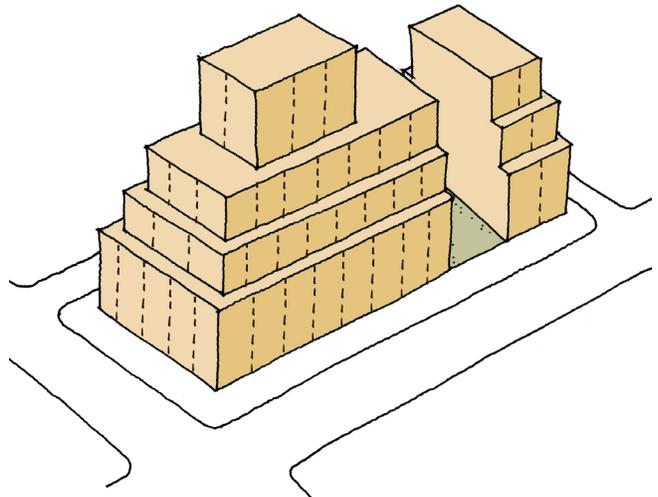
Series of buildings with clear facades and bays organized around an open space

Image supplied by RLC Architects

3.1: Establish Architectural Bays

Requirements

- 3.1.1** Each street-facing building facade shall be divided into architectural bays, marked by doors, windows, projections, roof compartments, or other architectural elements.
- 3.1.2** Each architectural bay shall be a minimum of 7 feet wide and a maximum of 14 feet wide.



General building massing divided into architectural bays



Another example of Addison Mizner's architectural bays showing varied treatment across the facade

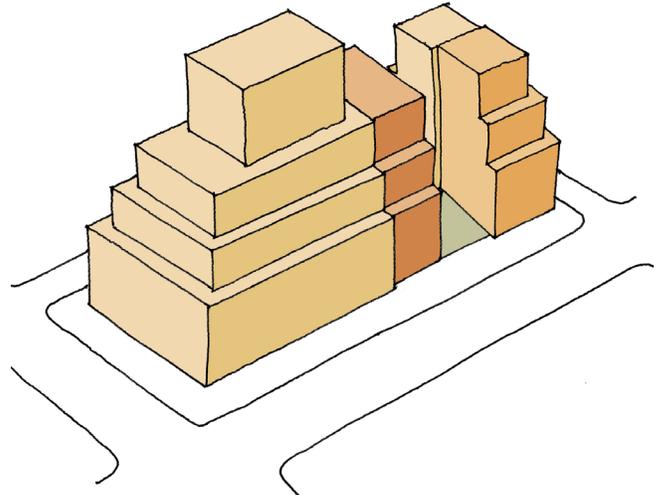
3.2: Articulate Building Facades

Requirements

- 3.2.1** Each street-facing building more than twelve architectural bays wide shall be composed of multiple building facades.
- 3.2.2** Each building facade along any street-facing building shall be offset from adjacent facades by at least 2 feet in depth or articulated in substantially different colors, details, and/or materials.

Additional Credits

- 3.2.A** Each facade incorporates a unique architectural character and composition strategy (including color, materials, window types, and architectural details). **(2 points)**
- 3.2.B** Each facade includes a minimum of four of the following five facade treatments **(1 point)**:
- Variation in material
 - Variation in color
 - Substantial change in height
 - Substantial difference in detailing
 - Variation of bay width greater than 3 feet from facade to facade



General building massing divided into architectural facades





Image supplied by RL C Architects

Examples of successful architectural bays and building facades

Step 4: Develop Mizneresque Massing

The *massing* of a building is important from both an urban design and architectural standpoint. Massing indicates how the building is organized, where special features occur, and how it relates to its surroundings. To allow for greater design flexibility in regards to massing, this *Pattern Book* introduces two possible approaches to enhance the basic *building envelope*.

The first approach involves the *Architectural Opportunity Zone*, which is defined as the space above the vertical building stepbacks to a height of 140 feet. By meeting the requirements on the following pages, a proposed project may include additional massing within this zone in order to vary the massing at the street edge.

The second approach allows for massing projections such as bay windows and bump-outs above the ground floor, in addition to *loggias* along the street level, by posting down from projections above. These elements reinforce the scale of the building and are effective tools when composing a unique *facade*.

When combined, the Architectural Opportunity Zone and massing projections allow designers and developers to utilize the elements that define Mizneresque architecture. Mizner's towers are scaled appropriately to adjacent public space; they are rarely identical; and they are well known for creating a picturesque skyline. This section includes additional credits for tower-like elements.



Varied massing and use of projections organize Mizner's buildings



Worth Avenue, view of Via Mizner

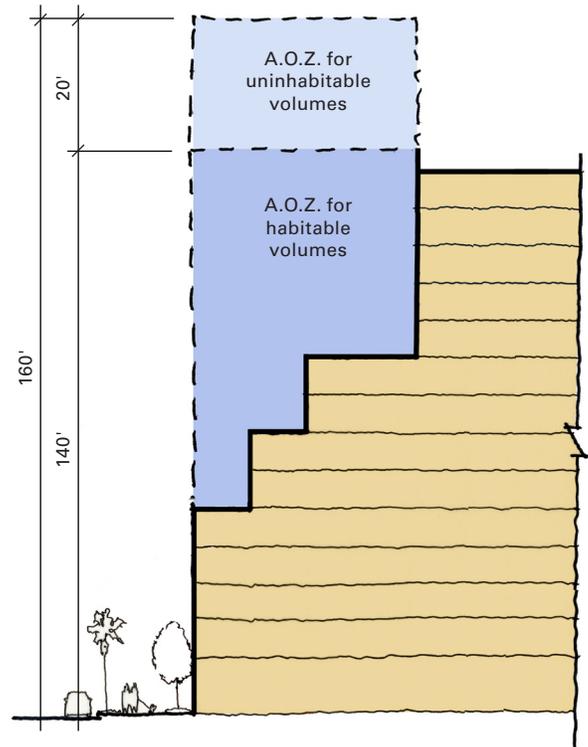


Buildings of various architectural styles that all exhibit massing principles used by Mizner.

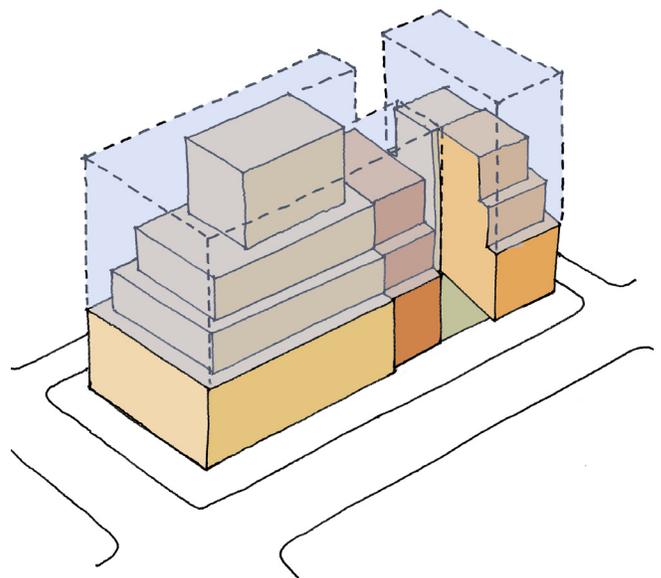
The Architectural Opportunity Zone (A.O.Z.)

A building must vary in *massing* in order to create an interesting skyline along public streets. Addison Mizner was a master of this approach. Varied massing, in the spirit of Mizner, can be accomplished by the following means:

- The A.O.Z. is defined as the space above the vertical stepbacks, as defined in the preceding steps, to a maximum height of 140 feet for habitable volumes (typically air-conditioned spaces). An additional increase in height up to 160 feet for uninhabitable volumes is permitted within the A.O.Z.
- For any addition of habitable volumes within the A.O.Z. there must be an equivalent reduction in the overall building volume.
- Habitable volumes within the A.O.Z. shall be limited to five bays of aggregated width or two-thirds of the overall number of building bays: whichever is less.
- Habitable volume is limited to 35% of the total A.O.Z. volume.
- Special elements that create tall, slender tower forms are encouraged.
- For small parcels, building projections are permitted to extend five feet into the first building stepback (as illustrated on page 40).



Building section with A.O.Z. indicated



General building massing with A.O.Z. indicated

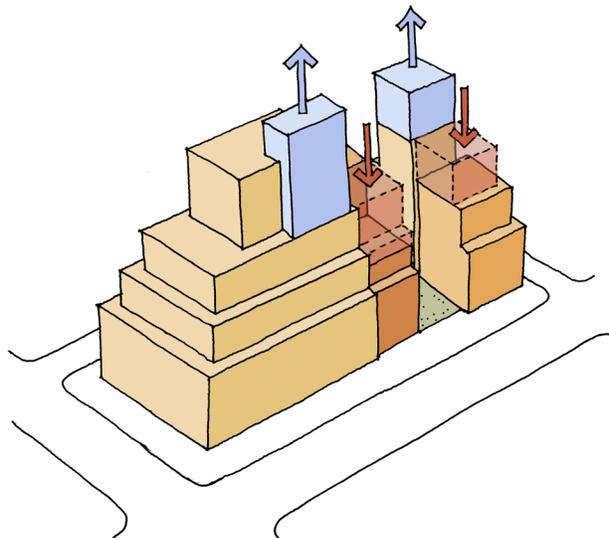
4.1: Articulate Primary Building Massing

Requirements

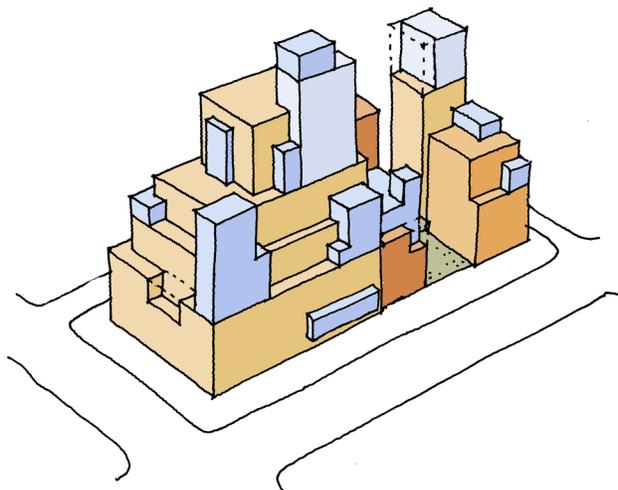
- 4.1.1** When constructing within in the Architectural Opportunity Zone (A.O.Z.) there shall be an equivalent reduction in the overall building volume. There shall be no increase in overall site capacity.
- 4.1.2** A maximum 7-foot projection shall be permitted into the street setback below the first vertical stepback and above the ground floor.
- 4.1.3** Massing within the A.O.Z. volume that creates a varied profile along the skyline shall be up to five bays wide.
- 4.1.4** Massing projections, box bays, balconies, and loggias shall be present within the mid-section of buildings over four stories in height.
- 4.1.5** Primary building masses shall vary two or more stories in height.

Additional Credits

- 4.1.A** Addition of at least one signature tower element for the development. **(1 point)**



Volume redistributed within the A.O.Z. in primary, tower-like forms, above the tallest stepback.



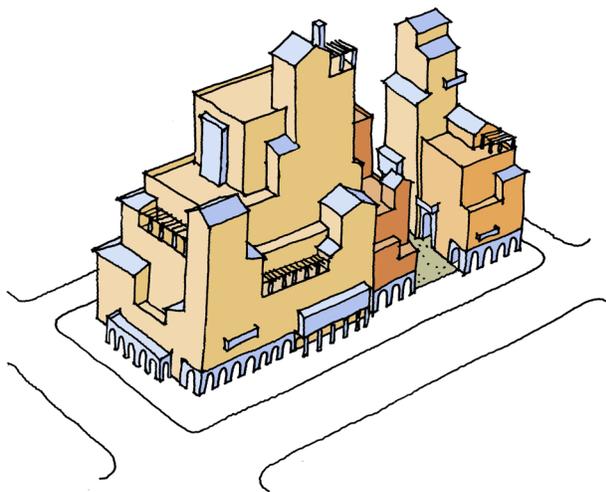
Volume added to A.O.Z. forms massing projections below the tallest stepback. These forms should be tower-like in character and break down the building massing.

Step 5: Articulate the Building Elements

The articulation of a building's *mass* provides a sense of human scale, reinforces the rhythm of *architectural bays*, and adds visual interest to the overall composition. Buildings are typically organized into three distinct sections: *skyline*, *midsection*, and *base*. The following section highlights common building elements and their appropriate vertical organization.

As illustrated by Addison Mizner's architecture, large-scale buildings and small-scale buildings should work together as an ensemble. Building coordination is achieved through the use of common architectural design features and human-scale features; these common building elements are part of the recipe for exceptional town environments.

Certain elements in this section, including balconies, trellises, and loggias, contribute to sustainable building by increasing energy efficiency and climatic comfort for pedestrians and building inhabitants.



Massing projections articulated at the building's skyline, midsection, and base



Illustrations depicting urban rooms created by the articulation of a building's skyline, midsection, and pedestrian-friendly base



Building section divisions for taller and shorter buildings

5.1: Building Skyline

The *skyline* is the top two floors of a building and its profile as it meets the sky. In Boca Raton, it is important that the skyline be varied, providing a sense of human habitation. The upper floors of a building have the greatest impact on the appearance of a building's mass and its contribution to the city's skyline as a whole. The skylines of Mizner's buildings are recognized for their prominent character and detail.

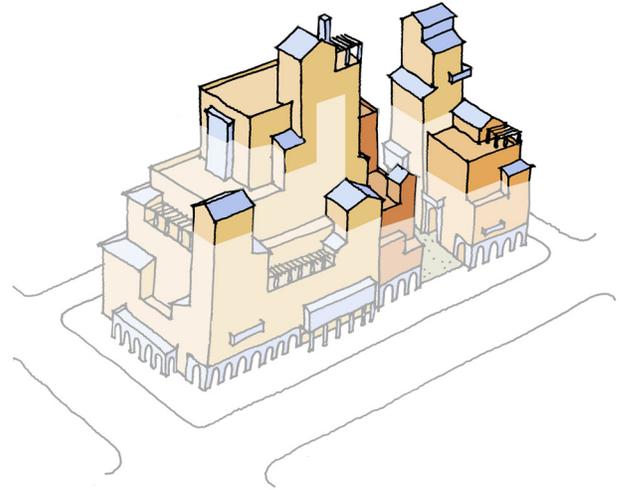
This section includes sustainable building attributes, including building and window shading critical for comfortable outdoor spaces and indoor units.

Requirements

- 5.1.1** Habitable volumes shall not extend above 140 feet in height. Uninhabitable tower elements or mechanical enclosures shall not extend above 160 feet in height.
- 5.1.2** Elements and embellishments such as balconies, loggias, and trellises shall be used to indicate human habitation on the upper floors.
- 5.1.3** Mechanical enclosures shall be articulated with architectural features.
- 5.1.4** Individual skyline elements or enclosures shall be limited to 13% of the area of the tallest primary building mass and collectively shall not exceed 26% of this area.

Additional Credits

- 5.1.A** A building's skyline utilizes at least three of the five elements described on the next page (towers, chimneys, loggias and balconies, roof trellises and terraces, and eaves), which must be visible from the pedestrian realm. **(1 point)**
- 5.1.B** Tower elements vary in design and articulation from one tower to another. **(1 point)**



Axonometric diagram showing massing projections articulated at the skyline



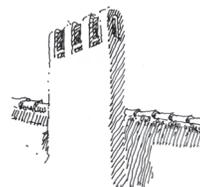
Perspective of new development with the building skyline indicated

Skyline Elements Summary



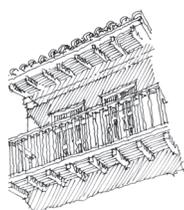
Towers

Towers are expressive elements by nature and can serve both functional and aesthetic purposes to punctuate the city's *skyline*. These features are useful tools for orientation as well.



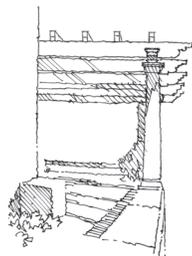
Chimneys

Whether functional or aesthetic in nature, these slender elements compliment towers and other vertical forms. Chimneys are ideal places to vent mechanical systems where possible.



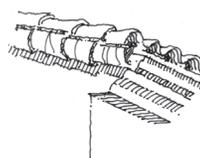
Loggias and Balconies

Loggias and balconies help establish a human scale at upper floors. They connect building occupants to the outdoors and provide a sense of habitation when viewed from the street.



Roof Trellises and Terraces

Roof trellises and terraces establish visual patterns along a skyline, provide shade, and create space for roof gardens and planters.

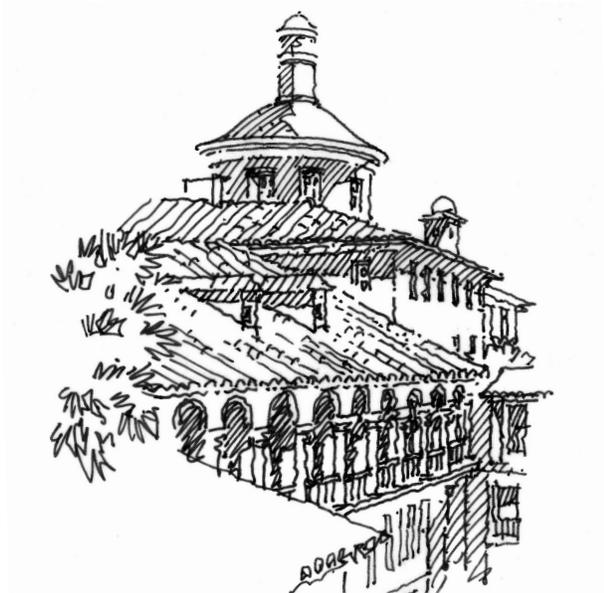


Eaves

Eave profiles along the roofline reinforce the stylistic character of a building while protecting the wall surfaces from rain and harsh sunlight.



Skyline Elements: Towers

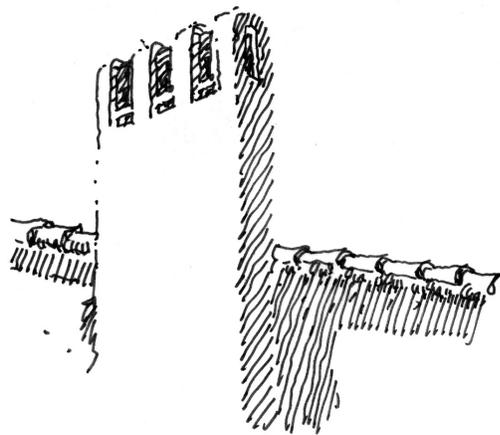


Towers are commonly used to highlight an important location within a building, on a street, or at an intersection. The vertical nature of towers is particularly influential in this region given the featureless topography of the city. Set against lower building elements, towers allow for a dynamic reading of the *skyline* that is currently lacking in Boca Raton. As a practical matter, architectural towers are an effective means of masking otherwise mundane functions such as elevator towers or roof access.

■ **Essential Attributes:** Towers shall break the skyline when viewed from street level, thereby suggesting habitation of upper floors.

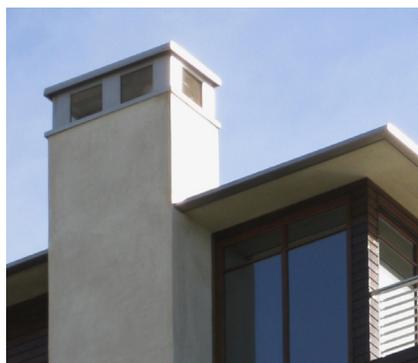


Skyline Elements: Chimneys

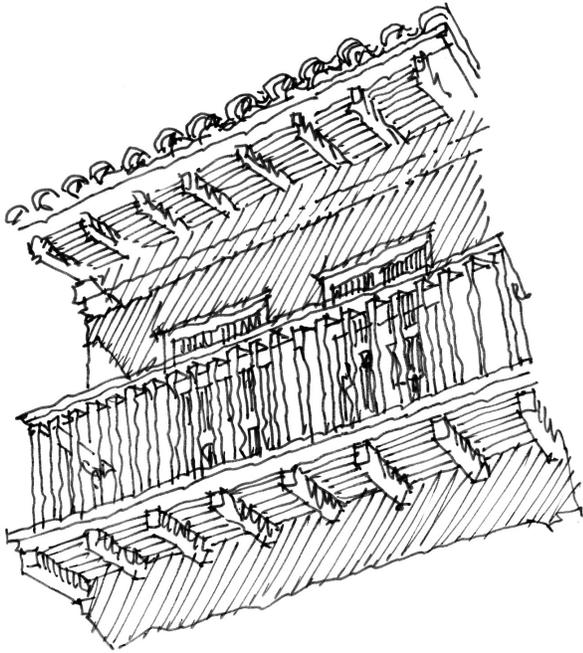


Chimneys are a prevalent feature in most building types, even in warm, coastal climates. They can be used for working fireplaces, ventilation stacks, or to embellish roof forms and building profiles. As unoccupied masses, one advantage to chimneys is that they can rise above the rest of the building form where other elements typically cannot. Chimneys of slender proportion were often employed in Addison Mizner's designs.

■ **Essential Attributes:** Chimneys shall break the skyline when viewed from street level, and they shall be constructed using materials and colors that coordinate with the building elements.



Skyline Elements: Loggias and Balconies



Loggias and balconies are ubiquitous along the upper floors of waterfront development for good reason – they allow for excellent views, capture ocean breezes, and provide occupants with easy access to the outside environment. Seen from below, loggias and balconies are an indication that people actively use the spaces above, and their presence indicates the scale of a building when seen from a distance.

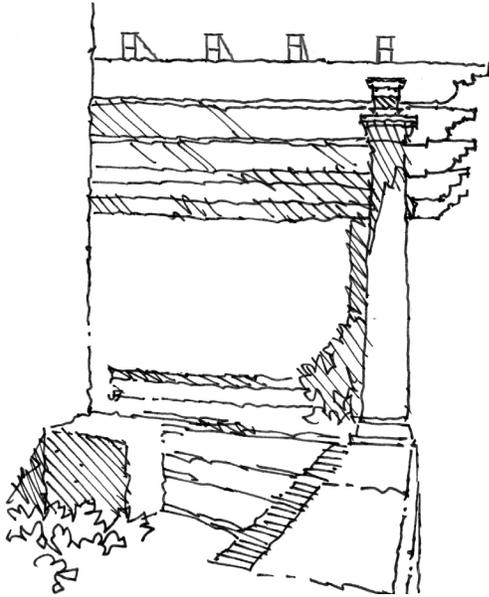
Loggias and balconies can also provide shade to windows, openings, and outdoor living spaces, decreasing the amount of building heat gain.

■ **Essential Attributes:** A substantial number of loggias and balconies shall be built for practical human use (sitting and standing).





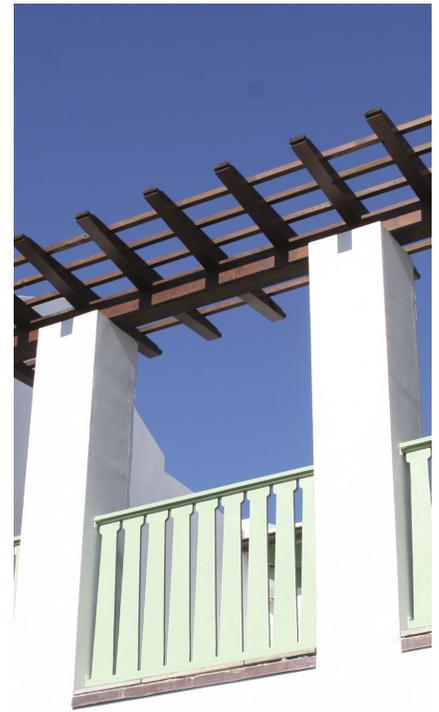
Skyline Elements: Roof Trellises and Terraces



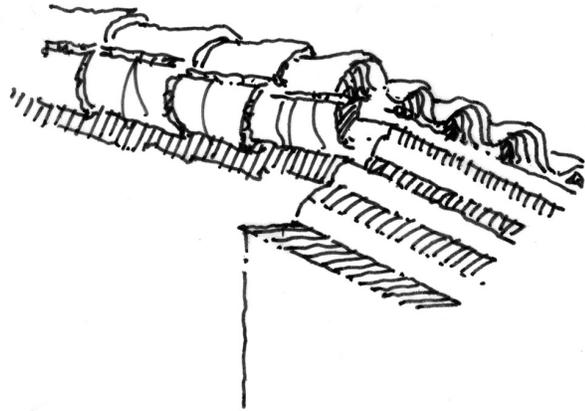
As shade devices and outdoor spaces, roof trellises and terraces make excellent amenities in what otherwise may be unused roof areas. Terraces, like balconies and loggias, allow for convenient access to views and fresh air without increasing the conditioned volume of a development. They can also play a key role in finessing the building mass, thereby improving visual patterns along the skyline.

In addition to providing comfortable outdoor rooms, roof trellises and terraces can help shade a building's roof with vegetation or structures and thereby decrease the amount of energy needed to cool a building.

■ **Essential Attributes:** Roof trellises and terraces shall suggest human habitation and be of practical human scale. They shall also break the skyline when viewed from street level.



Skyline Elements: Eaves



Practical and expressive, eaves are critical to understanding the architectural style of a building. Their composition may be streamlined to appear as a line, or assembled as a collection of pieces that form a repetitive pattern. Typically the exterior eave expression is an indication of a building's structure, but in some instances this relationship is suppressed. The shape, projection, and overall form of an eave creates a shadow pattern that allows a building's *skyline* to appear differently throughout the day. In many circumstances, overhangs protect the building from water intrusion and excessive sunlight.

■ **Essential Attributes:** Eaves shall cast shadows and add building detail that is visible from street level.



5.2: Midsection and Common Elements

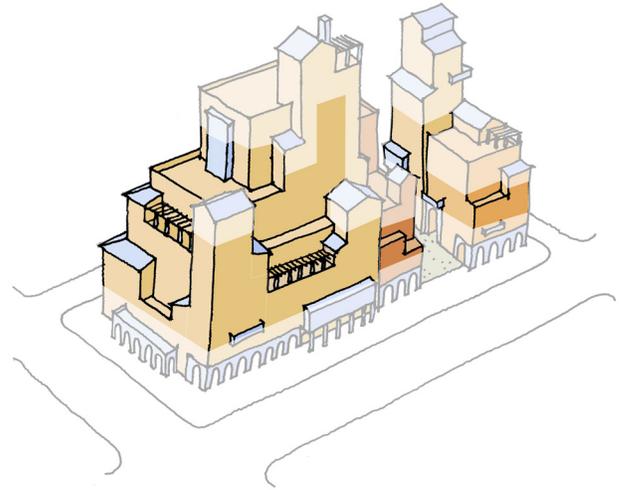
The *midsection* is the main body of the building. It is generally planar but the facade shall be accentuated by balconies and windows of human scale. While step 5.2 only applies to buildings over four stories tall, the *midsection* elements described here often also appear in a building's *skyline* and *base*.

Requirements

- 5.2.1** Windows shall be appropriately scaled to one another and to the building as a whole.
- 5.2.2** Materials shall be consistent with the architectural style of the building.
- 5.2.3** Mirrored glass is not permitted.

Additional Credits

- 5.2.A** Building midsection includes massing projections (such as bay windows and/or balconies). **(1 point)**

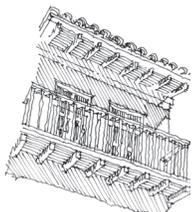


Axonometric illustration showing massing projections articulated at the building's midsection



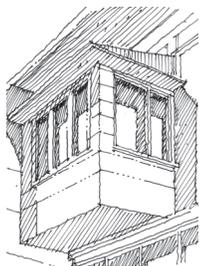
Perspective of new development with the building's midsection indicated

Midsection Elements Summary



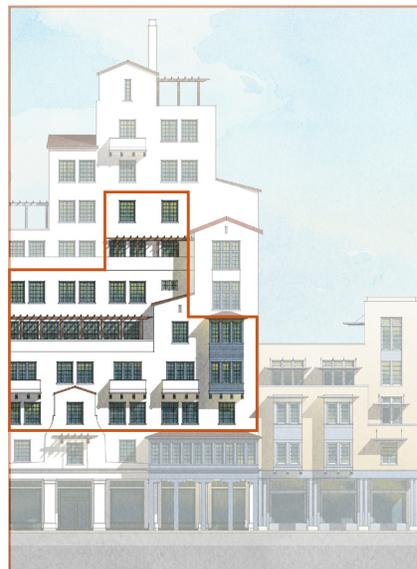
Loggias and Balconies

In addition to their use as *skyline* elements, loggias and balconies commonly appear in a building's *midsection*. Aside from the practical benefits of shade and breezes, when used in the *midsection* they contribute to effective building composition.

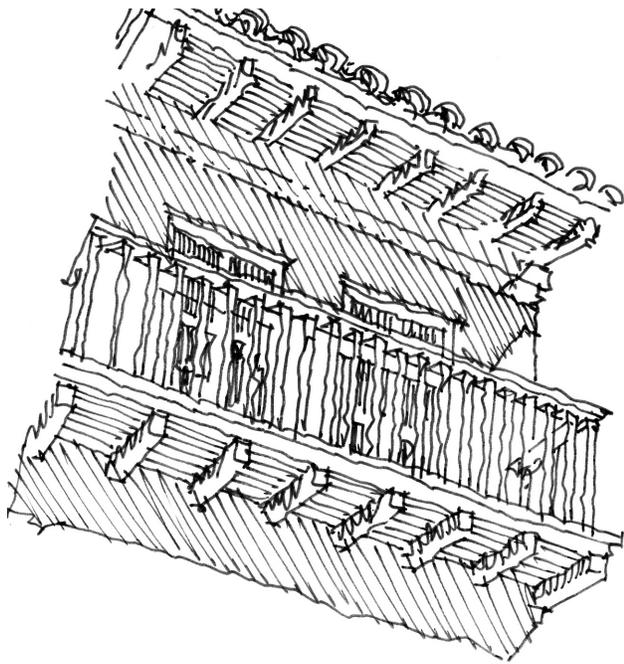


Windows

The pattern of windows in the *midsection* is generally the clearest indication of a building's structural *bays* and the functional organization within. The diversity of available window types (single, ganged, boxed, curtain wall) allows for great variation in building facades.



Midsection Elements: Loggias and Balconies



Loggias and balconies are a key component in the organization of building facades and these elements become more important as the number of building stories increases. Depending on their location and number, loggias and balconies increase the sense of horizontal and vertical articulation. When overused, however, they may lose their visual benefits; therefore, they should not be stacked in a monotonous vertical fashion.

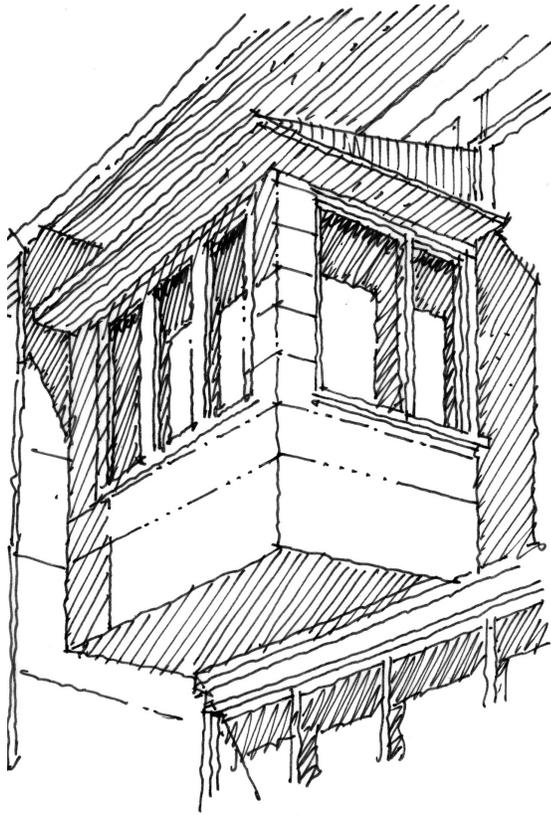
Loggias and balconies can provide shade to windows, openings, and outdoor living spaces, thereby decreasing building heat gain.

■ **Essential Attributes:** A substantial number of loggias and balconies shall be built for practical human use (sitting and standing).





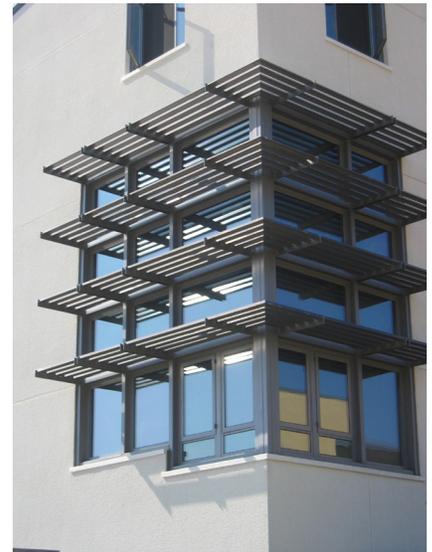
Midsection Elements: Windows



Windows are among the most basic elements of a building, and their application can have dramatically different effects on the appearance of a *facade*. Windows indicate how large a space inside may be; they reinforce the architectural style; and they reveal construction patterns by means of their organization and layout.

Properly designed window patterns can significantly reduce the need for interior lighting. When windows are operable, they can also greatly decrease the need for mechanical ventilation. The use of balconies, loggias, eaves, shade devices, and vegetation should all be considered as means of providing shade and decreasing solar heat gain through windows.

■ **Essential Attributes:** Operable windows are encouraged wherever possible. All windows shall be transparent and subdivided with mullions or muntins.





5.3: Building Base

The building *base* is the space between the ground plane and the top of the second story. This area of the building has the greatest impact on the pedestrian realm. A building's base should be designed with the greatest care and focus on quality materials so that it may support an active, pleasant pedestrian experience.

This section includes sustainable building attributes, including the use of building shading with architectural features and comfortable outdoor spaces.

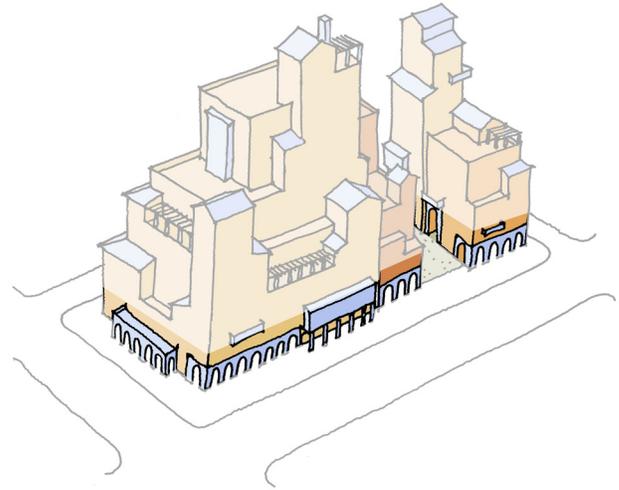
Requirements

5.3.1 Primary building entrances shall be located on the ground floor adjacent to active pedestrian spaces.

5.3.2 Architectural and landscape elements shall be included to provide shade for pedestrians.

Additional Credits

5.3.A Create a loggia/arcade at least 10 feet deep along a public frontage [up to 25% of the width of the frontage **(1 point)**; greater than 25% of the width of the frontage **(2 points)**].



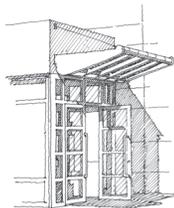
Axonometric illustration showing massing projections articulated at the building's base



Perspective of new development with the building's base indicated

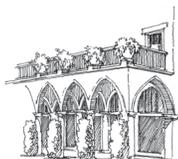
Image supplied by RLC Architects

Building Base Elements Summary



Doors and Openings

Doors and openings should be prevalent along pedestrian corridors, resulting in an inviting street level. Convenient access for occupants and visitors is often a key ingredient to the success of a development.



Loggias and Arcades

The heat and frequent rain showers of the region, make loggias and arcades a welcome addition to public frontage. Numerous local precedents of loggias and arcades can be found in a variety of architectural styles.

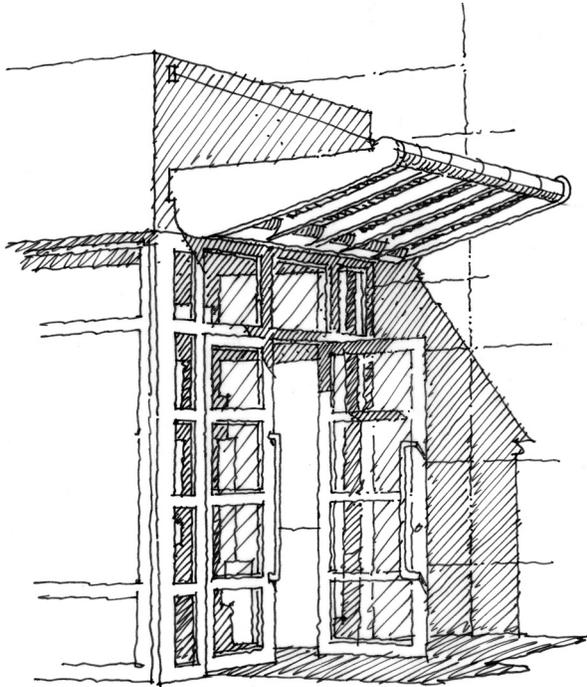


Retail Frontages

Few things are as important to a downtown as the retail frontage of its businesses. Retail frontage requires a delicate sense of scale, proportion, composition, color, and location in order to maximize visibility and maintain street harmony.



Base Elements: Doors and Openings



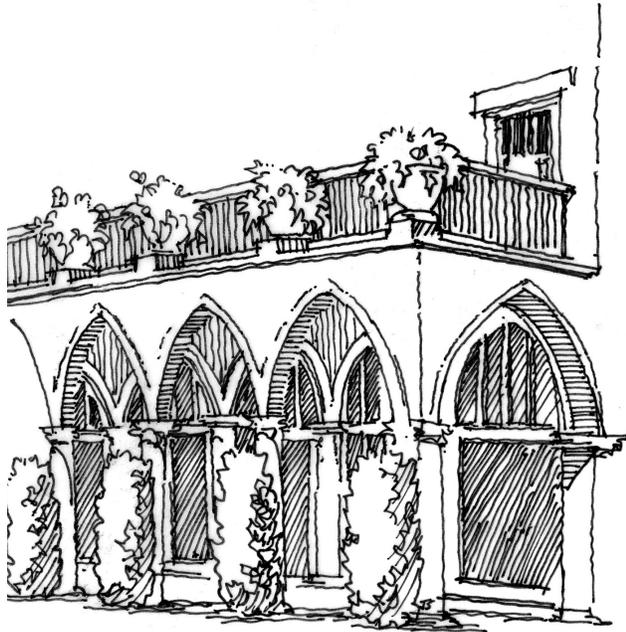
In the development of a walkable downtown, it is essential that projects include well-designed and properly located openings to encourage pedestrian traffic. Alignment of entrances should be coordinated between important features, open space, and primary approaches. Any *facade* along a public frontage should include active uses and corresponding doors and openings.

■ **Essential Attributes:** Doors and openings shall be clearly marked with inviting architectural elements.





Base Elements: Loggias and Arcades



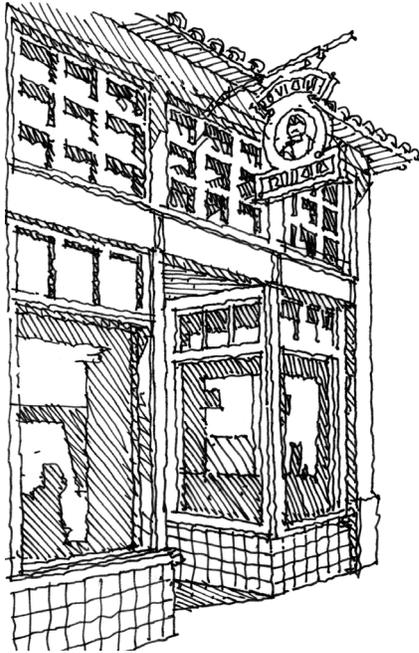
Loggias and arcades can transform public frontages into comfortable spaces regardless of the season. Their benefits are so significant that they have become a common element throughout Boca Raton and the rest of Florida. Individual properties benefit by including loggias and arcades, and when they are linked to adjacent properties, the entire frontage benefits. The importance of the ground floor is often indicated by double height loggias or arcades, allowing for generous natural light and shelter from the rain.

This shading from direct sunlight helps prevent excessive solar heat gain while providing pedestrians with a comfortable walking environment.

■ **Essential Attributes:** Loggias and arcades shall be deeper than 8 feet, align with those on adjacent properties, and connect with pedestrian pathways and open space.



Base Elements: Retail Frontages



The design of retail frontage influences how passers-by perceive a business and the building that houses it. Attractive and welcoming storefronts generate more business and can improve the exposure of surrounding properties to potential customers and clients. Design considerations will vary according to retail type, but in any situation storefronts should be well proportioned, properly scaled, and highly visible.

■ **Essential Attributes:** Retail frontages shall maximize glass use while maintaining a pedestrian scale and proportion.



Assembly and Facade Composition

This *Pattern Book* has been developed to help restore the varied, picturesque, and distinguished qualities of Mizner's architecture to the buildings of Downtown Boca Raton. Mizner's architecture embodies a playfulness and attention to detail from the base of a building all the way to the top and from one end of a facade to the other. In the context of current development practices, there is considerable need to vary facades through the articulation of building elements.

In recognition of Mizner's legacy, new construction in Boca Raton is required to include both horizontal and vertical facade design variation.



Repetition of architectural elements does not contribute to Mizner's picturesque vision for Boca Raton and does not contribute to a distinguished sense of place.



The RAM project submission shows considerable variation in architectural elements both vertically and horizontally.

Image provided by RLC Architects



This series of elevations illustrates varied bay compositions. Notice that no architectural element or device is repeated more than four times vertically. Also, the placement and detailing of elements like windows and balconies often changes among bays to avoid monotonous repetition.

SCORING SYSTEM

The following scorecard is intended to serve as a tool in the comprehensive review of projects ready for approval within Downtown Boca Raton. The cumulative scoring process verifies fulfillment of required elements as well as the additional credits described in Section B of this *Pattern Book*. The fulfillment of at least 11 of 15 additional credits for large parcels, and 9 of 12 additional credits for small parcels is required.

Step 1: Site Analysis and Development Potential

Requirements	Fulfilled
1.1.1 Establish site development potential based upon the setbacks, open space, and height requirements under the <i>1992 Design Guidelines</i> .	
1.2.1 Parcel qualifies as a small parcel according to the definition in 1.2.1.	
1.2.1 Parcel qualifies as a large parcel according to the definition in 1.2.2.	
1.3.1 For small parcels, apply the required setbacks and height limits in Step 1.3.1 to determine the revised building envelope.	
1.3.2 For small parcels, redistribute the site development potential from Step 1.1.1 within the revised building envelope, abiding by the restrictions detailed in Step 1.3.2.	
1.4.1 For large parcels, apply the required setbacks and height limits in Step 1.4.1 to determine the revised building envelope.	
1.4.2 For large parcels, redistribute the site development potential from Step 1.1.1 within the revised building envelope, abiding by the restrictions detailed in Step 1.4.2.	
1.4.3 For large parcels, portions of the building above 100 feet are offset by an equal or greater decrease in height and volume elsewhere on the site.	

Step 2: Create Quality Open Space

Requirements	Fulfilled
2.1.1 Identify open space in adjacent parcels and create meaningful connections between projects..	
2.1.2 Each parcel proposed for development shall maintain open space percentages as detailed in Step 2.1.2.	
2.1.3 At least 65% of the required open space shall be an open and uncovered space from ground to sky. This open space shall be integral to the public realm and have a relationship to the building program.	

Additional Credits	Fulfilled	Points
2.1.A Connect open space by establishing pedestrian connections with adjacent properties, parks, or institutions. (1 point)		
2.1.B Embellish pedestrian connections through the use of arcades, loggias, landscaping, or other architectural features. (1 point)		
2.1.C Create a landscaped/pervious hardscaped plaza with direct public access. (1 point)		

Total Points _____

Step 3: Create Multiple Buildings and Facades

Requirements	Fulfilled
3.1.1 Each street-facing building facade shall be divided into architectural bays as outlined in step 3.1.1.	
3.1.2 Each architectural bay shall be a minimum of 7 feet wide and a maximum of 14 feet wide.	
3.2.1 Each street-facing building more than twelve architectural bays wide shall be composed of multiple building facades.	
3.2.2 Each building facade along any street-facing building shall be offset from adjacent facades by at least 2 feet in depth or articulated in substantially different colors, details, and/or materials.	

Additional Credits	Fulfilled	Points
3.2.A Each facade incorporates a unique architectural character and composition strategy (including color, materials, window types, and architectural details). (2 points)		
3.2.B Each facade includes a minimum of four of the five facade treatments described in Step 3.2.B (1 point)		

Total Points _____

Step 4: Mizneresque Massing

Requirements	Fulfilled
4.1.1 When constructing within in the Architectural Opportunity Zone (A.O.Z.) there shall be an equivalent reduction in the overall building volume. There shall be no increase in overall site capacity	
4.1.2 A maximum 7-foot projection shall be permitted into the street setback below the first vertical stepback and above the ground floor	
4.1.3 Massing within the A.O.Z. volume that creates a varied profile along the skyline shall be up to five bays wide	
4.1.4 Massing projections shall be present within the mid-section of buildings over four stories in height (not required for buildings under five stories in height).	
4.1.5 Primary building masses shall vary two or more stories in height.	

Additional Credits	Fulfilled	Points
4.1.A Addition of at least one signature tower element for the development. (1 point)		

Total Points _____

Step 5: Articulate the Building Elements

Requirements	Fulfilled	
5.1.1 Habitable volumes shall not extend above 140 feet in height. Uninhabitable tower elements or mechanical enclosures shall not extend above 160 feet in height.		
5.1.2 Elements and embellishments such as balconies, loggias, and trellises shall be used to indicate human habitation on the upper floors.		
5.1.3 Mechanical enclosures shall be articulated with architectural features.		
5.1.4 Individual skyline elements or enclosures shall be limited to 13% of the area of the tallest primary building mass and collectively shall not exceed 26% of this area.		
5.2.1 Windows shall be appropriately scaled to one another and to the building as a whole.		
5.2.2 Materials shall be consistent with the architectural style of the building.		
5.2.3 Mirrored glass is not permitted..		
5.3.1 Primary building entrances shall be located on the ground floor adjacent to active pedestrian spaces.		
5.3.2 Architectural and landscape elements shall be included to provide shade for pedestrians.		
Additional Credits	Fulfilled	Points
5.1.A A building’s skyline utilizes at least three of the five elements described in Step 5.1, which must be visible from the pedestrian realm. (1 point)		
5.1.B Tower elements vary in design and articulation from one tower to another. (1 point)		
5.2.A Building midsection includes massing projections (such as bay windows and/or balconies). (1 point)		
5.3.A Create a loggia/arcade at least 10 feet deep [up to 25% the width of the frontage (1 point) , greater than 25% (2 points)].		

Total Points _____

Cumulative Scorecard

Requirements	Fulfilled
Step 1 Determine Total Site Development Potential and Building Envelope	
Step 2 Create Quality Open Space	
Step 3 Create Multiple Buildings and Facades (Large Parcels Only)	
Step 4 Develop Mizneresque Massing	
Step 5 Articulate the Building Elements	

Additional Credits	Points
Step 2 Create Quality Open Space	
Step 3 Create Multiple Buildings and Facades (Large Parcels Only)	
Step 4 Develop Mizneresque Massing	
Step 5 Articulate the Building Elements	
Sustainability Credit LEED® Certified, Silver, or approved equivalent (1 point) LEED® Gold, Platinum, or approved equivalent (2 points)	

Cumulative Points* _____

* At least 11 out of 15 additional credits for large parcels, and 9 out of 12 additional credits for small parcels are required for approval.

GLOSSARY OF TERMS

1992 Design Guidelines: Design guidelines for Downtown Boca Raton adopted in 1992. These guidelines have tended to reinforce a development pattern of uniform character and scale. The site development capacity established by these guidelines is still applicable and is used in this *Pattern Book* to determine site development potential of Downtown parcels.

Architectural Bay: A vertical division of a building's exterior, as marked by openings, projections, roofs, windows, columns, and other architectural elements.

Architectural Opportunity Zone: A zone that allows for massing articulation and architectural expression outside of the basic building envelope established by setbacks, stepbacks, and height limitations.

Articulation: The ordering of a building's facade or massing into distinct divisions, parts, and/or geometries.

Base: The first two floors of a building between the ground plane and the top of the second story.

Building Envelope: The limits established by setbacks, stepbacks, and height requirements, within which a building may be constructed.

Building Footprint: The area between a building's exterior walls at ground level.

Development Potential (also Site Capacity): Total amount of development allowed on a building site according to the *1992 Design Guidelines*. Development potential can be measured as total square footage, FAR, and/or volume as appropriate.

Facade (also Street Facade): Principal exterior face of a building or series of buildings facing a public way or space.

FAR: Floor Area Ratio; the total building square footage (building area) divided by the total site square footage (site area).

LEED®: LEED® is an internationally recognized green building certification system, developed by the U.S. Green Building Council (USGBC).

Loggia: An exterior, covered gallery or walkway, lined by columns, arches, or punched openings, generally accessible to the public.

Massing: The arrangement of volumes to create the overall form and shape of a building.

Midsection: The area of the facade between the building base and the skyline for buildings over four stories tall. This section of a building is generally planar but is punctuated by balconies and windows.

Mizneresque: A word that describes the essence of Addison Mizner's architecture. Although Mizner's architectural ordering system is typically asymmetrical, his buildings often contain symmetrical elements composed in a picturesque manner.

Pattern Book: A document that includes architectural guidelines, recommendations, and requirements for a city, district, or neighborhood. This *Pattern Book* will guide the development of public space and architecture in Downtown Boca Raton.

Rhythm: The cadence of a facade achieved through bay spacing, repetition of building elements, or punctuation of unique elements. The rhythm is highlighted by the relationship between a building's windows, doors, and projections.

Scale: The relationship of individual building elements to the whole or the relationship of a building or architectural mass to its context.

Skyline: The top two floors of a building and its profile as it meets the sky.

Sustainability: To create and maintain conditions under which present and future generations can persist in productive harmony with the natural world. Sustainable development celebrates the connection between the built and natural environment; minimizes the impact of design, construction, and operation on natural resources; enhances communities and neighborhoods; and creates healthy and comfortable building environments.

A History of the Pattern Book

ALL across this country, in small towns, large cities, villages and hamlets, we find remarkably beautiful traditional neighborhoods. Boca Raton is no exception. These collections of buildings were designed and grouped together to create a series of neighborhood streets and spaces of great charm and character. Much though we admire the variety and individuality of these buildings, we are most struck by the way in which each individual structure relates to its neighbors and the consistently high design standards followed by all.

The American Pattern Book has been used for nearly 150 years. Pattern Books were direct descendants of books created since Roman times, and they are the means by which architects have passed along their knowledge of design to builders in remote places. From Vitruvius to Palladio; from Asher Benjamin to William Ware, architects throughout history have provided useful guides for the building industry, and these Pattern Books have helped establish some of our most treasured neighborhoods. These books provided key details for a variety of architectural styles as well as guidelines that were modified according to regional materials and techniques.

Although Pattern Books establish design standards, individual builders have historically interpreted, elaborated, or even bent the rules according to style and necessity. Patterns and elements of style are expressed differently in each region and elements have been *cross-bred* across different styles. The result is a much-admired balance between individual expression and unity found in traditional neighborhoods.

Our goal in reviving the Pattern Book tradition is to help architects and developers understand the elements and principles of design that shape successful urban environments.