Resilient Rehab

A Guide for Historic Buildings in Miami-Dade County

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Researched and written by
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in collaboration with
Miami-Dade County Office of Historic Preservation
Sarah Cody, Historic Preservation Chief
Adrienne Burke, Principal Planner

Resilient Rehab was completed in 2021. The Board of County Commissioners adopted it as the official historic preservation design guidelines for Miami-Dade County on February 1, 2022 under resolution number R-115-22.

RESILIENT REHAB: A GUIDE FOR HISTORIC BUILDINGS IN MIAMI-DADE COUNTY

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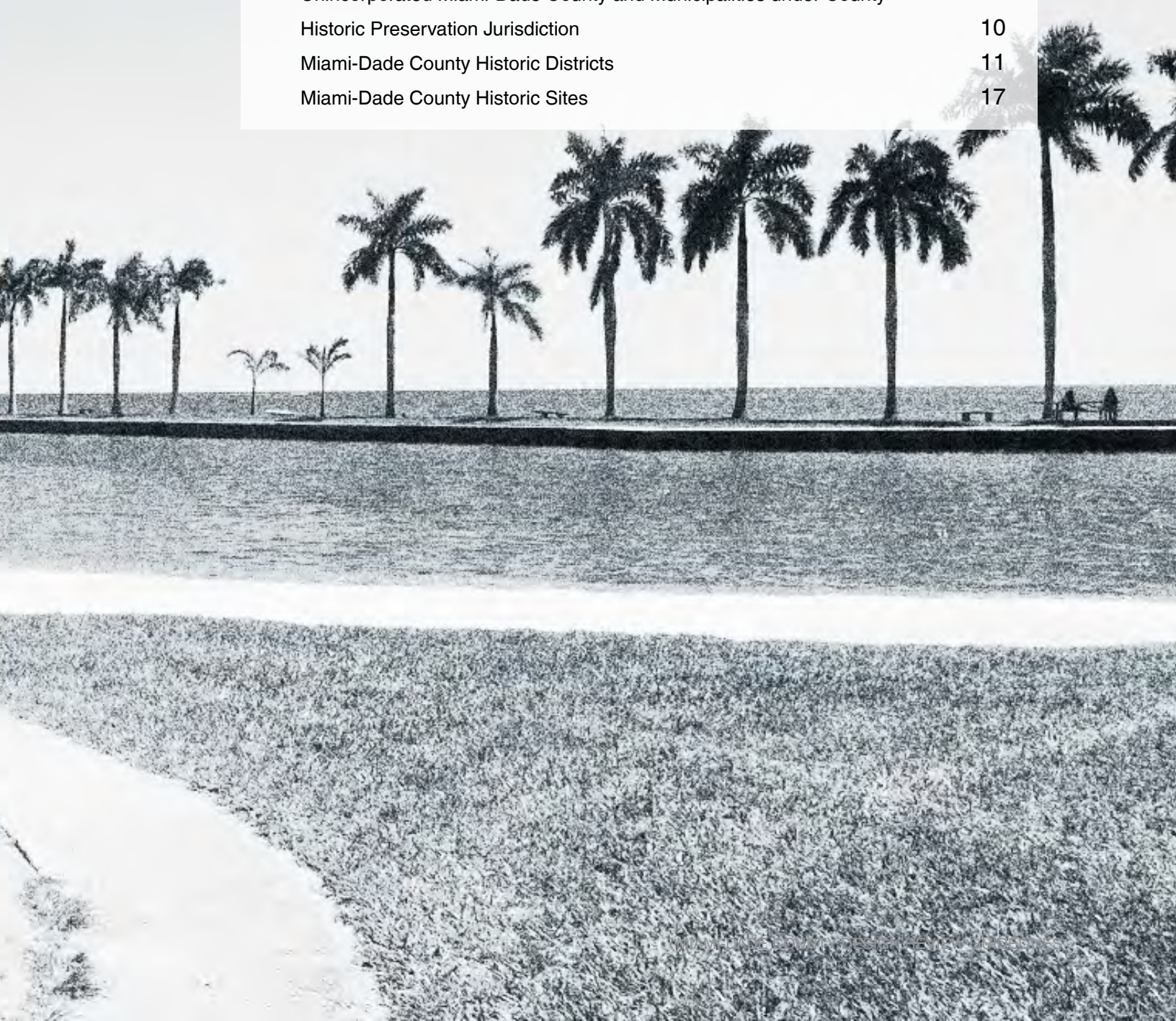
Oolitic stone wall at Charles Deering Estate Historic District

Boat turning basin at Charles Deering Estate Historic District

1 Introduction



Built History and Preservation Program Overview

The publication of these updated design review guidelines coincides with the 40th anniversary of Miami-Dade County's Historic Preservation Ordinance. For four decades, Miami-Dade County has worked to celebrate and preserve our unique resources. By following the path of the County's development history, we can identify the architectural styles that help define our communities.

Much of the County's earliest development was concentrated along existing trade routes and the anticipated extensions of the Florida East Coast Railway. These early 20th-century communities were characterized largely by wood-frame pioneer construction, often on expansive lots surrounded by agricultural fields. In the 1920s, more deliberate concentrated development, often by enterprising northerners, created a land boom with subdivisions platted across the county.

This coincided with the rising popularity of the "City Beautiful" movement. Many of the emerging developments incorporated the principles of this movement, which emphasized form as well as function, utilizing Mediterranean Revival architecture as the character-defining style.

Following a 1926 hurricane and an economic downturn that preceded the Great Depression, architecture started to reflect a sense of technological futurism and playful modernity.

The highly decorated Art Deco style gave way to Streamline Moderne in the 1940s before transitioning to Miami Modern, or MiMo. While many of our communities were platted in the 1920s, many were not built-out in earnest until after World War II. Many military personnel who had trained on the sands of Miami Beach returned after the war, looking to settle in a tropical paradise. However, suitable housing was in short supply. This led to numerous subdivisions built exclusively for WWII veterans. The focus of these developments was on providing high quality housing that would not be expensive for the builder. As a result, these post-war single-family residential communities often display more restrained design, reflecting minimalistic interpretations of our broader architecture styles.

Minimal traditional and ranch style housing began to emerge that displayed regional design elements that often responded to South Florida's unique climate. This included features like jalousie windows for cross breeze effect, wide overhanging eaves for additional shade, and concrete block screen walls to allow for shade and ventilation. Contemporary architecture has continued to evolve in South Florida, with new patterns and significant trends and styles being recognized and celebrated as we continue to analyze our built environment.

The importance of our built environment to our shared cultural heritage and sense of community began to be formally recognized in the County by the early 1970s. In 1972, Dade Heritage Trust was formed with the mission of promoting the preservation and reuse of the County's historic buildings. While their mission has expanded and evolved over the last almost-50 years, Dade Heritage Trust remains one of the strongest preservation partners and advocates in the county. The following year, Coral Gables adopted the first preservation ordinance. The rest of the 1970s was a flurry of preservation activity, including efforts to list our most significant buildings on the National Register; to stabilize and preserve specific buildings like Anderson's Corner in the Redland District and Miami Beach's Art Deco District; and the founding of the Miami Design Preservation League, to name a few milestone efforts.

In 1980, Miami-Dade County undertook the Dade County Survey, which identified approximately 6,000 resources with some level of significance. With a newfound understanding of our built resources, Miami-Dade County adopted a countywide Preservation Ordinance in 1981.

Through this ordinance, the County set forth the minimum standards for countywide and municipal preservation. As of the publication of these updated guidelines, ten municipalities have opted to create their own historic preservation programs as provided for in the countywide ordinance. The remaining 24 municipalities and the swaths of unincorporated lands remain under the jurisdiction of the county's preservation program. These updated design review guidelines will serve to enhance and support the County's preservation efforts and, most importantly, will serve as an invaluable resource to the owners and stewards of historic properties, supporting them in their care of our built and cultural heritage.

Sarah Cody
Historic Preservation Chief, Miami-Dade County
June 2021

Dade County historic site marker on Sunset Drive

Historic and Resilient

An important cultural value of the historic city rests precisely upon its ability to be in a constant evolution, where forms, space and uses are always adapting to replace obsolescence with functionality. This gives rises to the paradox – or perhaps the oxymoron – of the concept of preserving the ability to change. - Gustavo F. Araoz, Preserving Heritage Places Under a New Paradigm

Miami is young by many standards; most of its buildings and infrastructure were built in the 20th century. Nevertheless, memory plays a powerful role here. Historic buildings and districts communicate something tangible about the context and identity of a region accustomed to rapid growth and transformation. In this sense, historic preservation reinforces a sense of place, but also a sense of continuity essential to future growth. This continuity requires a sense of obligation to and interconnectedness with the surrounding community.

Beyond the cultural role of preservation, there is an aesthetic value to preserving older buildings, and an economic one as well. Historic buildings are valued for their singular qualities, and their appearance, a factor often reflected in property values. However, their economic value resides in their ability to adapt. Historic resources should not be conceived as static and unchanging, or 'cast in amber'; rather these living sites and buildings must convey something of the past into the present and future by being part of the present and future. Indeed, historic properties must continuously be renewed and adapted to current realities as well as to future projections.

Working with historic properties requires thoughtful consideration and treatment of the defining characteristics of a site or building. Design Guidelines generally are conceived as a tool in the service of responsible rehabilitation. They are designed to help connect the relevance of a resource with some appropriate responses.

In Miami-Dade County, the first effort to create guidelines was *Resourceful Rehab: A Guide for Historic Buildings in Dade County*. Published by the County in 1987, authored by Charles Edwin Chase and edited by Ivan Rodriguez and Sarah Eaton, *Resourceful Rehab* identified the most prevalent historic styles in the county, and provided critical guidance for their rehabilitation. *Resourceful Rehab* built on earlier efforts to identify and preserve historical resources. For instance, the 1980 Dade County Historic Survey, a pioneering effort to identify historic resources within the County, recognized approximately 6,000 sites of historical, architectural and archaeological significance. The Dade County Historic Survey was followed by Ivan A. Rodriguez and Margot Ammidown's *From Wilderness to Metropolis: The History and Architecture of Dade County, Florida, 1825-1940*, published in 1982 by the Metropolitan Dade County Office of Community and Economic Development, Historic Preservation Division.

Wilderness to Metropolis and *Resourceful Rehab* set a high bar, and have remained, important resources for researcher, architects, preservationists and administrators. However, in the nearly 35 years since their publication, much has changed. The population of Miami-Dade County has grown from 1.85 million in 1987 to nearly 3 million today. Ten municipalities within the county now have their own Historic Preservation governance. Also, many more properties have been designated over the years, including some in categories that did not exist in 1987.

Resilient Rehab is designed as an update to *Resourceful Rehab*. Divided into four parts, it expands information on the identification of historic buildings, updates guidelines to assist in their rehabilitation, introduces the issue of resiliency as a critical element of preservation, and provides information on Miami-Dade County's Certificate of Appropriateness processes. These guidelines are designed to clarify the discussion about the treatment of historic resources locally.

The first section, *Overview of Representative Styles and Building Types*, describes the most relevant architectural types and styles

Home in North Shore Crest Historic District

Apartment complex in North Bay Village

in Miami-Dade County. It portrays the context of their development globally and locally, and identifies salient features, details and materials of construction. As an update, it expands the definition of architectural types and styles, including postwar types not considered relevant in the 1987 guidelines that have now come to prominence. Any current accounting of historic architecture should include styles like Postwar Modern (including of local variants often referred to as MiMo) and the Ranch house, categories of building that are now firmly embedded in local preservation practices. On the other hand, as several areas of the county (e.g. Miami Beach, Miami Shores, Coral Gables, etc.) have now developed their own local historic designations, the list of types and styles has been largely limited to those found abundantly under the County's jurisdiction.

The second section, *Design Guidelines*, provides guidance for rehabilitation of these structures. The Secretary of the Interior's Standards, the national model used in the treatment of historic resources, and the standard used by the County in the review and approval of rehabilitation projects in addition to other standards and guidelines that they may adopt, is introduced here. This section also comprises helpful hints that address the components of buildings. Particular attention has been paid to changes in the building industry, and building codes, which strongly affect strategies of restoration and rehabilitation in South Florida. Another change is the inclusion of the issue of resilience, which has emerged as a critical quality of preservation. Rising awareness of the effect of sea level rise and climate change, and its effects on landscapes, infrastructure and buildings, has provoked national and local efforts to reconcile preservation with the aim and norms of resilience. If buildings in Miami-Dade County are to be prepared for future generations, their preservation needs to consider high water, high winds and take into account a potentially less stable infrastructure for electricity, water and waste.

The third section, *Resiliency*, includes measures that can be built in to any rehabilitation project to improve building performance. Some of these address general building strategies that may already be required by Building Code in any substantial rehabilitation of an historic building, like wind mitigation, storm water management, backflow prevention, and wet and dry floodproofing. Guidance on the protection of mechanical, power and life safety systems from flooding, and the use of flood resistant building materials, is also provided. Alternative methods of storm water management, including the use of green infrastructure, sunken courtyards and patios, injection wells and cisterns, are discussed and some basic information about building raising procedures is included.

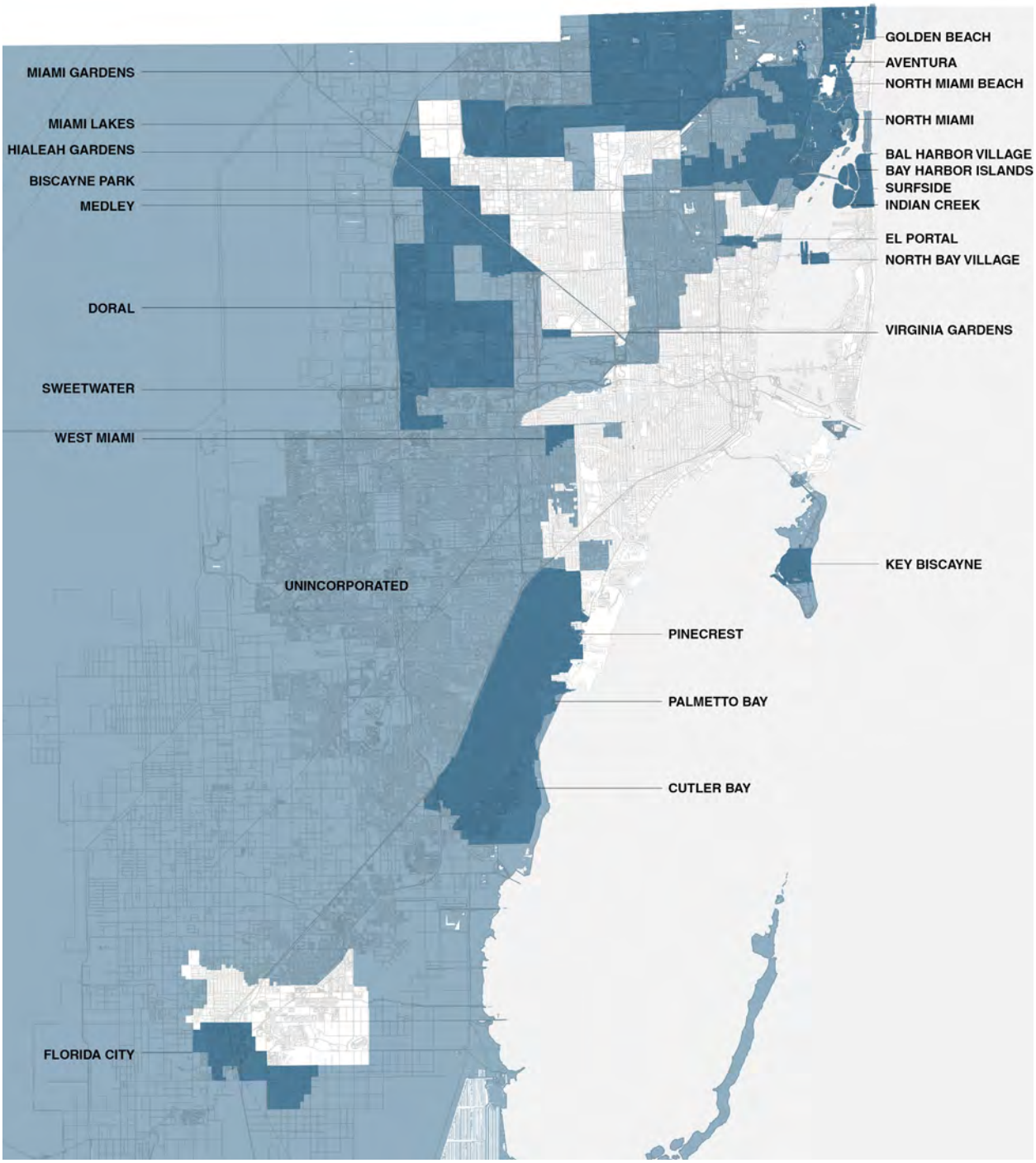
The final section contains an overview of the County application process. It begins with a matrix offering guidance on whether a project can be approved administratively, of whether approval requires a board hearing. It also includes procedural information on the Certificate of Appropriateness (COA) process (administrative vs. board review; Regular COA vs. Special COA), and information on the appeals process.

Resilient Rehab was designed to expand knowledge and appreciation of historic resources in Miami-Dade County, but also to provide clarity on the often difficult process of rehabilitation and the additional challenges of resiliency planning. As preservation in the County enters its fifth decade, the processes of historic preservation are ingrained in local practice, yet not widely understood. *Resilient Rehab* is offered as a step toward better understanding, an element of the broader preservation toolbox for property owners, architects, preservation staff, and board members.

Allan Shulman
June 2021

Original Cutler Road / Ingraham Highway at Charles Deering Estate Historic District

Unincorporated Miami-Dade County and Municipalities under County Historic Preservation Jurisdiction (June 2021)



Updated list of designated sites and districts is kept on file with the Office of Historic Preservation.

Miami-Dade County Historic Districts (June 2021)

Collins Avenue Historic District

North Shore Crest Historic District

Lake Belmar Historic District

Richmond Heights Historic District

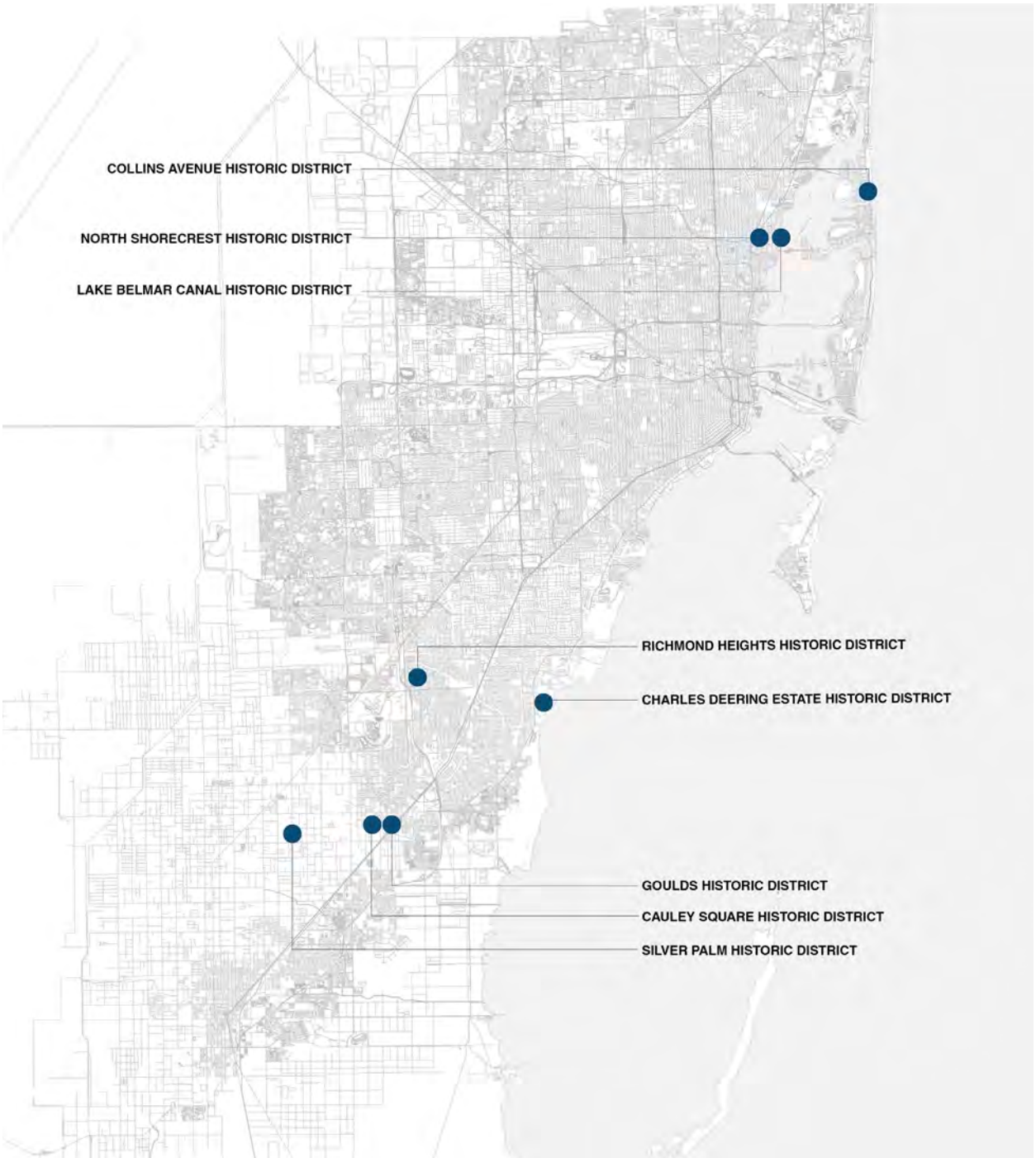
Charles Deering Estate Historic District

Goulds Historic District

Cauley Square Historic District

Silver Palm Historic District

Miami-Dade County Historic Districts (June 2021)



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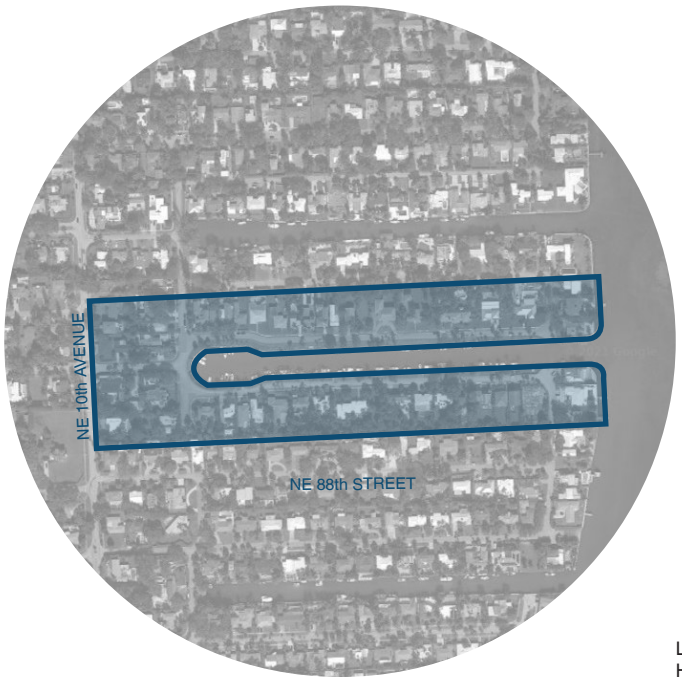
Miami-Dade County Historic Districts (June 2021)

Collins Avenue
Historic District



Lake Belmar
Historic District

North Shore
Crest Historic
District

Richmond
Heights Historic
District

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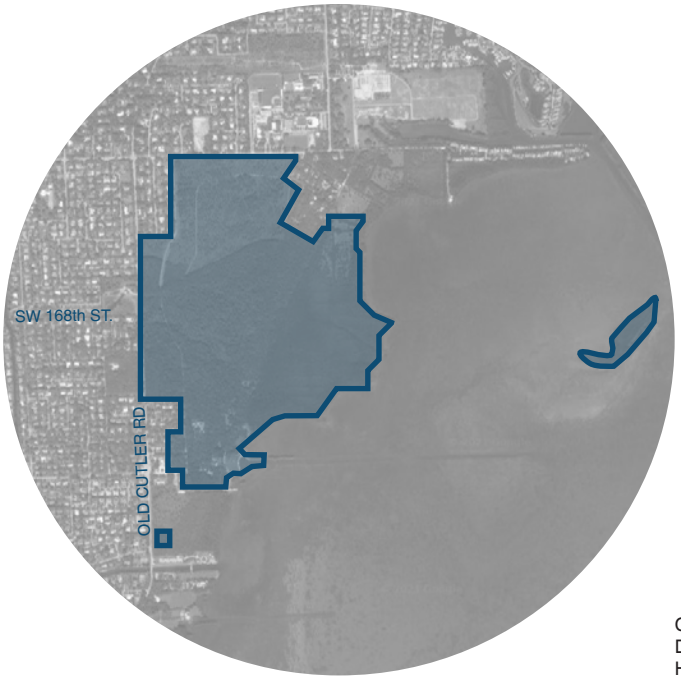
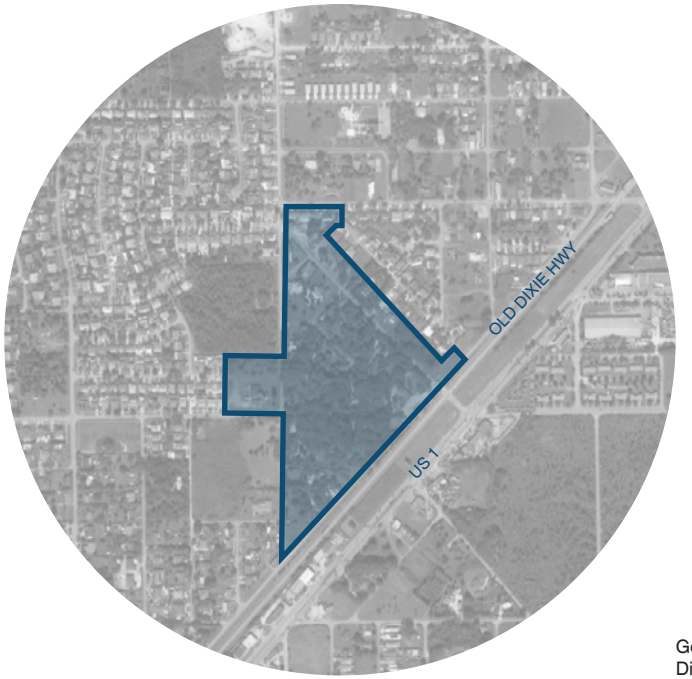
Miami-Dade County Historic Districts (June 2021)

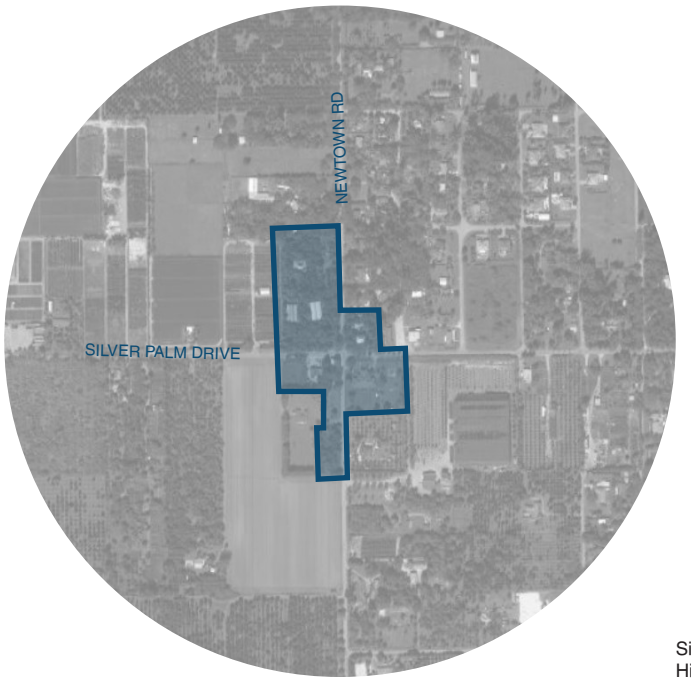


Charles
Deering Estate
Historic District

Cauley Square
Historic District



Goulds Historic
District



Silver Palm
Historic District

Updated list of designated sites and districts is kept on file with the Office of Historic Preservation.

Miami-Dade County Historic Sites (June 2021)*

Designated in 1981
Anderson's Corner 1911
Maude Black House 1930
Coral Castle 1936
Stonegate 1920

Designated in 1982
Sunny Isles Pier 1936
Doc Thomas House (Tropical Audubon Society Headquarters) 1932
Devonwood 1930
Richards-Erwin Homestead 1901
Pioneer Guild Hall 1912
Lee-Cunningham House 1910
Wheeler House 1914
Graham House 1924
Spanish Monastery 1141, rebuilt 1955
Snell/Davis House 1914

Designated in 1983
Biscayne Park Village Hall 1940
El Portal House 1910
William Jennings Bryan Elementary 1928
Florida Pioneer Museum 1904
Talbott Estate 1929
Sherwood Forest House 1924
Hazenthorpe House 1901
Fulford-By-The-Sea Monument 1925
Robert Frost's Winter Home 1941
Hervey Allen Study 1934
Burr House 1930
Greynolds Park 1936
Fulford-By-The-Sea Wall 1924
Phillips House 1925
Tebbetts House 1920
Mobley-Wood House 1921
Palm Lodge 1912
Moody House 1920

Designated in 1984
Watercourt Villa 1936
Atlantic Island Bridges 1925
Cape Florida Lighthouse 1825
Sweetwater Bridge 1941
D.S. Campbell House 1926
Cornell House 1953
Howell House 1937
Princeton Station 1904
Lindgren House 1912
Laesch/Bartram House 1901

Designated in 1985
Fairholm House 1919
Charles Graham House 1923

Designated in 1986
Silver Palm School House 1904
Mindermann House 1926
Luther Chandler House 1936
Walton/Blanco House 1918

Designated in 1987
Dan Roberts House 1943
Allen Chandler House 1905
William K. Vanderbilt, Jr. Estate 1929
Wayside Park and Entrance Markers, Schenley Park 1927

Designated in 1989
Dice House 1917
Krome House 1920

Designated in 1990
Coral Rock Chapel ca. 1937
Peoples Gas System 1926
Barrentine House 1925
Georgette's Tea Room 1950
Calusa Playhouse 1917
Rivero House 1923
Coral Rock Wall ca. 1930
Parrot Jungle and Gardens 1954

Designated in 1991
Lincoln Memorial Park Cemetery 1924
Evergreen Memorial Park Cemetery 1932
Golden Beach Pavilion 1955
Mays Middle School 1935

Designated in 1992
Castle House 1926
William Lyman Phillips House 1929

Designated in 1993
Gossman House 1937
Hickson House 1935
Flipse/O'Donnell House 1920
Bush House 1920
Smith/Wulf House 1925
Perrine Community House 1935

Designated in 1994
Sunset Elementary School 1947
Florida City Limestone Cottage 1927

Designated in 1995
Cuchiella Home 1930
Matheson Worker's Cottage 1917
Walker's Coral Castle 1932
Arch Creek Road 1857-1892
Edwards House 1930
Killian Drive 1922
Fuchs Homestead 1927
Merritt House 1930
Mary Heinlein & Preston B. Bird Fruit & Spice Park 1935
Bethel House 1948

Designated in 1997
Redland Elementary School (Redland Farmlife School) 1916
Williams House 1924
Dade County Hospital Annex (Kendall Hospital) 1930
Store Porch 1935

Designated in 1999
Orchid Jungle 1926

Designated in 2000
US Coast Survey Monument 1855
MacDonell House and Walls 1941
Crandon Park Carousel 1949
Whilden-Carrier Cottage 1932

Designated in 2002
Hampton House 1955
Montgomery House 1926

Designated in 2004
First Miami Senior High 2004

Designated in 2005
Smoak Cottage 1953

Designated in 2007
King's Highway Banyan Trees 1940s
James E. Scott Homes building 1953
Richmond Naval Air Station 1942

Designated in 2008
Higgs House 1925
Kiem House 1955
El Portal/Little River Seawall 1920s-1940s

Designated in 2009
Schenley Park Entrance Towers/La Luneta 1920s
Hugh M. Matheson, Jr. House 1964
Schenley Park Entrance Features 1920s

Designated in 2010
Green Acres Villas 1938
The Surf Club 1929
Richmond Naval Air Station Administration Building #25 1942
The Lido Condominium 1959
Staehle House 1959
Majestic Isle Condominium 1960
Anderson Rock House 1930

Designated in 2011
Zimmerman House 1920
Burwell House 1930
317 Mendoza Avenue 1926
Sunshine State Industrial Park Arch of Industry 1964

Designated in 2012
Enrico Farmhouse 1926

Designated in 2013
Coral Rock Wall 1919

Designated in 2014
Pan American Regional Headquarter Building 1963
Seaway Villas 1936
Bougainvillea Apartments 1940

Designated in 2015
Irons Manor Fountain 1925

Designated in 2016
Bay Harbor Club (partial, Birdcage feature) 1956
Harbour Bay Condominium 1947

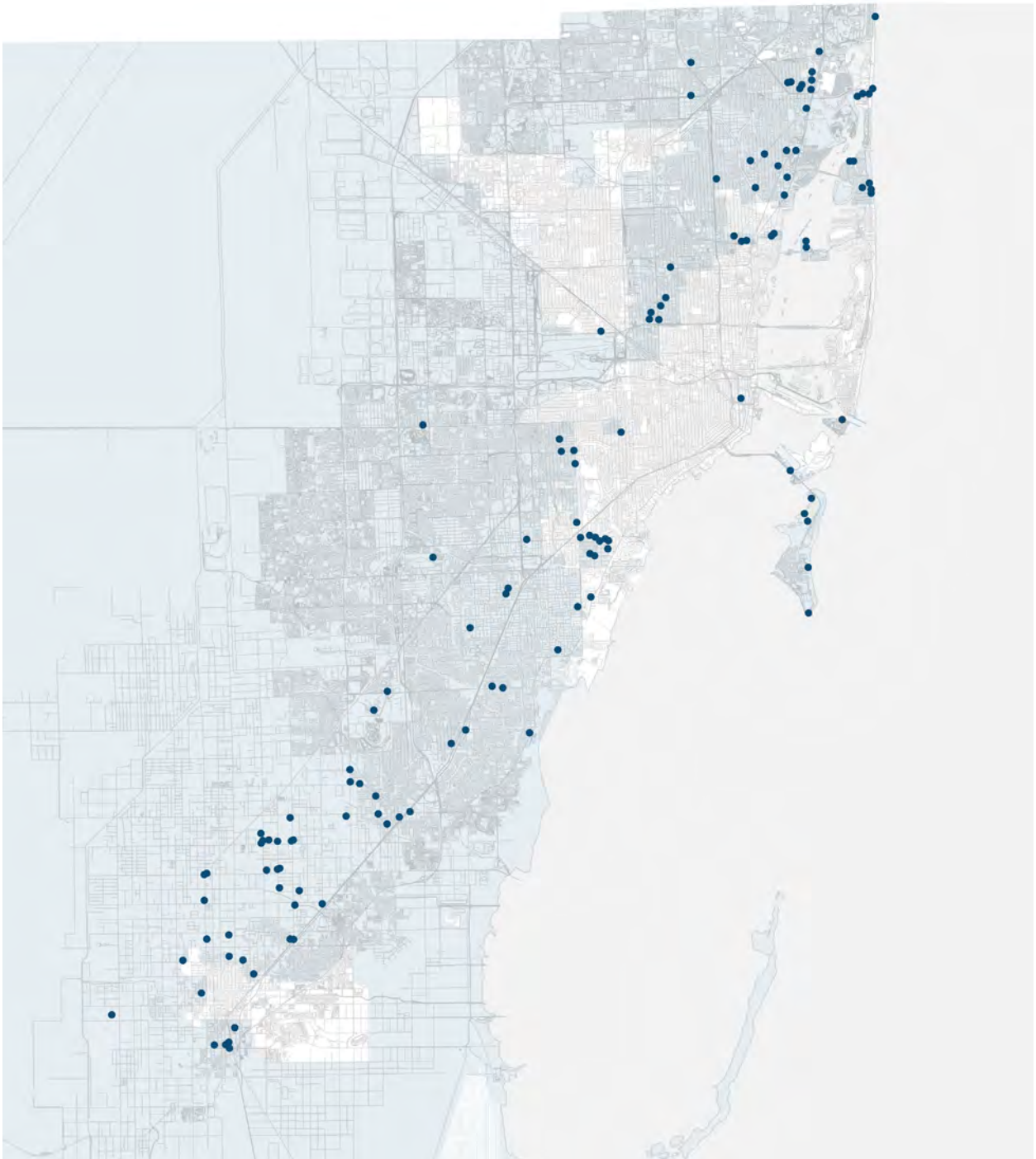
Designated in 2018
Key Biscayne Beach Club 1958
American Czech-Slovak Cultural Club 1926

Designated in 2020
Fisher-Sapero Residence 1954
Dade County Courthouse & Interior 1928

Designated in 2021
Alhambra Heights Residence c. 1926
Liberty City Elks Lodge c. 1956
Caves Residence c. 1920

* listed chronologically by date of County designation

Miami-Dade County Historic Sites (June 2021)



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Banyan trees at former Parrot Jungle and Gardens

2

Overview of Representative Architectural Styles and Building Types

Wood and Masonry Vernaculars

Miami's first architectural traditions, which emerged at the end of the nineteenth century, comprised wood and masonry-built forms derived from a mix of sources. These are most generally referred to as vernacular architecture, a foundational type of local construction based on traditional methods, readily available materials and straightforward simplicity. The term vernacular is also used to refer to buildings constructed based on a tradition that has developed over time, rather than the work of a particular architect. Indeed, vernacular buildings often predate the role of architects in the construction of a city.

Because it has evolved organically, vernacular architecture generally exhibits a strong relation to context, climate and available building materials. It is not necessarily unique to its context, but well-fitted to the specific geographic situation, and environmentally appropriate. In South Florida, vernacular construction is generally well adapted to heat and humidity, to the power of rains and winds, and to the ferocity of insects. As a tradition fundamentally linked to the use of local resources, vernacular architecture also emphasized the materiality of the region, originally wood, stone, and later concrete, terra cotta, and masonry, all of which were abundant in Miami-Dade County. Elements intrinsic to Miami's regional vernaculars were generous porches (often wrapping the corner of the house), screens, textures and gabled and hipped roofs.

Vernacular architecture forms an element of continuity in the built environment, a tradition tied to identity and placemaking that may be returned to several times. In this respect, it is interesting that although vernacular traditions may reflect the intelligence of the builder, trained architects may also employ it in their designs. Indeed, vernacular construction has come to represent an aesthetic choice. After all, while Miami-Dade County was once a frontier outpost, most of the region was a frontier of a different and very modern kind: one already associated with leisure and resort practices and expectations. The comfortable, suburban houses developed for seasonal residents and middle-class immigrants often merged vernacular traditions with more stylized variants. For instance, the Wood Frame Vernacular was influenced by southern Cracker vernaculars, but also by the Stick and Shingle styles, and especially the popular bungalow.

Opposite: Home in the Redland, ca. 1910s. Image courtesy of Miami-Dade County Historic Preservation.

Wood fence at Richmond Cottage at Charles Deering Estate Historic District

Wood Frame Vernacular

Origins and National Development

Wood frame is a common vernacular construction type in the United States, building on the abundance of lumber through the 20th c. Wood Frame Vernacular refers to the tradition of simple wood frame buildings that were one outcome of this abundance.

Wood building traditions in America evolved from early Timber Frame construction (the use of interlocking wood timbers) toward the Balloon frame in late 19th century and the more recent Platform Frame since the 1930s. Key to the development of lightweight Balloon and Platform frames was the use of dimensional lumber, perfected in mid-19th century American lumber mills, along with manufactured nails. Balloon framing allowed the quick assembly of lightweight wall panels and floor plates.

Wood frame vernacular buildings are generally one or two-story structures composed of rectangular volumes, and featuring prominent wood porches. As the wood frame must be protected from moisture and insects, it is raised off the ground on piers or continuous stem walls. Wall sheathing varies, and includes horizontal weatherboard, vertical board and batten siding, wood shingles and sometimes asbestos shingles. Houses have gabled or hipped roofs, usually with overhanging eaves.

Wood Frame Vernacular in South Florida

The logic of wood construction thrived in late 19th and early 20th century South Florida, made possible by once abundant Dade County Pine, a dense, strong and tropically adapted local wood. Hallmarks of the Wood Frame Vernacular locally are well ventilated rooms with large windows, and deep, protective overhangs.

Although South Florida's early wood building tradition may be understood as comprising a monolithic 'wood vernacular,' in fact it links several distinct traditions brought to South Florida by immigrants. This hybrid local vernacular comprises elements of Cracker architectural traditions, the Stick and Shingle styles, and Bahamian or Conch house traditions among others. Cracker homesteads featured pragmatic and rustic wood architecture, agrarian in nature and related to vernaculars of the American South; conscious of ventilation, they were often planned as a compound of smaller cross-ventilated structures, often with one main structure and functions like the kitchen devolved to outbuildings. They featured generous verandas.

Binding with the Cracker tradition was a burgeoning exploration of American country house traditions, expressed through the Stick and Shingle styles. The Stick style contributed the Balloon-frame construction system, and vertical board and batten cladding. The Shingle style, with its trademark generous porch, contributed less, but offered continuity of internal space, horizontal spread, and assemblages of free-floating roofs. Conch houses, derived from the building traditions of Bahamian immigrants, also influenced the mix. These generally modest linear homes are usually set perpendicular to the street, with prominent shallow gabled roof and pronounced verandas.

Former school house in Silver Palm Historic District

House in Homestead

House in Cauley Square Historic District

House in North Shore Crest Historic District

House in Homestead

House in North Miami

Richmond Cottage at the Charles Deering Estate Historic District

Wood Frame Vernacular

Relevant Features

General Features: Simple in nature, one and two-story lightweight wood-built structures raised off the ground on piers; their rectangular massing is often elaborated with intersecting wings and additions, as well as attached porches and verandas. They feature gabled or hipped roofs.

Massing: One and two-story rectangular massing often elaborated with intersecting wings and additions. In early houses, roof slopes are steep.

Porches: One or two-story front porches, also constructed in wood, and originally screened. Wood balustrades are common. Porches may be recessed into the volume of the house, or additive.

Wall Treatment: Cladding varies, but wood clapboard (weatherboard or ship lapped siding), vertical board and batten siding, and shingles (originally wood but later asbestos) are most common. Corner boards neatly edge applied wall surfaces. As the roof cavity was the primary insulation of wood frame houses, these are generally vented with prominent attic vents in gabled walls.

Roof Treatment: Hipped and gabled roofs, sometimes with dormers, were most common. Projecting eaves supported on exposed rafter tails. Roofs are waterproofed with wood shingles or composition asphalt shingles in different colors.

Openings: Wood Frame houses generally feature double-hung wood sash windows, wood panel doors and wood-framed screen doors. Original wood frame windows have often been replaced with aluminum awning or jalousie windows.

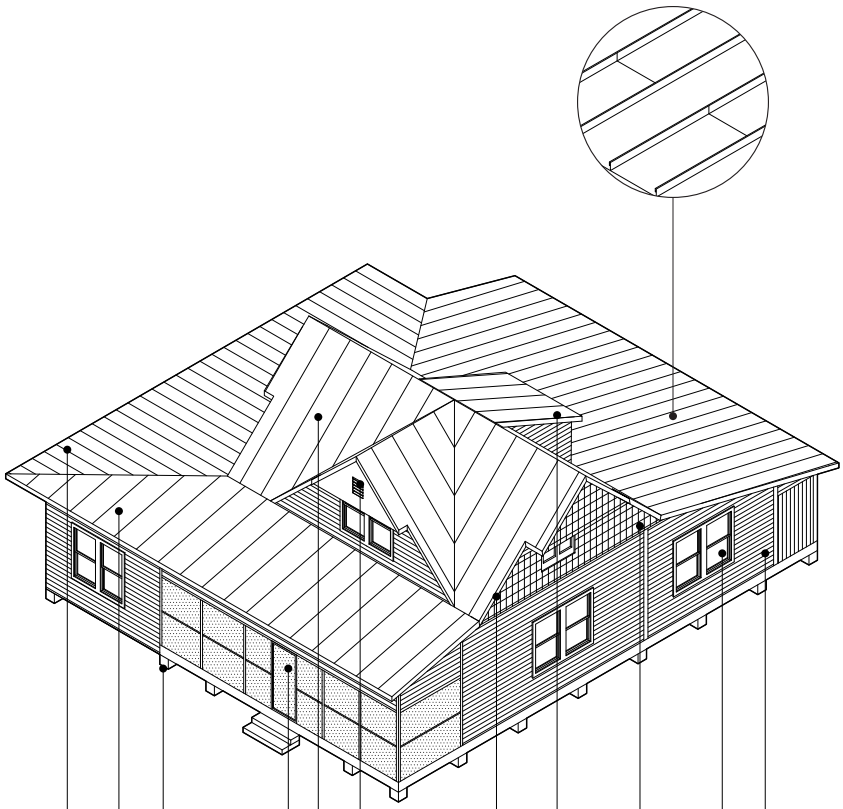
Ornamentation: Functional elements provide the main expression of ornament: textured surfaces of wall cladding, porch columns and railings, projecting rafter tails, and oolitic stone details on porches and chimneys.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed walls, floors, interior partitions, and roof of Wood Frame Vernacular houses are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended. Alternatively, vulnerable structures may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including the wood framed walls and roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

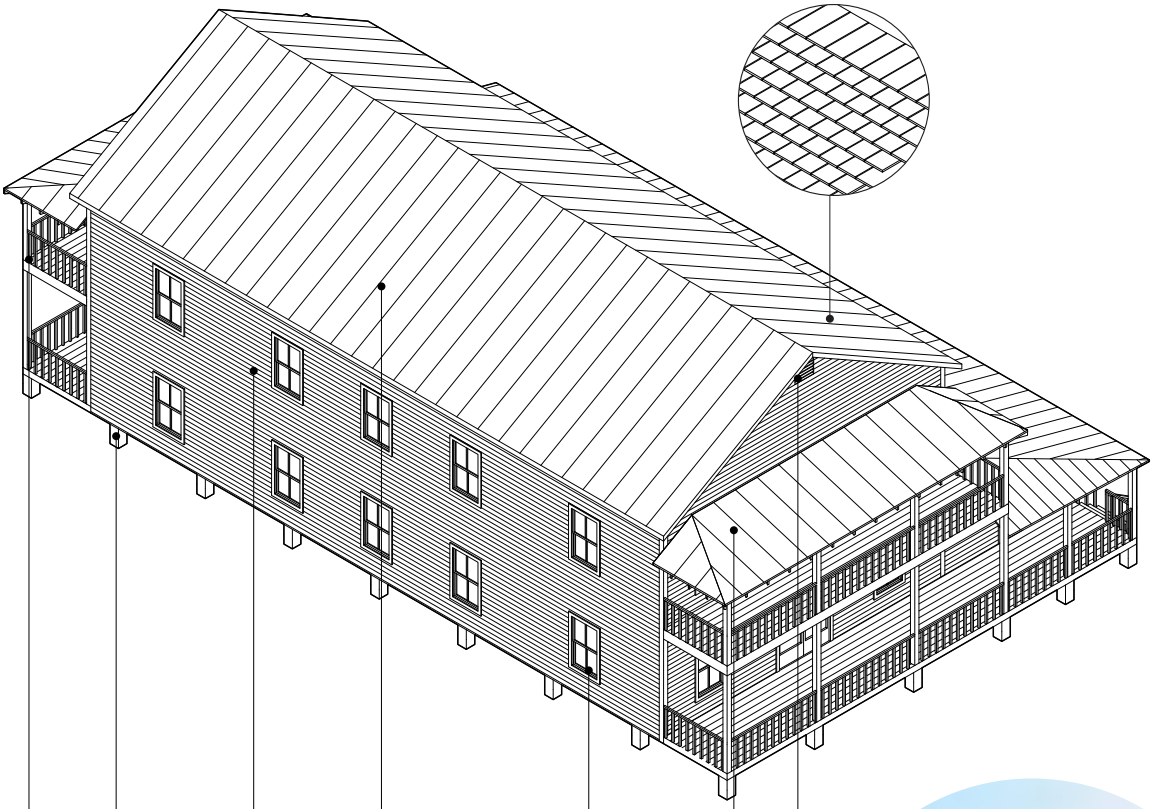
House on Old Cutler Road

Diagrams reflect building's likely historic condition.



Commercial Building in Silver Palm Historic District

Diagrams reflect building's likely historic condition.



wood porch railing

masonry piers

horizontal wood siding

gabled roof with shingles

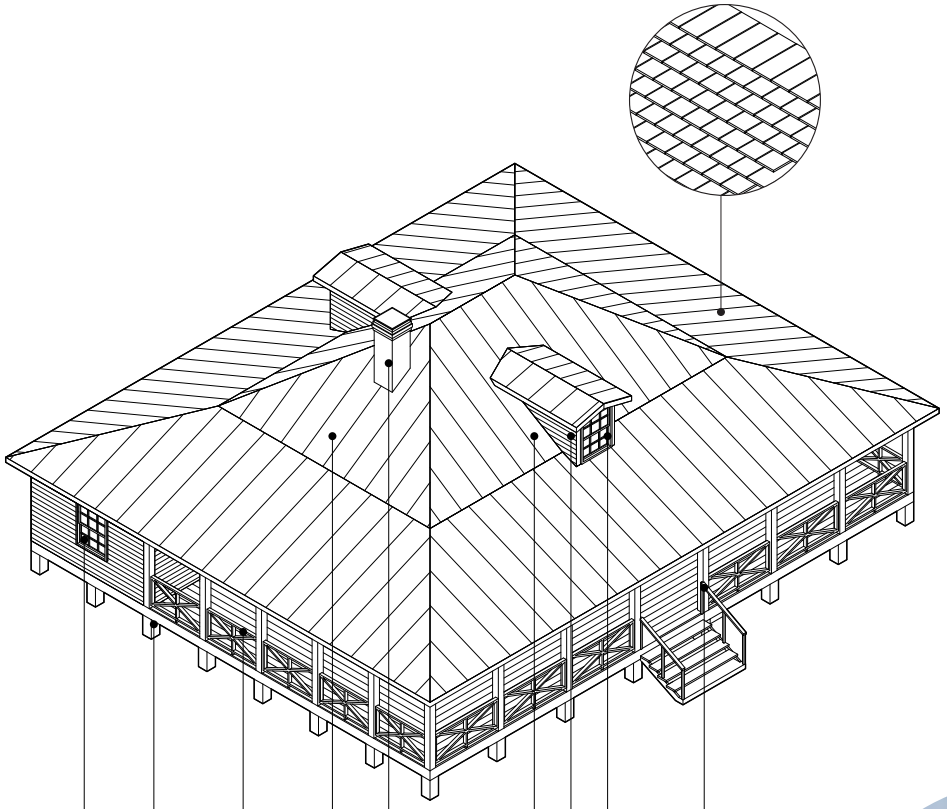
wood sash windows

projecting eaves with exposed rafter tails

square roof vent

Former house in Florida City

Diagrams reflect building's likely historic condition.



horizontal wood siding

masonry piers

wood porch railing

hipped roof with varying slope

brick chimney

shingled roof

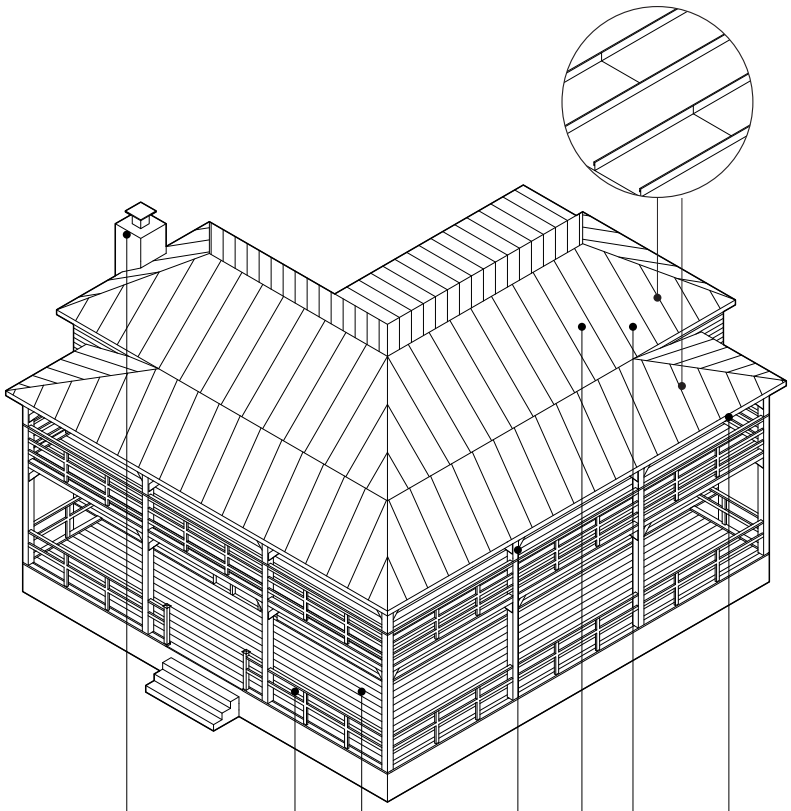
dormer window

wood sash window

wrapping porch

House in Silver Palm Historic District

Diagrams reflect building's likely historic condition.



brick chimney

wood porch railing

wrapping porch

wood braces

standing seam metal roof

hipped roof

projecting eaves with exposed rafters

Vertical wood paneling and lattice screening

Wood posts and Pier on a Belvedere bungalow in Little Havana

Bungalow

Origins and National Development

Bungalow principally refers to a style of modest and low-slung wood home with low-pitched roofs and prominent porches. The Bungalow derives from the Indian state of Bengal, where it described a vernacular dwelling type surrounded by porches and covered by a thatched roof. A version of the type was adopted by builders in England, the US and elsewhere as a cottage appropriate for an emerging suburban lifestyle.

At the turn of the 20th century bungalows took America by storm. The small, rustic houses designed on their own plot of land, typically furnished with a garden and space for the car, equipped with all the latest conveniences, was evidence of the American Dream. Central to the bungalow's popularity was the idea that simplicity and artistry could harmonize in one affordable house. Pattern books and mass production of components arrived in the late 19th century. Sears, Roebuck & Company started selling plans and building supplies in 1895 and the Aladdin Company of Bay City, Michigan offered complete Bungalow kits.

In the United States, the Bungalow style was influenced by the Arts and Crafts movement pioneered by 19th century English designers like John Ruskin, William Morris and Philip Webb. The Arts and Crafts movement celebrated handicrafts and encouraged the use of simple forms and natural materials. In the US, the movement was pioneered in California, and used to dramatic effect by architects like Bernard Maybeck and Greene and Greene in large, complex homes. Yet it also was popularized in the simple, informal Bungalow, sometimes under the term 'Craftsman home', which comes from the title of a popular magazine published by the famous furniture designer, Gustav Stickley, between 1901 and 1916. The Craftsman emphasized living in nature, and "ostentatious simplicity." As a relaxed, affordable and easily reproducible dwelling, it was the predecessor to both the purpose-built vacation home and the modern Ranch-type suburban home.

Bungalows emphasize living on one level, close to the earth. Their horizontal profile is achieved with low-pitched roofs and deeply projecting eaves. They celebrate their wood construction with wood clapboard, board and batten or shingle walls, but also by highlighting the constructive features like piers, brackets and exposed rafters. They emphasize groundedness with contrasting stone or brick features, like chimneys or pier supports, that tie directly to the earth. They have pronounced porches that promote outdoor living, and their generous windows, normally organized in groups, allow great cross ventilation.

On the interior, bungalows were efficiently planned to eliminate corridors. Their wood construction is reflected in beamed ceilings, the use of wainscoting and moldings, as well as built-in cabinets, shelves, and seats, suggesting warmth and informality.

Bungalow in South Florida

Between 1900 and the early 1920s, during the height of its popularity nationally, the Bungalow became a pervasive form of wood architecture along Florida's Southeast coast – and a motif of the region's first suburban developments. Like the Wood Frame Vernacular home, it was an appropriate warm-weather house for a tropical climate. However, in contrast, the bungalow used rustic imagery in support of the idea of a leisurely and almost romantic existence.

Anchored to their suburban lot by contrasting stone or masonry piers and chimney, the South Florida bungalow is also characterized by its broad and deep front porch, which is sometimes detached as a structural element of the house. Generally extending across the front façade of the house, it features prominent (often tapered) piers supporting the roof. The porch design, including its supports, constitute a primary decorative flourish.

Most bungalows feature varied massing, the effect of the composition amplified by the expression of their individual gabled roofs. One popular bungalow variant locally was the Airplane, or Belvedere type bungalow, which included a single cross-ventilated room on the second floor, often used as a sleeping porch.

The bungalow had a significant influence on domestic architecture in South Florida, introducing wood and masonry variants that could be called generally 'bungaloid.' Stylistically transformed, the type can be found in a variety of compact and modest homes built between the 1920s and the 1950s (often called 'Florida Bungalows'). The term is used to denote a simple and low-cost home, perhaps for retirement. The bungalow is also an ancestor to the Ranch house, agent of South Florida's second (postwar) suburban expansion.

Bungalow in Schenley Park

Bungalow in North Miami Beach

Bungalow in North Miami

Bungalow in Buena Vista

Bungalow in Little Havana

Bungalow in Little Havana

Bungalow in Little Havana

Bungalow

Relevant Features

General Features: Bungalows are modest, low-slung wood homes with low-pitched roofs and prominent porches. Bungalows may have attached carports but garages, where provided, were detached.

Massing: Bungalows feature varied massing, with each volume defined by its own roof. The play of lightweight gabled roofs against the contrasting weight of stone or masonry elements, like a prominent chimney, is a defining feature of the Bungalow. Most bungalows are one story, but some, like the popular Airplane (or Belvedere) type bungalow, offer a smaller second story.

Front Porch: Most bungalows feature a broad and deep front porch that may be detached as a structural element of the house. Generally extending across the front façade of the house, it features prominent piers supporting the roof. The piers, sometimes in masonry or oolitic rock and frequently tapered, tie directly to the ground, and may be joined by a low parapet. Sometimes, the piers are topped by short wood posts.

Wall Treatment: Bungalows feature horizontal weatherboards, board and batten, or wood shingles wall finishes, with wood grills designed to ventilate attic spaces. Chimneys, foundations and porch supports are usually constructed in masonry or oolitic stone.

Roof Treatment: Low-pitched gabled roofs have deep overhangs, which emphasize constructive elements like framing, projecting eaves and brackets. Roofs originally featured wood shingles or asphalt shingles. Composite wood shingles are an acceptable alternative. Metal roofs may also be considered.

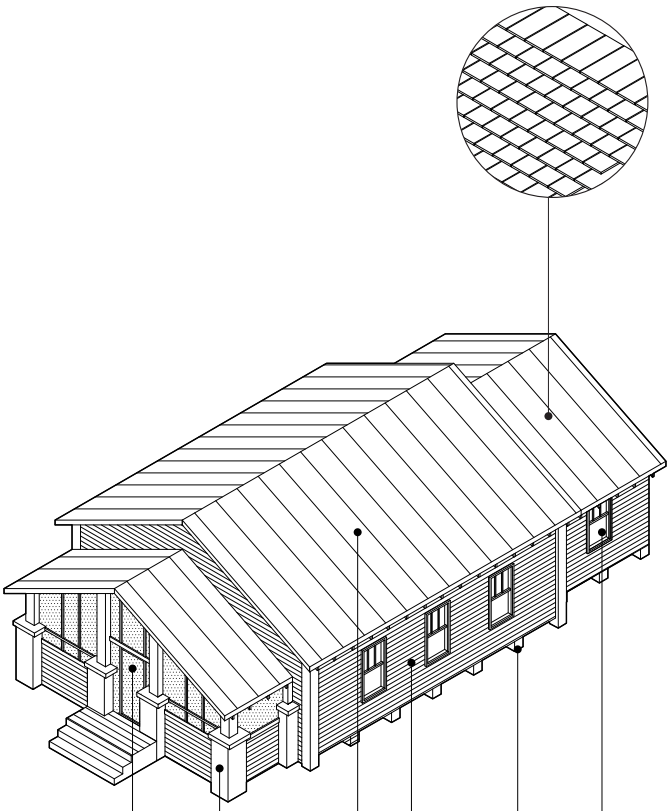
Openings: Windows are often grouped to form larger openings and enhance ventilation. The windows were sash-type double hung, generally with a single pane in the lower sash and multiple panes in the upper sash. Wood paneled front doors may include several small window panes. Flat wood encasements generally frame the openings.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed walls, floors, interior partitions, and roof of Bungalows are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended. Alternatively, vulnerable structures may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including the wood framed walls and roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

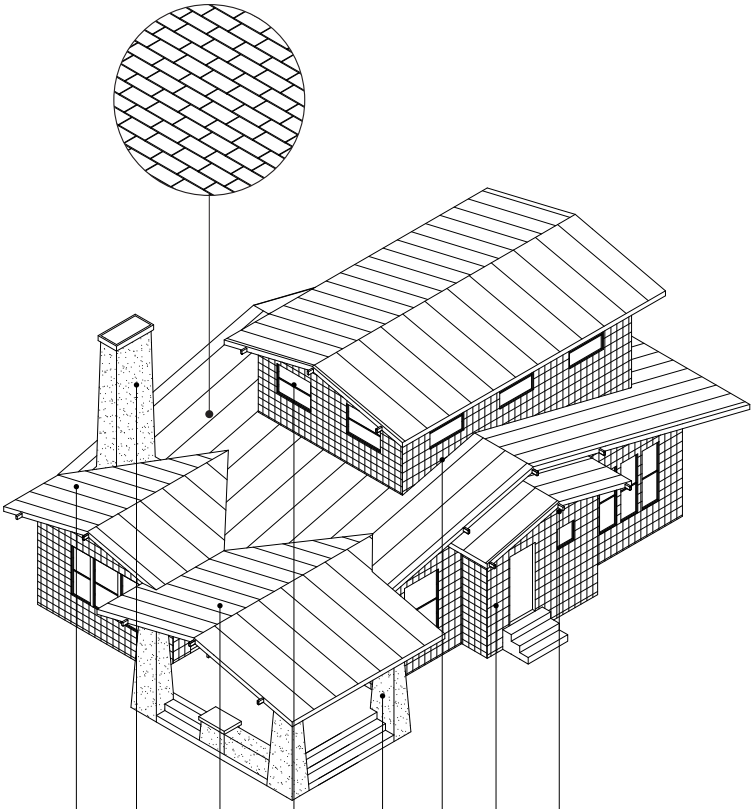
Bungalow in Goulds Historic District

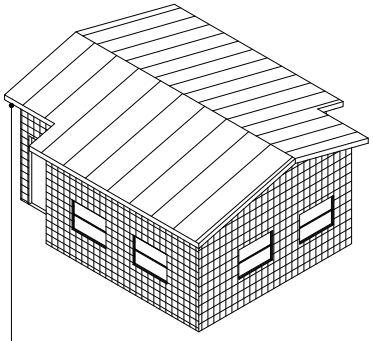
Diagrams reflect building's likely historic condition.



Airplane type Bungalow in Little Havana

Diagrams reflect building's likely historic condition.





asphalt shingles

chimney constructed in oolitic rock

gabled roofs

double-hung sash windows

battered pier

airplane bungalow type with second floor rooms

shingle wall finish

ridge beam

detached garage

Battered pier with oolitic rock

Masonry medallion in Florida City

Masonry Vernacular

Origins and National Development

Like wood frame vernacular, Masonry Vernacular covers broad categories of simple functional buildings. While masonry construction is ancient (and found in most early civilizations), the Industrial Revolution transformed masonry construction by making standardized, precast masonry less expensive and more easily quantifiable and calculable. While steel replaced masonry in the construction of larger buildings in the late 19th century, the use of masonry in modest construction has remained powerful. Further underscoring its popular appeal, masonry is fireproof, resistant to insects, and was a good replacement for wood in areas of diminishing supply.

At the beginning of the 20th century, the two most popular masonry systems were structural clay tiles block and concrete blocks. Structural clay tile blocks (also known as structural terra cotta or hollow tile) emerged in the late 19th century as a replacement for brick in wall and vault construction; made of clay and first patented and mass-produced in the 1870s, its hollow cavities gave it a lightweight character that made it easy to handle on construction sites.

Concrete masonry units slowly replaced structural clay tile during the early 20th century. Concrete masonry units, or concrete blocks, comprise a mix of crushed stone, sand, and cement. First developed in 1890, their popularization paralleled the expansion of the Portland cement industry in the US. Notably, concrete blocks can be finished/ exposed, or used as the underlying construction of other finish materials.

Masonry Vernacular in South Florida

Although wood was initially plentiful in South Florida, masonry offered the sense of greater permanence (important in a newly minted city), weather protection, fire protection and vermin protection. In early Miami-Dade County, masonry meant hollow clay tile (used until the 1920s-30s), concrete masonry (produced locally in the early 20th century), rusticated concrete block, and even oolitic limestone.

The use of oolitic limestone, quarried locally from the stone that underlies much of Miami-Dade County, was a regional specialty. Encrusted with sea fossils and forming the bedrock of the region, oolitic rock was an important tie to the character of the region, celebrated in early postcards of the city. Oolitic masonry buildings have a rusticity that rises from the earth. Miami architects like George Pfeifer contrived wood-built architectural forms clothed in oolitic rock, blending them to the stone outcropping of Miami's Silver Bluff neighborhood.

Oolitic stonework was first used in "rubble form". Often comprising the structure of the house, oolitic rock could also be used as cladding over wood framing.

Masonry construction is still the primary construction system used for exterior walls in Miami-Dade County, especially for homes and small commercial buildings.

House with Oolitic Stone Facade in South Miami

House in Miami

Iglesia Pentecostes Beth-El in Goulds Historic District

Coral Rock Chapel in Goulds Historic District

Carriage House at the Charles Deering Estate Historic District

Store Porch building in Goulds

Perrine Community house in Palmetto Bay

Masonry Vernacular

Relevant Features

General Features: Simple homes and utilitarian structures (similar to those in Wood Frame Vernacular) whose shell is largely constructed using masonry units, either clad in stucco or stone, or left exposed. Roof types are varied and include gable, hipped, and flat roofs.

Massing: One and two-story rectangular massing often elaborated with intersecting wings and additions.

Porches: One or two-story front porches, most often constructed in wood, but sometimes masonry or stone. Generally screened, porches may be recessed into the volume of the house, or additive, and feature wood balustrades.

Wall Treatment: Structural clay tile and concrete masonry unit construction is generally finished with smooth or rough stucco. Sometimes, rusticated concrete units, or oolitic rock structures are exposed for natural effect. In these cases, mortar joints vary from tight to wide.

Roof Treatment: Hipped and gabled roofs, sometimes with dormers, are most common. Projecting eaves supported on exposed rafter tails. Roofs were originally finished with wood shingles, and later with composition shingles in different colors.

Openings: Early Masonry Vernacular homes have double-hung wood sash windows, wood panel doors and wood-framed screen doors. They may have wood or metal casement windows. Original wood or steel frame windows have often been replaced with aluminum awnings or jalousie windows.

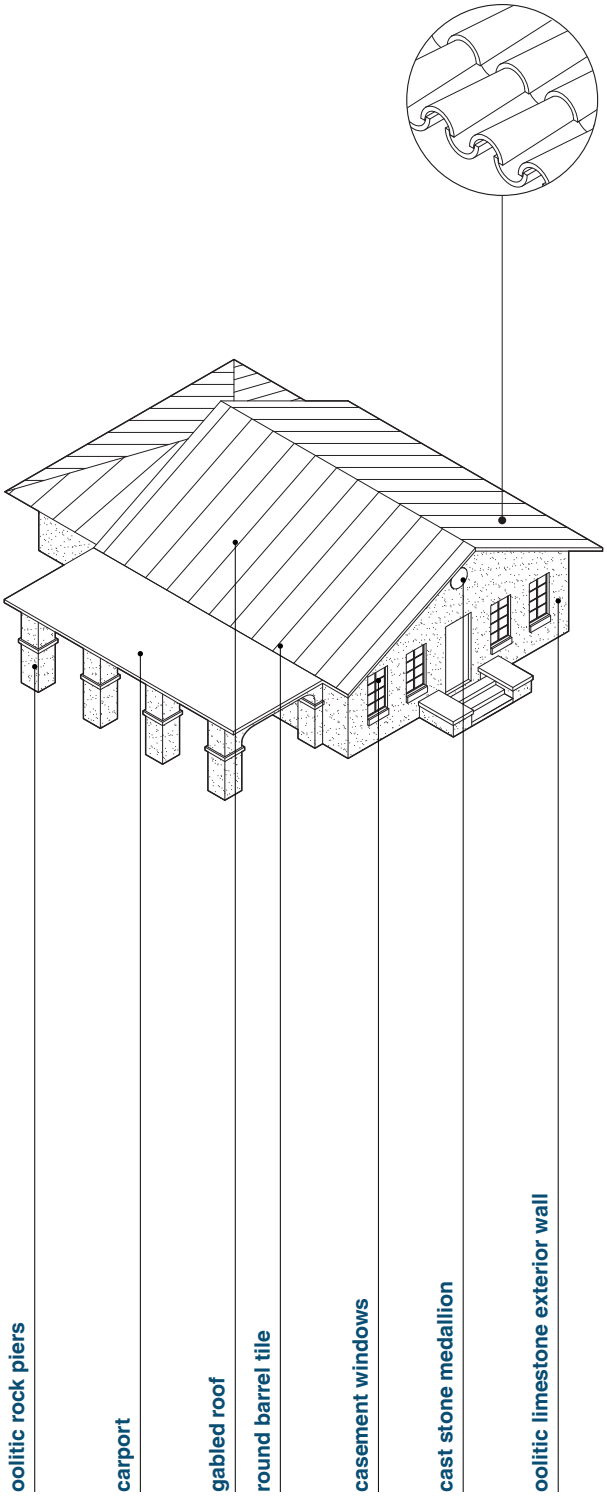
Ornamentation: As with Wood Frame Vernacular, functional elements generally provide the main expression of ornament, although structures using expressed masonry or oolitic rock also highlight their textured surfaces. Details on porches, roofs and chimneys, including porch columns and railings, projecting, rafter tails and roof vents, provide additional ornamentation.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed floors, interior partitions, and roof of Masonry Vernacular structures are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended, and in commercial buildings wet and dry floodproofing may be employed to manage water infiltration. Alternatively, vulnerable structures may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including masonry shell and wood framing elements of the roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

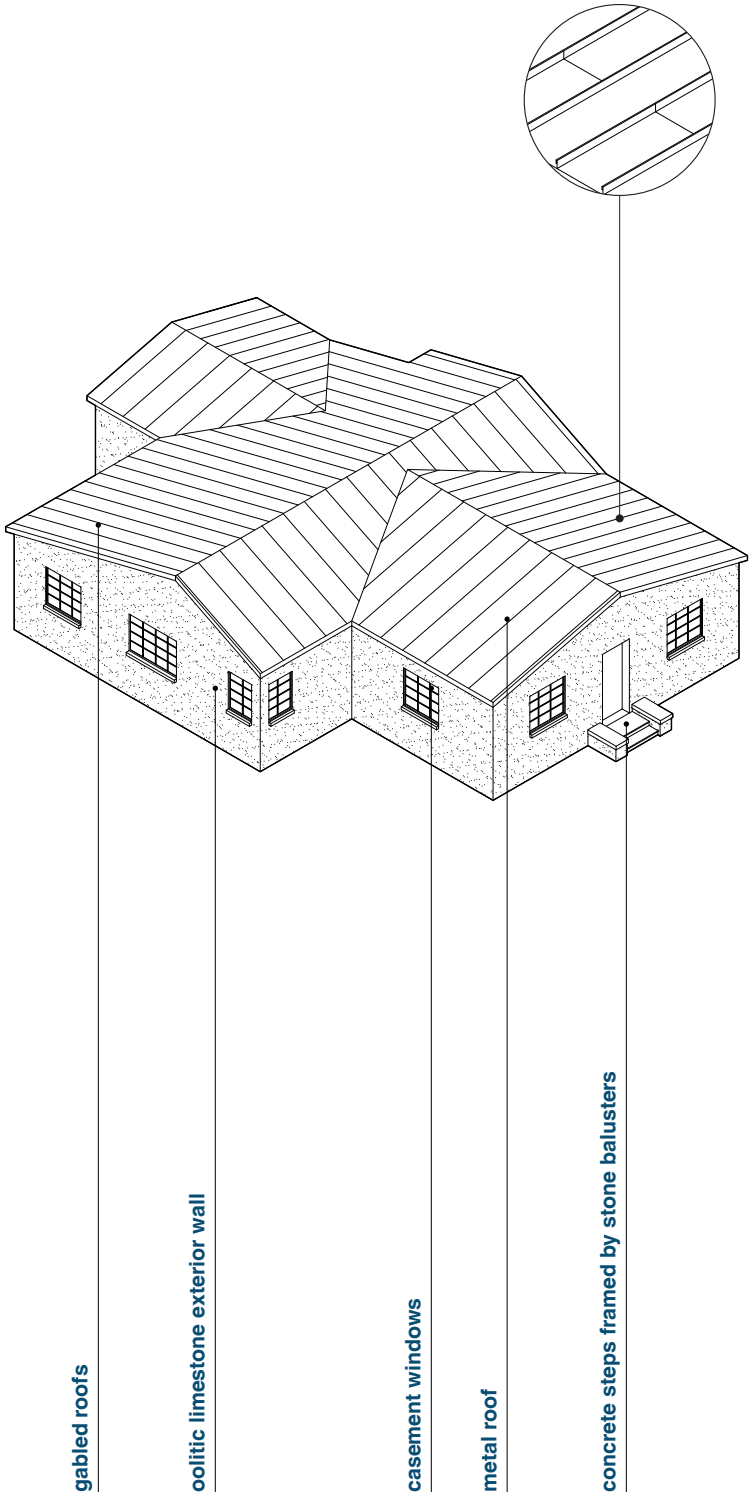
House in Florida City

Diagrams reflect building's likely historic condition.



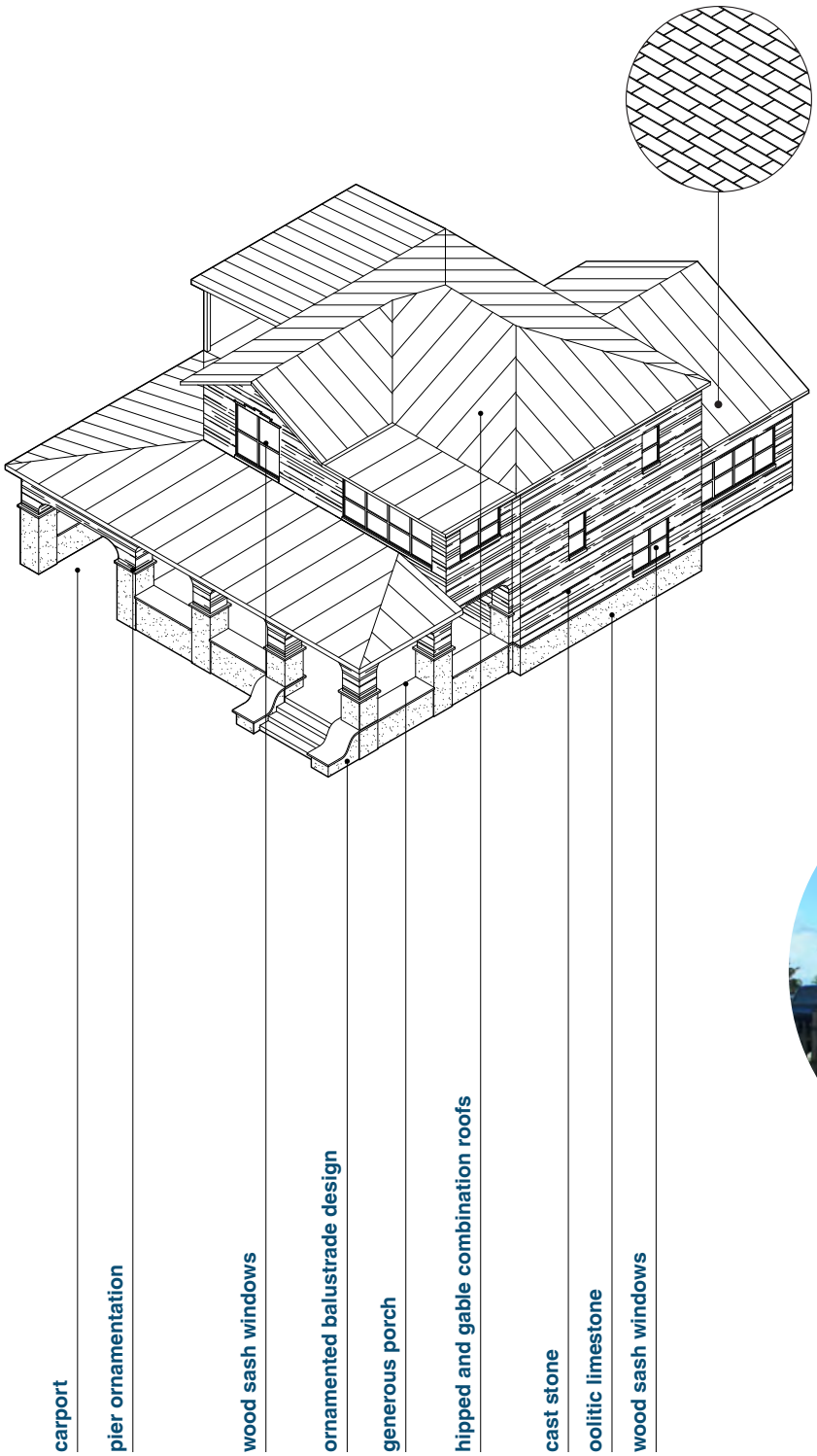
House in Homestead

Diagrams reflect building's likely historic condition.



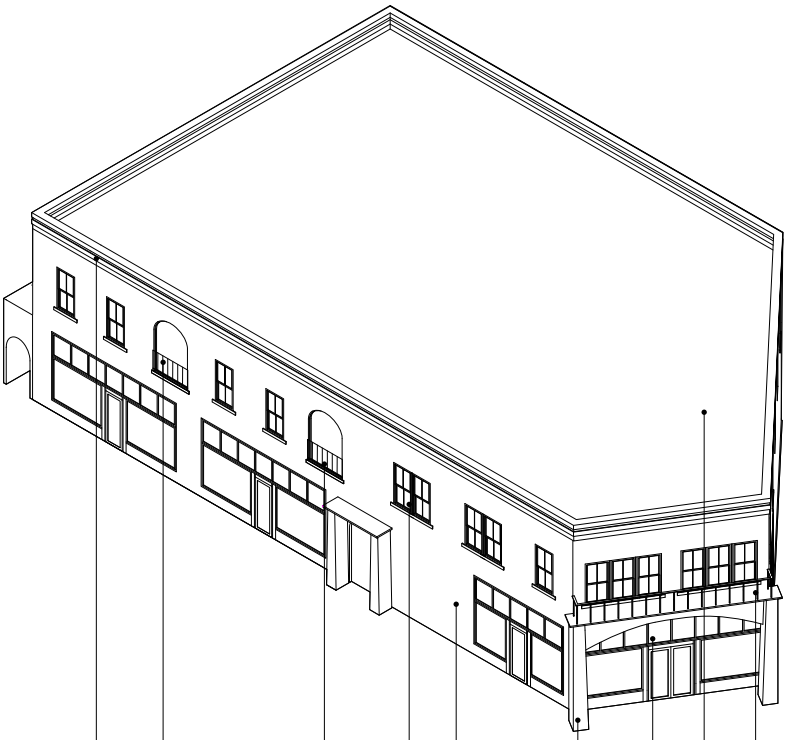
House in Florida City

Diagrams reflect building's likely historic condition.



Commercial Building in Cauley Square Historic District

Diagrams reflect building's likely historic condition.



profiled stucco cornice

metal grillage

projecting stucco window sill

wood sash windows

textured stucco finish

oolitic rock pilasters

storefront windows with transom above

flat roof

wood railing

Perrine Community House marker

Boom Era Eclecticism

The Great Florida Land Boom brought metropolitan ambitions, a flood of new investment, and eclectic architectural styles to South Florida. While the Mission Revival Style provided a simple and austere platform for the construction of the city, the later Mediterranean Revival and Moorish Revival styles responded to increasingly romantic ideas about early 20th century Miami. These styles connected with the architectural historicism and romanticism of the late 19th century nationally, but what is interesting is how developers and architects translated and incorporated revival styles into the planning and look of the emerging city.

During this period, buildings generally grew in size and apparent permanence. The use of masonry construction became customary (at least for the building shell), and modern casement windows generally replaced wood sash. Style was expressed most often as added decoration over modern building types whose characteristics were derived from functional consideration. Space for the car was an important feature, as emphasized by the compositional inclusion of garages and carports / porte-cocheres. Porches, an element honed in vernacular styles, were retained and transformed stylistically as a response to the hot and humid climate.

Opposite: Stone House at the Charles Deering Estate

Masonry wall with wrought iron grill at Plymouth Congregational Church in Coconut

Mission Revival

Origins and National Development

Understood as an appropriate style for Southern California and the American Southwest, the modern usage of Mission architecture as a regionalist style can be traced to renewed interest in cultural heritage following the 1876 centennial of American Independence.

Late 19th century California architects reiterated features of the Alta California Franciscan missions, Spain's 18th century efforts to colonize the Pacific coast of North America. Stylistically, the missions were influenced by Renaissance and Baroque Spanish architecture, but they were tempered by the ascetic character of Franciscan missions generally, and by the limited resources of the frontier. The style generated an austere architecture of mainly unadorned stucco walls, bold arches, and profiled parapets sometimes topped with clay tile.

By the late 19th century the Santa Fe and Southern Pacific railways adopted the Mission Style for their train stations and annexed hotels; the California State Building at the Chicago Columbian Exposition in 1893 also deployed it to represent the state. The Mission Style soon entered popular culture and spread throughout the US, especially in the areas of former Spanish influence.

Mission Revival in South Florida

In South Florida, the Mission Style provided a practical template for a variety of early building types, including schools, libraries, hospitals, churches and commercial buildings, and especially modest houses. The simple planar facades, whose principal mode of decoration was the silhouette of the parapet and the simple geometry of openings, provided an economical style for the development of the young city.

The Mission Style also comported well with Florida's early 20th century construction techniques. The adobe walls of the early missions were easily reinterpreted in masonry and concrete, and sometimes in wood framing. The stylized frontal façade could be used to conceal flat or gabled roofs behind. Its prominent arched openings were appropriate for screened porches as well as porte cocheres or enclosed single-car garages. Although the style lost the patio of its characteristic California precedents, it comported well with the simple cottages propagating in South Florida and participated in a new layer of suburb development there in the early 20th century.

Plymouth Congregational Church in Coconut Grove

House in North Miami

House in North Miami (original porch has been enclosed)

House in Biscayne Park (original porch has been enclosed)

House in Biscayne Park (original porch has been enclosed)

Redland Elementary School (Redland Farmlife School) in Homestead

House in Biscayne Park

Mission Revival

Relevant Features

General Features: Simple cubic construction with special emphasis on the front façade, where simple openings and a profiled parapet (sometimes ornamented with clay tile and decorative cartuches) provided the chief decoration on otherwise plain stuccoed walls.

Massing: Generally low-slung cubic masses, sometimes an assemblage of one and two-story volumes, with the latter stepped-back. The step back may convey the impression that the one-story front portion is an arcade or loggia. The massing may have a formal symmetrical composition, or an asymmetrical one. Exceptionally, a bell tower motif accents the design.

Wall Treatment: Walls are constructed of masonry or wood framing, and stuccoed. Parapets are profiled to various levels of complexity, and sometimes topped with clay tile. The decorative profile may be repeated, creating a type of resonance between building components. Window and door openings may comprise bold arches, whose curved profiles remind of the adobe origins of the type. Pent or visor roofs cantilever over windows and doors.

Roof Treatment: Mission Style structures may have flat or gabled roofs. Gabled roofs are generally covered with terra cotta tiles and have eaves that project over the building walls. Frequently, the profiled parapet of the building façade conceals the true roof character. Pent roofs may cantilever to protect large openings.

Openings: Window openings generally form simple apertures in the masonry and stucco walls. In order to approximate the adobe origins of the style, they may be arched or radiused. Windows are generally sash type or casement type. In houses, the façade often continues to embrace a porte cochere whose openings mirror the style of the house.

Porches: Arcaded porches are an important feature of the Mission Style; Although in practice in South Florida they are present mainly in civic, institutional, and commercial buildings. In homes, arcaded porches are reinterpreted as screened porches, often joined to an open carport as a type of continuous loggia. In commercial buildings, such porches may also be interpreted in glazed openings.

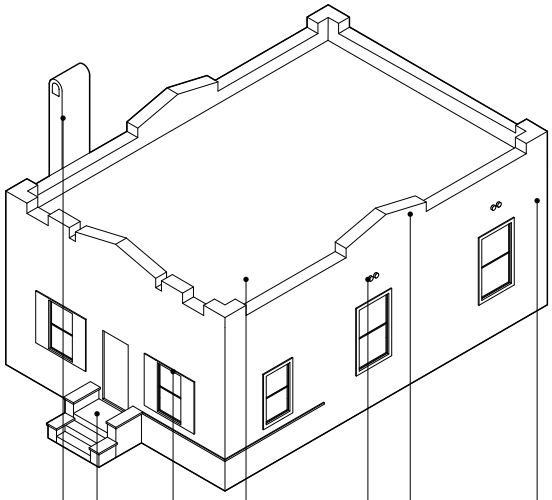
Ornamentation: Beyond the parapets, often articulated with a single row of sloping roof tiles, ornamentation is provided by functional elements like scuppers and roof vents. In more ornate examples, applied medallions, niches with urns, and carved stonework may also be found.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed floors, interior partitions, and roof of Mission Revival structures are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended, and in commercial buildings wet and dry floodproofing may be employed to manage water infiltration. Alternatively, vulnerable structures may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including masonry shell and wood framing elements of the roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

House in Goulds Historic District

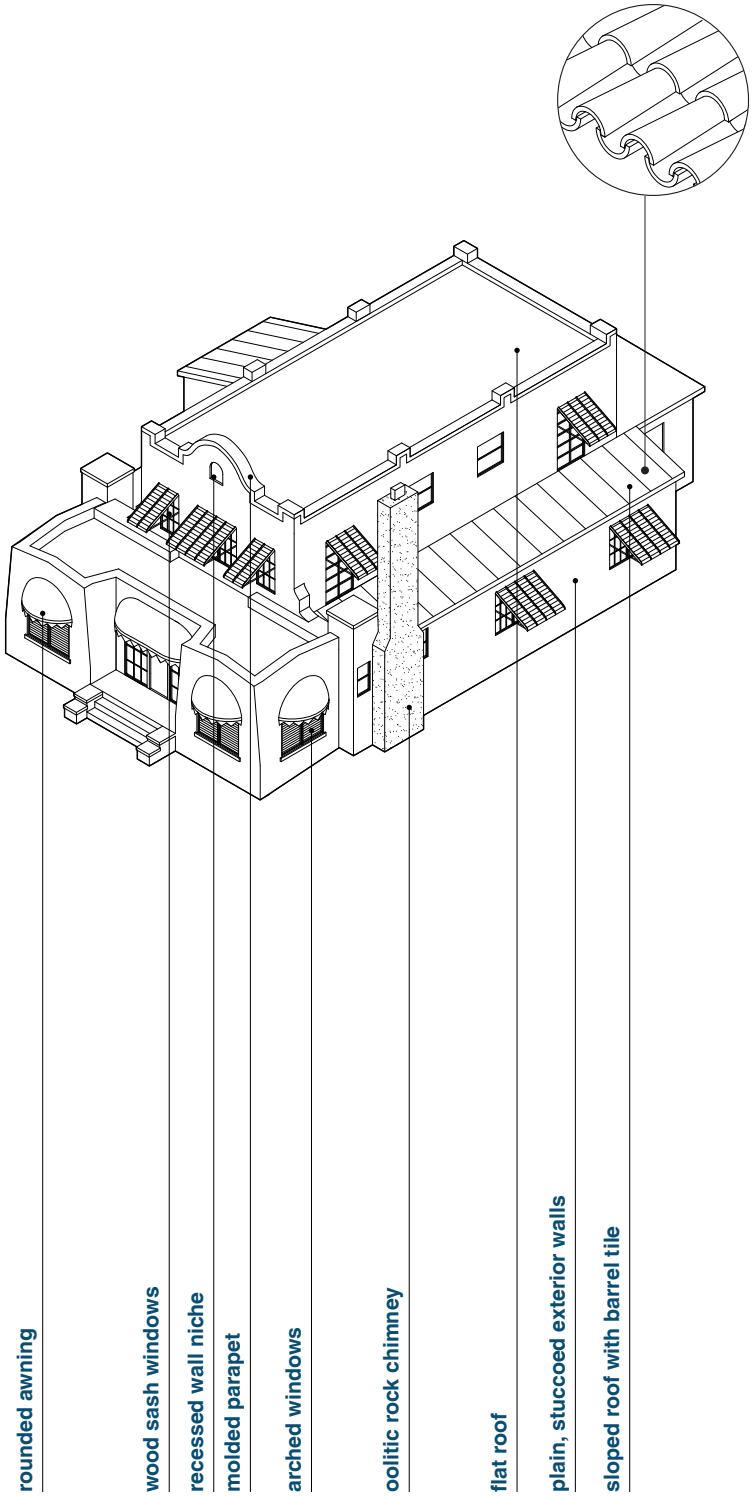
Diagrams reflect building's likely historic condition.



arched chimney
concrete steps and balustrade
sash windows
flat roof
terra cotta wall vents
molded parapet
plain, stuccoed exterior walls

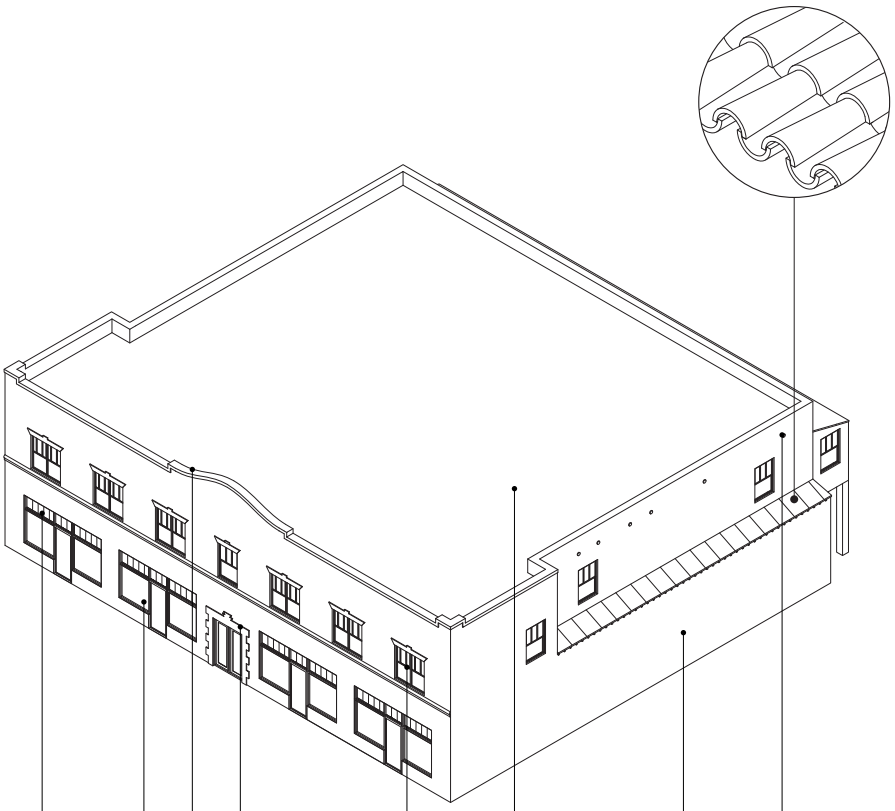
House in North Miami Beach

Diagrams reflect building's likely historic condition.



Commercial Building in South Miami

Diagrams reflect building's likely historic condition.



leaded glass lights above

storefront windows and doors with leaded glass transom above

molded parapet

decorative lintel and coining around entrance

wood sash windows

flat roof

textured stucco wall

terra cotta vents

Roof and wall detail at the Stone House at the Charles Deering Estate

Mediterranean Revival

Origins and National Development

Mediterranean Revival, also known (nationally) as the Spanish Colonial Revival, is an eclectic design style that became popular in the United States around the beginning of the twentieth century and came into prominence in the 1920s and 1930s. It thrived especially in the American Sunbelt – Florida, Texas, New Mexico, Arizona, and California – where the climate and quality of light, as well as historical links to the Spanish empire (however tenuous) suggested the appropriateness of Mediterranean architecture. The style came to prominence nationally with the success of the 1915 Panama-California Exposition, architecturally orchestrated by Bertram Goodhue, whose ornate campus of courtyards and patios, sunken gardens and loggias demonstrated a romantic sense of place.

In the context of boom-era America, the rising wealth and mobility of a new leisure class inspired romantic notions of Mediterranean culture and leisure, a civilization founded on sensory pleasures, on beauty and on themes of leisure.

The Mediterranean Revival was not a purist style, taking inspiration from Spain, Italy and North Africa; its source architecture ranged from Renaissance palaces to rustic castles and modest vernacular homesteads. The style blended consciousnesses of historical tradition and archetypal forms with modern plan arrangements and fixtures.
The style featured extroverted architectural elements and decoration, as well as an emphasis on outdoor living. Mediterranean Revival is generally characterized by stuccoed wall surfaces, flat or low-pitched terra cotta and tile roofs, arches, scrolled or tile-capped parapet walls and articulated door surrounds. Ornamentation can range from simple to dramatic and may draw from a number of Mediterranean references. Elements like 'cortiles,' loggias and garden walls were often configured to produce a variety of patio layouts. Exterior staircases emphasize connections to the garden.

Feature detailing is occasionally executed in keystone. Balconies and window grilles are common and are generally fabricated out of wrought iron or wood.

Mediterranean Revival in South Florida

In Florida, the Mediterranean Revival can be traced back to early projects like Carrere and Hastings' Ponce de Leon Hotel in St. Augustine, (1888), Hoffman and Chalfin's Vizcaya in Miami, (1910). However, the Mediterranean Revival style became dominant and even synonymous with the Great Florida Land Boom of the 1920s. New cities like Coral Gables, Boca Raton and countless others became laboratories for the development of the Mediterranean Revival style. Old World imagery helped give form to these new American cities, imbuing them with a sense of permanence. Architects like Richard Kiehnel, August Geiger, Walter de Garmo, Maurice Fatio, Russell Pancoast, and Addison Mizner did much to popularize the style in South Florida, applying it to every imaginable building type (houses, hotels, commercial buildings and public buildings), and creating an authentic regional vernacular in the process.

House in Miami

Former post office in South Miami


House in Miami


House in North Shore Crest Historic District


Golden Beach Pavilion in Golden Beach


House adjacent to Schenley Park Neighborhood


Stone House at the Charles Deering Estate

Mediterranean Revival

Relevant Features

Primary Features: A compositional architecture of textured or smooth stucco-clad structures with applied ornamentation (often concentrated around windows and doors). A varied massing is reflected in multiple wall planes. A general mix of flat and low-pitched terra cotta tile roofs. Material use emphasizes richness and contrast.

Massing: Massing tends to be complex and additive, with intersecting volumes and contrasting forms and heights. The irregular silhouette of these structures is often contrived to convey the sense of an architecture that developed over time, accretively, rather than as a singular composition. The rambling forms often produce interiors that are multi-level with interesting intersections between rooms. In some structures, there is a search for monumentality, featuring a compositional use of towers, chimneys, projecting balconies, loggias and arcades. Residential structures are often shaped to create walled patios, which may be landscaped and contain pools and fountains. Some structures feature expressed exterior staircases.

Wall Treatment: Walls generally comprise textured stucco, but may include oolitic rock elements. Building walls may continue into the landscape to define courtyards, creating outdoor rooms, increasing the apparent size of the house.

Roof Treatment: Sloped and flat roofs are commonly used in combination. Flat roofs have parapets and sloped roofs are low pitched; the play of roof types and forms is used as a compositional device. Sloped roofs are covered in terra cotta tiles that are Mission or Barrel type ('C'-shaped) or Spanish type (S'-shaped) interlocking tiles. On the gable side, there is little or no eave overhang, but eaves may be extended, and project on carved wooden rafter tails.

Ornate and recessed entranceways: Mediterranean Revival homes often feature pronounced entranceways, sometimes surrounded by sculptural elements, deeply recessed into thickened walls and porch features, or embedded in a loggia.

Openings: Openings vary between rectangular and arched, although some may be circular, semi-circular, segmental, pointed (Gothic), or ogee (Venetian). The varied or irregular composition of openings is an important signifier of the style. Often, windows acquire prominence by a decorative trim. Windows were generally casements type. Doors were paneled, often with carvings and expressed metal hinges.

Ornamentation: Ornamentation can range from simple to dramatic, and may draw from a number of Mediterranean references. Typical elements include wrought iron window grills, peaked chimney cap, wood brackets carrying projecting eaves, projecting wooden balconies, arched windows, clay-tile inserts, and bay windows. Feature detailing is occasionally executed in ornate materials, like native Florida keystone or terra cotta.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed floors, interior partitions, and roof of Mediterranean Revival structures are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended, and in commercial buildings wet and dry floodproofing may be employed to manage water infiltration. Alternatively, vulnerable structures may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

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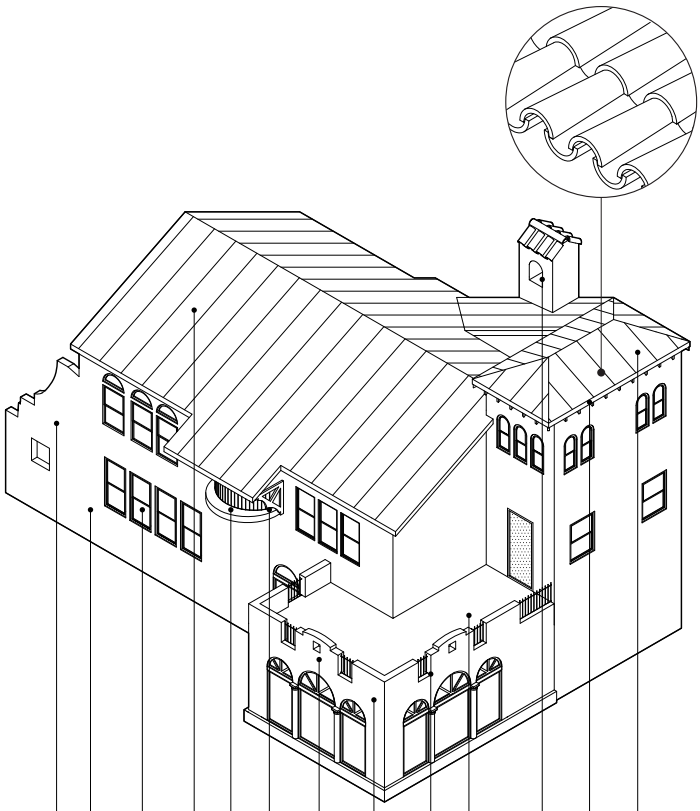
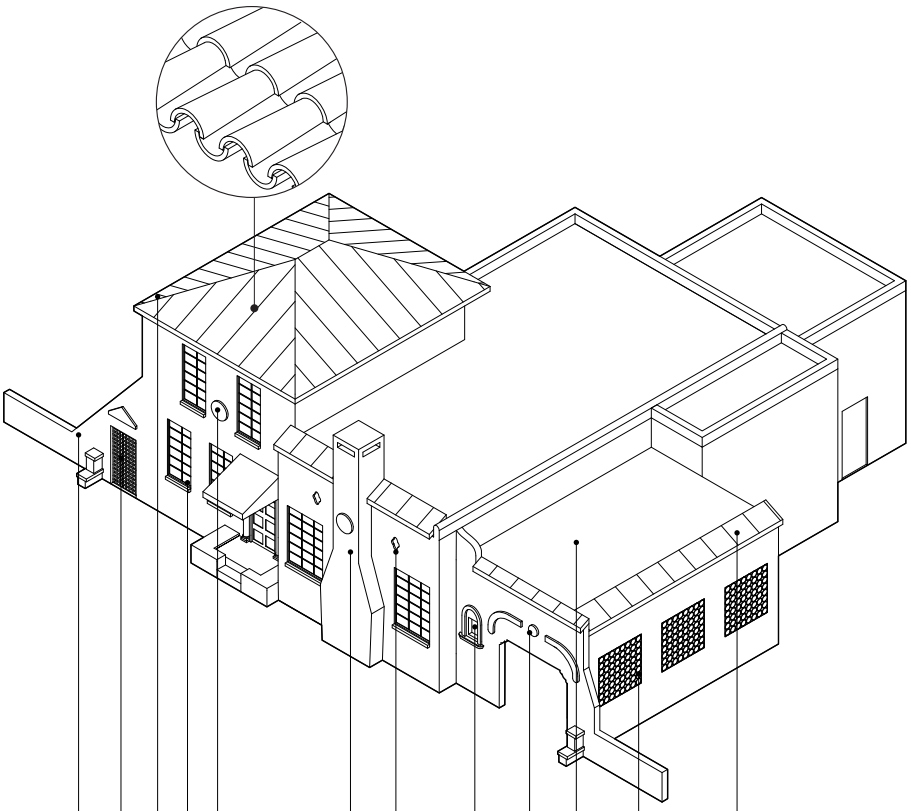
House in North Miami Beach

Diagrams reflect building's likely historic condition.



House in North Miami Beach

Diagrams reflect building's likely historic condition.



decorative wall façade extension

iron gate

hipped roof with barrel tiles

casement windows

masonry medallion

decorative chimney with flat top

terra cotta masonry wall vents

recessed wall niche

carport with decorative elements

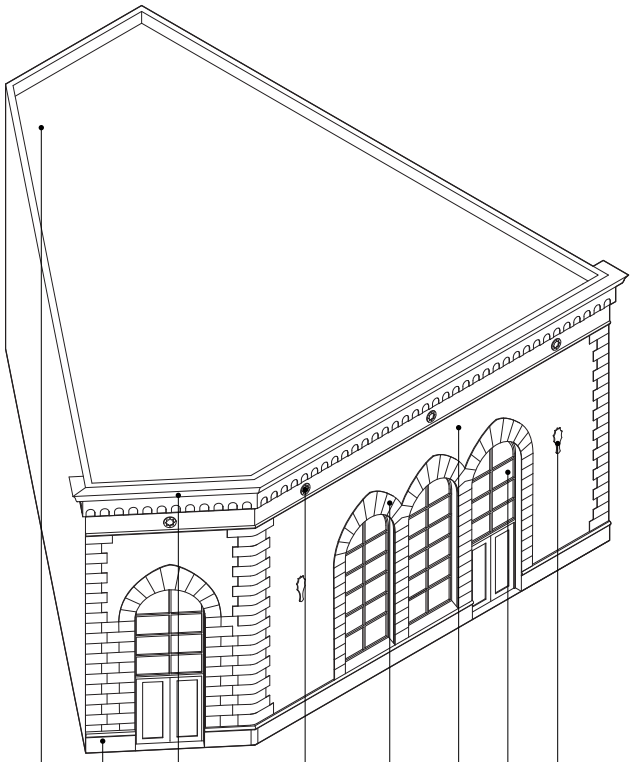
flat roof

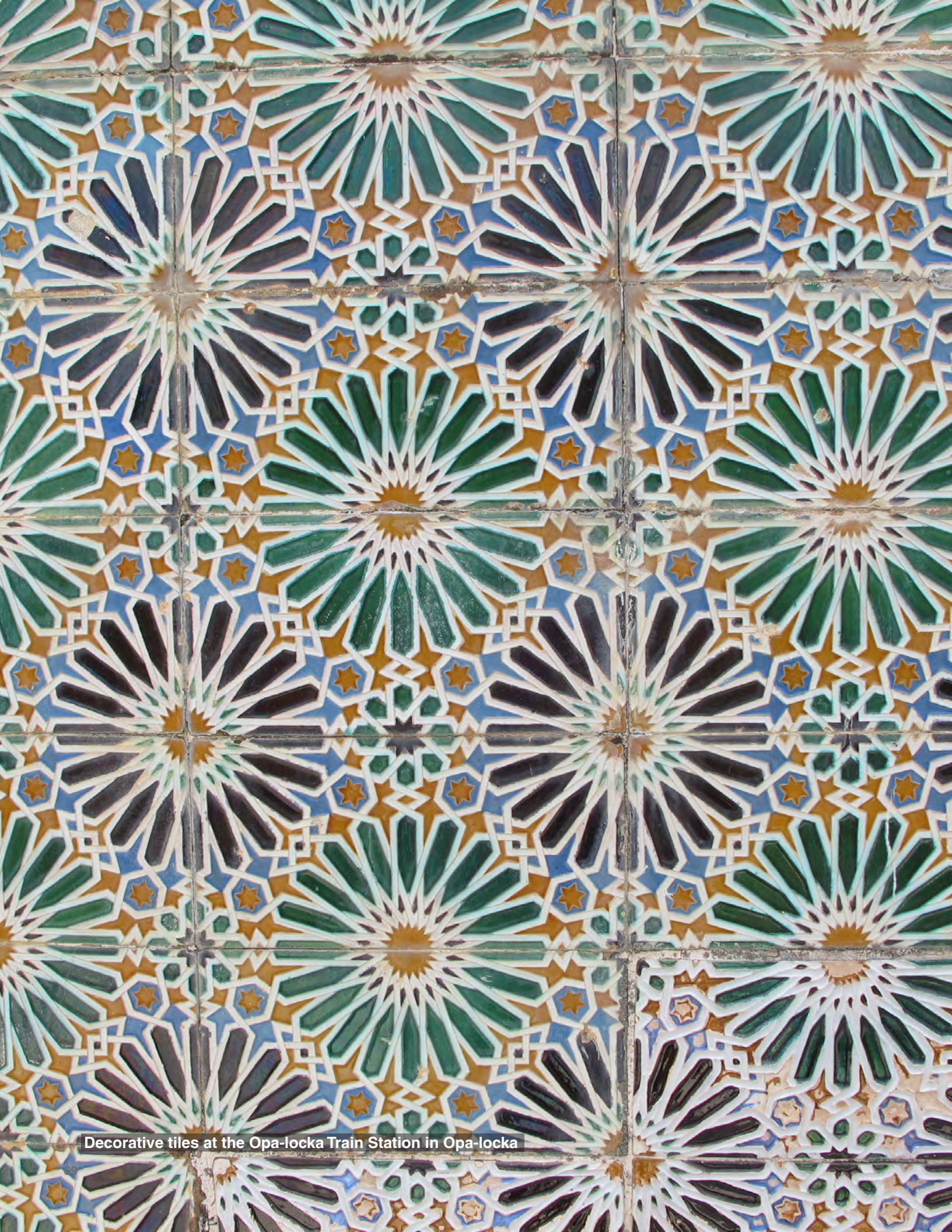
terra cotta grillage

terra cotta wall coping over masonry parapets

Commercial Building in South Miami

Diagrams reflect building's likely historic condition.





Decorative tiles at the Opa-locka Train Station in Opa-locka

Moorish Revival

Origins and National Development

Like the Mediterranean Revival, the Moorish Revival Style stems from 19th century interest in eclectic architectures, especially the exotic. Spurred by Washington Irving's 1832 *Tales of the Alhambra*, a first wave of interest in 'oriental' architecture came in the early 19th century; nearly a century later, a revival in the 1920s brought it again to the forefront. Moorish elements may also be present in Mediterranean Revival architecture, but what characterizes the Moorish Revival is a more striking exotic emphasis on the romantic.

Stylistically, the Moorish Revival derives from the influence of the Moors in Spain between the 13th to 16th century, but may respond to Islamic architectural styles in general. It is an architecture of fantasy, featuring horseshoe or pointed arches, minarets, domes, crenelated battlements, thematic use of moon and star patterns, and ornate decorative tile patterns common in Islamic architecture.

Moorish Revival in South Florida

Along with the Mediterranean Revival, the Moorish Revival took hold in South Florida during the Great Florida Land Boom of the 1920s. Like the former, its scenographic and romantic qualities made the style a draw in new developments, especially the early vision for Opa-locka, founded in 1926 and developed by aviator Glenn Curtis. The build-out of that city by architect Bernhardt Muller, manifested the exotic expectations of new Florida immigrants, imbuing architecture with the spirit of the Islamic Golden Age described in the folk tale collection *The Arabian Nights: Tales from a Thousand and One Nights*.

In South Florida, Moorish Revival architecture fit well with local masonry building traditions, which allowed a wide range of exterior expressions.

House in Lake Belmar Historic District

Home in Opa-locka

Commercial building in Opa-locka

Harry Hurt Building in Opa-locka

Civic building in Opa-locka

Opa-locka City Hall

Mixed-use building in Miami Beach

Moorish Revival

Relevant Features

General Features: Stucco-clad structures featuring varied and exotic building silhouettes recalling elements of Islamic architecture, including keyhole arches, crenelated parapets, domes, minarets, deep porches, and decorative tilework.

Massing: Compositional, often asymmetrical massing based on intersecting volumes of different height. Domes and minarets create vertical emphasis while highlighting prominent building volumes.

Wall Treatment: Rough or smooth stucco walls pierced by arches and other openings. Crenelated battlements at the parapet provide a decorative silhouette against the sky. Chromatic variations, achieved with paint or tilework, are used to emphasize primary wall openings and decorative wall patterns.

Roof Treatment: Flat roofs are concealed by low parapets and may feature decorative roof domes and minarets.

Openings: Entranceways are generally arched with horseshoe or pointed arches, sometimes bulging out at the base of the arch (called a keyhole arch). May also include ogee and lancet arches. Arches are frequently decorated with expressed voussoirs. Windows are generally casement or sash type. The garage or porte cochere may have the most prominent arched opening in the façade.

Porches: Porches are a feature of the Moorish Revival in South Florida. These are usually recessed behind arched openings.

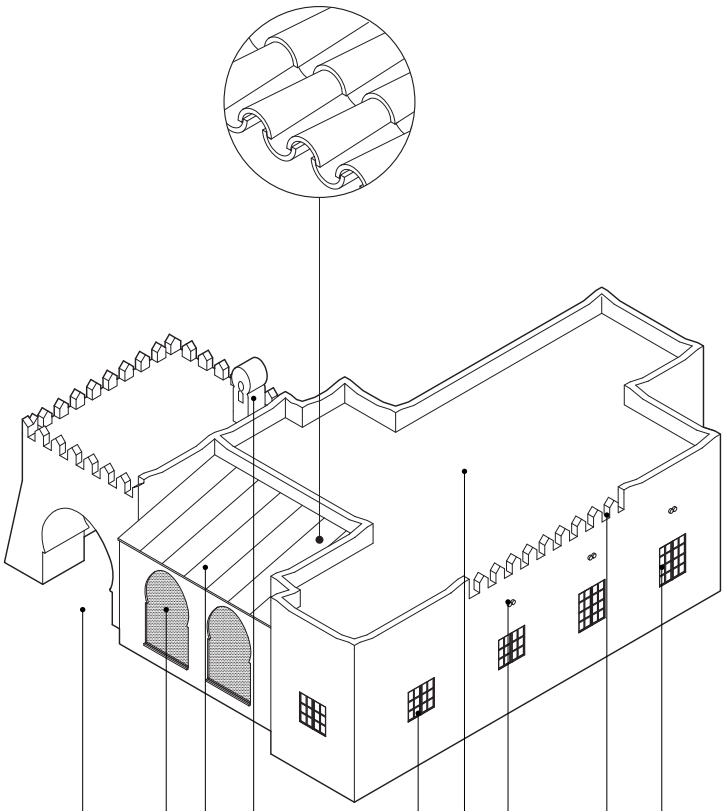
Ornamentation: Although the principal elements are found in the massing and articulation of openings, Moorish Revival houses may include more ornate elements, especially decorative glazed tile patterns, common in Islamic architecture. Other types of ornament include finials projecting from domes, multi-colored geometric patterns, the use of Islamic symbols, and decorative banding of walls.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed floors, interior partitions, and roof of Moorish Revival structures are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended, and in commercial buildings wet and dry floodproofing may be employed to manage water infiltration. Alternatively, vulnerable structures may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including masonry shell and wood framing elements of the roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

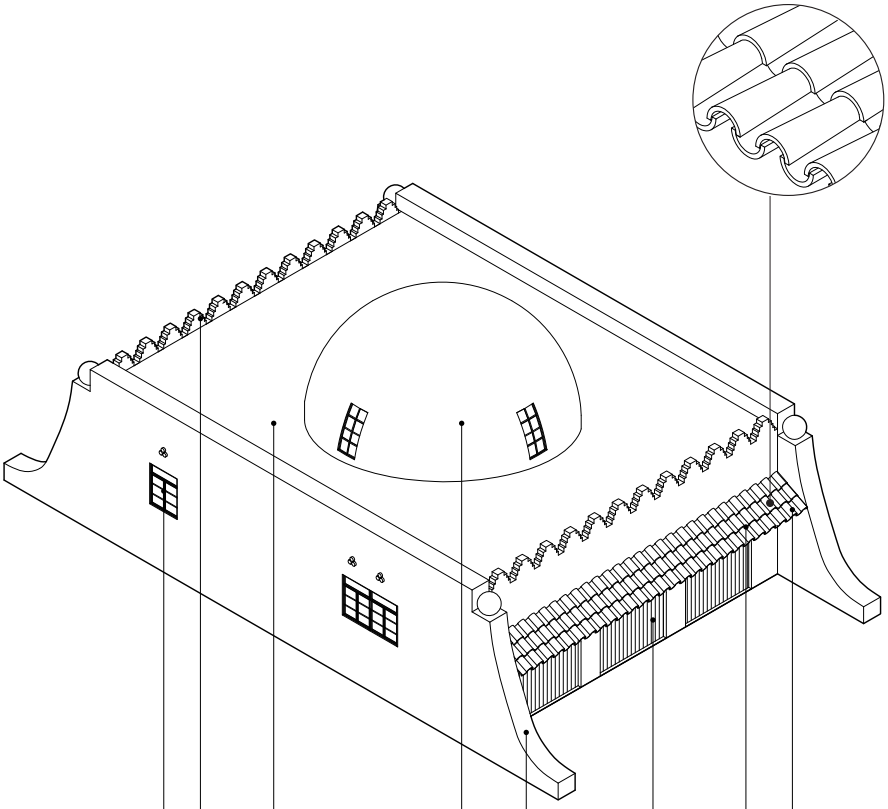
House in Opa-locka

Diagrams reflect building's likely historic condition.



Opa-locka City Hall Secondary Structure

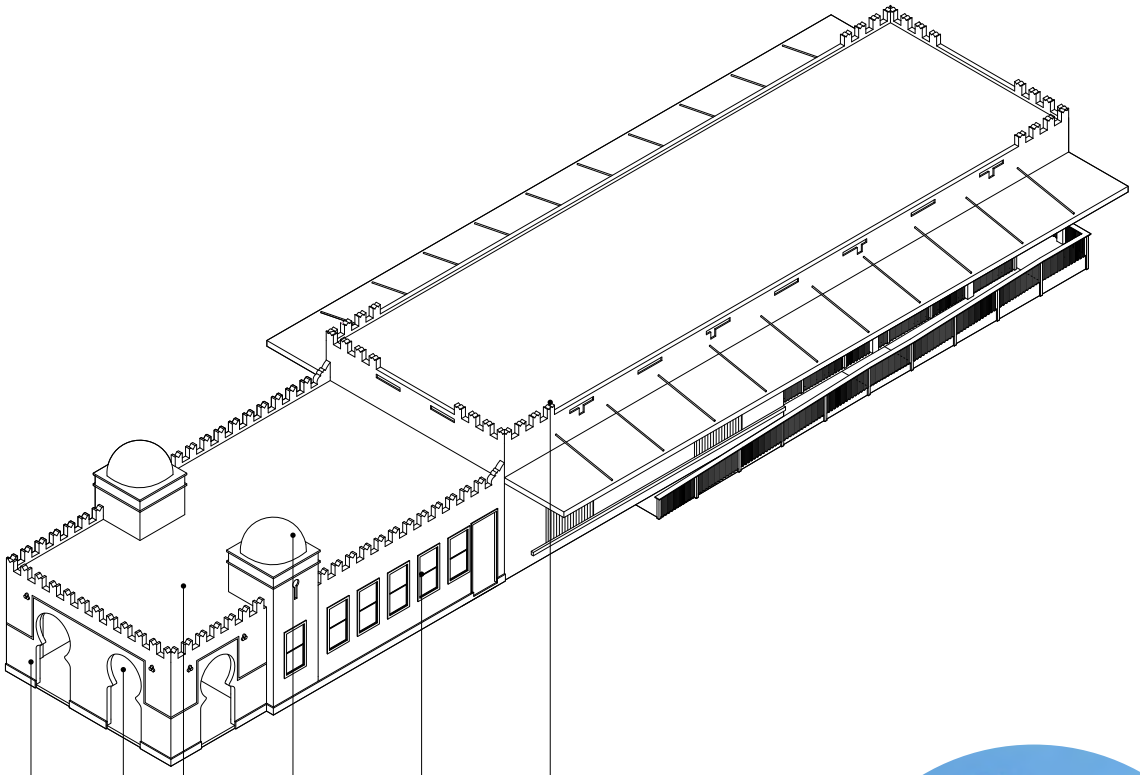
Diagrams reflect building's likely historic condition.



casement windows
crenelated parapet
flat roof
dome
decorative wall extension
arched doors
pent roof
barrel tiles

Opa-locka Train Station

Diagrams reflect building's likely historic condition.



decorative tile

keyhole arch

flat roof

dome

casement windows

crenelated parapet


CHTBEE APT'S.

Prewar Modern

The seeds of architectural modernism took root in South Florida in the 1930s. In its young cities, fashioned only years or decades earlier, new development began to reject traditional and eclectic styles. Rather, it sought inspiration in the spirit of contemporary society.

Architectural modernism evolved in the late 19h century and rose to prominence in the early 20th century, celebrating technology, espousing a rational approach to design and problem-solving, and rejecting ornament. Yet most Miami architects rejected a rigorous application of modernist principles (advocated, for instance, at the Bauhaus in Germany), and mixed modernist principles with popular design trends like Art Deco and Streamlining (the two most important stylistic movements of the period). These design movements shared stripped down forms and geometric based ornamentation; they had broad appeal in society, with applications in industrial design, furniture, lighting and jewelry.

A distinct regional design culture emerged that incorporated modernist elements like cubic massing, white walls and large metallic windows, while inflecting them with local elements. Projecting concrete eyebrows shaded the windows from intense sunlight; use of color tempered the sunlight; local themes, like flora and fauna, dominate the decorative elements. This hybrid form of design demonstrated how modern architecture, while aspiring to be universal, could also sponsor a regional approach to design. Miami Beach represents one of the most important and comprehensive global examples of these stylistic movements. There, mass tourism and leisure-based lifestyles combined to create an unusual resort metropolis.

The styles of prewar modernism in Miami rarely exist in isolation. Signs of a Mediterranean/Art Deco transition abound, and many prewar buildings blur the lines between Art Deco and Streamlining. Prewar modern buildings also retained the masonry and stucco shell, and interior wood framing system, that had become standard in South Florida. They demonstrated how vernacular construction technology could be adapted to a variety of expressions. An interesting exception was the dream of prefabricated housing, a result of experimental thinking applied to the use of new materials and methods (metal, laminated wood, or plywood). Although it never really took off in South Florida the “National Steel House”, located in the North Shore Crest Historic District and designed by William Van Allen (architect of New York’s Chrysler Building), was constructed using stainless steel wall panels with metal casement windows over a concrete slab in 1936.

Collins Avenue Historic District, Miami-Dade Public Library System Digital Collections

Cast Concrete Railing in Miami Beach

Art Deco

Origins and National Development

Art Deco was popular in the United States from the 1920s to the 1940s. The term derives from the 1925 *Exposition Internationale des Arts Decoratifs et Industriels Moderne* in Paris. Breaking from the Beaux Arts and traditional revival expressions, Art Deco fused Modern Classicism and early twentieth century machine age modernism with an eclectic mix of artistic movements, including Art Nouveau, Cubism, Russian Constructivism, and Italian Futurism. Art Deco — as the name implies — put emphasis on decorative elements, using abstractions of natural and machine forms, but also references to exotic Mayan, Egyptian, or Oriental sources.

Art Deco emphasized the vertical, making it a natural for skyscrapers and other types of metropolitan architecture. However, its monumentalizing character was achieved in smaller-scale buildings expressing features like pilasters, marquees, and totemic pylons at the parapets. The play of these vertical features with horizontal elements, like recessed spandrel panels, racing stripe-type string courses and abstract cornices animated both the composition and surface decoration of the façade.

Art Deco featured a generally complex use of material for decorative programs, including the rich use of glazed bricks, native stone, mosaic tiles, terra cotta, and metals like monel and aluminum. New types of glass, including colorful Vitrolite panels and glass block were also introduced, and polychromatic lighting effects used. Characteristic fenestration included horizontal window bays with metal casement windows, as well as circular and octagonal porthole windows. Decorative motifs, sometimes deployed as figurative bas relief panels, included abstract or geometric patterns, stylized figures of flora and fauna, and sunrise motifs.

Art Deco in South Florida

Art Deco arrived late in Miami, almost a decade after its initial popularization in Paris, and soon challenged the Mediterranean Revival style architecture that had fallen out of favor after the collapse of the 1920s Florida real estate boom. It arrived in the 1930s, a period of renewal and growth in South Florida, even as much of the nation struggled to overcome the financial exigencies of the Great Depression. Aligning with this period of growth locally, it produced extraordinary exemplars of architecture, at once international in spirit and regional in design.

Early Art Deco buildings in Miami, including the Sears Roebuck & Company Building (1929) and the Miami Beach Public Library (current Bass Museum, 1930), were true to the style's early exemplars. However, in the early to mid 1930s a locally differentiated transitional Mediterranean Revival / Moderne style evolved in the 1930s, as architects influenced by the Modern Movement pared down decoration and appropriated newer Art Deco architectural elements. The allure of modern smooth stucco and fluted arches are paired with traditional elements like barrel tile roofs and decorative shutters, geometric ornament replaced Mediterranean flourishes, and racing-stripe-like string courses and modernist fluting took the place of traditional columns and cornices.

By the late 1930s, Art Deco flourished locally, especially in the design of hotels, modest apartment buildings, retail buildings and even houses in Miami Beach. Its cubic forms and smooth walls were organized in restrained formal compositions that employed both symmetrical and asymmetrical layouts. Sophisticated effects were often achieved using modest and locally-adapted construction techniques, like modernist cornices made from step backs in the parapet masonry work that suggested a more sophisticated volumetry. Indeed, most Art Deco buildings are finished in stucco, using planar

offset to create a sense of depth and complexity, and stucco cresting as a type of detail. A more refined cut of oolitic limestone, known as Quarry Keystone, became popular as well; sometimes naked, and sometimes filled and colorized to achieve graphic effects, the use of stone provided a rich contrast to the general use of stucco (although some buildings are entirely clad in keystone, to spectacular effect).

Ribbon-like horizontal window bays, often located at the cutaway building corners, were filled with metal framed casement windows. These windows bays were often emphasized (and protected) by projecting concrete 'eyebrows'. Low decorative concrete balustrades helped extend the interiors to terraces, while built-in planters incorporated nature into the architecture.

Decoration included paneled precast bas-relief spandrels, glass block, Vitrolite glass panels and applied geometric medallions. These features, along with decorative etched glass, metal marquees, and geometrically-patterned terrazzo floors, became motifs of the city itself. Decorative elements exhibit the free range given to geometric patterning, nautical theming and industrial symbolism, abstracted natural forms, ancient cultural motifs (in a modernized format), and even regional and historical themes. Bas-relief panels featured tropical floral and fauna including local exotica like palm trees, flamingos and egrets, abstracted heraldry and the sunburst motif.

Commercial building in Miami Beach

Apartment building in Collins Avenue Historic District

Former Miami Beach Public Library and Art Center (current Bass Museum of Art) in Miami Beach

Commercial building in Miami Beach

Cardozo Hotel in Miami Beach

Colony Hotel in Miami Beach

McAlpin-Ocean Plaza Hotel in Miami Beach

Cavalier Hotel in Miami Beach

Art Deco

Relevant Features

General Features: Cubic volumes combined with modernistic decorative surface treatments.

Massing: Bold cubic massing elaborated in symmetrical or asymmetrical configurations, usually emphasizing a vertical emphasis. Built-in masonry planters below windows, beside entrance steps and at building corners, or running continuously across the front façade.

Wall Treatment: Smooth stucco wall finishes accented with offset planes, or with applied decorative detail like fluted pilasters, bas relief panels, and applied cast stone, quarry keystone or Vitrolite glass panels. Other elements include precast concrete attic vents and scuppers. Openings are generally rectangular, but circular arches, ziggurat or zig-zag arches may be used.

Roof Treatment: Roofs are generally flat. In commercial and civic buildings, functional elements like rooftop stair and elevator bulkheads are elaborated as vertical pylons.

Openings: Generally rectangular window openings comprise wood awning or metal-framed casement windows. Decorative openings included glass block panels, and circular or polygonal windows.

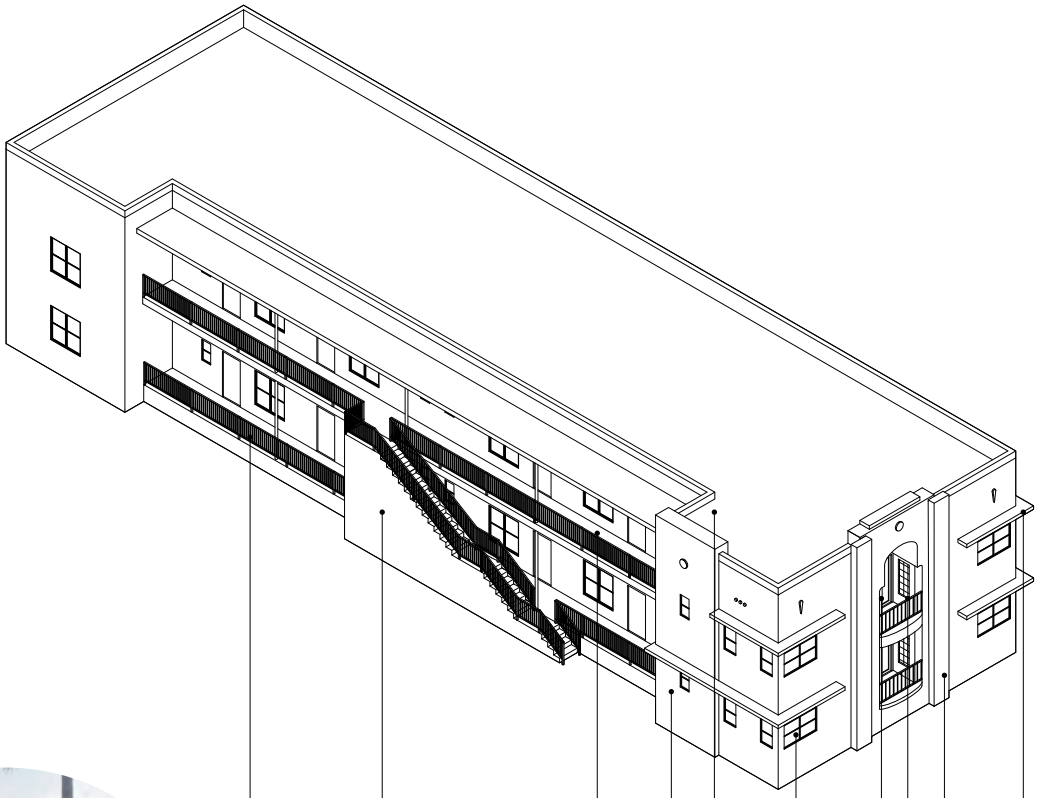
Ornamentation: Ornamentation, often in the form of bas relief panels or decorative sculpted vents varies from abstract geometric patterns to stylized flora and fauna. Nautical themes and tropical themes (flamingos, palm trees, and ocean waves) mix with Egyptian, Mayan and Native American motifs. Decorative metalworks include railings, balusters, and door and window trim in either aluminum or stainless steel. Floors are generally geometrically patterned terrazzo, although terra cotta quarry tiles are often used as well.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed floors, interior partitions, and roof of Art Deco structures are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended, and in commercial buildings wet and dry floodproofing may be employed to manage water infiltration. Alternatively, vulnerable structures may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including masonry shell and wood framing elements of the roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

Apartment building in Surfside

Diagrams reflect building's likely historic condition.



wrought iron railings

exterior stairs

exterior corridors

smooth stucco finish

flat roof

awning windows

arched balcony openings

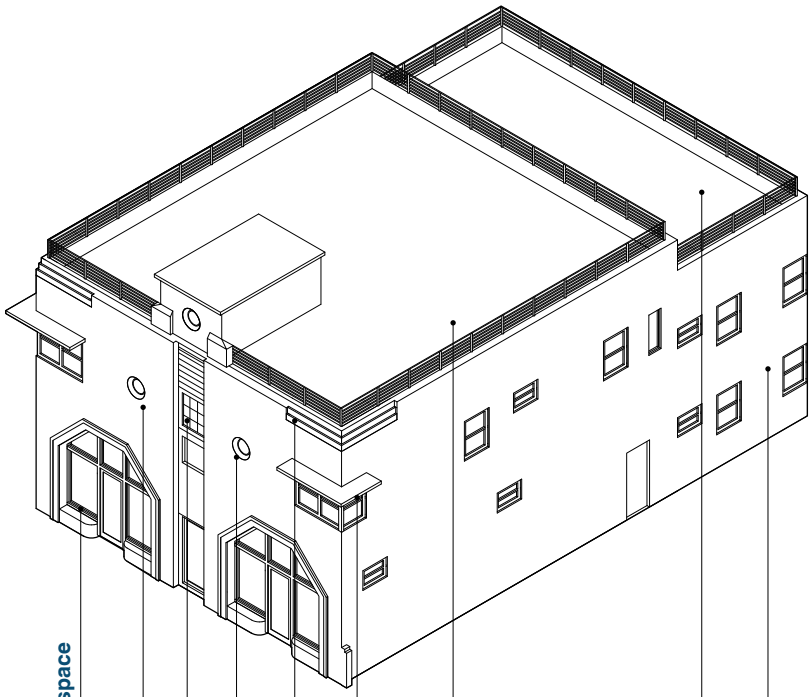
glass block windows

abstracted pilaster

eyebrows

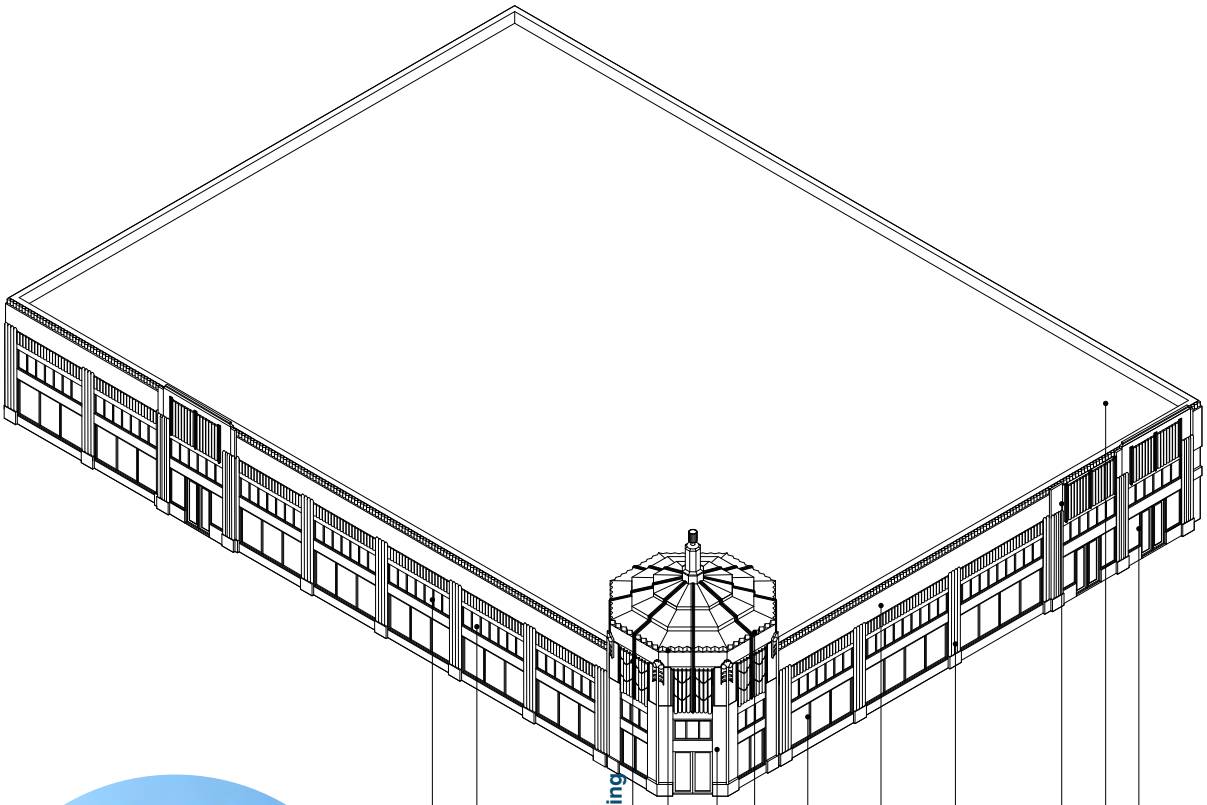
Mixed-use building in Miami

Diagrams reflect building's likely historic condition.



Commercial Building in Miami Beach

Diagrams reflect building's likely historic condition.



transom
transom windows
decorative cast-stone bas relief panels with geometric patterns, fluting
tower element
pilasters with stepped stucco planes and abstracted floral motifs
abstracted cornice of zigzag masonry blocks
metal framed windows
smooth stucco
pilasters with decorative fluting
bass relief panel
flat roof
aluminum and glass storefront below transom

Eyebrow in Collins Avenue Historic District

Streamline Moderne

Origins and National Development

Streamline Moderne can be considered a phase of Art Deco that emerged in the 1930s. In its simplest form, it was based on aerodynamic lines and the principles of airflow design. Like Art Deco, it existed partly beyond the realm of architecture, as a style that was influenced by industrial design (cars, airplanes, ships and even appliances), and that influenced it reciprocally. It was inspired by machine age values of motion, speed, efficiency and mass production. Worlds Fairs, like Chicago's Century of Progress World's Fair (1933-34) and New York's World of Tomorrow World Fair (1939-40) were important proponents of the style,

Streamlining emphasized powerful horizontal design compositions, sometimes punctuated by striking vertical features. Rounded building corners, similarly curved canopies, radiused door and window recesses, and wrapping ribbon corner windows helped accentuate the horizontality. Taught wall planes were emphasized by flush glass block wall panels, mirrored panels, string courses like racing stripes that wrap a building. Door and window trim, as well as railings in aluminum, chrome or stainless steel, established continuity with string courses. Hard and smooth surfaces emphasized volumetry over the application of detail, and suggested machine-like forms that reflected the latest advances in transportation technology.

Streamline Moderne in South Florida

The "streamlined" character of automobiles, airplanes, trains, and ocean liners, the inspiration behind Streamline Moderne, had special relevance in South Florida, a distant region connected to American metropolitan centers by machines. Modern transportation brought immigrants and tourists to this forward-looking city. In Miami Beach, this machine fantasy combined with resort consciousness.

The bold, simplified forms of streamlining worked well in South Florida's bright sunlight, and its monochromism is offset well by the lush landscape. Its horizontality aligned with the need for low-rise building and continuous canopies that protect from the sun and rain. In Miami, Art Deco and Streamlining are often combined.

Apartment building in Collins Avenue Historic District

Essex House Hotel in Miami Beach

House in Miami Beach

Former restaurant (Hoffman's Cafeteria) in Miami Beach

Former Walgreen Drug Store (Walgreens) in Downtown Miami

Apartment building in Miami Beach

Commercial building in Surfside

Streamline Moderne

Relevant Features

General Features: Cubic volumes combined elaborated by functional and decorative elements to emphasize a powerful sense of horizontality.

Massing: Asymmetrical volumetry are common. Buildings may feature built-in masonry planters.

Wall Treatment: Smooth stucco wall finishes. sometimes with applied cast stone or quarry keystone; decorative use precast concrete attic vents and scuppers.

Roof Treatment: Roofs are generally flat. In commercial and civic buildings, functional elements like rooftop stair and elevator bulkheads are elaborated as vertical pylons.

Openings: Openings are generally rectangular, metal-framed casement windows with mullions aligned with horizontal bands. Occasional circular porthole, oculus, round windows on main or secondary elevations.

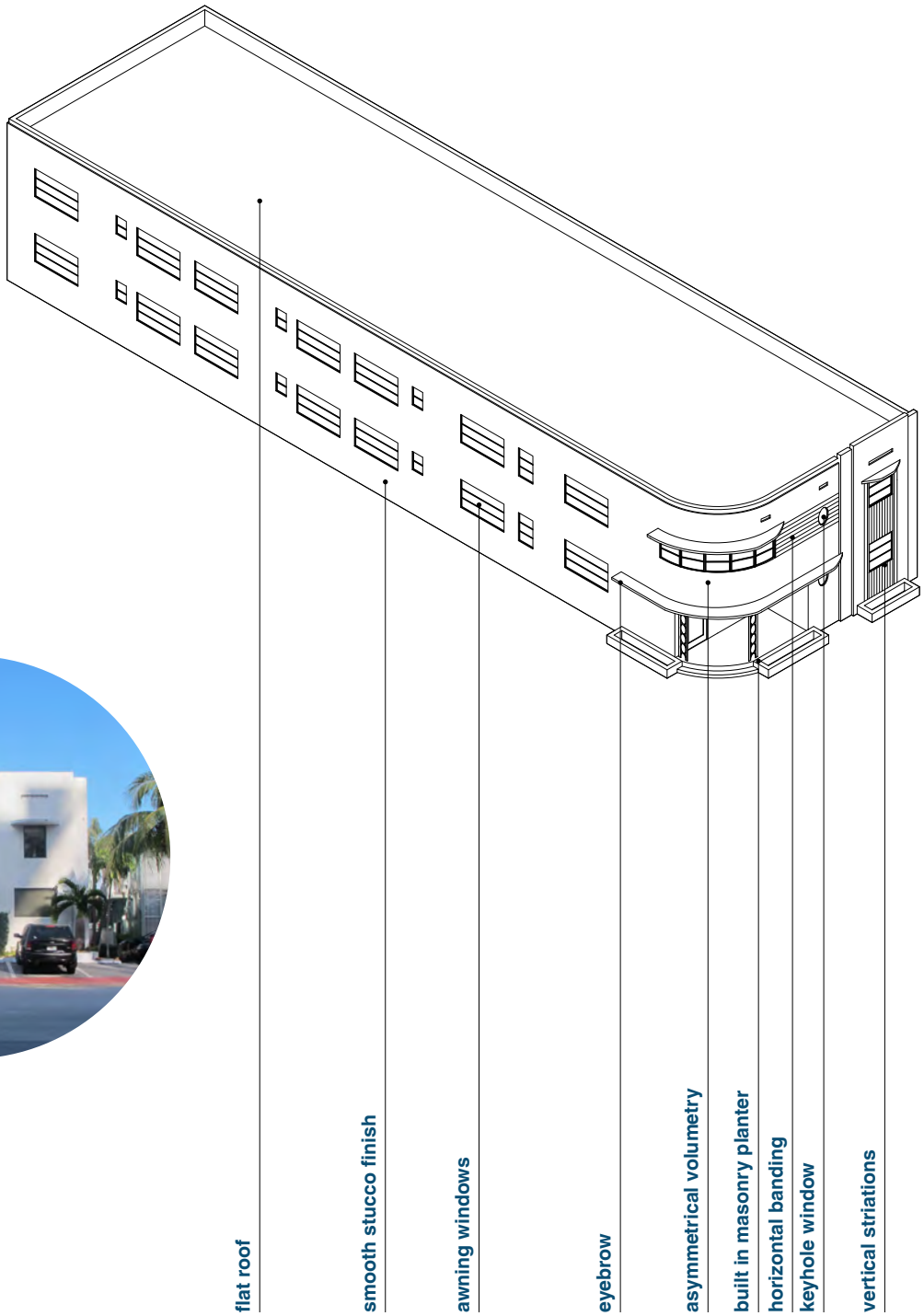
Ornamentation: Minimal decoration typical. Structural glass, decorative metalworks, terrazzo floors are typical.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed floors, interior partitions, and roof of Streamline Moderne structures are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended, and in commercial buildings wet and dry floodproofing may be employed to manage water infiltration. Alternatively, vulnerable structures may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including masonry shell and wood framing elements of the roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

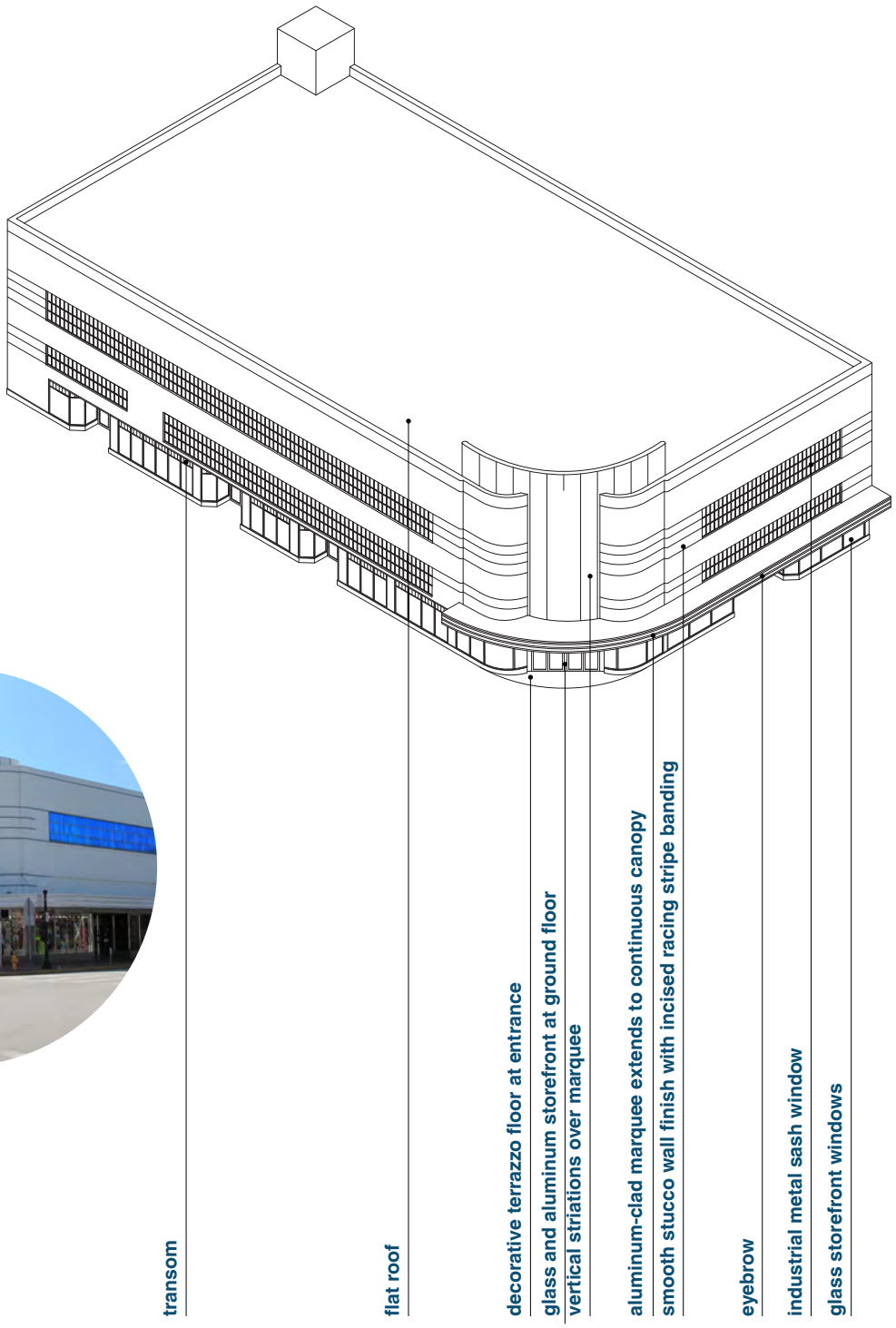
Apartment building in Collins Avenue Historic District

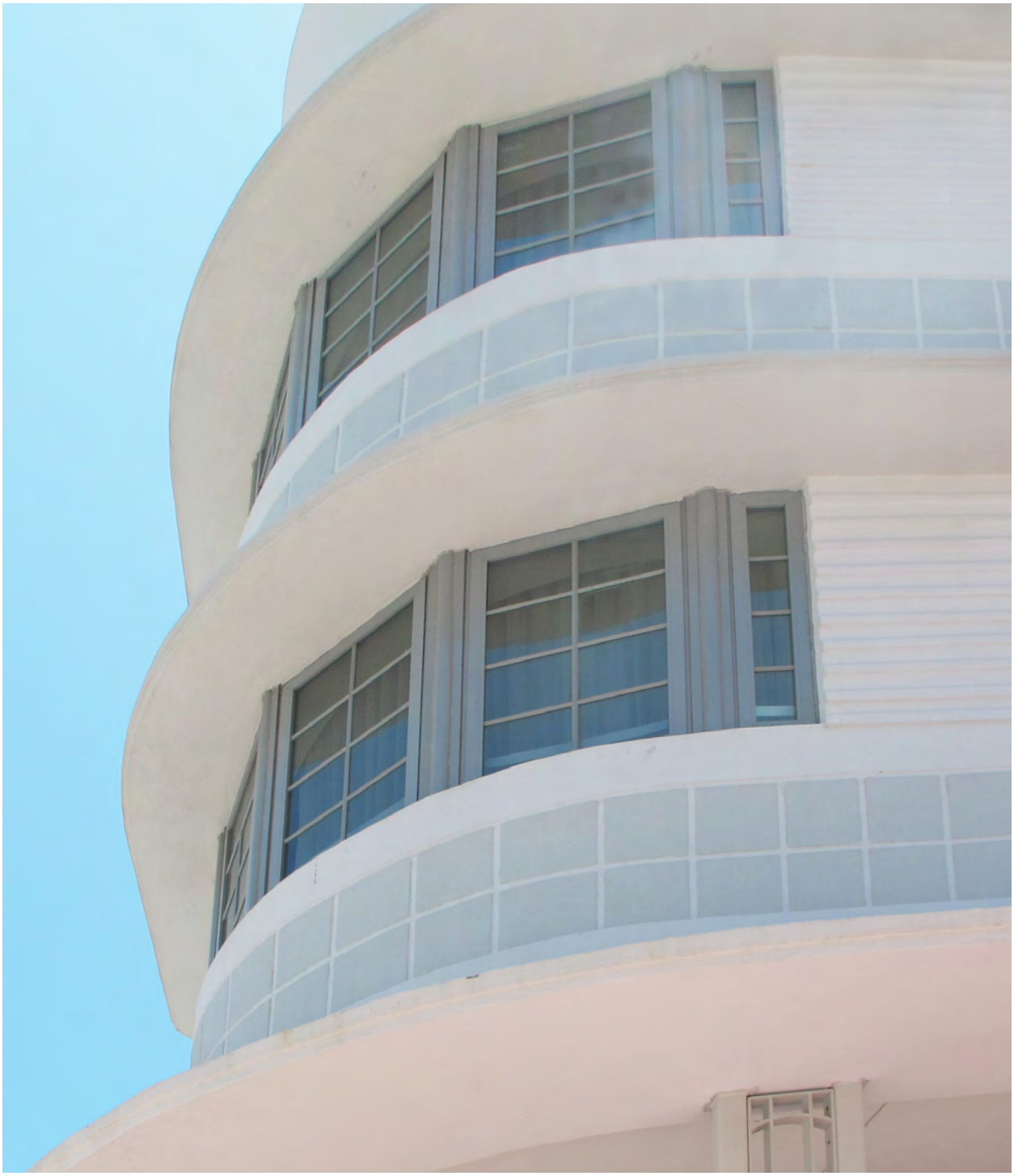
Diagrams reflect building's likely historic condition.



Commercial Building in Miami Beach

Diagrams reflect building's likely historic condition.





Eyebrows, horizontal banding, and metal-framed casement windows

Minimal Traditional Detail in North Miami

Minimal Traditional

Origins and National Development

Minimal traditional is a catch-all term for early to mid-20th century structures built with economy but based on traditional massing. These may include influences from American vernaculars, like American Colonial, Spanish or Mediterranean Revival, the Bungalow, Ranch and Postwar Modern, but they comprise only nominal stylistic features and a general avoidance of ornament. Decoration may include roof vents, scuppers, attached planters, bay windows, screened porches, areas of exposed brick or oolitic stone, and decorative front door.

Minimal Traditional in South Florida

In South Florida, Minimal Traditional dwellings were popular from the 1930s-1950s as popular enthusiasm waned for styles like Mediterranean Revival, Art Deco and Streamline. Pragmatic and modest, Minimal Traditional approaches were used in many new subdivisions of the region's burgeoning suburbs.

Minimal Traditional comprises elements of other styles that are used in minimal ways to uplift an otherwise straightforward boxy architecture. They conform to period building type, construction type, and tastes, but are uncommitted in terms of style; they are often eclectic and may seem like a restrained mashup of other styles. Constructed using a masonry shell, their interior partitions, floors and roofs are generally built of wood framing.

House in Biscayne Park

House in North Shore Crest Historic District

House in North Miami

House in North Shore Crest Historic District

House in North Shore Crest Historic District

House in North Miami

House adjacent to Schenley Park Neighborhood

Minimal Traditional

Relevant Features

General Features: Simplified modern interpretation on traditional architectural forms, with only nominal stylistic features and a general avoidance of ornament.

Massing: Generally small structures with simple massing, most often rectangular or L-shaped. Sloping roofs are tightly boxed around the walls. Front porches are generally expressed, and garages attached.

Wall Treatment: Mainly smooth stucco finish, sometimes with details in brick or stone.

Roof Treatment: Generally low to medium pitched gable and hipped roofs with narrow or boxed eaves, but may include flat roofs. Where roofs are pitched, appropriate treatments include barrel tile, asphalt shingles, and standing seam metal roofing.

Openings: Windows conform generally to the period in which they are built. Prewar houses typically have metal casement windows, while postwar examples have jalousie or awning type windows.

Ornamentation: Minimal Traditional is characterized by few decorative moves, although functional building elements like roof vents, scuppers, attached planters, bay windows, and screened porches are sometimes used to decorative effect. Minor ornamentation includes the use of exposed brick or oolitic stone, and decorative front doors.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. The wood framed floors, interior partitions, and roof of Minimal Traditional houses are particularly vulnerable to water. Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended. Alternatively, vulnerable houses may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

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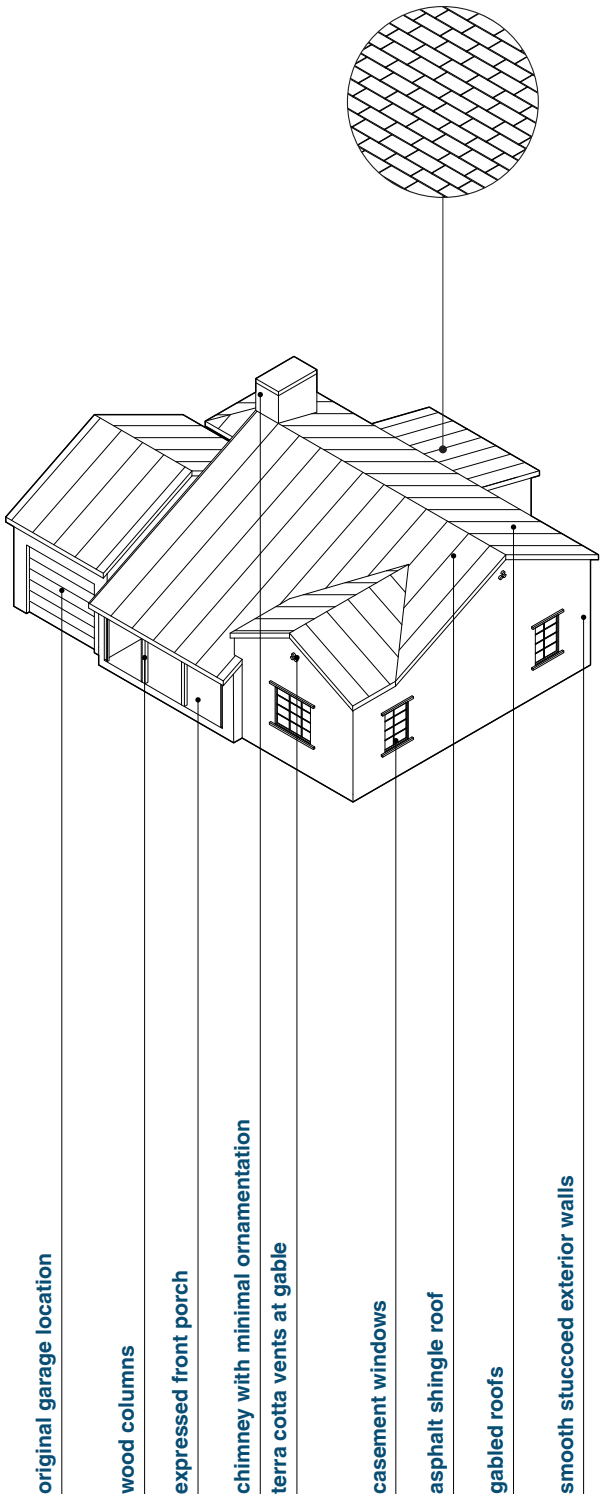
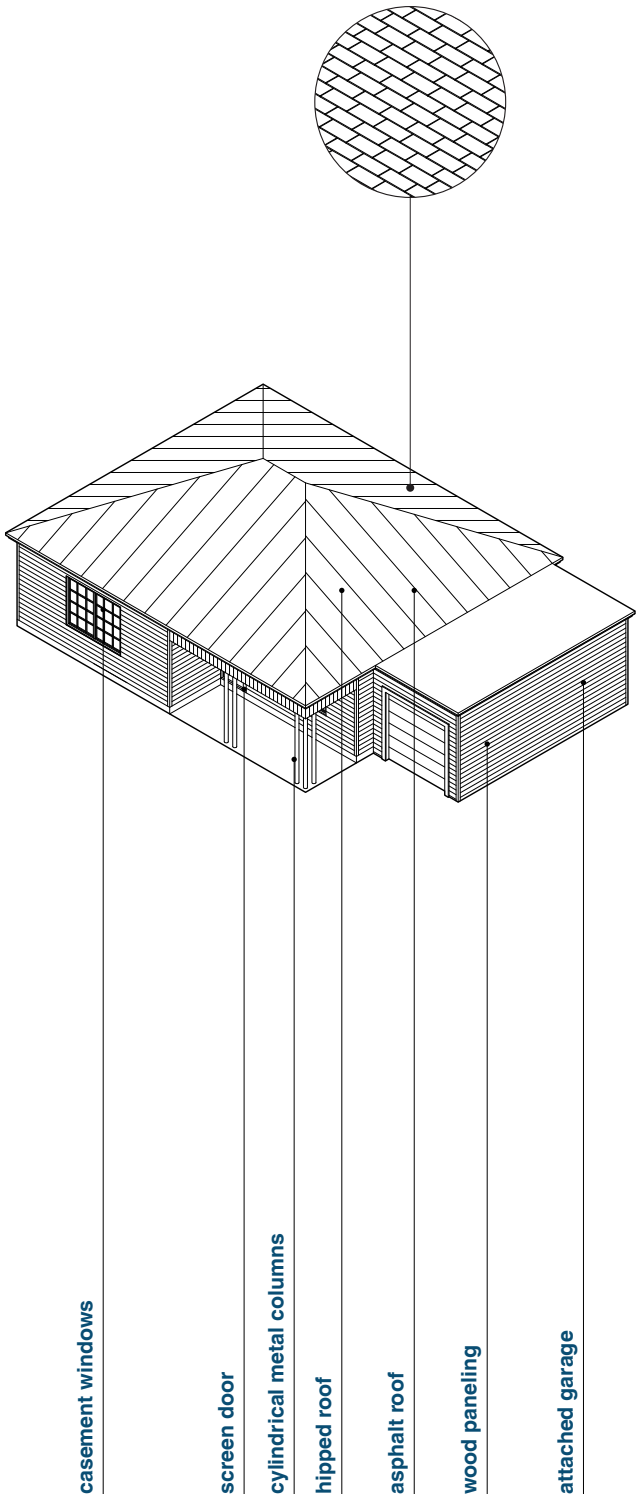
House in North Shore Crest Historic District

Diagrams reflect building's likely historic condition.



House in North Miami

Diagrams reflect building's likely historic condition.



Minimal Traditional house in North Miami

Postwar Modern

The two decades that followed World War II were a period of extraordinary growth in Miami-Dade County. A growing population, combined with rising prosperity, consumerism and technological progress, propelled the development of the region into a metropolitan center. Postwar modernism touched every aspect of the growing metropolitan area, from new universities (the University of Miami, Miami-Dade College, FIU), civic and institutional building (new libraries, city halls), infrastructure (MIA and the Port of Miami), commercial buildings, industrial parks, hotels, spiritual buildings, to housing and the single family home. During that time, even more than during the prewar period, architectural modernism provided a framework for new urban patterns, new building types, and evolving aesthetics.

Most of these new buildings are encompassed by the Postwar Modern style, a kind of catchall for the aesthetics of postwar modernism. The development Ranch and Split-Level houses, which proliferated in Miami-Dade County and make up the majority of its house stock, deserve special mention.

Yet, the region did not just witness a wave of modern architecture; it became a globally-celebrated laboratory for the development of new forms of modern architecture. One reason is that architects in South Florida translated modern architecture for its hot and humid climate. They used breeze block, louvers, screens and other sun control measures, transforming these into stylistic generators of a tropical modern architecture. There were other themes as well. A vast expansion of multi-family housing in the county spawned new types of low-rise garden apartments, as well as high-rise apartment towers. For the growing tourism industry, hotels doubled down on themes of glamour, leisure and fantasy, redefining hospitality in Florida and the Caribbean with grand hotels. In the 1960s, Brutalism, a style of monumental concrete architecture, was used to create large-scale civic works. Sometimes referred to as Miami Modern, or MiMo, Miami's mid-century architecture gained fame around the world.

Richmond Heights Historic District, courtesy of Miami-Dade County Historic Preservation

Breeze Block Wall in Bay Harbor Islands

Postwar Modern

Origins and National Development

Postwar Modern is an umbrella term given to American architecture that emerged in the second half of the 20th century, when the influence of the Modern Movement nationally and internationally was particularly dominant. After World War II, renewed fascination with technology and innovation, a resurgence of interest in American modern architects like Frank Lloyd Wright, and the migration to the US of leading European modernists, like Mies van der Rohe, Walter Gropius, and Marcel Breuer, powered the architectural scene. In contrast to the narrower stylistic parameters of Prewar Modern, heavily influenced by the 1920s International Style and the coherent stylism of Art Deco and Streamlining, postwar modern architectural themes are broad and eclectic. The strictures of modernism's unified style began loosening as attention turned to individual expressions, regionalist ideas and new categories of construction.

It was a pragmatic period, interested in the construction of necessary housing, offices, infrastructure, schools, universities, and civic buildings. It aligned with a huge building boom instigated by postwar prosperity and the fulfillment of long-deferred shortages. A shortage of housing was particularly significant, and amplified by returning GIs. Against this context, radical experimentation in the use of new materials, influenced by developments in World War II, flourished. Formal abstraction, structural clarity, new spatial configurations based on rational and flexible planning, and a focus on indoor-outdoor connectivity, were notable. The new spirit was captured in an exhibition at the Museum of Modern Art in New York, *Built in USA: Post-War Architecture* (1952). The exhibition and accompanying catalog edited by Henry-Russell Hitchcock and Arthur Drexler, highlighted the diversity, urgency and ambition of the most notable work since 1945.

Beneath the high visibility of leading architects and radical modernisms, an everyday modernism took hold in the national consciousness. Given the enormous quantity of buildings to construct, modest commercial, residential and even civic buildings took a flexible approach to style, and exude a simply contemporary sensibility.

Postwar Modern in South Florida

Growth, prosperity, optimism and a rising sense of regional identity propelled Miami's regional experience with Modernism into the postwar era. As Miami grew into a consolidated metropolitan area there was a tremendous growth of modern commercial structures like office buildings and retail centers, as well as transportation infrastructure.

The need for new residential units was fulfilled by both garden apartment buildings and tower slab-type apartment buildings. Garden apartment buildings were organized around landscaped patios, with each unit having access to the outdoor circulation (in the manner of a motel). The language of these buildings is generally practical, with exterior stairways, railing systems and entranceways providing the main embellishment. Projecting flat roofs and balconies, wrapping fins that enclose long glass ribbon windows, and the use of concrete breezeblock to make railings and screens offered sun and rain protection. Taller tower slabs based on concrete flat slab construction, also proliferated, especially along the coast. These buildings, built over parking lots and featuring a serial repetition of balconies with concrete or metallic railings, were referred to by Norman Mailer as white refrigerators, "shaped like sugar-cubes and ice-cube trays on edge."

One of the most interesting areas of postwar modern design concerned the Florida home, a local manifestation of the basic package of postwar American Dream. The most common home type in this era was the Ranch House (described later in this section), but another category is particularly notable: experimental tropical homes. These generally modest dwellings were concerned with the search for a distinctly regional and tropical identity in Miami. Here,

themes of indoor-outdoor living and minimalism were explored in a radical way, often using screened or louvered structures to capture and channel breezes.

As in the past, part of Miami's growth was connected to the promise of comfort, style and leisure, and even themes of fantasy. The region excelled in the development of postwar resort hotels and motels. The beaches (Miami Beach, Surfside, Bal Harbour) became a testing ground for new kinds of amenity-laden resort hotels where the functional character of the modern hotels was layered with rich textures, lavish materials, a sense of monumentalism and decorative fantasies that extolled exoticism and glamour. An explosion of package tours, conventions, summer tourism and air-conditioning caused hotel sizes to balloon. This largess also reflected a growing list of hotel amenities, including expanded dining areas, vast ballrooms, theaters, nightclubs, and large pools surrounded by expansive decks and cabana colonies, Large porte cocheres reflected the central role of American car culture, and private balconies expressed a new level of private luxury that tourists expected in their room. At the modest end of resort accommodations, there was a boom in motel construction that transformed commercial districts up and down the coast, especially Motel Row in Sunny Isles and along Biscayne Boulevard in Miami. Motels were economically decorated, featuring exterior catwalks with decorative wood or iron guardrails, prominent stair towers, and often a distinctive lobby structure.

The particular quality of South Florida's postwar modernism is reflected also in practical and expressive responses to the subtropical climate. Shading devices like projecting roofs and fins, concrete and metal screening devices, and breeze block were prevalent. New types of windows like awning and jalousie, manufactured in aluminum and promoting increased airflow, were used. Traditional materials like wood and oolitic stone found resonance in a regionalist attitude to building materiality and construction.

A boom in motel construction followed the evolution of the motel type into a resort, a refinement that found parallel expression in Sunny Isles' Motel Row and along Biscayne Boulevard in Miami. These featured exterior catwalks with decorative wood or iron guardrails, prominent stair towers, and often a distinctive lobby, for example the use of an angular roof plane. Motels were economically decorated, often with only concrete, wood or metal guardrail system, and the limited use of inexpensive finishes like slump brick.

The need for a large number of new residential units was met in Miami with the construction of with both garden apartment buildings and tower slabs. Postwar garden apartment buildings were organized around garden spaces, with each unit having access to the outdoor circulation, in the manner of a hotel. The language of these buildings concerns practical issues of amenity, but also protection from the climate: projecting flat roofs, projecting balconies, wrapping fins that enclose long glass ribbon windows, and the use of concrete breezeblock to make railings and screens.

One of the most interesting areas of experimentation was the Florida home, part of the basic package of postwar American Dream. The most common type in this era was the Ranch House (described later in this section), but another category was particularly interesting: experimental tropical homes. These were concerned with the search for a distinctly regional and tropical identity in Miami. Modernist rational, technological and utopian objectives fused together around themes of outdoor living and minimalism.

The particular quality of South Florida's postwar modernism is reflected in distinct material uses. Shading devices like projecting roofs and eyebrows, screening like metal screens, breeze block, and precast decorative concrete work were prevalent. New types of windows like awning and jalousie were used; and aluminum featured in decorative elements and railings.

Home adjacent to Lake Belmar Historic District

Apartment building in North Bay Village

Apartment building in Surfside

Birdcage feature in Bay Harbor Islands

The Hampton House in Miami

The Miami Marine Stadium in Key Biscayne

Postwar Modern

Relevant Features

General Features: Simple forms, floating planes and cantilevers, frank expression of materials, use of mass production, clean and uninterrupted lines. Homes are built with an emphasis on ventilation, and programmatic separation of public and private, the former usually open plan.

Massing: Rectangular, generally low and horizontal massing, sometimes offset by contrasting angular or organic shapes, is most common. Buildings may be raised on pilotis as an architectural feature, or to provide parking below (or both).

Wall Treatment: Stucco over masonry and concrete walls continues to be the most common construction system. Decorative treatments include the use of slump brick and stone cladding. The use of metal panels and curtain wall glass window wall systems were also used. Glass walls were often screened with louvered or perforated concrete and aluminum screen systems. By the 1960s exposed precast concrete and unfinished concrete were popular.

Porch: In homes, porches were commonly protected with aluminum, fiberglass or Lumite screening. Increasingly, screened enclosures built of aluminum are independently structured and attached to the house, yielding a type of screened patio.

Roof Treatment: In homes with hipped or gabled roofs sloped roofs may alternate with flat roofs for porches and Florida Rooms. Sloped roofs generally have asphaltic shingles, clay or flat tile roofing. In homes with flat roofs, these may cantilever over the walls, both to accentuate the horizontal and protect the windows. Flat roofs are traditionally protected with bituminous roofing, but single-ply rubberized and PVC alternatives work well.

Openings: In commercial buildings, use of plate glass and curtainwall glazing systems was prevalent. In residential buildings, sliding glass doors, awning and jalousie windows, or fixed plate glass picture windows sometimes accompanied by jalousied louvers. Openings are frequently framed and shaded with eyebrows, or screened with concrete or aluminum screen systems

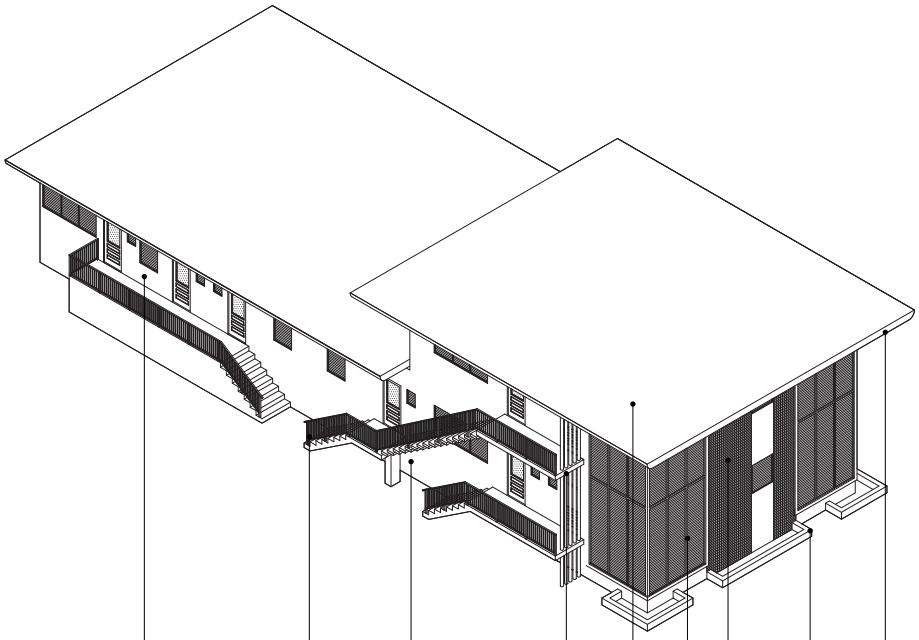
Ornamentation: In homes, wrought iron railings and columns, and the use of decorative wall materials like slump brick and stone. The prominent display of new materials like plywood, fiberglass and aluminum is also common. In commercial and civic buildings, ornamentation may be provided by screening system, striking concrete forms, and the use of vibrant colors.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. As postwar houses are generally built on a slab on grade, their ground floor levels are low, and in low-lying areas they may be below the FEMA Base Flood Elevation (BFE). Buildings below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended, and in commercial buildings wet and dry floodproofing may be employed to manage water infiltration. Alternatively, vulnerable slab on grade houses and other building types may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including masonry shell and wood framing elements of the roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

Apartment / commercial building mix in Collins Avenue Historic District

Diagrams reflect building's likely historic condition.



low horizontal massing

exterior staircase with metal rails

stucco over masonry

screen

flat roof

full panels of jalousie windows

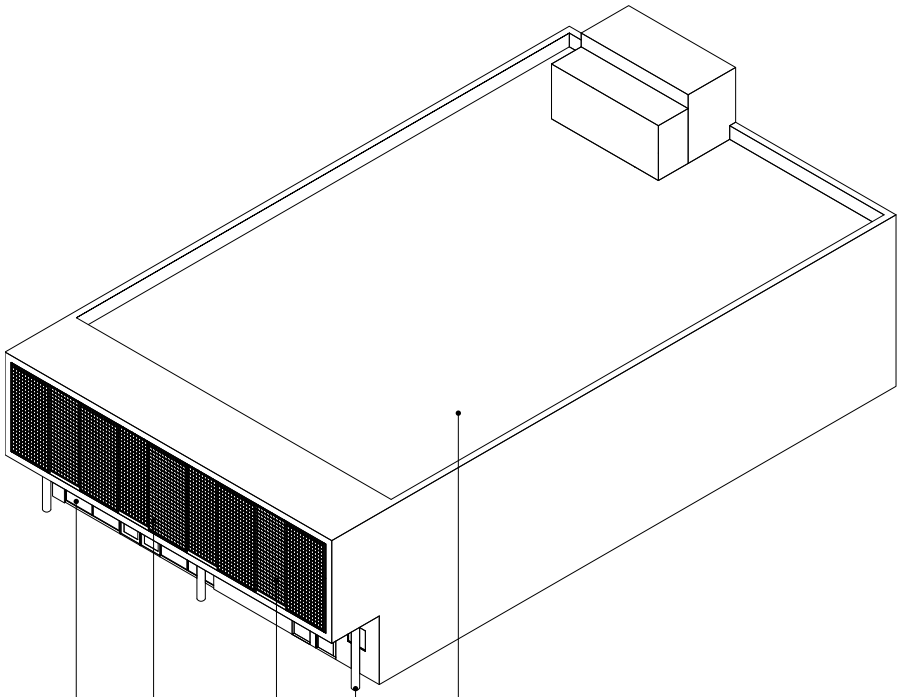
rough-faced slump brick

built-in masonry planter

wide cantilevered wood-framed roofs

Commercial Building in Bay Harbor Islands

Diagrams reflect building's likely historic condition.



full glass window wall at ground floor

cantilevered upper floors

gold anodized aluminum screens in box frame at second floor

expressed columns (pilotis) with decorative tile facing

flat roof

Postwar Modern house in Morningside

Entry in North Shore Crest Historic District

Ranch and Split Level

Origins and National Development

Ranch style houses appeared in the 1920s in California, where they likely drew inspiration from sources as diverse as the Spanish Colonial Missions, the informal bungalow, and the Prairie style and Usonian houses of Frank Lloyd Wright. Their low-slung and elongated, generally one-story layout, efficiently sleeping and open plan living areas, was a model of unpretentious modern livability. Linear arrangement of rooms that made it easy to separate living and sleeping areas. Slab on grade construction and easy adaptability to different construction techniques. Starting in the 1930s Sunset Magazine, the popular California-based lifestyle magazine, promoted the Western Ranch through the work of architects like Cliff May in Los Angeles and William Wurster in San Francisco. It grew in popularity nationally, especially after World War II.

In postwar America, ranch houses became synonymous with suburban subdivisions, and their low slung horizontality generated new types of urban form. Initially favored for their modest and inexpensive arrangements, they were appropriated for larger and more luxurious house types as well.

One postwar variation on the Ranch was the Split-level house, a three-level home that connected single-story living spaces to a two-story volume comprising a street level garage with bedroom above. Set on a naturally or artificially sloping site, it emphasized continuous flow more than a traditional two-story house. Important early examples were designed by architect Charles Goodman for National Homes, the nation's largest prefabricated home manufacturer.

Ranch in South Florida

The low-slung nature of the ranch fit well the flat landscape of South Florida, where it also allowed generous indoor-outdoor connections. Its broad roofs shaded the walls, and sliding glass doors and plate glass windows opened generously to the patio and yard. While suggesting broad openness to the environment, these were also the first houses in Florida specifically designed for air-conditioning, forging a new type of Florida living.

The Ranch was the instrument of South Florida's postwar suburban expansion. Its low cost, efficiency and open plan made it the model of choice of new subdivisions, deployed from the Mackle Houses on Key Biscayne to subdivisions like Westwood Lakes and Richmond Heights. It also became the infill model for unfinished suburbs like Coral Gables, Miami Shores and Opa-locka.

Split level in Pinecrest

Split-level adjacent to Lake Belmar Historic District

House in Richmond Heights Historic District

House in North Shore Crest Historic District

House in Lake Belmar Historic District (garage has been enclosed)

House in Surfside

Ranch in Pinecrest

Ranch and Split Level

Relevant Features

General Features: Long, low-slung and generally one-story house, generally built on a slab on grade; it features masonry and stucco exterior walls, and wood framed roof with deeply projecting eaves. The garage is generally attached and part of the house form. Interiors often have open floor plans in their living areas, sometimes with vaulted ceilings with exposed beams.

Massing: Ranch houses have long, single story, rectangular forms, often L, T or C-shaped with a low-pitch roofline. Variations include the Split-level house, with a lower garage level, intermediate living spaces and upper bedroom zone. Where present, a chimney may form a contrasting vertical accent.

Wall Treatment: Masonry and stucco walls may be embellished with brick, stone or wood facing. Window openings are unadorned, and may be decorated with non-functional shutters or have metal awnings. Larger openings at the Living Room and facing the patio. Screened porches in aluminum, fiberglass or Lumite screening.

Roof Treatment: Broad, low-slung roof shapes, either hipped or gables, featuring deep overhanging eaves that shaded windows. The eaves are generally co-terminus, forming a continuous horizontal line. Sometimes the front of the house is accented with a gable end. The eaves may expose the outriggers supporting them, but generally use a smooth finished underside to emphasize simplicity and clean lines. Concrete tile, barrel tile, or composite shingle roofing is typical.

Openings: Openings are generally rectangular and horizontal, using awning type or casement windows; exceptionally arched opening are used. Large picture windows are used in the living room, and sliding glass doors provide access from the house to the backyard. Single or double garages feature prominent garage doors.

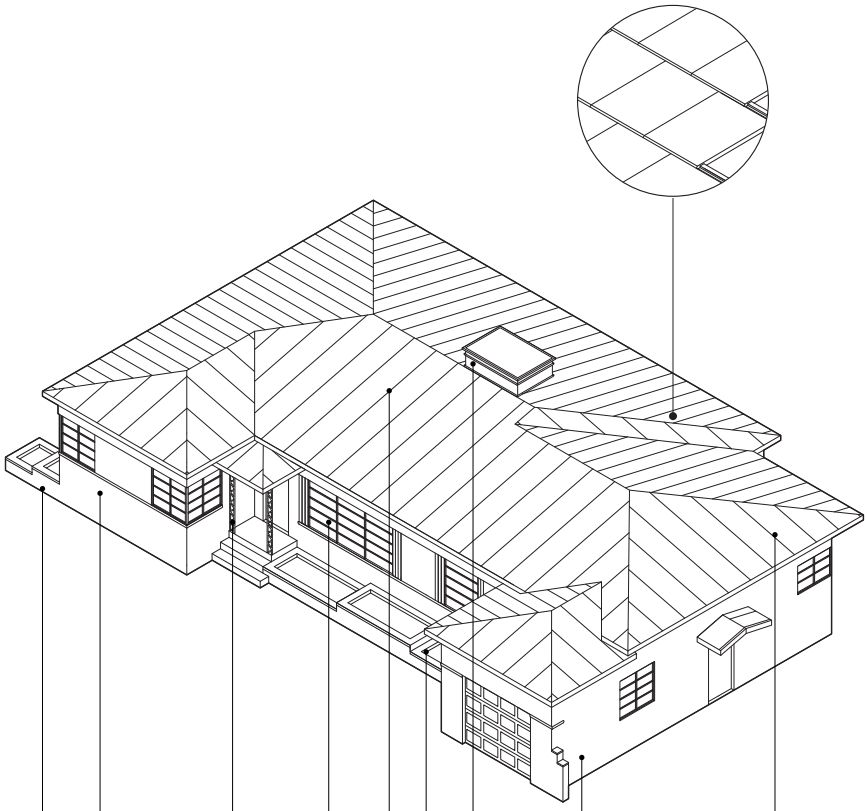
Ornamentation: Ranch houses have little ornamentation, beyond materiality of the walls, or accent walls of brick or stone. They often feature shutters.

Resilience Challenges: Most structures in South Florida are susceptible to water damage due to flooding. As Ranch-type houses are generally built on a slab on grade, their ground floor levels are low, and in low-lying areas they may be below the FEMA Base Flood Elevation (BFE). Areas below Base Flood Elevation may be upgraded using flood resistant building materials, and by raising electrical and mechanical systems, and any other related utilities. Backflow prevention is recommended. Alternatively, slab on grade houses may in some cases be raised above the Base Flood Elevation plus an appropriate Freeboard to be determined by the County.

Buildings in South Florida are also susceptible to wind damage due to storms and hurricanes. Building structural components, including masonry shell and wood framing elements of the roof, are generally not designed to meet the wind loads specified in current building codes. Structural connections may be reinforced and roofing and openings protected with design-appropriate Miami-Dade County-approved assemblies and systems. See Section 4: Resiliency.

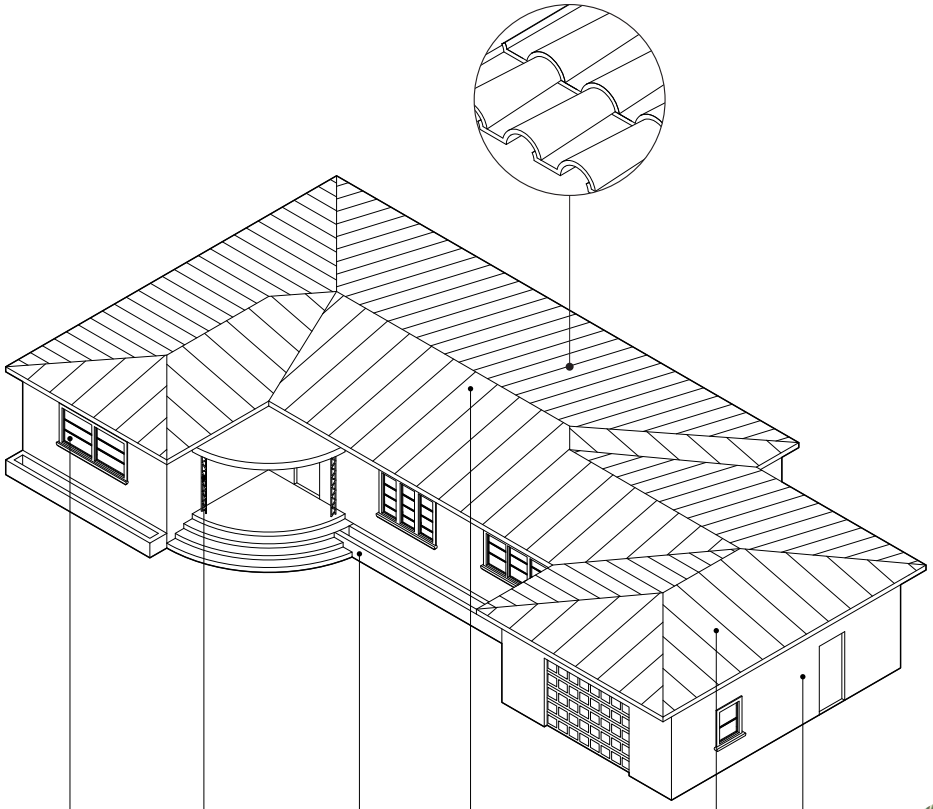
House in North Shore Crest Historic District

Diagrams reflect building's likely historic condition.



House in North Shore Crest Historic District

Diagrams reflect building's likely historic condition.



awning windows

iron columns supporting porch roof

built in masonry planter

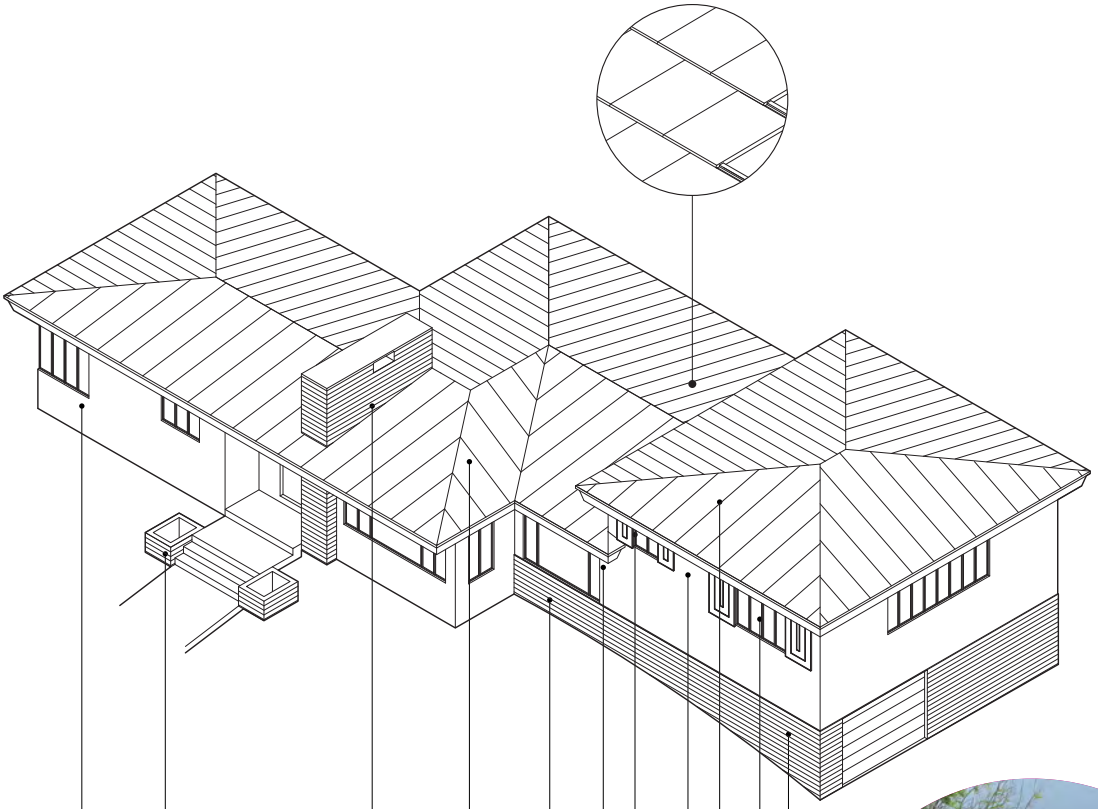
low pitched roofline

S-tile roof

smooth stucco finish

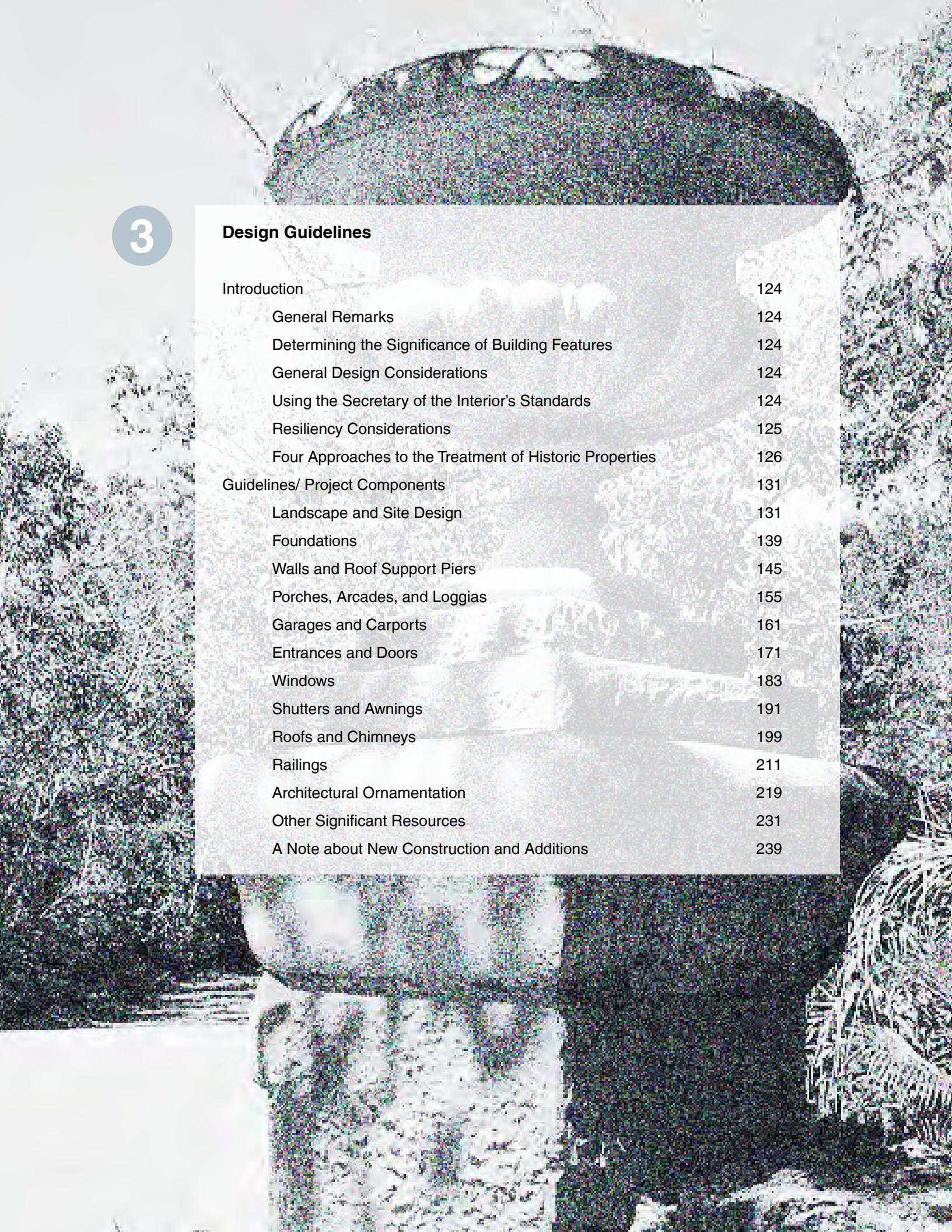
House in Lake Belmar Historic District

Diagrams reflect building's likely historic condition.



smooth stucco finish
built in masonry planters
contrasting vertical chimney
low pitch roof
brick embellishment
intermediate living zone
shutters
upper bedroom zone
hipped roof
picture windows
lower level garage

Chinese Bridge at Charles Deering Estate Historic District



3 Design Guidelines

Screen Wall with Vines in Miami Beach

Design Guidelines for Rehabilitation

General Remarks

Rehabilitating a historic structure is an enterprise full of opportunity, but care must be taken. A core responsibility is to retain the integrity of an historic property's significance (generally its original design, and materials) for the long term.

The following guidelines are offered as a general discussion of important elements and features that should be maintained in the process of rehabilitating historic resources within Miami-Dade County. These guidelines are general in nature, and not intended to be prescriptive. Case-specific research and decision-making must be exercised. Historic preservation experts, architectural historians and architects familiar with preservation can help, and consulting with them is highly recommended.

Each guideline section generally includes four parts. In the first, the role or significance of the particular feature is discussed. The second part comprises a general discussion of likely changes the resource has experienced over time. The third part addresses appropriate materials and techniques for rehabilitation. The fourth part discusses resiliency considerations.

Determining the Significance of Building Features

Building owners should be aware of the style and type of a building (see previous section). They should consider the role, significance, and relevancy of particular building elements in defining the character of that style or type. In identifying style and building type, it is important to keep in mind that buildings may have hybrid characteristics and exhibit elements from several architectural styles.

Research and documentation are critical to the resource identification process. All available building documentation, including original blueprints (often available through County microfilm records), historic photographs, postcards and other ephemera are invaluable in this endeavor. It is also recommended to document the building as-is. Selective examination and exploration may reveal concealed elements of the building's original construction. Where specific documentation about a building is unavailable, well documented or extant buildings that are similar in style and type may be consulted. Building owners should study precedents and discuss appropriateness of materials and techniques with Miami-Dade County Historic Preservation Staff.

General Design Considerations

Rehabilitation projects should generally respect the features that define the character, style and type, and that make a building unique. Repair is usually better than replacement; older materials carry the weight of authenticity. When replacement materials are required, carefully replicate the appearance of the original. Do not 'over-restore'; damage is done to a building by trying to make it appear to be older or more important than was intended. When contemplating additions, take care that these not detract from, or overwhelm the appearance of the historic structure.

Using the Secretary of the Interior's Standards

As a standard guiding the treatment of historic resources, Miami-Dade County incorporates the Secretary of the Interior's Standards for the Treatment of Historic Properties into its Code of Ordinances, and these standards are used in its review and approval process, in addition to other standards or guidelines that the Board may choose to adopt. Initially developed by the US Secretary of the Interior for the purposes of evaluating projects for grants aid, tax relief and guiding the work of Federal agencies, the Standards have become a national benchmark of preservation practice incorporated into local

practice. These standards are also still applied by State and Federal agencies to projects which qualify for investment tax credits from the federal government. They are designed to be applied in a reasonable manner, taking into account both technical and economic feasibility.

Within the Secretary of the Interior's Standards, approaches to the treatment of historic resources are guided according to four distinct standards: Preservation, Rehabilitation, Restoration and Reconstruction. A discussion of these standards, as well as the full standards, follows. For most projects, the Rehabilitation standard is most relevant, as it acknowledges alteration of a historic resource according to contemporary needs while also retaining character-defining properties.

Resiliency Considerations

Resilience, the ability to adapt in the face of threats brought on by climate change and to recover after a weather event, serves the purposes of historic preservation, as the goal of preservation is the longterm maintenance and survival of an historic resource. Conversely, the act of preservation is a type of resilience. Designated historic resources, or resources that contribute to a historic district, have survived many years, numerous cycles of wear and tear and repeated storm events. Many have survived striking changes in the districts around them, as well as changes of use. They have survived partly because of the built-in resilience of their design.

The goal of any rehabilitation project should be to increase the resilience and survivability of a structure into the future. Care should be taken to identify strategies and develop plans that reinforce both the integrity of the design and the integrity of the structure.

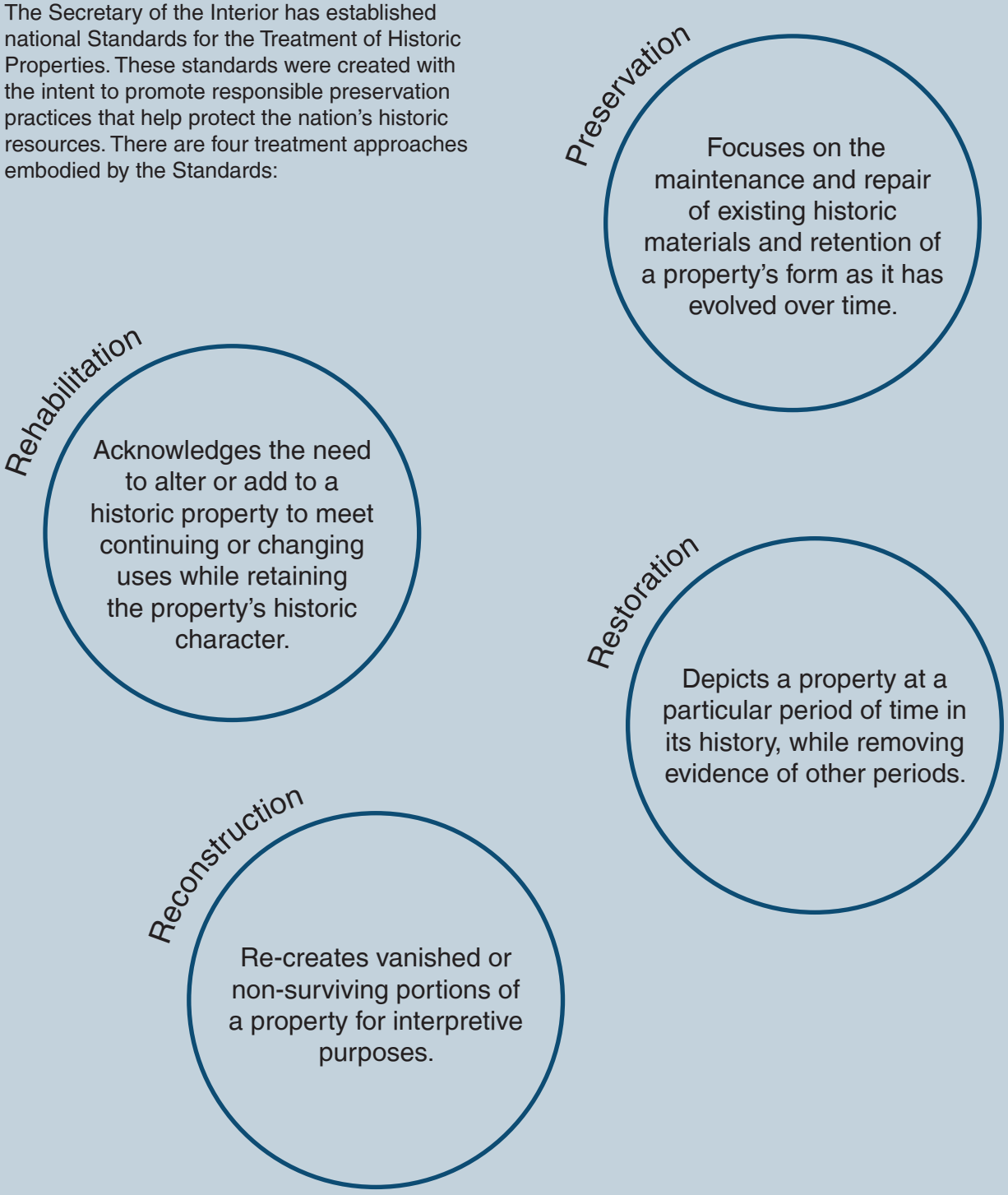
These guidelines have been produced in a context of evolving resiliency policy. In considering resiliency strategies, Miami-Dade County has engaged local, regional and national resiliency efforts. Resilient305, a collaborative effort between the County, the City of Miami, and the City of Miami Beach, established in 2016 with the support of the Rockefeller Foundation's 100 Resilient Cities and The Miami Foundation, is designed to raise awareness and foster a culture of resiliency. Other County resiliency efforts include the Climate Action Strategy (which recommends bringing emissions down by 50% in 2050), the comprehensive sustainability plan GreenPrint, which includes an integrated Climate Action Plan, and the Office of Historic Preservation's Historic Site Vulnerability Assessment.

Given that these guidelines will be used most frequently by individual property owners, resiliency suggestions for modest improvements that can be accommodated today are proposed. These proposals are of building style and typical historic resources found in County historic districts. More general resiliency information can be found in Section 4: Resiliency.

Secretary of the Interior's Standards

Four Approaches to the Treatment of Historic Properties

The Secretary of the Interior has established national Standards for the Treatment of Historic Properties. These standards were created with the intent to promote responsible preservation practices that help protect the nation's historic resources. There are four treatment approaches embodied by the Standards:



The Secretary of the Interior's Standards

Standards of Rehabilitation

The following Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Standards of Preservation

The Standards will be applied taking into consideration the economic and technical feasibility of each project.

1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces and spatial relationships. Where a treatment and use have not been identified, a property will be protected and, if necessary, stabilized until additional work may be undertaken.

2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place and use.

Work needed to stabilize, consolidate and conserve existing historic materials and features will be physically and visually compatible, identifiable upon close inspection and properly documented for future research.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. The existing condition of historic features will be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material will match the old in composition, design, color and texture.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Standards of Restoration

The Standards will be applied taking into consideration the economic and technical feasibility of each project.

1. A property will be used as it was historically or be given a new use that interprets the property and its restoration period.

2. Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces and spatial relationships that characterize the period will not be undertaken.

3. Each property will be recognized as a physical record of its time, place and use. Work needed to stabilize, consolidate and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection and properly documented for future research.

4. Materials, features, spaces and finishes that characterize other historical periods will be documented prior to their alteration or removal.

5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.

6. Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials.

7. Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.

8. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

9. Archaeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

10. Designs that were never executed historically will not be constructed.

Standards of Reconstruction

The Standards will be applied taking into consideration the economic and technical feasibility of each project.

1. Reconstruction will be used to depict vanished or non-surviving portions of a property when documentary and physical evidence is available to permit accurate reconstruction with minimal conjecture, and such reconstruction is essential to the public understanding of the property.

2. Reconstruction of a landscape, building, structure or object in its historic location will be preceded by a thorough archaeological investigation to identify and evaluate those features and artifacts that are essential to an accurate reconstruction. If such resources must be disturbed, mitigation measures will be undertaken.

3. Reconstruction will include measures to preserve any remaining historic materials, features and spatial relationships.

4. Reconstruction will be based on the accurate duplication of historic features and elements substantiated by documentary or physical evidence rather than on conjectural designs or the availability of different features from other historic properties. A reconstructed property will re-create the appearance of the non-surviving historic property in materials, design, color and texture.

5. A reconstruction will be clearly identified as a contemporary re-creation.

6. Designs that were never executed historically will not be constructed.

Reconstructed Cape Florida Lighthouse Keeper's Cottage in

n Key Biscayne

Landscape and Site Design

Role/significance/relevancy: Site design encompasses all the elements in the development of a property, including site walls, fences, patios, pathways and landscape. In many cases, site and landscape design are character-defining elements of an historic resource.

Landscape, as an issue of site design, is particularly important in South Florida; in addition to aesthetic qualities, it holds symbolic value as an affirmation of the region's singular environmental characteristics. Yet, much of Metropolitan Miami-Dade County comprises engineered landscapes, rather than natural ones. Most building sites were cleared and graded before the landscape was designed and added. The general sensibility of the original design is thus relevant, and important to consider in a preservation project.

Whether constructed or natural, South Florida supports many diverse types of landscape. Dunes, forested hammocks, savannas, plains of scrub palmetto and marshes are part of the native landscape, but The setting for early structures is often a carefully-designed assemblage of grass, shade and flowering trees, palms, shrubs, groundcover and vines. However, landscape design is not static, and will naturally evolve over time. These features are unequivocally linked to issues of style, and the way each style deploys these landscape features is generally characteristic. Landscape can be a critical factor in telling the story of a particular place over time, in a way that is connected to but different from the story of a historic structure.

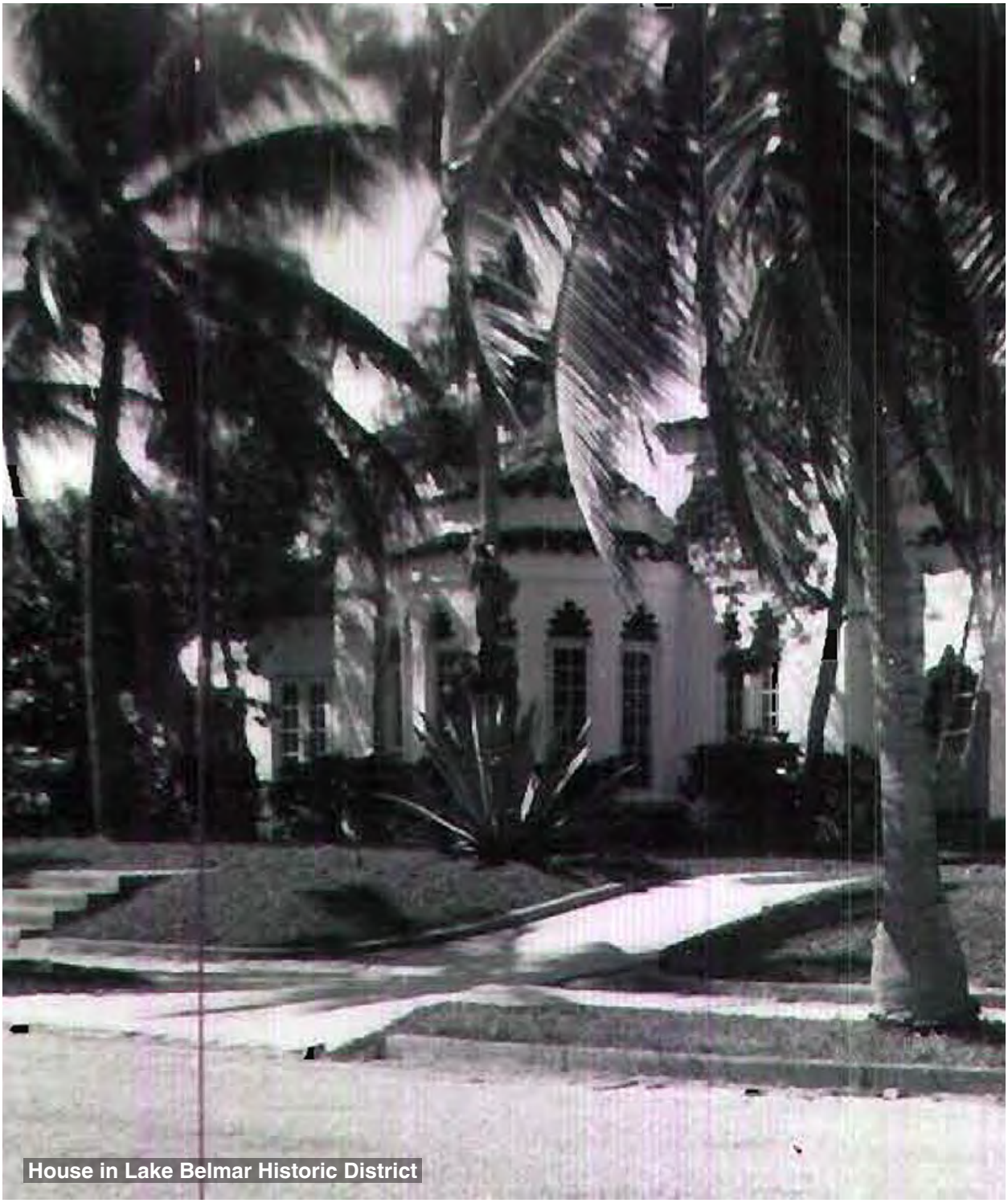
Changes over time: Site and landscape features are generally more dynamic than fixed structures, and over time can diverge from their original design intent. Landscape design is often taken as a matter of personal taste; some owners may like a lush forested appearance while others prefer a carefully managed and open landscape. Landscape elements also have a different lifespan than most of the structural elements of a building. Features may mature, become overgrown, and eventually die. Rainfall, disease and insects may also have an impact. Over time, the character of the landscape may have changed considerably.

Appropriate materials and techniques: Care should be taken to observe the elements of landscape and site design that contribute to the style and character of the historic resource itself. Early intentions, including the state of early landscapes, can often be identified in photographs and postcards. Where documentation is not available for a particular structure, it is instructive to explore the treatment of similar structures of the same time period and general location. Once identified, retaining and preserving character-defining elements should be a priority.

The historic relationship between buildings and site and landscape features should be retained. Important site features should be preserved through regularly scheduled maintenance. When preservation is not feasible, care should be taken to replace in kind or with a compatible substitute material.

While site features should reinforce the historic character of buildings, they should also be chosen strategically to allow for a level of transparency from the public right of way. Fences, for instance, define the site and provide a level of security, yet should avoid being so large that they overshadow the historic landscape and architecture. Other man-made elements should strive to be unobtrusive.

Surveying and documenting areas where terrain will be altered in order to avoid the damage or loss of important landscape features is essential. Relevant landscape features should be protected. Disturbance of the terrain should be minimized by avoiding the use of heavy equipment and machinery protected.



House in Lake Belmar Historic District

Image courtesy of Miami Dade County Office of Historic Preservation, 1955.

Resiliency considerations: One should be historically appropriate when rehabilitating site features and landscaping, but also strategic in order to enhance sustainability and resiliency. In particular, site and landscape design offer opportunities to improve the long-term viability of the historic resource by controlling storm and floodwaters, and by selecting plants that survive well the region's salt-prone and stormy climate. For instance, in areas on the coast most affected by sea level rise, absorbent landscaping such as mangroves may provide an additional level of protection.

Green infrastructure
A site should provide proper drainage in order to ensure water does not erode the landscape, foundation walls, or drain towards a building. Existing stormwater management features, including topography and vegetation, should be used to good advantage. Areas most susceptible to groundwater should also embrace absorbent landscape. New features like bioswales, rain gardens, sunken patios and permeable pavements can all be integrated in the overall design to enhance stormwater management.

Water use
New planting may favor native varieties that require little or no irrigation. On-site water reuse can be planned to achieve greater levels of sustainability.

Site raising
Some sites, especially in low-lying areas, may inevitably be raised. When raising the grade of a site, care should be taken to preserve existing trees, and to adapt, relocate or reproduce essential site design elements. Existing historic seawalls should be retained if possible; raising the site may offer an alternative to steel and concrete seawalls.


Lawn and palms framing entrance at Mission Revival home


Tree canopy with lush shrubs and ground cover at Wood Frame Vernacular house

Tree canopy with shrubs and ground cover at Wood Frame Vernacular home

Lawn and tree canopy at Wood Frame Vernacular home

Lawn and tree canopy at Masonry Vernacular home

Attached slump brick planter and ground cover at Postwar Modern apartment building

Built-in masonry planters at Minimal Traditional home

Potted plants framing the entrance at Mediterranean Revival Stone House at the Charles Deering Estate

Planter at Cauley Square

Metal picket fence at Minimal Ranch home allows historic structure to be visible due to its transparency

Wood fence at Masonry Vernacular home allows historic structure to remain visible due to its low height

Wood fence at Masonry Vernacular home allows historic structure to be visible due to its low height

Wood fence at Wood Frame Vernacular home allows historic structure to be visible due to its low height

Structured low masonry wall at Mediterranean Revival home is consistent with building style, and allows visibility of historic structure.

Shaded gravel patio with Adirondack chairs at Cauley Square

Historic oolitic stone wall at the Charles Deering Estate frames wooded area

Not recommended:
Overgrown landscape obstructs view of historic home

Not recommended:
Landscape mass blocks view of historic home

Not recommended: Historic oolitic stone wall raised to provide privacy, but conceals more of historic home

Not recommended:
Hedge blocks view of historic home

Not recommended:
Chain link fence not appropriate type for historic home

Not recommended:
Dearth/ lack of landscape

Foundations

Role/significance/relevancy: The foundation is the part of a structure that connects it to the ground. Beyond its structural relevancy, it communicates important ideas about building type, method of construction, and style. Wood frame buildings, for instance, are raised off the ground to keep them dry and free of insects. Their lightweight nature allows them to be connected to the ground through piers, with the pier spacing tied to the span of wood structural members. Masonry and concrete buildings are generally connected to the ground through continuous masonry or concrete stem-walls and footers. Where a crawl space is created, vents are generally provided to maintain airflow and to provide access.

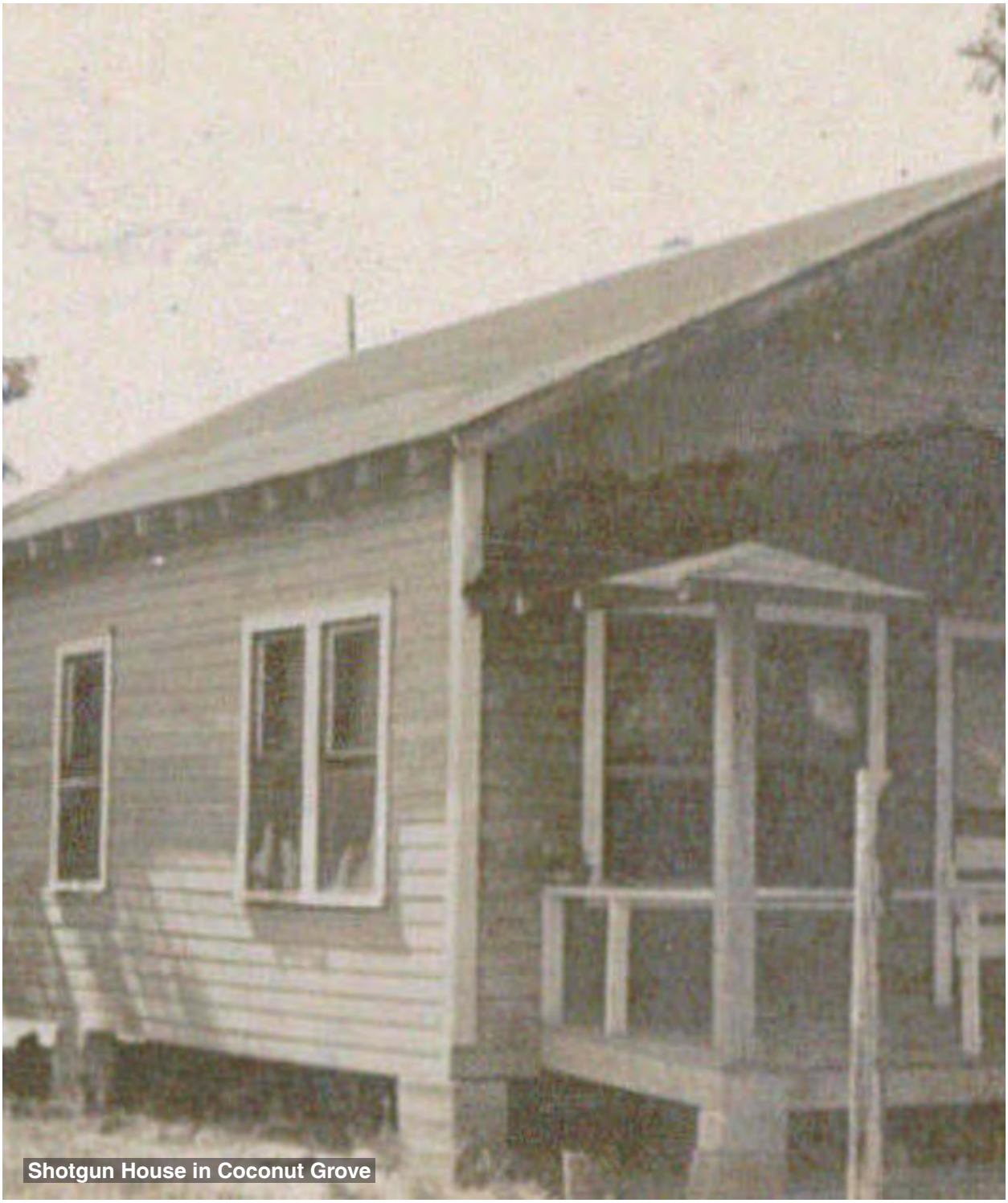
Changes over time: A building's foundation may have been altered for any number of reasons, most frequently to accommodate additions. Elements of the foundation may also deteriorate. In wooden structures, the posts may rot and the screens between posts may be damaged or missing. Oolitic walls may crack. Concrete foundations may spall and be weakened. Overall, foundations may settle, creating instability in the structure.

Appropriate materials and techniques: The logic of an historic structure's foundation systems should be generally retained. Care should be taken to preserve and maintain historic materials and techniques used in foundation design. Ideally, new reinforcement should be concealed from view. Where materials are replaced, new materials consistent in appearance and type should be used.

Resiliency considerations: The low-lying character of South Florida means that in areas susceptible to flooding and eventual sea level rise, buildings may be raised in order to preserve them. Raising a building poses unique challenges to foundation design.

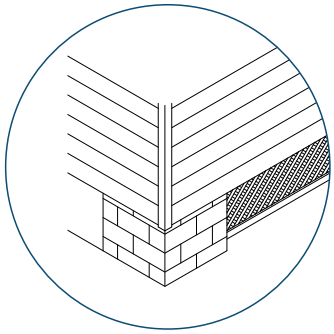
When structures are raised, new foundations will inevitably need to be installed. A new foundation should match visibly the characteristics of historic foundations. In structures that are already raised, such as wood buildings, techniques must be developed to adapt for taller height. Materials should be used that can adapt to wet conditions.

Raising masonry and concrete structures poses different challenges. The visible proportions of the building will be changed by the new taller foundation. Care must be taken in the design to differentiate the proportions of visible original walls from the new higher foundation.

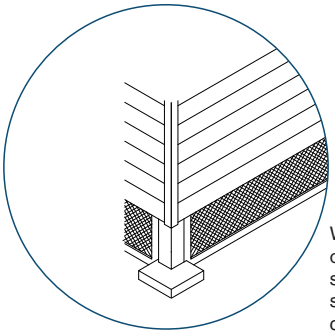


Shotgun House in Coconut Grove

Savingplaces.org, Shotgun home on Frow Avenue, Coconut Grove. https://savingplaces.org/stories/miamis-shotgun-homes-built-by-the-community-for-the-community#.YNOm-vOhKi70



Brick, masonry or oolitic stone piers support wood construction above



Wood columns on concrete or stone footers support wood construction

Brick piers support Wood Frame Vernacular building

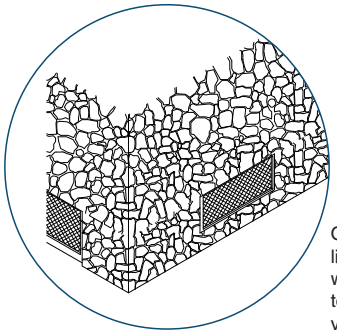
Masonry piers support Wood Frame Vernacular structure

Wood lattice screening between masonry piers at Wood Frame Vernacular building

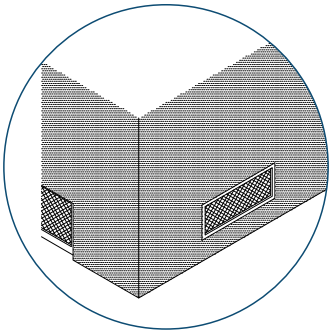
Wood piers with lattice screening support a Wood Frame Vernacular home

Not recommended: Lattice screening improperly installed at Wood Frame Vernacular home

Not recommended: Lattice screening improperly installed at Wood Frame Vernacular home



Oolitic limestone walls continue to footers. Wall vent provided



Reinforced concrete or masonry foundation with stucco finish

Oolitic limestone piers supporting Bungalow porch

Reinforced concrete exposed footer provides support for oolitic rock walls of Masonry Vernacular home

Oolitic stone boulders provide support for terrace at Wood Frame Vernacular home

Vents below porch of Wood Frame Vernacular home

Vent in concrete unit masonry wall with stucco finish at Postwar Modern apartment complex

Not recommended: Wood building finish in contact with ground

Walls and Roof Support Piers

Role/significance/relevancy: Piers and walls make up most of the visible structure of a building; their materiality and proportions are defining factors of its character. Walls of oolitic rock, wood siding and stuccoed masonry are most typical. Piers of oolitic rock, wood, and stuccoed masonry are common. Columns of steel and wrought iron are also frequently used. The specific characteristics of these building elements relate directly to building style and type. Stucco can vary between rough and smooth finishes; various types of wood siding are used; rock finishes can run from smooth ashlar cladding to rubble walls. It is important identify the specific characteristics of these features in order to develop an appropriate plan of action.

Piers and walls may be characteristic elements in their own right. The molded masonry parapets of the Mission Style and the tapered piers of a bungalow are particularly characteristic of type and style. However, walls and piers also form a backdrop or canvas against which windows, doors, porches, pent roofs, and other ornamented elements are featured. Walls and piers need to be considered in coordination with these elements.

Changes over time: Changing styles, poor maintenance, and the development of new technologies have often led to significant changes in the vertical faces of a building over time. Wood and stone surfaces may have been stuccoed inappropriately, or the textural quality of an existing material may have been altered. Siding may have been replaced with a different variety of siding, or with something else entirely.

Appropriate materials and techniques: Care should be taken to identify the original façade materials, and the modalities of their use. Often this is readily apparent, but in many cases this will require research and investigation. Restoration or rehabilitation of wood facades should match the original vertical (rough board and batten), or horizontal (butt joint, lapped, clapboard), or shingled (random, butt, fancy cut) designs. Stone facing, either natural and cast stone, should match the historic character of the material. Stucco finishes should also be consistent with the historic finish, as well as with stylistic parameters, and may be rough hand troweled or smooth machine quality depending on the style. For wall repair, the use of accomplished masons and carpenters is highly recommended.

Overlaid materials should be removed, and original finishes should be retained or replaced to match. Details of the original wall system, like window surrounds, corner boards and sill plates, should be retained. The relationship of exterior elements should not be altered. Repairs to wood should imitate the original size, shape and thickness of the original wood siding. Chemical cleaners and sandblasting, which may be harmful to the structure and to the environment, are not recommended.

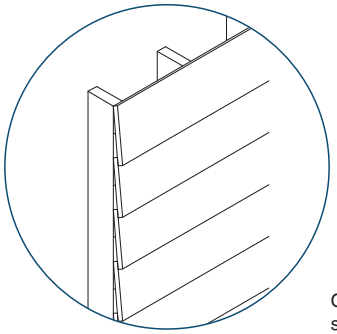
New alternative materials, like stucco-finished rigid foam insulation, are also not recommended, as they change the relationship between the wall's surface and features such as doors and windows.

Resiliency considerations: Exterior walls and structural elements play an important role in preventing air and water infiltration. Insulation and weatherization, which can achieve more sustainable buildings, should be accomplished without visibly altering the appearance of the building.

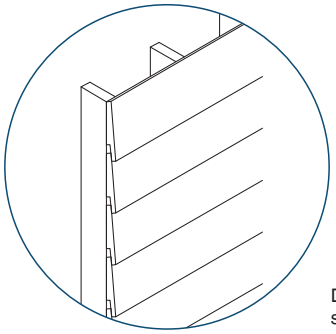
When a structure is significantly rehabilitated, structural components like piers and walls will need to be upgraded according to contemporary building codes. Wall assemblies that have received a Miami-Dade County Notice of Approval (NOA) will need to be used to demonstrate compliance, but these should be carefully chosen to retain a structure's original appearance.

Former Miami Beach Public Library in Miami Beach

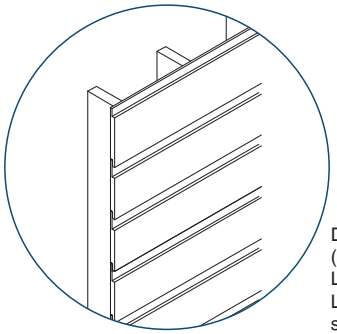
State Archives of Florida, 20th Century, Bass Museum of Art. http://www.floridamemory.com/items/show/55232



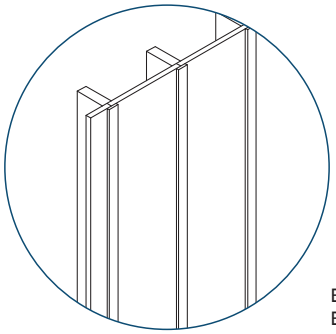
Clapboard siding



Dolly Varden siding



Drop siding (aka Dutch Lap, German Lap, Cove Lap siding



Board and Batten siding

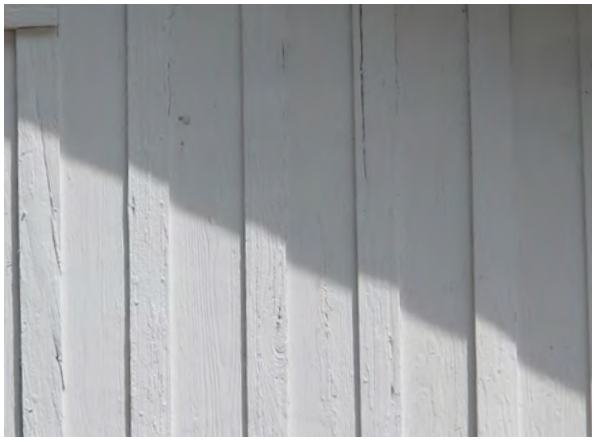
Drop wood siding

Clapboard wood siding

Drop wood siding

Dolly Varden wood siding

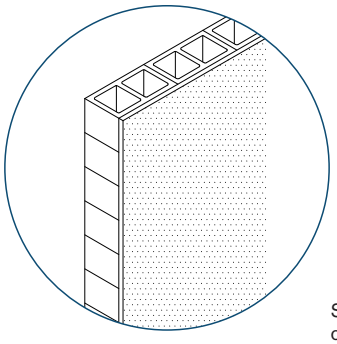
Vertical wood siding



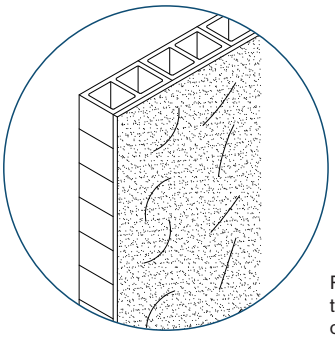
Board and batten siding

Wood shingle siding

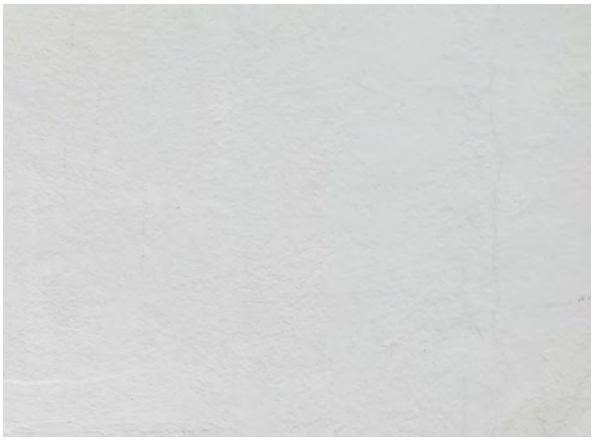
Wood shingle siding (rustic)



Smooth stucco over masonry



Rough, hand troweled stucco over masonry

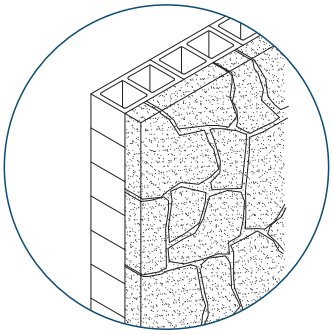


Smooth stucco

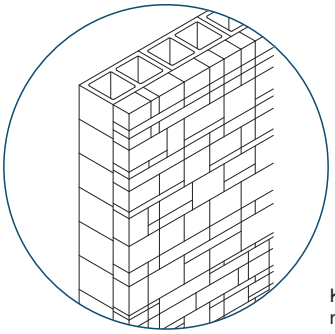
Rough stucco

Rough stucco

Rough stucco



Oolitic limestone over masonry



Keystone over masonry

Oolitic limestone wall

Rough cut oolitic limestone

Quarry keystone

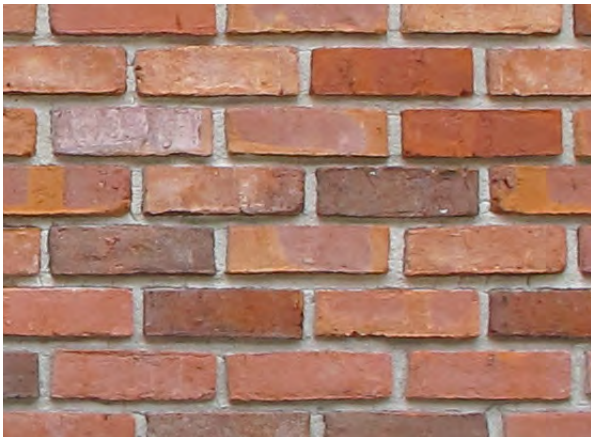
Cut oolitic limestone

Quarry keystone

Quarry keystone

Cast stone

Stucco and exposed brick combined for rustic effect



Brick

Painted slump brick

Painted slump brick

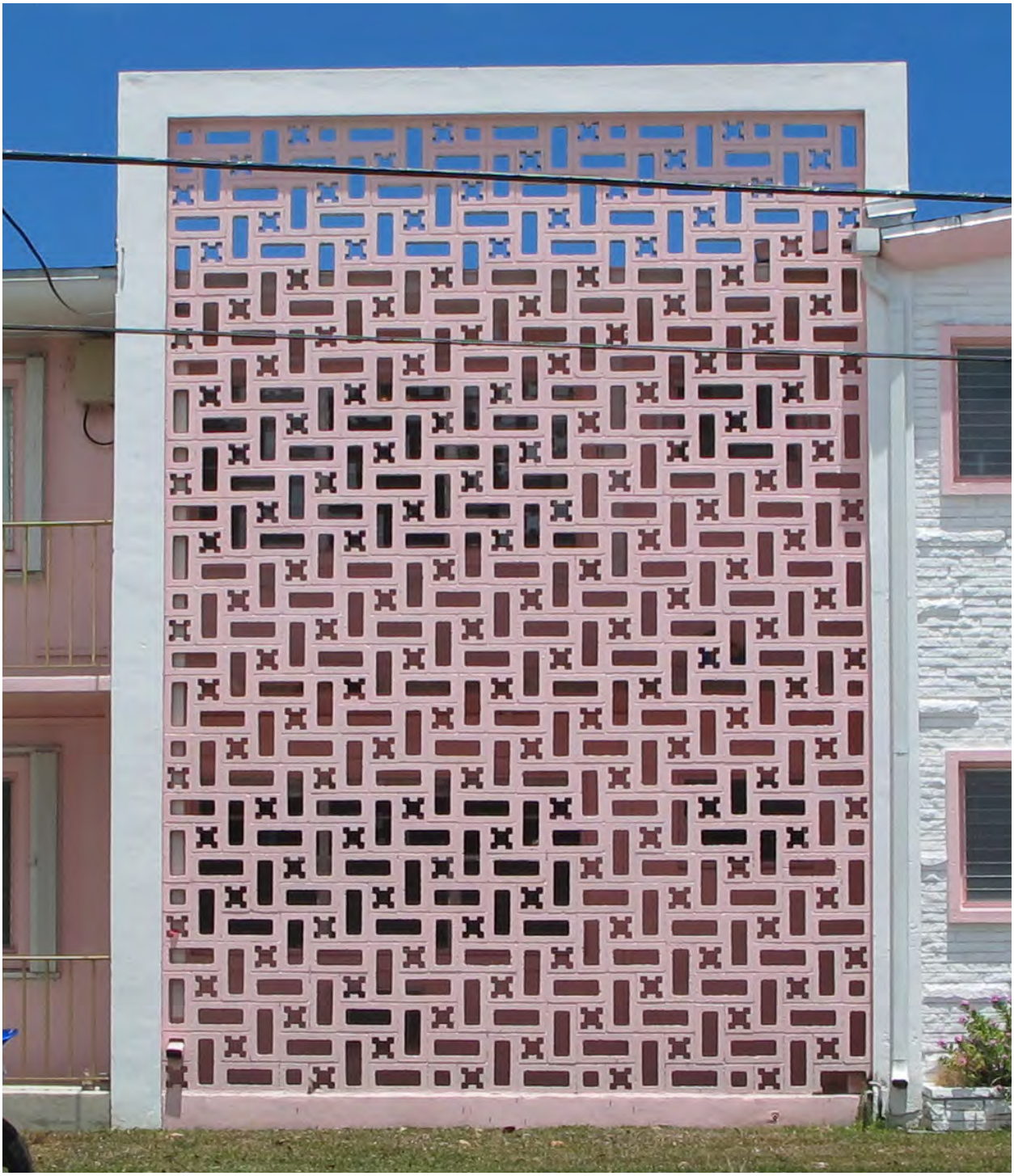
Painted slump brick

Glazed tile with Moorish design

Glazed tile with Mediterranean Revival design

Glass block

Porcelain tile



Breeze block screenwall

Porches, Arcades, and Loggias

Role/significance/relevancy: Porches, arcades, and loggias are characteristic features of homes in subtropical, hot and humid climates, offering outdoor space sheltered from the sun and rain. In South Florida, these environmental "in-between" spaces form a continuous building tradition back to the earliest settlements. They have been interpreted in almost every style and type in Miami-Dade County, including Wood Frame and Masonry Vernacular, Bungalow, Mission, Mediterranean Revival, Art Deco, Streamline, and Ranch (albeit in different ways).

As a regionally-appropriate type, porches are frequently the dominant element of a house's façade. Their street-facing roof forms may define the image of the home. When recessed into the body of the house, they provide pools of shade that add visual interest to the façade. Regardless of style, the porch generally commands the front yard, reinforcing the civic character of the street.

Changes over time: Lifestyle changes have affected the relevancy of the porch. The development of private backyard patios, a popular feature that first appeared in the 1920s, has in some cases replaced the porch and its civic association as a place to see and be seen. So has the rise of the automobile, which increasingly claims the space of the street. Over time, many porches have been subsumed by infill construction into the body of the house, transformed into air-conditioned rooms. Sometimes this has been done carefully, maintaining the legibility of the porch as an element of the façade; sometimes the porch has been nearly erased as a feature. Where porches remain, screening has been added to non-screened areas, and screened areas are often replaced by windows.

Appropriate materials and techniques: In rehabilitating a home with a porch, the porch should retain its character-defining features, proportions, and openness. This does not necessarily preclude using the porch as a room, as transparency can be achieved with screening and glass.

Resiliency considerations: Porches play an important role in supporting a sense of community, but also in the environmental performance of a home. This element, which keeps sun and rain off the windows, and allows an environment buffer between outside and inside, should be considered critical to the performance of a home.

Porches should be examined for structural integrity. Where possible, strengthening porch elements is important. Where porches have been infilled, the infill construction is often much less sturdy than the construction of the main house. Reconstruction with design appropriate and code-compliant assemblies is recommended.

Richmond Cottage at Charles Deering Estate Historic District

Deering Estate, 1916, The Richmond Cottage. https://deeringestate.org/history/historic-structures/

Elevated wrap-around porch with ornamental wood braces and wood railing at Wood Frame Vernacular home

Elevated front porch with side entrance and picket type railing at Wood Frame Vernacular home

Elevated front porch with wood-sided enclosure at Wood Frame Vernacular home

Oolitic stone piers supporting gabled roof of Bungalow porch and trellised canopy over carport

Oolitic stone piers supporting gabled roof of Bungalow porch

Not recommended: Original front porch of Wood Frame Vernacular home enclosed; also, infill does not respect character of porch

Not recommended: Traditional or classical columns not appropriate replacement for Bungalow's tapered wall piers

Not recommended: Original porch of Bungalow filled in; also, infill does not respect character of porch

Oolitic rock porch at Masonry Vernacular building

Screened side porch constructed of wood at Masonry Vernacular building

Not recommended: Historic front porch at Mission Revival home enclosed; also, infill does not respect character of porch

Arched loggia of masonry and stucco at Mission Revival commercial building

Front porch with arched openings and stairs with decorative tiles at Mediterranean Revival home

Front porch with arched opening and brick elements at Mediterranean Revival home

Arcaded screened porch at Mediterranean Revival building

Arcaded porch at Mediterranean Revival building

Arcaded porch with arch and dome elements at Moorish Revival building

⊘ Not recommended: Enclosed porch at Moorish Revival home; also, infill does not respect character of porch

Garages and Carports

Role/significance/relevancy: Although often discarded as purely functional, garages and carports play an important role in the design of a home. As Miami grew in the era of the automobile, spaces for the car were generally integrated as a part of the house design. Today, they are part of the assemblage of elements of the façade that are an expression of type.

Open carports are integrated as an element of many styles, including Bungalow, Mission and Mediterranean Revival and Art Deco, as well as postwar modern homes like Ranch Style homes. Their openness may be a counterpoint to the solidity of the home, or may integrate into the flow of open porch and loggia spaces that define the front of the house. The proportions and materiality of the garage door opening are also part of the design, and the garage door itself is often a character-defining element of the façade.

Changes over time: Like porches, garages and carports have frequently been subsumed into the surrounding house in order to increase usable floor area. This infill construction often erases the sense of opening of the original design. The loss of deep pools of shade produced by carports, or the deeply recessed garage door that communicated the sense of a large opening, may contribute to a flattening of the façade. Historic garage doors have been frequently replaced with new stylistically-inappropriate doors that reflect contemporary tastes.

Appropriate materials and techniques: Ideally, carports and garages should not be enclosed. Wall finishes in these areas should be retained or reconstructed to match their original profiles. Garage doors should match as closely as possible their historic proportions, materiality and design profile.

Where enclosing space within a carport, it is important to maintain transparency and the sense of an open structure. For instance, a transparent glass window-wall systems can be inserted into the full height and width of a former opening, preserving the apparent openness of the structure. When adding glass, avoid tinting and set the glass back from the surrounding structure as much as possible.

Where enclosing a garage, the feature of the opening should be retained and historic garage doors should be retained or restored. Any new materials and code-compliant enclosure systems should be located behind the plane of the opening. In all cases, the use of materials should minimize the impact on the visual quality of the façade, and harmonize with the surrounding areas. New materials that avoid confusion with the adjacent historic materials should be used, and large expanses of solid material should be avoided. In other words, maintain the carport or garage as a distinct element of the house.

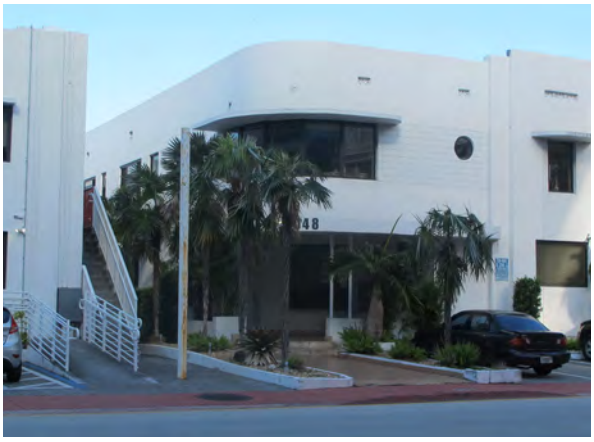
Resiliency considerations: While no opening protection for carports is required, new garage doors should hold a Miami-Dade County NOA. New compliant doors should be selected to match the historic profile closely, and may need to be customized to provide an appropriate replacement.

Garage and carport floor elevations are generally below those of the house, making them more susceptible to flooding in low-lying areas. Where low-lying garages have been converted to habitable rooms, a strategy of relocating these rooms to new higher-elevation additions (restoring the original garage) should be considered.

Carport in Surfside

Miami Beach Real Estate Listings, 1953, street view of residential real estate property on Froude Avenue, Surfside. https://cdm17273.contentdm.oclc.org/digital/collection/p17273coll4/id/4092

Raised porch with stuccoed masonry and decorative cast concrete railings are a feature of many Art Deco hotels



Cutaway porch at Streamline Moderne building

Porch below marquee type feature at Art Deco hotel

Front porch with slump brick low wall and wood columns at Minimal Traditional home

Not recommended: Screened porch added to Minimal Traditional home

Raised porch with metal railings, open on both sides, forming breezeway, at Postwar Modern building

Modernist arcade at Postwar Modern commercial building

Porch at Postwar Modern home

Front porch at Minimal Ranch home

Front porch with wrought iron decorative columns carrying pediment at Minimal Traditional home

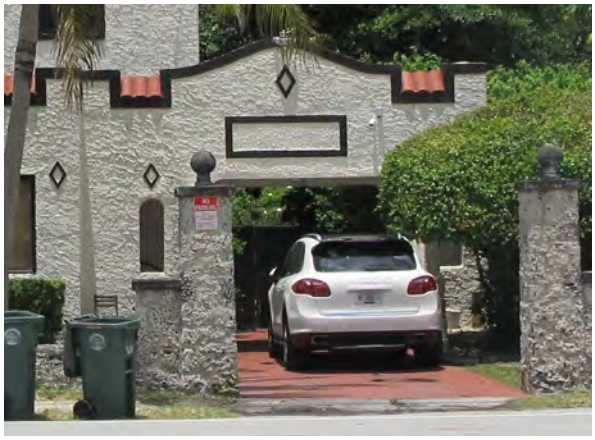
Recessed porch area at split-level Ranch home

Carport is virtual extension of porch area of Bungalow home

Detached garage (garage doors not original) of Masonry Vernacular home

Not recommended: Carport is obscured by gate at Masonry Vernacular home

Attached carport with sculpted parapet and ornament at Mission Revival home



Attached carport with sculpted parapet and ornament at Mission Revival home

Attached carport and garage at Ranch home

Attached carport at Mediterranean Revival home

Attached carport with arched opening above at Moorish Revival home

Carport with trefoil arch and parapet at Moorish Revival home

Attached carport with shed roof framed by attached planters at Postwar Modern home

Vertical wood panel garage door at Minimal Traditional home

Attached garage at Minimal Traditional home

Attached carport and entrance at Postwar Modern home

Not recommended: Home and original garage obscured by fabric canopy structure

Attached carport at Minimal Ranch home

Concrete-framed carport with breezeblock wall at Postwar Modern home

Not recommended: Garage at Mediterranean Revival home converted to room, with no memory of door

Not recommended: Contemporary garage door design not cohesive with historic home

Porte cochere at Postwar Modern hotel.


Porte-cochere with butterfly roof at Postwar Modern building

Porte-cochere at Postwar Modern hotel

Entrances and Doors

Role/significance/relevancy: Entrances and doors are often the most prominent features of a building. Their location, size, proportions and character are part of the composition of the façade. Entrances may comprise doors and door hardware, screen doors, sidelights, decorative trim, and structural surrounds. The way these elements work together is important in retaining the character of the building.

Door and door hardware types generally vary according to building style and type. Framed and paneled doors were common in Wood and Masonry Vernacular houses, but also in later Mission, Mediterranean houses. In the latter, arched openings often included glazed sidelights and transoms. Glazed doors became more common in Prewar Modern houses, which also featured exuberant screen door designs, emphasizing flora and fauna or geometric patterns. Glass jalousied, or louvered, doors are a feature of Postwar Modern homes and apartment buildings.

Changes over time: Over time, original door designs may have been replaced by generic doors, or by doors representing styles that are not appropriate for the building style/type. For instance, paneled doors may have been replaced with flush doors; simple paneled doors are also often replaced with more decorative door types, such as those with colonial American motifs, or Mediterranean motifs. Hardware and other elements that do not relate to the original appearance and style of the building may also have been added.

Building code changes have also affected the design and availability of door types. A major rewriting of the South Florida Building Code following Hurricane Andrew in 1992, placed the region in a “high velocity” wind zone. The new code included a requirement that doors be capable of rejecting small and large ‘missile’ impacts, and set new standards for water infiltration. Partly as a result of these requirements, and the rigorous testing required to approve new doors, a narrower band of tested and approved door assemblies became commonly available.

Accessibility improvements may also have altered the appearance and function of some entrances and associated site features. Accessibility to public accommodations is a civil right, and changes are often necessary to make building entrances fully accessible. In the case of houses, such changes are typically implemented on a case-by-case basis, utilizing ramps, wider doors and altered door configurations as well as new lever-type hardware. Such improvements, while functionally necessary, are not always consistent with the historic character of the structure.

Appropriate materials and techniques: Building owners should identify the entrance and door type appropriate for a specific building.

Original doors should be maintained in good repair, and retained whenever possible. Selective damage may be able to be repaired/replaced. Original hardware may be updated by a locksmith to become functional again. If a door must be fully replaced, or has been previously replaced with an inappropriate door, the new door will need to comply with current Miami-Dade County NOA. Stock NOA doors come in a variety of types and styles; it is important to select a new door that appears close to the original design. Flush wood or hollow metal doors are almost never appropriate in the rehabilitation of historic homes.

Where the entranceway incorporates decorative door surrounds, including sidelights or fan windows, these should be retained. If they need to be reconstructed, the original appearance should be matched as closely as possible using code-compliant elements.

Where original screen doors exist, they should be repaired or replaced with a new door that matches the original pattern. If the original screen

Entry in Surfside

Miami Beach Real Estate Listings, 1956, street view of residential real estate property on Harding Avenue, Surfside. https://cdm17273.contentdm.oclc.org/digital/collection/p17273coll4/id/4130/rec/62

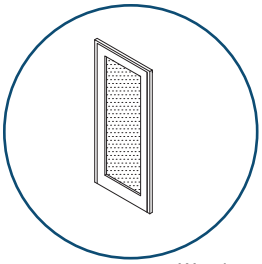
door no longer exists, the most appropriate replacement would be a simple, open and transparent screen door that allows the pattern of the door to be seen through the screening.

Resiliency considerations: Doors are a critical component in the security and weather-tightness of a building. Existing doors should be weather-stripped to contribute to a building's resiliency. Where existing historic doors are retained, detachable protection systems, such as shutters, should be considered to protect the entranceway in case of severe storms. Such shutter systems should typically have no visible permanent attachments, and be mounted through grommeted attachments when a storm is approaching.

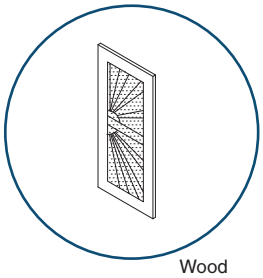
New Miami-Dade Country NOA doors and frames provide strong resistance to severe storms. Select NOA'd systems that closely match the original door design and configuration. Where the installation of new doors requires structural improvements to the areas around the doors, take care to match the original assembly of door-framing elements.

Not recommended:
Metal security gate installed over historic door

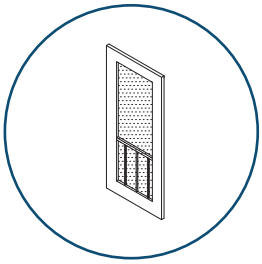
Not recommended: Original door area filled in, use of generic replacement door and security gate



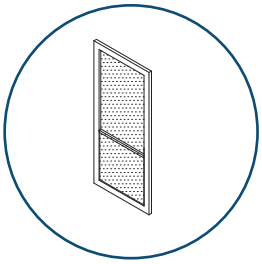
Wood screened door



Wood screened door



Wood screened door



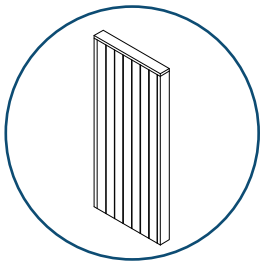
Aluminum screened door

Wood screened doors with louvers at Masonry Vernacular building

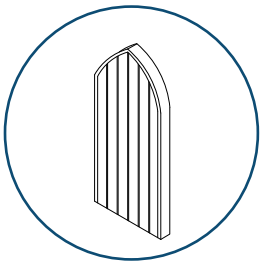
Wood screened door at Bungalow home

Aluminum screened door at Minimal Traditional home

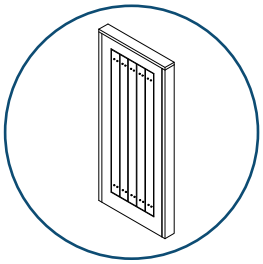
Wood screened door over wood-paneled door at Mediterranean Revival home



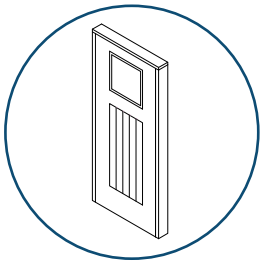
Paneled door



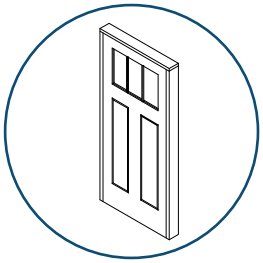
Paneled door with pointed arch



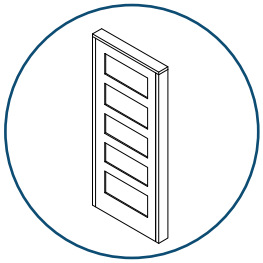
Paneled door



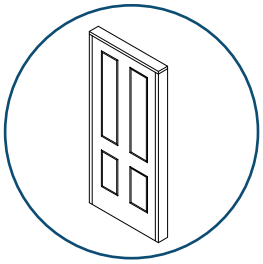
Paneled door with view window



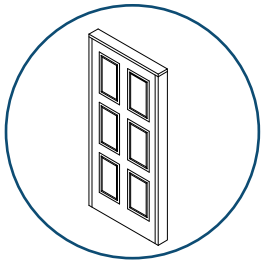
Paneled door with view window



Rockport panel door



Solid panel with symmetrical insets



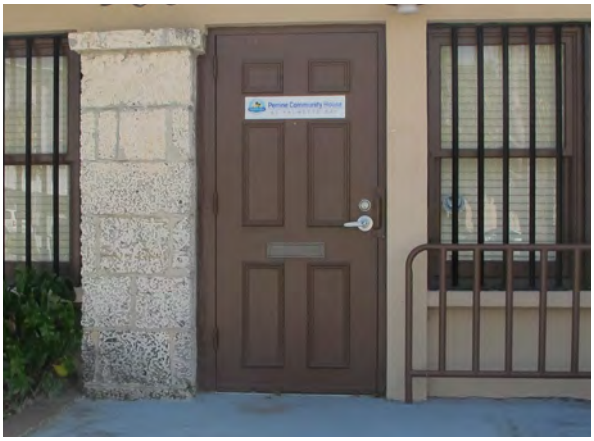
Six panel door

Ten panel wood door at Masonry Vernacular home

Six panel wood door at Masonry Vernacular home

Four panel wood inner door with six panel wood louvered outer door at Wood Frame Vernacular home

Rockport five panel wood door at Wood Frame Vernacular commercial building



Six panel wood door at Masonry Vernacular community center

Wood and glass door with colonial muntins and wrought iron metal outer door at Wood Frame Vernacular commercial building

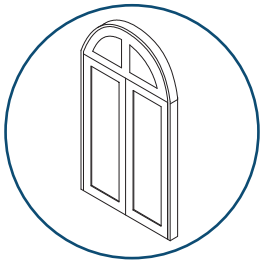
Paneled pointed arch wood door at Masonry Vernacular building

Decorative wrought iron entry gate at Mission Revival building

Metal door with wicket at Mission Revival building

Decorative wrought iron door with glass at Masonry Vernacular building

Decorative wrought iron entry gate at Masonry Vernacular building



French/
storefront
glass

French doors with glass and arched window at Mediterranean Revival home

Metal and glass paneled door at Wood Frame Vernacular building

Wood panel legged and braced doors at Masonry Revival building

Arched wood door with metal elements at Moorish Revival building

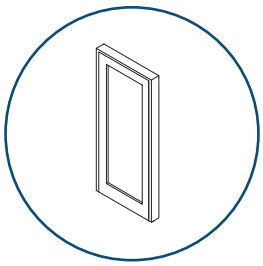
Six panel wood doors at Masonry Vernacular building

Glass jalousied wood doors at Postwar Modern apartment complex


Three-lite wood doors at Postwar Modern apartment complex


Not recommended:
Original jalousie door replaced with generic door at Postwar Modern apartment complex

Metal and glass commercial storefront entrance doors at Art Deco building



Glass

Not recommended:
Door sealed over at Moorish Revival civic building

Windows

Role/significance/relevancy: Windows are sometimes referred to as 'the eyes of a building,' complementing the massing and skin of a structure with transparent voids. These important components help guide the function and aesthetics of a building. They are also critical to its weather protection and ventilation. Their type, placement, size and proportions are defining characteristics of the architectural style and type. For instance, Bungalows and Wood Frame Vernacular buildings generally have sash-type windows, while Art Deco style buildings generally have casement or awning type windows. Jalousie windows were introduced in the postwar era.

Changes over time: As an element exposed to recurrent wear and tear, and vulnerable to high winds, windows are frequently replaced. Often, newer windows are incompatible with the historic character of a structure, reflecting instead the newest technology, the lowest cost or the newest fashion.

Changes in technology, in particular, have brought important changes to window types and have affected availability. Wood and steel have been largely supplanted by extruded aluminum. Transparent glass has been replaced by tinted glass or glass with energy efficient low-e coatings that are not fully transparent. Contemporary window sashes are no longer broken by mullions and muntins; rather, shallow false muntins are decoratively added to the glass to mimic traditional window configurations.

Building code changes have also affected the design and availability of window types. A major rewriting of the South Florida Building Code following Hurricane Andrew in 1992 placed South Florida in a "high velocity" wind zone. The new code included a requirement that windows be capable of rejecting missiles, and set new standards for water infiltration. Partly as a result of these requirements, and the rigorous testing required to approve new windows, a narrower band of tested window assemblies became common (for instance, jalousie type windows are no longer available, although existing ones may be repaired). Awning windows following historic patterns are also rare. Today, casement, sash, sliding and fixed windows are most common.

Appropriate materials and techniques: The type of window appropriate to any particular style, and the specific original window design (when known) should be used. Where windows have been previously replaced, care should be taken to recover the original window opening size. Most windows are fabricated to order, based on field measurements, so the original window dimensions should be established, generally by determining the original structural enclosure of the window. Where all windows cannot be restored or replaced to match, the windows of the front façade(s) should take precedence.

Care must be taken to select mullion and muntin profiles that carefully match the historically-appropriate pattern. Glass type is important too; historic windows were largely transparent, while contemporary windows offer a variety of solar shading. Clear glass may be low-e, which adds reflectivity to the window. To the extent possible, new windows should be clear and non-reflective. Special features, like etched glass, should be reproduced in replacement windows.

Because some authentic window configurations are no longer produced, it is often better to retain and repair the original if they are still operational. Owners may consider alternatives to new impact windows such as hurricane shutters or screens. The rehabilitation of windows is often better achieved by repair rather than replacement. Where neglect has caused severe damage, however, replacement may be necessary. Windows must be weathertight in order to protect a building. Ideally, new windows should be custom designed to reproduce the original window size and configuration. If owners need to use prefabricated windows, they should be chosen to match the historic width, height,

Casement windows in Surfside

Miami Beach Real Estate Listings, 1947, street view of residential real estate property on Carlyle Avenue, Surfside. https://cdm17273.contentdm.oclc.org/digital/collection/p17273coll4/id/2837/rec/4

thickness, and glazing configuration. The size of window openings should not be altered. Original trim and window casings should be replicated when possible.

Resiliency considerations: Windows represent one of the most vulnerable components of any structure. Windows should be weather-stripped to contribute to a building's resiliency and sustainability. Detachable protection systems, such as shutters, should be considered to protect unprotected historic windows.

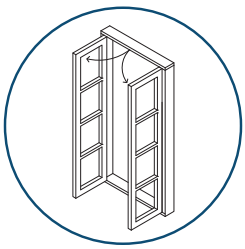
Impact-rated windows with a Miami-Dade County NOA provide strong resistance to severe storms. Such systems should be selected to closely match the original window design and configuration. Note that these new opening protections must be considered as a complete assembly in order to function properly, and often require structure improvements to the areas around the windows. Overall, care should be taken to maintain the original configuration and appearance of the window system.

Wood casement window at Wood Frame Vernacular building

Casement metal window with arch at Masonry Vernacular building

Casement windows at Mediterranean Revival building

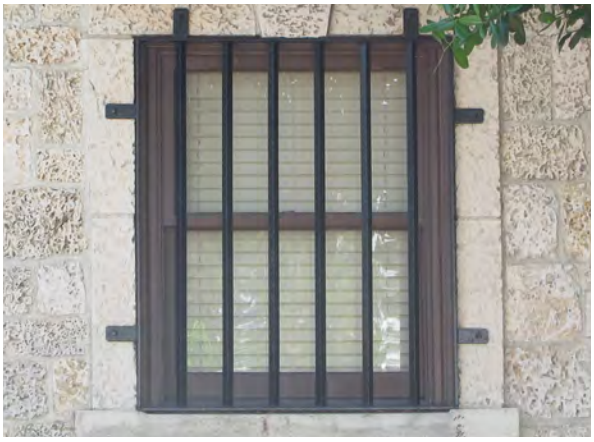
Casement window at Wood Frame Vernacular building



Casement window

Wood sash window at Masonry Vernacular building

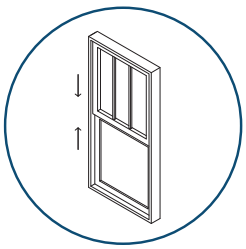
Wood sash windows at Masonry Vernacular building



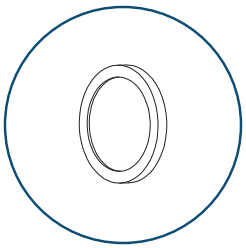
Double-hung window (with grill) at Masonry Vernacular building

Not recommended: Metal screen obscures original window at Wood Frame Vernacular home

Not recommended: AC unit obscures original window at Mission Revival home



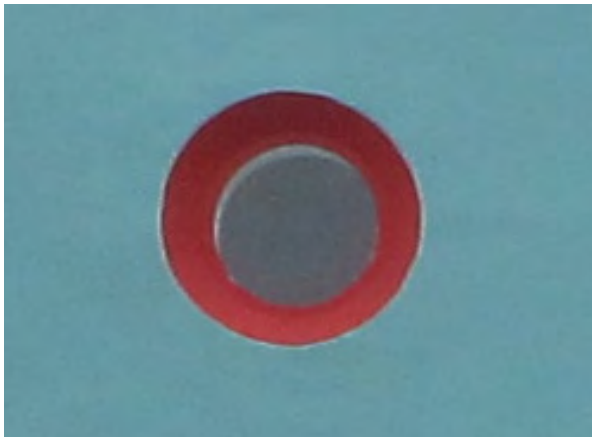
Sash window



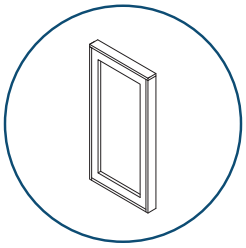
Porthole window

Porthole window at Streamline Moderne building

Not recommended: Rectangular placement window at Streamline Moderne building (new should match profile of original opening)

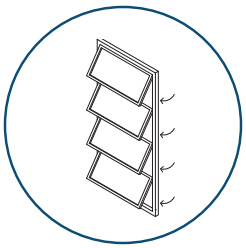


Porthole window at Streamline Moderne building



Picture window

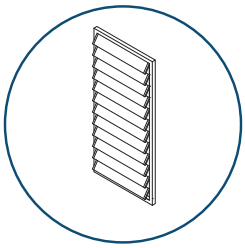
Picture window at Ranch home



Awning window

Wood-framed awning windows at Wood Frame Vernacular building

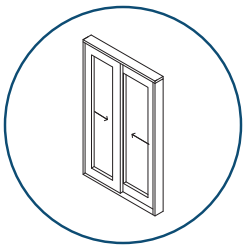
Awning windows at Streamline Moderne building (note: bronze or other dark finish not appropriate for Prewar and Postwar Modern buildings)



Jalousie window

Glass jalousie windows at Postwar Modern building

Glass jalousie windows at Postwar Modern building



Sliding window

Sliding windows are often used to replace original glass jalousie panels. When replacing, frame color should be anodized aluminum.

Not recommended: Window boarded up and frame removed at Wood Frame Vernacular commercial building

Not recommended:
Window filled in at Masonry Vernacular home

Shutters and Awnings

Role/significance/relevancy: Shutters and awnings are typically non-permanent elements of a structure. Shutters were not particularly common in South Florida historically but may be useful in a storm-prone environment. Operable panels provide protection during storms, while also serving as ornamentation in coordination with window systems. Shutters are most commonly used in Mediterranean Revival and Minimal Traditional house styles.

Awnings are sun-control devices attached to buildings over windows and doors. Although early examples were built of wood, most awnings are fabricated of canvas or synthetic fabrics, and supported on metal poles. They may be fixed or retractable. South Florida's intense heat and glaring sun made awnings common to almost all styles of architecture. Awnings are non-permanent, but they play an important role in the appearance of a building.

Canvas awnings are most common, constructed by metal pipes upon which canvas is stretched and sewn. Other more modern forms included rigid, aluminum shaped hoods and wood panels that fold down to protect windows.

Changes over time: Historic shutters, generally made of wood, are subject to rot and deterioration. As shutters degrade, they are often replaced with aluminum models. Most historic shutters were operable; new versions are often inoperable and sometimes solely decorative. Traditional shutter types have often been replaced with protective devices like roll down shutters.

Historic awnings, generally made of canvas and steel, are vulnerable elements that must be periodically replaced. Operable awning options include hinged and roller systems. Exterior evidence of former awnings might remain on the outside of the structure to be used as a pattern for new ones.

Appropriate materials and techniques: In determining how to replace or repair awnings and shutter, owners should first study the original architectural intent of the building. Drawings, photographs and ephemera (like postcards) are good sources of information on the early life of buildings. Where historic documentation of a specific building is lacking, consult imagery of buildings of similar style and type. Investigate the existing structure for evidence of previous shutter and awning systems. Promotional information from a neighborhood's early housing can provide additional information about what awnings are appropriate if no other evidence exists.

Owners should select replacement shutter types consistent with the original architectural intent. Shutters should be avoided on buildings that were not intended to have shutters in the original design. Hurricane shutters and supporting tracks should be removable. Modern rolling shutters, accordion shutters and sliding shutters detract from the building aesthetic and should be avoided.

Where shutters are provided, they should be operable, and large enough to cover the entire window if closed (each leaf should match the full height and half of the width of a window). When replacing original wood shutters, wood is the ideal replacement, but aluminum may be appropriate if closely matching the design, thickness, and profile of the original wood windows. Shutters should also not be attached to the wall but to the window casing.

Awning types should be selected that are consistent with the original architectural intent. Awning types and sizes should be sized specifically for each opening, and should match the geometry of the opening. Arched openings, for instance, should have rounded openings. Awnings should not obstruct the façade, but complement and protect the openings. Awnings should be thematically linked throughout the façade. The color and material of awnings should be selected carefully.

Awnings in Miami Beach

Miami Beach Real Estate Listings, 1950, street view of residential real estate property on Collins Avenue, Surfside. https://cdm17273.contentdm.oclc.org/digital/collection/p17273coll4/id/10008/rec/1

Resiliency considerations: Where original historic windows are maintained, shutters are a good way to enhance the hurricane protection of window and door openings. Protecting openings translates to protecting the structure.

Shutters and awnings can perform an important environmental role, keeping the interior cool. They throw valuable shade and cut the glare of the sun, while still admitting daylight and allowing air to circulate between the interior and exterior. They are both energy efficient and cost effective. They reduce heat gain, glare, and cooling costs.

Operable louvered wood shutter at Wood Frame Vernacular building

Decorative paneled wood shutter at Mediterranean Revival home

Not recommended: Decorative louvered wood shutter at Wood Frame Vernacular home

Not recommended: Sliding aluminum shutter at Mission Revival home

Wood shutter with bracing at Wood Frame Vernacular log cabin

Operable wood panel shutters with bracing at Masonry Vernacular building

Not recommended: Metal clamshell shutter on Mission Revival home

Not recommended: Sliding aluminum shutter at Minimal Traditional home

Not recommended: Shutters not sized to full window size at Mediterranean Revival home

Not recommended:
Aluminum Bahama shutter on Mediterranean Revival home

Not recommended: Doesn't cover full window when closed and attachments are on wall at Wood Frame Vernacular home

Not recommended: Doesn't cover full window when closed; Applied metal shutter system not appropriate

Not recommended:
Doesn't cover full window when closed

Not recommended:
Awning should follow profile of arch and align with it

Canvas awning aligned with arched window type and style of Mediterranean Revival home

Canvas roller awning at Art Deco hotel

Not recommended:
Awning too large for opening at Mediterranean Revival home

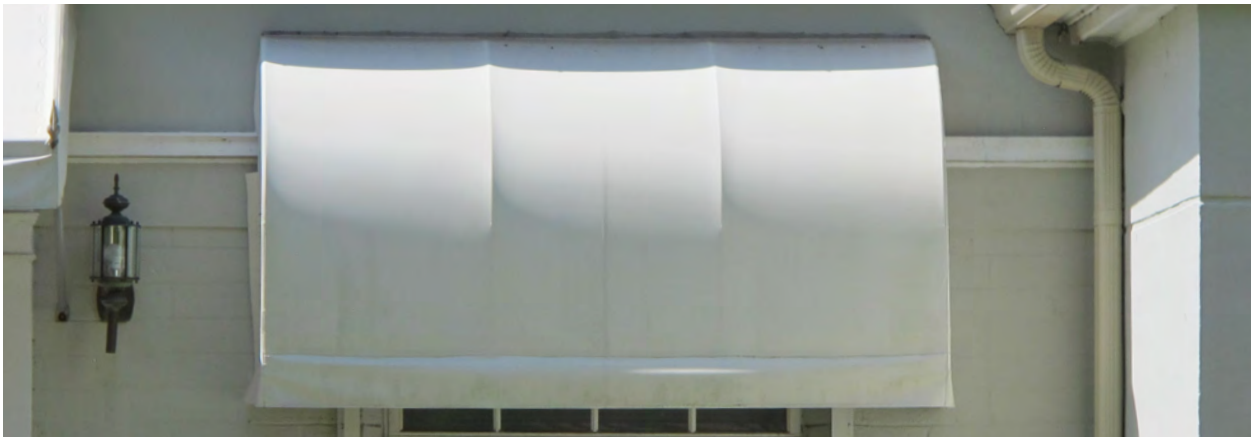
Canvas awning at Mediterranean Revival home

Not recommended:
Awning should follow profile of arch and be aligned

Canvas awning

Aluminum clamshell awning at Minimal Traditional home

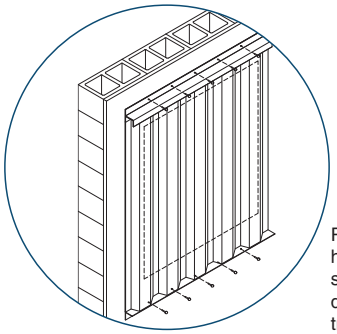
Aluminum awning at Postwar Modern home



Not recommended:
Dome awning not aligned with style of Minimal Traditional home

Aluminum clamshell awning at Postwar Modern home

Not recommended: Aluminum clamshell awning not appropriate for Wood Frame Vernacular home



Removable hurricane shutter with detachable tracts

Removable hurricane shutters are appropriate but should be taken down outside of hurricane season

Not recommended:
Permanent accordion shutters not appropriate at historic home

Not recommended:
Permanent roll down shutters not appropriate at historic home

Roofs and Chimneys

Role/significance/relevancy: Roofs provide the critical function of protecting a building from the elements. The roof of a building also denotes basic shelter, and is a character-defining part of the composition of its architecture. Some styles, like the Bungalow, have complex telescoping and intersecting roof gables. Others have simpler gabled, hipped or shed-type roofs. Some houses, and most commercial building, employ flat roofs. Roofs should be considered as a holistic system in which shape, pitch, roofing materials, dormers, eave projection, gutters, exposed rafters and vents are all considered relevant.

Chimneys, likewise, are an ancient architectural element, and were frequently used in subtropical Miami-Dade County for winter warmth. Like the roof, chimney design, including form, height and materials, is a defining factor in the building type and style.

Changes over time: Tropical storms pose a threat, and the roof is one of the most vulnerable areas of a building. Over time historic roof materials, including wood shingles, metal roofing, clay tile and original asphalt shingles may have been lost. Roofing is periodically replaced to maintain the water-tightness of buildings. Newer code requirements for Miami-Dade County-approved materials, coupled with the Florida Energy Code and contemporary concern for insulating roofs, has also introduced changes. Rotted eave projections may have been removed or covered.

Chimneys generally accompany fireplaces or mechanical heating equipment. Over time, they may have been neglected or removed because traditional methods of heating have been abandoned or are no longer functional. Problems related to flashings around chimneys may incur damage to masonry and wood around chimneys. Removing chimneys should be avoided because doing so diminishes the historic character of a building.

Appropriate materials and techniques: While it is understood that roofs require periodic replacement, attention to preserving the character-defining elements of the roof is critical. Where an original roof is generally in good repair and minor patchwork is possible, this is preferred to replacement. Where replacement is necessary, the effects of materials and color should be considered.

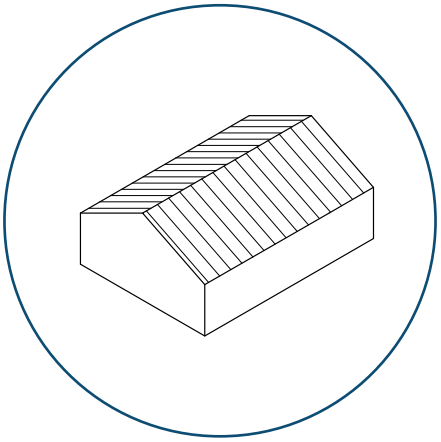
Wood Shingles
In homes with original wood shingle roofs, matching cedar wood shingles, or shingles using alternative materials that match the size, shape (split or fancy cut) and texture of wood shingles in appearance, should be used. Alternative materials to wood shingles include composite wood shingles, offering improved weather and fire resistance.

Asphalt Shingles
Asphalt shingles have been around since the early 20th century, and their bituminous coatings were particularly important for low-sloping roofs. Organic or fiberglass mat base materials with surface granules made roofs durable and imparted their color and finish. Asphalt shingles, usually in shades of brown or gray, were typical. Here, replacing with rolled asphaltic sheeting is not appropriate. Shingles should be tabbed or divided into sections that give the appearance of individual pieces.

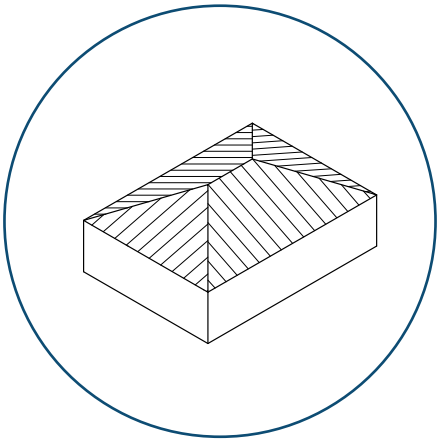
Asphaltic flat roofs
Most flat roofs in South Florida were covered with asphaltic sheet roofing materials. As these ‘built-up’ asphaltic roofs are generally concealed by surrounding parapets, or cantilevered over the walls and finished with metal flashing, they are not visible to the public right of ways. Higher performance alternatives, like single-ply EPDM and PVC, liquid-applied and other roof coatings may be explored as alternates to asphaltic roofing.

Gambrel Roof at Carriage House at Charles Deering Estate

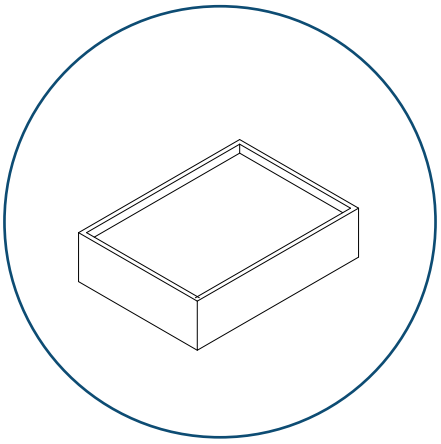
John Kunkel Small, 1919, garage and laundry of Charles Deering. https://deeringestate.org/history/historic-structures/.



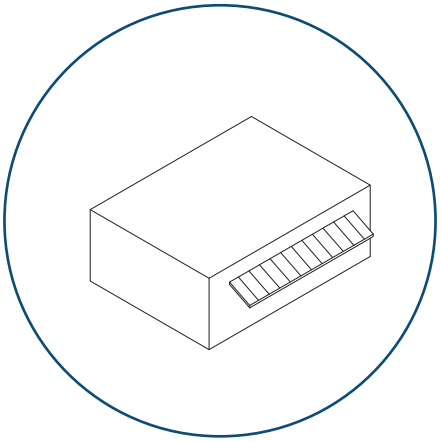
Gable roof



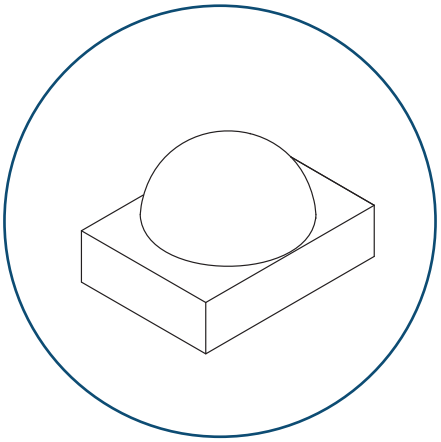
Hipped roof



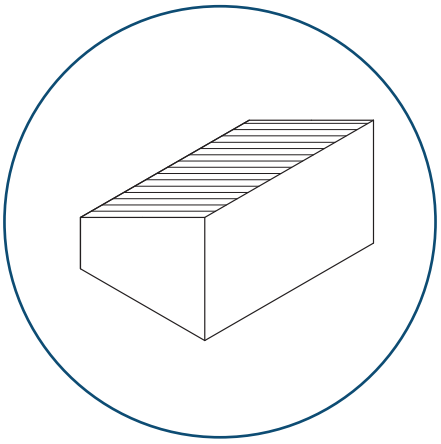
Flat roof



Pent roof



Dome roof (painted)



Shed roof

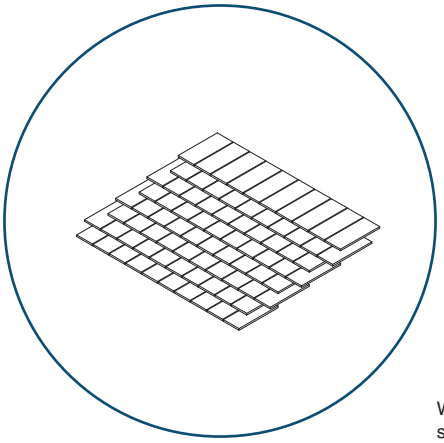
Metal
Tin roofs, made of tin and lead and knows as 'tinplate' or 'terneplate', were popular in early frame and masonry vernacular buildings. Sheets were nailed to the underlying board roof, and joined together by standing seams that formed a waterproof bond. Several varieties of standing seam and shingle metal roof assemblies are available today. The color should match as closely as possible the original painted color of the metal roof.

Clay Tile
Clay tile roofs that are S-shaped, barrel shaped or flat are common in South Florida. These are common in Mission, Mediterranean, and Moorish style buildings. Clay tile roofing was once manufactured by hand. Many older Mediterranean Revival homes used shingles imported from Cuba, often salvaged from older construction. Today, manufactured clay tile roofs are available in a variety of colors and shapes. In Mediterranean and Mission style structures, variegated roof tiles are often used. New clay tile roofs should carefully match historic appearance.

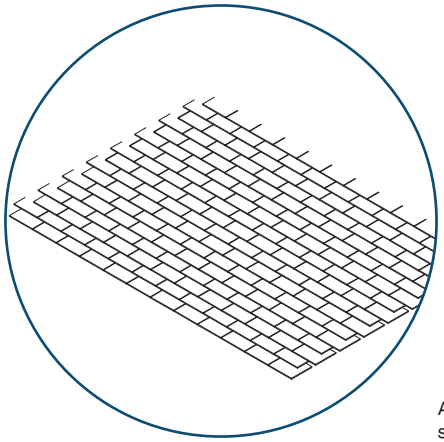
Chimneys
Chimneys should not be removed, and should be maintained in good structural order. Original surface materials should be left exposed and repaired or replaced in kind. Caps and ventilators at the chimney tops should be maintained, as they reinforce the architectural character of the home. Flashing connections between roofs and chimneys should be carefully examined to assure they are functioning properly.

Resiliency considerations: Roofs are important components of the protection of a building against severe storms. As a component of the envelope of a building, roofs are now controlled by the Florida Building Code, and Miami-Dade County NOA product approvals are required for all new roof assemblies. Roofs should be checked for appropriate tie-downs to the building structure, and tie downs added where necessary. Storm-resistant roofing assemblies that match historic appearance as closely as possible should be selected.

Sustainability is an important element of resilience. Improvements like solar panels may be considered. Where solar panels are installed, they need to be carefully configured to not impair the integrity of the structure from public right of ways where feasible. The integration of solar cells in new roofing materials, while relatively new, may also offer important future-proofing in an affordable way, but should not detract from a building's historic appearance.



Wood shingle

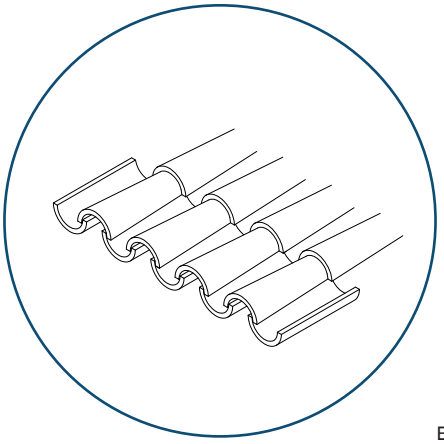


Asphalt shingle

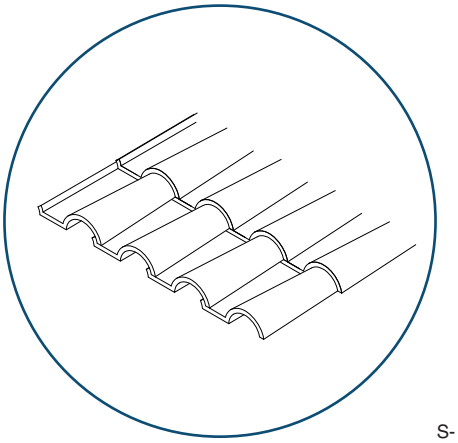
Asphalt shingle roofing

Asphalt shingle roofing

Wood shingle roofing



Barrel Tile



S- tile

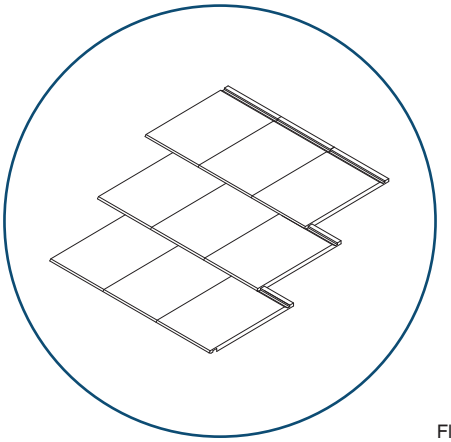
Barrel tile roof

Barrel tile roof

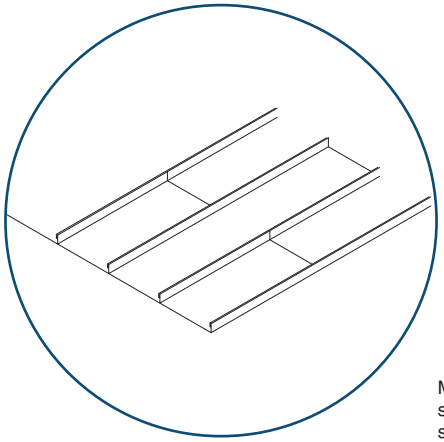
S-tile roof

Flat tile roof

Flat tile roof



Flat tile



Metal with standing seam

Standing seam metal roof

Standing seam metal roof

Oolitic rock chimney with weather vane

Oolitic rock chimney with concrete crown

Oolitic rock chimney

Oolitic rock tapered chimney with concrete crown

Oolitic rock chimney with chimney pot and cap

Oolitic rock tapered chimney with concrete flashing

Brick chimney

Curved top stucco chimney

Oolitic rock chimney

Cut limestone chimney with crown

Concrete unit masonry chimney with cap

Stucco with barrel tile roof and arched opening

Railings

Role/significance/relevancy: Wood, metal and concrete railings are in many cases the single most impactful exterior feature of a building. For instance, in the postwar period, thousands of two and three-story garden apartment buildings with exterior corridors were constructed in South Florida. In many cases, the metal and concrete railing systems of these buildings are their primary character-defining feature. Even in simple buildings, railings may be quite decorative, and function as a differentiator.

Railing types vary according to the style of a building. For instance, in vernacular construction, railings are generally wood constructed. In the prewar and postwar era, railings may have been constructed in concrete, steel, iron, or aluminum, as well as wood.

Railing systems are holistic in nature, and every part contributes to the overall aesthetic and often structural integrity of the whole.

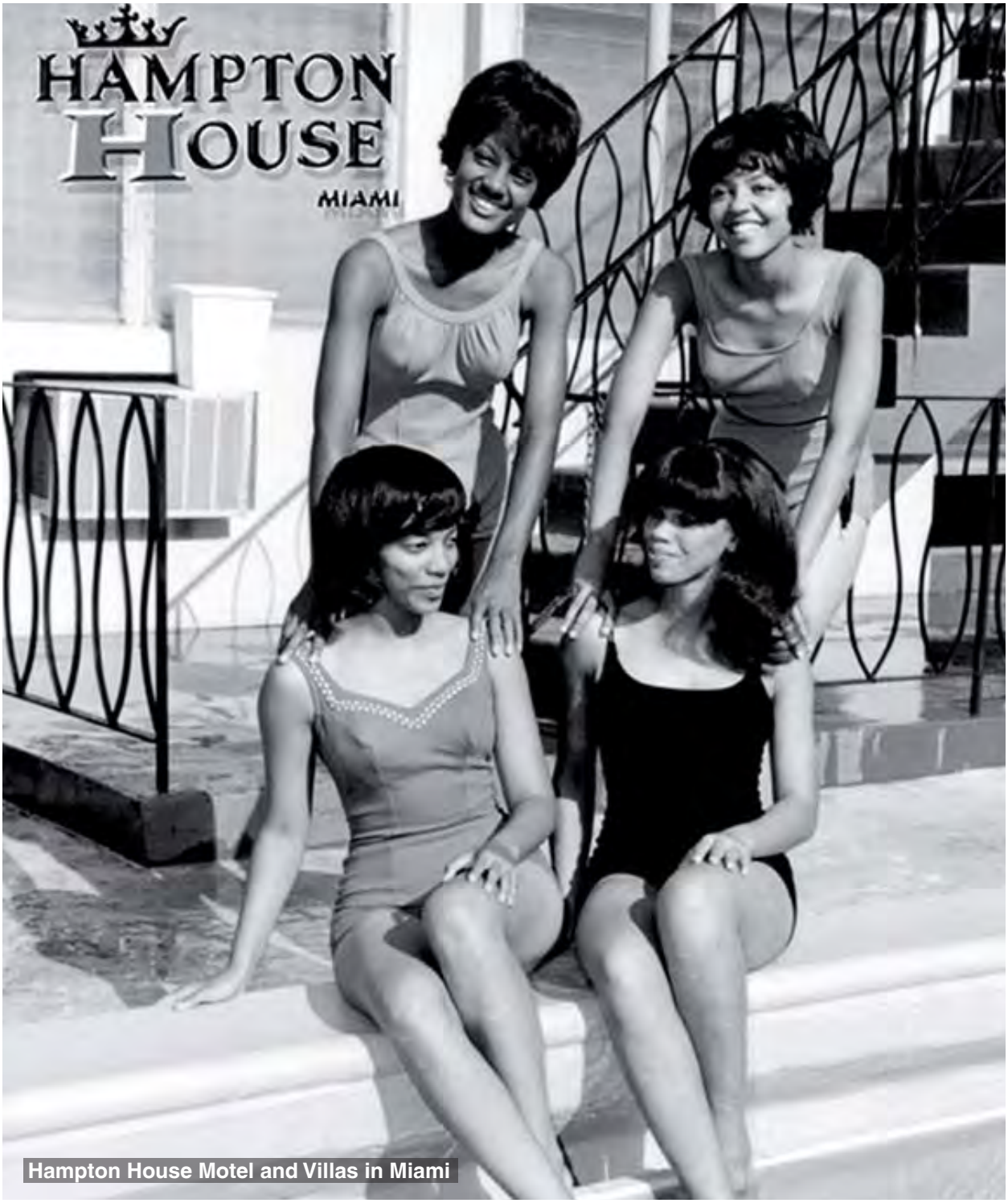
Changes over time: Poor maintenance, sloppy repairs, and adaptation to fulfill code requirements have affected the character-defining qualities of these historic elements. Sun, rain and wind, as well as salt air, along with normal wear and tear and infrequent maintenance, takes its toll on railing systems. Railing systems built of precast concrete and modular concrete breezeblock utilized forms that are uncommon today, and are difficult to replace with stock items. Metal railings are subject to rust deterioration, and wood railings experience rot. Generally, the decorative use of metal and wood has become more expensive. Current manufacturing technology and methods have made pure replication of the historic railings cost-prohibitive. Aluminum has replaced steel and iron railings, and so exact replication of member sizes becomes difficult.

Building Code requirements and ADA introduce other difficulties. For instance, many rail systems rise to 36 inches, which was common through the postwar era. New railing systems are required by code to provide protection to 42 inches. While older railing system are often more open, guardrails must today be designed so that a four-inch sphere cannot pass through any point below three feet. Contemporary codes also carefully prescribe the cross section of the handrails. Additional requirements address the resistance of rail systems to lateral forces. In the face of these requirements, many renovations have simply replaced railing systems with contemporary stock systems. Where the scope of a rehabilitation rises to substantial improvement, existing railings may require redesign and modification or replacement.

Appropriate materials and techniques: Three principle approaches to working with original non-conforming railing systems should be considered, in order of preference: Restore/Adapt; Replicate/ Adapt; and Contemporary Interpretation. Most historic railing systems can be restored and adapted to current codes with minimal means.

Restore/Adapt
Where original historic railings are essentially intact, preservation may be appropriate. Proof of the original appearance, such as photographs or drawings, is helpful in understanding the original configuration of the rails, and the extent of any changes over time. Restoration and adaptation is generally preferred to the wholesale removal and replacement of the existing railings; every attempt should be made to explore this methodology.

Repair and minor replacement of small portions of a railing being restored should faithfully replicate the original, using same materials, member profiles, sections, sizes and attachment details. Minor modifications may also be possible to enable restoration of the existing original guardrail or handrail, such as the addition of an intermediate member, or a glass panel behind which may satisfy current code requirements. Where railings are original, less stringent standards are often applied, such as allowance for a 6” rejection rule rather than the 4” rejection



Hampton House Motel and Villas in Miami

Robert Carl Frese, 1953, female bathers at poolside. https://historichamptonhouse.org/press-gallery/.

applied to new railings. A full code analysis of the railing should be complete prior to determination that it warrants replacement.

Replicate/Adapt
Where railings are unsuitable for restoration due to severe deterioration, or if the original railings have been replaced with a less historically-appropriate railing, replication of the original would be preferred. Historic photos and/or drawings may provide a resource for the design of the replicated railings, and all efforts should be made to provide a historically accurate replication of the original.

If feasible, materials matching the original should be used. However, if appropriate alternatives are able to faithfully replicate the original materials they may be considered. For example, aluminum railings are often used to replace steel railings, since the material is less prone to corrosion and requires less ongoing maintenance. However, the replicate must be able to match the profile, size, and finish of the original to be considered appropriate. As described for Restore/Adapt, minor modifications to enable faithful replication may be possible to correct minor code non-compliance issues.

Contemporary Interpretation
Should a railing be both significantly deteriorated and unsuitable for adaptation to meet current codes, a contemporary interpretation may be considered an appropriate methodology for railing replacement. Design input from professionals should be sought in order to select an appropriate interpretive solution.


Wood decorative railing on porch of Wood Frame Vernacular home


Wood rustic railing at Log Cabin type wood home (now Community Center)

Carved wood turned baluster railing

Wood X-shaped porch railing

Painted wrought iron vertical picket railing

Wrought iron vertical picket railing

Wrought iron vertical picket decorative railing

Wrought iron railing with spearhead finials

Aluminum vertical picket railing at Postwar Modern apartment building

Painted wrought iron pipe railing at Postwar Modern apartment building

Aluminum ribbon-type railing at Postwar Modern apartment building

Aluminum pipe railing at Postwar Modern hotel

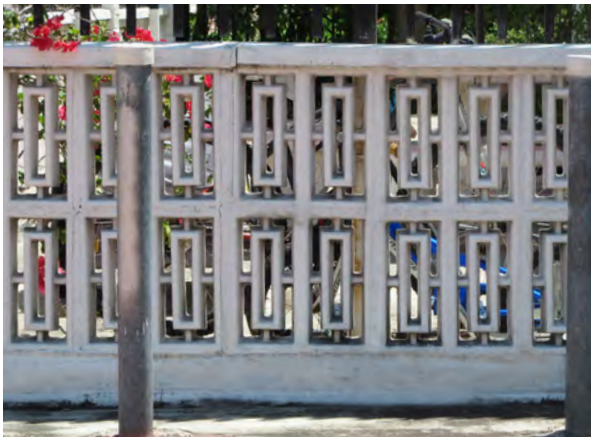
Aluminum railing with geometric design at Postwar Modern apartment building

Precast concrete railing at Art Deco hotel

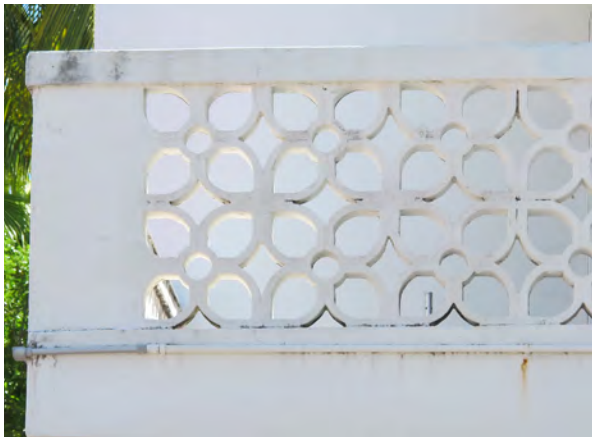
Precast concrete railing at Art Deco apartment building

Precast concrete railing at Art Deco apartment building

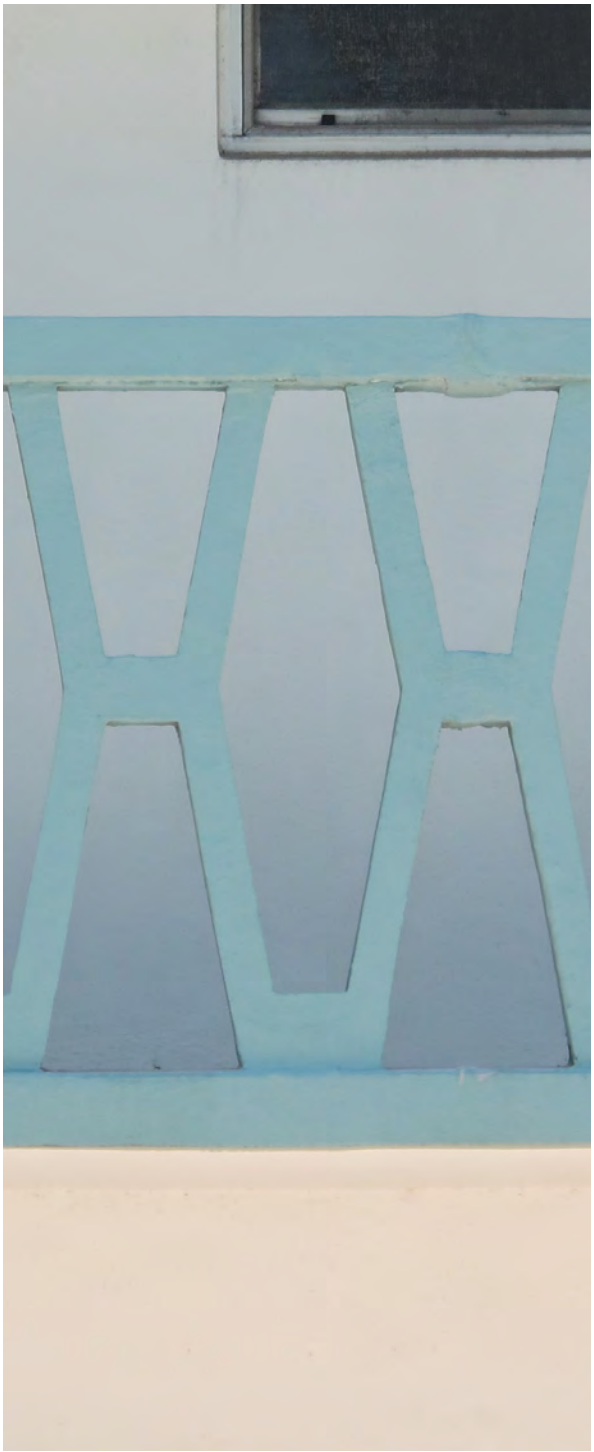
Precast concrete railing balustrades



Modular concrete breeze block railing at Postwar Modern apartment building



Modular concrete breeze block railing at Postwar Modern apartment building”



Precast concrete railing with harlequin pattern at Postwar Modern apartment building

Precast concrete railing with circular pattern at Postwar Modern apartment building

Architectural Ornamentation

Role/significance/relevancy: Architectural ornamentation varies according to style, and includes both applied and functional elements.

It is important to consider that many structures in Miami-Dade County do not purely follow any one style, but rather a hybrid of multiple styles, This mix of styles is often most evident in exterior ornamentation. Building styles should not be simplified or purified; rather a mixed ornamentation must be preserved in order to preserve this amalgamation of styles particular to the region.

Changes over time: Ornamentation may have been obscured or removed over time, often in the service of 'modernizing' building style. Attrition or degradation of elements may also be a factor. Research into the building's history can offer information. Owners should examine their building carefully for evidence of past ornamentation.

Appropriate materials and techniques: It is important to preserve as many of a building's historic character-defining features as possible. When commencing a building rehabilitation, owners should research the building's history, and examine their building carefully for evidence of past ornamentation.

When rehabilitating ornamentation, the use of the original material is recommended if possible (few synthetic materials can be recommended as substitution). If it is not economical to repair an ornament, it should not be removed, but rather maintained until a future time when the ornament can be adequately repaired. Owners should avoid over-cleaning or cladding existing materials in an attempt to make finishes appear new. Sometimes, the patina or aging of historic materials contributes to the charm and character of historic buildings.

Resiliency considerations: Ornamentation may comprise functional elements as well as decorative ones. For example, awnings, pent roofs, and eyebrows offer passive resiliency by reducing heat gain, and consequently the amount of energy a building consumes. Similarly, foundation and roof vents ensure air circulation, and are an important component of a building's thermal performance.

Terrace of the Carl Fisher Residence, Miami Beach

State Library and Archives of Florida, 1947, patio at Carl G. Fisher's residence on North Bay Rd. in Miami Beach, https://www.floridamemory.com/items/show/318500

Wind vane on the roof of a Mediterranean Revival house


Ornamental planter


Engaged spiral ionic column at Mediterranean Revival home


Wrought iron metal feature at Masonry Vernacular building


Wrought iron grillwork at Mission Style building

Decorative cornice at Mediterranean Revival building

Wall mounted fountain at Mediterranean Revival building

Wrought iron grill at Mediterranean Revival/Mission Revival building

Terra cotta vents at Mediterranean Revival home

Tower at Mission Revival church

Molded parapet at Mission Revival home

Recessed niche at Mission Revival building

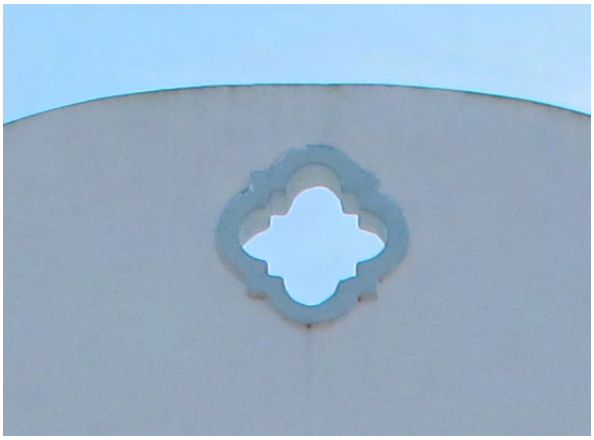
Recessed niche at Mission Revival building

Gable vent at Mission Revival building

Painted tiles and dome feature with keyhole arch at Moorish Revival building

Crenelated parapet at Moorish Revival building

Crenelated parapet at Moorish Revival building

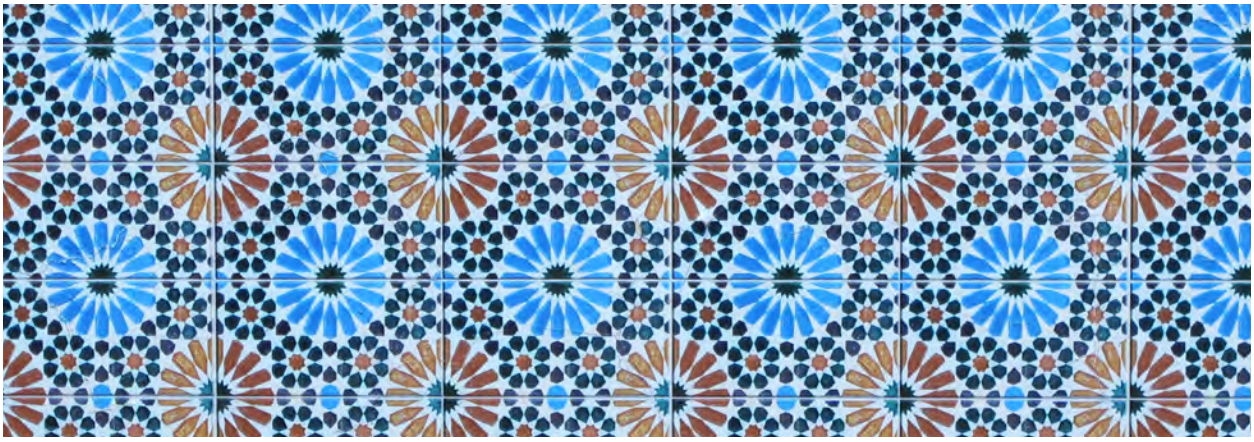


Quatrefoil parapet cutout at Mission Revival building

Moorish Revival pointed minaret

Minaret with crescent moon symbol at Moorish Revival building

Moorish Revival tower

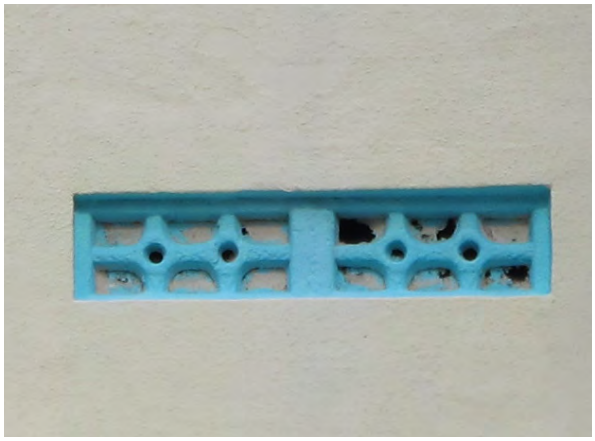


Glazed tiles at Moorish Revival building

Glass block at Art Deco building

Precast concrete relief panel and vent at Art Deco building

Geometric ornamentation in stucco at Art Deco building



Precast concrete relief panel and vent at Art Deco building

Geometric ornamentation in stucco at Art Deco building

Geometric ornamentation in stucco and applied medallion at Art Deco building

Applied medallion at Streamline Moderne hotel

Porthole cutouts at Streamline Moderne hotel

Decorative geometric fin with square cutouts at Postwar Modern hotel

Z-shaped eyebrow with porthole cutouts at Streamline Moderne apartment


Concrete eyebrow at Streamline Moderne apartment building


Wrought iron decorative support at Ranch home

Other Significant Resources

Role/significance/relevancy: Beyond the building features noted above, Miami-Dade County has numerous historic resources that are not buildings. These may include monuments, lighthouses, archways, recreational features (like carousels), archaeological sites, landscapes, and cemeteries. These may also include infrastructure, like seawalls, roadways, and bridges.

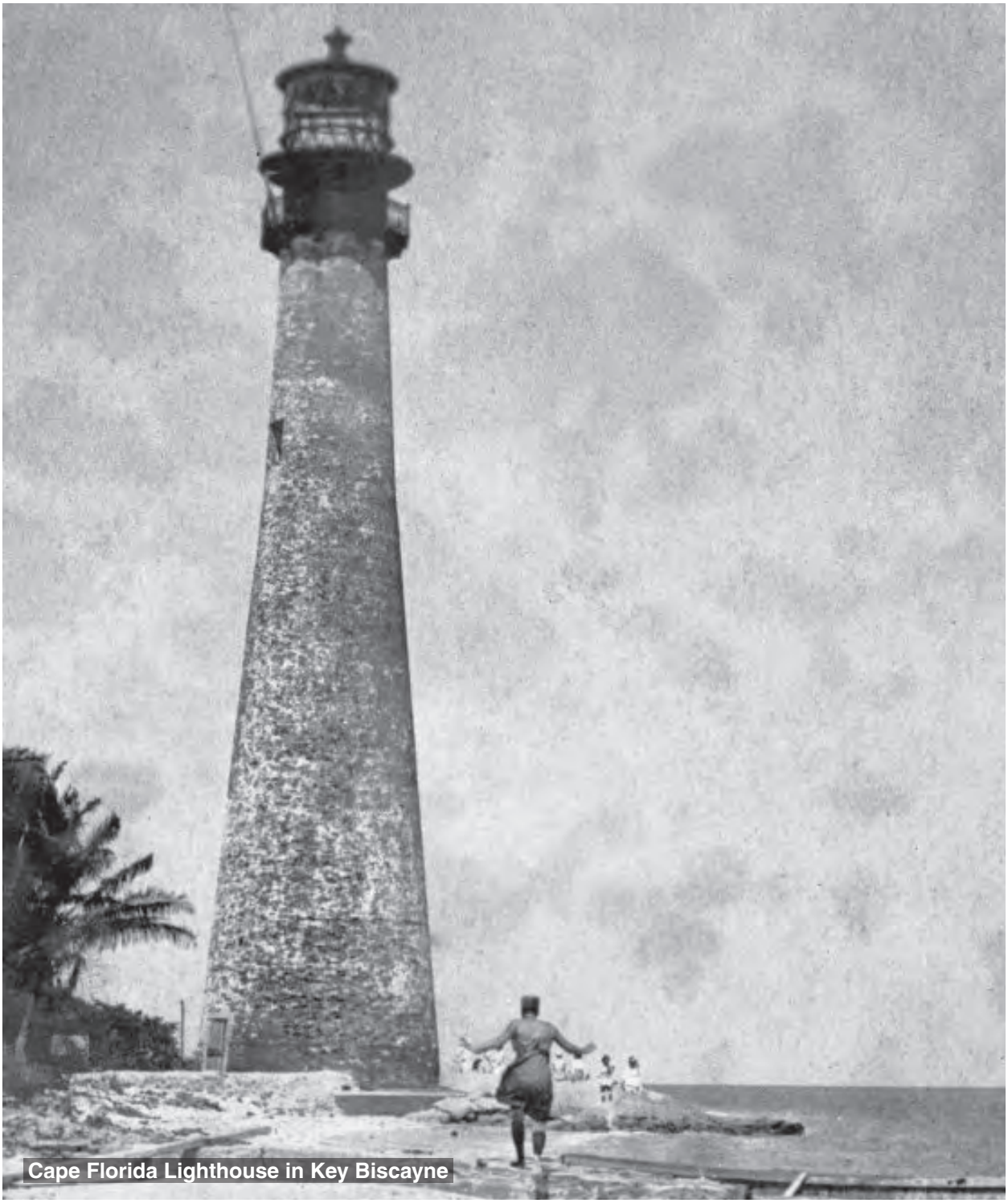
These diverse features have been designated because they are cultural resources of the community in which they are located. The National Park Service defines a cultural landscape as “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values.”

The role of cultural landscapes is vital to understanding the historic underpinning fabric of South Florida as a coherent whole.

Changes over time: As with any building in South Florida, these additional historic resources have been subject to the effects of a subtropical climate. While some are maintained and celebrated, other resources suffer some level of neglect.

Appropriate materials and techniques: While it is beyond the scope of this report to identify the features of these diverse resources and guidelines for their treatment, it is important that the character-defining features of the site be established, and that they be retained and maintained according to best practices for their type. When restoration is not possible, the resources should at a minimum be stabilized. Where best practices are not available, they should be developed in coordination with Miami-Dade County Staff.

Resiliency considerations: While it is beyond the scope of this report to identify the features of these diverse resources and guidelines for their treatment, generally, vulnerable resources should be made more resilient through protective measures.



Cape Florida Lighthouse in Key Biscayne

Image courtesy of Miami Dade County Office of Historic Preservation, 1915.

Cape Florida Lighthouse
Key Biscayne

Sunny Isles Pier
Sunny Isles Beach

Atlantic Island Bridges
Sunny Isles Beach

Boat Turning Basin
Charles Deering Estate Historic District

Seawall
El Portal

Seawall
El Portal

Seawall
El Portal

Canal Entrance and Observation Platform
Lake Belmar Historic District

Seawall
Lake Belmar Historic District

Mini-lot and Seawall
Lake Belmar Historic District

Historic landscape at Fruit and Spice Park
Homestead

Greynolds Park
North Miami Beach

Spanish Monastery
North Miami Beach

Sunshine State Industrial Park Arch of Industry
Miami Gardens

Schenley Park Entrance Features

Wayside Park and Entrance Markers
Schenley Park Neighborhood

Irons Manor Fountain
North Miami

Fulford-By-The-Sea Monument
North Miami Beach

US Coast Survey Monument
Key Biscayne

Entrance gate to Lincoln Memorial Park Cemetery
Miami

Burial vaults at Evergreen Memorial Park Cemetery
Miami

Crandon Park Carousel
Key Biscayne

Coral Rock Wall
Homestead

A Note about New Construction and Additions

Resilient Rehab focuses primarily on restoration and renovation of historic buildings. When considering new construction or additions to historic buildings, property owners should refer to the Secretary of the Interior's Standards Guidelines for the Treatment of Historic Properties for guidance (https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf) and to Section 4 of this document.

In accordance with the Standards, new construction or additions should be differentiated from the historic building or district and should also be contextual. For new construction, property owners are encouraged to coordinate with County Staff and look closely at the predominant architectural style for the applicable district, then aim to incorporate similar architectural detailing. Property owners should inquire with Staff about other current or recent examples of new construction and/or additions in the subject historic district.

For additions or construction of an accessory building, property owners should seek to incorporate architectural detailing that creates a compatible but distinguishable addition that is visually secondary to the main structure. When considering new construction at individual historic sites that results from demolition of the historic resource, property owners should coordinate with Staff for best guidance.

Sarah Cody, Chief of Historic Preservation
Miami-Dade County

New Construction in North Shore Crest Historic District


ADT

Agricultural field in Homestead

4

Resiliency

Sunny day flooding in Miami

Resiliency

As a founding member of Resilient305 and the Southeast Florida Climate Change Regional Compact, Miami-Dade County is committed to finding mitigation and adaption strategies suitable for the climate impacts we face in South Florida. One of the goals of the Climate Compact is to "preserve historic and archaeological resources and increase resource resilience by implementing best practices for the identification, evaluation, and prioritization of threatened resources using adaptive preservation strategies." The County's first step in achieving that goal was performing a vulnerability assessment.

The County has a significant intersection between our historic and cultural resources and communities that will be impacted by climate change. Preservation of these resources requires forward-thinking strategies to that seek to integrate resiliency planning into our review standards, most of which were written at a time when climate change was not yet a recognized threat. Because of this, in addition to the Secretary of the Interior's Standards as the governing standards, the Office of Historic Preservation Staff and Board reserve the right to apply additional flexibility and vary from strict adherence in the application of review standards as it relates to the resiliency goals of the County and the resource's proposed scope of work, the proximity to water or shoreline, and other vulnerability factors as considered in the Office of Historic Preservation's Historic Site Vulnerability Assessment.

These Design Review Guidelines include general resilience strategies. Property owners and stewards are encouraged to engage the Miami-Dade County Historic Preservation Staff in discussions about their goals for the resource, including resilience, so that Staff can provide appropriate guidance and best practices.

Sarah Cody
Historic Preservation Chief, Miami-Dade County

Image on opposite page: Joe Raedle, 2015, Sunny Day Flooding, http://zonelaw.com/sunny-day-flooding/

General Building Strategies: Individual building owners can take incremental measures to make their properties more resilient during flooding, stormwater, and weather events. Planning and implementation should be guided by a qualified architect, engineer and/or specialty consultant. Some suggested strategies are described below.

Building & System Strategies

- Backflow Prevention: Install backflow preventors, valves that prevent rising water from flowing back into the building, at the rear of the property.
- Mechanical Systems Flood Protection: Elevate mechanical systems above Design Flood Elevation, relocate on sloped roof on stands if structurally possible.
- Power & Life Safety Utilities Flood Protection: Elevate FPL and life safety systems above Design Flood Elevation or as high as the existing building height allows.
- Wind Mitigation: Install impact-resistant windows and doors. Retrofit hurricane roof straps into existing structure as needed.

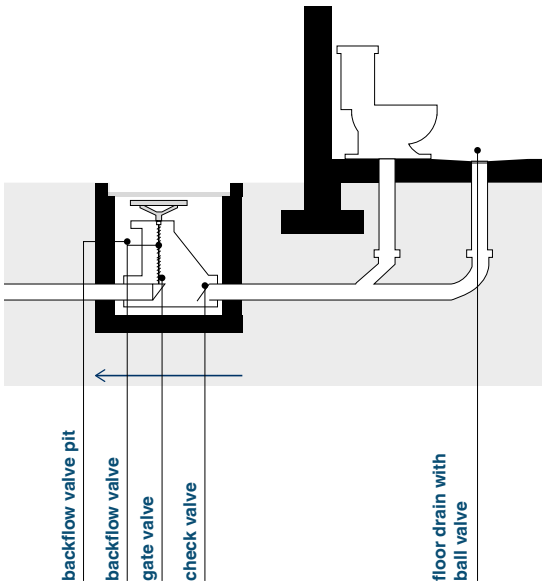
Landscaping/Yard Strategies

- Rain Gardens: Create special planting areas located within a small depression in a property, designed to capture and store rainwater.
- Sunken Plaza & Patios: Create courtyard or plaza in a rear yard with impervious surfaces that temporarily store water during extreme rain events.
- Permeable Pavement: Install permeable paving wherever possible, allowing for direct infiltration of water into the ground.
- Cisterns: Implement the use of rain water barrels that can capture water runoff for later use in irrigation and for cleaning.

Backflow Prevention: While floodwaters alone can cause significant damage, many of the secondary effects caused by rising waters can be equally damaging to property and create other health hazards. For example, elevated water levels can cause waste in sanitary sewer lines to back up through drain pipes and overflow out into homes through toilets and other drains. Sanitary sewer systems can often become inundated with floodwater during storm events. Combined sanitary and storm sewer systems are even more susceptible to backflow problems caused by flooding as they are designed to capture both wastewater and stormwater drainage.

Rising sea levels add an additional problem to existing drainage systems. Beyond flooding events causing sewers to back up, some sewer systems that eventually drain into ocean waters can back up during high tide events on sunny days. Water can back up into pipe openings during high tides unless a preventative valve is installed. During major emergency events, failure of a pump station can also cause sewage to back up into a home.

Mechanical Systems Flood Prevention: Mechanical equipment primarily includes HVAC systems containing sensitive components such as monitoring instruments and calibration devices that are easily impacted by flooding or even increased moisture levels. Small amounts of saltwater can quickly corrode mechanical



Backflow prevention

systems, rendering them inoperable. Not only are the major components of mechanical systems at risk: ducts, grilles, registers, and control valves are all openings that floodwater can enter.

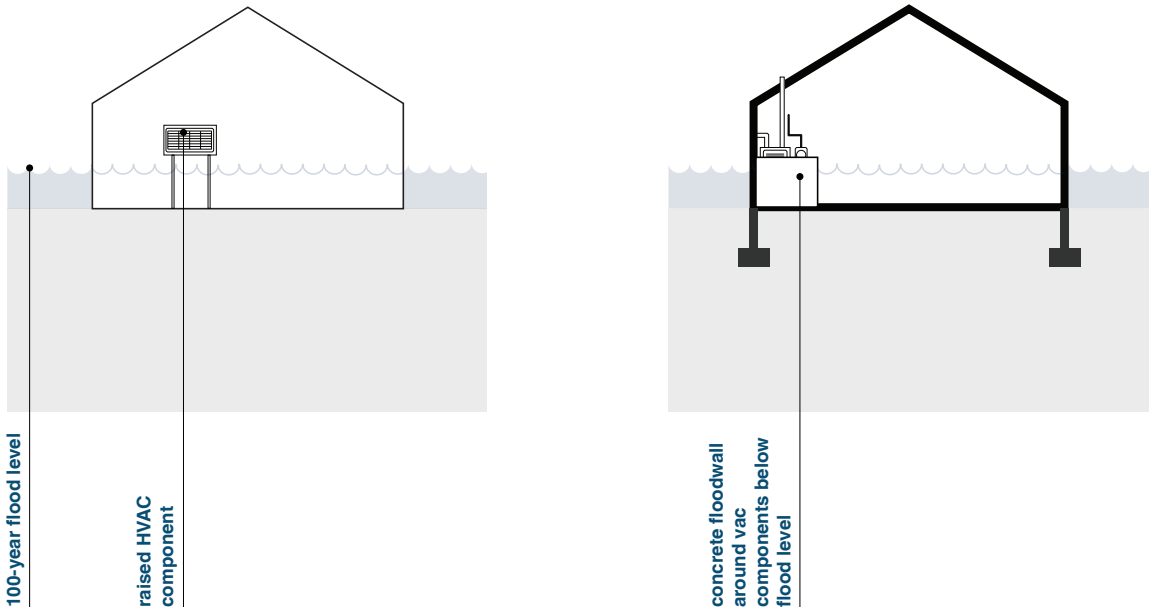
Elevation above Design Flood Elevation is an effective way to protect primary mechanical system components. Alternately, if the entire home is being raised, the unit can be raised with the house or if necessary, placed alongside the house on a new cantilevered structural platform. If there is sufficient structural capacity, primary units can also be relocated to the building roof. However, on historic structures in particular this can have a negative visual impact, unless appropriate screening is used. When relocating to the roof re-routing of mechanical system secondary components may become necessary.

If elevating or relocating is not feasible, mechanical equipment can also be protected in place by constructing watertight walls around the unit. This is not a desirable option as it requires clearance between the equipment and the water-tight walls to be large enough to allow for required clearances, access and maintenance.

Power and Life Safety/Utilities Flood Prevention: Unless an electrical system is specifically designed to be submerged underwater, floodwater severely damages its various components. These include electric panels, meters, switches, outlets, light fixtures, and the wiring that connects them all together. Even with just a short period of contact with water, electrical system components can be destroyed beyond repair and require complete replacement. Life safety issues include fire hazards and even electrocution.

Like mechanical systems, the easiest way to protect electrical systems is to raise them. Access requirements that can limit how high major components (such as meters and panels) can be located unless direct access is available. The same considerations should also be taken for IT and communication system components (phone, internet, TV).

If elevating or relocating is not feasible, mechanical equipment can also be protected in place by constructing watertight walls around the unit. This is not a desirable option as it requires



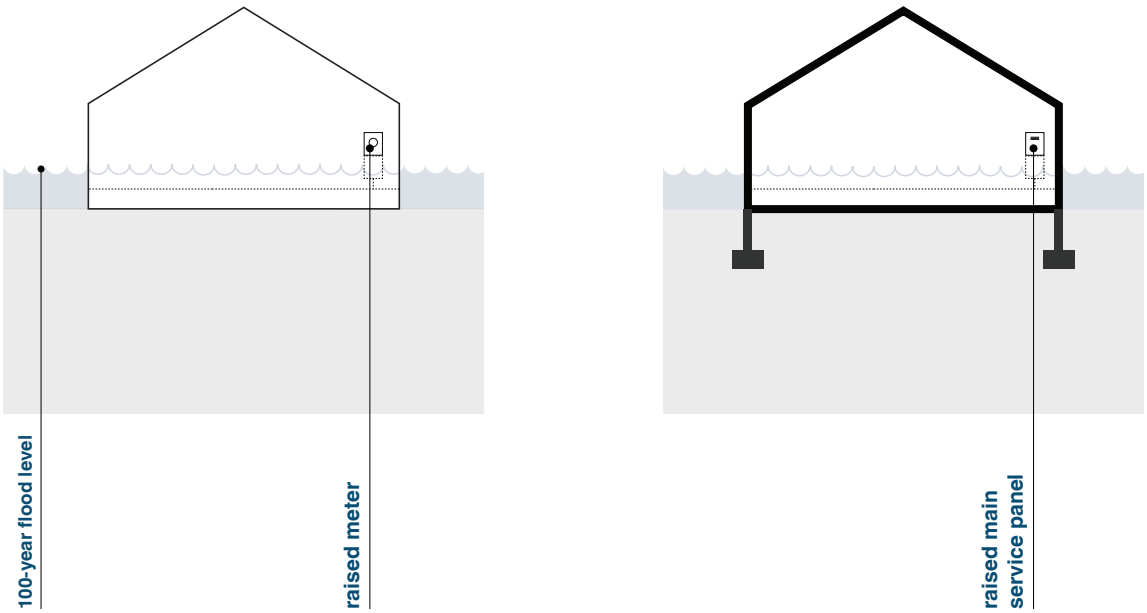
Mechanical systems flood prevention

clearance between the equipment and the water-tight walls to be large enough to allow for required clearances, access and maintenance. Given the possibility of failure or water overtopping the walls in extreme events, equipment should be adequately anchored to its base to resist floodwater buoyancy forces. Any mechanical system control devices or electrical components should be relocated above flood elevations, something that can usually be done for minimal cost.

Dry Floodproofing: As the name implies, dry floodproofing involves taking measures to make a building watertight to prevent entry of water into interior spaces. Dry floodproofing can be done for the entirety of a building or for a select portion of an enclosed area that requires higher levels of protection from water (for example, key utility equipment that cannot be elevated).

Some key concerns that must be considered when dry floodproofing a building include the following:

1. Shielding doors, windows, and other openings where water can easily infiltrate.
2. Reinforcing walls to withstand floodwater pressures from the weight of water pushing against the building. A licensed structural engineer should be consulted for evaluation of these loads and measures that can be taken.
3. Reinforcing or anchoring a building slab to resist flotation from uplift pressures and other buoyancy forces as water pushes up on the building from underneath. Again, a licensed structural engineer can assist with understanding these forces and determining if action is required during dry floodproofing.
4. Removing any water that inevitably leaks into the building, despite efforts to prevent its infiltration. This will include drainage systems and sump pumps to collect the water. Sump pumps should be installed with an emergency power source such as a battery or generator that can ensure operation even if electricity is lost during a flooding event or other emergency.



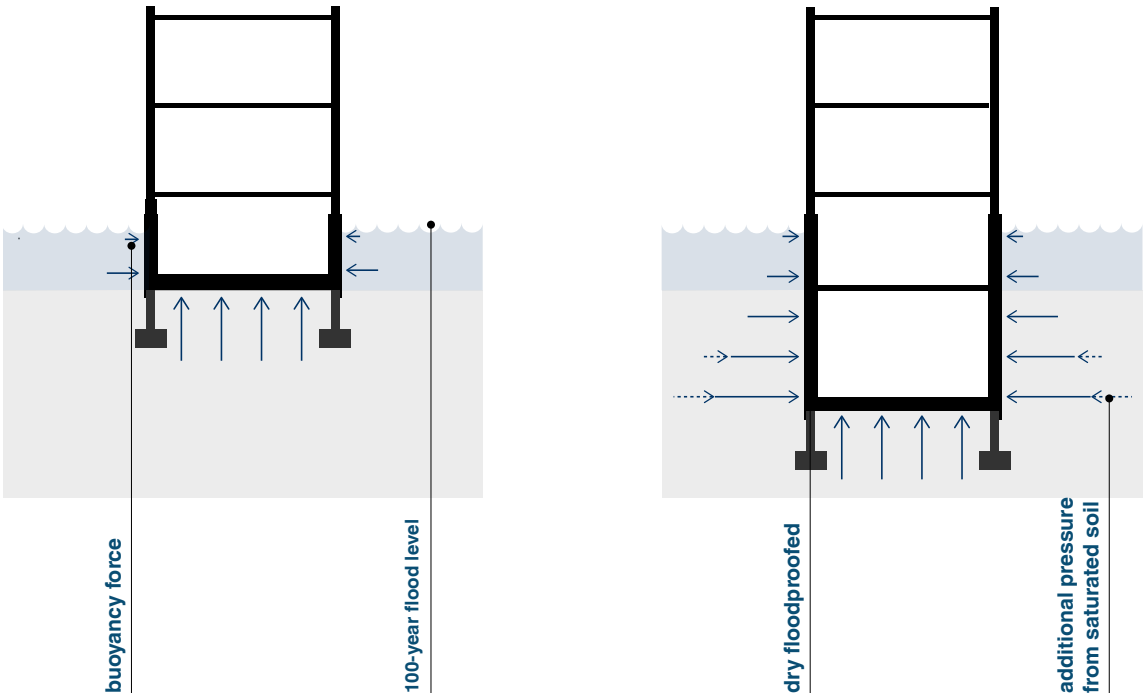
Power and life safety/utilities flood prevention

5. Providing membranes or other sealant techniques to prevent floodwater gradually seeping through walls and minor penetrations.

Wind Mitigation: Wind mitigation is the implementation of building techniques to limit damage caused by intense wind. After Hurricane Andrew in 1992, Florida passed a law requiring insurance companies to offer their customers discounts and credits for existing building features and home improvements that reduce damage and loss from wind. These include protection of door openings and windows, appropriate roof deck and roof-to-wall attachment, use of appropriate roof coverings, and implementation of secondary water resistance systems.

Opening protection refers to the level of wind resistance of windows and doors, whether applied (hurricane shutters) or integral (impact resistant products). Roof deck construction and attachment to the building's walls is crucial to the integrity of a structure during high winds. This is achieved by retrofitting it with code-compliant anchors, installation patterns, and hurricane straps. Roof coverings and secondary water resistance systems are part of the construction of the outermost roof layers. Properly secured roof shingles and waterproof underlayments are the first line of defense against storm winds and rain. The installation of products with NOAs or Florida Product Approvals for the HVHZ (High Velocity Hurricane Zone) is a building code requirement for substantial renovation of existing buildings as well as new construction.

More information can be found on code requirements in *Miami-Dade County Code of Ordinances Chapter 8: Building Code* and in the *Florida Building Code Chapter 15, Sections 1512-1525*, which addresses specific requirements for roof assemblies in high-velocity hurricane



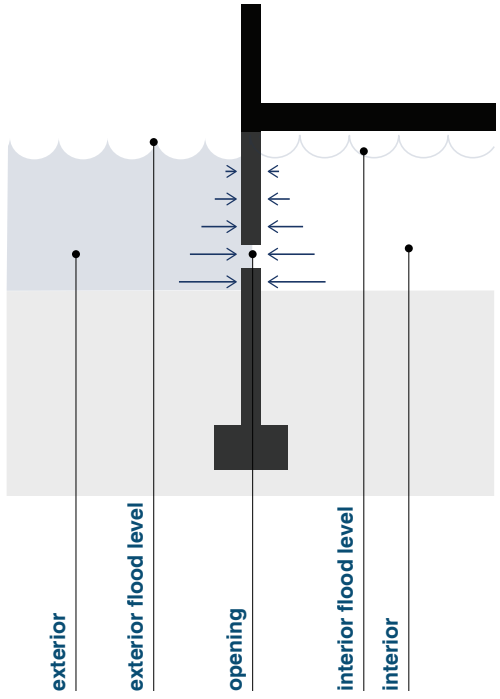
Dry floodproofing

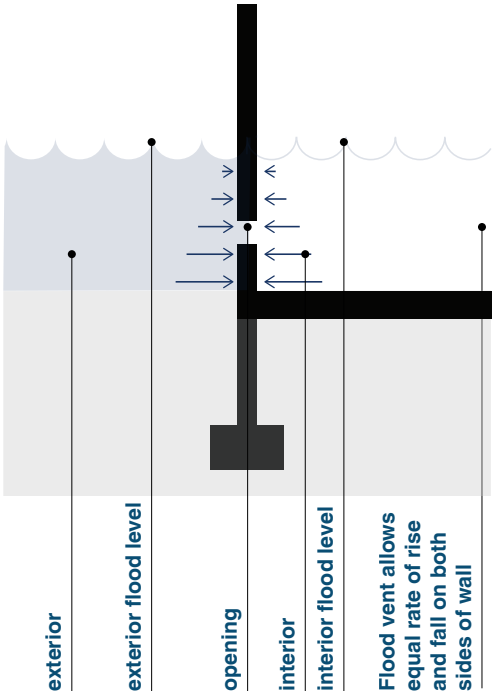
zones. Detailed information on products that have already been approved for use in Miami-Dade County can be found online at *https://www.miamidade.gov/building/product-control.asp*.

Wet Floodproofing: While detention systems capture and hold water during and after a storm event for longer periods,retention systems function by temporarily providing a place for water to collect during a storm event.
Retention systems are also tanks, chambers, or storage area where water can collect rather than ponding or flooding a property. However, retention systems typically do not drain by pump or gravity through a pipe system, but allow water to infiltrate out into the surrounding ground as floodwaters recede and the ground is no longer saturated with water. Retention systems are available from a variety of manufacturers that offer proprietary underground devices to contain stormwater during flooding events. Often a retention system can become a detention system by wrapping the storage system with an impermeable liner or other material that restricts water flow.

In its simplest form, a retention system can be a gravel pit installed within the ground that provides more storage capacity than normal, compacted soil. However, water within a gravel pit can only be stored within the spaces between stones (approximately 40% of the total gravel volume), resulting in a much-reduced capacity when compared to more open, chamber-like systems. The high water table of Miami makes it difficult for retention systems to be used extensively. A retention system would need to be constructed at a shallow depth to utilize the unsaturated ground above the water table.

Flood Resistant Building Materials: Permeable pavements and surfaces allow for direct infiltration of water into the ground that typical hard surface pavement materials (standard asphalt and concrete) prevent. Together with building roofs, typical hard surfaces are significant contributors to stormwater runoff and ponding during storm events. By allowing water to naturally infiltrate into the ground, stormwater can be stored underground, recharge local freshwater aquifers,





Wet floodproofing

and be taken up by nearby plants. Permeable surfaces may see reduced effectiveness, however, given Miami's relatively high ground water table.

Permeable pavements and surfaces can vary greatly in material type, overall look, and effectiveness at managing stormwater. At the simpler end are gravel surfaces or similar natural stone pathways and driveways. Other paving units and block pavers are installed with grass or fine gravel between them to allow for infiltration, as opposed to typical mortar mixes. The most complex permeable pavements resemble closely typical asphalt and concrete surfaces, but use a unique mix of stones and binding agents to allow water to filter through and into the ground.

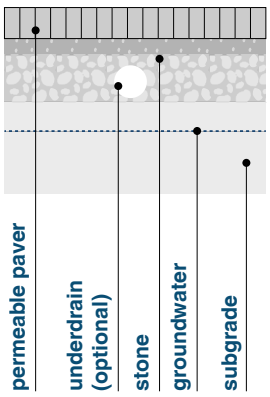
Permeable pavements are also frequently installed over a perforated drainage pipe that can direct excessive infiltrated water to an additional storage area.

Permeable surfaces are most effective when used over well-draining, sandy, natural soils. Typically, a permeable surface will require a minimum of four inches of well-draining gravel to be placed beneath the paving surface itself, where surfacing depth will vary based on material type.

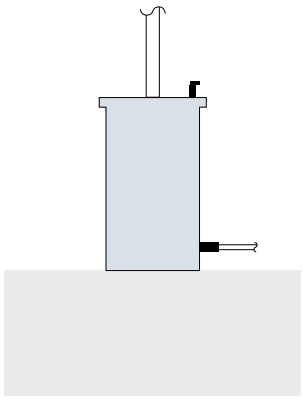
Cisterns: Cisterns, also frequently referred to as rain barrels, are a simple and affordable way for property owners to both reduce the amount of stormwater that can impact their property while also harvesting rainwater for other uses. Rain cisterns can manage stormwater that would typically be routed through a piped drainage system or through gutters and downspouts. Rain barrels can capture that water for later use in irrigation or even cleaning purposes.

A typical cistern is 60 gallons, and can reduce stormwater runoff and local flooding impacts during everyday rain events. An emergency overflow pipe is necessary in case the barrel reaches capacity during intense storms or infrequent periods of use. Rainwater harvest pipes and systems should be checked routinely for clogging with debris or leaks. Filters or screens installed on gutters and inlet pipes can help capture large material that could lead to reduced cistern capacity.

In Miami, an important concern is the possibility for standing water to serve as mosquito breeding grounds and the risk of promoting the West Nile virus or Zika. Use of closed system barrels rather than open-topped cisterns discourages mosquito breeding. Frequently using and draining down a rain barrel can also prevent standing water. Adding trace amounts of liquid dish soap or vegetable oil can also hinder mosquitoes from breeding; treatment with bacterial larvicides can be used for water held over longer periods.



Permeable pavements

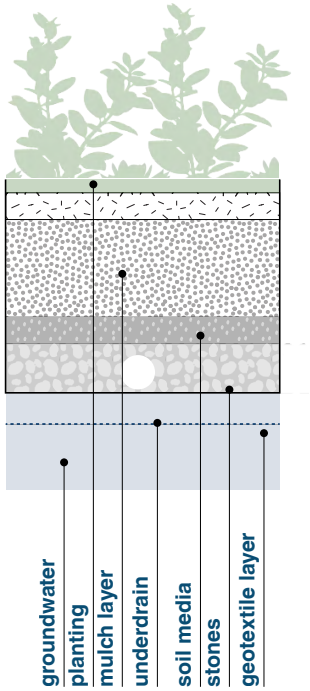

Cisterns

Green Infrastructure: A building roof is often underutilized space that contributes heavily to the amount of impervious surface in a given property. By utilizing the roof for stormwater storage, water is captured before it reaches the ground or a piped drainage system. Green and blue roofs can also provide cooling benefits while serving as a home for attractive vegetation. When retrofitting existing buildings and historic properties, additional structural reinforcement may be required to support the weight of new soil and planting layers or temporary storage of rainwater. Captured rainwater can be used for non-potable needs such as irrigation and flushing toilets. Typically, stored water is designed to be drained within 24 hours if not within an enclosed system to prevent insects and other issues that may come with standing bodies of water. Excess water is channeled to a building's sewer system or typical gutters and roof leaders that would provide drainage.

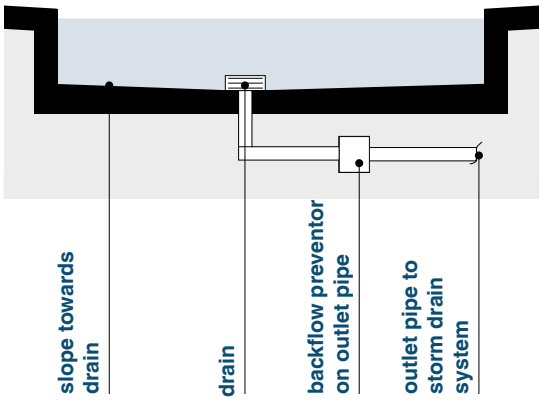
Due to the cost of installing a green or blue roof and related structural renovations, they are typically more cost-effective for larger properties or commercial buildings. The amount of water that will be stored within a green or blue roof varies with the roof size and potential depth of planting. They also must be designed to allow for access for maintenance and inspection.

Sunken Courtyards and Patios: Patios and outside seating areas may be sunken lower than the surrounding landscape to create a depression for water to accumulate in during storm events. The storage capacity will vary depending upon how deep the depression is and how large of an area is being utilized.

Sunken courtyards and patios fill up with water during a period of rapid rainfall and alleviate localized flooding around a wider site or property. Once the storm has passed, this collected rainfall can be drained to a storm sewer system or other storage area, through gravity, pumps, or a combination of the two. Because of sometimes minimal warning before intense rain events, any furniture or equipment to be used in this area should be of a material capable of withstanding inundation with water, or of low enough cost to be easily replaceable. Sunken patios should be designed to drain within 24 hours to prevent insects utilizing the standing water for breeding.



Green infrastructure



Sunken courtyards and patios

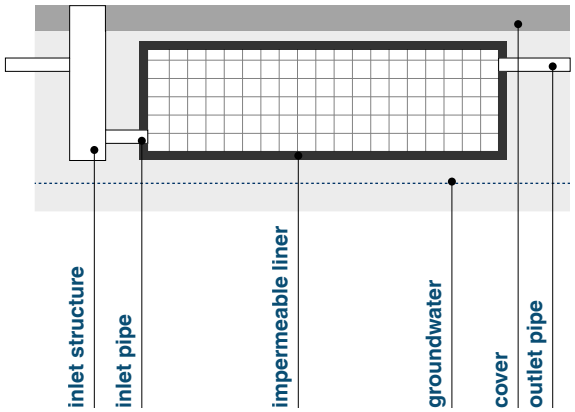
Underground Retention Storage System: While detention systems capture and hold water during and after a storm event for longer periods, retention systems function by temporarily providing a place for water to collect during a storm event. They can be tanks, chambers, or storage areas where water can collect rather than ponding or flooding a property. However, retention systems typically do not drain by pump or gravity through a pipe system; they allow water to infiltrate the surrounding ground as floodwaters recede and the ground is no longer saturated with water. Retention systems are available from a number of manufacturers. Often a retention system can become a detention system by wrapping the storage system with an impermeable liner or other material that restricts water flow.

In its simplest form, a retention system can be a gravel pit that provides more storage capacity than normal, compacted soil. However, water within a gravel pit can only be stored in the spaces between stones (approximately 40% of the total gravel volume), resulting in a reduced capacity when compared to more open systems.

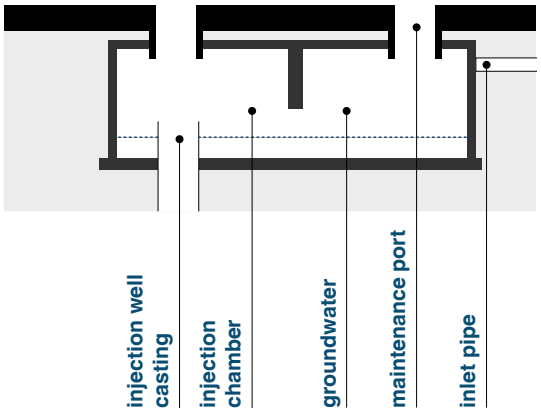
The high water table of Miami makes it difficult for retention systems to be used extensively here due to the potential of groundwater uplift pressure on the system.

Injection Wells: The core idea of stormwater management is finding a place for water to go during a rain event rather than collecting in locations that can damage property or hinder travel. In Miami, this can be difficult due to the high water table here. The strategies outlined previously rely on using natural storage areas or creating additional stormwater storage space above or immediately underground. If there is no space above or below ground for the water generated during a storm event, injection wells may become necessary. Injection wells are used throughout Miami in larger sites with minimal space available for natural infiltration or storage at or near the surface.

Building Raising Procedures: While not a common practice in Miami, there are numerous examples of existing buildings being raised across the US. In the Northeast, elevations are being done in New York City and Atlantic City. Elevation companies strategically develop lift plans that include using multiple smaller steel I-beams along with toe jacks to raise structures in any environment. In some urban areas, a temporary street closing or sidewalk closing is utilized in order to enhance safety while equipment is in use. When concentrating work within a neighborhood or block, cost savings are possible due to economies of scale. Unified jacking machines are utilized to lift a structure.

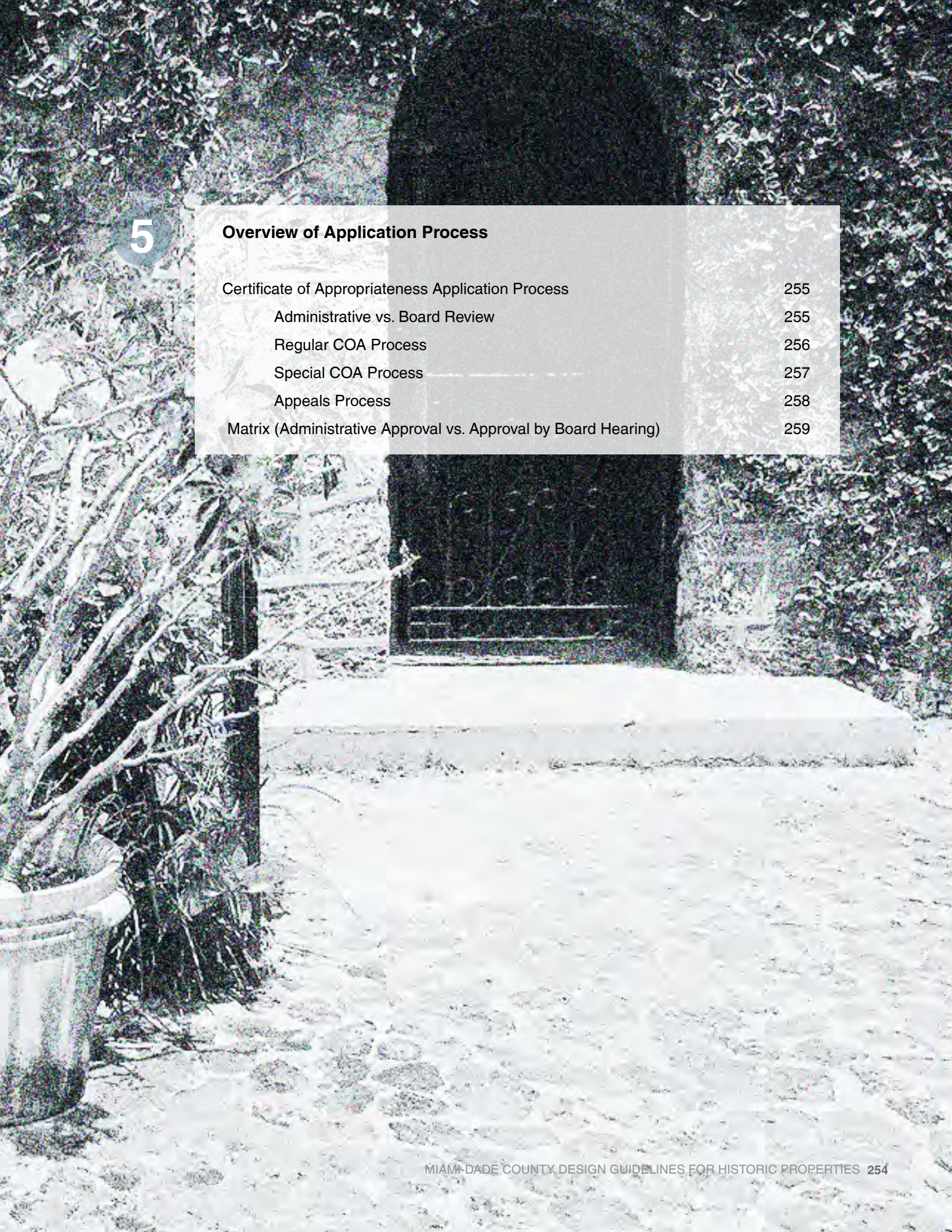


Underground retention storage system



Injection wells

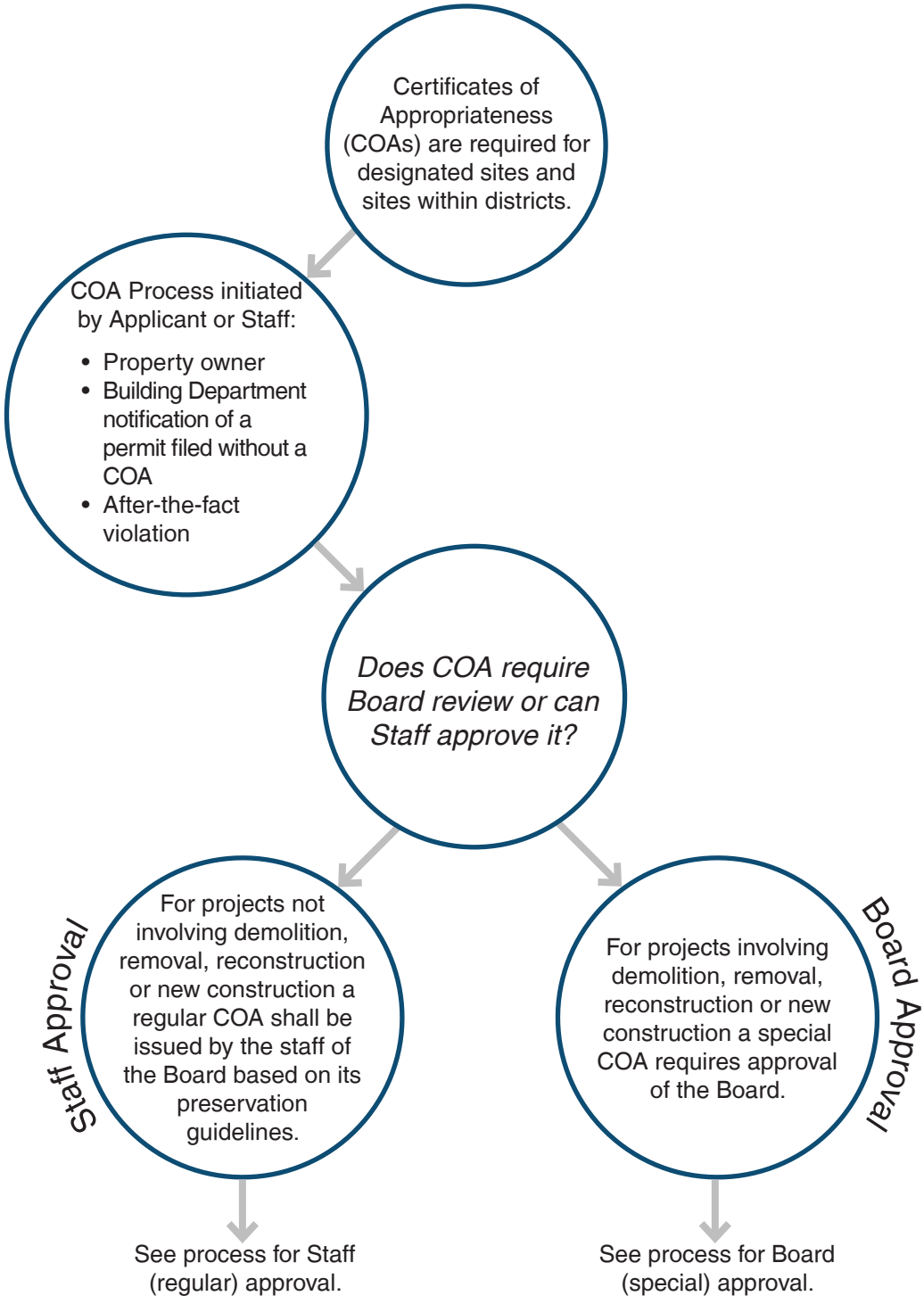
Entry at Plymouth Congregational Church



5 Overview of Application Process

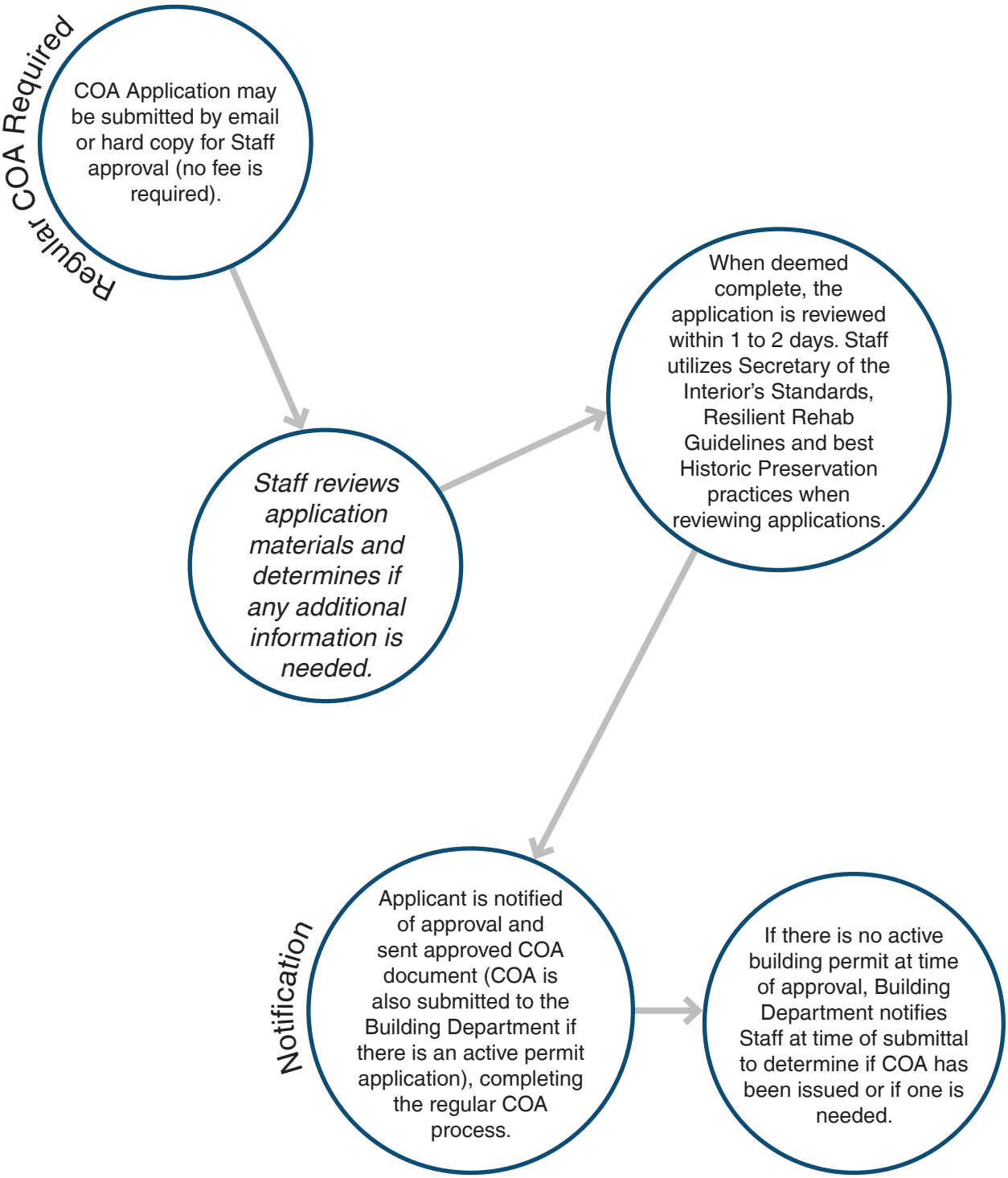
Certificate of Appropriateness Process

Administrative vs Board Review

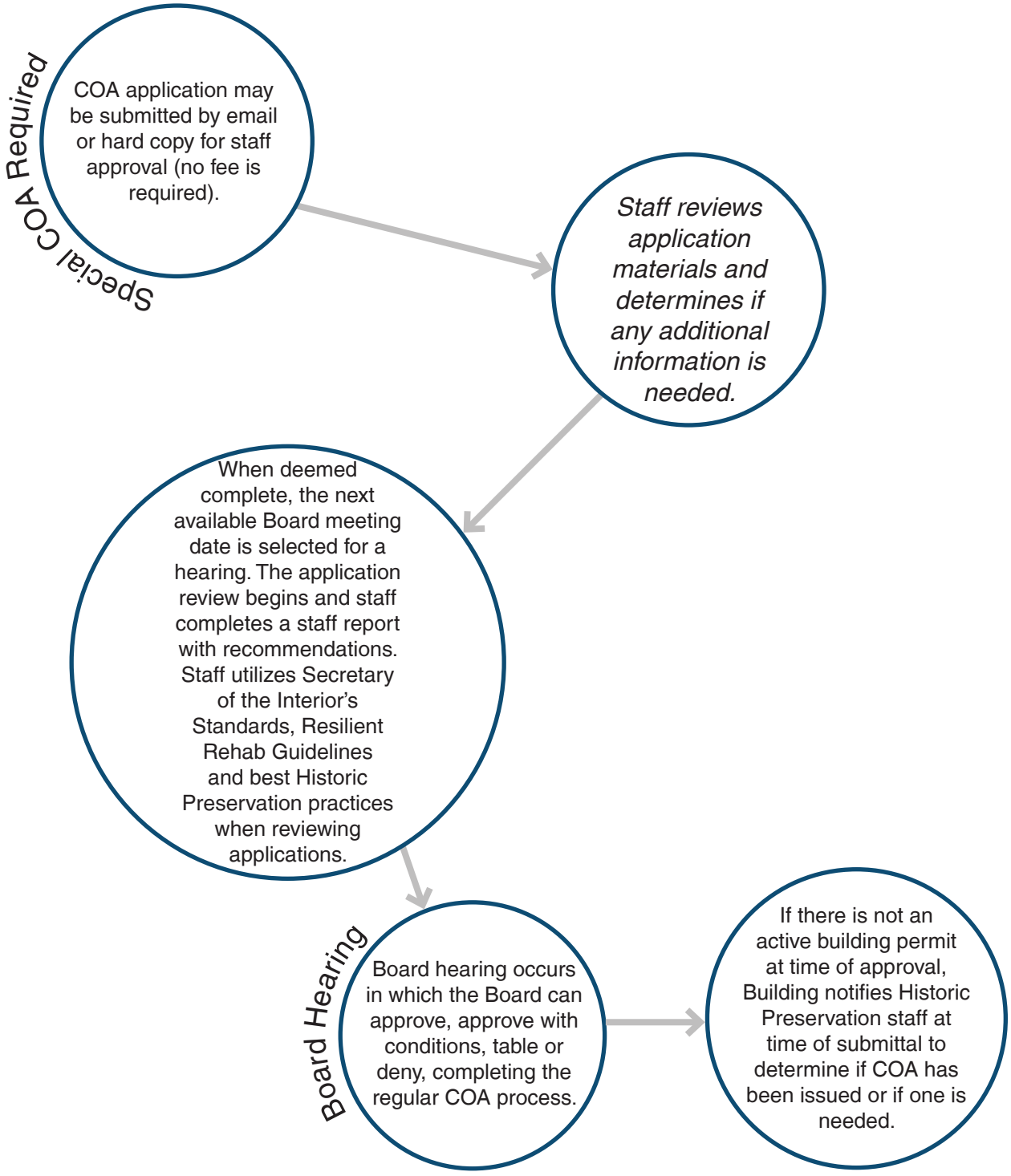


The Historic Preservation Ordinance, Chapter 16A of the Miami-Dade County Code, further outlines these processes.

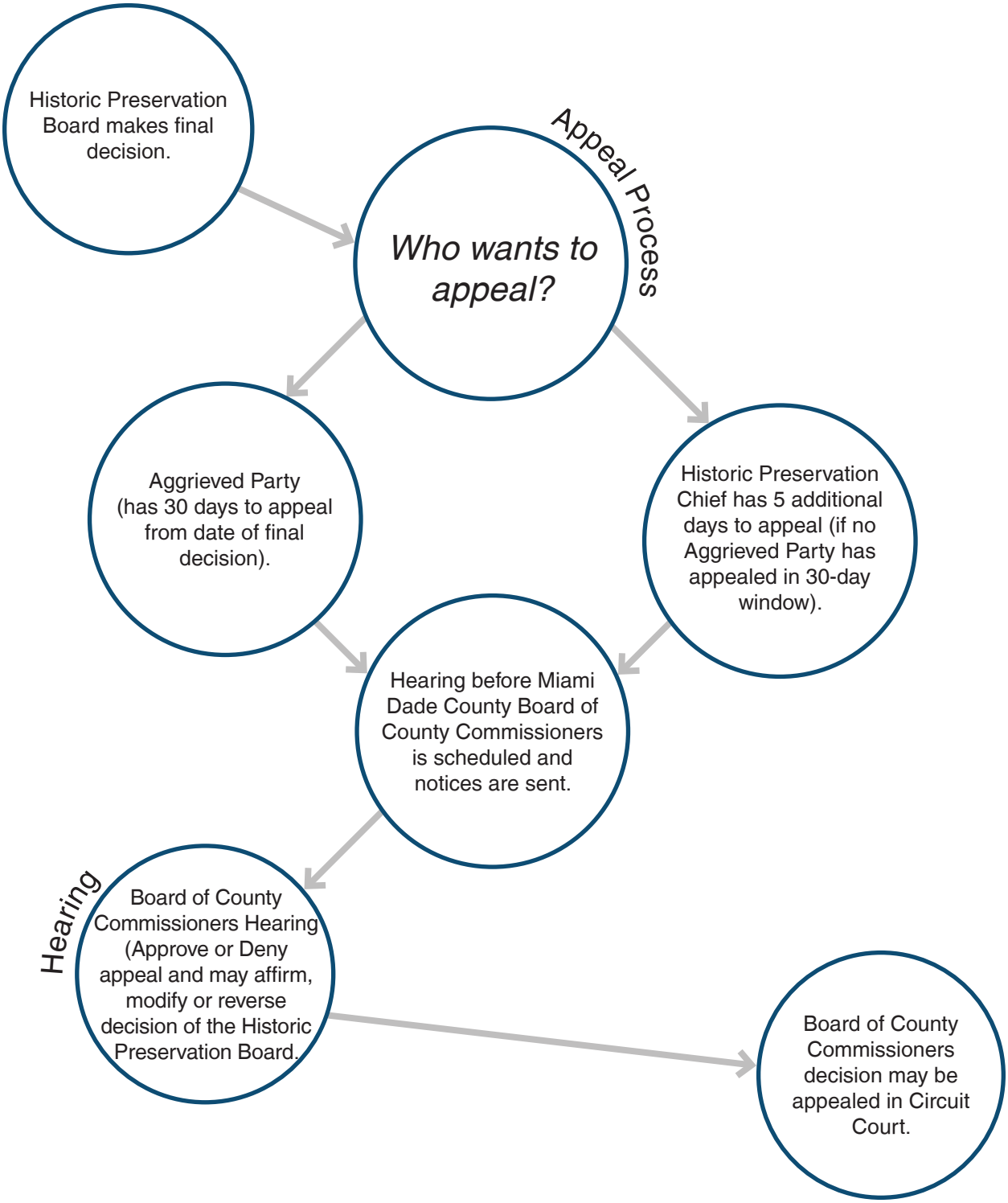
Regular Certificate of Appropriateness Process



Special Certificate of Appropriateness Process



Appeals Process



Matrix

Administrative Approval vs. Approval by Board Hearing

Action	Regular COA	Special COA
Accessory dwellings or structures	○	●
Additions not visible from street and 20% or less of the existing building's square footage	●	○
all other additions	○	●
Awnings (window or porch)	●	○
Carports	●	○
Changes to board-approved plans unless change can otherwise be approved administratively as a Regular COA	○	●
Deck, patio, pergola with structure or on façade of building	○	●
not visible from the right-of-way	●	○
Demolitions non-historic addition that totals 10% or less of building's total square footage of non-historic outbuilding	●	○
all other demolitions	○	●
Doors and garage doors same materials, style or size	●	○
change in materials or style	●	○
change in openings on façade	○	●
change in openings on secondary elevation	●	○
Driveways and sidewalks	●	○
Garages (attached or detached)	○	●
Extension of COA	●	○
Exterior mounted technology - solar, screens, satellite cellular on façade or visible from right-of-way	○	●
on other elevations	●	○
Exterior wall finish change in original materials	○	●
removal of non-historic material to restore original materials	●	○
Fences, walls and hedges feature that does not extend beyond the façade of the structure	●	○
encloses front yard that has previously been enclosed	●	○
encloses a front yard that has previously not been enclosed	○	●
Mechanical Systems with visual impact	●	○

Action	Regular COA	Special COA
Painting	●	○
Pools, pool enclosures at rear of structure or not visible from right-of-way	●	○
at front of structure or visible from right-of-way	○	●
Porches return porch opening to original design	●	○
open a historically enclosed porch	○	●
enclose a historically open porch on façade or visible from right-of-way	○	●
enclose a historically open porch on elevation not visible from right-of-way	●	○
Relocation of a structure (s)	○	●
Repairs and maintenance (match existing)	●	○
Roof same material and shape	●	○
change in material consistent with architectural style	●	○
change in material not consistent with architectural style	○	●
change in shape and/or height	○	●
Screen doors	●	○
Screening for HVAC, waste collection, etc.	●	○
Seawalls, boat lifts and docks	●	○
Signage	●	○
Sheds	●	○
Shutters (including storm shutters)	●	○
Skylights on façade of visible from right-of-way	○	●
not visible from right-of-way	●	○
Windows same materials, style, or size	●	○
change in style on façade	○	●
change in materials on façade or secondary elevation or style on secondary elevation	●	○
change in openings	○	●

Staff reserves the right to defer an item to the Board if it does not fit within one of the above categories. Staff and the Board reserve the right to apply additional flexibility in the application of review standards as it relates to the resiliency goals of the proposed scope of work, the resource's proximity to water or shoreline, and other vulnerability factors as considered in the Office of Historic Preservation's Historic Site Vulnerability Matrix.

Chickens in Little Havana

Glossary

Adobe Sun-dried mud brick. Commonly used as a building material in Mexico and by Southwestern American Indians. The soft forms are a result of the hand-shaped mud plastering.

Adaptive Use Rehabilitation or renovation of an existing building (or buildings) for any use other than the present use.

Addition New construction physically connected to the exterior of an existing building.

Adjacent Next to or adjoining a common property line or border, or properties or uses separated by a drive, street, or other public right-of-way.

Alteration Changes that affect the appearance of a structure or its setting through additions, reconstruction, remodeling or maintenance.

Applicant The owner of record of a property or structure(s), or their sanctioned representative.

Arcade A row of arches carried on piers or columns either freestanding or attached to a wall.

Arch A curved symmetrical structure spanning an opening that typically supports the weight of the structural elements above. Arches vary in shape, from horizontal flat arches to semicircular and semi-elliptical arches or bluntly or acutely pointed arches.

Archaeological / paleontological zone An area identified in the Miami Dade County historic survey and/or designated by the County Code of Ordinances, likely to yield information on the paleontology, history, or prehistory of Miami-Dade County based on prehistoric or historic settlement patterns as such zones will generally conform to natural physiographic features which were the focal points for prehistoric and historic activities and paleontology.

Architectural Style A group of features and characteristics that make a structure historically identifiable or notable.

Awning A lightweight protecting canopy used to provide shade or shelter.

Balcony A platform projected from a building facade, enclosed by a parapet or railing.

Balloon Frame A wood framing method introduced in the mid-nineteenth century using slender dimensional lumber (studs) nailed at close intervals.

Balustrade A railing consisting of short posts or pillars.

Baroque An architectural style of the seventeenth and eighteenth centuries evolved from the classical forms of the Renaissance, characterized by bold, elaborate scrolls, curves and ornamentation.

Bas Relief Sculpture or carving demonstrating shallow projection from the background.

Base Flood A flood having a 1% chance of being equaled or exceeded in any given year.

BFE	Base Flood Elevation. The elevation shown on the Flood Insurance Rate Map that indicates the water surface elevation resulting from a flood that has a 1% chance of occurring in any given year. In coastal areas, BFEs are calculated using 4 components: 1) the storm surge stillwater elevation, 2) the amount of wave setup, 3) the wave height above the storm surge stillwater elevation, and 4) the wave runup above the storm surge stillwater elevation.
Basement	Any area of a building, including any sunken room or sunken portion of a room, having its floor below ground level on all sides.
Battered	Surfaces that slope inward toward the top.
Bauhaus	German school of architecture established by Walter Gropius in 1919. Its philosophies were based on team work and the interdisciplinary study of the different branches of the arts and crafts working towards the goal of "the building of the future." The style is simple, abstracted forms, flat roofs, smooth surfaces, devoid of ornament.
Bay Window	A window that projects angularly from a main wall and from the ground up.
Beam	A structural member whose prime function is to carry transverse loads, as a joist, girder, rafter, or purlin.
Beaux Arts	An architectural style from the turn-of-the-century characterized by monumentality and classicism of strong French derivation.
Belvedere	A tower or turret with openings all around to take advantage of a scenic view.
Blue Infrastructure	Water elements including oceans, rivers, canals, ponds, wetlands, floodplains, rainwater, aquifers and water treatment facilities.
Board of Batten Siding	Building exterior surfacing consisting of vertical boards with the joints covered by narrow strips of wood battens.
Bracket	Supporting member for the overhang of a roof or projecting bay usually in the shape of an inverted L, or triangle.
Canopy	A covered area that extends from the wall of a building, protecting an entrance or an overhead roof structure that extends from the wall of a building, providing protection.
CAP	Climate Action Plan. A detailed and strategic framework for measuring, planning, and reducing greenhouse gas emissions and related climatic impacts.
Cantilever	A horizontal projection from a wall or frame supported without external bracing that appears self-supported.
Capital	The head of a column of pilaster.
Casement Window	A window sash that is hinged on one side and swings open along its entire length.

Casement	Windows with wood or metal frames hinged on the sides, opening in the same manner as a door.
Clapboards	Horizontal overlapping boards, radially split forming wedge-shaped sections of boards used to sheath the exterior of a building.
Colonnade	A row of columns carrying arches or flat entablatures
Column	An upright structural member, circular in plan
Conch Architecture	A building type popular in the Bahamas and Key West in the nineteenth century. "Conch," a hard shelled mollusk found in Bahama and Florida waters, became the nickname for Key West natives descended from Bahamians
Cornice	The uppermost, projecting part of an entablature or a feature resembling it.
Cancellation	A parapet with alternating indentations and raised portions. Originally an element of fortification for protection of battlements, locally used as decorative elements in Moorish Style.
Cupola	A domical roof on a circular base often set on the ridge of a roof.
DFE	Design Flood Elevation. The elevation of the highest flood (generally the BFE including freeboard) that a retrofitting method is designed to protect against.
Dormer	A structure projecting from a sloping roof usually housing a window or ventilating louver.
Dormer window	A vertical window which projects from a sloping roof, placed in a small gable
Dry Floodproofing	Taking measures to lower the potential for flood damage by reducing the frequency of floodwaters that enter a structure.
Eave	The lower edge of a sloping roof; that part of a roof of a building which projects beyond the wall.
Engaged Column	A column attached to a wall or pier.
Entablature	The upper part of an order, such as base, column, and entablature. The top, or entablature, consists of architrave, frieze and cornice.
Facade	The exterior face of a building, usually the front.
Fascia	A flat horizontal board with a vertical face which forms the trim along an edge of a roof or eaves of a roof.
Facing	The finish applied to the surface of a building, such as wood, stucco, shingles or metal.
Fenestration	The arrangement or placement of openings on a facade.
Finials	A pointed ornament at the top of a spire, gable, parapet or other high point on a facade.
Flared Eave	The outward curve to a sloping roof or overhang.
Fluting	Incised, usually vertical, parallel grooves on a column or pilaster.

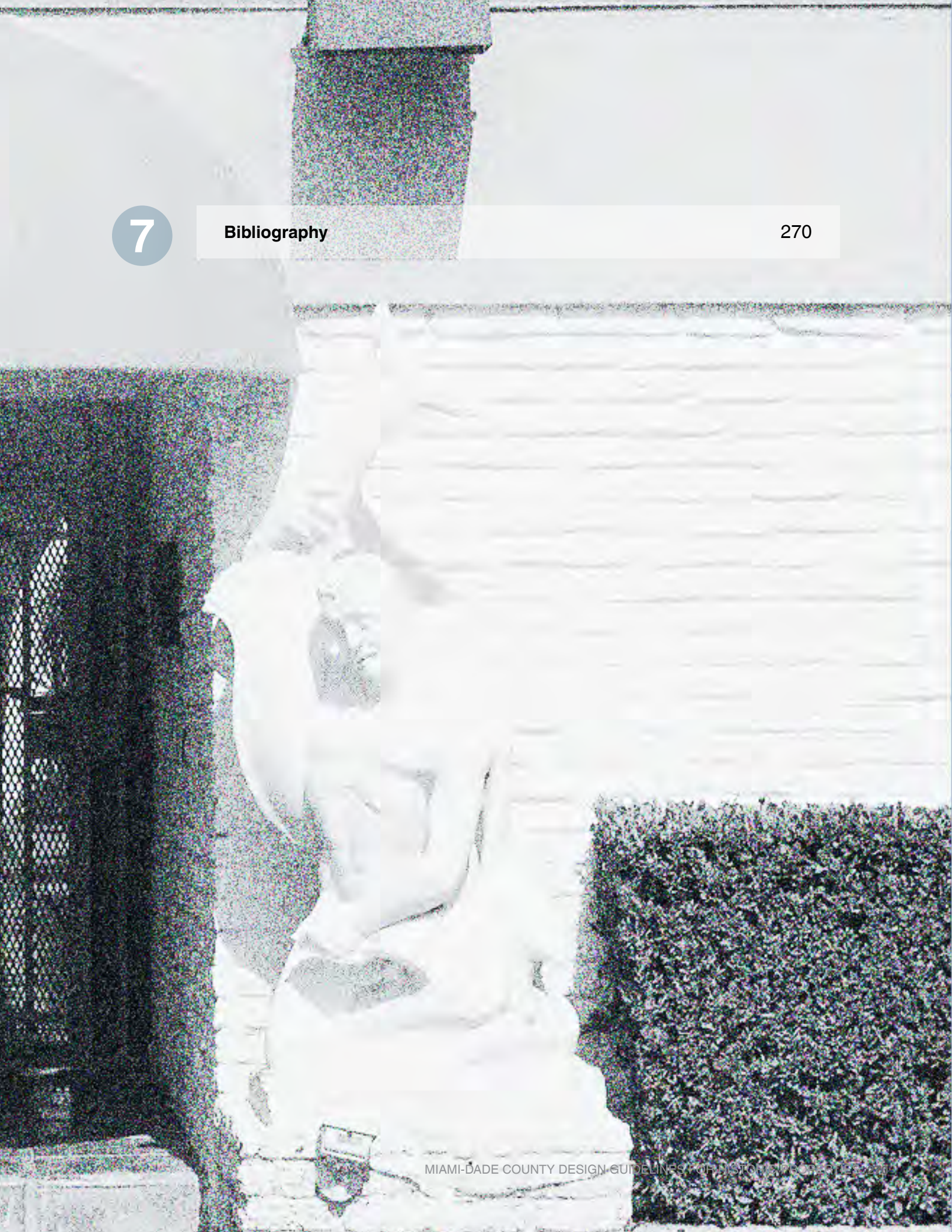
Gable	A roof with two sloping planes. Specifically the portion from the level of the cornice or eaves to the ridge of the roof.
Gallery	A long, covered area acting as a corridor inside or on the exterior of a building or between buildings.
Gingerbread	The highly decorative wood work applied to the exterior of a building.
Hipped Roof	A roof which slopes upward from all four sides of a building, requiring a hip rafter at each corner.
Horseshoe Arch	A rounded arch whose curve is a little more than a semicircle so that the opening at the bottom is narrower than its greatest span. Also known as an Arabic or Moorish arch.
International Style	The functional architecture devoid of regional characteristics created in Western Europe and the United States during the early twentieth century and applied throughout the world.
Jamb	A vertical member at each side of a door frame, window frame, or door lining.
Jalousie	A shutter or blind comprising a row of angled slats.
Joist	One of a series of parallel timber beams used to support floor and ceiling loads, and supported in turn by larger beams, girders, or bearing walls; the widest dimension is vertically oriented.
Keystone	A type of coral rock quarried from the Upper Keys which is used in thin slabs for exterior facing.
Lattice	A network, often diagonal, of strips, rods, bars, laths, or straps of metal or wood, used as screening for airy, ornamental constructions.
Lintel	A horizontal structural member (such as a beam) over an opening which carries the weight of the wall above it; often of stone or wood.
Loggia	An arcaded or colonnaded structure, open on one or more sides, sometimes with an upper story; a porch or gallery attached to a larger structure.
Louver	An assembly of sloping, overlapping blades or slats; may be fixed or adjustable, designed to admit air and/or light in varying degrees and to exclude rain.
Medallion	An ornamental plaque on which is represented an object in relief, such as a figure, head, flower, etc., applied to a wall or other architectural member.
Mediterranean Revival	Also known nationally as the Spanish Colonial Revival, an eclectic design style that became popular in the US around the beginning of the twentieth century and came into prominence in the 1920s and 1930s.
Minaret	A tower in, or contiguous to, a mosque, with a balcony from which a muezzin calls Muslims to prayer.. Used locally in the Moorish Style.
Mission Architecture	Church and monastery architecture of the Spanish religious orders in Mexico and California, mainly in the 18th century.
Molding	A member of construction or decoration whose surface is manipulated to provide variety in contour and outline.

Motif	A principal repeated element in an ornamental design.
Mullion	A vertical member separating window, doors, or panels set in a series.
Muntin	A secondary framing member to hold panes within a window, window wall, or glazed door.
NOA	*Notice of Acceptance.* NOAs are set forth by Miami-Dade County for all construction trades. They gauge products' capacity to withstand environmental conditions and events.
Newel-post	A tall ornamental post at the head or foot of a stair, supporting the handrail.
Oolitic limestone	A granular calcium carbonate stone of coarse texture commonly found in South Florida. Its color is a light buff when quarried and weathers to a gray shade. Commonly referred to as "coral rock."
Panel	A portion of a flat surface recessed or sunk below the surrounding area, distinctively set off by molding or some other device. Often used in doors.
Pantile	A roofing tile which has the shape of an S laid on its side.
Parapet wall	The vertical extension of a wall above the roof line. The low wall over a flat roof,. usually pierced by drains to let water off the roof.
Patio	An outdoor area of a house enclosed or surrounded by walls or arcades.
Pent roof	A small sloping roof, the upper end butting against a wall of a house, usually found above windows or balconies.
Pier	A column designed to support a concentrated load. A foundation pier in residential construction is that load bearing member that supports a portion of the vertical load, transferring it to the ground below.
Pilaster	An engaged pier or pillar. Often a decorative element imitating a pier but supports no load.
Pointing	In masonry, the finish treatment of joints by troweling of mortar into the joints.
Polychrome	The use of many colors to decorate architectural elements.
Porch	A structure attached to a building to shelter an entrance or to serve as a semi-enclosed space; usually roofed and generally with open sides.
Portico	A porch or covered wall consisting of a roof supported by columns.
Pueblo	A communal dwelling, usually of adobe, built in the American Southwest by Pueblo Indians.
Rafter	One of a series of sloping structural members which makes up a roof.
Resilience/Resiliency	Increasing the capacity of buildings to respond to natural and manmade disasters and weather events, as well as the effects of sea level rise and climate change.
Ridge	The horizontal line at the connection of the upper edges of two sloping surfaces.
Rusticated Block	Concrete block whose surface has been molded by casting cement into metal forms. The finish was to imitate split faced or undressed stone. Popular at the

	turn of the twentieth century Sears, Roebuck & Company were one of several distributors of the metal molds.
Sash	Framework of a window; may be fixed or move in any direction: slide, move vertically or horizontally, or pivot.
Scupper	An opening in a parapet wall that allows water to drain.
Shingle	A unit of wood, asphaltic substance, slate, tile, concrete, or metal manufactured or cut into uniform length, width and thickness, used to cover the exterior sloping roofs, or wall surfaces.
Shotgun House	A building plan with one room across the front with circulation through rooms rather than a hall; generally a modest wood frame building.
Sill	A horizontal member at the bottom of a frame, which rests on or is a part of the structure. A window or door sill is the bottom horizontal member of the opening.
Soffit	The exposed underside of any overhang or exposed surface.
Stoop	Platform or small porch, usually the entrance to a house.
Story	The space between two floor levels in a building.
Tie beam	A structural element which connects two or more elements inhibiting movement. In wood frame construction, a horizontal member that ties two rafters at the ends to prevent them from spreading. In masonry construction, a beam poured in place to prevent masonry units from moving.
Transom	A glazed opening above a door or window.
Twisted column	A column formed to appear twisted or spiral in form.
Veranda	A covered porch or balcony extending to two or more sides of a building.
Vernacular Architecture	The type of construction based upon local or regional forms and materials. Not designed or planned by anyone with academic training in architecture or design.
Weatherboard	Wood siding consisting of boards having parallel faces and rabbeted edges so when joined together the exposed faces are in the same plane.
Wet Floodproofing	Permanent or contingent measures applied to a structure and/or its contents that prevent or provide resistance to damage from flooding by allowing floodwater to enter the structure. Wet floodproofing measures minimize damage to a structure and its contents from water that is allowed into a building.

Sources: Buoyant City, Shulman et al (2020) and Resourceful Rehab, (1987)

Entry at apartment building in Surfside



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Note:

Resilient Rehab incorporates some elements and language from its predecessor, *Resourceful Rehab* (Miami-Dade County, 1987) as well as from *Buoyant City: Historic District Resiliency & Adaptation Guidelines* (City of Miami Beach, 2020). Language from The Secretary of the Interior's Standards has been incorporated verbatim from https://www.nps.gov/tps/standards.htm.

Wall at Opa-locka City Hall

8 Appendix

COA Application/Historically Designated Properties, or Properties within Historic Districts

OFFICE OF HISTORIC PRESERVATION
111 NW 1st STREET, MAILBOX 114
MIAMI, FL 33128
(305) 375-4958

APPLICATION FOR A

CERTIFICATE OF APPROPRIATENESS (COA)

For Historically Designated Properties, or Properties within Historic Districts

I. PROPERTY INFORMATION INFORMACIÓN DE LA PROPIEDAD

ADDRESS *(Dirección)*_____ **CITY** *(Ciudad)*_____ **ZIP** *(Zip)*_____

SITE DESIGNATION NAME (if applicable)_____
(Nombre del Edificio)

DISTRICT NAME (if applicable)_____
(Nombre del Distrito)

FOLIO NUMBER _____
(Numero de Folio)

II. APPLICANT INFORMATION INFORMACIÓN DEL SOLICITANTE

NAME OF OWNER _____ **PHONE** *(teléfono)*_____
(Nombre de Dueño)

ADDRESS *(Dirección)*_____ **EMAIL** *(correo electrónico)*_____

NAME OF APPLICANT (if other than owner)
*(Nombre del Solicitante)*_____

CONTACT PHONE *(Teléfono)*_____ **EMAIL** *(correo electrónico)*_____

APPLICANT IS: ____**OWNER** *(Dueño)* ____**RENTER/LEASEE** *(Inquilino)* ____**CONTRACTOR** *(Contratista)* ____**LEGAL AGENT** *(Representante legal)*
(Solicitante es:)

FOR OFFICE USE ONLY
Solamente por uso de oficina

APPLICATION#_____ **DATE RECEIVED** _____ **STAFF INTIALS** _____
("R" for Regular, "S" for Special, add "A" for COA amendment)
_____ APPROVED **APPROVAL DATE** _____
_____ DENIED
_____ APPROVED WITH CONDITIONS **BOARD DATE** _____
(see attached conditions sheet)

OFFICE OF HISTORIC PRESERVATION
111 NW 1st STREET, MAILBOX 114
MIAMI, FL 33128
(305) 375-4958

III. PROJECT TYPE TIPO DE PROYECTO

PLEASE CHECK ALL THAT APPLY:
(Por favor marque todos que aplican)

____ New Construction ***(construcción nueva)***

____ Restoration/Rehabilitation ***(restauración)***

____ Relocation/Moving a Structure ***(traslado)***

____ Demolition ***(demolición)***

____ Excavation/
Ground Disturbing Activities ***(excavación)***

____ Paint ***(pintura)***

____ Repairing Existing (*reparación)***

____ Landscaping ***(areas verdes)***

____ Interior Work Only
(Unicamente el interior)

____ COA Amendment

IV. PROJECT DESCRIPTION DESCRIPCIÓN DE PROYECTO

Please describe in detail the proposed project, including any new construction, demolition, the removal or replacement of existing materials, and all other proposed changes to the current structure. Attach an additional sheet if necessary.
Por favor describa el proyecto en detalle. Adjuntar pagina adicional si es necesario. Por favor describir el proyecto en ingles.

CHECK ANY STRUCTURAL SYSTEMS OR ELEMENTS THAT WILL BE AFFECTED BY THIS PROJECT:
Marque el sistema estructural o componente que sera afectado por este proyecto:

____ Roof ***(techo)***

____ Foundation ***(cimiento)***

____ Steps or Stairways ***(escaleras)***

____ Windows ***(ventanas)***

____ Porches or Porte Cochère ***(portal ó porche)***

____ Painting/Finishes ***(pintura/acabado)***

____ Doors ***(puertas)***

____ Siding/Stucco/Façade Work ***(entablado de exteriores)***

____ Walls/Structural ***(pared óestructura)***

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V. CHECKLIST OF REQUIRED ATTACHMENTS

ALL APPLICATIONS MUST INCLUDE AT LEAST ONE COLOR PHOTO OF THE BUILDING

PAINTING YOUR BUILDING

____ Color photos of each side of the building to be painted
____ Paint Samples of the colors you wish to use (please indicate trim, wall, and accent colors)

FENCING, WALLS, NEW POOL, DRIVEWAYS, or LANDSCAPING

____ Site plan showing exact location(s) of fence, wall, pool, driveway, or proposed landscaping
____ Elevation drawings of fence, including height dimensions and material
____ Color photographs of the proposed location for the fence, pool, driveway, or landscaping
____ Description of landscaping, including type and placement (if applicable)

WINDOWS or **DOORS**

____ A color photograph of each side of the house
____ Existing elevations, which show the window placement, configuration, and material.
____ Proposed elevations, which show the new window placement, style of window, and material, and include all proposed muntins, if any
____ Manufacturer's brochure or a catalog picture of the requested window or door, and NOA

NEW ROOF

_____ Color photos of the front of the building and existing roof
_____ Manufacturer's brochure of requested roof showing color and material and NOA

RENOVATIONS/ADDITIONS or NEW CONSTRUCTION

_____ Color photos of each side of the building
_____ Site plan
_____ Landscape plan, including documentation of any proposed tree removal (if applicable)
_____ Elevations of all affected facades showing Existing Conditions (11"x17" set of plans)
_____ Elevations of all affected facades with Proposed Alterations or Additions (11"x17" set)
_____ Floor Plans
_____ Manufacturer's brochure or catalog pictures of any new or replacement materials being used in project

VI. OWNER ATTESTATION

I certify to the best of my knowledge that all the information provided within this application is correct and accurately portrays the proposed project.

Signature of Owner ***(Firma del Dueño)*** **Date** ***(Fecha)***

Signature of Applicant (if other than owner) ***(Firma del Solicitante)*** **Date** ***(Fecha)***