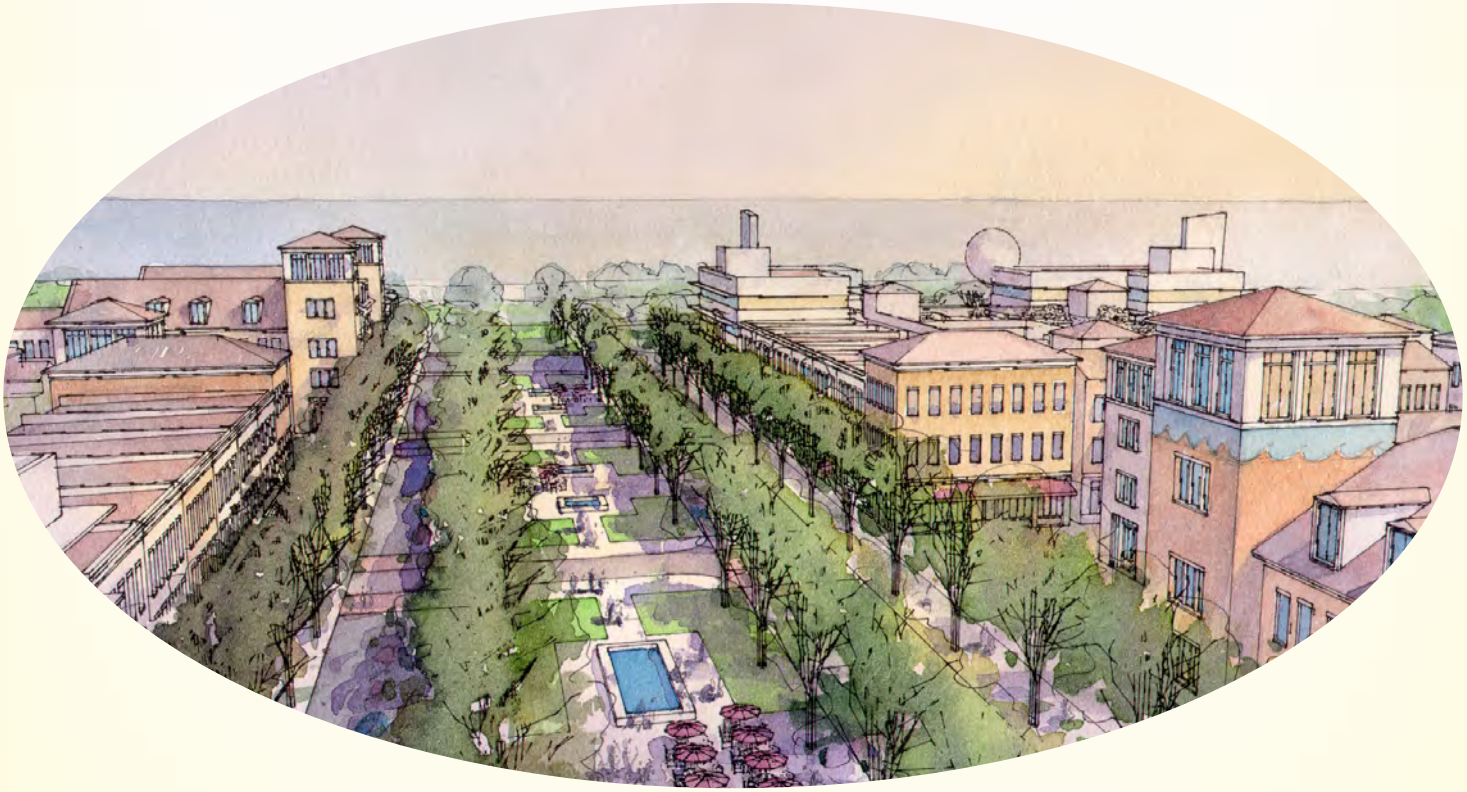
Cocoa Beach Gateways Master Plan



Dover, Kohl & Partners
town planning

CITY OF COCOA BEACH FLORIDA

4.28.14

Cocoa Beach Gateways Master Plan

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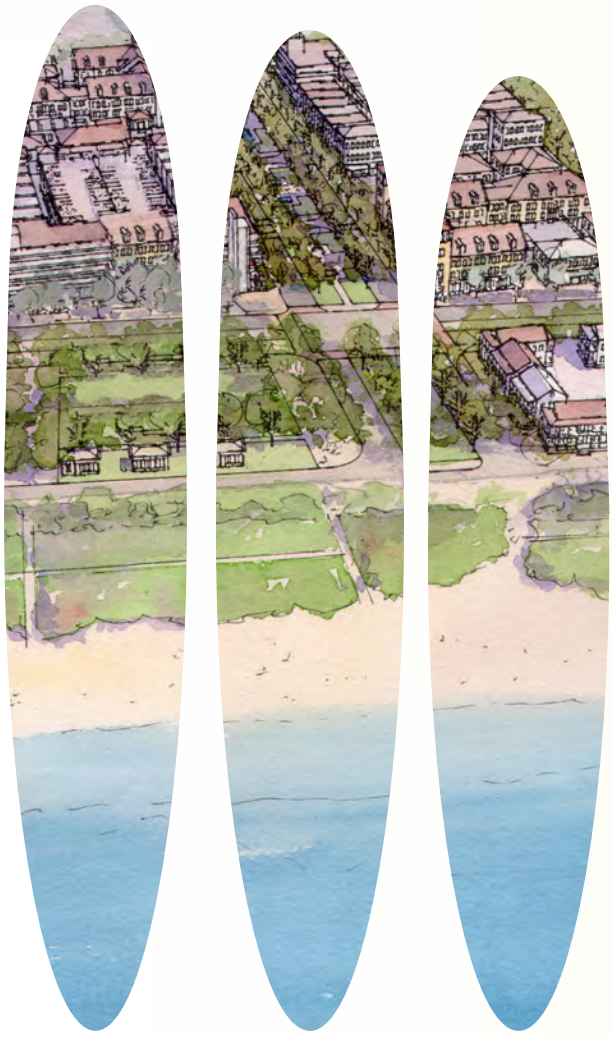

Executive Summary

BACKGROUND

Cocoa Beach is emerging from a period of limited development and growth. The city wants to turn this around and encourage private investment throughout Cocoa Beach to attract more visitors, businesses, sales, and, ultimately, tax revenue. The city wants to let people know that they are "Open for Business." At the same time, residents want to target those areas for new development very carefully so that they don't lose their city's character.

In a response to not wanting undesirable development, the City Charter, Comprehensive Plan and Zoning Code have intermingling restrictions to development that caused the previous development boom to bypass the city. Once consensus on a desirable community vision is established, steps to revise the most stringent land development regulations can be revised, allowing the type of development desired by Cocoa Beach residents.

THE BIG PICTURE

Through the public design process, community members and the design team worked together to develop the main objectives to guide the appropriate redevelopment of Cocoa Beach. Shaped from public input during the charrette, the "Big Ideas" embody the public's vision for the future of the Gateways into Cocoa Beach.

Due to many variables and unknown factors, the plan must remain flexible to accommodate changing economic forces, developers' pro-forma, existing businesses, land development regulations and unforeseen needs, changes, or uses. Although the physical design details of the built environment may evolve over time, the Big Ideas are intended to remain constant throughout implementation. The Big Ideas are to be used by city leaders, city staff, the business community, and residents to ensure that continued redevelopment and upgrades to the City of Cocoa Beach remain true to the community's vision.

DESIGNING IN PUBLIC

The city wanted to expand the 2010 Downtown vision to include the primary tourism areas. The city selected Dover, Kohl & Partners' multi-disciplinary design team of national and local experts to provide the necessary outside perspective for imagining possible futures for Cocoa Beach with the community.

A five-day design charrette in January 2014 brought together community members, community leaders, elected officials, property owners, and the design team to work together toward a common vision for Cocoa Beach.

As an important first step, the design team helped to establish local consensus and worked with the community to see the potential that Cocoa Beach has to offer through hands-on design exercises that included the general public and meetings with the community. The building of this general consensus was used to create a shared vision to lay the groundwork for future public support which is often necessary to erase roadblocks in the land development regulations that enable the kind of development desired by the citizens of Cocoa Beach.

THE BIG IDEAS

KEEP IT COCOA BEACH BUT STRATEGICALLY UPGRADE

History – Rockets, Boards & Waves
Environment – Native Landscaping; Reduce Surface Parking
Architecture – Improve Standards

CAREFULLY GROW 3 CONNECTED CENTERS OF DEVELOPMENT

The Pier; Gateway Tourism District; Downtown

STRENGTHEN CONNECTIONS

Become pedestrian & bicycle friendly
East-West Connections; Pedestrian & Bicycle Loops; Calmer Traffic
Shape space: Connect Banana River to the Ocean
Upgrade Shepard Beach (Park) & Increase Awareness of the Waterfront

UPGRADE THE 'PEOPLE SPACES'

Meet, Greet, See, Be Seen
Shaded, Memorable Places to Go

CREATE A SIGNATURE GATEWAY EXPERIENCE

Sense of Arrival
Branding

PLAN DETAILS

The *Cocoa Beach Gateways Master Plan* provides a comprehensive strategy for creating well-loved centers and destinations that connect to one another and to the surrounding residential neighborhoods.

The plan is comprised of three distinct study areas, each of which has under-utilized spaces that have the potential to become great centers of activity. These areas include the Gateway Tourism District centered around the SR 520 and A1A intersection, including the gateway from the west into the city; The Cocoa Beach Pier area that includes the northern city boundary and the Pier; and the A1A Corridor Connector that connects the Cocoa Beach Pier and Gateway Tourism District to the Downtown.

The plan details go through the main opportunities for redevelopment and improvements throughout the northern portion of the city. These include the actual gateways into the city from the north and west as well as areas around the Cocoa Beach Pier, within the Gateway Tourism District and along the A1A corridor.

View over Shepard Park, one of the city's greatest undervalued assets, looking back towards "Broadway"

520 SECTOR AREA: GATEWAY TOURISM DISTRICT

Fundamental to the plan is the transformation of the Gateway Tourism District, located around the intersection of SR 520 and A1A, into a vibrant, mixed-use center with comfortable sidewalks, street trees, on-street parking, and mixed-use, street-oriented buildings. This is accomplished with a reimagining of SR 520 at the western edge as a multiway boulevard and at the eastern edge as a complete pedestrian environment with dining, areas to rest and shade within the central median.

520 GATEWAY

The vacant site at the northwest edge of the Gateway Tourism District presents and unprecedented ability to transform this sector of Cocoa Beach with minimal disturbance to existing businesses and infrastructure. This opportune site has sunset water views and access to the water for smaller boats. Where the new waterfront esplanade meets SR 520, a new green public square can be fronted by new mixed-use buildings, several of which feature tall, prominent corner towers that will be visible across the causeway for quite a distance. They will form a gateway into Cocoa Beach.

BROADWAY & BEACH

There are very few oceanfront sites in Florida with a major east-west connection and the opportunity to host so many visitors. Cocoa Beach is unique in that it has a potentially beautiful boulevard and established parallel grid of streets that terminate to a significant shorefront park, Shepard Park.

The key is to turn SR 520 into a destination public space, formalizing the area with regularly spaced street trees, pedestrian-scaled lighting and connected sidewalks, and reemphasizing this grand entrance to the greatest asset in Cocoa Beach, the beach.

GETTING AROUND

Attractive and economically vibrant communities need transportation networks that offer a choice of mobility options, while still efficiently accommodating commuter and local vehicular traffic. A high level assessment of opportunities to improve mobility was explored with the community in concert with the larger effort of identifying the future vision for the northern portion of the city.

The purpose and goal of examining the multimodal transportation network was to identify potential improvements that work with the ideas for the future of Cocoa Beach. This included a review of recommendations for the A1A corridor study being completed by others, in light of the discussions for this visioning process.

Some of the key transportation recommendations include:

- Make SR 520 a Multiway Boulevard West of A1A
- Make SR 520 a Pedestrian Attraction East of A1A
- Improve Transit Stops
- Pedestrian Improvements, Including Improved Access Management
- Cycling Improvements (including a 5K loop around the northern portion of the city)

SR 520 becomes a multiway boulevard within the existing right-of-way and creates desirable street addresses for adjacent future development.

GETTING THERE

Revising the land development regulations to remove roadblocks and encourage the type of development residents would like to see in Cocoa Beach will require numerous steps. The first step includes the acceptance and approval of the Gateways Master Plan Report and vision. Acceptance will establish a clear direction in which the city wants to move. This is followed by a series of steps that will include changes to the city charter, the comprehensive plan, and various land development regulations.

Based on the vision established in the Gateways Master Plan Report, the main topics that should be addressed to encourage desirable development include:

- Generalize the city's Future Land Use Map
- Create tourism overlay districts
- Allow mixed-use buildings in tourism districts
- Don't force flat-top buildings
- Encourage shared parking
- Consolidate business driveways
- Create a form-based zoning district along SR 520

The comprehensive plan must be consistent with Cocoa Beach's city charter. Because of specific provisions in the charter, the city commission must refer some decisions about the comprehensive plan, and even the land development code, to the voters. These decisions can be extremely complex due to the interlocking nature of Cocoa Beach's charter, comprehensive plan, and land development code. Despite this complexity, voters could authorize important refinements in the near future.

Following the adoption of the vision, the most important steps are summarized to the right.

Full realization of this vision will require many additional steps, including physical improvements to public streets and parks, and possibly public-private partnerships where they would provide mutual benefits to both investors and the public.

Additional information on the Background, Designing in Public, The Big Picture, Plan Details, Getting Around, and Getting There can be found in the Cocoa Beach Gateways Master Plan Report.

CITY CHARTER

ALLOW MIXED-USE BUILDINGS
Add a new sentence to Section 6.01 regarding mixed-use densities

BUILDING HEIGHT LIMIT
Modify Sec. 6.04 to exclude roofs from 45' height limit in tourism districts

COMPREHENSIVE PLAN

TOURISM DISTRICT OVERLAY
Add tourism overlay map & description (similar to downtown overlay)

ALLOW MIXED-USE BUILDINGS
Amend Policy I.4.12 to address density in mixed-use situations

BUILDING HEIGHT LIMIT
Amend Policy I.4.11 to exclude roofs from 45' height limit in tourism districts

SHARED PARKING
Add a policy supporting shared parking in all business areas

CONSOLIDATE DRIVEWAYS
Add a policy supporting consolidation of driveways & cross-access drives

FORM-BASED ZONING DISTRICT
Add a policy supporting form-based zoning for downtown & tourism areas

LAND DEVELOPMENT CODE

TOURISM DISTRICT OVERLAY
Add tourism overlay map; describe effect on certain regulations

ALLOW MIXED-USE BUILDINGS
Adjust Article III regarding density in mixed-use situations

BUILDING HEIGHT LIMIT
Adjust design standards to exclude roofs from 45' height limit in tourism districts

SHARED PARKING
Modify parking regulations to encourage shared parking in all business areas

FORM-BASED ZONING DISTRICT
Add a new form-based zoning district along SR 520

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RESEARCH & ANALYSIS 1

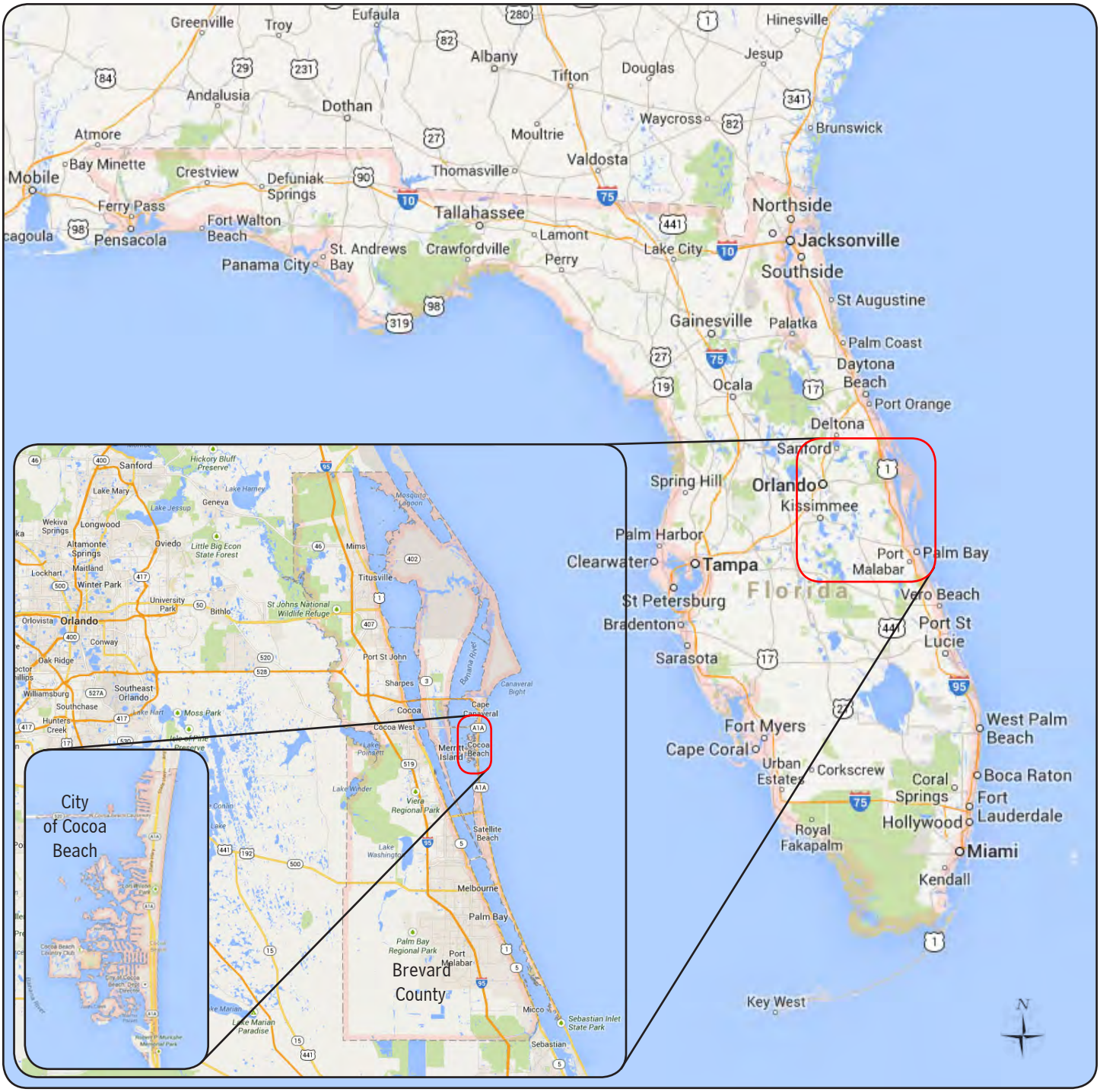
LOCATION

Cocoa Beach is located on the east coast of Florida in Brevard County. Situated on one of Florida's barrier islands, Cocoa Beach is located between the Atlantic Ocean on the east; the Banana River on the west; Cape Canaveral to the north; and Patrick Air Force Base/Satellite Beach to the south.

According to the United States Census Bureau, the city has a total area of 15.0 square miles. 4.9 square miles of it is land and 10.1 square miles of it, approximately 67.49%, is water.

Centuries ago, the Thousand Islands in the Banana River were formed when the ocean, propelled by a powerful hurricane, pushed its way through the barrier islands.

Cocoa Beach is one of the closest beach for Central Florida, a region with four million people including Orlando.



PLANNING AREA

The overall planning area for the 520 Master Plan consists of the non-residential properties from the northern city boundary south to the boundary of the Downtown CRA, and from the Ocean on the east to the Banana River on the west.

While this entire area was considered, discussed and planned during the course of the planning process, a primary focus was given to the area one block north of SR 520 south to Surf Drive, from the Ocean to the Banana River. This area includes the important intersection of SR 520 with A1A and its surrounding area.

Major Landmarks

Cocoa Beach Pier

Shepard Park

Coconut Cove Marina

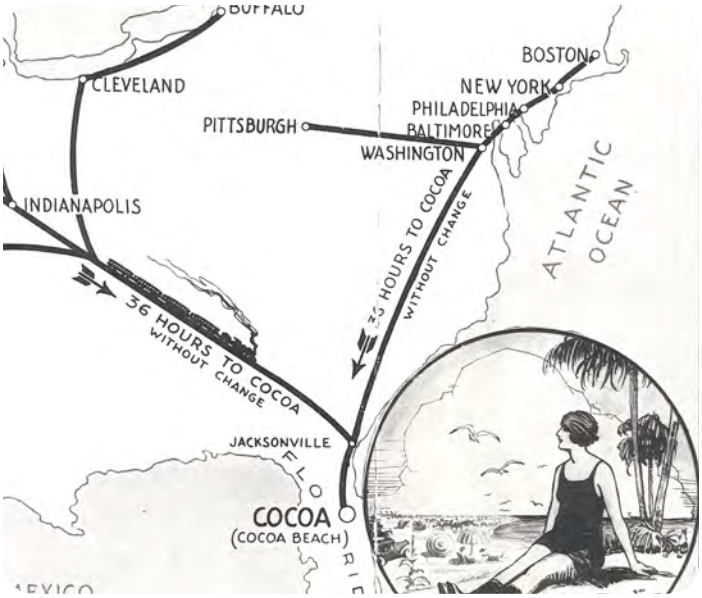
BACKGROUND

People first reached Florida at least 12,000 years ago and the Tequesta natives inhabited the Cocoa Beach area. The first non-native settlement in the area now known as Cocoa Beach was a family of freed slaves following the American Civil War. In 1888, a consortium of men from Cocoa bought a large portion of land which went undeveloped until it was consolidated by one of the men in 1923 when it was used to found a small homestead. The Town of Cocoa Beach was established on June 5, 1925.

In the 1930s advertisements for trains from Buffalo, Indianapolis, and cities in the northeast to the sunny shores of Cocoa Beach boasted that the trip would only take 36 hours. A boardwalk along the beach terminating at the Cocoa Beach Bath House Casino was built in 1920.

In the 1940s A1A was constructed and people began driving to (and on) Cocoa Beach from all over Florida.

Overall residential growth in the community was slow and gradual until the 1950s when the population increased dramatically from 1950 to 1960. Cocoa Beach was incorporated as a city in 1957 while in the midst of this population boom due to the development of the American space program. NASA's John F. Kennedy Space Center is located approximately 15 miles north of the city. Many people moved to Cocoa Beach for jobs connected to the space program and in search of new opportunities.



1930s Advertisements for Cocoa Beach

1930s Postcard of the boardwalk in the vicinity of the Cocoa Beach Casino at Minutemen Causeway

Homes were built quickly to accommodate the rapidly growing population. Many homes were built on newly formed land created from mud and sand dredged from the Banana River. In 1959 the City Council voted to improve all the town's streets to increase sidewalks and pave more roads.

Tourism remains a huge part of Cocoa Beach's economic vitality. An estimated 2.4 million day-trippers visit Cocoa Beach's sunny shores each year, many form the Orlando metropolitan area. "One of a Kind" Ron Jon Surf Shop in Cocoa Beach opened in 1961 as surfing emerged as a sport and culture. The Cocoa Beach Pier was constructed a year later in 1962.

1956 - Starlite Motel the first major motel constructed in Cocoa Beach

In the 1950s South Atlantic Avenue was a shady, pine trees lined street

1950s Downtown Cocoa Beach along A1A

1940s Postcard of a picnic area on the ocean in Cocoa Beach, Florida

The city experienced a period of high unemployment and a loss of population after NASA's Apollo program ended in 1975. This was before the Space Shuttle program was fully launched in 1981. The years after the Space Shuttle saw the greatest influx of space tourism revenue and space industry jobs.

The ending oft he Space Shuttle program has hurt the local economy. The city experienced a decline in permanent residents between 2000 and 2010, but that trend has since reversed. Many signs point to new programs coming to the area to utilize the existing launch pads for private enterprises. Every sign points to the continued economic importance of Cape Canaveral.

Annual events like the Easter Surfing Festival, Space Coast Art Festival, Beach Fest, National Kidney Foundation Pro-Am Surfing Festival, New Years Eve Party, and the Air Show can draw tens of thousands of people to Cocoa Beach at one time. Due to large numbers of people visiting Cocoa Beach at once, there is often a concern about parking during these special events. The city provides more than enough parking on a typical day, but during these large events it can be a problem.

1970s, Surf craze at the Cocoa Beach Pier, which remains popular today

1960s - Launch at Cape Canaveral as seen from Cocoa Beach

1960 - A1A and SR 520 intersection looking North. Other than the absence of the traffic light, the intersection does not look very different today.

EXISTING CONDITIONS

NORTHERN BOUNDARY & COCOA BEACH PIER AREA

Despite its importance as a gateway to the city, the northern boundary has been ignored and underused. Cocoa Beach sees significant tourism traffic from Port Canaveral and Cape Canaveral, but people enter Cocoa Beach without realizing they have arrived. The boundary is marked by a single, easily missed sign. Rather than the Pier or A1A acting as the defining landmark of this area, the often half-vacant Publix parking lot provides the biggest visual statement.

The Cocoa Beach Pier is one of the major tourist attractions and entrances to the beach. Despite its natural draw, the Pier is difficult to find, and cannot be seen from A1A. Signage for the Pier is also minimal. The Pier and its locally owned restaurants are major destinations for visitors to Cocoa Beach.

The Northern Boundary is marked by driveways and parking lots.

The entrance to the pier from A1A is obscured by utility poles and hotels.

Despite it's big, bold letters, the entry difficult to see from the street.

The pier is frequented by locals and tourists alike, making it a notable place.

The Pier also acts as a main entryway to the beach.

SR 520 / A1A GATEWAY

The SR 520 / A1A Gateway should be the pride of Cocoa Beach, but instead it is a confusing and underwhelming entrance to the city. There is no adequate signage, and the gateway is flanked by a large undeveloped plot of land. There is also no obvious indication that this is the city's main crossroads.

Ron Jon Surf Shop and the Cocoa Beach Surf Company are two of the city's biggest tourist attractions, and the Gateway is centered around these and nearby Shepard Park. Despite the level of public and private investment, however, the park goes unnoticed and is somewhat inaccessible. The street design along Ocean Beach Boulevard, parallel to A1A, is attractive and slows down traffic making a good alternate route to A1A.

The 8-acre parcel at the SR 520 entrance of Cocoa Beach is entirely barren

The 8-acre undeveloped parcel misses the opportunity to create a scenic destination on the water

There are a number of restaurants and bars along A1A serving locals and tourists alike

Ron Jon Surf Shop is at the terminus of the gateway

The Cocoa Beach Surf Company is directly opposite Ron Jon Surf Shop

Boardwalks are a hallmark and attraction for many coastal cities

The boardwalk only exists in the area surrounding Shepard Park

The marina is not open to the public, reducing its potentially high usage

Pagodas at Shepard Park are only used for events and wedding photography

The back of the bathhouse faces the street, detracting from the streetscape

A large portion of local traffic uses Ocean Beach Boulevard instead of A1A

A1A CORRIDOR

The A1A Corridor links the entirety of Cocoa Beach, and just about all of the east coast of Florida. Substantial local traffic and the vast majority of visiting traffic use this thoroughfare. Though many tourists can and do walk along this corridor, it is not a pedestrian friendly environment. Large setbacks result in the street being lined by parking lots and excessive driveways. This coupled with the harsh, hot, weather and lack of street trees make it an unappealing place to walk.

Parking lots line the corridor, often only fractionally filled to capacity

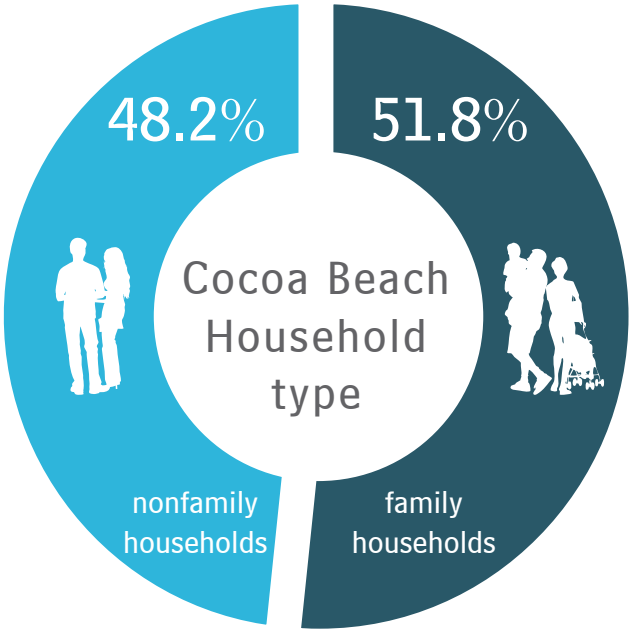
The Winn-Dixie parking lot is perhaps the most frequently complained about sites in the study area

This bank located near the pier provides an example of handsome, contextual architecture fitting the character of Cocoa Beach

Pedestrian travel A1A is hampered by business driveways and curb cuts

The corridor's lack of shade creates an unwelcoming pedestrian environment

DEMOGRAPHIC PROFILE

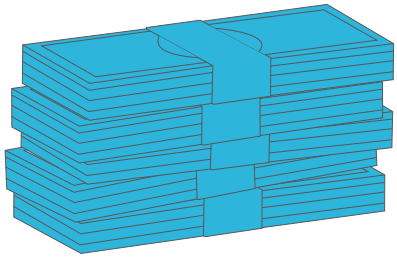


Source: Profile of General Population and Housing Characteristics: 2010

55.7
Median Age

Source: 2010 Demographic Profile

$53,951



Median Household Income

Source: 2007-2011 American Community Survey 5-Year Estimates

The City of Cocoa Beach has just over 2.6% of Brevard County's total population. The median Household Income and Median Age are high in Cocoa Beach compared to other places in Brevard County. The city hosts many part-time residents and full-time retirees without children.

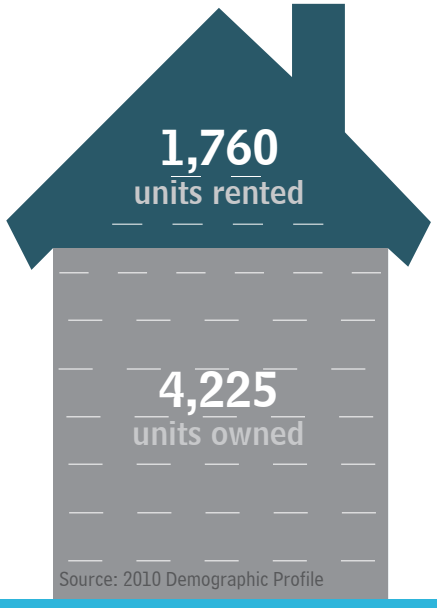
Source: City of Cocoa Beach, Community Data Summary

Source: 2010 Demographic Profile

about **8,866**

households in Cocoa Beach

Source: 2010 Demographic Profile



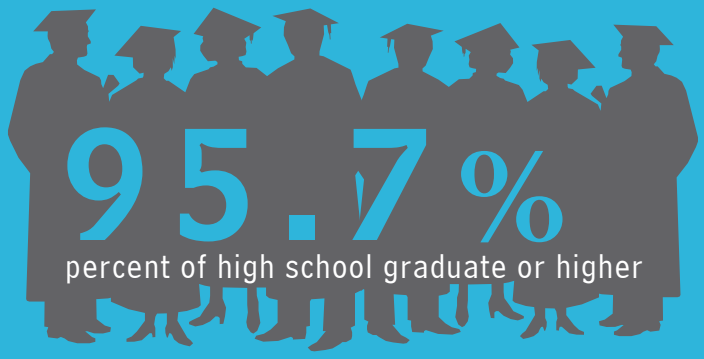
Source: 2010 Demographic Profile

23.3%

percent of residents have a

BACHELOR'S DEGREE

Source: 2007-2011 American Community Survey 5-Year Estimates

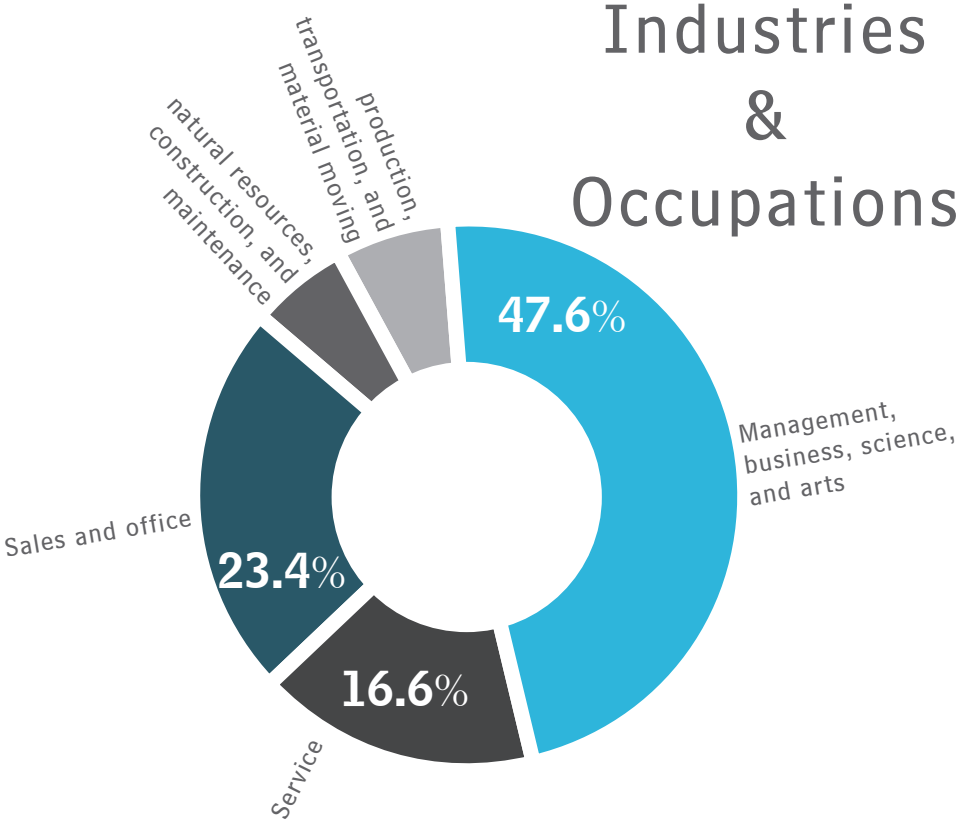


95.7%

percent of high school graduate or higher

Cocoa Beach's population has averaged between 11,000 and 12,800 since the early 1970s. Even as condominium and other housing units have grown, the permanent population has remained roughly level. This is mostly due to the amount of second homes in the city, who have their primary residences elsewhere.

Industries & Occupations

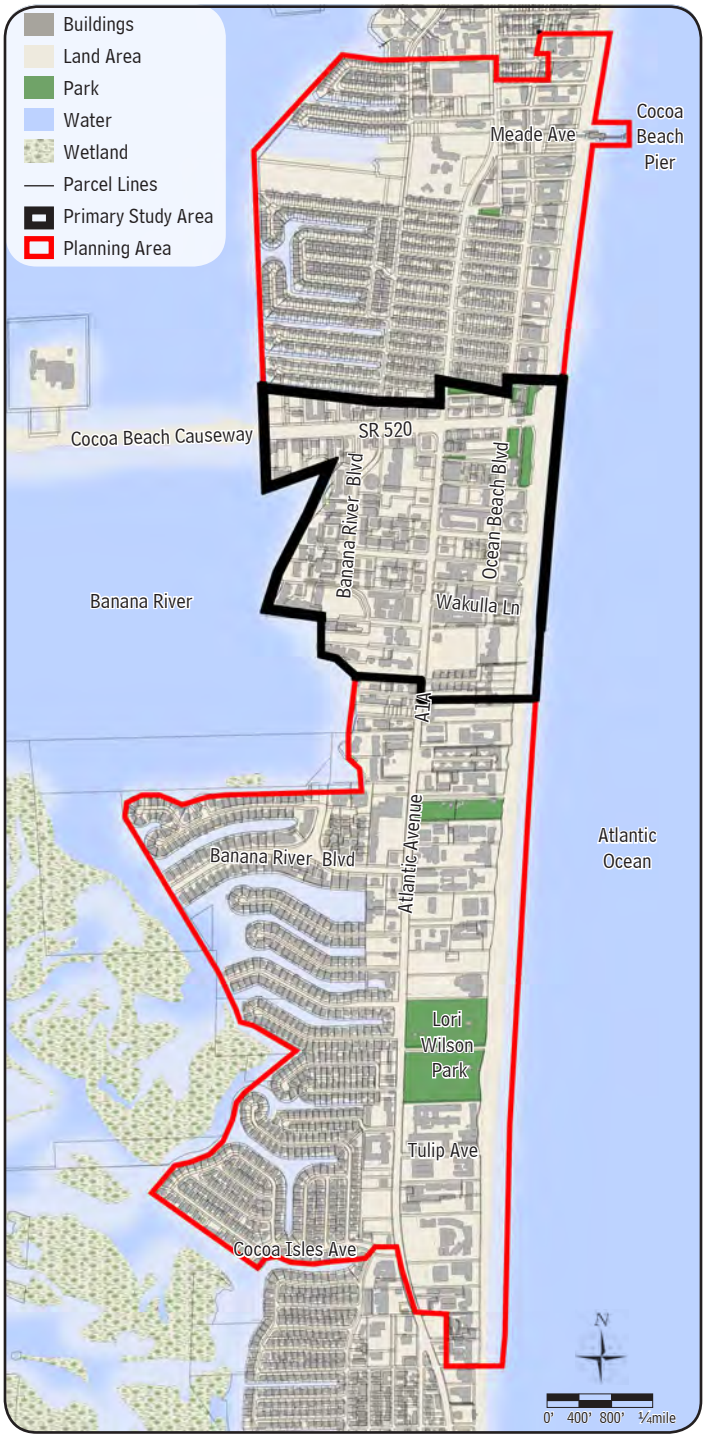


ANALYSIS MAPS

Using the city's Geographic Information Systems (GIS) data, the team created a series of analysis maps to better understand the dynamics of the study area. The analysis maps are based on information provided by the City of Cocoa Beach in October 2013.

BASEMAP

The basemap shows buildings, parks, and parcel lines on the beige land surface surrounded by blue water. One sees the city's many built residential peninsulas and canals, the parks along the waterfront, the larger footprint hotels facing the Atlantic beach, and the long, linear nature of the barrier island.

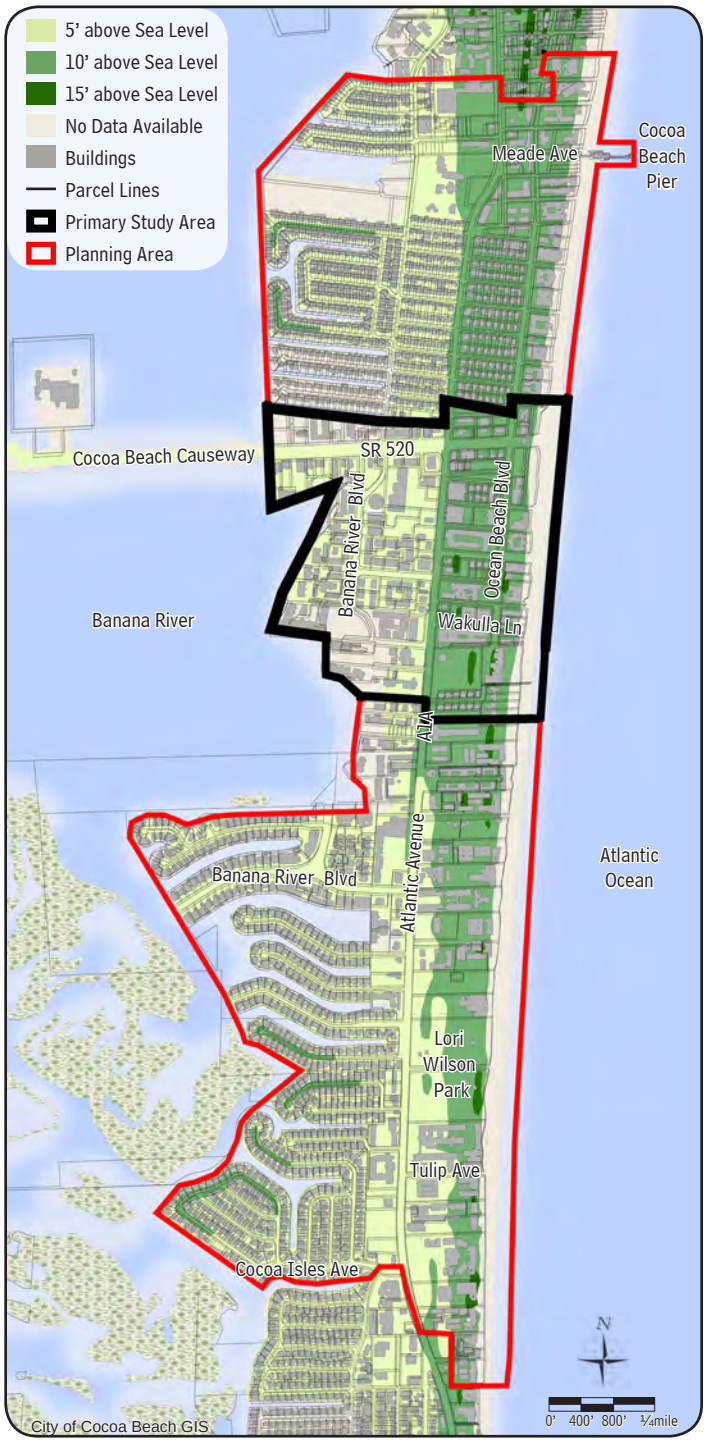


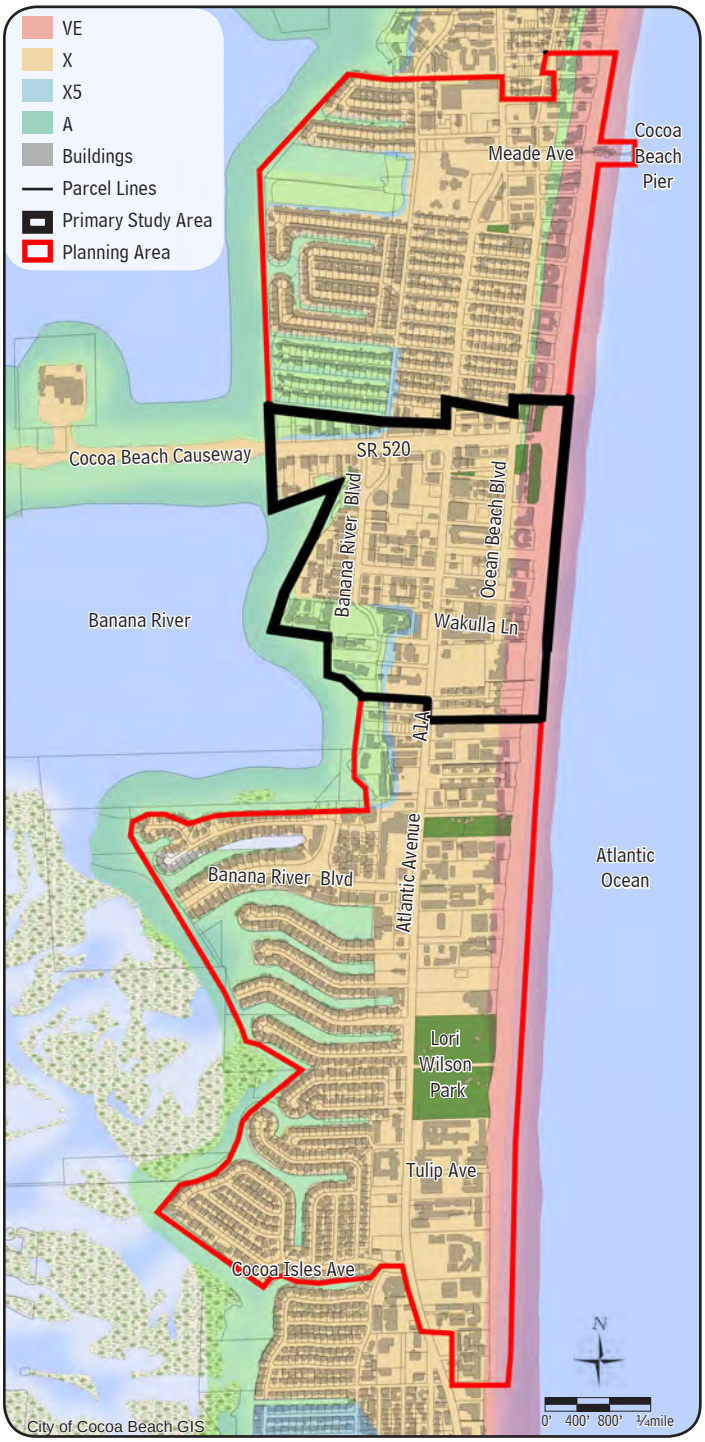
TOPOGRAPHY

Cocoa Beach, like most of Florida, is barely above sea level. However, compared to the sandbar islands south of Brevard County, Cocoa Beach is relatively high. US State Road A1A forms a dividing line between Cocoa Beach's west side, which rises to five feet above sea level at its highest and Cocoa Beach's east side which rises to ten feet above sea level with isolated pockets that are higher than ten feet above sea level. Given the flat topography and the extensive beachfront development, only rare glimpses of the open ocean are possible from Ocean Beach Boulevard except down the east-west lanes.

FEMA FLOOD ZONES

Most of Cocoa Beach is Flood Zone X which denotes a minimal-risk where flood insurance is not mandatory, though encouraged, according to Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program. However, some the first-row beachfront properties are located in the VE (Velocity) zone and are considered to be in a Special Flood Hazard Area, lower than the Base Flood Elevation. In addition, many residential homes are within Flood Zone A along the Banana river. Flood insurance is mandatory in VE and A zone areas. Revised FEMA maps, with slight revisions to the boundaries, are expected to take effect in spring 2014.





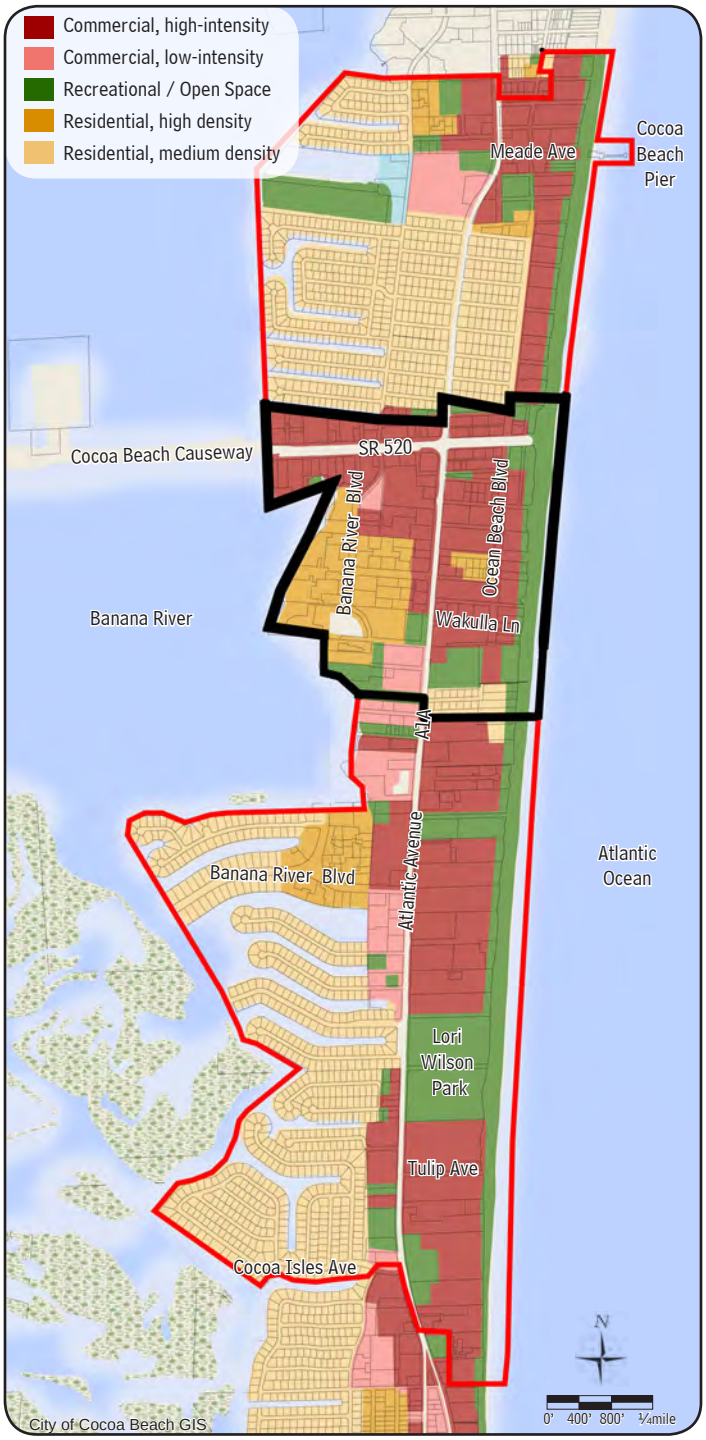
EXISTING USES OF LAND

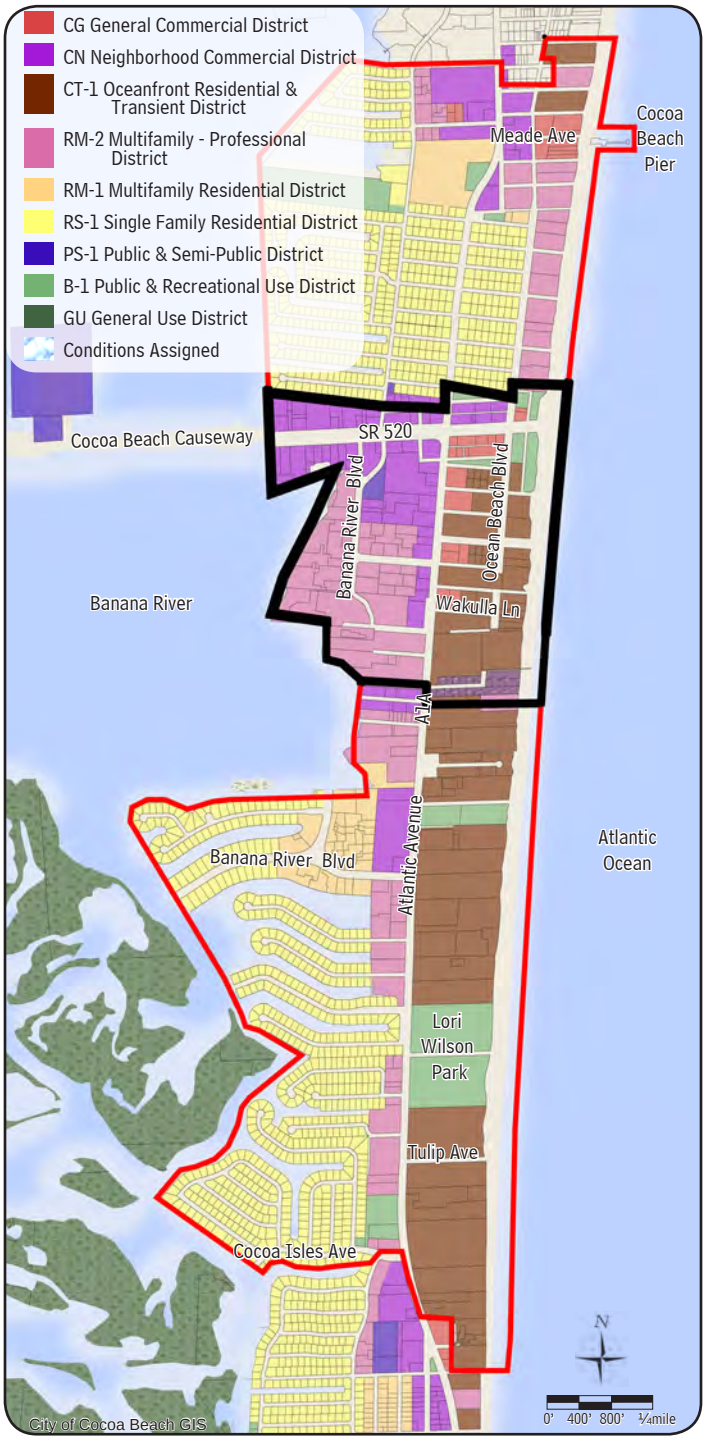
Cocoa Beach has a mix of commercial, residential and recreational uses. Within the study area, the predominant land uses are high-intensity commercial; recreational open space along the beach; and a mix of medium and high density residential areas.

ZONING

Generally, Cocoa Beach is zoned for commercial uses along A1A, hotels and condominiums within view of the ocean, and single-family, detached homes on the Banana River.

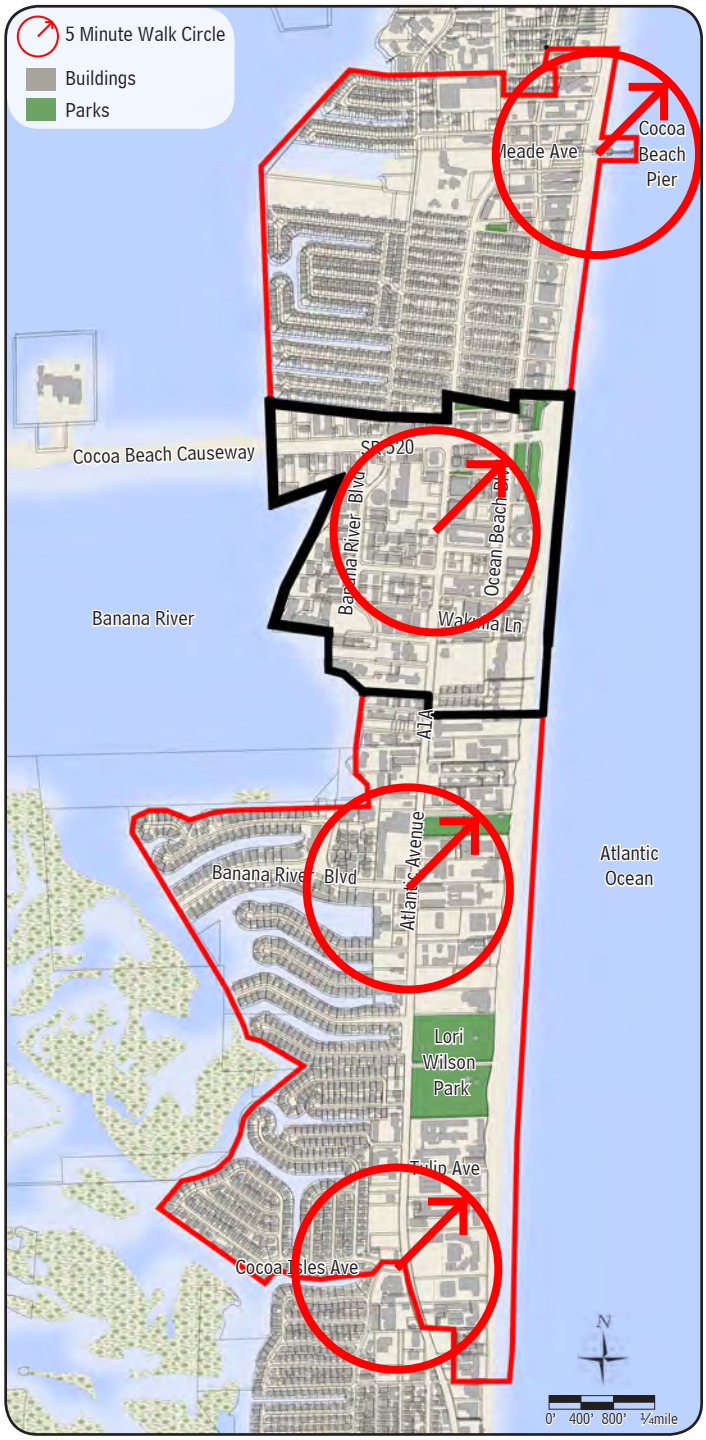
Within the study area the predominant zoning districts are “CN--Neighborhood Commercial District” and “RM-2--Multifamily Professional District” west of A1A and “CG--General Commercial District” and “CT-1--Oceanfront Residential and Transient District” east of A1A.





FIVE MINUTE WALK

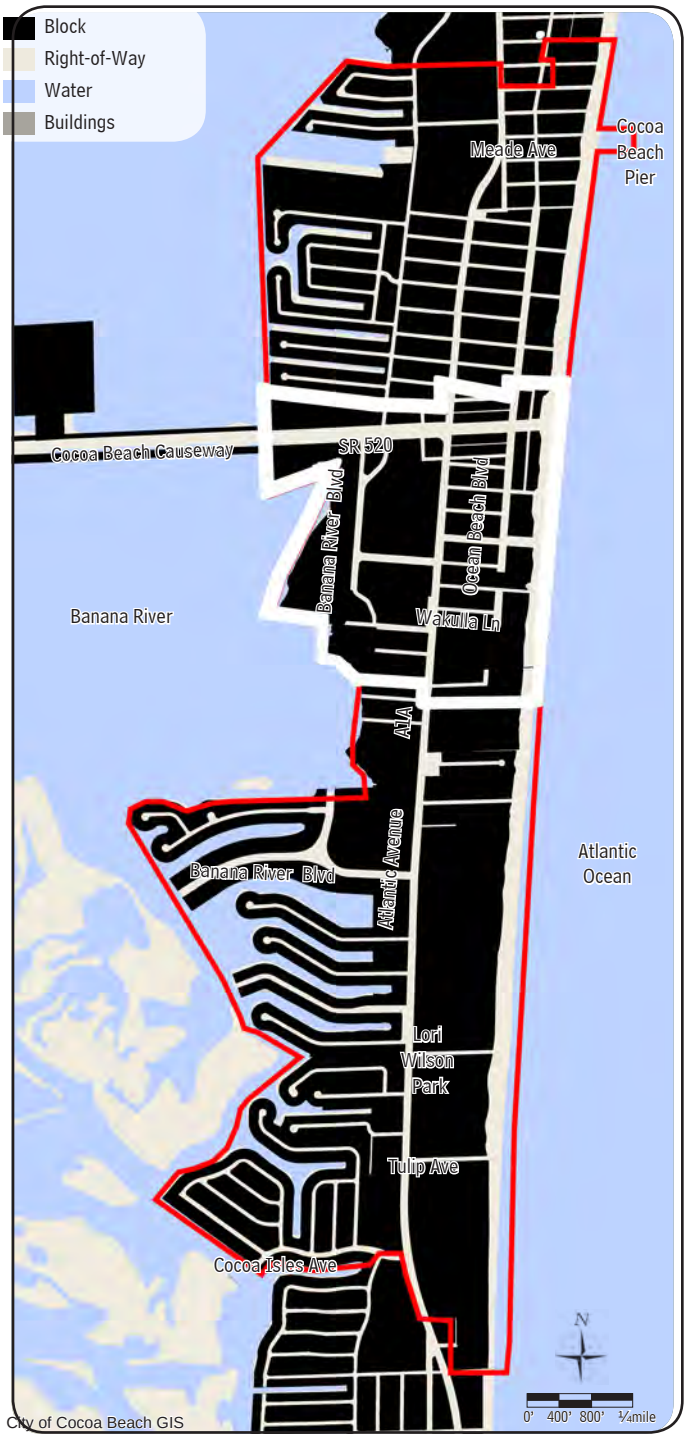
If streets are safe, comfortable and interesting, most people will walk a distance of approximately ¼ mile or 5 minutes before turning back or opting to drive or ride a bike. The ¼ mile radius is a benchmark for creating a neighborhood unit or district that is manageable in size and is inherently walkable. For a community that draws in thousands of tourists a year like Cocoa Beach, the ¼ mile radius can be used as a rule-of-thumb for locating district centers where visitors can park, shop, east and visit the beach. The primary study area consists of a single five minute walk. However, if the center of the ¼ mile is placed at the main intersection of SR 520 and A1A, many residences are included.



BLOCK & STREET NETWORK

The network of streets and blocks in Cocoa Beach ranges from a grid in the downtown and in the residential areas north of SR 520 to a fish bone pattern with A1A acting as the spine with single (typically dead end) roads fanning out from the spine.

Within the primary study area there is a network of streets east of A1A. This helps people to circulate around while looking for parking to go to the beach or to get back to businesses they passed along the main road. West of A1A there are large blocks with only parking areas to circulate back to businesses.

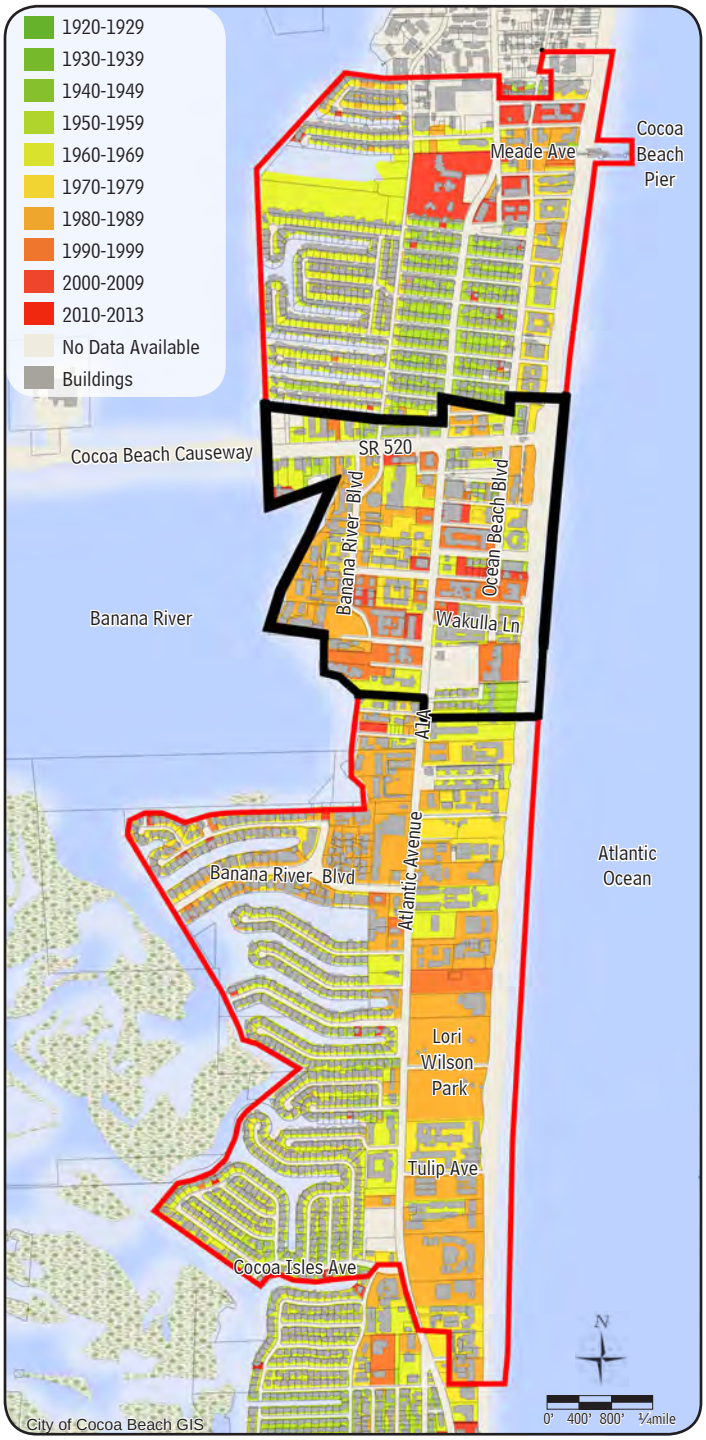


YEAR BUILDINGS WERE BUILT

Most residential buildings within the study area were built between 1950 and 1970 (they appear light green in the map below). Most commercial buildings along the corridor were built between 1970 and 1985 (they appear yellow and orange). The median building age in Cocoa Beach is 1963. Residential zones have a median building date of 1962, while the median building build date of commercial structures is 1974. However, the primary study area hosts a variety of building ages. There are no historic, pre-1950 structures within the study area.

BUILDING HEIGHT

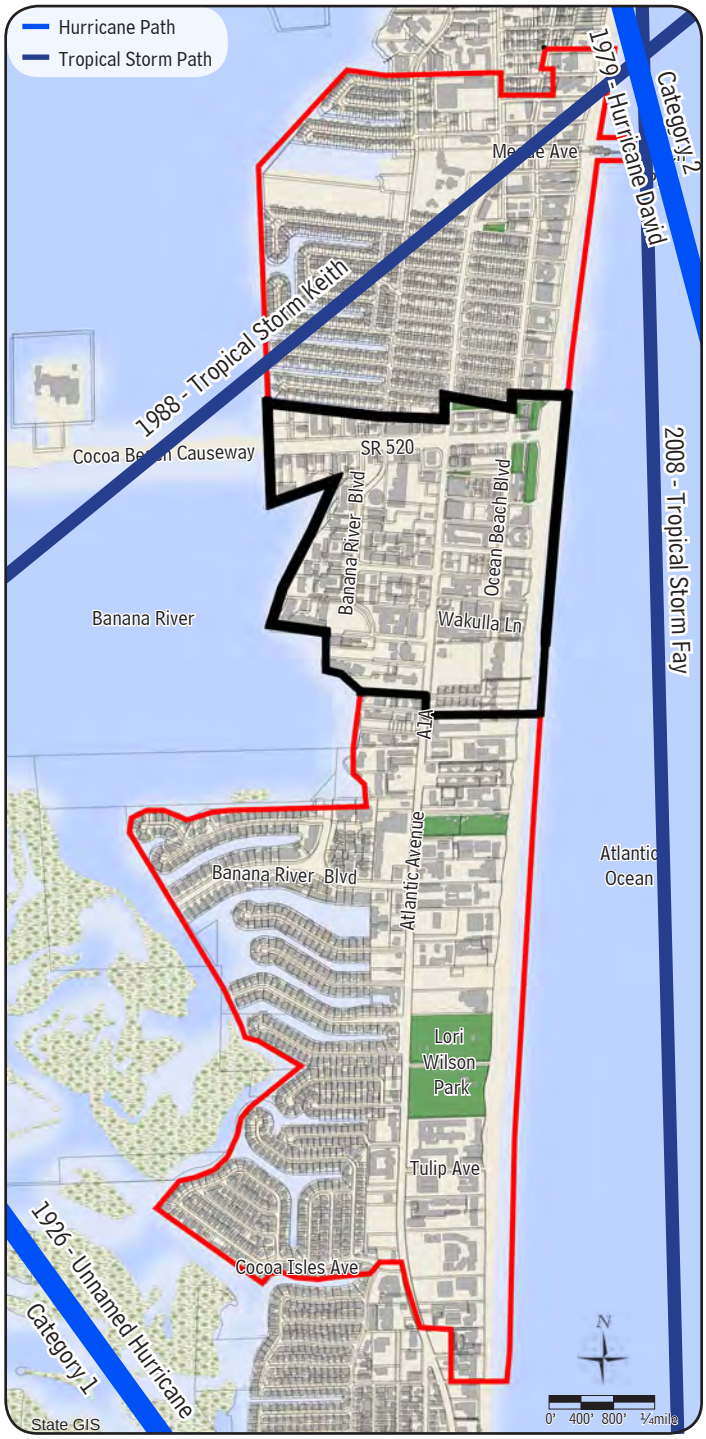
The single-family residential structures of Cocoa Beach are predominately one- and two- stories. Three to four-story commercial structures are located at the east side of the intersection of Marion Lane and North Atlantic Avenue. Most commercial structures are one story. Hotel and condominium structures of 5 to 10 stories line Ocean Beach Boulevard and A1A.



HISTORIC HURRICANE & TROPICAL STORM PATHS

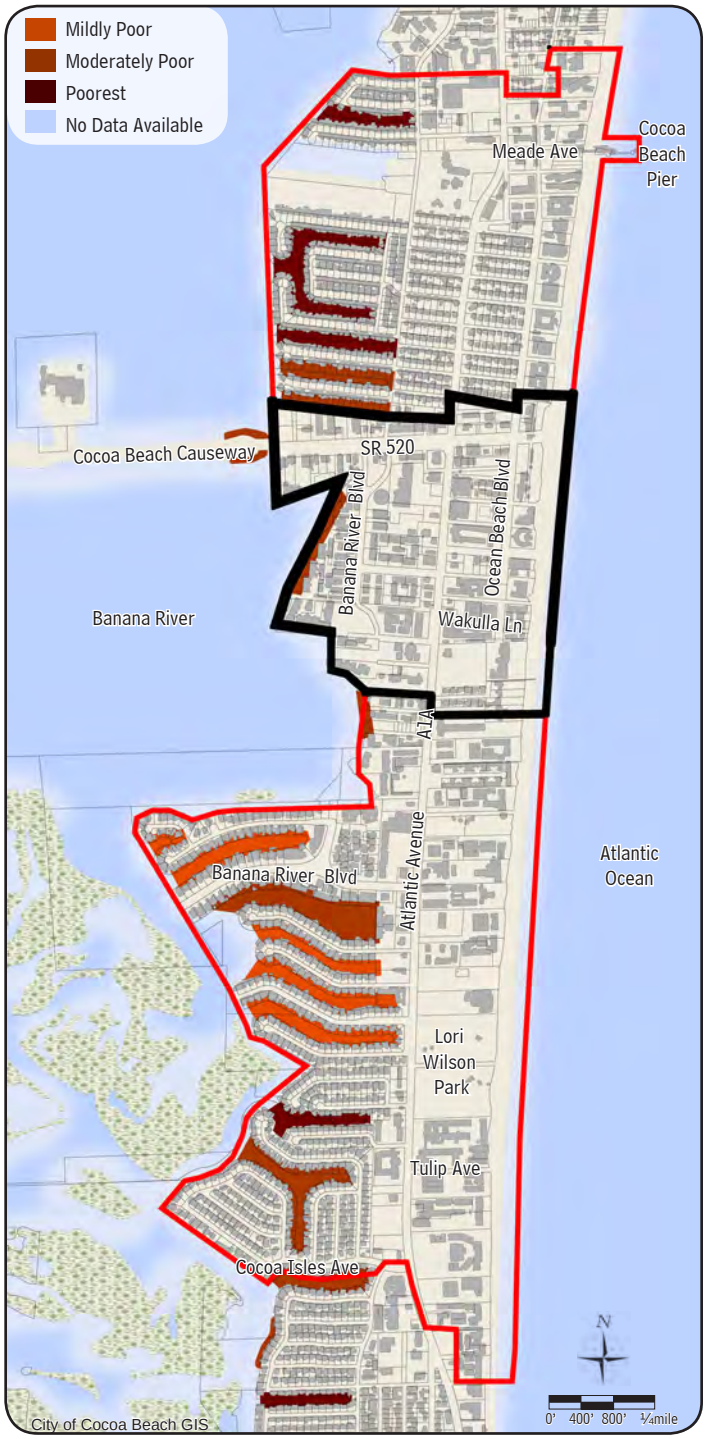
Cocoa Beach has been directly in the path of four major storms in the last 162 years. During that time 88 storms have passed within 100 miles of the barrier island. It is worth noting that a 100 mile pass can feel like a direct hit. The major storm frequency is thus, roughly 1 storm every 2 years.

The Cocoa Beach study area saw the eye of tropical storms Keith in 1988 and Fay in 2008. The area also was in the direct path of an unnamed Category 1 hurricane in 1926 (not the infamous 1926 storm that hit farther south), and Hurricane David in 1979.



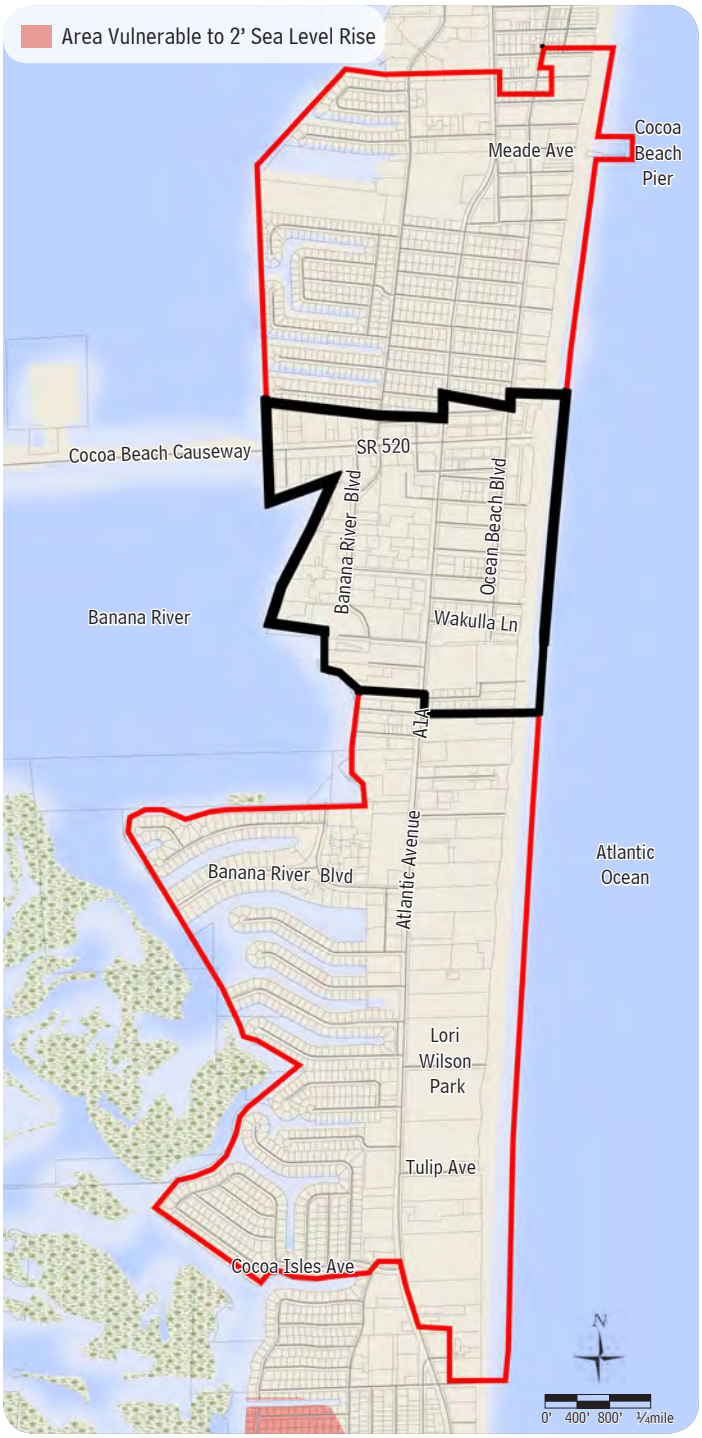
CANAL WATER QUALITY

Many canals do not meet the State's minimum water quality criteria and are a potential source of nutrients and other contaminants to near shore waters. Effluent from septic tanks and cesspits, stormwater runoff, and spills of hazardous materials are primary causes of contamination. Water quality in the canals ranges from mildly poor to very poor.



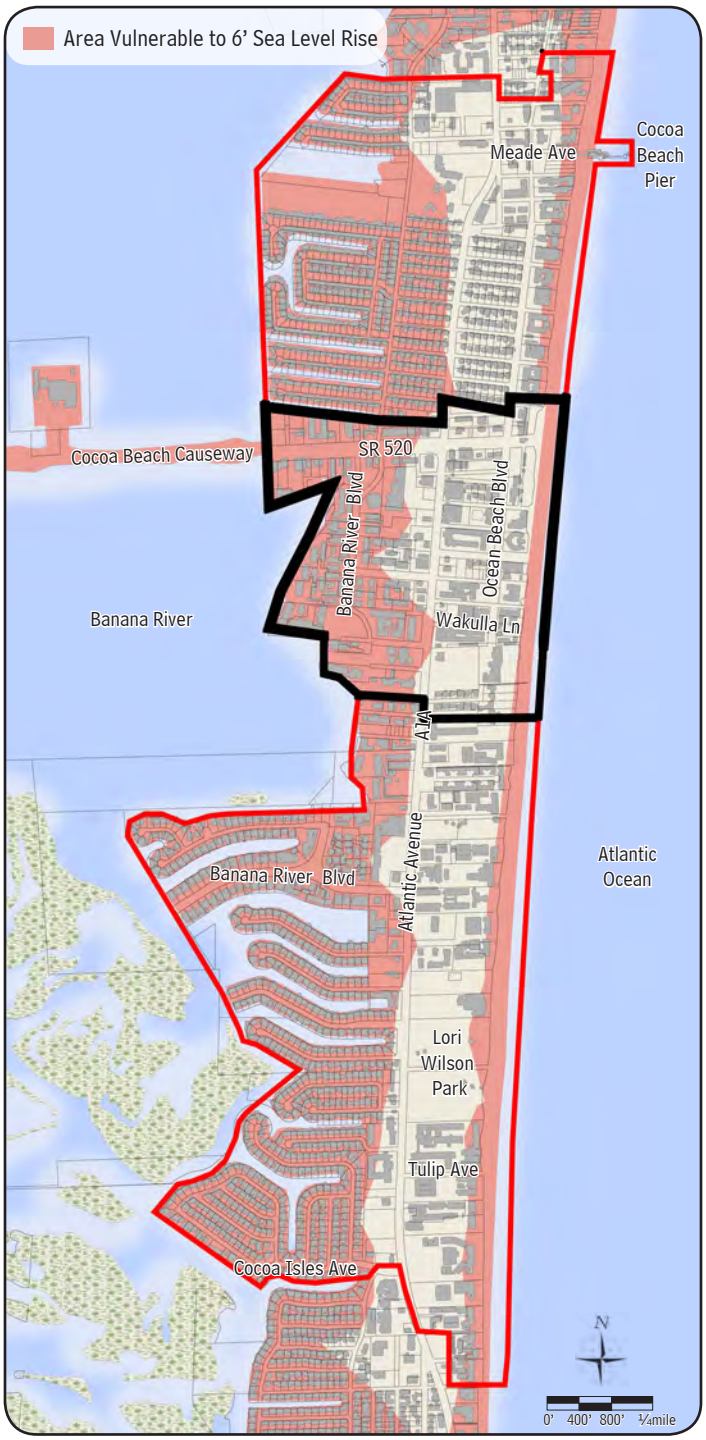
AREAS VULNERABLE TO 2' SEA LEVEL RISE

Global warming has raised global sea level about 8 inches since 1880, and the rate of rise is accelerating. Sea level is expected to rise between nine inches and two feet by 2050. Rising seas dramatically increase the odds of damaging floods from storm surges. No land within the study area is projected to see a risk of submergence with a two foot rise. This does not take into consideration exceptional high tides or storm surge however.



AREAS VULNERABLE TO 6' SEA LEVEL RISE

Using the expected rise of three to four feet in 100 years it will be quite some time before Cocoa Beach faces widespread inundation. However, there is no real way to predict rise accurately and the possibility of dramatic sea rise cannot be disregarded. Lower-lying areas west of A1A located on the canals will become vulnerable first. With each foot of rise periodic flooding issues will occur more often and in areas that previously did not flood. New areas become more vulnerable to wave activity during storms and flood insurance rates are likely to be readjusted to account for shifting floodplains. The images below show a possible consequence if no sea level rise infrastructure is put into place.

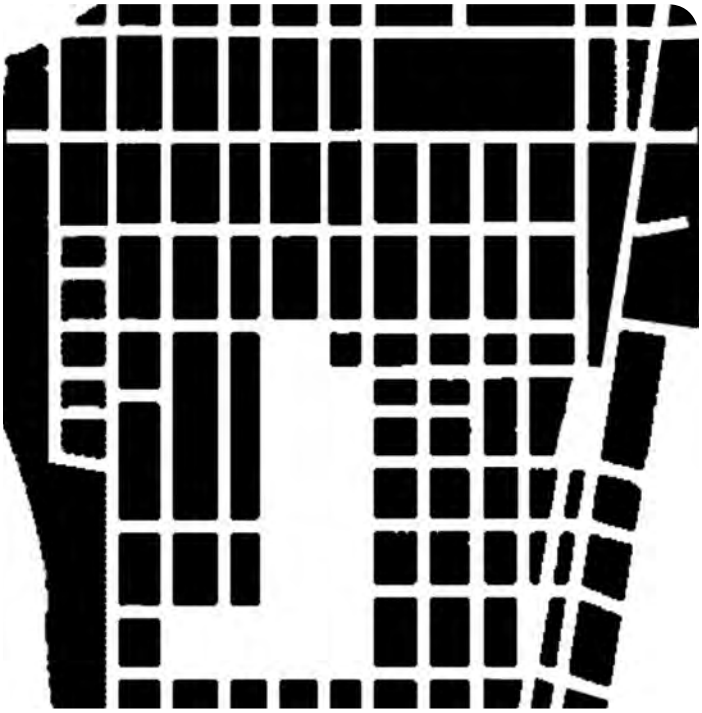


SCALE COMPARISONS

Scale comparisons helped the planners and community participants to better understand the scale of Cocoa Beach in relation to other great places. Below is the SR 520 area in Cocoa Beach at the same scale as other well known towns in the south and around the world, including other beach communities.

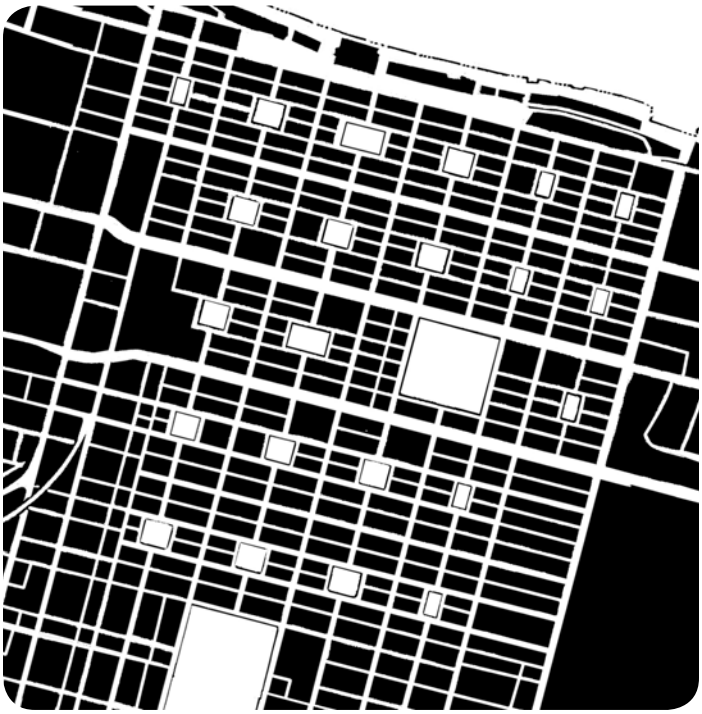
Lincoln Road in South Beach, a pedestrian mall, spans the width of the Miami Beach island, stretching further than the total width of Cocoa Beach. The scale comparisons show how the width of Cocoa Beach is not too wide to be entirely walkable if a walkable environment with streets that were, safe, comfortable and interesting existed in Cocoa Beach.

Cocoa Beach Aerial



South Beach, Florida

Cocoa Beach Figure Ground



Savannah, Georgia

It is interesting to see that the width of the Grand Canal in Venice is about the same width as the right-of-way for SR 520. The Grand Canal is a major division in the city. Likewise SR 520 divides the city.

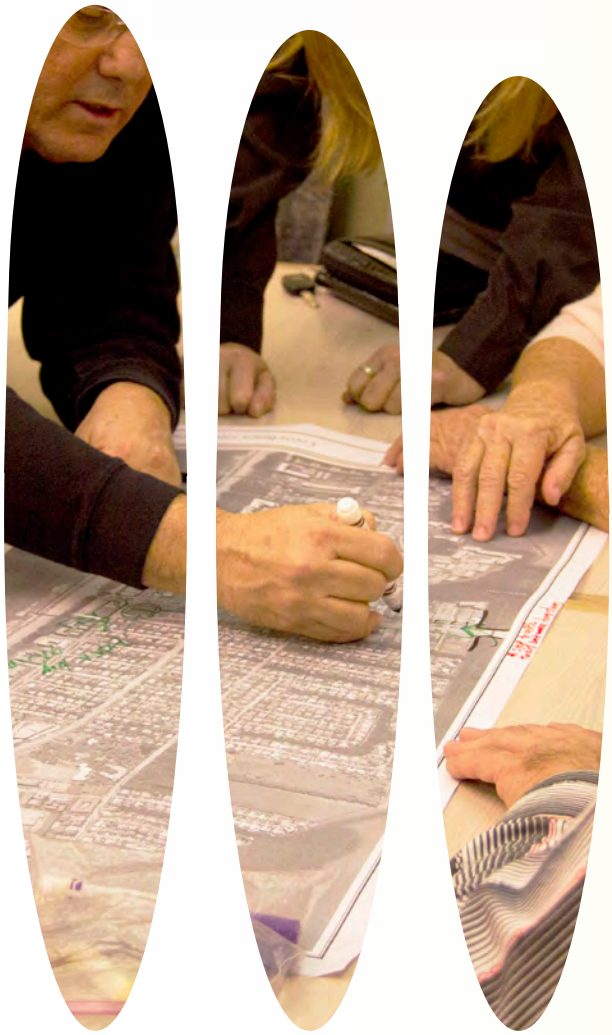
Venice, Italy

It is hard to believe that the most visited part of Florence, Italy – the part that has seen tourists for thousands of years – is really just about 80 acres in total and could be entirely fit within the plan study area. Clearly Florence has a more dense network of streets and blocks which create more areas of "frontage" for businesses and workplaces.

Florence, Italy

Charleston, South Carolina

Amsterdam, Netherlands



DESIGNING IN PUBLIC 2

Cocoa Beach is emerging from a period of limited development and growth. The city wants to turn this around and encourage private investment throughout Cocoa Beach to attract more visitors, businesses, sales, and, ultimately, tax revenue. The city wants to let people know that they are "Open for Business." At the same time residents want to target those areas for new development very carefully to not lose their city's character.

A plan for Downtown Cocoa Beach was completed in 2010 and a CRA district helps to guide and fund public improvements within the core of the city. Next the city wanted to expand the vision to include the primary tourism areas. Dover, Kohl & Partners, teamed with Spikowski Planning Associates, EPR, and Community Design Associates, were selected to help the community create a vision for their future and to provide advice on how to get there.

The Dover-Kohl team conducted an open planning process to gather maximum public input. Participants helped to create the Cocoa Beach Gateways Master Plan through an intensive design event called a charrette. Over the course of five days, the community and the team of design professionals worked to create the plan. Over 100 interested residents and stakeholders participated in the planning process, including property owners, neighbors, business people, elected and appointed officials, city staff, and community leaders.

What does Cocoa Beach want to be when it grows up?

This was the question posed to the citizens of Cocoa Beach during the week-long charrette. Despite the magnitude of such a query, the community rose to the challenge and played an integral role in mapping out the future of their community.

The Plan Cocoa Beach Charrette was held January 20 - 24, 2014. Although the study area extends from the northern city boundary south to meet with the Downtown CRA District boundary, the charrette had a focus on the commercial core around the SR 520 and A1A intersection.

WHAT IS A CHARRETTE?

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

Like many portions of Cocoa Beach, the Pier has developed in a piecemeal fashion over the years to have a distinct identity.

PRE-CHARRETTE

At the beginning of the planning process, Dover, Kohl & Partners gathered base information and studied the existing physical and economic conditions of the area. This included reviewing previous plans and studies, analyzing the physical and economic characteristics of the area, and becoming familiar with the city's regulatory documents including the City Charter, Comprehensive Plan and Land Development Code.

As part of analyzing the study area, an Inventory Report was created. The inventory report includes a series of maps, or X-rays, of the existing conditions in order to help the design team and the public to better understand where the city is now, what opportunities exist, and potential obstacles to development are present. Maps included land use, zoning, building heights and age, flood zones, property lines, and topography, among others.

In an effort to help get the word out about the upcoming public planning process, flyers were distributed throughout the community in public buildings and businesses, advertising the details of the charrette. Gary Dickens and Melinda Claybrook of Community Design Associates helped get the word out by attending the December Friday Fest, meeting with people, answering questions, and handing out flyers. In addition, the site visit and charrette were highlighted in Florida Today and the City of Cocoa Beach's website provided continuous updates regarding the plan's proceedings.

Save The Date flyers were distributed to ensure members of the community were aware of the upcoming charrette.

The Inventory Report was created prior to the site visit in order to gather an understanding of existing conditions

SITE VISIT

Key members of the Dover-Kohl team met with city staff and stakeholders in a series of meetings December 9 – 10, 2013. The first day began with the Dover-Kohl team and city staff, including Zachary Montgomery, the Director of Development Services and Melissa Byron, Cocoa Beach's first Director of Marketing and Economic Development, worked together to fine tune the details of the upcoming charrette, draft initial goals and objectives for the project and to tour the area learning the ins and outs of Cocoa Beach and what impediments have been but in place that are hindering development.

Following this initial data gathering, the team met with a series of stakeholders. During these meetings team members were able to ask property owners, business owners, the Chamber of Commerce, residents, community groups and city officials what they loved about Cocoa Beach and how they would like to see if change in the future. Attendees at these meetings also learned more about the upcoming charrette in January and were dubbed ambassadors to the community to help spread the word for people to get involved and attend.

The site tour included a thorough examination of the study area

Members of the consultant team arranged a site visit with city staff and stakeholders

The team walked the area along with touring by vehicle to gain a thorough understanding of walkability and pedestrian access

The team made note of those locations which exemplified good urbanism and retained the feel of the community

CHARRETTE

SITE TOUR

On the first day of the charrette, January 20, 2014, the design team toured Cocoa Beach together in order to gain a better understanding of the study area. The tour was led by Project Director, Pamela Stacy, who enhanced the team's understanding of current issues, concerns, and redevelopment prospects.

The tour began in Downtown Cocoa Beach and moved north to a number of locations of interest, including Shepard Park, the northern entrance to Cocoa Beach, the Cocoa Beach Pier, the vacant hospital property, and under-utilized sites such as the Hilton parking lot and various shopping centers. Team members walked, photographed, and noted building form, building placement, street design, and street connections on base maps of the existing conditions.

The parking lot of the Hilton is rarely full, leaving unused prime space.

Shepard Park is the main but often missed public entrance to the beach.

The pier is used more by locals than as a tourist destination.

The team discusses the potential of the 8 acre hospital space that is currently unoccupied, leaving an empty place at the entrance to the city.

KICK-OFF PRESENTATION & HANDS-ON SESSIONS

The official design process began later that day with an evening Kick-off Presentation and Hands-on Design Session. The design team and over 80 members of the community, including numerous city officials, gathered at the Cocoa Beach Country Club to gain an understanding of the planning process and the vital role they were to play in creating a vision for the future or Cocoa Beach.

Project Director Pamela Stacy outlined the challenge for citizens during the charrette week. She presented the analysis of existing conditions laid out in the inventory report as well as scale comparisons of Cocoa Beach to peer communities to help illustrate the possibilities if they work together. Participants were then led through a series of questions using keypads for polling, resulting in a summary of who was in the room and some of their priorities.

Victor Dover, principal of Dover, Kohl & Partners, presented a "food-for-thought" presentation to educate participants on the history and practices of traditional town planning, redevelopment, and preserving community character. Following this presentation, a digital community image survey asked participants if they loved, hated or had no opinion about a series of images showing streets, buildings, gateways, commercial areas, and beachfronts. The responses from participants helped the design team discern what character the community was looking to preserve and enhance in Cocoa Beach.

Following the presentation portion of the evening attendees divided into small groups of approximately eight people around tables to discuss and draw their ideas for the future of Cocoa Beach. Each table was equipped with a base map, markers, drawing aids and a table facilitator from the Dover-Kohl team. Citizens drew on the base maps to illustrate how they might like to see Cocoa Beach evolve over time and described the uses, open spaces, building design, landscaping, street design, transportation, parking, and services they hoped to one day see. Participants also outlined their major priorities such as environmental preservation, walkability, and economic development.

At the end of the session, a spokesperson from each table presented their table's map and ideas to the entire assembly. Of the many ideas that emerged from the exercises, some of the most widely shared ideas included:

- Preserve Existing Character
- Use Native Landscaping
- Make Cocoa Beach More Pedestrian & Bike Friendly
- Boardwalk/Beachwalk to Connect the Downtown to the Pier*
- Beautify Cocoa Beach (Make Attractive, Remove Blight, Underground Utilities)
- Create Entrance Feature Along SR 520
- Preserve Sunset Views of the Water along the Banana River

In addition to the table maps and group presentations, participants were also asked to fill out an exit survey as an additional way to express their ideas, hopes and vision for Cocoa Beach.

**Note: While the Boardwalk/Beachwalk was a Common idea, others did not like this suggestion.*

Residents gain an overview on the planning process and Victor Dover presents a "food for thought" on the role planning plays in vibrant communities.

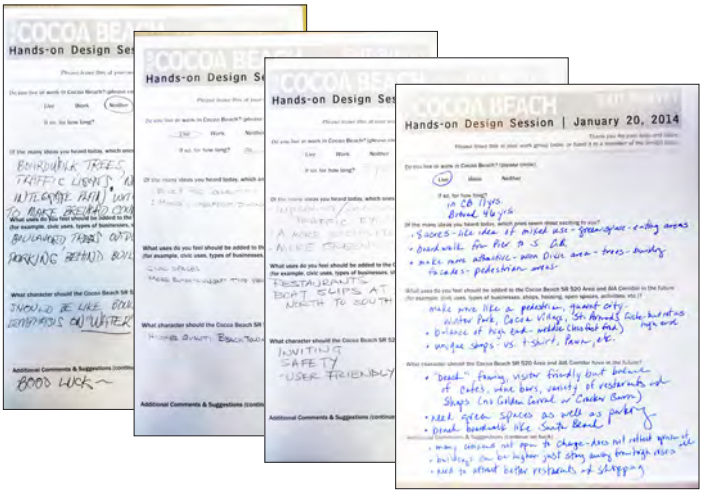
Participants worked alongside their neighbors to suggest changes

Hands-on sessions are not just figurative: participants have the ability to influence the outcome of their community directly.

Participants at the Hands-On Session provide their input in a collaborative, visual manner, using maps of the whole study area.

Members of the public attended the Kick-Off Presentation to participate in planning the future of Cocoa Beach.

A participant from each table presented their tables Big Ideas to the rest of those gathered.



Participants were also able to fill out exit surveys to ensure that all of their ideas and concerns were recorded for the design team.

OPEN DESIGN STUDIO

From Tuesday, January 21 to Thursday January 23, the design team continued to work with the community in an open design studio at the Cocoa Beach Country Club. Residents, property owners, business owners, and local leaders were encouraged to stop by the studio to check the status of the plan, provide further input, and to make sure the design team was on the right track.

The convenient location of the studio, as well as the immense community interest, led over 45 residents to come in and participate throughout the week. The table drawings and plans from Monday night's Hands-on Design Session were placed around the room for continual review. While community members visited the studio, the design team continued to analyze the information gathered from the community to formulate the concepts for the plan.

Starting Tuesday morning, the team began synthesizing the many ideas heard from the community at the Hands-on Design Session into a single cohesive Synthesis Plan. The Synthesis Plan included physical design elements, such as adding sidewalks, bike paths, planting trees and moving buildings up to the street, as well as larger concepts such as connecting the ocean to the river, making Shepard Park a destination and adding parking garages to alleviate the need for surface parking. The planners and designers created lists, diagrams, drawings, and plans, working to combine and refine the ideas provided by the community.

Working in Cocoa Beach allowed the design team ready access to the study area and the community throughout the week. The planners observed day-to-day traffic patterns, public uses, and other details of everyday life within the study area and around Cocoa Beach.

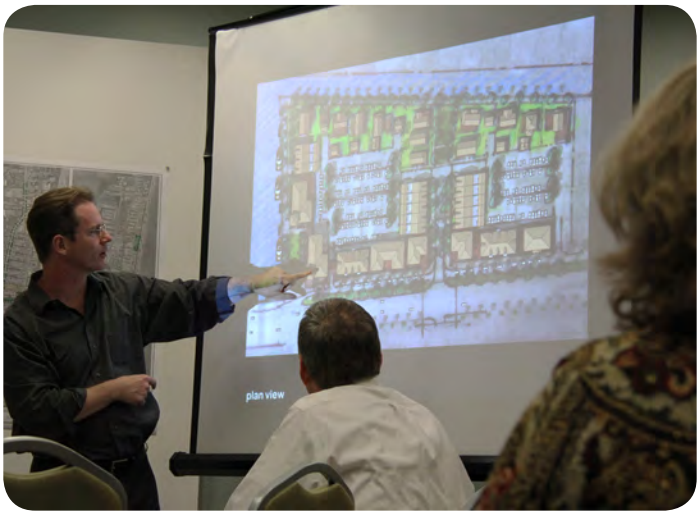
Bill Spikowski, principal of Spikowski Planning Associates, worked throughout the week to unravel existing land development regulations that have been tied to the City Charter and Comprehensive Plan to find a path forward in potentially easing roadblocks to the kind of development desired by the citizens of Cocoa Beach.

Bill and Lynette Wuensch, principals of the transportation firm EPR, worked throughout the week on a potential 5K bike loop and the details of the HDR A1A study to ensure the proposed plan is coordinated with the details of the A1A corridor study.

The Synthesis Plan consolidated themes onto a single map of the City of Cocoa Beach and the specified study area.

Gary Dickens and Melinda Claybrook of Community Design Associates brought their ideas and landscape planning expertise to provide options for a new design for Shepard Park, making it more of a park and less of a parking lot, as well as researching local plants that can be used that will grow well and help to manage drainage throughout the city.

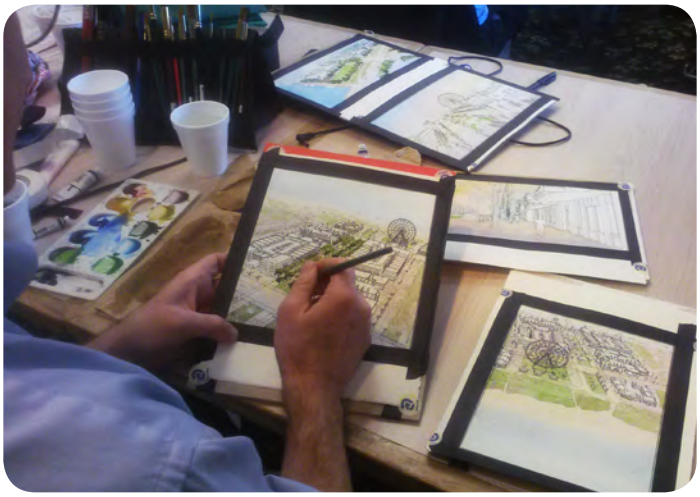
An informal evening "pin-up" of the emerging plan was led by Victor Tuesday evening. Plans, renderings, and initial concepts developed during the day were pinned-up on the walls and discussed. Technical aspects such as transportation, land ownership, land development restrictions and first steps were discussed. Members of the public listened in and added their comments and observations of the plan as it was being developing at this early stage.



The consultant team held pin-ups of work completed during the day, with the public attending.

Over 40 members of the public visited the open studio, working with the team

Pin-ups allow the team and public to quickly assess the day's progress.



The design team created renderings during the charrette so the community could visualize concepts more easily.

The public was able to watch designers create plans based on their input.

WORK-IN-PROGRESS PRESENTATION

The charrette week ended with an evening "Work-in-Progress" presentation on Friday, January 24 in the Council Chambers at City Hall. 50 citizens gathered to hear the presentation.

After an introduction by Mayor Dave Netterstrom, Victor began the presentation with a summary of the week's events. Three specific sites were identified as essential locations of development, with plans laid out for each. Renderings illustrated how the area could redevelop over time, painting a vivid picture on how best to achieve Cocoa Beach's full potential in the coming years.

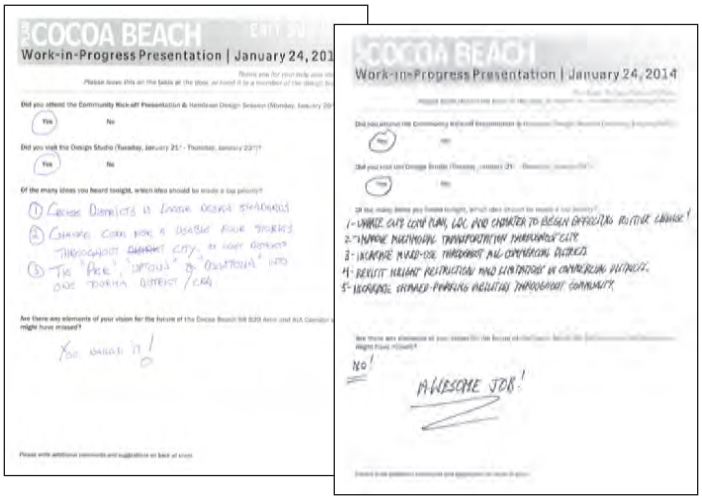
Following the presentation of the plan, transportation engineer Bill Wuensch reaffirmed the need to diversify mobility. Bill Spikowski closed out the presentation by discussing implementation steps and, suggesting specific code and charter amendments that would remove restrictive development standards that interfere with the character of Cocoa Beach desired by its citizens.

The draft Gateways Master Plan challenged many of the ideas that long-time residents have grown accustomed to. When asked if the Plan was on the right track to improve the quality and livability of Cocoa Beach, the response from the majority of the audience was "Yes." City Commissioner Skip Williams spoke out in favor of the draft plan.

Participants were then asked to fill out an exit survey, in which many expressed excitement for a number of the ideas discussed during the presentation.

The full Work-in-Progress presentation can be viewed on the city's website.

Victor Dover presents the summation of the weeks work.



Exit surveys and public comments suggested the communities satisfaction with the work produced.

"I see this effort as a great effort for potential future areas of Cocoa Beach."
– Commissioner Skip Williams

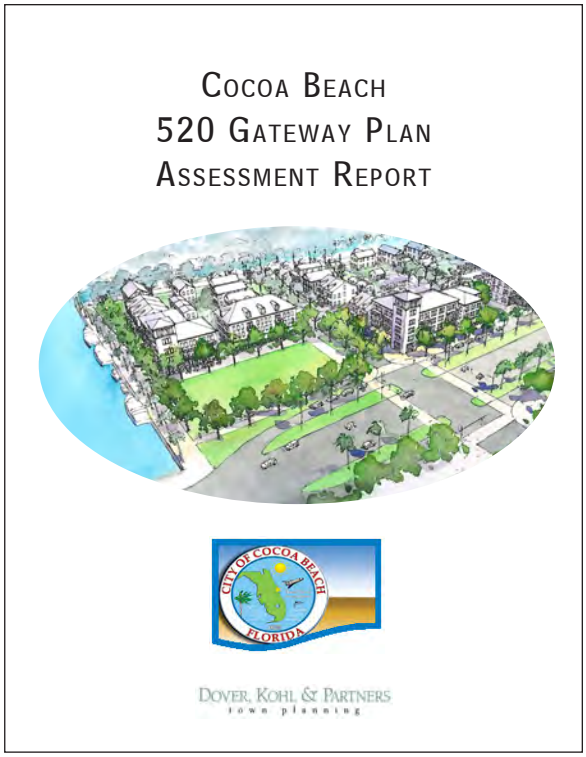
Many individuals who had come to the Kick-Off or open design studio also attended the Work-In-Progress presentation

POST-CHARRETTE

ASSESSMENT REPORT

Following the Work-in-Progress presentation, the team compiled an Assessment Report that summed up the ideas presented. The Assessment Report allowed for the city and the community to analyze the formative stages of this Gateways Master Plan, and began to lay the groundwork for the future envisioned within this Plan.

After gathering initial feedback from the Work-in-Progress Presentation and Assessment Report, the Dover-Kohl team refined the concepts presented during the charrette and created this Gateways Master Plan for Cocoa Beach.



The assessment report expanded on some of the ideas and plans presented during the Work-in-Progress presentation. Excerpts from the Report can be seen here, and the whole report may be found online, at the City of Cocoa Beach website.

THE BIG PICTURE 3

A SHARED VISION

The Big Ideas came from the public during the charrette and provide the plan's main objectives. Specific recommendations follow from the objectives which are intended to help make the resident's vision for the future a reality. The recommendations are primarily concerned with streetscape improvements, guidance for redevelopment along A1A and SR 520, and land development regulation revisions to enable and entice the private sector to work with the city to implement this plan.

Many specific recommendations follow from the Illustrative Master Plan in the next section of the plan. Although the physical design details of the Illustrative Master Plan may evolve over time, the Big Ideas are intended to remain constant throughout implementation. The Big Ideas are to be used by city leaders, city staff, the business community, and residents to ensure that continued redevelopment and upgrades to the City of Cocoa Beach remain true to the community's vision.

This section provides the Big Ideas; specific recommendations follow in the next sections of the report.

New development in Cocoa Beach should follow the "Big Ideas" described in this section, including preserving the unique character that makes Cocoa Beach, growing the three centers of development and establishing a gateway into Cocoa Beach.

THE BIG IDEAS

KEEP IT COCOA BEACH - BUT STRATEGICALLY UPGRADE

HISTORY – ROCKETS, BOARDS & WAVES

ENVIRONMENT – NATIVE LANDSCAPING; REDUCE SURFACE PARKING

ARCHITECTURE – IMPROVE STANDARDS

CAREFULLY GROW 3 CONNECTED CENTERS OF DEVELOPMENT

THE PIER; GATEWAY TOURISM DISTRICT; DOWNTOWN

STRENGTHEN CONNECTIONS

BECOME PEDESTRIAN & BICYCLE FRIENDLY

EAST-WEST CONNECTIONS; PEDESTRIAN & BICYCLE LOOPS; CALMER TRAFFIC

SHAPE SPACE: CONNECT BANANA RIVER TO THE OCEAN

UPGRADE SHEPARD BEACH (PARK) & INCREASE AWARENESS OF THE WATERFRONT

UPGRADE THE 'PEOPLE SPACES'

MEET, GREET, SEE, BE SEEN

SHADED, MEMORABLE PLACES TO GO

CREATE A SIGNATURE GATEWAY EXPERIENCE

SENSE OF ARRIVAL

BRANDING

KEEP IT COCOA BEACH – BUT STRATEGICALLY UPGRADE

The residents of Cocoa Beach chose to live in Cocoa Beach because of its quirky character and connections to the beach and natural environment. Some work in space coast industries, others are seasonal residents who live elsewhere for much of the year, many are retirees and some raise families while working in the area's service sector. Residents want to keep what they have while enhancing and, in places, upgrading, elements of their community. Cocoa Beach can evolve while maintaining its sense of place and unique character.

Boards

Waves

HISTORY - ROCKETS, BOARDS & WAVES

Preserving Cocoa Beach as the surfing capital of the east coast is important to residents. The Cocoa Beach Pier and Ron Jon's Surf shop helped to put Cocoa Beach on the map. Redeveloping and enhancing the commercial areas adjacent to popular surf areas while protecting more local surf spots were recommendations from the public intended attract more tourism. It was suggested that local artists could be engaged to create surf-themed public art that could be distributed throughout the community's public spaces or used as wayfinding elements.

Cocoa Beach maintains a strong link to the Space Age and space exploration. Much of Cocoa Beach developed during the boom of the Apollo and Space Shuttle programs during the late 1950s and into the late 1970s. After that period hotels and condominiums followed but many local retail and commercial buildings were frozen in time. New businesses have been slow to relocate to the area. Whether it is in retro style architecture or rocket-themed public art, Cocoa Beach should celebrate its history and work to connect it to its future as it upgrades and welcomes new vitality.

Although the Space Shuttle program is now over, more and more rockets launch from the Space Center. Cocoa Beach could utilize this draw by designating and enhancing popular areas to view launches and encourage this type of tourism as well as preserves the interests of residents.

Rockets

ENVIRONMENT - NATIVE LANDSCAPING; REDUCE SURFACE PARKING

Great parks, public spaces, and an experience of nature help improve the livability of cities. Cocoa Beach is home to over six miles of beach along its eastern shore, including three oceanfront parks, and is bounded on the west by the Banana River. The city is surrounded by varieties of marine wildlife that are both common and endangered. The parks and remaining tropical hardwood hammock act as sanctuaries for migrating birds. Sea turtles use the beaches to lay their eggs. Manatees and dolphins use the Banana River and the Thousand Islands as places of shelter and warmth. These resources need to be protected.

Eco-tourism can be a valuable way to attract tourism to the city. As Cocoa Beach seeks to attract new development, sustainable design and native landscaping can help the city grow more sustainably. As vacant lots and under-utilized surface parking lots become repurposed, stormwater management with native plants and swales can be used to clean runoff before it enters the river or ocean. The recent reconstruction of Ocean Beach Boulevard is an excellent example of using native landscaping to enhance the character of Cocoa Beach while providing sustainable stormwater management.

ARCHITECTURE - IMPROVE STANDARDS

New development should complement and highlight the community's built history. Many of the more recent buildings built in Cocoa Beach lack character and are larger block boxes that fill the potential building envelope with little to no differentiation of the floors within. This kitsch architecture does not speak to the community or the history of Cocoa Beach and is out of scale for the community.

One of the main functions of good architecture and landscape design is to help physically define public space such as streets and park edges as places of quality public space. These quality public spaces have a greater positive effect than any one architectural project, and streets provide the best opportunity to create public spaces.

Special spaces for civic buildings or public gathering spaces should be reserved at prominent locations such as at the termination of a long view or at a main intersection, like at SR 520 and A1A. This reinforces community.

Building can have height if they behave properly toward the community and the individual. Improving architectural standards or building form will ensure a successful and coherent community. New requirements could prohibit blank walls facing public streets, and encourage the use of storefronts and doors and windows facing streets.

Native plants are a sustainable approach to landscaping.

Coastal styles are prevalent in the city's architecture.

CAREFULLY GROW 3 CONNECTED CENTERS OF DEVELOPMENT

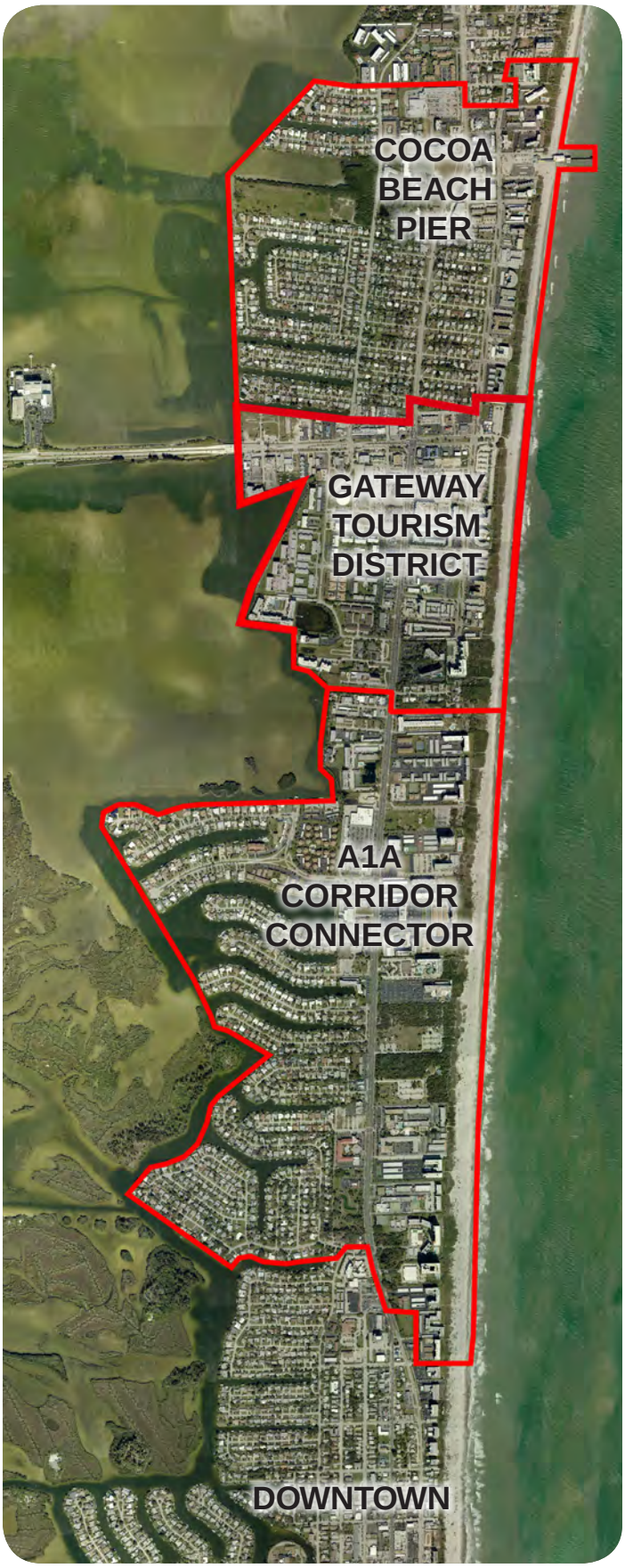
THE PIER; GATEWAY TOURISM DISTRICT; DOWNTOWN

Cocoa Beach is a series of places connected by the A1A corridor. Four distinct areas exist in Cocoa Beach: the previously established Downtown area, the Gateway Tourism District area, spanning just north of 520, the neighborhood surrounding the Cocoa Beach Pier, and the A1A Corridor Connector that connects the Downtown with the 520 area.

Each of these centers of activities has a different function. The Downtown is the heart of the city and part of the CRA district. The Gateway Tourism District is more of the central tourist area, although it lacks walkability, activities, and directional clues concerning how to get to the beach. The Cocoa Beach Pier is a center of activity in itself and marks the northern area of Cocoa Beach, although it is easy to miss if you are driving along A1A.

As each of these areas are redeveloped they can enhance their individual functions and separate identities while not detracting or taking away from the other areas. In addition, A1A which connects the three centers of activity and development can be enhanced to keep Cocoa Beach feel ing like a single cohesive community.

Enhancements to the downtown are being driven by the Downtown Plan adopted in 2010 and implemented in part through funds from the Downtown CRA district. This Gateways Plan provides recommendations for enhancing the Tourism District, the Cocoa Beach Pier area and for the A1A corridor which connects them all.



STRENGTHEN CONNECTIONS

BECOME PEDESTRIAN & BICYCLE FRIENDLY

Increasing walkability adds convenience for residents and visitors. Cocoa Beach and the Tourism Gateway District has neighborhoods and residential buildings close to commercial areas, but because the streets developed as a series of auto-oriented strip centers, pedestrian infrastructure like sidewalks and street trees are lacking. The existing design of the streets in Cocoa Beach typically do not feature a comfortable pedestrian environment.

The thoroughfares lacks key elements for walkability, such as continuous sidewalks, appropriate street trees, and pedestrian-oriented destinations, thus limiting the vibrancy of the area. Adding sidewalks and street trees will begin to create the walkable district residents and visitors desire. In addition to the streetscape improvements, future development should reflect the multi-modal district residents would like to see by building buildings closer to the street, closer to other buildings, and by reserving parking in mid-block locations.

As development in the three main centers and along the corridor occurs, streets should also seek to become more bicycle friendly with the inclusion of bicycle facilities such as bike paths, sharrows, lanes, and bike racks as well as planting more street trees to provide shade and destinations for people to go.

Connections within and between the three main centers of development should be made more accessible to pedestrians and bicyclists with wider sidewalks, street trees providing shade, mixed-use buildings close to the street with doors and windows on the sidewalk, narrower travel lanes and on-street parking that encourage slower vehicular speeds. All contribute to the safety of motorists and non-motorists alike.

EAST-WEST CONNECTIONS; PEDESTRIAN & BICYCLE LOOPS; CALMER TRAFFIC

Additional east-west connections expand accessibility to the beach and river and highlight the city's natural amenities. Some of these connections are blocked due to large retail parcels, such as Winn-Dixie and large hotels without public access. Others exist but are lacking basic amenities such as sidewalks and street trees to encourage traveling between businesses. Enhancing and creating these connections further supports the revival of commercial areas.

Pedestrian and bicycle loops add another layer of connectivity to Cocoa Beach. Currently the east-west connections of these loops can be uncomfortable, hostile places for cyclists and pedestrians. Residents were interested in a variety of links for pedestrians and cyclists between the ocean and Banana River, especially taking advantage of watching the sunrise over the ocean and later enjoying the sunset over the river. Improving the current loops and the east-west routes create a safer walking and bicycling environment in Cocoa Beach.

Street improvements offer a range of transportation options.

Safe pedestrian crossings allow a greater access to centers of development.

10 STEPS FOR WALKABLE STREETS

1. Design For Pedestrians First.

Great streets are designed to provide a high-caliber experience for pedestrians foremost; once this is accomplished, great streets generally accommodate a wide range of other modes of travel.

2. Proportions Matter.

A street should function as an outdoor room, surrounding its occupants in a space that is welcoming and usable. A 1:3 ratio for building height to street width is often cited as a minimum section for a sense of enclosure. Creating this sense of enclosure involves more than just narrow street width, however. There are well-defined eight-lane roads just as there are two-lane roads that seem to be impassable. Streets must be sized properly for their use and should be defined with appropriate building sizes. Street trees and features such as lighting also play a critical role in defining the space of the street.

3. Design the Street as a Unified Whole.

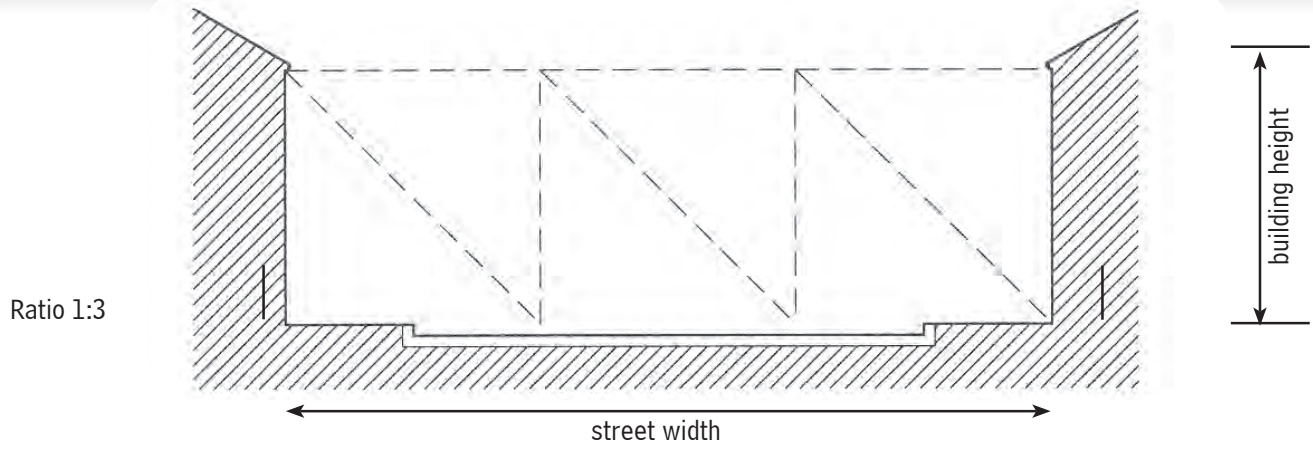
An essential distinction of great streets is that the entire space is designed as an ensemble, from the travel lanes, trees and sidewalks, to the very buildings that line the roadway. Building form and character is particularly important in shaping a sense of place. The best streets invariably have buildings fronting them, with a particular height and massing that creates an appropriate sense of enclosure. The random setbacks generated by conventional zoning rarely produce this effect; form-based regulations must be put in place to control building form and placement. Furthermore, urban buildings must front the street with features such as doors, windows, balconies, and porches. These features promote a lively streetscape, and ultimately provide passive security for pedestrians by focusing "eyes on the street."

4. Include Sidewalks.

Appropriately designed sidewalks are essential for active pedestrian life. Pedestrians will be more willing to utilize sidewalks if they are protected from automobile traffic. One of the simplest ways to buffer the pedestrian is to place street trees between the street and the sidewalk. Other street furniture such as streetlights, bus shelters, and benches occupy wider sidewalks and provide additional separation between pedestrians and automobile traffic. The width of the sidewalk will vary according to the location. On most single-family residential streets, five or six feet is an appropriate width, but streets with townhouses and multi-family buildings require a more generous sidewalk. On Main Streets, fourteen feet is an ideal minimum sidewalk width, which must never fall below an absolute minimum of eight feet.

5. Provide Shade.

Motorists, pedestrians, and cyclists typically prefer shady streets. Shade provides protection from heat and sun and contributes to the spatial definition of a street. Shade can



Proportions of Street Space

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

Excerpted from AIA Graphic Standards

be provided with canopy trees or architectural encroachments over the sidewalk. Canopy trees should be planted in a planting zone between the sidewalk and the street in order to provide continuous definition and shade for both the street and the sidewalk. Architectural encroachments over the sidewalk such as awnings, arcades, and cantilevered balconies are another way to protect pedestrians from the elements and shield storefronts from glare.

6. Make Medians Sufficiently Wide.

Where divided thoroughfares are unavoidable, medians must be generous enough to serve as a pedestrian amenity. A minimum median width of 8' will accommodate a row of street trees and will provide adequate refuge for pedestrians crossing a wide roadway.

7. Plant the Street Trees in an Orderly Manner.

Great streets are typically planted with rows of regularly-spaced trees, using consistent species. This formal tree alignment has a powerful effect; it at once shapes the space and reflects conscious design. More importantly, the shade produced by the trees will be continuous enough to make walking viable. Furthermore, the spatial impression of aligned trees also has a traffic calming effect.

8. Use Smart Lighting.

Streets should be appropriately lit for automobile and pedestrian safety. Pedestrians naturally avoid streets where they feel unsafe. Widely-spaced, highway-scaled "cobra head" light fixtures do not provide appropriate light intensity and consistency for pedestrian well-being. More frequently-spaced, shorter fixtures are more appropriate, and provide light beneath the tree canopy as street trees mature.

9. Allow On-street Parking in Suitable Locations.

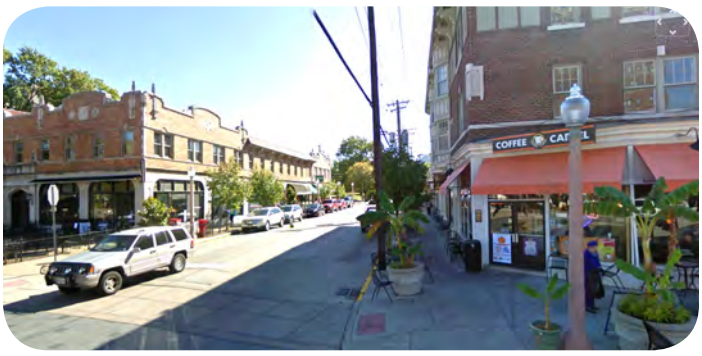
On-street parking buffers pedestrians from moving cars and calms traffic by forcing drivers to stay alert. Parallel parking is the ideal arrangement, because it keeps streets as narrow as possible. Diagonal parking is acceptable on some shopping streets, as long as the extra curb-to-curb width is not achieved at the expense of sidewalk width. Parking located in front of a street-front business encourages people to get out of their cars and walk, and is essential to leasing street-oriented retail space.

10. Avoid Parking Lots in Front of Buildings.

The bulk of a building's parking supply should occur behind the building. The conventional practice of placing surface parking lots in front of buildings results in a disconnected pedestrian environment. If current zoning regulations are reformed to provide "build-to" lines rather than mandatory front setbacks for commercial buildings, parking can be accommodated in the interior of the block. As a result, the pedestrian realm of the sidewalk will be defined by shop fronts and building entrances rather than parking lots.

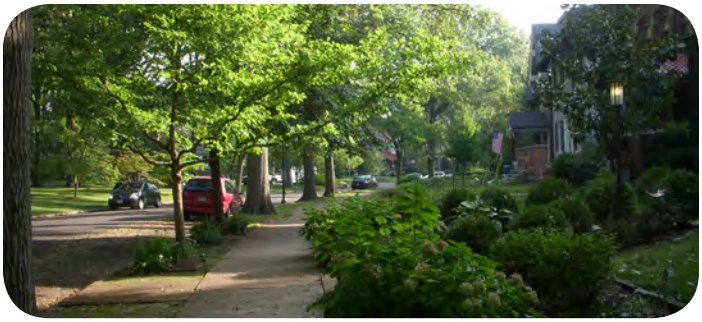
It is not surprising that, given their multiple roles in urban life, streets require and use vast amounts of land. In the United States, from 25 to 35 percent of a city's developed land is likely to be in public right-of-way, mostly streets. If we can develop and design streets so that they are wonderful,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

- Allan Jacobs, Great Streets



Maryland Avenue, Central West End

Euclid Avenue, Central West End



Waterman Avenue, near the Delmar Loop

SHAPE SPACE: CONNECT BANANA RIVER TO THE OCEAN

The Banana River and the Atlantic Ocean are Cocoa Beach's most important natural amenities. Even at one of its widest locations, where SR 520 crosses the island, it is less than 3/4 of a mile from the ocean to the river. By shaping the space around SR 520 to create a walkable environment and memorable destinations at each end, people could easily traverse this distance throughout the day and into the evening.

Many residents wanted to increase the city's tax base and add jobs while maintaining small-town, island-community quality-of-life. The SR 520 corridor was recommended as a magnet for tourists and visitors in a place where they would be most welcome, thus satisfying demand in a central location.

Another connection that can be enhanced is from the pier along Meade Avenue to Banana River Boulevard where the city controls a large parcel on the Banana River.

UPGRADE SHEPARD BEACH (PARK) & INCREASE AWARENESS OF THE WATERFRONT

The study team heard numerous times throughout the charrette that Shepard Park "isn't a park, it's a parking lot." Residents felt that it should be returned to a park. Visitors and tourists have a difficult time knowing all that there is to do in Cocoa Beach, especially where to find the beach. One of Cocoa Beach's greatest assets is the public access to the Ocean from almost every east-west street. But awareness of these connections by visitors could be enhanced by adding pavilions or public art at the end of each of these streets, welcoming visitors to the Ocean.

SR 520 east of A1A can become a destination with tree lines, streets, wide sidewalks, an active median space, outdoor dining and street-oriented buildings.

UPGRADE THE 'PEOPLE SPACES'

Although Cocoa Beach offers many great places to drive to, it currently has only a few great places to be when on foot. Tourists are looking for central spaces, activity hubs, which let them know that they have arrived. Residents are interested in places where people, visitors and locals alike, can sit outside to have a meal or simply "people watch."

MEET, GREET, SEE, BE SEEN

Central squares and public gathering spaces are present in all great cities. These are places where people can congregate, enjoy special events or simply meet someone for an afternoon lunch. While Cocoa Beach has wide rights-of-way and numerous public parks along the ocean, it lacks formal public spaces. Upgrading under-utilized wide medians, parking lots and other "People Spaces" into desirable places to socialize will help these places become iconic and form a new heart for the Gateway Tourism District or at the Cocoa Beach Pier.

SHADED, MEMORABLE PLACES TO GO

Streets in Cocoa Beach prioritize moving vehicles, but should not at the expense of walking and biking. Planting new street trees is an important first step to create comfortable places for non-motorists by providing shade and creating visual enclosure along the street and sidewalks. Carefully considered and coordinated tree and understory plantings also can complement and soften the edges of the built environment. The selection of appropriate species is critical for safety, maintenance and long term vitality – as well as the clear recognition that single palm trees are not shade trees. Attractive streets improve neighborhood character and create memorable spaces for residents and visitors. Shaded comfortable streets provide links between places to go. Creating memorable destinations throughout Cocoa Beach is essential.

A large vacant parcel on the Banana River off of SR 520 provides an opportunity to create a destination on the Banana River as well as establish a sense of arrival when entering Cocoa Beach.

CREATE A SIGNATURE GATEWAY EXPERIENCE

When entering Cocoa Beach along SR 520 or south along A1A, one is greeted by overhead power lines, one story businesses, vacant parcels, and unsightly infrastructure like the large cell phone tower. It is a landscape of forgettable visual clutter without a sense of arrival. Tourists and even residents need an experience that gives them visual clues that they have arrived in Cocoa Beach.

SENSE OF ARRIVAL

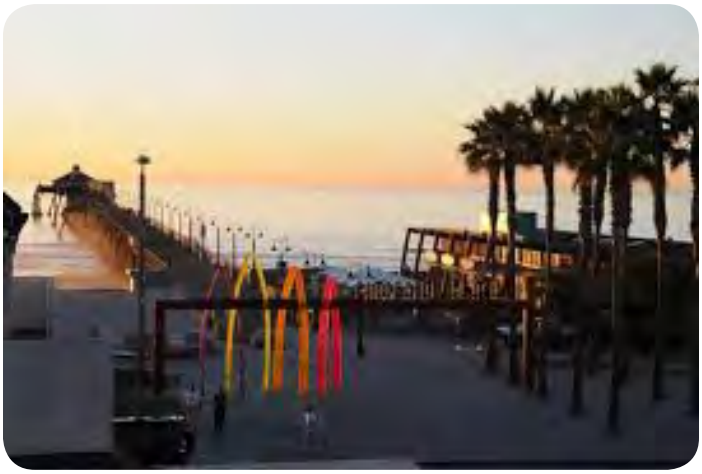
Signage, signature public spaces, changes in the streetscape, and street-oriented buildings can all be used to signify the arrival into Cocoa Beach from both the north and the west. Get new visitors and keep return visitors returning by making it clear to when one has arrived. Make Cocoa Beach memorable by distinguishing it from other surrounding communities.

BRANDING

Cocoa Beach is a community with a mix of character and history. With little recent development, a specific brand for the city has yet to be established. The gateways and destinations should make a vivid impression on visitors, so that when they go back home they remember Cocoa Beach and want to return.

Elements currently associated with Cocoa Beach include rockets, waves and boards, as noted previously. Connecting this past to the future of Cocoa Beach's identity can establish Cocoa beach as a distinctive, memorable place, even from its neighbors along the Space Coast.

Cities on the California coast associated with these same elements have been creative with signage, benches, pavement markings, and other public amenities to create distinct brand throughout their communities. Cocoa Beach can tap creative energy and could even utilize local artists to help create a distinct brand for Cocoa Beach.



Public amenities such as signage, wayfinding, benches, pavement markings, trash receptacles and public spaces could be themed uniquely for Cocoa Beach, setting the community apart from its neighbors to the north and south.

PLAN DETAILS 4

INTRODUCTION

The *Cocoa Beach Gateways Master Plan* provides a comprehensive strategy for creating well-loved centers and destinations that connect to one other and to the surrounding residential neighborhoods. Fundamental to the plan is the transformation of the Gateway Tourism District into a vibrant, mixed-use center with comfortable sidewalks, street trees, on-street parking, and mixed-use, street-oriented buildings. The plan is comprised of three distinct study areas, each of which has under-utilized areas that have the potential to become great centers of activity. These areas include the Gateway Tourism District centered around the SR 520 and A1A intersection and including the gateway from the west into the city, The Cocoa Beach Pier area that includes the northern city boundary and the Pier, and the A1A Corridor Connector that connects the Cocoa Beach Pier and Gateway Tourism District to the Downtown.

This chapter explains the potential evolution of these activity areas. For each area, key public improvements and desired private investments are detailed. Many of these improvements are small, incremental steps that will transform Cocoa Beach's commercial areas over time. Each step will be a success in its own right, and they can build upon one another to achieve a more vibrant Cocoa Beach.

An illustrative plan for the study area was created during the charrette. The plan synthesizes residents' ideas and depicts the idealized build-out for these centers and destinations of the community. This map is for illustrative purposes and is not a regulating document. The *Cocoa Beach Gateways Master Plan Illustrative Plan* identifies key opportunity parcels for infill development, redevelopment, and conservation.

COCOA BEACH GATEWAYS

As the city moves forward with redevelopment and placemaking initiatives for the SR 520 study area, a positive arrival sequence for out-of-town visitors is an important part of the effort. This sequence can serve to define the identity and branding of the city and, perhaps more importantly, underscore one's initial arrival to a unique destination of activity, enjoyment and civic pride.

The two primary approaches into Cocoa Beach are the SR 520 corridor across the Banana River and the A1A corridor moving south from SR 528 and Port Canaveral. At this time, neither gateway is characterized by any significant or memorable sense of arrival into Cocoa Beach.

While the SR 520 corridor entry is to some extent defined by crossing the causeway, the waterfront views are intermittent and often hindered by invasive shoreline vegetation. Further, the arrival onto the barrier island is dominated by the large cell phone tower on the south side of the causeway. On north SR A1A, the city's existing identification sign is a relatively small, horizontal fixture that is to some extent "hidden" on a reverse curve of the highway. There are opportunities to improve both of these welcoming elements and sequences into the city.

SR 520 ARRIVAL SEQUENCE

The arrival sequence into Cocoa Beach along SR 520 begins before one reaches the main barrier island. While crossing the causeway heading east, one first encounters a small park, known as 520 Slick Park, and then Cape Canaveral Hospital. The Park contains a small boat launch and area for parking and is currently used as a launch location for kite boarding, windsurfing, kayaking, and paddle boarding. The city maintains the park but the parking area often floods due to poor drainage, the water is hard to see due to invasive species, and the only facilities at the park are a private port-o-let.

Active residents requested that the park be cleaned up. Suggestions included adding a sign to announce one's arrival into Cocoa Beach, leveling and providing drainage for the parking lot and removing exotic species to provide views of the water. The largest request was the inclusion of a small but attractive outbuilding with restrooms and fresh running water. Even though 520 Slick is more than a mile from the main barrier island, the nearby hospital is served by sewer and running water so lines would not have to be extended an unreasonable distance to provide water and wastewater services.

520 Slick Park is the first impression of the city for many as they are crossing the causeway towards Cocoa Beach. This park is also how many tourists enter the Thousand Islands area to experience the wonderful natural elements that Cocoa Beach has to offer.

520 Slick Park is located just west of the hospital along the causeway into Cocoa Beach

THE AT&T CELL TOWER

As one continues traveling east, the existing cell tower on the south side of SR 520 begins to dominate the skyline and mark the arrival onto Cocoa Beach's barrier island. The large cell tower is a roof mounted installation that is approximately 80 feet high. While arguably there may be some iconic aspects to the skeletal, industrial look of such towers, many residents expressed a desire to consider ways to downplay the tower's relatively sparse appearance through strategically placed "liner" buildings, an architectural screening enclosure or through direct camouflage of the installation to resemble, for example, a tree or a cactus.

The consideration of various possible treatments to transform the tower into a clear symbol of arrival in Cocoa Beach is limited only by the city's imagination and pocket book. Ideas that arose during the charrette include disguises for the tower such as a palm tree, a rocket, a lighthouse, or perhaps the city's name in large block letters and framed by a planted trellis system. In any case, the consideration of any idea must be tempered with the potential installation and maintenance costs – which could easily range from one hundred thousand to well over a million dollars – as well as the potential engineering constraints posed by load bearing and wind hazard code requirements.

One idea that came forward during the planning process is to consider a large surfboard motif for the cladding of the cell tower. A longboard surfboard supports the historic reputation of Cocoa Beach as the East Coast mecca of surfing and its vertical configuration would lend itself well to screening the cell tower while forming a very visible and iconic landmark.

Procedurally, the city's effort to augment the cell phone tower will require close coordination with Florida Power and Light (FP&L) Corporation. As part of the study effort, early discussions with FP&L representatives indicate that the most important initial step for the city would be to forward a proposed design concept to FP&L for their internal review. This concept would become the basis for further analysis, direct discussion and negotiations with respect to engineering feasibility, costs and the potential for interagency cost sharing, and the development of a schedule for fabrication and installation (by a third party vendor). While the details of such a venture are obviously factors in the final cost and scheduling arrangement, an FP&L representative indicated that a one-year process would be a reasonable assumption in terms of the timeline for implementation.

The Cell Tower can become a signature gateway to Cocoa Beach.

THE NORTH SR A1A WELCOME SIGN

A strong welcoming "statement" to the City of Cocoa Beach will be an increasingly important feature of the city's effort to enhance its tourist identity. The city has already made substantial progress in this respect with the review and development of new sign design attributes and a wayfinding system for the downtown. Elements of the city's selected signage design aesthetic could be "exported" north to the SR 520/A1A area and, in particular, to the city's northern boundary along A1A. This would greatly help the overall effort to brand and differentiate the city as a fun and special visitor destination.

The city's existing welcome sign is located more than a quarter mile inside the municipal boundary and is a relatively small, horizontal format item that is easily "lost" in the vegetation and location along the curve of A1A. Ideally a more dramatic statement could be made with a sign located closer to the city boundary comprised of a structure that spans the road or perhaps a pair of vertical landmark structures that would flank the road. An even bolder statement and sense of arrival could be made with the addition of a new park at the Cornerstone Plaza. This idea for a new park is explored in more detail later in this chapter.

At a minimum, a single vertical sign face that is prominent to southbound A1A drivers would be appropriate to keep it from getting visually lost along the side of the road. Alternatively, a fundamental revamping of the existing sign at its current location – larger in scale, with a tall vertical format and brighter colors – would greatly improve the initial sense of welcome and firsthand visitor experience in the City of Cocoa Beach.

Existing Welcome Sign

Entry sign spanning the street in Carlsbad, California

GATEWAYS TO THE BEACH

In addition to the entrances to the city, creating more prominent gateways to the beach is important. Many people commented that once visitors arrive in Cocoa Beach, they continually ask, "Where's the beach?" This may seem like a silly question, but what people are really asking is "Where is the best place to get to the beach?" Locals know that Cocoa Beach has public access to the beach at the end of every east-west street. Adding pavilions or public art at the end of each of the east-west streets will create better visibility of the public access points. It also helps to bring the value of beach access to properties not located directly on the beach because there is a clear understanding that public access to the beach exists. Different local artists could be called upon to create art or structures for each street.


Seaside, Florida has iconic pavilion at the end of each street heading towards the beach.

GATEWAY TOURISM DISTRICT

The Gateway Tourism District is an opportune area with properties to upgrade that will change the perception of Cocoa Beach. Given the current tourist draws, it is already considered the tourist center of the city. SR 520 can become the spine of activity if it is transformed into a multiway boulevard and connect the beach to the river while creating a pleasant, walkable mixed-use environment.

Along with the redevelopment of SR 520 this area has three distinct areas, each with different opportunity sites that can set Cocoa Beach apart as a destination. The “Gateway” includes the large vacant property in the northwest area of the District., Broadway & Beach” is the grand entrance to the ocean, and the “Central Quarter” includes the under-utilized Canaveral Plaza.

520 GATEWAY

The 520 Gateway area is the what forms visitors first impression of Cocoa Beach when they arrive from the west. Although the current first impression may leave something to be desired, the area has potential. A vacant 8-acre site and a SR 520's wide right-of-way provide opportunities for new development and a multiway boulevard to redefine this part of Cocoa Beach. In addition, smaller parcels could redeveloped or fixed up to bring a new life to this area.

General Recommendations

- **A** Vacant parcel is developed into a new mixed-use neighborhood
- **B** Revitalize SR 520 as a multiway boulevard
- **C** New buildings are street-oriented to improved SR 520
- **D** Parking in the middle of the block
- **E** The marina is revitalized
- **F** Parking behind the AT&T building is utilized for parking needs throughout the district

8-ACRE PARCEL

The 8-acre parcel at the western edge of SR 520 as it enters Cocoa Beach is a key opportunity site within the city. The regularly-shaped, flat site boasts views of the Banana River at sunset and a narrow canal make the site attractive for new high-quality development. If well-designed, this can become a new first impression for visitors arriving in Cocoa Beach.

Development throughout the site should change scales. Ideally residential buildings will face the canal across from the existing single family homes. However, instead of the homes backing toward the canal, the fronts of the buildings should face the canal and connected with a public walkway. Vehicular access to the homes should be through alleyways. Buildings closer to SR 520 should be larger in scale and could accommodate a number of different uses including restaurants, retail stores, offices, or even a marine research laboratory.

In order for the city to get the maximum value from the site, it should be developed according to the New Urban Design Basics as described on the next page.

General Recommendations

- **A** Revitalize SR 520 as a pedestrian-friendly multiway boulevard
- **B** New waterfront square provides public access to the Banana River
- **C** Public access to water views with walkways, boat slips, and other public amenities
- **D** Buildings are street-oriented to improved SR 520
- **E** Parking is located in mid-block locations
- **F** Street trees and fewer curb cuts create desirable addresses and enhance the pedestrian environment
- **G** Single-family detached houses facing existing residential neighborhood across canal
- **H** A walkway along the canal frontage keeps the waterfront public and provides access to the front of the homes.
- **I** A public green at the end of the street provides a more intimate park for locals and access to the waterfront walkway
- **J** A prominent building at the corner of the site creates a sense of arrival and natural gateway

NEW URBAN DESIGN BASICS

1. Interconnected Network of Walkable Blocks & Streets

The most fundamental requirement for a walkable place is permeability. People must have a variety of connected routes leading to destinations. Connectivity makes it possible to get from origin to destination directly. When streets connect, it is possible to distribute trips over a variety of routes. By having fewer trips on each segment, it is possible to maintain smaller, more pedestrian-friendly streets and intersections.

2. Ample Sidewalks

Walkable streets should feature generously wide sidewalks that can accommodate comfortable strolling and, where desired, outdoor dining. On quieter residential streets, sidewalks may be as narrow as 5 feet. In livelier commercial areas with outdoor dining sidewalks should be a minimum of 12 feet wide, and up to 25 feet wide in locations with sidewalk dining.

3. Protection for Pedestrians

Though Cocoa Beach is known for its pleasant weather, Florida sun can be intense and rain storms do occur. Consideration should be given to protecting pedestrians from the elements. Regularly spaced shade trees should be employed on sidewalks throughout Cocoa Beach. In commercial areas with particularly heavy pedestrian traffic, protection over the sidewalk should be supplemented with awnings, colonnades, deep balconies or other projecting architectural features. A list of trees and shrubs (some of which can be limbed up to tree-form) that are appropriate to different areas of the City is found in the report Appendix.

4. Street-oriented Buildings

The fronts of buildings should be oriented toward the sidewalk so that entrances are easily accessible and so that street spaces feel active and lively. Building facades facing streets should have plentiful windows to provide “eyes on the street”. Blank walls facing streets should be avoided at all costs. Plentiful windows are particularly important on the ground floor in commercial areas to provide clear views to merchandise and to enrich the interest of the pedestrian experience.

5. Public Access to the Water

A large part of Cocoa Beach’s identity revolves around the city’s intimate connection with the water. This connection should be celebrated by providing plentiful public access to the water’s edge. Public access to the water’s edge should be in the form of high quality public spaces such as esplanades and squares. These spaces should feature amenities like shade trees, fountains, intimate lighting and plentiful benches, and should be framed and overlooked by buildings oriented to face across the space toward the water.

6. Screened but Convenient Parking

Parking lots will be important for new development on this site, but they should be screened from view from streets and public spaces to preserve pedestrian-friendly ambiance. Where possible, parking should be provided in the more visually attractive form of on-street parallel or diagonal parking.

7. Main Public Gathering Space

The 8-acres of the parcel are large enough to accommodate a larger signature public gathering space. This may be in the form of a landscaped public square which would help to form a dramatic gateway sequence to the city if it is located at the corner of the waterfront site where SR 520 first meets the island. This main public gathering space should be detailed to encourage people to relax and spend time. It should feature plentiful benches well-shaded by trees, pathways for strolling, and grassy area for playing and for staging concerts or other community events.

8. Focal Architecture in Key Locations

This site is well-located to help form a gateway into Cocoa Beach. In order to help create a dramatic postcard entry, focal architecture should be placed close to the edge of the site where SR 520 first meets the island. Focal architectural elements may take the form of cupolas or towers that help form a distinctive and memorable skyline when viewed from a distance.

MIXED USE DEVELOPMENT

The 8-acre parcel is designed with an interconnected network of walkable, tree-lined streets and pedestrian passages. Buildings around the perimeter of the site are designed to face outward. Fronts of buildings face west toward the Banana River across a new publicly accessible esplanade. Fronts of buildings also face toward SR 520, transforming the corridor into a compelling, grand public space.

Where the new waterfront esplanade meets SR 520, a new green public square is formed. This square is fronted by new mixed-use buildings, several of which feature tall, prominent corner towers that will be visible across the causeway for quite a distance and form a gateway into Cocoa Beach.

SR 520 BOULEVARD

With careful design, the frontage of the 8-acre parcel toward SR 520 can be transformed into a great address with wide sidewalks that are comfortable for pedestrians. This pedestrian-friendly zone along each side of the street should be clearly demarcated from the central higher speed travel lanes with a row of regularly spaced street trees, shown here as palms.

Within the pedestrian-friendly zone, the existing frontage roads adjacent to SR 520 should be converted into slow moving traffic-calmed side access lanes with on-street parking. This on-street parking is key to achieving street-oriented buildings built close to the sidewalk.

Sidewalks should be generous, perhaps 15 to 20 feet wide, to allow easy strolling and outdoor dining. Pedestrians on the sidewalks should be sheltered from the sun and elements with regularly planted shade trees and awnings.

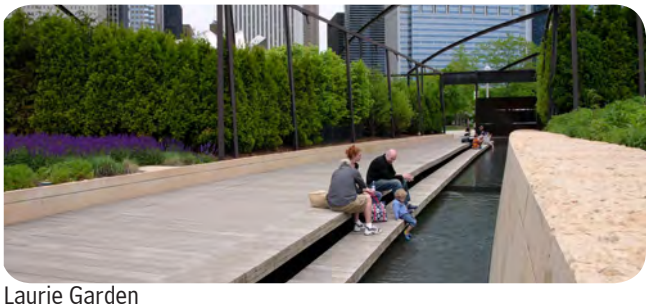
Signage should be designed for visibility both to passing vehicles as well as pedestrians on the sidewalk. Shopfronts should feature plentiful areas of transparent glass to give pedestrians interesting things to look at on their walk.

MILLENNIUM PARK, CHICAGO

When the City of Chicago had the opportunity to purchase old industrial rail yards wedged between the Downtown and the waterfront, the original idea was to add additional parking for the Downtown. But the Mayor Richard M. Daley felt that such a rare and unique opportunity should not be squandered. If the city was going to buy the land, he wanted it to be used for something truly spectacular and unique. In 1997 the Mayor conceived of Millennium Park as a world Class public space for the residents of Chicago and visitors alike.

Originally planned as a 16-acre park and outside music venue, through commitments by the private sector and involvement by world-renowned architect Frank Gehry, the project evolved in to a 24.5-acre collection of world-renowned artists, planners, architects, landscape architects, and designers. The unprecedented public-private partnerships that created Millennium Park had become a thoroughly modern achievement for Chicago and its original founders. While the City of Cocoa Beach is not Chicago, the relevance to this Gateway's Master Plan study is that Chicago did not settle for good enough. They pushed for greatness and achieved unbelievable results. So too should the City of Cocoa Beach push for greatness.

The Bean



Laurie Garden

Plan of Millennium Park

Crown Fountain

Pritzger Pavilion

BROADWAY & BEACH

A UNIQUE OPPORTUNITY

It is not an overstatement to compare Cocoa Beach's opportunity to that of Chicago's just before the construction of Millennium Park. There are very few oceanfront sites in Florida with a major east-west connection and the opportunity to host so many visitors. Cocoa Beach is unique in that it has a potentially beautiful boulevard and established parallel grid of streets that terminate to a significant shorefront park. Each street has long, linear, two-sided frontages that could host a variety of retail, tourism, restaurant, and residential uses in a walkable, pedestrian-friendly environment. The key is to keep streets open and turn SR 520 into a destination public space.

General Recommendations

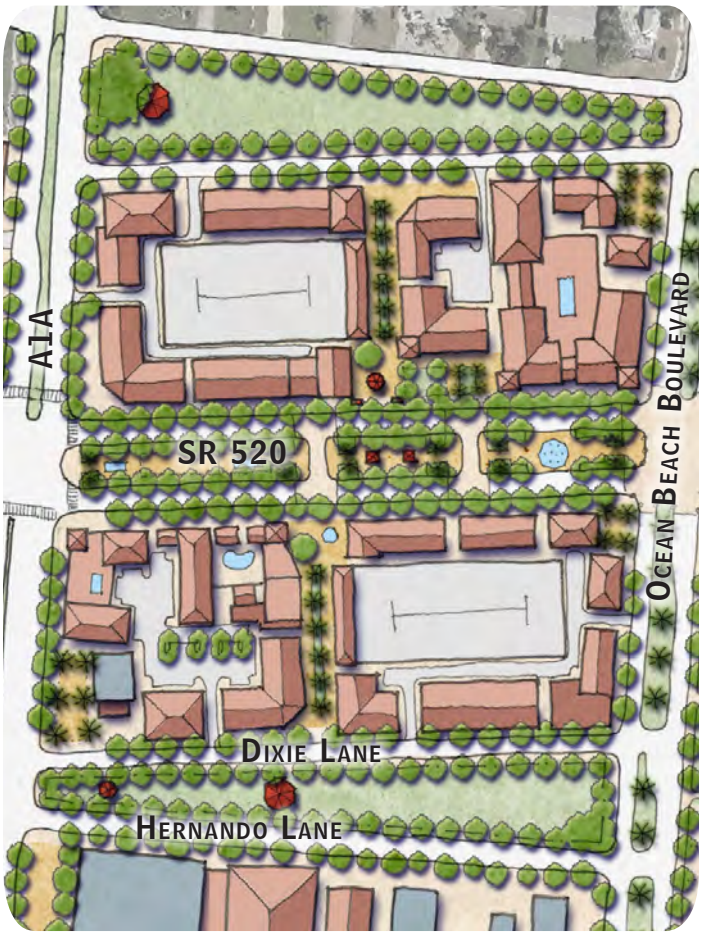
- **A** SR 520 becomes Broadway - a signature pedestrian-scaled public space
- **B** Shepard Beach (Park) becomes the main beach activity location in Cocoa Beach.
- **C** The intersection of SR 520 and A1A is redesigned
- **D** Signature piece of art to terminate east-west streets and lead people toward the water
- **E** Mobely Park retains the scale of the neighborhood

PLAN ALTERNATIVES

Plan 1 (Preferred Alternative):

In this plan all existing publicly owned rights-of-way would remain in public ownership, including SR 520, Dixie Lane, and Hernando Lane and the open spaces they border. At the same time the blocks north and south of SR 520 are rebuilt to include multi-story, mixed-use buildings with a variety of shopfronts, commercial spaces and residential to frame the proposed SR 520 Broadway. Pedestrian passages are located mid-block to keep the size of the blocks walkable, and navigable for pedestrians.

All parking, whether surface lots or parking garages, are located mid-block to screen the parking from view. This plan assumes consolidated ownership of each block on either side of SR 520. When planned as a single large block each of the blocks facing SR 520 can include parking garages. A large hotel, with upper stories that view the waterfront is envisioned to create a destination at the corner of SR 520 and Ocean Beach Boulevard.



Plan 2:

The alternative shows a parking garage located on Dixie Lane which has shopfronts on the first floor. Less than optimal, this plan exposes the garage's windowless upper stories to the street. Ideally, parking garages should be located entirely mid-block, screened in their entirety by buildings with habitable upper stories that provide the security of natural surveillance, of "eyes on the street." This option could, however, be employed if the properties along SR 520 remain controlled by multiple owners. The parking garage could thus occur on just one half of the block. Dixie Lane becomes a pedestrian pathway that takes people along the length of the block.

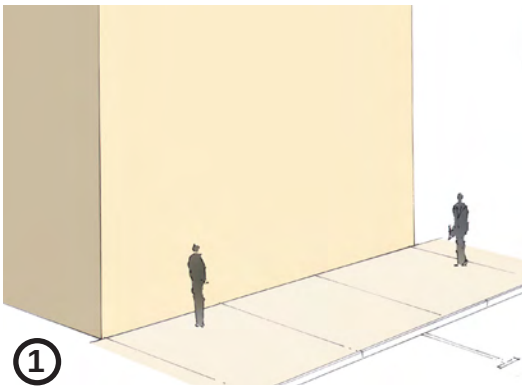
Plan 3:

This alternative eliminates Dixie Lane. Right-of-way, once deeded to private owners, rarely returns to public ownership. The advantage to this plan is that it allows a long, linear parking garage which is entirely screened by perimeter buildings. Dixie Lane is converted to a pedestrian path with mixed-use or residential on one side and a park on the other.

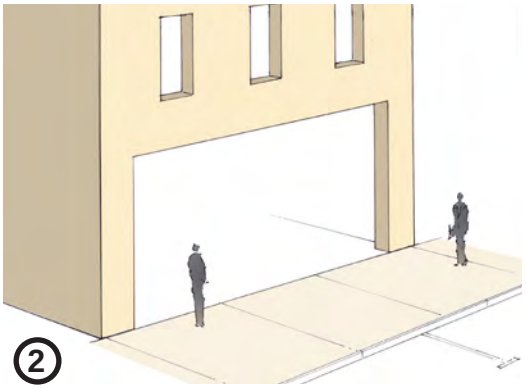
Plan 4:

Though the least desirable of the alternatives from the perspective of protecting public property given the loss of Dixie Lane and half the adjacent park, this alternative envisions the maximum-sized parking garage. The public land between Dixie Lane and Hernando Lane is cut in half. Mitigating the parking garage are liner buildings on every side including one facing the park. All the same rules of place making apply and every side of the development whether facing the street or the park has the pedestrian experience in mind. Storefronts with large glass plates keep the pedestrian experience interesting while awnings or arcades which shade the street provide a comfortable walk.

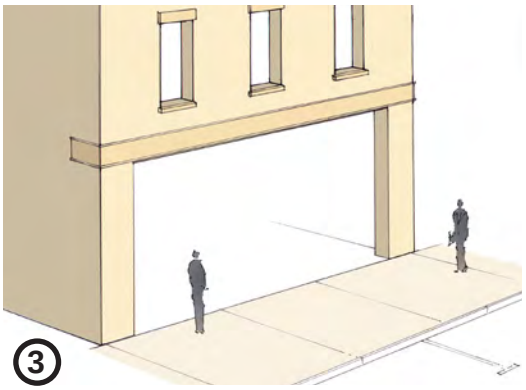
THE ANATOMY OF A STOREFRONT



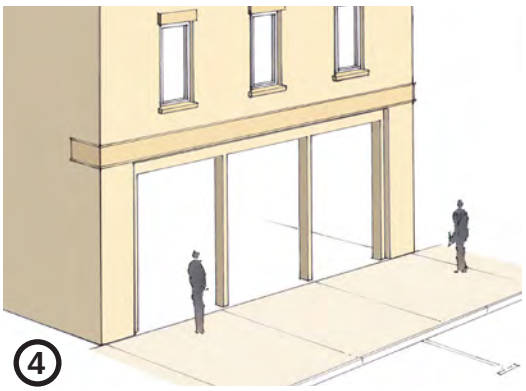
1 The basic building mass - placed close to the street



2 Generous shopfront with vertically-oriented windows above



3 Lintels and window sills provide a sense of structure



4 Columns sub-divide the shopfront opening

5 Transoms help achieve well-proportioned shopfront windows

6 Cased windows sit atop knee-height bulkheads

7 Pedestrian-oriented entrance, signage and lighting

8 Awnings provide shade and rain protection

LANCASTER BOULEVARD

A modern example of a street transformation is Lancaster Boulevard in Lancaster, California. Similar to the "Broadway" proposal of east SR 520, the middle median of the road is wide and planted formally with trees and lamp posts. Buildings flank both sides of the cross section to create an inviting and comfortable space.

At night, Lancaster Boulevard lights up and creates a popular place for festivals, special events, and other popular social activities.

As recently as 2010, Lancaster Boulevard was under the old assumption that wider streets are better and that pedestrians are secondary. However, the community has transformed this small piece of their city into a popular destination.

Lancaster Boulevard

Lancaster Boulevard comes alive at night.

Lancaster Boulevard in 2010 before the transformation.

Plan of Lancaster Boulevard

BROADWAY

A COCOA BEACH SIGNATURE PUBLIC SPACE

Taking a closer look at the opportunity the "Broadway" area has to offer, this under-utilized space comes alive. Formalizing the space with regularly spaced street trees, pedestrian-scaled lighting and connected sidewalks, reemphasizes this grand entrance to Cocoa's Beach greatest asset, the beach.

This public space will not be successful without the addition of mixed-use street-oriented buildings to line the street. The retailers and restaurants encourage activity with street-facing storefronts and outdoor dining that takes advantage of the comfortable space.

Designed within the existing grassy median, the new space consists of three segmented medians. The western segment is complete with benches to relax by the calm fountains and watch people as they pass by, enjoy their meals under umbrella tables, or simply walk their dog in the grassy areas. At night, the pedestrian-scaled light posts, open and lighted shopfronts and residences or hotel rooms above make the space a safe and interesting night out.

New pedestrian paseos designed in the north and south blocks provide another layer of pedestrian connectivity and open up into small plazas with fountains, visitors information gazebos and comfortable areas for transit users to wait. The middle median is the meeting point between these pedestrian paseos. Outdoor casual seating, restaurant tables and small restaurant kiosks make the space vibrant day and night.

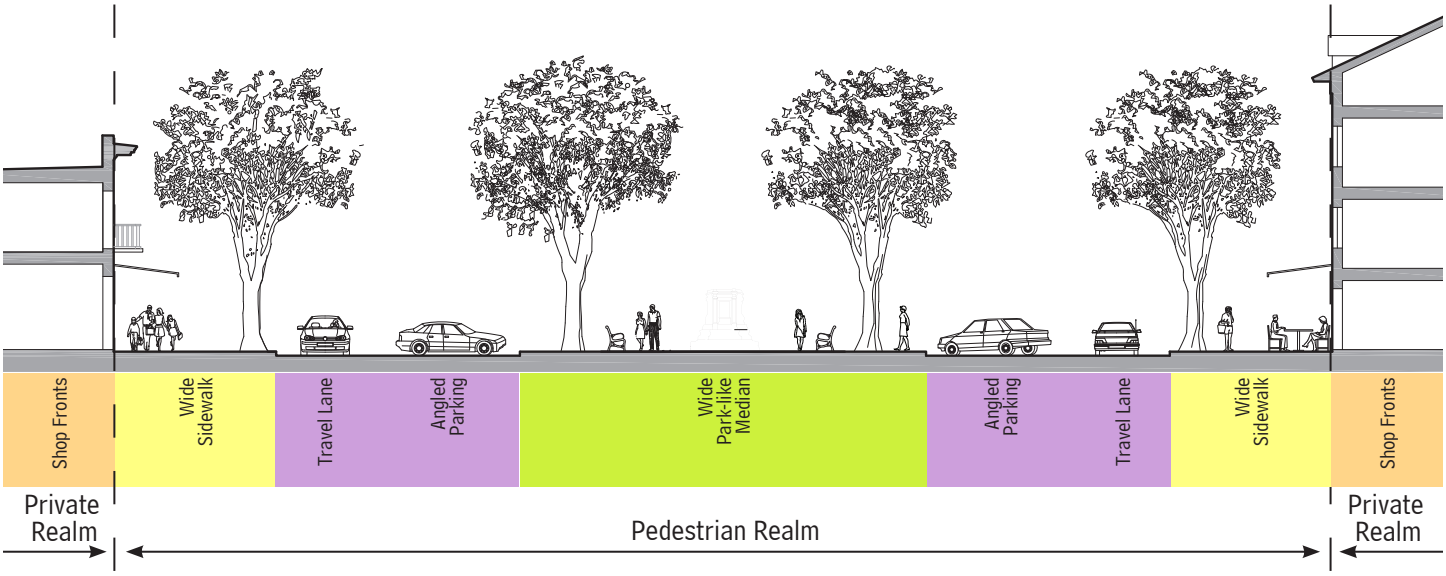
The design for the eastern median has a Splash Park and shaded benches for families. With slow design speeds that include on-street parking so that bicyclists will feel safe sharing the roads with vehicles, this new space will be calmer and quiet. The intersection of SR 520 and Ocean Beach Boulevard could be a curbless, shared space. With the use of bollards to reinforce the separation of travel lanes and sidewalks, the intersection could become a special entry point to the beach. This will be an important amenity for Cocoa Beach.

A PUBLIC SPACE WITH POSSIBILITIES

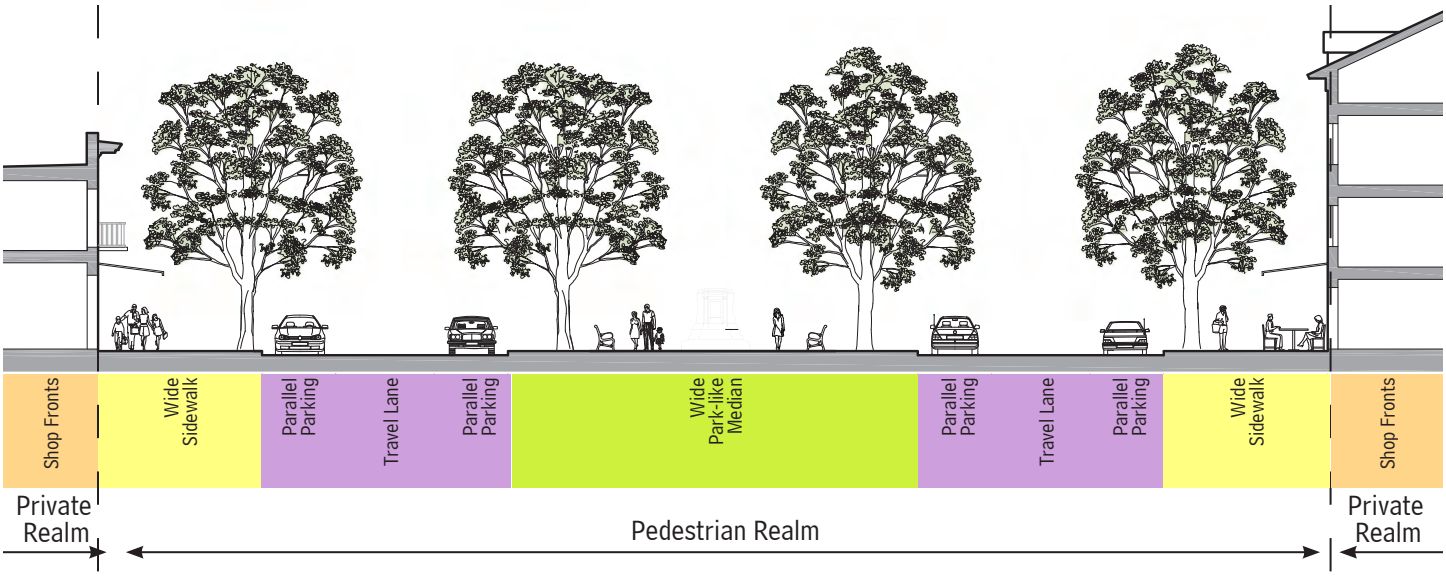
Currently, the two oversized travel lanes make the space noisy and uncomfortable for those outside of their vehicles. Simple reconfigurations within the existing curb-to-curb distance can transform this space into a an outdoor pedestrian oasis.

Shown on the previous page, reducing the existing two lanes to a single lane, leaves space for easy angled-parking. This may be desirable for families with large vehicles arriving to the new Splash Park and adjacent beach.

An alternative also reduces the amount of lanes to a single travel lane in each direction, flanked with parallel parking on both sides. This alternative creates another layer of protection from moving vehicles and the adjacent sidewalks. Having on-street parking directly in front of businesses is also desirable for owners and customers.



SR 520 east of A1A as an outdoor pedestrian oasis.



An alternative of SR 520 east of A1A with 1 travel lane and double parallel parking

When visitors arrive by bus to Cocoa Beach's waterfront today, they are greeted by a disorienting collection of surface parking lots. These parking lots should be viewed as a "land bank" that can be unlocked with private and public coordination, and gradually transformed into an enhanced "sense of place." The existing median at the end of 520 should be converted into a grand Promenade leading to the Ocean. New buildings should face this Promenade, and should also face toward A1A to greet visitors. If design and massing of new buildings are coordinated, a wide range of uses can be accommodated while still creating a harmonious place. Emphasis should be creating streets and other public spaces that are well-shaped by the fronts of buildings. Elements within the rights-of-way should be optimized for pedestrian, bicycle and vehicular use. Streets should feature on-street parking, wide sidewalks, shade trees and comfortable benches.

SHEPARD BEACH (PARK)

Cocoa Beach's identity is centered on its waterfronts. Focus should be placed on enhancing the sense of place where the city meets the ocean. Shepard Park is arguably the city's existing, unpolished gem at the eastern terminus of SR 520. Currently an auto-oriented and passive park, it has enormous potential to be an active and exciting "year-round" space for city residents and visitors.

GENERAL RECOMMENDATIONS

- **A** Amphitheater
- **B** Pedestrian Esplanade
- **C** Tall focal feature sculpture terminating the view down SR 520 but that preserves an open view to beach
- **D** Visitor's center and local museum
- **E** Kiosks for shops or equipment rental such as bicycles or surfboards
- **F** Sand volleyball courts
- **G** Stabilized lawn that can hold bleaches on event days
- **H** Auto access road for event and maintenance trucks (crushed coquina)
- **I** Relocated beach pavilions
- **J** Pedestrian and bicycle trail system
- **K** Redeveloped commercial buildings
- **L** Restaurant
- **M** Playground
- **N** The Beach
- **O** Restrooms
- **P** Limb up existing sea grapes to open view to the water

While other existing parks such as Fischer Park and Lori Wilson Park provide opportunities for multiple activities, they are primarily passive sites and are considered by many Cocoa Beach residents as their "natural beachside parks." In contrast, Shepard Park has the potential to be refined as an urban, activity-based green space, serving as a strong focal anchor for the proposed boulevard and linear plaza treatment of SR 520's terminus. Varied activities concentrated in this relatively small area will function as one more emblem and focal "attractor" for the Tourism Gateway.

Shepard Park can over time become a collection of signature public spaces that tremendously increase the attraction of Cocoa Beach to visitors. Parking can be gradually reconfigured into one or more garages, and land area can be freed for a combination of lively mixed-use development and public attractions.

New development should be configured so that public spaces are faced by the fronts of buildings. New beachfront public spaces can be further enhanced by the addition of fun, family-oriented attractions which might include an amphitheater, beach volleyball courts, or a giant water trampoline.

View over Shepard Park looking back towards "Broadway"

In conjunction with the prospective redevelopment of and improvements to adjacent properties, physical improvements to Shepard Park will support a broader mix of daily activities and special events: festivals, concerts, sports competitions and other activities greatly enhancing the area's experience.

During the design charrette, residents frequently commented that visitors to Cocoa Beach ask "Where's the beach?" The proposed design concept has a strong viewport to the ocean through the pedestrian esplanade that continues to the beach and ocean. With changes to the park that dramatically showcase one of the city's most important assets, the answer to this question becomes clear.

BRADENTON FLORIDA RIVERWALK

Well-designed public spaces that offer high-quality events promote quality of life and economic development. In addition to aesthetic and recreational benefits, parks also provide positive financial impact by enhancing property values, increasing municipal revenue, and attracting businesses, home buyers, visitors, and retirees.

For these reasons, the Downtown Development Authority and Realize Bradenton joined forces with many other partners to transform the shoreline of the Manatee River into today's spectacular Bradenton Riverwalk. The redeveloped park opened October 18, 2012.

As downtown Bradenton's new showpiece, the Riverwalk serves as an outdoor gathering place. The design was thoughtfully developed to provide spaces to reflect the community's interests and to host many diverse events and activities. The 1.5 mile long linear park includes numerous features including a Great Lawn, Day Dock, Tower Plaza, Botanical Walk, Amphitheater, Family Fun Zone, Pavilion and Event Area, Fishing Pier, Tidal Discovery Zone, Outdoor Living Rooms, Flex Lawns, Beach Volleyball, Skate Park, Regatta Plaza, Gallery of outdoor art, and a Kayak and Canoe Launch.

Outdoor Living Room

Skate Park

Tower Plaza

CENTRAL QUARTER

The Central Quarter along SR 520, between Banana River Boulevard and A1A, acts as the passageway as visitors enter Cocoa Beach and travel east towards the beach. The current area consists mostly of unmemorable buildings behind under-utilized parking lots and lack of connectivity that requires motorists, pedestrians and bicyclist to use SR 520 or A1A to travel anywhere. The area has potential to create a mixed-use neighborhood, complete with retail, restaurants and a variety of housing types. The redevelopment of under-utilized parking lots of Canaveral Plaza provides opportunities for retailers and smaller parcels could contribute to transform this area.

General Recommendations

- **A** Canaveral Plaza is retrofitted into a redeveloped mixed-use neighborhood
- **B** Revitalize SR 520 as a multiway boulevard
- **C** New buildings are street-oriented to improved SR 520
- **D** Parking in the middle of the block
- **E** New single- and multi-family residences next to existing residential neighborhood
- **F** New buildings are close to the street and complete with windows and doors on A1A
- **G** New street and pedestrian connections

CANAVERAL PLAZA

CHANGE OVER TIME

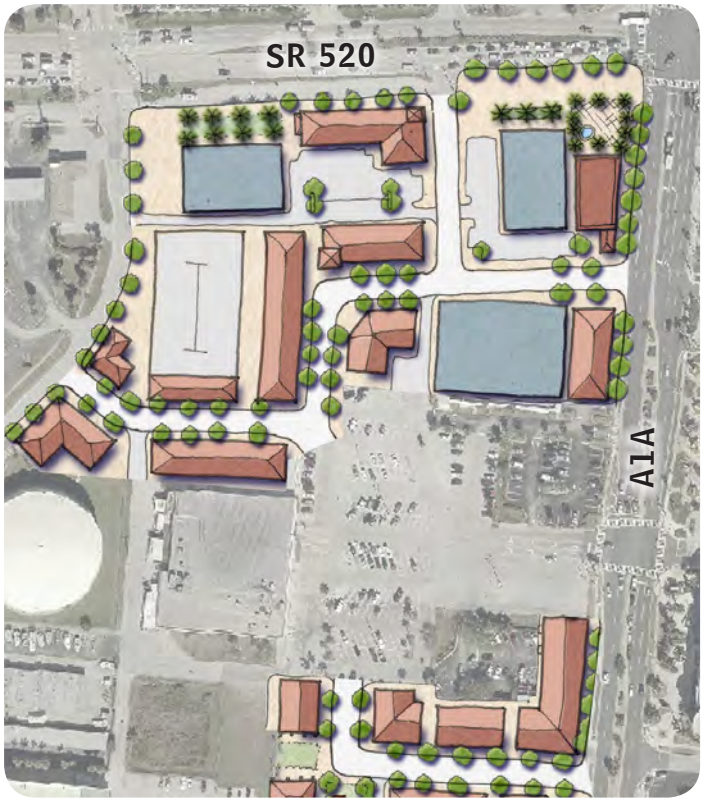
The physical transformation envisioned for Canaveral Plaza is anticipated to take place in a phases, over several years. There are long term leases and other ownership conditions which make redevelopment of particular parcels easier in the near term than others. In addition, the market absorption of new units and mixed-use development in the area needs to be considered.

Phase 1: The first phases of new development could occur in the existing parking lot of Winn-Dixie. A new public square perpendicular to A1A can be a perfect place for lunch, while also accommodating grocery-friendly angled parking. New buildings front the square, defining the public space and creating a sense of place. This will establish the pattern and form for new development in the area. Additional public parking can be accommodated in an adjacent structure.

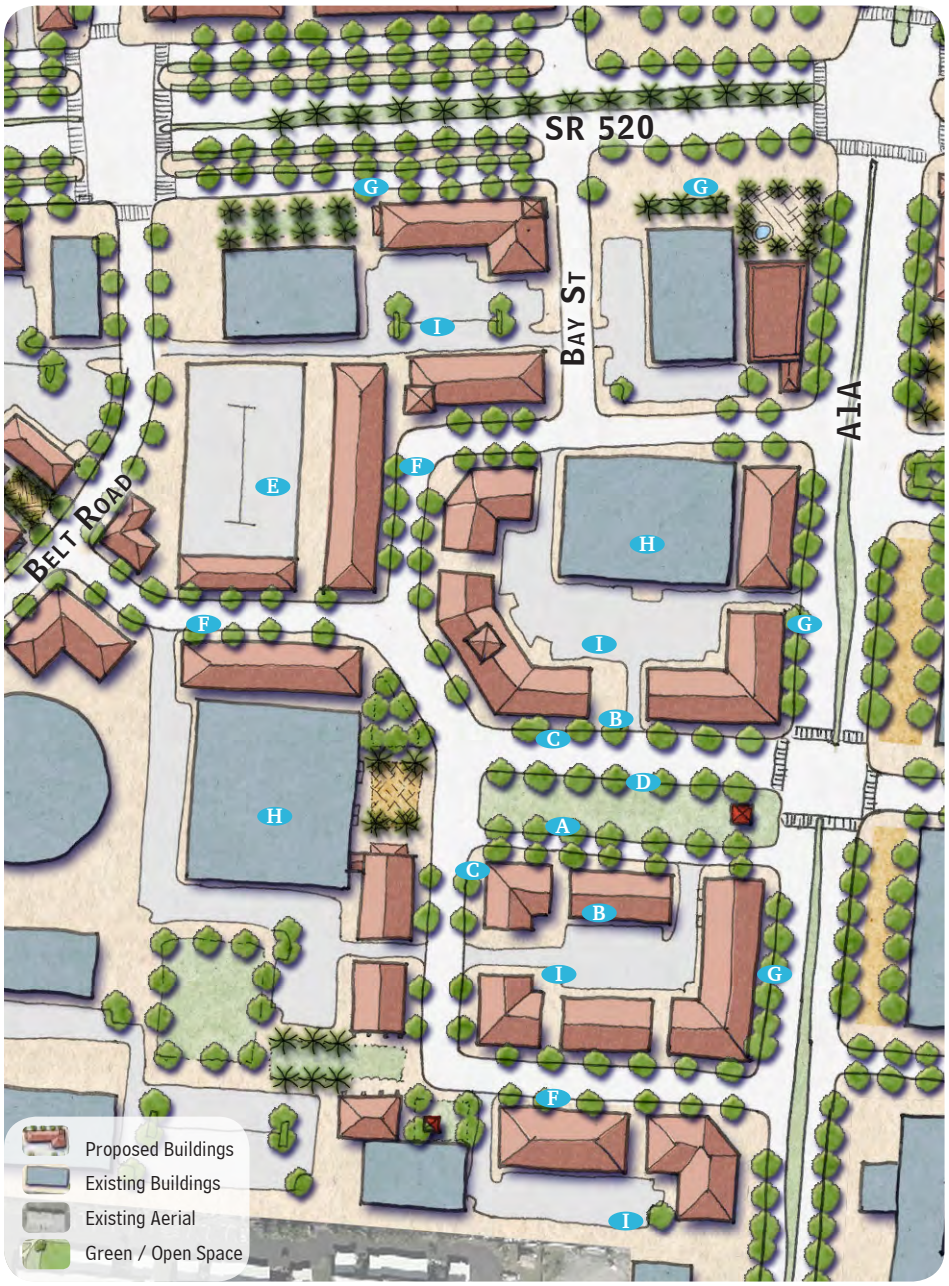
Phase 2: Additional phases can include a complete new block-and-street network to improve the area's inter-connectivity. A mix of uses, including retail, commercial, and residential units, is envisioned. Parking is provided in the mid-block locations and adjacent parking structure. New streets are designed to be walkable with street trees and on-street parking. Design speeds should be slow enough that bicyclists will feel safe sharing the roads with vehicles.

Existing Condition

Phase 1



Phase 2



As Winn-Dixie, or any large-scale grocer, transforms over time to a more sustainable settlement form, the surrounding parcels can follow the new development pattern street-oriented buildings that face SR 520 and A1A. This greater mix of uses (including housing), being introduced will be a benefit to the surrounding community.

The added connectivity to surrounding parcels should be a priority to optimize use of the site for pedestrians, bicycles, and as well as vehicles. If, in the future, there is a desire to rethink the big-box format, this network could continue further into the site.

Although future redevelopment may take a different path, this illustration demonstrates the important principals of having a plan in place for the long term, so that streets, park spaces and infrastructure connect, and each new development makes a positive contribution toward the ultimate vision of Cocoa Beach.

General Recommendations

- **A** New public green to visually link Winn-Dixie to A1A, complete with formally placed trees, pedestrian-scaled lamp posts, and walkways
- **B** Activate public space in front of Winn-Dixie with street-oriented buildings that line the street along the property line
- **C** Wide sidewalks within the new right-of-way to accommodate pedestrians and sidewalk dining
- **D** Organize retail traffic into lanes with diagonal parking for grocery loading needs
- **E** Parking garage to provide needed parking, lined with habitable spaces to create a pedestrian-friendly street frontage
- **F** New streets to provide connectivity between A1A, Banana River Blvd and SR 520
- **G** Street trees and fewer curb cuts create desirable addresses and enhance the pedestrian environment
- **H** Large building footprints reserved to retain a mix of scales for all retailers
- **I** Parking accommodated within the block

FORT MYERS BEACH, FLORIDA

Following the adoption of the Old San Carlos/ Crescent Street Special Area Plan and Comprehensive Plan updates in 1999 and 2007, Fort Myers Beach has undergone a transformation. Its declining tourist center used to be avoided by locals, but now is seen as an ideal place to spend the evening out getting dinner and going for a walk.

Seeing the streets as a place for people and not just cars allowed the city to look at their streets in a different light.

Existing buildings were given face-lifts and brightened up and streetscapes were rethought and implemented as people spaces. New office, residential, and mixed-use buildings were constructed, creating a vibrant center of activity at the foot of the bridge that brings tourists and residents to Fort Myers Beach.

A first step was buildings getting fixed up to bring new life to them

New residential development

Old San Carlos Boulevard Transformation

Upgraded commercial buildings and restaurants

Sidewalk dining

Commercial shopping area

NORTHERN GATEWAY

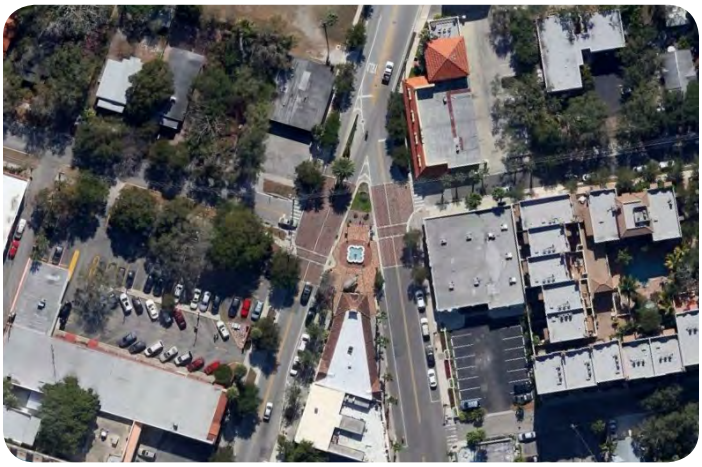
The northern boundary of Cocoa Beach is the main point of entry for people visiting from Port Canaveral and most of central Florida. Despite its significance, this area has no sense of arrival. The main "Welcome to Cocoa Beach" sign is located not at the actual city boundary, but at the Church of Our Savior, a site well into the city. By the time the sign is visible, motorists from the north have already missed one of the city's biggest attractions, the Cocoa Beach Pier.

The northern boundary also misses the opportunity for an East-West connection. By simply adding shade trees along Meade Avenue and creating a destination in the form of a park those touring the area on foot have a clear pathway to two major amenities within this part of Cocoa Beach. This connection is also the northern end of a potential of the bike loop (described in further detail in "Chapter 5 - Getting Around" of this report, increasing cycling and pedestrian traffic and retaining the neighborhood's residential feel.

A1A between SR 520 and the northern boundary is primarily residential. Around the Cocoa Beach Pier, however, there is a distinct transition into a commercial area, with a number of hotels, souvenir shops and the Cornerstone Plaza. Rather than such a stark transition, the shift from residential to commercial can be more gradual. The site on A1A that sits between Pulsipher Avenue and California Avenue can contain an attractive corner plaza with a corner building can signal the change in the streetscape. An example of such a plaza can be seen in Sarasota, Florida at the intersection of Orange Avenue and Pineapple Avenue.

General Recommendations

- **A** A public plaza at the end of Cornerstone Plaza can create a sense of arrival into Cocoa Beach
- **B** New public plaza fronted by existing pier entrance
- **C** A parking deck provides needed parking but can be lined with habitable spaces to create a pedestrian-friendly street frontage
- **D** A new plaza and street-oriented building can better frame A1A and the park.
- **E** Enhance the connection from Banana River Boulevard to A1A and the Cocoa Beach Pier with shade trees
- **F** A waterfront park with multi-use field and half mile trail take advantage of the natural surroundings



Orange Avenue and Pineapple Avenue, Sarasota, FL.

CORNERSTONE PLAZA

The parking lot in front of the Publix at Cornerstone Plaza is the first thing that visitors see when coming from the northern gateway. The lot is rarely full, and is used as much by beach-goers as it is by customers. Rather than presenting an unused concrete field, the plan suggests establishing a green space along A1A, creating a shaded walkway and minimizing the view of the parking lot. This is also the appropriate location for a sign that denotes entry into the city boundaries.

The Publix building and adjacent buildings remain unchanged, but the parking lot is transformed, taking on a feeling more similar to a plaza than to a parking lot, with palm trees on all sides, and green spaces flanking the west and south entrances. Liner buildings complete the sense of enclosure to the parking lot. This enclosure is an important feature in the formation of complete places, rather than the overly exposed lot that currently stands. The liner buildings also provide the impression of an extension of the block. By flanking the parking lot of the adjacent lot, the liner buildings acts as a piece of both blocks, connecting them.

The alleys that connect the blocks should also act more as complete streets than as access lanes. The connections that exist within this block link not only the Publix and adjacent lot, but also A1A to the residential neighborhood west of the Publix, providing a way for local residents to circumvent traffic on A1A.

General Recommendations

- **A** Distinct sign to welcome people into the city
- **B** A green space along A1A creates a sense of arrival and a pedestrian friendly walkway
- **C** The Parking lot is resurfaced to be a pervious parking plaza instead of a parking lot.
- **D** Liner buildings can be used effectively for both enclosure and connection
- **E** Access lanes/alleys can be designed as streets instead of allowing residents to move freely
- **F** A gas backwards can be used to help define the corner.

The gas station at the intersection could be reconfigured into a “gas-backwards”. A typical gas station has a small service store at the rear of the lot with gas pumps open toward the arterial streets leaving the corner at intersections open and contains wide curb cuts extending the length of the lot. The same ease of use of a gas station can be accomplished without the detriment to the public realm by placing the service store at the corner of the lot while having the gas pumps at the rear of the lot. Curb cuts can be reduced, but access to the service station is similar to the typical configuration.

COCOA BEACH PIER

The Cocoa Beach Pier is one of city's most significant attractions. Despite the fact that it is a major landmark, it is difficult to find when driving along A1A. The entrance is obscured by buildings and utility poles, and visitors are often unaware of the entrance until they have already passed it.

The pier is currently marked by an FDOT street sign that is hard to see and easy to ignore. Better signage directing people to the Pier from A1A is important. The sign above the pier entrance cannot be seen until visitors are essentially already at the pier. New signage could be constructed, beginning at the end of Meade Avenue. The sign should extend from the terminus to the entry of the pier, making the location of the pier obvious. Palm trees and a tall sign will also create a sense of height, allowing the pier to be more visible from A1A.

The pier is also one of the biggest entry points to the beach. The block leading to the entry is currently almost entirely parking, missing a significant opportunity to create a complete place. Rather than a single layer of parking with out shade and little interest for what is beyond, parking should be consolidated into a deck with the same capacity as the existing parking lot. The deck can be shielded by liner buildings.

General Recommendations

- **A** New public plaza fronted by existing pier entrance with public amenities
- **B** Expand and improve signage so it is visible from A1A and Ocean Beach Boulevard
- **C** Convert surface parking lot into a parking deck to reduce wasted space
- **D** Create a new street fronting the plaza connecting Meade Avenue and Pulsipher Avenue

To truly create a destination, the entry to the pier should become a public place in the form of a plaza. This area may contain restrooms, showers, or other public amenities, and should include covered tables and benches. The signage of the pier should lead directly to this public space. The construction of a new road directly between the garage and pier will lead both motorist and pedestrian traffic directly towards the new open area and take advantage of the amenities surrounding the pier.

CITY PARK

The city controls a large parcel of land along the Banana River that could be utilized as a waterfront park. It is located adjacent to residential neighborhoods and could be a major resource for the local community.

The park could contain a multi-use field and half mile trail that take advantage of the natural surroundings. Exercise equipment or children's playground equipment can also be a part of the park, creating a space for families can play outside. The plan also includes a gazebo along the waterfront, to create a scenic view for residents to enjoy the sunset.

Residents in the neighborhood adjacent to the parcel currently use the area to store their boats. An area can be allocated for this use. A line of shade trees with a dense canopy will maintain the privacy of the neighborhood. Continuing shade trees will also link the park to the rest of the surrounding neighborhoods.

This parcel of land finishes the vital east-west connection of Cocoa Beach. Though many development suggestions place heavy emphasis on tourism, Cocoa Beach still retains a substantial number of permanent residents. Creating spaces geared towards locals will not only improve the overall quality of life for existing residents, but may also act as impetus for new families to settle down in the area.

General Recommendations

- A Multiuse field
- B Half mile path
- C Exercise stations
- D Playground
- E Waterfront gazebo
- F Allocate space to accommodate boat parking by members of the neighborhood.
- G Extend shade trees from the park to the street to establish a distinct corridor between the Pier and the park.

A1A CORRIDOR CONNECTOR

The key to revitalizing Cocoa Beach lies in consistency and continuity. Plan details up until this point have targeted key gateways that will dramatically influence the growth of the city, but not every site must be a major destination. A1A should be a road where people can move, not just where they need to stay.

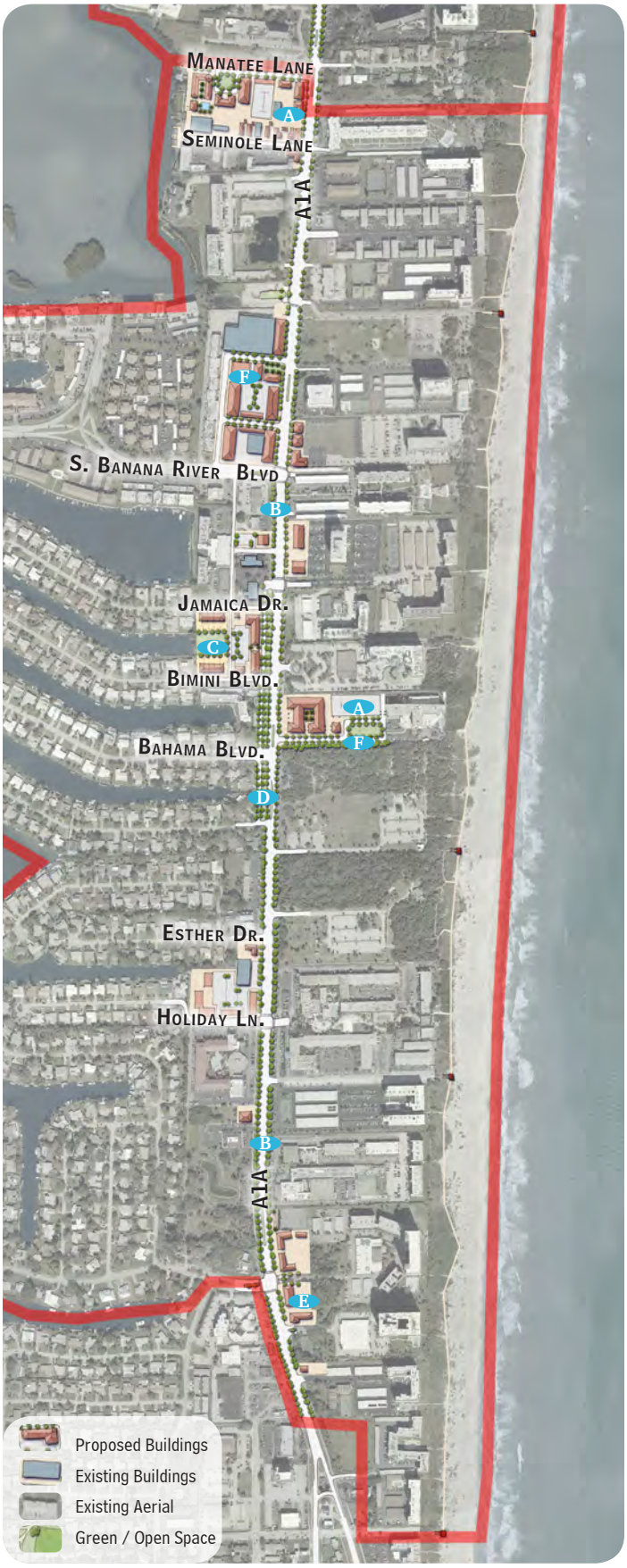
Various opportunity sites along the A1A corridor can begin to change form and follow a new vision of development. Instead of backing-up to the corridor with parking lots, buildings can help transform the corridor to a walkable and attractive thoroughfare. Creating a continuous walkable corridor from the northern boundary to the blooming Downtown area can be done by strategic improvements along A1A.

One of the most visually jarring aspects of the thoroughfare is the extent of wasted space. Parking regulations have resulted in immense parking lots that are rarely full. To prevent this, the way parking standards are calculated can be rethought with the use of shared parking. In some instances surface parking should be consolidated into parking garages, with mixed uses at ground level to retain the pedestrian friendly feel. Empty lots should be converted into blocks with mid-block parking with shorter setbacks allowing a more complete streetscape.

While the function of a road is movement, mobility encompasses much more than vehicles. To allow A1A to be as accessible as possible, amenities such as a multiuse path along the road will allow for a diverse range of options in transportation. Attractive landscaping and sufficient shade trees will continue this emphasis on a pleasing yet useful street. Development should proceed in respect to the existing community character, by simply improving rather than altering.

General Recommendations

- **A** Parking garage to provide needed parking, lined with habitable spaces to create a pedestrian-friendly street frontage
- **B** Street trees and fewer curb cuts create desirable addresses and enhance the pedestrian environment
- **C** Boat slips for boat parking to increase accessibility in the area
- **D** Reclaim additional space for landscaping and a multiuse path on west side of A1A
- **E** New development that creates a continuous street frontage and respect the character of the neighborhood with similar massing and architectural elements
- **F** Redevelopment of under-utilized parking lots into blocks with parking within the block and compatible uses such as hotels, residential, retail and other similar uses



GETTING AROUND 5

INTRODUCTION & PURPOSE

Attractive and economically vibrant communities need transportation networks that offer a choice of mobility options, while still efficiently accommodating commuter and local vehicular traffic. A high level assessment of opportunities to improve the mobility was explored with the community in concert with the larger effort for identifying the future vision for the northern portion of the city. The purpose and goal of examining the multimodal transportation network was to identify potential improvements that work with the future vision for Cocoa Beach. As heard throughout discussions with the community during the design charrette process, the city is interested in the following key concepts.

KEY CONCEPTS

MANAGE CONGESTION AT THE 520/A1A INTERSECTION

REDUCE VEHICLE/PEDESTRIAN CONFLICTS TO CREATE A SAFER PEDESTRIAN ENVIRONMENT OVERALL

PROVIDE SAFER AND MORE CONVENIENT OPPORTUNITIES FOR BICYCLING

STRENGTHEN THE EAST-WEST CONNECTIVITY FOR ALL MODES OF TRAVEL

IDENTIFY WAYS TO ENHANCE THE TRANSIT SERVICE AND ACCOMMODATIONS

COORDINATE RECOMMENDATIONS FOR THE NORTHERN PORTION OF THE CITY WITH THE ONGOING A1A CORRIDOR IMPROVEMENT PROJECT

SR 520 as a Boulevard with a park at its median.

EXISTING CONDITIONS

US A1A AND SR 520 WEST OF A1A

Routes A1A and SR 520 are the key, high volume, vehicular corridors within the study area. At present, Route A1A has an approximate daily volume of 34,000 vehicles per day and SR 520's daily volume is 22,000 vehicles per day as calculated using the existing peak hour traffic volumes. These volumes can be effectively accommodated by road capacity available within the existing two through lanes in each direction, although there is peak hour congestion at the major intersection where these two routes intersect.

A1A generally has a five lane section, consisting of two lanes in the north and south directions along with a center two-way left turn lane. Within the approximately 3/4 mile primary study area, which is situated between Surf Drive on the south to just north of SR 520, there are approximately 14 street intersections and 27 site entrances. Averaging the connections over the length of the primary study area results in one connection to A1A every 97 feet. Travel conditions in the peak hours were both described to us and observed in the field as being congested. The most congested intersection is where SR 520 and A1A intersect. Sidewalks are provided on both sides of A1A, though there are no dedicated bicycle areas along this section of the corridor. The posted speed limit along A1A in the study area is 35 mph.

SR 520 is the main east-west gateway entering Cocoa. SR 520 is generally a four lane road with two lanes in each direction and left turn lanes occasionally carved out of the center median. A multiuse path exists along the south side of SR 520 coming across Merritt Island and ends just east of the Banana River Bridge. At present, the only sidewalks present east of the bridge is a short section in front of the Sonic Lube business west of S. Banana River Road, and along the south side of SR 520 from just west of Belt Road to Route A1A. There are also no bicycle facilities (lanes or dedicated space) along the corridor. The posted speed limit along SR 520 is also 35 mph. An interesting feature for SR 520 is the approximate 200' of dedicated right-of-way, which provides potential opportunities for enhancements to the existing typical section.

SR 520 EAST OF A1A

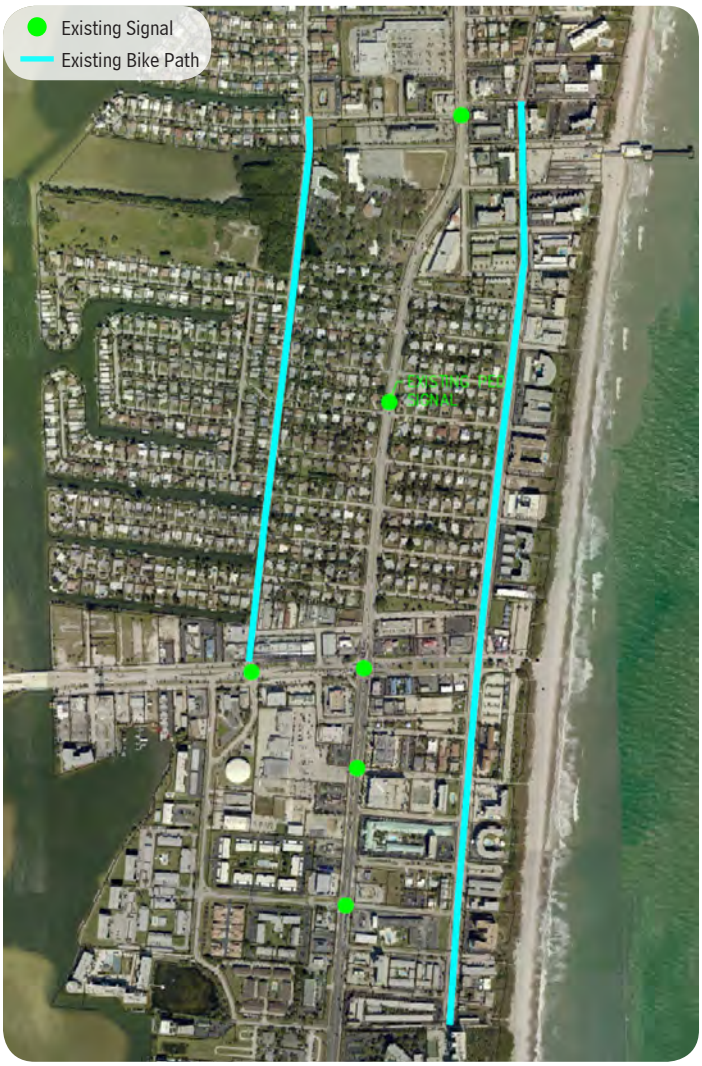
The section of SR 520 east of A1A becomes a local access facility and is of a different character than SR 520 west of A1A. East of A1A, SR 520 remains a four lane section with two lanes in each direction and is a very wide, grassed median that also includes a few sparse palm trees. The estimated daily traffic volume is drastically lower than the western portion of the roadway with only approximately 4,000 vehicles per day. Narrow sidewalks are provided on both sides of the road. There are no dedicated bicycle facilities; however, the low traffic volume makes riding within the travel lanes more feasible. Of important note, this section of SR 520 has a bus transfer shelter where the two Space Coast Area Transit routes intersect. The transfer shelter is located approximately mid-way between A1A and Ocean Beach Boulevard on the north side of the road and is one of the most heavily used transfer stations for the entire Space Coast Area Transit.

PEDESTRIAN CONDITIONS

The network of local streets within the primary study area generally includes sidewalks and ADA ramps at the intersections. The sidewalks are generally a minimum of 4 feet in width. Where the local streets meet Route A1A or SR 520, pedestrian crossing movements are difficult. Along A1A (within the primary study area), there are three traffic signals that provide pedestrian signals and crosswalks.

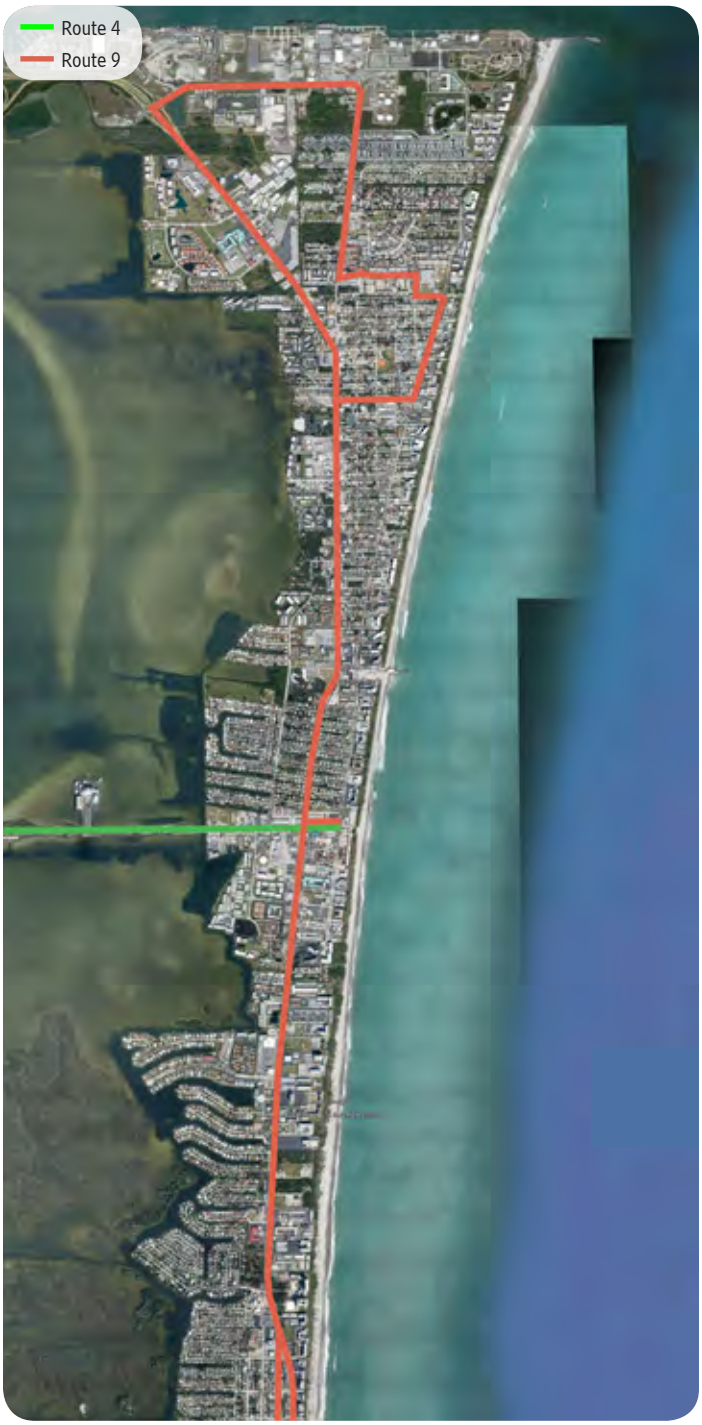
BICYCLE ROUTES

Beach communities typically have a relatively high bicycle usage by both residents and tourists. Bicycle accommodations are sparse, with the exception of the dedicated bicycle lanes along the recently re-constructed Ocean Beach Boulevard, along North Banana River Road. These north–south bike routes provide the beginnings for a potential connected bike network that could serve as a "loop" by residents and tourists to comfortably and safely traverse the northern portion of Cocoa Beach.



TRANSIT

Presently there are two Space Coast Area Transit routes serving Cocoa Beach. Route 9 is a north-south route that runs along A1A. Route 4, having the highest ridership in the area, is an east-west route that enters the city along SR 520 and turns around at the bus transfer shelter just east of A1A. Headways for both of these routes are approximately 30 minutes.



ACCESS MANAGEMENT

Access management is a transportation industry term that relates to managing the number of curb cuts along a corridor. This term also relates to signal and median opening spacing and managing where left and right turn lanes are provided along a corridor. Access management is a means to creating a safer pedestrian environment since more curb cuts along a sidewalk decreases pedestrian comfort and safety because cars are crossing the pedestrians path more often. Access management also helps to preserve the travel capacity along a roadway because cars have fewer locations where they are slowing down to turn or pulling into traffic, therefore decreasing congestion.

Similar to most states across the nation, the Florida Department of Transportation has well documented standards for access management as a function of road type (classification and speeds). At present, site access along the A1A corridor resembles practices exercised in previous decades when there were no standards that limited the number and frequency of commercial entrances, nor required cross parcel access between businesses. Within the prior regulatory environment, the number of commercial entrances proliferated to the current number of approximately 27 commercial entrances within the .75 miles in the primary study area.

As the area redevelops new standards will reduce the numbed of “curb cuts,” thus making it a safer walk for the pedestrian and less congested driving experience for people in cars.

Even on the sidewalk pedestrians are rarely safe.

Note all the places a pedestrian could encounter cars entering and existing as they walk along the sidewalk.

THE A1A CORRIDOR STUDY EFFORT

Upon commencing the Cocoa Beach Gateway Plan, the portions of the A1A Corridor Study that run through Cocoa Beach were reviewed for consistency with the vision developed as part of the plan. An important goal of the A1A Corridor Study is to identify improvements that can be implemented in the short term, thus avoiding lengthy environmental reviews that would be required with substantial changes to how stormwater is handled or if additional right-of-way needed to be acquired. The A1A Corridor Study has amassed a significant amount of important data that was essential for coordinating recommendations and performing additional analyses. Some of the critical pieces of information applicable to the gateways planning area include:

- Traffic volumes and turning movement counts at key intersections (see figure on the following page),
- Pedestrian crash statistics (17 pedestrian related crashes, i.e. cars striking pedestrians, from 2010 to 2012),
- Vehicular crash statistics (172 crashes in the study area in the two years from 2010 to 2012),
- DRAFT recommendations for the SR 520/A1A intersection, and
- DRAFT recommendations relating to typical street sections and related road improvements.

The current A1A plan shows that bicycles will be accommodated with a multiuse path along the west side of Route A1A. There are no bicycle accommodations within the travel lane area, however, a substantial shoulder is shown outside each set of travel lanes.

Eight people a year are hit by cars in this part of Cocoa Beach.

Traffic Volumes Exhibit

Recommendations

TRANSPORTATION DESIGN INTENT

From a transportation planning context, the planning team recognizes a fundamental tension in the design of A1A and SR 520 between the need to move large volumes of traffic and the desire to create walkable thoroughfares. In order to balance this tension, the planning team recommends the following strategies for creating a multimodal environment:

As we plan for pedestrians we must also keep traffic moving.

1. Use the available right-of-way on SR 520 to create a "gateway" experience when entering Cocoa Beach from the west.
2. Mitigate the inherent tension between providing a strong sense of place, strong site access and multi-modal mobility options with accommodating large commute "through" volumes along SR 520 and A1A.
3. Enhance the pedestrian environment.
4. Enhance bicycle mobility including the creation of a bicycle loop to provide enhanced bicycle access for residents and tourists.
5. Increase overall connectivity by adding to the street grid.
6. Increase transit dependent and choice riders experience at the transfer station and other stop locations in order to increase ridership and make transit a real alternative for visitors to get around Cocoa Beach.

The following section summarizes specific recommendations for improvements identified throughout the planning process.

A complete street: allowances for every mode of transportation.

MAKE SR 520 A MULTIWAY BOULEVARD

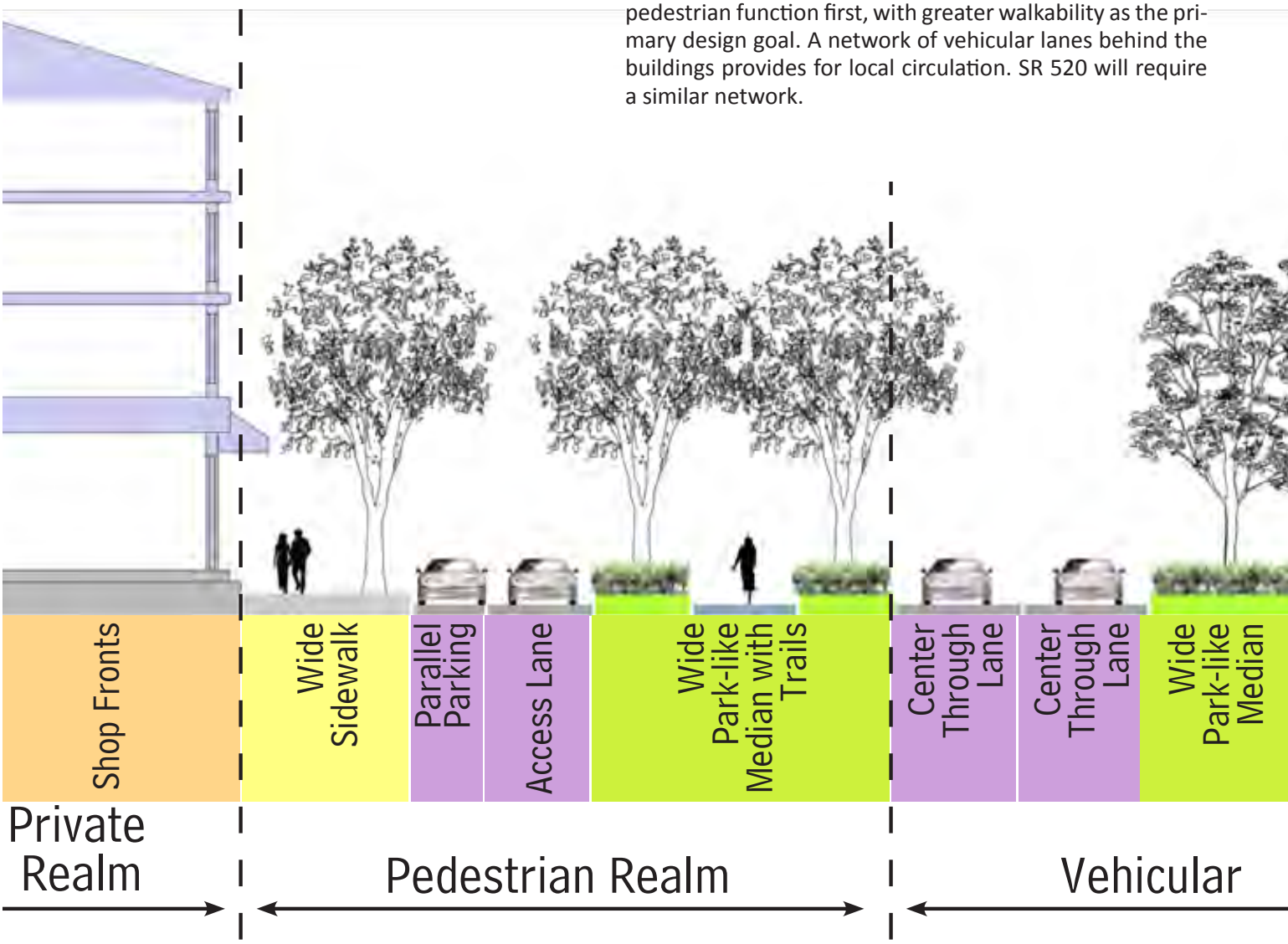
To balance vision and constraints, the proposed overall design of SR 520 is envisioned as a multiway boulevard. A multiway boulevard is a street design that can simultaneously handle large volumes of through traffic while encouraging street-front development appropriate for an urban center. The concept and operating characteristics of multiway boulevards are described comprehensively by Allan Jacobs and Elizabeth Macdonald in The Boulevard Book, the source for much of the information related here.

The multiway boulevard is a time-tested concept found worldwide. Several exceptional examples were built at the end of the 19th century in New York, and modern multiway boulevards have been constructed more recently in Chico, California and San Francisco, California.

Structure of a Multiway Boulevard

The center of a multiway boulevard is comprised of 4 or 6 lanes. These lanes serve the traditional function of an arterial street – to move automobiles as quickly and safely as possible. The center lanes are considered the "motor vehicle realm," and most design considerations follow the motor vehicle mobility function, as with contemporary arterial design. A key concession to pedestrians is that speeds are managed in the 30 to 35 mph range by techniques such as narrower lanes and shorter blocks.

On either side of the center lanes are wide park-like medians with shared-use paths, an adjacent one-way access lane, a lane of on-street parking, a wide sidewalk, and street-front buildings. The one-way access lanes are designed for speeds of 15 mph. This area, from the inner edge of the median adjacent to the center travel lanes to the front of the buildings, is considered the "pedestrian realm". Within this area, design considerations place the pedestrian function first, with greater walkability as the primary design goal. A network of vehicular lanes behind the buildings provides for local circulation. SR 520 will require a similar network.



The Multiway Boulevard Design for SR 520

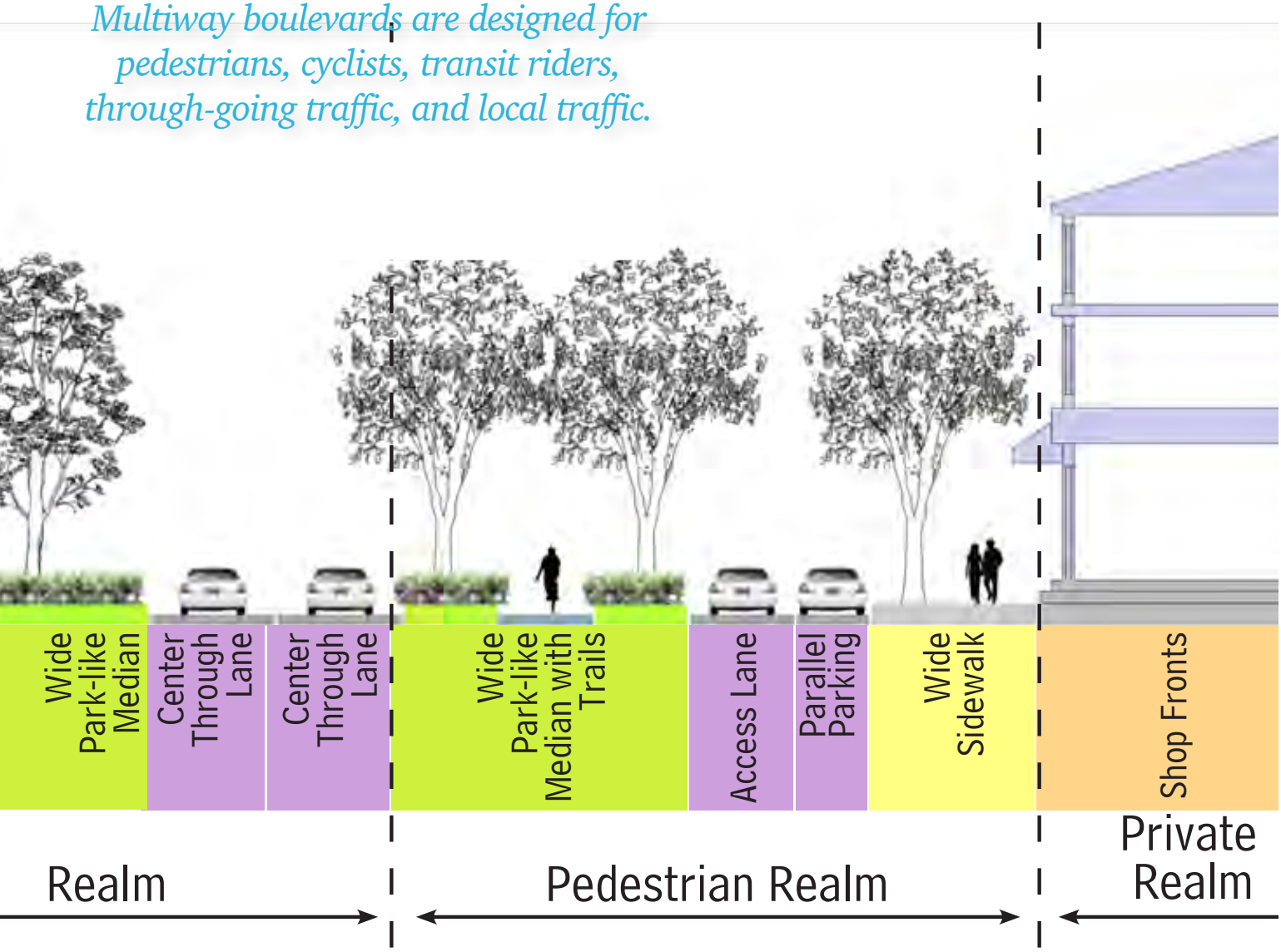
A multiway boulevard design is recommended for SR 520. Rudimentary access lanes, or frontage roads, have been in place for years connecting many retail and commercial businesses along this stretch of road. The multiway boulevard section is recommended from the Banana River to Bay Street.

The proposed multiway boulevard for SR 520 is intended to encourage walkability, while providing ample movement of through vehicles. Access to adjacent buildings is also vital; it provides the traffic necessary to patronize the Boulevard's shops and commercial services. The multiway boulevard includes a 15 foot sidewalk with shade trees, an 8 foot parallel parking lane, a 10 foot one-way access lane, a 20 foot wide park-like median, two 10 foot travel lanes, a 30 foot central median and a repeat of these elements in mirror image.

Multiway boulevard design combines the specific needs of multiple functions into a single, comprehensive, balanced thoroughfare. Pedestrian mobility is a primary function, facilitated by managed motor vehicle speeds. Commercial viability is enhanced with access via multiple travel modes, specifically walking, biking, transit and motor vehicle use. Through movement of commuter and local circulating traffic is also provided without significant loss of capacity.

Pedestrian fatalities increase geometrically with increased motor vehicle speeds, thus speed management in high pedestrian areas is essential. The pedestrian features of the multiway boulevard help to strengthen the connection between the Banana River and the Ocean.

Multiway boulevards are designed for pedestrians, cyclists, transit riders, through-going traffic, and local traffic.



SR 520 GATEWAY IMPROVEMENTS (EAST OF A1A)

SR 520 east of A1A envisions the existing roadway and wide median transforming into a grand "Broadway." It would include one lane of travel in each direction with angled parking and the median turned into an active, tree-lined civic space. Wide sidewalks along the outer edge of the road would abut street oriented buildings. In addition, turning radii at intersections should be designed to accommodate bus traffic.

This grand "Broadway" could be implemented in part with the redevelopment of each side of SR 520. The plan keeps the existing curb locations so as redevelopment occurs, the frontage could be improved by the developer.

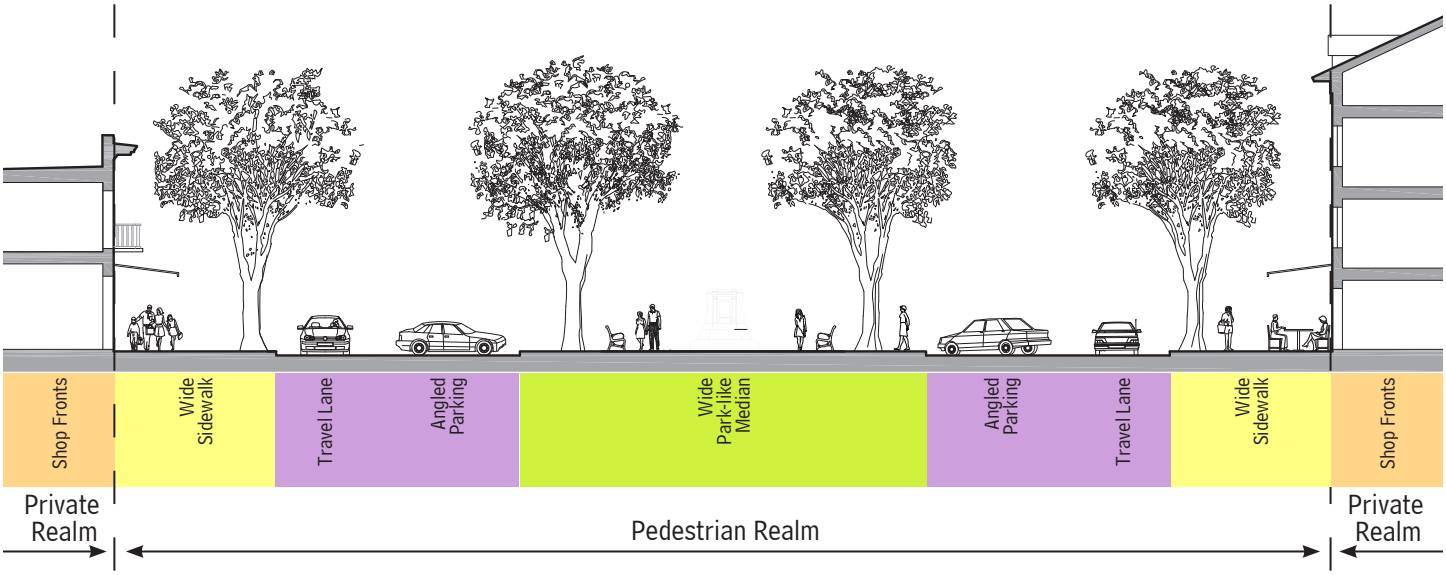
A1A & SR 520 INTERSECTION

The A1A Corridor Study currently adds a multiuse path along the west side of the existing roadway. The project report has illustrations of how the SR 520/A1A intersection will be reconstructed to decrease the pedestrian crossing lengths and "tighten" up the intersection geometry. As described in the preceding discussion, the vision plan utilizes these same types of improvements, though the details vary due to the proposed revisions to SR 520 on both sides of A1A.

The current A1A Corridor Study concept indicates one westbound through lane and two turn lanes approaching the intersection from the east. To accomplish the goal of creating a civic space and design context, this vision plan recommends reducing the approach lanes to one shared left/through turn lane and one right turn lane. The low traffic volumes on this section of SR 520 approach A1A show that there will be a minimal increase in wait times as compared to the A1A Corridor Study concept.

The intersection of A1A and SR 530 is revised to reflect the new Broadway treatment of SR 520 east of A1A.

Welcome to Cocoa Beach's "Broadway" - a broad, park-like pedestrian way where there is now an unused median.



SR 520 east of A1A as an out door pedestrian oasis.

IMPROVED TRANSIT

It was noted that the transit system are primarily used by people who work at the various hotels and retail uses. Choice riders (i.e. not transit dependent), such as local residents and visitors, and tourists from places like Cape Canaveral are not the norm.

The current headways between buses is 30 minutes which is well above the desired 6 to 10 minute headway that is typical for robust, well-traveled transit routes. Long headways are the leading detractor from people choosing to leave their car at home and use transit instead. Decreasing headways by increasing the number of buses along these routes, or modifying the route structure could help to increase ridership.

Additionally, maintaining the schedules on routes is of key importance to attracting new ridership. A common complaint against transit buses is that they block the travel lanes during peak hours of the day while they pick up and drop off passengers. Creating bus pull off spaces is not typically desired by transit agencies due to the added and unpredictable time loss that occurs while the buses are delayed getting back into the traffic stream. Another preferred technology based solution could be to create a bus pull-off space on the upstream side of traffic signals that then gets an advanced green light that allows them to pull back into traffic before the adjacent traffic flow starts again. This is referred to as bus priority signalization and is being used around the nation in various cities including Seattle, Los Angeles and Portland, Oregon.

Let's build bus and trolley facilities in a way that encourages their use and coexists well with cars and pedestrians.

As an alternative, a local circulator route using a trolley type vehicle connecting the major employment centers and points of interest in Cocoa Beach could be established. Ideally, the trolley could also connect further north to the port and south to Patrick's Air Force Base. This could become a draw for cruise passengers to use the trolley service to visit Cocoa Beach.

Another transit strategy to increase the competitiveness of transit over the use of personal vehicles could be to construct a small transfer facility, referred to as a "mobility hub," at the transfer location on SR 520 east of A1A location in the route structure that provides technology based amenities such as:

- Pocket Maps
- Local Bulletins
- Signage/Wayfinding
- Bike Racks with Bike Share
- Advertising
- Recycling/Trash
- Benches/Seating
- Lighting/Day lighting
- Touch screen kiosk
- WiFi

In addition to the mobility hub, the character of the area around the main transfer point is envisioned as transforming into a more complete space. Transit riders can wait in a plaza surrounded by street-oriented shops and looking over the main"Broadway" median.

The transfer point at the end of SR 520 is transformed into a complete place, creating a dignified place for users to wait for transit.

Example of a "mobility hub".

(*image credit – Wendel Duscherer, Inc.*)

PEDESTRIAN IMPROVEMENTS

Pedestrian safety and walkability are key concerns amongst the residents of Cocoa Beach. The ability to safely and conveniently traverse a city by walking is a key factor for "livability" for the residents and attractiveness for pedestrians.

Residents would love the freedom and convenience of leaving their cars at home and walking to make purchases, go to the park with their children, or meet friends at a neighborhood restaurant or coffee shop. Today, activities such as these are difficult, if not impossible, to achieve due to the current state of Cocoa Beach's streetscapes.

The existing designs of Cocoa Beach's main thoroughfares – SR 520 and A1A – do not feature a comfortable pedestrian environment. These primary roads lack key elements for walkability, such as continuous sidewalks, appropriate street trees, and pedestrian-oriented destinations, thus limiting the vibrancy of the community.

A detailed, 10-step plan for achieving walkable streets is outlined in the big ideas section of this plan.

One of the first considerations in achieving a walkable system is to ensure that a mix of housing, retail, office space, civic institutions, and public open space are located within a five-minute walk of one another. The second step is to ensure that an interconnected street system binds these uses together, so that pedestrians can choose the most convenient path. Finally, the streets that connect these various destinations must be designed for pedestrian use, with generous sidewalks, shade trees, protection from passing cars, and street-oriented buildings rather than parking lots.

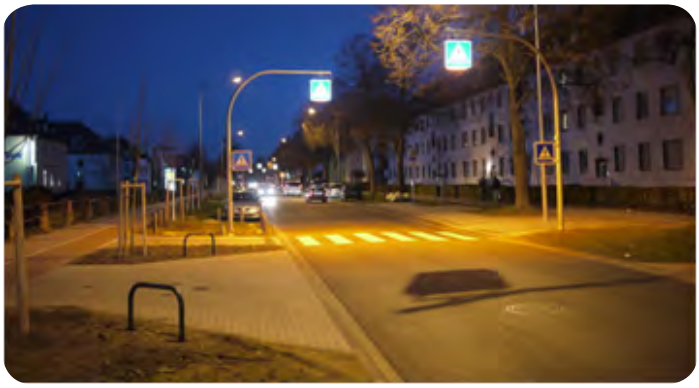
Street design is only part of encouraging pedestrians & cyclists. We'll need lighting, crossings & shade.

The pedestrian realm should feel safe and comfortable in order to encourage walking throughout Cocoa Beach, particularly within the Tourism Gateway District.

Some enhancements to the pedestrian network that could be considered in the future include:

- Providing enhanced pedestrian crossing markings across the larger thoroughfares such as A1A, SR 520, and Banana River Boulevard.
- Providing effective illumination of the pedestrian crossings at all intersections
- Creating mid-block pedestrian crossings using colored textured pavement at crosswalks to delineate the pedestrian space and send a visual queue to motorists to reinforce that pedestrians are to be expected.

Enhanced Pedestrian Crosswalk Markings



Effective Pedestrian Illumination

Well Marked Pedestrian Crossings

IMPROVED ACCESS MANAGEMENT

As new development occurs, access management strategies should be required to minimize curb cuts across sidewalks for increased pedestrian comfort and safety and to minimize conflict points for vehicles. Strategies that could be used are:

- Shared access points for abutting parcels and cross parcel access
- Decreasing turning radii to slow turning vehicles
- Find opportunities for frontage of backage roads to allow for uninterrupted frontages
- As noted in the A1A Corridor Study, find opportunities to implement median treatments where possible.

Even without a radical redesign of the street we can make the street much safer for the pedestrian.

23 Entrances
28 Parcels

10 Entrances
29 Parcels

CYCLING IMPROVEMENTS

As described under existing conditions, actual on-street bicycle accommodations are only provided on two routes, North Banana River Road and Ocean Beach Boulevard. The on-street facilities should be expanded in the future. During the charrette a bicycle "loop" was identified that would utilize the two existing north-south bike lane routes in conjunction with additional east-west connections, as well as the future A1A improvements. The fully improved bicycle route map could look like the image below.

This would provide a robust bicycle network which could encourage residents and tourists to use bicycles to access businesses within Cocoa Beach.

Specific bicycle related improvements are listed as follows:

Route A1A

- Implement the recommendations shown in the A1A Corridor Study such as the continuous multi-use path.
- Consider a longer term strategy to provide on-street dedicated bicycle lanes.
- Seek opportunities to incorporate on-street bicycle lanes in the future.

SR 520

- Implement the multiuse paths within the multiway boulevard as show in the prior graphics.

Local Roads

- Implement a system of sharrows and signs along side streets.
- Improve South Banana Boulevard and St Lucie Road to include sharrows in the short term, and if the roads are ever re-constructed, then implement a typical section that would provide for on-street bicycle lanes and a multiuse trail.
- If the opportunity arises through a redevelopment proposal of the Wakulla Inn or abutting properties, construct a multiuse path from the end of Ocean Beach Boulevard over to Route A1A. Use a pedestrian beacon to create a safe mid-block crossing.
- To the north, provide on-street markings for bicycles along both Meade Avenue and Hendry Avenue.

WHAT IS A SHARROW?

Sharrows are the preferred facility type for bicyclists on thoroughfares with posted speeds between 20 mph and 30 mph, particularly for streets with on-street parking. The sharrow pavement marking consists of a bicyclist or bicycle symbol with two chevrons on top, indicating the direction of travel. The sharrow should be located such that the center of the marking is along an imaginary line 5 feet away from the edge of the parking lane, if a parking lane is present, or 5 feet from the curb face if no parking lane is present.

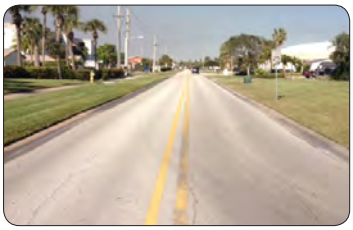
On multilane thoroughfares, the sharrow is located in the right most lane. The sharrow should be placed at the beginning and end of each block and at least once mid-block. If desired, a sign indicating "Share the Road" or "Bicyclists Sharing Road" may also be used in conjunction with the sharrow.

Sharrow Marking

Sharrows used in conjunction with separate bicycle facilities could get more of Cocoa Beach using their bikes, getting exercise, and enjoying the ocean breeze.

The following images show how both Escambia Lane and St. Lucie Lane could be improved in the future to provide bicycle facilities. The longer term scenarios could occur if major reconstruction is required due to a utility project (for example).

Escambia Lane

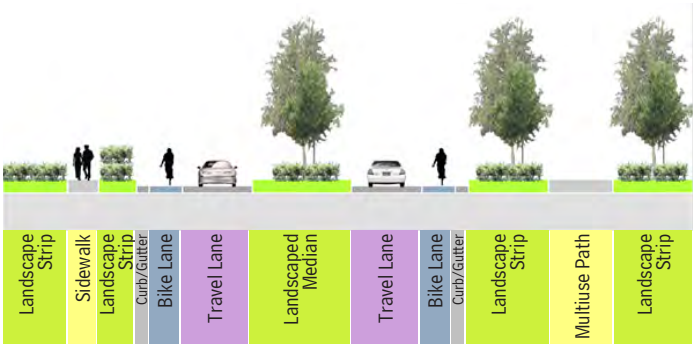


Existing Conditions

Short-Term: Add sharrows and "share the road" signs as well as additional landscaping for shade.

Long-Term: Rebuild the road to include a median, bike lanes, shade trees and a multiuse path.

Proposed Short-Term Conditions



Proposed Long-Term Conditions

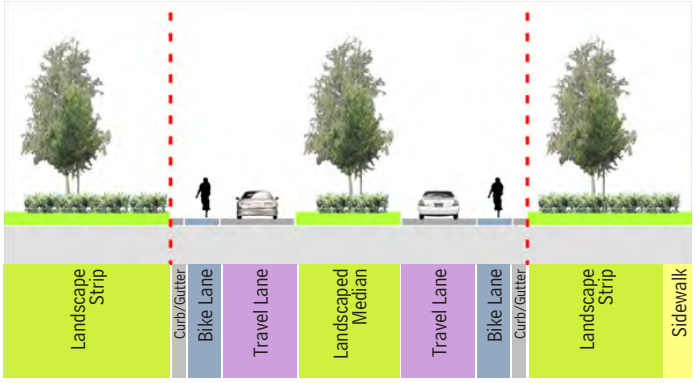
St. Lucie Road

Existing Conditions

Short-Term: Add sharrows and "share the road" signs as well as additional landscaping for shade.

Long-Term: Rebuild the road to include a median, bike lanes, shade trees and a multiuse path.

Proposed Short-Term Conditions



Proposed Long-Term Conditions

Shared Bicycle Programs

Shared bicycle programs have become popular across the Country. A typical method for implementation is to partner with a shared bicycle program provider who provides the equipment and maintenance for the bicycles. Offering this service to tourists could be a draw when coupled with a safe bicycle network suitable for riders of all ages.

Shared Bikes

Provide Bike Parking

Bicycle parking is often overlooked but critical to encouraging bicycle usage. Ideally, bicycle parking should be provided in the front of a store or building, in plain sight, easily visible from inside the store or building. The simple "U" rack is recommended for bicycle parking although other artistic bike racks could be used. The "U" rack is simply 2" or 3" diameter pipe, bent into a "U" shape, and anchored into the sidewalk like an upside-down "U". A single rack can accommodate two bikes, one on either side, locked through the front wheel as well as the bike frame. Alternatively, the rack can accommodate up to four bikes if only the front wheels are locked to the rack, but the bikes will have no other support and will need kickstands to remain upright.

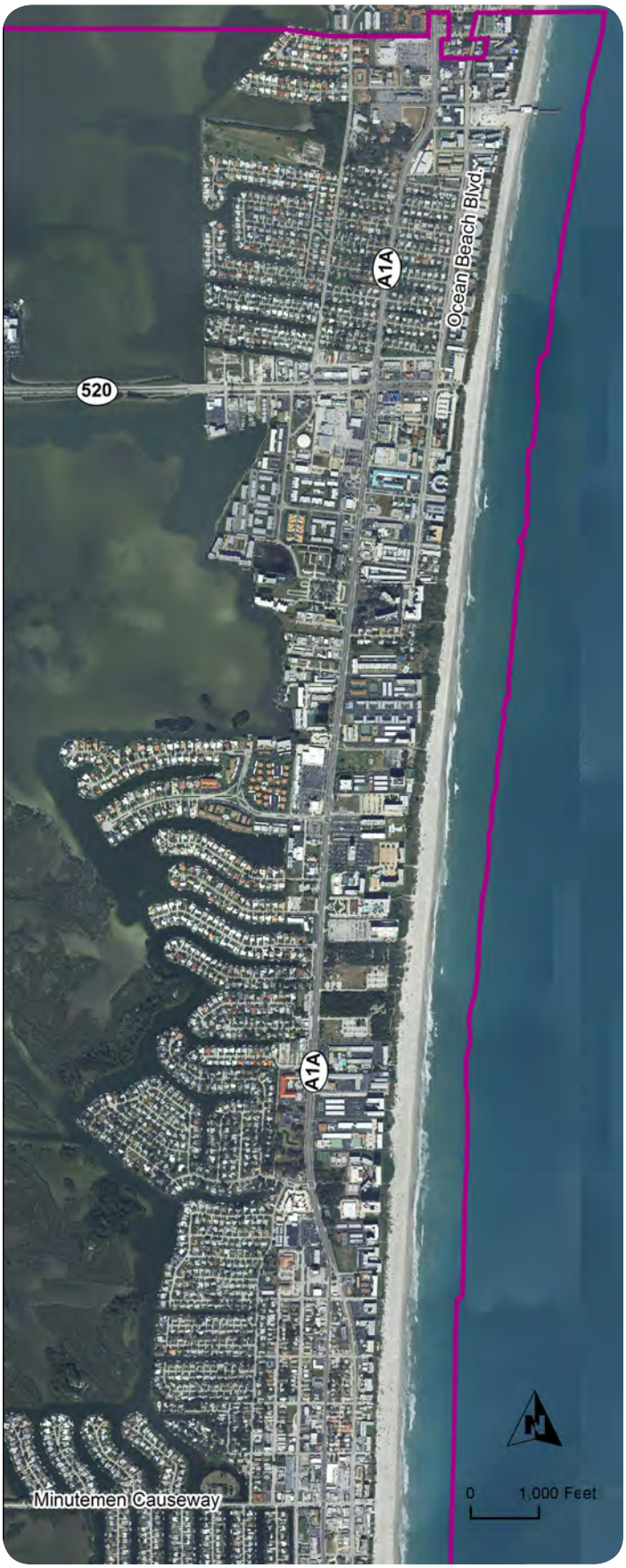
The placement of additional bicycle racks at public parks and providing bicycle racks with new development should be required. As bicycle usage becomes more prominent in the city, due to future bicycle network and accommodation improvements, requiring bicycle racks as part of development proposals, and providing bicycle racks at public facilities will help to enhance the overall bicycling environment.

U-Racks Installed on a Sidewalk

(*Photo from Cycle Safe Bike Racks*)

GETTING THERE 6

IMPLEMENTATION OF GATEWAYS PLAN



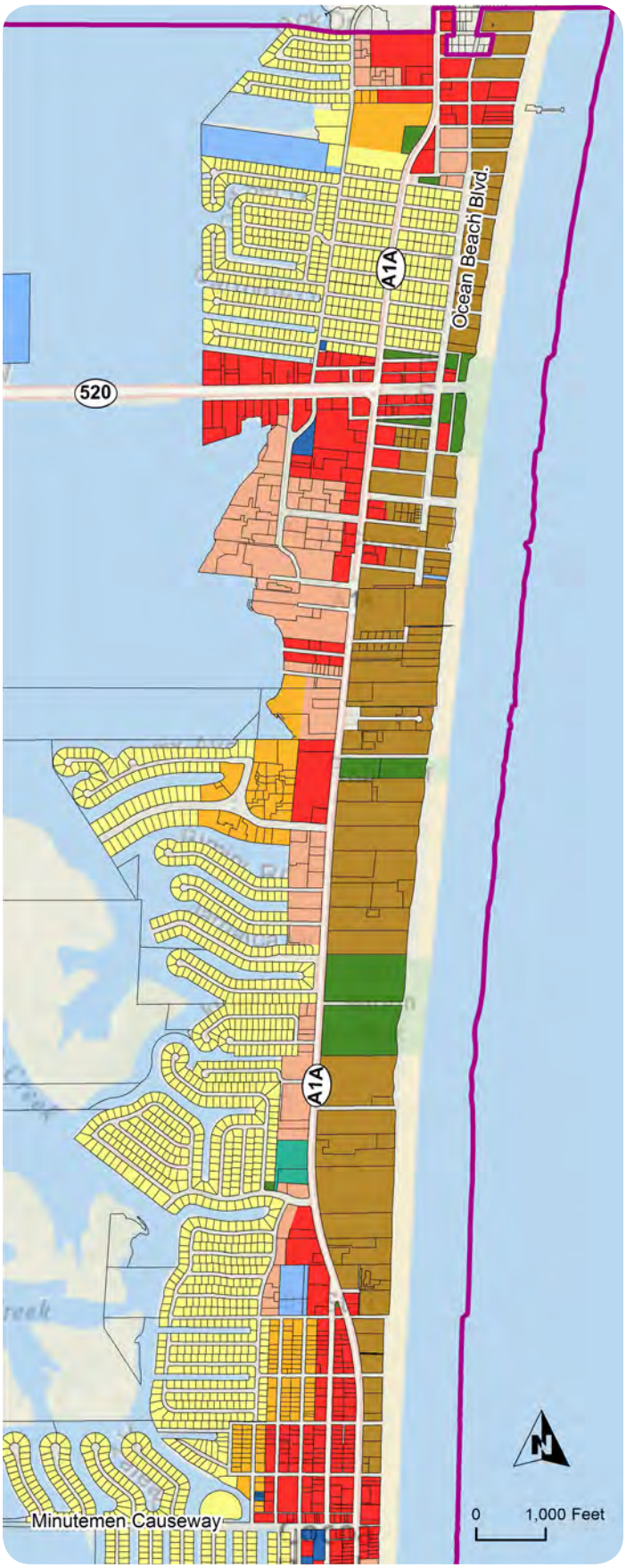
The new vision for Cocoa Beach's SR 520 / A1A Gateway has been described and illustrated throughout the Gateways Master Plan. This chapter identifies several important steps that the City of Cocoa Beach must take to encourage this transformation to begin.

These steps include changes to the city charter, the comprehensive plan, and various land development regulations, including:

- Generalize the city's Future Land Use Map
- Create tourism overlay districts
- Allow mixed-use buildings in tourism districts
- Don't force flat-top buildings
- Encourage shared parking
- Consolidate business driveways
- Create a form-based zoning district along SR 520

Full realization of this vision will require many additional steps, including physical improvements to public streets and parks, and possibly public-private partnerships where they would provide mutual benefits to investors and the public.

The comprehensive plan must be consistent with Cocoa Beach's city charter. Because of specific provisions in the charter, the city commission must refer some decisions about the comprehensive plan and even the land development code to the voters. These decisions can be extremely complex due to the interlocking nature of Cocoa Beach's charter, comprehensive plan, and land development code. Despite this complexity, voters could authorize important refinements in the near future.



FUTURE LAND USE MAP

Cocoa Beach's comprehensive plan contains a "Future Land Use Map." For the past twenty years, all Florida comprehensive plans have been required to include such a map.

In Cocoa Beach as in many other fully developed communities, the Future Land Use Map is very similar to the city's zoning map (shown on page 6.9). This redundancy can be helpful when it protects stable neighborhoods from casual zoning changes. However, this redundancy makes it more difficult to update the zoning map when conditions have changed or when the existing zoning map conflicts with public policy.

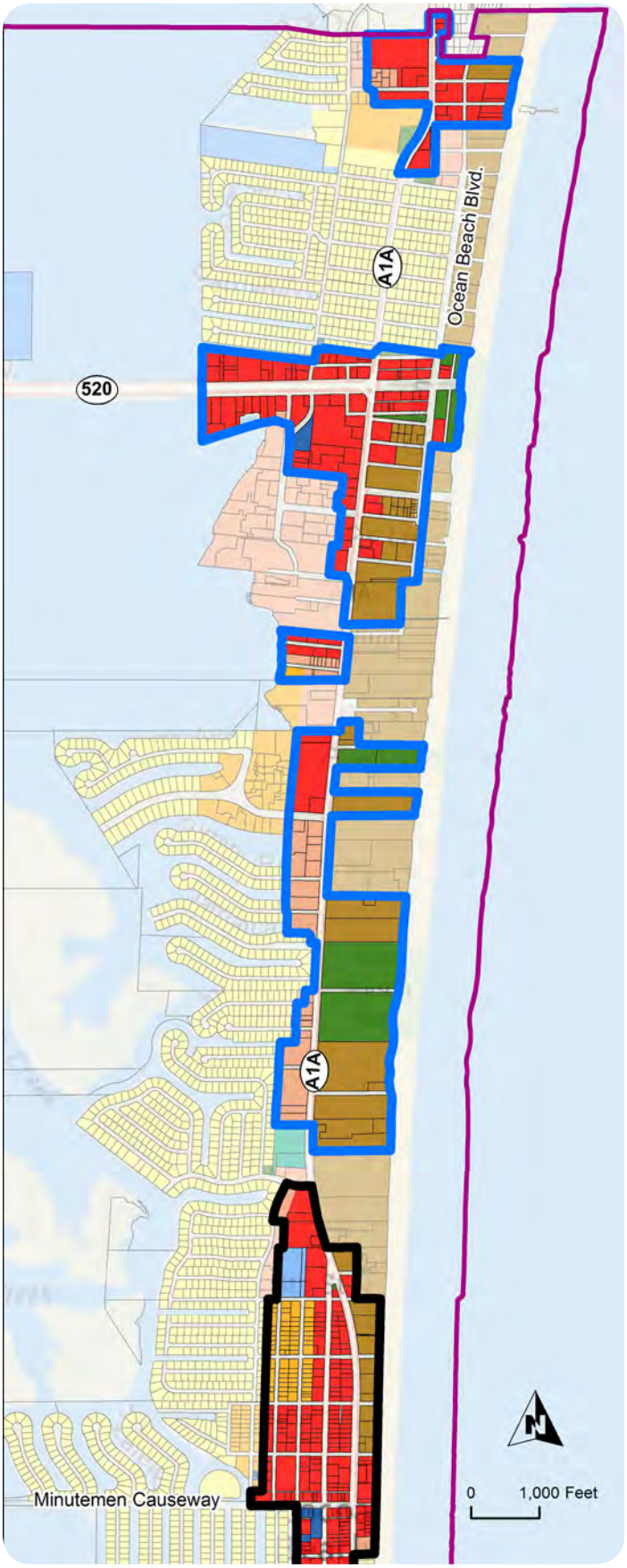
There are several other distinguishing characteristic of both maps in Cocoa Beach:

- "Commercial" designations must be entirely commercial. Condos and apartments cannot be included in mixed-use buildings, or even on adjoining parcels in mixed-use developments.
- "High Density Residential" designations are separated into two distinct categories:
    - East of A1A, tourist uses such as hotels and resorts can be commingled with private condominiums.
    - West of A1A, tourist uses are forbidden, but professional offices are allowed. This distinction tends to spread hotels and resorts thinly along the beach, rather than clustering them near restaurants and tourist attractions. This preference against clustering results in some hotels and resorts being built closer to the quieter south end of the city.

No immediate changes are needed to the base designations on Cocoa Beach's Future Land Use map. Ultimately the commercial areas should be made more general in nature, for instance putting all of downtown in a single mixed-use downtown designation and putting the primary blocks along SR 520 into a single mixed-use tourism designation.

FUTURE LAND USE MAP LEGEND

- Low Density Residential
- Moderate Density
- High Density Residential & Professional
- High Density Residential & Tourist
- General Commercial
- Conservation
- Recreation
- Public
- Institutional
- Cocoa Beach City Limits



OVERLAY DISTRICT MAP

Overlay districts are a common shortcut for adjusting Future Land Use Maps (and zoning maps) that are interfering with public policies rather than implementing them.

Cocoa Beach's most prominent example is the new Downtown Overlay District, outlined in black on the map. This overlay was added to the Future Land Use Map in 2012 to allow Cocoa Beach to implement its new downtown plan. This overlay district, which was approved by the voters in a 2011 referendum, allowed the city to navigate around several regulatory obstacles that inhibited the revitalization of downtown Cocoa Beach. New text was also added to the comprehensive plan to summarize the planning principles for downtown and describe the regulatory changes and other actions needed to implement the downtown plan.

In the same manner, **new Tourism Overlay Districts**, outlined in blue on the map, could be added to the comprehensive plan to allow Cocoa Beach to implement portions of this Gateways Plan without waiting for large-scale revisions to the Future Land Use Map.

The northernmost district would include the Cocoa Beach Pier, Days Inn, La Quinta, Best Western, Holiday Inn Express, and the Publix shopping plaza.

The 520 district would include both sides of SR 520 from the Banana River to the Atlantic Ocean and would extend south to include the Hampton Inn and Marriott Courtyard on the ocean and also include the Econo Lodge and both sides of Manatee and Seminole Lanes on the river side.

The central district would begin at the Banana River Square shopping plaza and includes Sidney Fischer Park, Double Tree, Resort on Cocoa Beach, Hilton, Lori Wilson Park, La Quinta, International Palms, and Ocean Landings Resort.

OVERLAY DISTRICT LEGEND

- Downtown Overlay District
- Tourism Overlay Districts (proposed)
- Cocoa Beach City Limits

ALLOW MIXED-USE BUILDINGS

Mixed-use neighborhoods allow residents to walk or bike to nearby shops, services and other attractions. Sometimes these other activities are located within the same neighborhood. More often these activities are located outside the neighborhood but within walking distance.

In more compact neighborhoods or in commercial areas, these other uses can be located on the ground floor below apartments or condominiums. In planning terminology, this is known as a "mixed-use building," sometimes called "vertical mixed-use" to contrast it with the more common "horizontally" mixed-use neighborhoods.

For several decades, Cocoa Beach's comprehensive plan and zoning regulations have effectively forbidden mixed-use buildings and mixed-use developments. If these documents had been created at the founding of Cocoa Beach, which was envisioned in the 1920s as shown in the historic image below, mixed-use buildings may have become the norm rather than a rare exception.

Mixed-use buildings can be elegant, like the flat-iron building in Melbourne, or modest like the two-story building recently added in downtown Cocoa Beach. The Cocoa Beach building was allowed only after voters approved changes to the comprehensive plan to specifically allow mixed-use buildings in downtown Cocoa Beach.

A similar change in the comprehensive plan is needed to allow mixed-use buildings in the new Tourism Districts and encourage them by counting the entire parcel in density calculations.

Ironically, the comprehensive plan already contains a policy directing that the zoning code be amended by 2001 to include a mixed-use zoning classification. It is clearly overdue for Cocoa Beach to encourage mixed-use buildings in certain places, rather than continuing to discourage or forbid them.

Flat-iron building, Melbourne, Florida

Photo credit: Leonard J. DeFrancisci

Commission Room Mural by Gus Edwards; restored by Patricia McCarren.

New mixed-use building in Downtown Cocoa Beach.

DON'T FORCE FLAT-TOP BUILDINGS (BUILDING HEIGHT LIMITS)

Cocoa Beach's four-story height limit is similar to the height restrictions in many other coastal communities where residents wish to retain their small-town character.

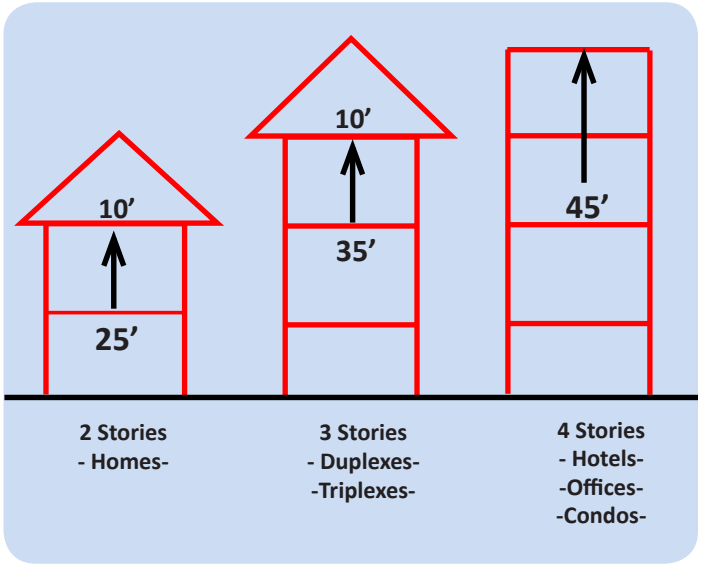
However, there are unusual aspects of the Cocoa Beach height limit that effectively eliminate the possibility of building new four-story buildings. This can be understood by comparing the method of measuring building heights for various building types in Cocoa Beach.

Single-family homes can be two stories, with the upper ceiling as high as 25 feet above ground. The roof can extend 10 additional feet.

Duplexes and triplexes can be three stories, with the upper ceiling as high as 35 feet above ground. Again, the roof can extend 10 additional feet.

Hotels, offices, and condos can be four stories. However, these four-story buildings cannot have any portion of their roof above 45 feet. Buildings need space above the upper ceiling for the ceiling structure, sloped roofs, vent pipes, elevator shafts, air-conditioning equipment, stair towers, and/or parapet walls.

As currently written, the 45-foot rule in the city charter and land development code makes the fourth story impractical to build. Even with low ceilings on every floor, buildings would end up with a flat top, which would be out of character with existing architecture in Cocoa Beach and the historic architecture of the region.



Classic historic buildings often hide their flat roofs with attractive and ornamental parapet walls, which also hide unsightly rooftop utility equipment. The Ginter Building in Eau Gallie is a good example. Gorgeous buildings like the Casa Monica Hotel in St. Augustine could never be built in Cocoa Beach because of the current wording that caps the height of four-story buildings at an unreasonable level.

The current 45-foot height limit for Cocoa Beach should be modified slightly to allow proper four-story buildings for offices, hotels, and condos and to allow decorative architectural features above the fourth floor.

Photo credit: Leonard J. DeFrancisci

Classic historic buildings often hide their flat roofs with attractive and ornamental parapet walls, which also hide unsightly rooftop utility equipment. The Ginter Building in Eau Gallie is a good example.

Photo credit: Casa Monica Hotel

Gorgeous buildings like the Casa Monica Hotel in St. Augustine (below) could never be built in Cocoa Beach because of the current wording that caps the height of four-story buildings at an unreasonable level.

ENCOURAGE SHARED PARKING

Cocoa Beach was developed during a period when everyone arrived by car and drove from place to place. This planning approach requires parking lots at each destination that are large enough to serve the busiest period of the week.

This paradigm is now being challenged by a confluence of social and economic factors:

- Major roads have become heavily congested, keeping driving from being an enjoyable experience.
- Younger generations don't value the mobility of owning a car to the same extent as prior generations.
- A landscape of parking lots repels many visitors, who prefer places where they can comfortably walk or ride a bike in comfort.
- Rising gas prices and awareness of the effects greenhouse gas emissions challenge how long this paradigm can continue, even if it is currently the preferred approach.

Shared parking is an excellent way to bridge the gap between our car-oriented culture and emerging trends.

Rather than taking a strong step towards a more walkable and bikable city, present-day Cocoa Beach regulations treat shared parking as a potential danger. There is no clarity as to if or when the city will approve private shared parking lots. The effect is to discourage developers who would build in accordance with updated codes that promote walking and biking if they were able to use modern shared parking techniques.

Several methods for providing shared parking are illustrated in the aerial photograph below, which shows Fifth Avenue South in Naples, Florida.

Fifth Avenue South was the original "Main Street" for Naples. It has been reinvented as a magnet for visitors and residents to enjoy outdoor dining, shopping, and the arts.

Standard parallel parking is provided on both sides of Fifth Avenue South and most side streets. Diagonal or straight-in parking is provided around Cambier Park and along lesser-traveled secondary streets. The City of Naples operates large shared parking lots placed behind the buildings that face Fifth Avenue South; some of these parking lots have been converted to parking garages as redevelopment has increased the need for parking spaces.

Cocoa Beach's solution can vary from this approach. For instance, shared parking lots or garages can be operated as businesses instead of municipal operations. On-street parking can generate revenue that can be used to offset some impacts of tourism. Details like these, and others can be tailored to local preferences.

A wide range of superior solutions should begin replacing the current practice of requiring every business to build a private parking lot for all its customers. This practice is inefficient for businesses and it damages the daily experience of residents and visitors.

Downtown in the City of Naples, Florida

Many of these enter/exit areas could be consolidated.

CONSOLIDATE BUSINESS DRIVEWAYS

Tourist-serving businesses need excellent access for their customers, but not as many driveways as many now have on A1A.

An extreme example is shown by the eight arrows on this image where five businesses have eight separate driveways, making conditions dangerous for pedestrians and bicyclists. These extra driveways are the result of incremental building on individual lots without city regulations that anticipated the eventual consolidation of driveways alongside property lines.

As a result, customers who wish to visit two businesses must leave the parking lot of one, travel a short distance on A1A, and enter the other business. Cross-access drives and consolidated driveways could simplify this maneuver and reduce traffic on A1A. Businesses would benefit by making themselves more accessible to potential customers.

Cocoa Beach can adopt its own regulations governing the number and style of access points onto major roads. These regulations would apply at the time of redevelopment, changes in use, or highway construction. A1A is a state highway with state regulated access requirements, but the city's requirements will also apply provided they don't require any configurations that are prohibited by the state.

State and federal highway officials strongly support local governments who take steps to eliminate unnecessary driveways onto highways.

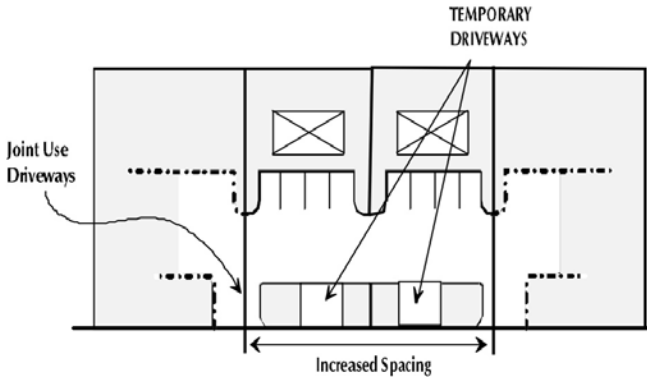
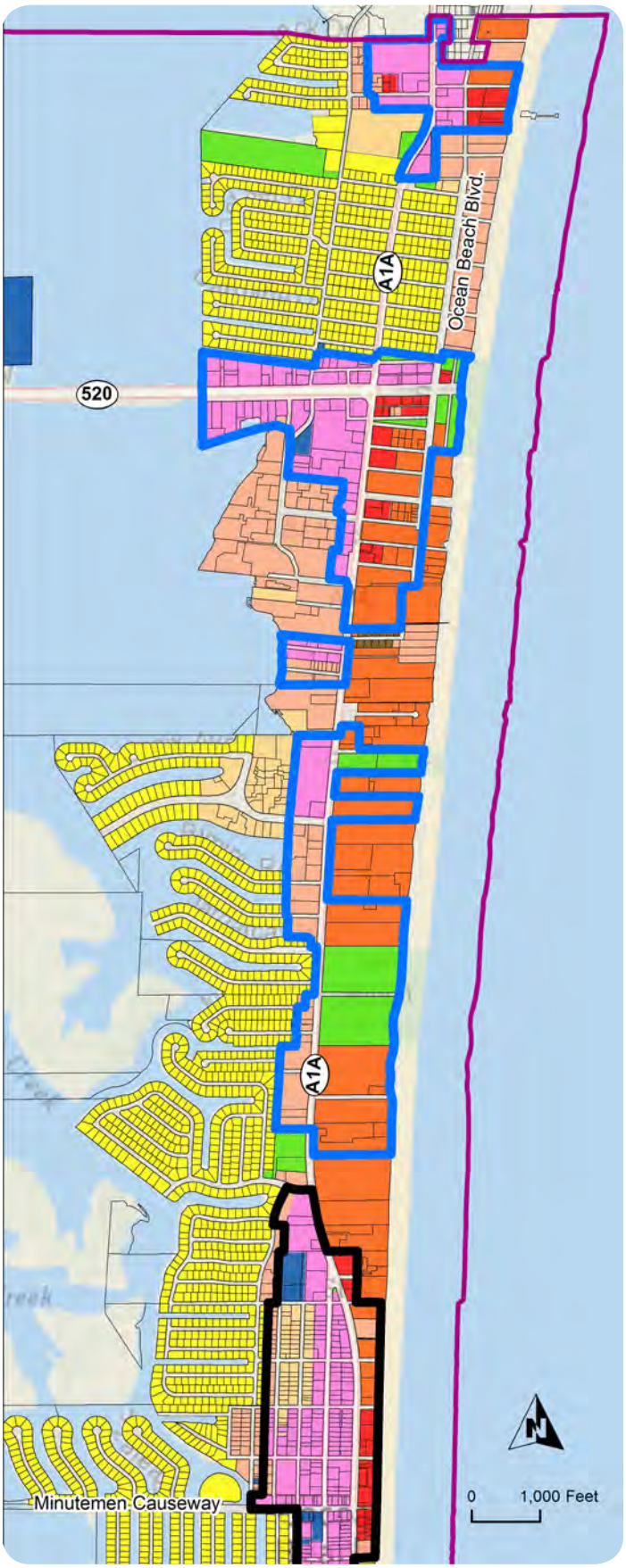


Diagram from: *Model Land Development & Subdivision Regulations That Support Access Management for Florida Cities and Counties*



NEW FORM-BASED ZONING DISTRICT

Because Florida comprehensive plans have more legal authority than land development codes, the zoning map and, in fact, all land development regulations, are required by state law to be consistent with the Future Land Use Map. This is true even though the Cocoa Beach zoning map existed long before the Future Land Use Map.

As to commercial activities, the Future Land Use Map designates specific parcels as "General Commercial" (see map on page 6.3). This designation applies to most of the land along SR 520 that is affected by this Gateways Plan.

The zoning map assigns these same parcels one of two zoning districts: CN (Neighborhood Commercial) or CG (General Commercial). This sort of distinction is common in zoning codes. Sometimes it distinguishes between shops that serve neighborhoods, versus larger stores that serve the entire city or the traveling public. In other communities, the distinction is between stores or offices with predominant daytime hours, versus businesses open late into the evening such as convenience stores and night clubs. More commonly, it distinguishes between businesses that are suitable nearer residential neighborhoods, versus potentially unpleasant neighbors such as vehicle repair shops, gas stations, or car dealerships.

In the Cocoa Beach land development code, the distinction between these zoning districts takes eight pages to describe, yet the differences are very minor. CN allows pet shops and art galleries but not clothing shops, gift shops, or car dealerships. CG allows clothing and gift shops, hotels, health clubs, and tattoo parlors, but is silent about car dealerships.

These voluminous fine distinctions were undoubtedly placed into the code over time to resolve immediate issues with specific properties. Whatever distinction had existed between these zoning districts has been eroded to a point where this distinction has essentially no value in implementing this Plan.

ZONING DISTRICT LEGEND

- RS-1 Single Family Residential
- RM-1 Multifamily Residential
- RM-2A High Density Multifamily
- Multifamily–Professional
- Oceanfront Residential & Transient
- Neighborhood Commercial
- General Commercial
- Public and Semi-Public
- Public and Recreational Use
- Cocoa Beach City Limits

There is a different distinction in modern zoning codes that is directly pertinent to implementing this Gateways Master Plan – the difference between conventional zoning districts and form-based zoning districts.

The zoning districts listed in the Cocoa Beach zoning code are conventional zoning districts, sometimes called Euclidean zoning after the 1926 Supreme Court decision that legalized zoning in the United States. Conventional zoning places a great emphasis on what activities can take place in each zoning district, with relatively little emphasis on the physical form of buildings, streets, and other public spaces.

As described earlier when discussing mixed-use zoning in Cocoa Beach, a great emphasis on the control of specific activities imposes serious restrictions on businesses which must evolve to survive, without guaranteeing good results for the community.

In Cocoa Beach, regulations regarding physical form are strict as to building height and coverage, but minimal or even harmful in other ways. For instance, buildings along SR 520 and along A1A north of downtown must be set back at least 50 feet from their front property line. This 50-foot strip is the most important land in the city for creating a lively experience for pedestrians and bicyclists, yet the zoning code places it off-limits for virtually anything other than parking lots.

Newer zoning districts for areas intended to be walkable are quite different from conventional zoning districts. Often described as "form-based," these zoning districts still regulate important aspects of commercial activities, but with a lighter hand; the distinctions between allowable uses in different zoning districts are simplified so they are understandable to property owners and the public. Increased emphasis is placed on the physical form of buildings and public spaces. Instead of requiring stores to be set back behind parking lots, stores are encouraged or required to be close to the sidewalk and to have clear windows and working doors that are welcoming to those on foot or bike. Form-based codes can coordinate new buildings and street retrofits to create high-quality public spaces in Cocoa Beach.

Cocoa Beach's downtown regulations, although created as a zoning overlay rather than a new zoning district, are essentially form-based, requiring downtown redevelopment to strengthen the public realm while being more flexible as to the changing uses within buildings.

Likewise, key portions of the SR 520 corridor should be regulated differently than most other parts of Cocoa Beach. A new form-based zoning district should be created for this purpose; a new zoning district would avoid the complications of applying new rules through a zoning overlay that contradicts the underlying zoning.

The land most suited to this new zoning district is outlined in yellow on the map below:

- The first full blocks north and south of SR 520 between A1A and the ocean.
- The blocks north of SR 520 between the Banana River and North Banana River Boulevard (including the land currently being sold by Health First).

Additional land could be added to this zoning district when more detailed planning has been completed. A strong candidate is the Winn-Dixie site, which can include a new east-west street connecting AIA and South Banana River Boulevard.

Other changes to zoning regulations recommended by this plan can use conventional zoning techniques.

STEPS TO IMPLEMENTATION

This chapter proposes many important steps that the City of Cocoa Beach can take to encourage the transformation of the SR 520 / A1A gateway. These steps include changes to the city charter, the comprehensive plan, and various land development regulations.

The most important steps are summarized below. The most critical steps are shown in the left-hand column; these should be undertaken in the very near future. Other important steps are shown in the right-hand column; these can be completed during the next three years.

Chart Key

- **Cocoa Beach City Charter**
- **Comprehensive Plan**
- **Land Development Code**

SHORT-TERM STEPS

Future Land Use Map:

- *(Charter is not applicable)*
- *(No comprehensive plan changes at this time)*
- *(Not applicable)*

Tourism Overlay Districts:

- *(Charter is not applicable)*
- Add tourism overlay map & description (similar to downtown overlay)
- Add tourism overlay map; describe effect on certain regulations

Mixed-Use Buildings:

- Add a new sentence to Section 6.01 regarding mixed-use densities
- Amend Policy I.4.12 to address density in mixed-use situations
- Adjust Article III regarding density in mixed-use situations

LONG-TERM STEPS

- *(Charter is not applicable)*
- Revise to distinguish between downtown, tourism areas, stable neighborhoods, and other business districts
- *(Not applicable)*

- *(Charter is not applicable)*
- *(No further comprehensive plan changes)*
- *(No further code changes)*

- *(No further charter changes)*
- *(No further comprehensive plan changes)*
- *(No further code changes)*

SHORT-TERM STEPS	LONG-TERM STEPS
Building Height Limits:	
Modify Sec. 6.04 to exclude roofs from 45' height limit in tourism districts	*(No further charter changes)*
Amend Policy I.4.11 to exclude roofs from 45' height limit in tourism districts	*(No further comprehensive plan changes)*
Adjust design standards to exclude roofs from 45' height limit in tourism districts	*(No further code changes)*
Shared Parking:	
(Charter is not applicable)	*(Charter is not applicable)*
Add a policy supporting shared parking in all business areas	*(No further comprehensive plan changes)*
Modify parking regulations to encourage shared parking in all business areas	*(No further code changes)*
Consolidate Driveways:	
(Charter is not applicable)	*(Charter is not applicable)*
Add a policy supporting consolidation of driveways & cross-access drives	*(No further comprehensive plan changes)*
(No short-term code changes)	Add new regulations to consolidate driveways during redevelopment
Form-Based Zoning District:	
(Charter is not applicable)	*(Charter is not applicable)*
Add a policy supporting form-based zoning for downtown & tourism areas	*(No further comprehensive plan changes)*
Add a new form-based zoning district along SR 520	Refine form-based zoning district along SR 520

FUNDING MECHANISMS

There are several general and targeted funding approaches that can be taken to implement future "public realm" improvements in the SR 520/A1A study area. In all likelihood, the city also will be able to partner with other government agencies and private property owners to fund selected elements of the overall plan. Cocoa Beach has an established history of working with many different entities on the implementation of civic improvements and it is fair to say that a multi-faceted approach will continue in the future.

One targeted funding mechanism may entail the creation of a special funding district for the study area. This funding district might be set up as a Community Redevelopment Agency (CRA) or as a separate, special taxing district. The CRA strategy can allow for a tax increment funding (TIF) technique, whereby existing property tax revenues are "capped" to the value of the existing tax base and any increase in the value of the tax base, and TIF revenues associated therewith, are directed to a CRA redevelopment trust fund. In contrast, a special taxing district merely adds an additional tax levy on properties within the district and the additional funds may be banked and dedicated to improvement funding.

COMMUNITY REDEVELOPMENT AGENCY

In 1999, a planning report prepared for the city recommended the consideration of a CRA as a funding program for future public improvements to the SR 520/A1A area. While no such CRA action has been taken in the intervening period for the 520 area, the city has since created a CRA for the traditional "Downtown" area. The Downtown CRA undertaking is still in an early implementation phase and surplus TIF funds associated with its creation have yet to materialize to any great degree. A detailed discussion of the Downtown CRA can be found in the city's *Downtown Cocoa Beach Community Redevelopment Plan (March 2012).*

A CRA for the SR 520/A1A study area would effectively create a single entity charged with the primary responsibility to eliminate local conditions of "blight." Through the identification and implementation of specific physical and programmatic strategies and improvements, and assuming that a redevelopment trust fund were created, TIF funds could become a principal dedicated funding source for such improvements.

The CRA/TIF funding program would allow the city to retain the incremental growth in local property tax revenues that would otherwise accrue to other taxing entities such as Brevard County. The success of the local CRA program, as defined by the growth in the local CRA tax base, would allow for continued investment in CRA improvements and programs and potentially support further increases in CRA property values. Other benefits from a successful CRA approach would hopefully include additional tourist bed tax and sales tax and utility revenues – as well as growth in local employment and wages and the multiplier effects associated therewith.

As the initial basis for a CRA, an "Assessment of Need" study would be required to determine the nature and extent of slum or blighted conditions. Upon completion of this study and other precursor actions, the local CRA Redevelopment Plan and redevelopment trust fund could be expeditiously created to best "capture" incremental property tax revenues – that is, before significant private sector redevelopment activities materialize.

In this respect, it is worth noting that $10 million in taxable property valuations could yield approximately $93 thousand in annual incremental revenues (@ 95% of combined 2013 city and county ad-valorem millage rates of 4.8239 & 4.9798 mills, respectively). Similarly, a $50 million increase in the local property tax base could yield nearly $466 thousand dollars in annual incremental revenue. Over a thirty year period, the latter example could yield almost $14 million dollars in revenues dedicated to CRA plans and programs.

There are a host of factors that underscore the potential creation of a CRA for the SR 520/A1A study area. Chief among these is the existing provision in the city's charter that requires voter approval of a CRA. Specifically, Section 6.06 of the charter states the following:

> **Sec. 6.06. Community Redevelopment Agency (CRA) referendum requirement.**
>
> *The City of Cocoa Beach shall not establish or retain a Community Redevelopment Agency as defined by Florida Statute without obtaining the approval of a majority of the qualified voters casting ballots in a referendum. (Res. No. 99-12, 6-3-1999, ref. of 5-18-1999; Ord. No. 1483, § 1, 8-21-2008, ref. of 11-4-2008)*

The city's ability to create a CRA for the study area rests in very large part on voter approval to either amend the charter, or to approve another CRA as per the charter requirement.

Beyond the local referendum requirement, it must be noted that CRA's in Brevard County exist through "home-rule" permission of the Brevard County Commission. That is, Florida Statutes pertaining to CRAs (*refer to Chapter 163.410, f.s.*) provide that Brevard County has the discretionary right and responsibility to allow municipal CRAs to exist, and also to determine the extent to which local increases in county ad-valorem tax revenue may be dedicated to potential CRA funding programs (through the redevelopment trust fund, should one be created). In this respect, it can be noted that there are currently 15 active CRAs throughout Brevard County and that all of these utilize TIF funding as a primary funding strategy.

With periodic changes to state statutes altering the status of "new" CRAs, it should be noted that Brevard County has the right to modify or substantially rewrite a local redevelopment plan prior to local approval. Further, the county can negotiate with the city regarding the lifetime of the CRA (maximum forty years) and the extent of county's TIF involvement beyond a minimum required 50% of additional ad-valorem tax revenues.

The creation of a CRA for the study area will require a clear and concise justification and benefit to the community at-large and close coordination with Brevard County government. Given the County's history of supporting CRAs, as well as the recognized importance of the SR 520/A1A area as a regional and international tourist destination, it is reasonable to expect that the potential for a County approved CRA in this area would be strongly considered.

Another local consideration for a new CRA concerns the long-term financial repercussions to the City of Cocoa Beach as a whole. The city is relatively small, largely built-out and has an existing Downtown CRA. Should a second CRA and TIF funding strategy be established for the SR 520/A1A area, any future growth in ad-valorem tax revenues for the study area would be effectively pledged and restricted to the funding of CRA redevelopment projects and programs through the lifetime of the CRA.

The city would therefore need to be financially comfortable with the continued funding of citywide operations, maintenance (O&M) and non-CRA capital improvements based only on the existing ad-valorem revenue stream from inside the study area – additional property tax revenues to fund O&M, etc. in the remainder of Cocoa Beach would be limited to millage adjustments and/or the growth in the tax base, if any, emanating from the non-CRA properties.

Should the CRA not be selected as a mechanism for funding, at least in part, potential improvements, other options could be the establishment of a special assessment or special funding district for the study area.

In the former, funds could accrue through a one time or periodic special assessment. The latter could be funded through a continuous added property tax to study area properties and could, over time, self-fund improvements and programs that provide a benefit to the affected properties.

While the former approach is most often used with respect to specific utility or road related facilities, the latter might be set up as in a manner similar to a downtown development authority. An example levy of two mills against a tax base of approximately $500 million would generate approximately $100 thousand in annual revenue that could be directed to improvement funding or longer-term debt support and retirement. Finally, the creation of a tenured, non-CRA funding district also may require state legislative approval. Additional legal research would be necessary to confirm this circumstance.

APPENDIX - PLANT LIST A

APPENDIX - PLANT LIST

The best overall strategy for working with native plants in the landscape is to group plants as communities. In nature, different species grow in association with others based on particular environmental conditions and habitat types. Planting of monocultures of single species in any given area is discouraged, as they are much more susceptible to insects and disease. As an alternative, species of similar stature and form should be grouped together or planted in rows (such as street trees). LEED™ or Built Green™ standards for landscaping will facilitate the benefits and beauty of sustainable, regenerative landscapes. The plant list suggests species which are best adapted to Cocoa Beach. They will require the least maintenance (and therefore cost less) and will be more pest and disease-resistant than species which are not adapted to these local conditions. Choice of species by homeowners is flexible, but the suggested plants will perform the best in the coastal environment and contribute to the overall character of the community.

TREES

Common Name	Scientific Name	Approximate Height
Salt-Tolerant Shade Trees		
Live oak	*Quercus virginiana*	60 feet
Silver buttonwood	*Conocarpus erectus*	60 feet
Tabebuia	*Tabebuia argentea*	Variable
Moderately Salt-Tolerant Shade Trees		
Chaste-tree	*Vitex agnus-castus*	20 feet
Dahoon	*Ilex cassine*	40 feet
Loquat	*Eriobotrya japonica*	20 feet
Magnolia	Magnolia grandiflora	75 feet
Royal poinciana	Delonix regia	40 feet
Sweet acacia	Acacia farnesiana	
Slightly Salt-Tolerant Shade Trees		
American holly	Ilex opaca	50 feet
Coral tree	Erythrina spp.	25 feet
Jerusalem thorn	Parkinsonia aculeata	25 feet
Sweet gum	Liquidambar styraciflua	100 feet
Yellow poinciana	Peltophorum pterocarpum	50 feet
Salt-Tolerant Palms		
Cabbage palm	Sabal palmetto	60 feet
Saw palmetto	Serenoa repens	10 feet
Washingtonia palm	Washingtonia spp.	80 feet
Moderately Salt-Tolerant Palms		
Acrocomia	Gastrococos crispa	40 feet
Canary island date palm (LY)	Phoenix canariensis	30 feet
Date palm (LY)	Phoenix dactylifera	50 feet
European fan	Chamaerops humilis	10 feet
Lady palm	Rhapis excelsa	15 feet
Pindo palm	Butia capitata	30 feet
Queen palm	Arecastrum romanzoffianum	40 feet
Windmill palm (LY)	Trachycarpus fortunei	20 feet

*1 LY--Palms on quarantine list displaying symptoms of lethal yellowing

Platanus occidentalis (Sycamore)

Conocarpus erectus (Silver buttonwood)

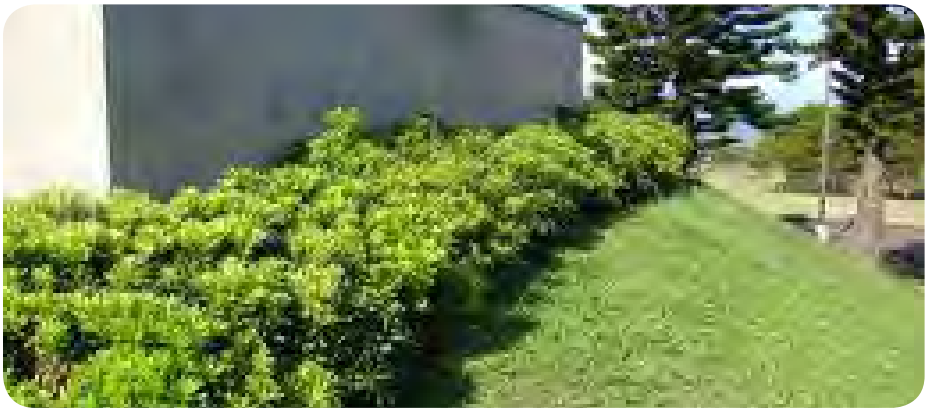
PLANT LIST CONT.

SHRUBS

Common Name	Scientific Name	Approximate Height
Salt-Tolerant Shrubs		
Adam's-needle	Yucca smalliana	4 feet
Crown-of-thorns	Euphorbia milii	3 feet
Natal plum	Carissa grandiflora	10 feet
Oleander	Nerium oleander	20 feet
Pittosporum	Pittosporum tobira	15 feet
Sea grape	Coccoloba uvifera	25 feet
Southern wax myrtle	Myrica cerifera	25 feet
Yaupon	Ilex vomitoria	25 feet
Moderately Salt-Tolerant Shrubs		
Bottle brush	Callistemon rigidus	15 feet
Devil's-backbone	Pedilanthus tithymaloides	6 feet
Blue sage	Eranthemum pulchellum	5 feet
Fatsia	Fatsia japonica	4 - 7 feet
Fire-thorn	Pyracantha coccinea	20 feet
Grape hollies	Mahonia spp.	6 - 12 feet
Hedge cactus	Cereus peruvianus	25 feet
Indian hawthorn	Rhaphiolepis indica	5 feet
Ixora	Ixora coccinea	15 feet
Lucky nut	Thevetia peruviana	10 - 15 feet
Night cestrum	Cestrum nocturnum	12 feet
Pseuderanthemum	Pseuderanthemum atropurpureum	4 feet
Rattle box	Sesbania punicea	8 feet
Ribbon bush	Homalocladium platycladum	4 feet
Satsuki azalea	Rhododendron indicum	6 feet
Scarlet bush	Hamelia patens	12 feet
Vitex	Vitex trifolia 'Variegata'	12 feet

Coccoloba uvifera (Sea Grape)

Ilex vomitoria (Yaupon)



Pittosporum tobira (Pittosporum)

Carissa grandiflora (Natal Plum)

PLANT LIST CONT.

Common Name	Scientific Name	Approximate Height
Slightly Salt-Tolerant Shrubs		
Butterfly bush	Buddleia officinalis	20 feet
Chinese hat plant	Holmskioldia sanguinea	Variable
Copper leaf	Acalypha wilkesiana	15 feet
Crape jasmine	Tabernaemontana divaricata	10 feet
Crape myrtle	Lagerstroemia indica	20 feet
Croton	Codiaeum variegatum	10 feet
Cuphea	Cuphea hyssopifolia	1 - 2 feet
Hibiscus	Hibiscus rosa-sinensis	15 feet
Japanese privet	Ligustrum japonicum	15 feet
Pineapple guava	Acca sellowiana	18 feet
Plumbago	Plumbago auriculata	Variable
Poinsettia	Euphorbia pulcherrima	12 feet
Princess flower	Tibouchina urvilleana	15 feet
Rice-paper plant	Tetrapanax papyriferus	10 feet
Sanchezia	Sanchezia speciosa	6 feet
Snow bush	Breynia nivosa	10 feet
Thryallis	Galphimia glauca	6 - 8 feet
Wintergreen barberry	Berberis julianae	6 feet
Yellow-elder	Tecoma stans	15 feet

Hibiscus rosa-sinensis (Hibiscus)

Sabal Palmetto (Cabbage Palm)

Delonix regia (Royal Poinciana)

Acacia farnesiana (Sweet Acacia)

PLANT LIST CONT.

GROUNDCOVERS

Common Name	Scientific Name	Approximate Height
Salt-Tolerant Groundcovers		
Confederate jasmine	Trachelospermum jasminoides	Variable
Coontie	Zamia integrifolia	24 inches
Creeping fig	Ficus pumila	12 inches
Dichondra	Dichondra carolinensis	2 inches
English ivy	Hedera helix	4-6 inches
Hottentot fig	Carpobrotus edulis	6 inches
Lily turf	Ophiopogon japonicus	18 inches
Lirope	Lirope spicata	18 inches
Purslane	Portulaca spp.	6 inches
Virginia creeper	Parthenocissus quinquefolia	Variable
Weeping lantana	Lantana montevidensis	18 - 24 inches
Moderately Salt-Tolerant Groundcovers		
Blood leaf	Alternanthera spp.	12 inches
Mexican flame vine	Senecio confusus	24 inches
Purple queen	Setcreasea pallida	24 inches
Wandering jew	Zebrina pendula	6 inches
Slightly Salt-Tolerant Groundcovers		
Coleus	Coleus blumei	12 - 18 inches
Partridge berry	Mitchella repens	Variable
Transvaal daisy	Gerbera jamesonii	18 inches
Salt-Tolerant Vines		
Algerian ivy	Hedera canariensis	Variable
Bougainvillea	Bougainvillea spp.	Variable
Cape honeysuckle	Tecomaria capensis	Variable
Moderately Salt-Tolerant Vines		
Creeping fig	Ficus pumila	Variable
Pink allamanda	Mandevilla splendens	Variable
Slightly Salt-Tolerant Vines		
Allamanda	Allamanda spp.	Variable
Chalice vine	Solandra guttata	Variable
Downy jasmine	Jasminum multiflorum	Variable
Painted trumpet	Clytostoma callistegioides	Variable
Star jasmine	Jasminum nitidum	Variable