

City of New Smyrna Beach, Florida

# North Causeway Area Study

Final Report



December 2004

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Realvest Partners

Community Design Associates  
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## **Introduction**

This report has been prepared to document the results of a study of the "North Causeway Planning Area" in the City of New Smyrna Beach, Florida. The study was performed over an approximate one-year period, from November 2003 until November 2004.

The North Causeway study was conducted to accomplish the following objectives:

- 1. Examine existing and proposed future land use patterns and recommend amendments as appropriate to take advantage of market opportunities and changed conditions*
- 2. Examine the market potential for likely uses within the study area*
- 3. Examine building height options and recommend amendments to the land development regulations if appropriate*
- 4. Suggest various amendments to the redevelopment plan, including capital projects, necessary to support redevelopment and redevelopment in the North Causeway planning area*
- 5. Provide suggestions for the future use of key properties*
- 6. Identify regulatory changes that are appropriate to support planning and redevelopment programs*

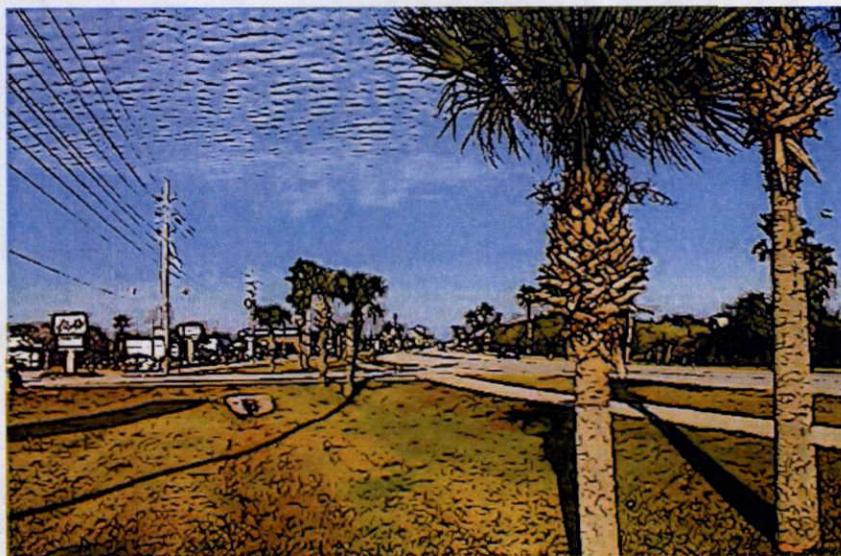
The multi-discipline study team was comprised of planners, landscape architects and civil engineers from Ivey, Harris & Walls, Inc., and economists and real estate professionals from Realvest Consulting Services. In January 2004, Ivey, Harris & Walls, Inc. was sold and subsequently disbanded as a single operating entity. However, the project team remained intact, reconstituted as a collection of firms, to complete the study as originally envisioned. These firms included the Ivey Planning Group, Community Design Associates, Inc., Realvest Partners, and Harris Civil Engineers, LLC.

The study process involved a host of steps and related activities. Initially, an extensive inventory of existing and historic conditions was performed. Stakeholder interviews were conducted with a variety of local property owners, appointed and elected officials, other agencies and interested citizens. Several workshops and public meetings also were held at periodic intervals to inform the community of the process and to secure important input as to community desires and the direction of the study recommendations. Finally, an analysis was made of the potential actions and long-term implications of the recommendations to ensure that, as a whole, the recommendations were reasonable, acceptable and could be supported by the available and future infrastructure. The ultimate goal was to secure an end product that could best meet the needs and desires of the City.

The following sections provide more detailed information regarding the study process and results. These include the analysis of existing and historic physical conditions, an overview of the economic circumstance of the Causeway area placed in context to the balance of the City, the public involvement process, the draft planning concepts, and the final study recommendations.

## EVALUATION OF EXISTING CONDITIONS

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## ***The Study Area and Its Historical Context***

The North Causeway Study Area is effectively a very large island, situated between the mainland and coastal barrier island, and surrounded by the Intracoastal Waterway and related, tidally influenced saltwater marshes and emergent mangrove islands. The study area covers approximately 250 acres, more or less, and is traversed by several deepwater canals and bridged embayments.



Locally referred to as the “North Causeway,” the development of the area began in the late 1800’s as merely a transportation route between downtown New Smyrna Beach and the fledgling residential and beachside commercial areas of Coronado Beach and the north peninsula. Various entrepreneurial groups emerged in late 1800’s and early 1900’s to construct and operate a series of toll bridges across the Intracoastal Waterway, with periodic hurricanes or other natural calamities giving rise to the successor.

Throughout this early urbanizing period, and indeed up through the 1950’s, there was little development of any consequence in the North Causeway area. What little development there was related to the marine and commercial fishing industry, due to favorable access to the waterway, and a very small scattering of “pioneer” residential properties. This lack of development was due in part to the more desirable upland building sites on the mainland and the barrier island, as well as the local need to fill extensive, low-lying shoreline areas of mangroves or other estuarine vegetation to accommodate construction. The City’s historical museum offers an excellent visual account of this circumstance.

Development of the North Causeway area began in earnest in the mid-to-late 1950's and was characterized by spurts of development followed by periods of inactivity. Several commercial buildings along the Causeway frontage were constructed in the later 1950's, then again in the late 1960's and later in the 1970's. Residential construction, primarily single-family homes, was limited to the south side of the Causeway in the 1960's, and was followed by single and multi-family construction on the north side in the late 1970's and



throughout the 80's. To some extent, the on-again, off-again development pattern was related to natural circumstances, such as Hurricane Donna in the early 1960's, and to national economic circumstances, such as the rise and fall of the savings and loan associations in the 1970's.

Several isolated yet notable events also affected the evolution of the North Causeway. Two such items were the New Smyrna Beach High School in the far

northern and central portion of the area, and a prototypical community shopping center near the western edge. Since then, the continued robust growth of the central Florida region also has been significant in terms of the heightened demand for saltwater recreational facilities – the boat launching areas located midway along the corridor – and for second homes near the coast. Finally, the emergence in the 1990s of SR 44 (the South Causeway) as the dominant transportation route and shopping locale has had a marked impact on the study area.

## **Summary of Existing Conditions**

### Land Use

The Causeway study area provides for a mix of land uses, including single and multi-family residential, office professional uses, institutional uses, neighborhood and community retail uses, and parks and recreation. Generally, the business and higher density multi-family uses flank the causeway roadway itself, while the lower density, single-family and public uses border the surrounding waterways. While there is a relatively small amount of land remaining vacant, the majority of the study area is developed.

As noted, most of this development dates from the period between 1965 and 1985. Buildings are generally one or two stories in height, though there are several multi-family structures near the eastern edge that are four stories. There also are two eight-story buildings, the Diamondhead Point condominium, that are situated on the northeast edge of the area and that flank the Intracoastal Waterway.

For various reasons, a handful of the developed larger tracts in the study area are poised for redevelopment. It was this somewhat coincidental circumstance that led, in part, to the justification for the study. One such parcel is the site of the City's original wastewater treatment plant. Occupying approximately five acres between the Causeway roadway and the Intracoastal Waterway, the site was phased out in late 1980's due to environmental improvement initiatives and the construction of more contemporary plant well inland. A second parcel of significance is the New Smyrna Beach High School site.

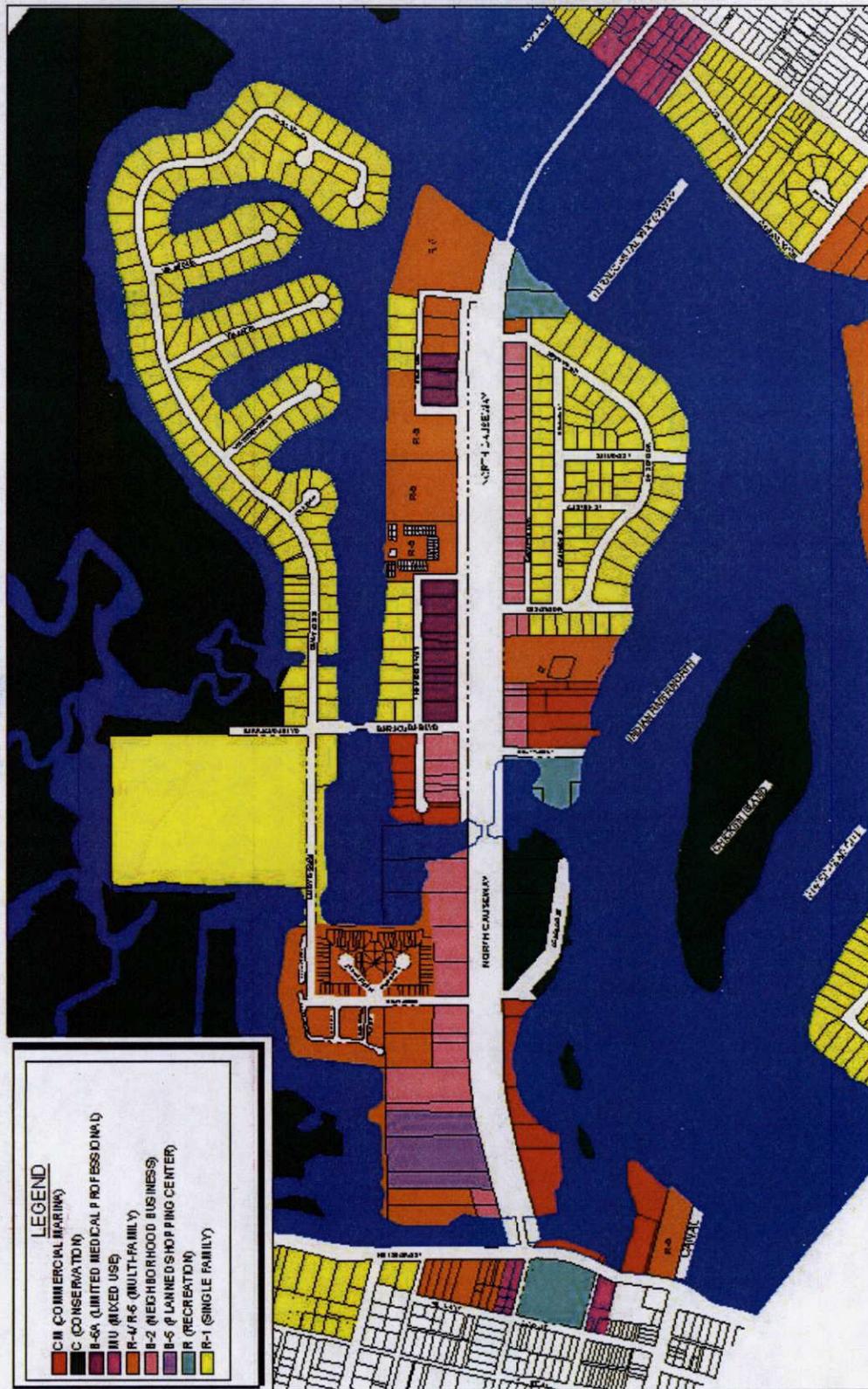
Bordered on several sides by navigable waterways, the Volusia County School Board is set to relinquish the approximate 23-acre property in favor of a new school that is currently under construction. Finally, a combination of two developed sites and one undeveloped parcel, totaling some 10+ acres in area, has been the subject of two recent, separate initiatives for redevelopment as mid-rise, multi-family residential uses and ancillary retail and restaurant uses.

## Zoning

There are approximately nine zoning districts that regulate the development of property in the study area. The majority of developable properties fall within one of five districts. Consistent with the distribution of existing and future land use designations, the districts provide for a generally suburban style pattern of land development for both residential and non-residential uses. Currently, the zoning classifications are similar for the study area as they are for the balance of the City; with few exceptions, there is no distinction between, say B-2 commercial, on the Causeway versus anywhere else that B-2 is allowed. A map of the districts is shown on the following page.

Several observations can be made as to the zoning characteristics of the area. As noted, the zoning districts generally underscore, and continue to promote, a suburban development pattern typical of the post war (WW II) period. Business zoning categories flank the corridor roadway, with little intrusion into the "pure" residential neighborhoods. Relatively deep front yard and side yard setbacks prevail. With few exceptions, building height is capped at three stories or less. All parking is to be contained within the property, with no possibility for on-street parking, or satellite lots. While residential uses are allowed in the predominant business categories, the end result has been one of uses that are largely segregated into business or residential. Medical offices are targeted to one area along the north side of the causeway; this district does not allow for retail businesses or residential uses (in spite of the proximity to adjacent residential properties). Historically, the absence of significant requirements for on-site drainage facilities, as well as open space or landscaped areas, has contributed to a somewhat barren appearance in the business multi-family residential areas.

In contrast to the relatively segregated pattern of zoning districts and district regulations that exist in the Causeway study area, it is interesting to note the recent movement toward mixed-use development in adjacent areas of the City. This movement is, ironically, in keeping with the urban development pattern that was apparent prior to WWII, and also has been echoed by various parties that have approached the City with respect to the development or redevelopment of certain key properties along the corridor.



## New Smyrna Beach Zoning Map

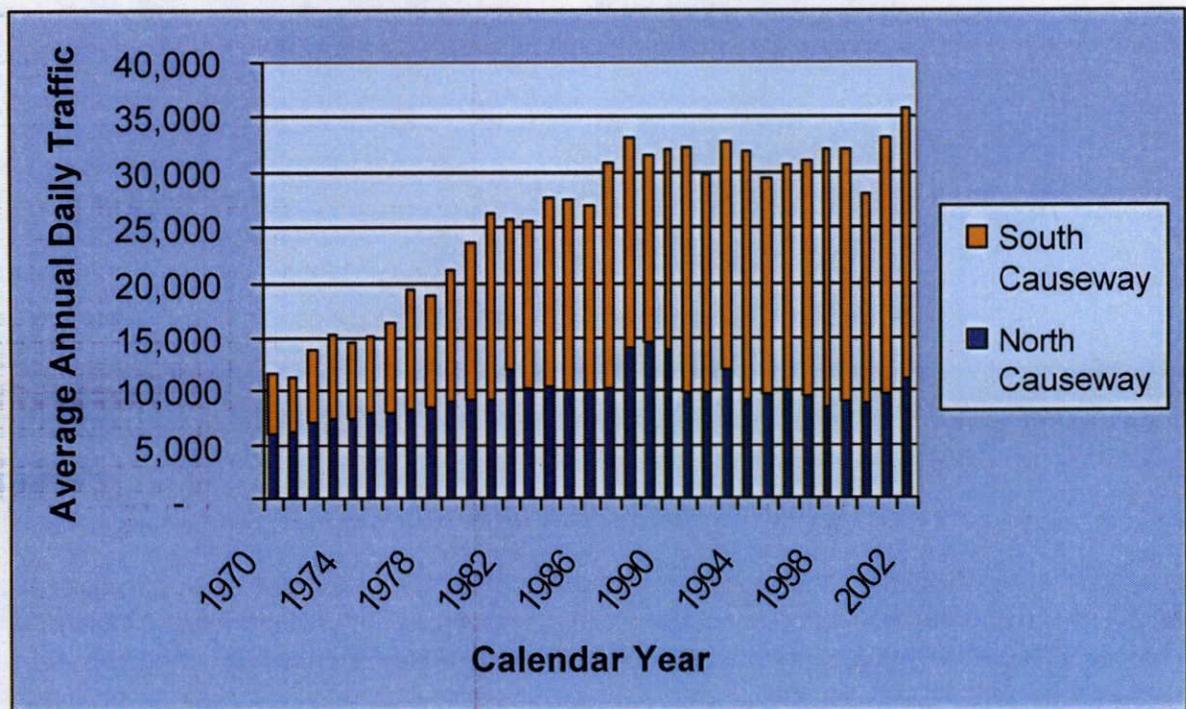
## Transportation

The study is traversed by a mere handful of regional and local roadways. The dominant facility, and the reason for the area's existence, is the North Causeway. This three-lane undivided facility terminates with a fixed bridge span on the west with Riverside Drive and, on the east, a recently reconstructed bascule bridge over the Intracoastal Waterway. The roadway is under the jurisdiction of the Florida Department of Transportation. Considering the limited existing lane dimension, the facility lies within an extraordinarily wide right-of-way – up to 200 feet in width.

The wide right-of-way is used in part, to support a parallel system of two-way frontage roads on one or both sides of the mainline, and also features a wide, shallow swale area for stormwater treatment. Elsewhere within the study area, the roadway system is relatively limited and includes a series of two lane local streets and, in one case, a rather lengthy cul-de-sac network in the Quay Assisi neighborhood.

Pedestrian facilities are intermittent through the study area. These include a system of relatively narrow sidewalks with various degrees of connectivity, as well as a fine primary pedestrian facility running the entire length of the Causeway along its south side. This latter facility is a meandering concrete path, approximately ten feet wide with lighting and ancillary landscaping, that was constructed with FDOT/ISTEA funds in the mid 1990's.

Related in large part to the changing disposition of the two parallel causeways, average annual daily traffic volumes on the North Causeway have been relatively consistent over the last two decades. That is, while there has been a nominal level of growth that would be expected with the overall continued development in the region, the most significant growth in daily traffic has occurred on the South Causeway. This trend is evident on the following Figure, where the relatively equitable volumes distributed on both roadways has altered over time to a substantial dominance in volume along the South Causeway.



## Economic & Demographic Conditions

The demographic characteristics of a market area are one of the key variables for determining the demand for future land uses. Because of its unique geography, the North Causeway was examined as a neighborhood within the City of New Smyrna Beach. The results of this analysis indicate that the population of the North Causeway is slightly older and more affluent with a higher percentage of single-persons households than the City of New Smyrna Beach overall.

The following points highlight the key demographic characteristics of the North Causeway study area:

1. The estimated 2003 population on the North Causeway is about 900 persons. Since the 2000 census, the population in the study area increased by 2.9%.
2. The estimated 2003 household count on the North Causeway is 514. Since the 2000 census, households in the study area increased by 2.7%.
3. The majority of residential units (79%) on the North Causeway are owner-occupied.
  1. About 54% of households in the study area are families. Among all family households, 76.5% are two-person households.
4. About 46% of households in the study area are non-families. The majority of non-family households (86.6%) are one-person households.
5. The median age for North Causeway residents is 62.1, and the average is 58.4. In comparison, the median age for the City of New Smyrna Beach is 57.3. The median age for the United States is 36.2, and the average is 37.0.
6. The average 2003 Household Income for the North Causeway is estimated to be \$68,815, which is above the average for the City of New Smyrna Beach at \$55,045. The average household income for the United States is estimated to be \$63,200 for the same year.
7. The average 2003 Household Effective Buying Income for the North Causeway is estimated to be \$54,740, which is above the average for the City of New Smyrna Beach at \$49,610.

## **Focal Areas**



One of the major objectives of the North Causeway Study was to focus on the future disposition of several key properties or sub-areas within the overall study area. As noted, a principal catalyst for the study was series of unrelated, project-specific events that were potentially forcing decisions to be made by the City's administrative and elected officials without the benefit of a broader perspective for the area as a whole. Thus, the study was to consider the entire area and focus on the following key locales:

### **The Causeway Roadway**

As discussed, the Causeway roadway is the principal route through the study area. Originally constructed in the late 1800's, the roadway was quite literally a causeway from the historic downtown to the beachside village and vacation cottages of Coronado Beach. Carved through foreboding, low-lying territory, the route was merely a transit way between the two areas. Little attention or regard was paid to the area that was being traversed. A hand



operated drawspan bridge was located at its western terminus with the mainland, while a larger toll bridge facility was situated at the east terminus barrier island. Beyond the occasional fishing dock or cabin, little development flanked this roadway until the 1950's. Between 1960 and 1990,

commercial and multi-family flanked the increasingly important travel and commercial facility. Taken over by FDOT, and improved over the years to its current three-lane design, the facility has peaked as a primary transportation and business route. Ironically, with the advent of the bigger and busier South Causeway, the facility has returned to its original vestige use as a low volume collector facility between the mainland and barrier island. The principal difference is that the area traversed is no longer the foreboding frontier that it once was.

### **The Single-family Neighborhoods**

There are two single-family neighborhoods located in the study area. The first is the Quay Assissi area, east of Barracuda Boulevard. It is a relatively upscale neighborhood, with almost all properties having direct waterfront access. In spite of this obviously costly location, the entranceway and principal access route are largely devoid of any pedestrian or aesthetic elements.

The second neighborhood, the Buena Vista subdivision, is located south of the Causeway and east of DeSoto Drive. This is an older neighborhood, developed in the 1960s, and is characterized by relatively small and affordable one-story concrete block and stucco houses. It is generally well maintained, and has

become the subject of recent acquisitions and “take-downs” of existing structures, particularly those along the waterfront. It is likely that this circumstance will continue and perhaps spread to the dry lot parcels. While the neighborhood has sidewalks along the main streets, the entries and the overall pedestrian ambiance could be greatly improved.

### The High School Site

As noted, the New Smyrna Beach High School site is located on a twenty plus acre rectangular site in the north central reaches of the study area. Comprised of a combination of uplands, partially submerged reclaimed lands and remnant shoreline vegetation, the site is a classic example of the dredge-and-fill development practices prior to contemporary permitting criteria. While the site is effectively nestled in the residential area, its peninsular shape allows it to operate in a manner largely autonomous and distinct from the neighboring residential properties to the east and west. The site enjoys unparalleled views north, across mangrove islands, to the Ponce Inlet lighthouse, and features waterfront access and vistas along its three dominant lengths. The existing institutional development essentially ignores this circumstance.

Boat access to the high school property is limited to smaller vessels due to its having been “cut-off” via fixed bridges and difficulties in navigation through the adjacent mangrove island channels. In this respect, the southern edge of the property also includes a small waterfront “outparcel” that has reasonable, though still limited, boat access along its frontage. While this piece is effectively divorced from the balance of the property by the Quay Assisi roadway, opportunities exist to realign the roadway or to otherwise integrate this property with the balance of the parent tract.



Since the Volusia County School Board plans to sell the property via a public offering, the high school site offers another extraordinary opportunity for redevelopment in a manner that can further many contemporary design and planning objectives. The key is to maintain the community cohesion with the adjacent neighborhoods and to recognize the traffic limitations associated with Barracuda Boulevard, Quay Assisi and the Causeway itself.

### The Elks Club/Cadle Property

Consistent with the discussion of the roadway, the Elks Club and adjacent Cadle property lie to the north of the Causeway near its western terminus. With a combined land area of almost ten acres, the properties



were attractive for development based on their high visibility, easy access and near proximity to the mainland and barrier island population centers. Ironically, little regard was given to their location along the waters' edge – the properties were both developed with an almost virtual ignorance of what is now a valuable and limited real estate commodity. With diminished advantages as a business or periodic meeting site, it was little surprise that several parties approached the City seeking guidance and approval to redevelop the sites for multi-family residential uses. The catch – that the waterfront location and commensurately high property values dictated that the density and associated building heights would need to exceed the permitted maximums. Thus the question became one of determining the level of community support for mid- or high-rise buildings in a relatively low-rise setting.

### The Marina Crescent

The west half of the south side of the Causeway study area is comprised of a swath of lands that are either vegetated or were developed in a variety of marine oriented public and semi-public uses. These include several small marinas, two public boat-launching ramps and the City's original wastewater treatment plant complex.



Perhaps the most significant characteristic of this sub-area is its extensive frontage along one of the most dramatic bends in the Intracoastal Waterway in this area of the state. Unfortunately, the existing shoreline vegetation and the nature of waterfront's constructed uses have almost totally blocked any vistas of this extraordinary resource. Fortunately, the fact that the majority of the land is either publicly owned, or is owned by entities that are interested in the redeveloping properties with a semi-public focus, offers a significant opportunity to improve upon this circumstance.



## Other Frontage Uses

While these areas can speak to the entire array of non-residential uses flanking the Causeway, a focus of the study was the mixed uses that occur on isolated, freestanding lots and particularly the relatively small lots along the east half of the study area. Specific attention was given to the offices and other small retail establishments on the south side of the Causeway. Occupying small lots, as small as fifty feet wide and one hundred feet deep, the area has languished to some extent as development has occurred on other properties throughout the area and the City. Flanked on the front by a Causeway frontage road and on the rear by a service alley, several of the lots remain vacant or are underdeveloped in terms of their potential prime location between downtown and the beachside areas.



## **Public Involvement Activities**

Public involvement activities were an essential element of the North Causeway Neighborhood Study. The process of availing the community of the study and securing opinions and direction involved direct interaction on numerous occasions. Three community "open house" workshops were held at various junctures throughout the study. Attendance at the meetings varied between twenty-five and fifty people. Print media coverage was usually provided both before and after each meeting. Two informational meetings were held with a joint sessions of the City Commission and members of the Community Redevelopment Advisory Board. These status report meetings were held to offer the officials the opportunity to react to the study in progress, and also were open to public review and comments. Informal, direct discussions also were held between members of the consultant team and several key individuals: property owners, elected and appointed officials, government officials and business operators or occupants of key properties situated throughout the area.

In the end, the numerous opportunities for the public to be informed and to solicit their opinion was believed to support the success of the study. That is, most of the study concepts and proposals were the

product of opinions and comments that had been received at previous intervals. Successive meetings then became the basis to, in effect, validate that the team was following the course of previous input. While it is clear that securing unanimous support for any broad scale planning initiative is at best difficult, the favorable input received during the later meetings is hopefully indicative that the study was responsive to most of the community's desires. The Community Workshops are discussed sequentially in terms of the basis for the meeting and the salient results.

## Open House #1

The first open house was held in City Hall in November 2003, shortly after the commencement of the study. The principle objectives of the first meeting were to: introduce the team to the community; to outline the study process and goals; to listen to the attendees views on the overall status of the Causeway area; and to record locally specific potential issues and solutions.

Approximately 40 people attended Open House #1. Using a variety of static board displays of the area and of different regulations that were in place, the open house proved beneficial in soliciting numerous opinions of what was good and bad about the area. Survey questionnaires also were distributed that provided useful input. Surveys were returned at the meeting or within a specified period shortly thereafter. The responses to each survey question were tabulated and are included in the report appendix. A variety of specific written comments also were provided and are summarized in the report appendix. At the time, the team formulated a response for each comment. The summary highlights of the survey were as follows:

1. *Approximately fifty completed surveys were received*
2. *Approximately 40% of the survey respondents were Causeway business owners or residents*
3. *More than 75% of the respondents envisioned a mixed use setting for the Causeway area*
4. *The need for change was apparent, as over 97% of respondents desired some level of change and approximately 40% viewed the need as an "overhaul"*

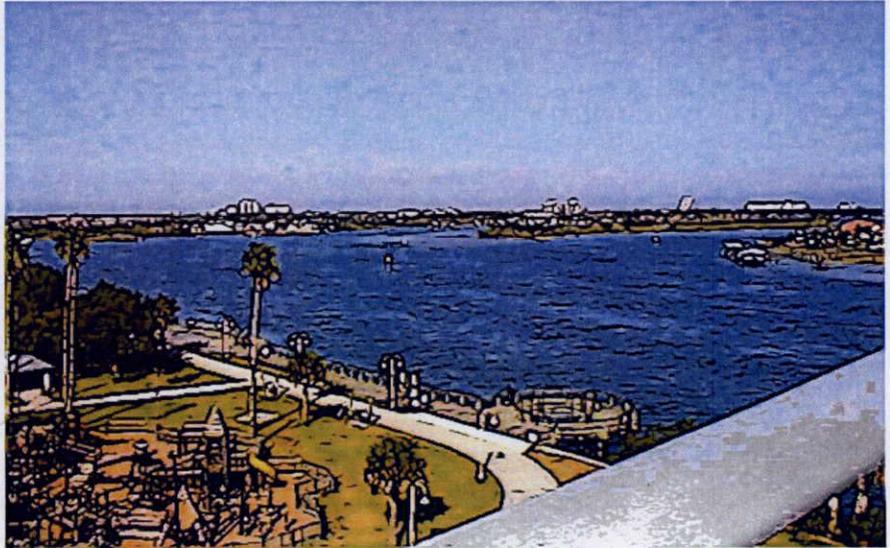
In terms of ranking the type of change needed, the top three choices were (1) redevelop business sites, (2) Improve the overall aesthetics and (3) enhance the area's open spaces and neighborhoods.

Due to several pending development proposals, the issue of maximum building height was a notable topic at the time of Open House #1. The survey included several questions in this respect. The results indicated a clear split on the issue, with a small majority of respondents (53%) willing to accept building heights that greater than four stories. Regarding the consideration of height or density concessions in trade for developer concessions, a slight majority of respondents (56%) appeared willing to consider trade-offs. In combination, there was some support to exceed the three and four story height limit by a limited amount. Over 75% of the respondents established six stories as the maximum height in any event. It also was apparent that the basis for any upward deviation must be clearly identified and justified in terms of the specific location in the study area by the accrued public benefit.

In summary, the first open house was successful in engaging the community and identifying several common desires. As noted, there was a desire to maintain a relatively low building scale to the area, but to selectively consider buffers and other items to allow for a slight increase in maximum height. Interest also was high to promote opportunities for involvement with the waterfront and to increase parks and open space areas. Perhaps most importantly, many citizens expressed a desire to perpetuate the small town, coastal character that was perceived to define the City of New Smyrna Beach.

## DEVELOPMENT OF CONCEPTS

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## **Economic Market Considerations**

In response to the review of the existing conditions in the study area, as well as the input received through the initial public meeting and interviews, the team began to formulate an overall approach to potential solutions and recommendations. Fundamental to the approach was the need to reconcile the existence of many non-residential uses, the citizen's vision of the area as a mixed use setting, and the economic reality of the area's existing demographic characteristics. In particular, the implications of the local area demographics for commercial land uses on the North Causeway include:

1. With a year-round population of less than 1,000 persons and just over 500 households, the North Causeway provides only a portion of the demand necessary to support a neighborhood shopping center.
2. Current trends in the retail industry toward larger super stores that serve a larger region are apparent in the market area with the recent commercial development located west along SR 44 (South Causeway) and on SR 44/A1A on the beach side. These commercial centers are within a convenient driving distance for North Causeway residents.
3. New retail development on the North Causeway would compete with and potentially cannibalize the demand for specialty retail shops and restaurants along Canal Street and Flagler Avenue.

The team's analysis of the demographics of the market area, together with the review of previous studies and citizen input at Open House #1, identified a need for only a limited amount of neighborhood services on the North Causeway. These uses will serve the neighborhood population while not competing with highway retail centers. The transient population will provide additional market support. These uses include:

1. Marine-related supplies and services
2. Specialty retail shops associated with waterfront marinas
3. Local and destination restaurants
4. Convenience grocery and/or drug stores
5. Professional offices and services such as branch banks, medical offices and clinics, insurance and real estate agents, accountants and attorneys offices and household services and supplies (pool services, pest control, etc.)
6. In contrast to the relatively limited or narrowly defined potential for success in supporting non-residential uses, the team concluded that market conditions were prime for residential development in the Causeway area based upon the following trends:
7. A rebound in tourism and travel to Central Florida, including international visitors, fueling the demand for second homes and investment properties. Domestic demand also is strong from baby-boom generation households purchasing second homes for personal use as well as investment. Both domestic and international buyers have found value and appreciation in Central Florida area real estate.
8. Strong sales of single-family homes and condominiums have been supported by historically low mortgage interest rates. Residential sales activity can be expected to remain strong in a low interest environment.
9. Sales activity on the beach side is indicative of the demand for waterfront homes in this market area. Prices for new construction, as well as resale units, continue to rise to new highs. Pre-sales at new condominium communities on the beach side are very strong, indicating sustainable demand for additional waterfront units. Homebuyers in the market area include year-round residents, second homebuyers from the Orlando metropolitan area, and seasonal residents from out-of-state, Canada and overseas.
10. The demand for second homes is not dependent upon local job growth. As a result, second homebuyers are typically more affluent than the local population and can afford higher priced housing.
11. Values for land approved for residential development will continue to rise throughout Central Florida and especially in coastal communities due to limited supply, strong demand, and the time and cost associated with

*obtaining development approvals. The final unit sales price rises in response to increased land cost.*

*12. The size of homes has increased across the country over the past 15 years. Buyers have demanded and builders have responded with more luxurious kitchens and baths, larger master suites and main living areas. As the size and number of amenities in each home increases, so does the cost. These trends can be expected to continue, especially for units in premium locations such as the waterfront.*

## **Draft Solution Rationale**

At the onset of the study, the collective thinking had been that two substantially different overall plans could be developed for the study area. However, this thinking was refined based upon the relatively clear direction that quickly emerged through the combination of team research, preliminary discussions with key stakeholders and the results of Open House #1.

Based upon the initial expectation that vastly different alternative concepts for each of the study sub-areas would be identified, a substantially different plan could be derived for the area as a whole. In reality, it soon became apparent that there was a relatively small degree of difference in the potential uses that might be considered for the various sub-areas. Since the difference in the various alternatives was narrowed, the central issue became one of clarifying the desired look and urban pattern for the area versus selecting between two vastly different visions or schemes. Depending upon the community's support for the design concepts, the final recommendations could be truncated, in terms of specifying impacts, costs and necessary regulatory modifications, to allow the selected concepts to be implemented.

Along with market analysis, the initial set of solutions was based on several key findings. First, the North Causeway study area has an extraordinary array of unique, but under realized, physical attributes – the Intracoastal Waterway, the waterfront vistas, the proximity to redeveloping areas of the historic downtown and Flagler Avenue, and its status as a true island. Second, and in spite of the first finding, the area did not have its own identity. Serving primarily as a conduit between two other places, the physical pattern and character of development never occurred in a fashion that defined the area as its own special place. Third, the importance of the conduit had summarily decreased, with little reason to believe that it would ever be resurrected to its earlier status.

Taking the previous points into account, the planning strategy was to build upon the area's physical attributes and to promote its evolution as the third component of the Flagler Avenue /Canal Street initiatives. In short, the Causeway becomes the critical functional and design linkage between the other two locales. In so doing, the area could be redefined as its own special place and could promote the types of uses that could complement Flagler Avenue and Canal Street. Since these areas were focused on reestablishing the traditional storefront business environment, the core solution was to increase and strengthen the residential component of the Causeway area to bolster the overall market demand for consumer goods.

The Flagler Avenue, Canal Street and North and South Causeway areas all have the potential to accommodate a mix of residential and non-residential uses. A mix of uses is fundamental to creating spaces that are vibrant, that promote walking and human interaction, and that underscore the intrinsic benefit of actually spending time and enjoying an area. However, given the limited demographic circumstance of the North Causeway, the idea is to not directly compete with the other areas. Rather, it is to build upon residential use as the primary use, and business uses that are, for the most part, subordinate to the residential use. As identified in the market analysis, such uses should either service the local market, be otherwise small in scale or non-obtrusive, or ideally suited to the most unique physical aspect of the area – the waterfront.

## Draft Solution Concepts

Based on the previous discussion, the team developed a series of solutions that could be applied to the area as a whole or to the individual focal areas. The initial solutions were, in several instances, labeled as the "Moderate" and "Stretch" solutions, whereby the stretch solution would usually build upon the moderate solution by additional design elements. With an overall directive to consider a pedestrian oriented, mixed-use setting, many of the solutions also were grounded in traditional urban design techniques associated with city planning prior to World War 2. Currently referred to as "new urbanist" design principles, some of the elements that can contribute to improved outdoor spaces include the following:

1. *Building scale* – the development of spatial intimacy is based on the relationship of building height to the width of an adjacent street. Walkable streets provide a sense of enclosure. Desirable ratios range between .5 and 1.5, and yield for example the idea of a 50-foot wide right-of-way being flanked by buildings that range from 25 to 75 feet in height. Given the stated desire to maintain a relatively low-rise setting, strategically placed vegetation can also be used to achieve the same sense of scale.
2. *Building placement* – the placement of buildings near the street helps to define the roadway edge and reinforces the border between public and private spaces
3. *Parking treatments* – parking lots are in effect an industrial land use that is often situated in the best spaces. Parking should be convenient, but should be relegated to areas of secondary importance or otherwise shielded from view. On-street parking also is acceptable, as it forms a protective boundary between moving vehicles and pedestrians
4. *Architectural permanence* – buildings that are constructed with architectural flair and finishing details improve the community sense of pride in place. Properly done, the placement and treatment of windows and doors, the materials and finishes on walls and roofs, serve as visual and other sensory clues to an area that is there for the long haul. Said another way, the construction of buildings that include these details allow the building to be considered favorably both now and well into the future. Examples of such timeless architecture can be found throughout the City of New Smyrna Beach.

In general, the new urbanist design principles focus on the creation or improvement of spaces for people instead of vehicles. Along with these site-specific design elements, the other broad physical design objectives were to open up the waterfront to public vistas and potential interaction and to create a more complete system of pedestrian ways that could traverse the entire study area. Applied to the focal areas, these principles formed the basis for design vignettes that could guide the future development and redevelopment of the area.

## Sub-Area Concepts

### The Causeway Roadway

Situated in a wide right-of-way, the 3-lane section is flanked by wide, open swales and frontage roads for much of its length. With little vegetation to interrupt the expanse, and low-rise buildings that are often setback from the perimeter edges of the frontage roads, the overall effect is one of a relatively barren area. The general approach to resolving this situation is to revamp the roadway and improve the extent of planted vegetation to create a series of smaller roadway spaces. Thematic improvements at the island entries and at key periodic intervals also improve the visual aesthetic that is both interesting and functional in terms of giving the island an identity. The moderate elements to this improvement would include the following:

1. *retrofitting of a raised planted median,*
2. *installation of additional landscaping,*
3. *decorative mast arm signals at Riverside Drive and Barracuda Boulevard,*

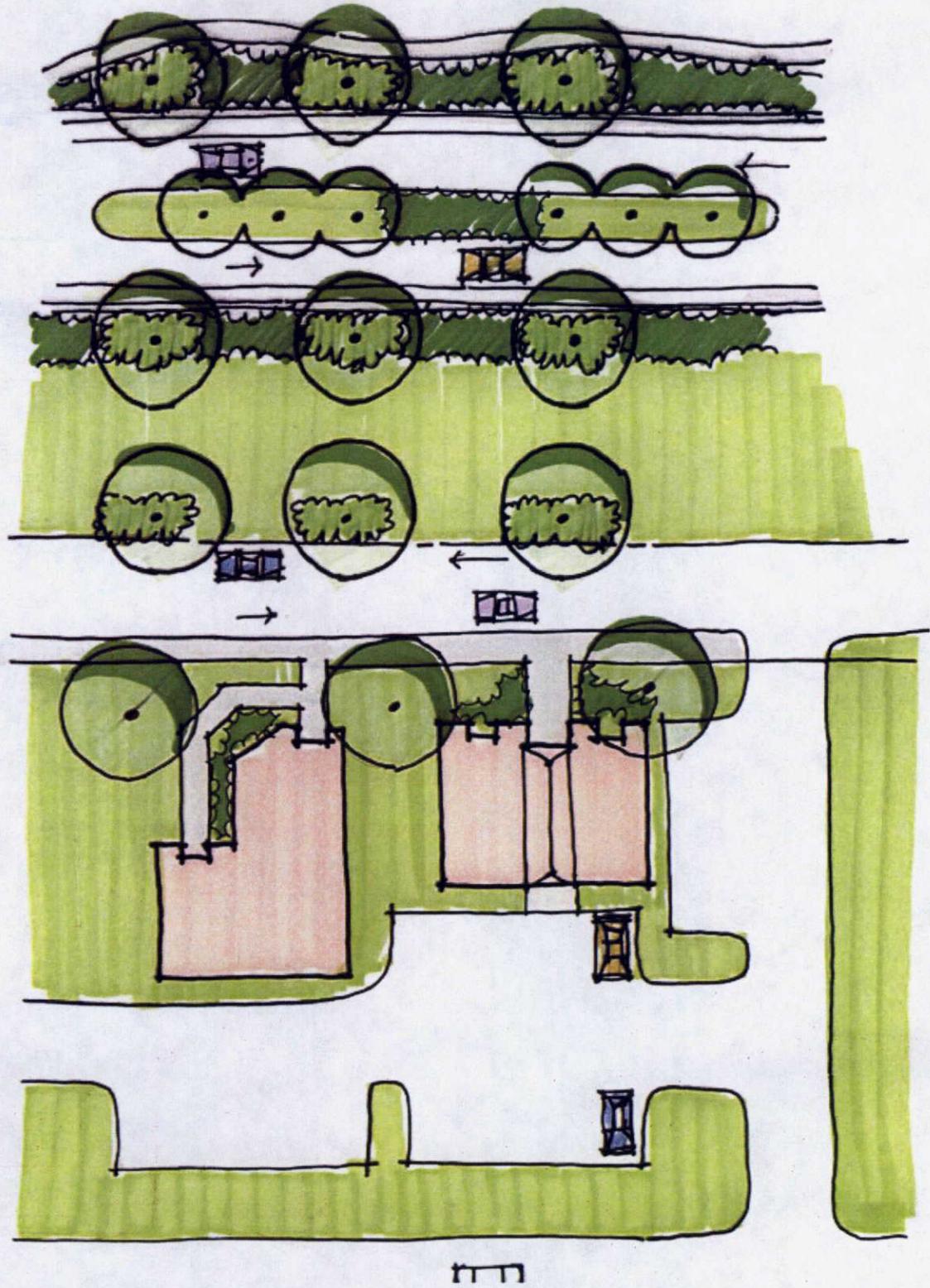
4. decorative street lighting,
5. textured pavement treatments, either pavers or stamped asphalt, at Riverside, Quay Assisi, Barracuda and at least one of the neighborhood entries further east,
6. thematic directional signage to the neighborhoods or other key destinations along the route

The additional stretch elements to the improvement would include:

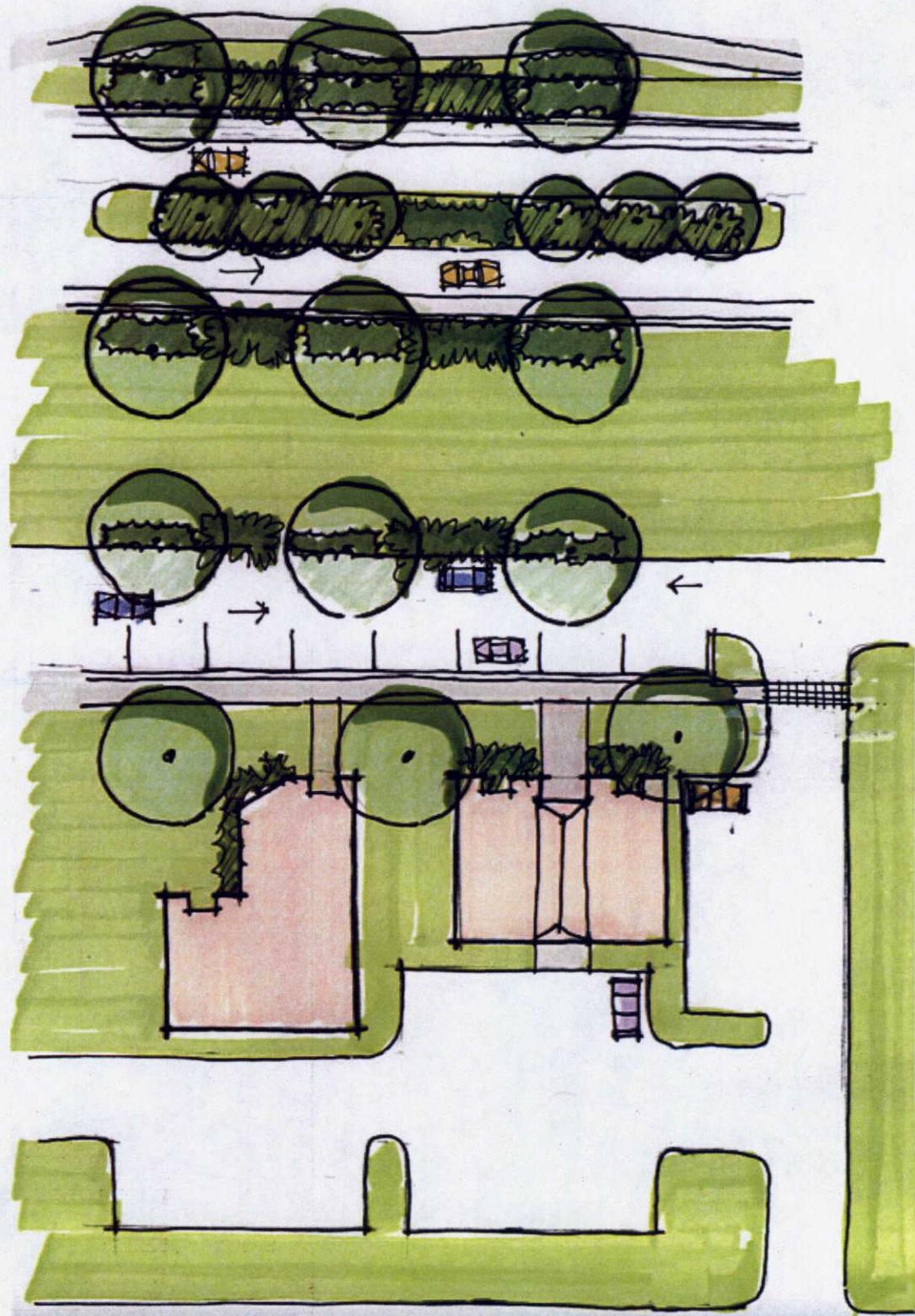
7. the installation of a "curb and gutter" or flume system to allow mature vegetation to be planted nearer the roadway edge,
8. a large-scale traffic circle at Barracuda Boulevard

A key precursor to any future roadway improvements for the Causeway and ancillary frontage roads will be the need to better understand the drainage design parameters for the roadway system. While the team engineers developed rudimentary cross-sectional designs that indicated the potential to accommodate the improvement concepts, there is no certainty that they can be implemented until a comprehensive drainage analysis is performed. The analysis should account for the ability to revamp the swale systems as better functioning wet or dry treatment facilities, and also should carefully consider the extent to which the Causeway drainage system relates to adjacent properties.

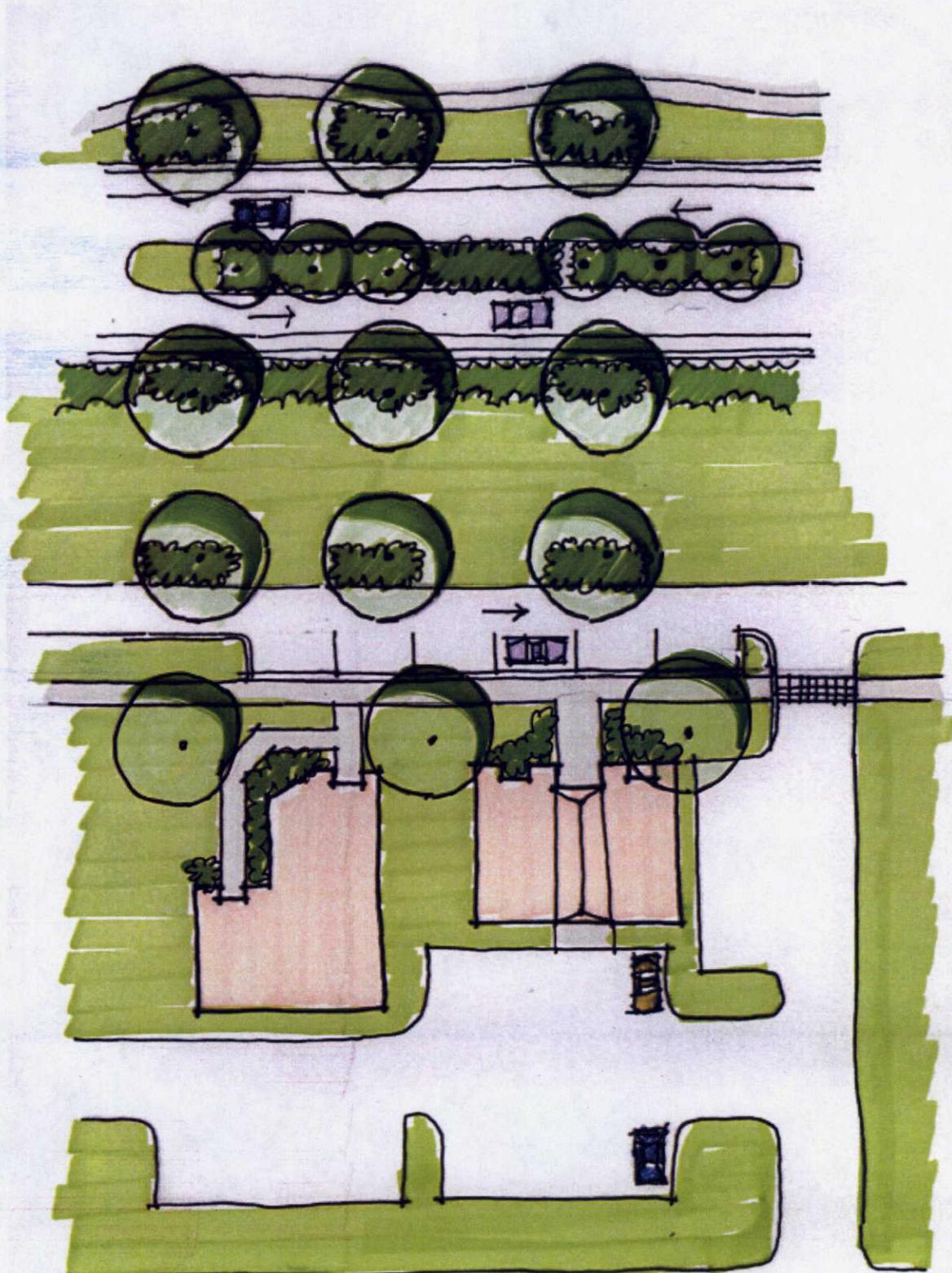
The following pages present a series of three different circulation concepts for the Causeway corridor. They are meant to highlight the relationship between the mainline and the frontage road, and are particularly relevant to the area east of Barracuda Boulevard. They offer a choice between different approaches to relating the mainline to the frontage road and were used to determine if there was any clear preference to the potential ways to manage the need for vehicular movement versus parking. The first scenario highlights the potential improvements to the mainline median and curbing, while maintaining the "status-quo" of one or two, 2-lane bi-directional frontage roads. The second scenario offers a more ambitious approach with the provision of on-street parking. This parking may be against either the outer building edge or the interior swale, and may very well require more asphalt and drainage area than may be able to be provided within the existing right-of-way. The aforementioned drainage study would clarify this issue. The final scenario reconciles the drainage issue by "trading-out" the bi-directional frontage road for 1-lane, one-way movements with on-street parking. For purposes of Community Open House # 2, the second and third scenarios were referred to as Stretch Approaches 1 & 2. In reality, the distinction between the moderate and stretch approach to any Causeway roadway system improvements is driven by the desire to limit improvements to the median, versus more ambitious reconstruction efforts along the outside edge and, as desired, extended to the frontage roads on one or both sides of the mainline.



### Causeway Roadway: Moderate Approach



### Causeway Roadway: Stretch Approach I



## Causeway Roadway: Stretch Approach 2

## The Single-Family Neighborhoods

While the two single-family neighborhoods on the island are of a different era, and cater to a slightly different market demographic, they are by most accounts healthy, stable and attractive places to live. New investment and neighborhood gentrification was apparent during the evaluation phase. While the general philosophy was one of “if it isn’t broke, don’t fix it” the moderate approach opportunities to strengthen the ambience of the two locales were as follows:

1. Consider the installation of neighborhood identification signs and the “dressing-up” of the primary entries (Quay Assisi and Desoto Drive)
2. Sidewalk and thematic, pedestrian scale lighting improvements for pedestrian circulation on initial segments of main internal roadways

The more aggressive, stretch improvements in the neighborhoods included:

3. Higher end neighborhood arrival features
4. More extensive pedestrian improvements throughout the neighborhoods,
5. The burial of overhead power lines and, possibly
6. Access improvements to the Barracuda Boulevard bridge



*Examples of moderate & stretch approach elements for enhancing the existing neighborhoods include finishes, structures, and hidden utilities.*



## The High School Site



Examples of moderate & stretch approach elements for residential & community development on the former High School site include multi-story housing, community identity elements & social areas.

The redevelopment of the high school site offers an excellent opportunity to dramatically redefine the area's residential character and population. Situated as an island within the island, the style and character of development could range from single-family homes, similar to the adjacent Quay Assisi neighborhood, to mid- to high-rise multi-family buildings similar to the Diamondhead Condominium at the eastern end of the study area. Given the desire of the area's residents to maintain a low-rise character, with conditional provisions for mid-rise structures, the proposed moderate development concept calls for a primarily residential use as follows:

1. Village style character, new urbanist design principles, with an overall density of 12 DU's/acre
2. Maintenance of a public or semi-public green edge along the site perimeter; the edge would feature a pedestrian way system and incidental related facilities such as overlooks with benches, etc.
3. The Quay Assisi right-of-way would be maintained, but could be realigned subject to public safety design consideration
4. Docks or other marine related facilities may be located along the edges, subject to all permitting requirements; the existing culvert system at the southwest corner of the site may be replaced to accommodate boat traffic
5. Very limited business uses, such as offices, a small restaurant, a local grocer, or marine related products or services (eco-tourism), that primarily cater to local residents
6. Year round residential buildings such as single family homes, cottages, townhomes, garden apartments that range between 2 and 4 stories; small footprint towers or other defining elements may exceed this height
7. Lower story buildings should generally be located along the property edges, particularly the southern and eastern edges, with higher story buildings nestled deeper within the site.

The stretch approach includes the previous items, with upward modifications in use and developer responsibilities as follows:

8. Increase in overall density to 18 DU's/acre
9. Increase in allowable building height to 5 stories; the same location criteria apply that mandates lower story, "liner" buildings along the southern and southeastern edges
10. A neighborhood scale park that is integral to the development and also serves the adjacent residential properties. Ideally, this park would have a waterfront or near water focus.
11. Improvements to the Barracuda Boulevard access to the site, to include consideration of elevating the existing bridge, to increase the allowable size of site related boat traffic (also could occur as part of moderate approach depending upon developer's perspective on enhanced market value)



### High School Site: Moderate Approach



### High School Site: Stretch Approach

## The Elks Club/Cadle Property Sites

Representing over 10 acres of developable waterfront property, the disposition of these properties was already largely written during the course of the study. Information garnered from the early phase of the study was used, in part, to influence decisions by the City with respect to the type and character of development that could be allowed. The general approach to the sites included the following:

1. *Mixed but primarily residential land uses at densities of up to 18 DU's per acre.*
2. *Building heights up to a maximum of 6 stories, provided that the tallest buildings were situated internal to the property and were well buffered in terms of their physical relationship to the properties' eastern, western and southern edges.*
3. *Strong focus on intermittent building siting and architectural detailing to provide design interest, permanence and, ultimately, to eliminate a monolithic, institutional or "great-wall" look that had characterized other multi-family developments in the greater area*
4. *Allowance for limited commercial uses, such as office, restaurants or small-scale retail, situated along the southern border with the Causeway roadway.*
5. *Development subject to development agreements and the provision of mitigating improvements such as: connected, public pedestrian improvements allowing waterfront exposure, landscaping or other streetscape improvements along the bordering roadway edges.*

Additional items related to this study follow new urbanist design principles and include:

6. *The promotion of low-rise liner buildings along the Causeway and Quay Assisi,*
7. *The promotion of parallel, versus back-out or angular, parking along the street edges.*
8. *Street walls or other vertical design elements to reinforce the street edges,*
9. *The deliberate locating of parking in internal lots or areas for shielding purposes.*



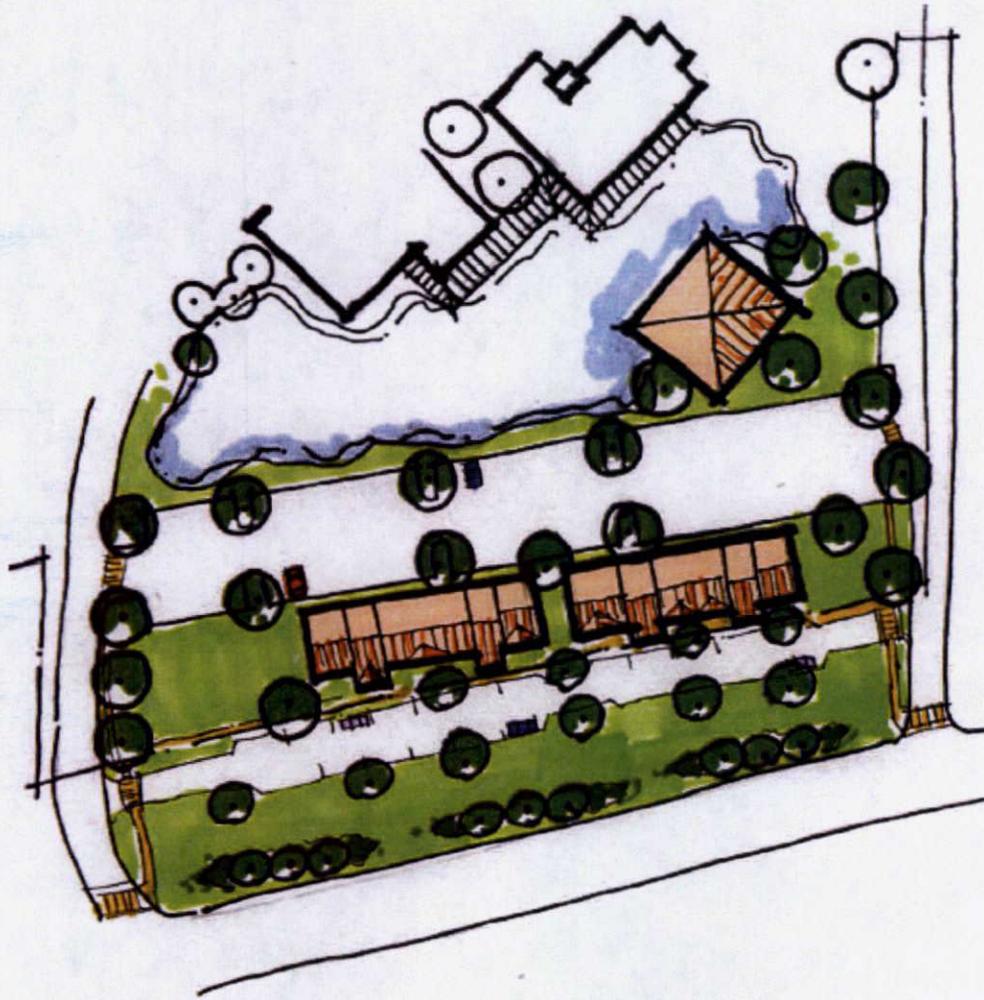
*Recommended elements for development of the Elks Club & Cadle Property sites include mixed-use development with public access to the waterfront; liner buildings along the Causeway frontage, vegetated perimeter buffers along other edges to mask and soften the appearance, and architecture that includes staggered rooflines with finished roofs.*



**Elks Club Site: Approach One**



**Elks Club Site: Approach Two**



**Cadle Property Liner Building Concept**

## The Marina Crescent (WWTP and Boat Ramp Areas)

Due to its frontage along the "big-bend" of the ICWW, as well as the relatively narrow depths of properties, the southwest quarter of the study area offers an unparalleled (and perhaps the last) opportunity to marry the City's citizens to the waterfront. The greatest attention to site-specific design elements and a pedestrian focus must occur here. Regardless of the final disposition of the property, extreme care must be taken to maintain or improve waterfront vistas, and to perpetuate the ability for the public to interact with shoreline edge. The interaction mechanisms could include upland esplanades, or boardwalks and dock facilities extended into the water. The moderate approach elements are in some cases directed to specific properties and include the following:

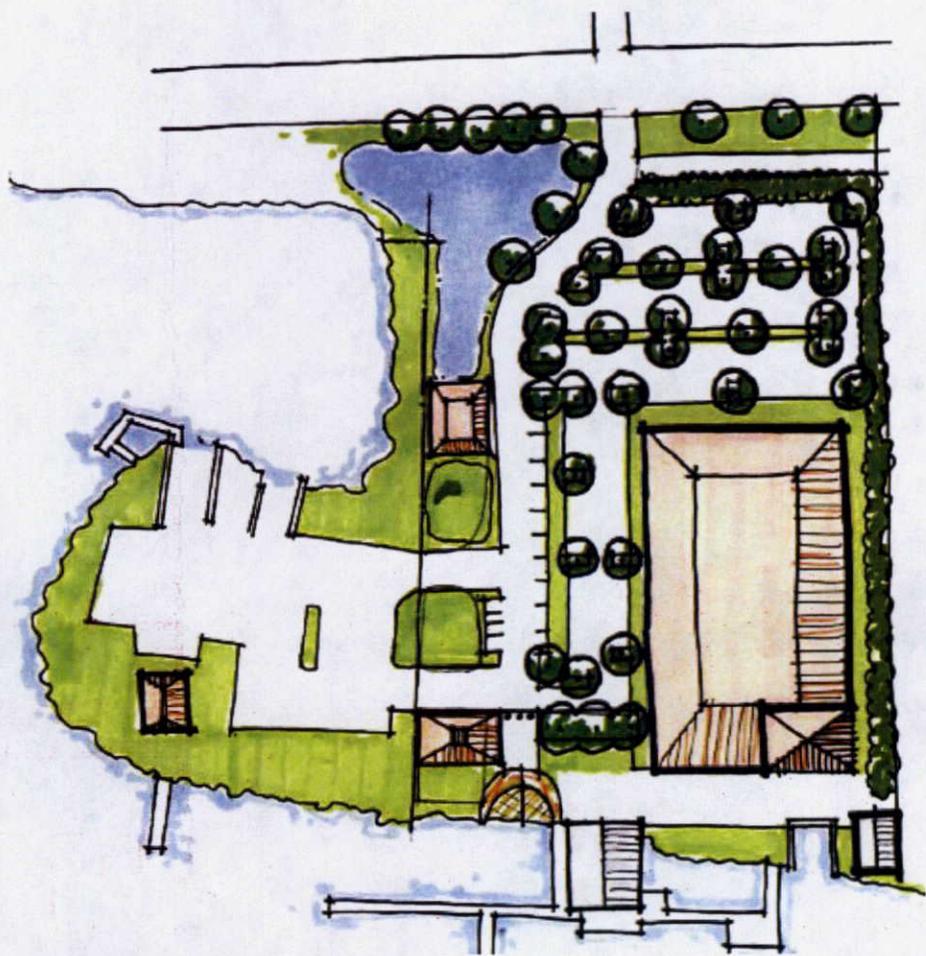
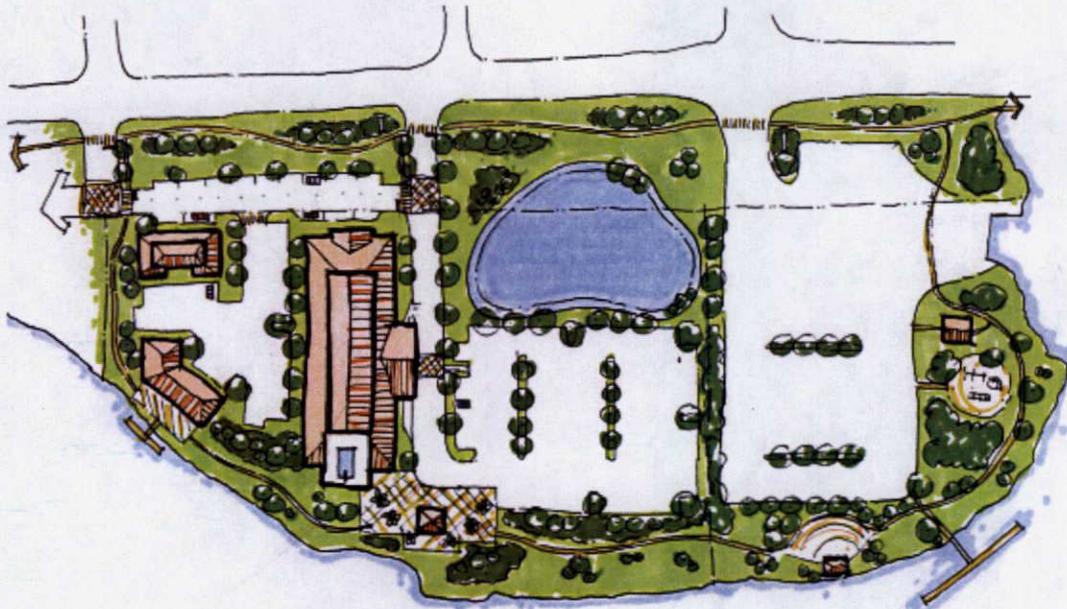
1. The City's former wastewater treatment plant site should be maintained in a public use, such as a waterfront park, promenades and the reconstituted Marine Discovery Center, or maintained as a semi-public use such as a marina, destination restaurants and/or a hotel site
2. For existing, privately owned properties east and west of the WWTP and boat launch ramps, similar uses to those previously listed, as well as marine dry storage and small scale ancillary retail uses, are appropriate
3. Year round residential uses should generally be discouraged in this area. Very limited amounts of residential may be considered on existing, privately owned properties as one component of a mixed-use development proposal
4. A wide waterfront edge should be maintained to allow for a pedestrian and bicyclist thoroughfare, and seating and activity-oriented gathering areas should be developed at periodic locales along the frontage; the combination of the WWTP and the existing boat launch park can be merged into an integrated development area that, among other elements, could include recreational features such as a themed playground or an interactive fountain
5. Buildings should generally be relatively narrow and oriented on a north/south axis to maintain sight lines from the roadway to the waterway. Ideally, at least 40% of the total site frontage should remain transparent between the street edge and the waterfront.
6. Building height should be effectively limited to the equivalent of 3 stories with a finished roof – up to 45' – but may on a highly select basis increased to the equivalent of 4 or even 5 stories. The basis for any additional height should relate to a significant, accrued public benefit.
7. Parking facilities should be located internally between buildings, or may occur nearer to the Causeway with buffered edges. Such buffers should be comprised of hard and soft materials, such as street walls, tall canopy trees and heavily landscaped decorative fencing. The idea is to reduce the visual impact of parking lots, while still allowing for relatively unobstructed sight lines from the roadway to the water.
8. Exotic vegetation should be eliminated wherever possible in this area; shoreline tree vegetation should be selectively pruned subject to agency permitting conditions. Again, the idea is to open up the vista between the roadway and the waterfront
9. The decision to privatize any publicly owned property should be made only after careful deliberation of the potential benefits that may accrue. The team recommends that favorable lease agreements be considered over the outright sale of any existing publicly owned lands
10. Regardless of use, buildings must be highly attractive and architecturally detailed in keeping with new urbanist design principles. Architectural style is not as important as architectural character.



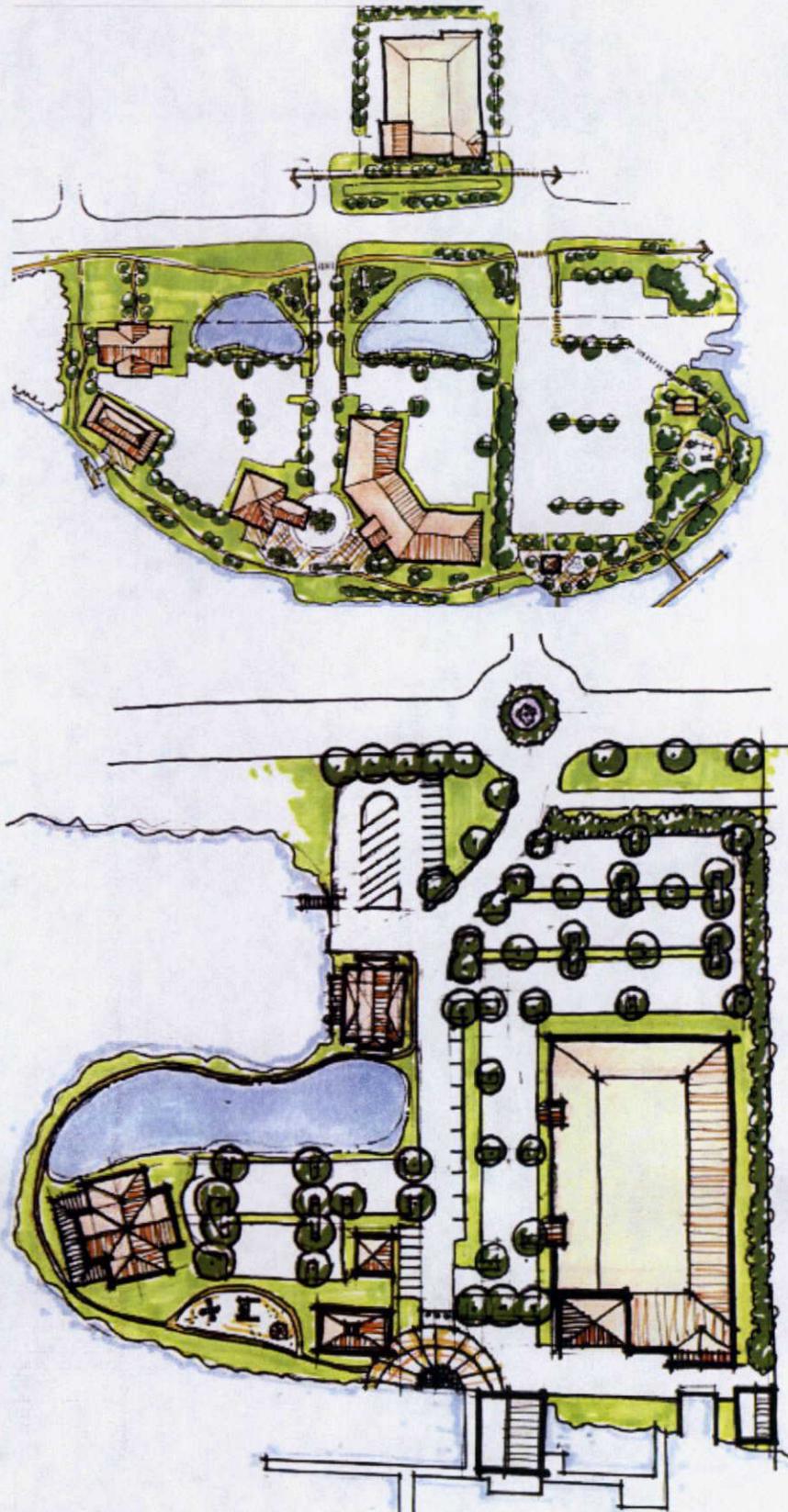
*For the Marina Crescent moderate approach, design elements should promote marine-related public and semi-public uses: mix of fishing, boating & entertainment uses (restaurants, limited retail, dry storage facility), with the potential for a people-oriented tourist “core”.*



*For the Marina Crescent stretch approach, design elements could include the extension of Barracuda Boulevard as a cross-access with the Causeway; development of a portion of WWTP site as a waterfront park, and expansion of structured parking to the north side of the Causeway.*



**Marina Crescent: Moderate Approach**



## Marina Crescent: Stretch Approach

## Other Frontage Uses

As defined earlier in the report, the focus of the other frontage uses was on the existing mix of residential, office and commercial uses that are situated on relatively compact parcels intermittently along the Causeway street edge. The majority of these sites are located on the eastern half of the study area, but there also are several such buildings and parcels further west. The general approach to these properties was to perpetuate their existence, but to improve their overall appearance and function by introducing several design elements that would result in a more pedestrian-oriented environment. The moderate approach elements included:

The more detailed evaluation of drainage characteristics, particularly where intermittent drainage problems had been experienced and were seemingly related to the Causeway roadway; use the results for the programming of drainage oriented improvements,

1. Application of new urbanist design principles as previously discussed or as further detailed,
2. Allowance for low-rise (3 stories) mixed-use buildings,
3. Slight increase in building height to allow for contemporary interior spaces and finished roofs,
4. Building designs that promote an overall residential flavor, with appropriate exterior details,
5. Reduced front yard setbacks to establish a stronger building face and rhythm along the roadway edge, other zoning adjustments to reduce setbacks and increase building coverage
6. The use of street walls, pergolas or other structural edges to shield existing front yard parking lots and define the boundaries between public and private space,
7. The orientation of future parking to the side or rear of parcels,
8. Reliance on rear access, via alleys or rear facing roadways, where such facilities exist or could exist
9. Streetscape improvements, such as sidewalk and lighting improvements, along the street edge (whether the frontage roads or the Causeway, as appropriate)
10. The institutionalizing of parallel on-street parking, where such parking could exist, and the ability to credit this parking to adjacent properties
11. Building upon the previous points, the stretch approach elements were:
12. Further enhancement of the pedestrian streetscape environment with thematic design elements
13. Additional on-street parking facilities that could be attained with one-way roadway concepts at strategic intervals along the corridor.

Key to this approach was the need to maintain safe and convenient access to the adjacent properties and, most importantly, to allow for residential uses distant from the corridor to have protected access to the existing signal at Barracuda Boulevard.



*For the moderate approach to other frontage uses, allow mixed uses along Causeway frontage (including residential, limit building height to three-story (44' height,) promote New Urbanist design principles, and require side or rear parking.*



*For the stretch approach, promote a coordinated architectural "theme" in multi-use buildings with retail, office and residential with; integrate an off-street path system; develop a full set of streetscape improvements; and consider allowing on-street spaces for overflow boat parking.*

## Open House #2

The 2nd Open house was held on March 16th, 2004. With attendees, the City staff and consultant team, there were more than 50 people in attendance. The meeting format included a lengthy audio-visual presentation of the draft planning concepts and a follow-up period for the review of static board displays and informal discussion with the staff and team.

The sketch analysis of the potential tax revenues and capital improvement costs associated with the moderate and stretch scenarios indicated that differentials, spread over the long term, would be relatively minor (< three million dollars in annual revenues and six million dollars in costs). With several development projects pending, the more pressing issue was the overall look and character of this area of the City. Due to the singular opportunity to define the long-term character of the area, the team focused on the broader physical design issues in this meeting.



The project team received approximately 29 completed comment forms during the meeting. The results of the comment questionnaire are provided on the following table. Since the survey was not completely filled out by all respondents, the responses did not match the total number of comment forms received. However, the responses provided a reasonable indication of the level of support, or non-support, for the various concepts.

The team's overall interpretation of the Workshop #2 was one of an apparent level of citizen consensus on their desires for the future look and character of the North Causeway area. Based upon the comment forms, as well as direct discussions with citizens, the following observations were noted for each sub-area:

## North Causeway Area Study Responses to Open House #2 Topics and Design Concepts

Question or Concept Under Review	Yes or Like Answer		No or Dislike Answer	
	Prefer Moderate	% of Total	Prefer Stretch	% of Total
Question # 1 - Was Open House # 2 useful?	26	96%	1	4%
Question # 2 - Consultant on-track w/ desires?	19	86%	3	14%
Question # 3 - Causeway Roadway Concepts	14	64%	8	36%
Prefer Moderate or Stretch Approach?	4	27%	11	73%
Question # 3 - Single Family Neighborhoods Concepts	19	95%	1	5%
Prefer Moderate or Stretch Approach?	5	45%	6	55%
Question # 3 - High School Site Concepts	17	81%	4	19%
Prefer Moderate or Stretch Approach?	8	50%	8	50%
Question # 3 - Elks Club/Shopping Center Sites	21	95%	1	5%
Prefer Moderate or Stretch Approach?	7	54%	6	46%
Question # 3 - The Corridor Frontage Uses	17	81%	4	19%
Prefer Moderate or Stretch Approach?	6	40%	9	60%
Question # 3 - The WWTP and Boat Launch Areas	19	86%	3	14%
Prefer Moderate or Stretch Approach?	4	29%	10	71%
Question # 4 - Another Workshop Before Formal Meetings?	24	96%	1	4%

Source: Community Design Associates, Inc. (3/19/04)

The Causeway Roadway - There was support for the idea of medians, curb and gutter treatments and upgrades to landscaping and lighting. There was a misunderstanding that the team was proposing a four-lane divided boulevard along the Causeway that would feed into a two-lane drawbridge. This was not the case. The development of a parking system along certain segments of the frontage road system also was supported, but not in a way that would preclude the opportunity for people to access the Causeway without the protection of a signal.

A large scale traffic circle at Barracuda Boulevard was unacceptable for several reasons: upstream, bridge related traffic spikes; perceived difficulty in navigation for vehicles with boat trailers, residual reaction to the recently constructed circles along South Atlantic and a level of discomfort with circles in general. The team's decision was refine the on-street parking concept, recognizing the stated concerns and the fact that any roadway improvements must be subject to drainage studies and the cooperation of FDOT. The arrival sequence at Riverside Drive and the coordination/impact of any such improvement with Washington Street to the west also is important.

The Single-Family Neighborhoods - The concept of neighborhood identification and "dressing-up" of the primary entries was supported, as was limited improvements to pedestrian circulation, lighting, etc. More aggressive improvements such as the burial of overhead power lines did not appear to be a highly desired item. Improvement to the Barracuda Boulevard bridge was mentioned on more than one occasion and may be linked to redevelopment of the high school site.

The High School Site - Both concepts for the HS site appeared to be acceptable. The concepts of very limited neighborhood business uses, as well as residential buildings slightly higher than four stories (provided that they are well buffered within the property), appeared to be supported. In contrast, there were those

that still prefer to see single-family homes on the property. The idea of a focal neighborhood park near the Barracuda, Quay Assisi intersection also was well received.

The Elks Club/Shopping Center Sites - At the time of Open House #2, the status of these properties was already established through previous action of the Planning Board and Commission. However, the concept of low-rise liner buildings along the Causeway and Quay Assisi was viewed as a good approach to integrating the properties into the surrounding area.

The Corridor Frontage Uses - Participants favored low-rise (fewer than four stories) mixed-use buildings along the frontage. They were supportive of promoting a residential flavor and of strengthening building faces against the roadway edge. Key challenges will be to clearly understand the existing drainage issues, promoting the use of the rearage roads or alleys, and formalizing on-street parking to relatively narrow lots (particularly south of the Causeway and east of Barracuda). There could be a need to consider the purchase of one or more lots for a small, common parking lot or drainage area.

The Marina Crescent (WWTP and Boat Launch Ramp Areas) - Public uses such as a waterfront park, promenades and the Marine Discovery Center, as well as private uses such as marine dry storage, destination restaurants and/or a hotel site, were well received. A key is to maintain public exposure to the ICWW and a highly attractive architectural character to any new structures. Also notable was the respondents' clear preference for the stretch approach to the WWTP.

In summary, Open House #2 provided sufficient information and community input to carry forward certain concept refinements and the project documentation. There also was a continued high level of community interest in the implementation of the concepts. Workshop participants were receptive to the design proposals and ready to absorb the more technical elements. Survey respondents also agreed it would be useful to have another workshop prior to the completion.

## **SUMMARY OF FINDINGS AND GENERAL RECOMMENDATIONS**

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**New Smyrna Beach North Causeway Redevelopment Master Plan**

### The Causeway Roadway

- Drainage Study & System Maintenance and Upgrades
- Intersection Improvements @ Riverside, Quay Access, & Barracuda
- Management of Invasive Exotic Plants
- Planted Median
- Thematic Streetscape Improvement w/ Street

### High School Site

- Amend FLUM to High Density, Residential PLUD Zoning
- Multi-family @ 1.8 DU/s/acre with <5 KSF Neighborhood Business
- Four-story - 50' height maximum
- Master Open Space and Trail System, emphasize perimeter edges with public access
- Towers @ 400' SF - Max Height 70'
- Staggered Building Heights & Roof Lines, Finished Roofs, New Urbanist Design Principles
- Access improvements to Barracuda Boulevard bridge

### Potential Redevelopment Site

- Public edge/ access
- Residential with transitional building height

### Elks Club/ Cadle Property Site

- Amend FLUM to Mixed Use, MU Zoning, Development Agreement
- Six Story Height Maximum, Staggered Building Heights & Roof Lines, Finished Roofs, Liner Building(s) along Causeway Frontage;
- Integrate Causeway Drainage into On-site System
- Public access to waterfront

### Manna/Boat Ramp & Manne Discovery Center

- Amend FLUM designation for WWTP site to Commercial, CM Zoning (or BPUD),
- Promote Marine/Tourist Related Public & Semi-Public Uses
- Discourage "privatization" of properties - Maintain public access
- Sale or Lease Public Lands for the "Right" Project
- Public Boardwalk System Along Waterfront; New Active Park on Part of WWTP Site;
- Extension of Barracuda Blvd South to ICNW
- Optional Change - Relocation of East Boat Launch Ramps, Addition of Another Active Semi-public use

### Other Frontage Uses

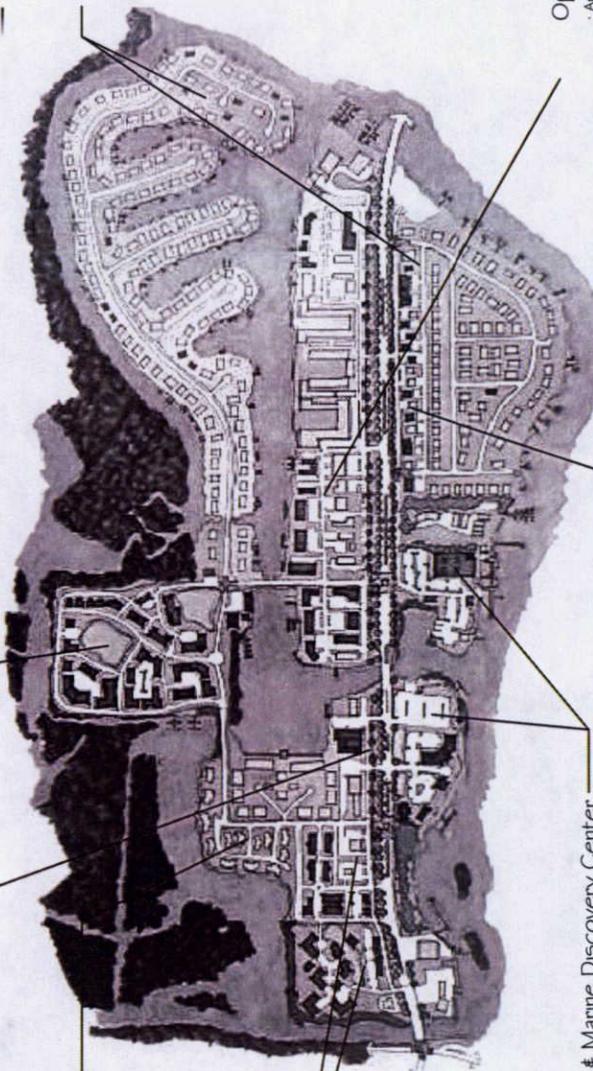
- No changes to FLUM; Zoning Modifications
- Promote Mixed Uses Along Frontage
- New Urbanist Design Precepts
- Side or Rear Parking; Three Story Height Maximum
- Detailed Drainage Analysis in conjunction with Causeway Roadway evaluation
- Integrated Pedestrian & Other Mode Path System
- Coordinated Street Furnishing and Wayfinding Signage System
- Allow Overflow Boat/Trailer Parking as On-Street Parking

### Single Family Neighborhoods

- No FLUM change
- Add Entry Features, Partial Curb and Gutter @ entries
- New or Improved Sidewalk on Primary Route(s)
- Upgraded Street Lighting, Textured Pavement Treatments
- Management of Invasive Exotic Plants

### Optional Change to FLUM

- Amend to High Density Residential for lots north of Middle Way



## New Smyrna Beach North Causeway Redevelopment Master Plan (with annotations)

City of New Smyrna Beach, Florida

Based largely on the input received from Open House #2, and follow-up meetings and research conducted by the team, the final concepts and supporting detailed changes to the City's regulatory processes could be prepared. As noted, the basis for the overall development program was based on the following key findings:

1. Residential development market for upscale single and multi-family uses is hot
2. Commercial Fishing industry has been supplanted by recreational boating and fishing
3. Rooftop count is too low to support any substantial increase in most business uses
4. SR 44 is the dominant retail corridor
5. Causeway redevelopment can complement Flagler and Canal initiatives
6. Specialty businesses can take advantage of waterfront and infill locations

These findings gave rise to the following general recommendations:

1. Develop a stronger sense of place and identity by increasing population, taking advantage of waterfront assets and applying appropriate urban design strategies and techniques
2. Promote high quality residential redevelopment and infill to improve consumer and tax base
3. Provide for the future ability to capitalize on currently tax-exempt properties – with caution!
4. Follow "New Urbanism" design principles and complementary capital improvements

## **Focal Area Recommendations**

Taking the previous points into consideration, the general program was converted into the series of recommendations for each of the focal areas as follows:

### **The High School Site**

The preliminary concepts for the property would be followed, with more specific comments and recommendations as noted.

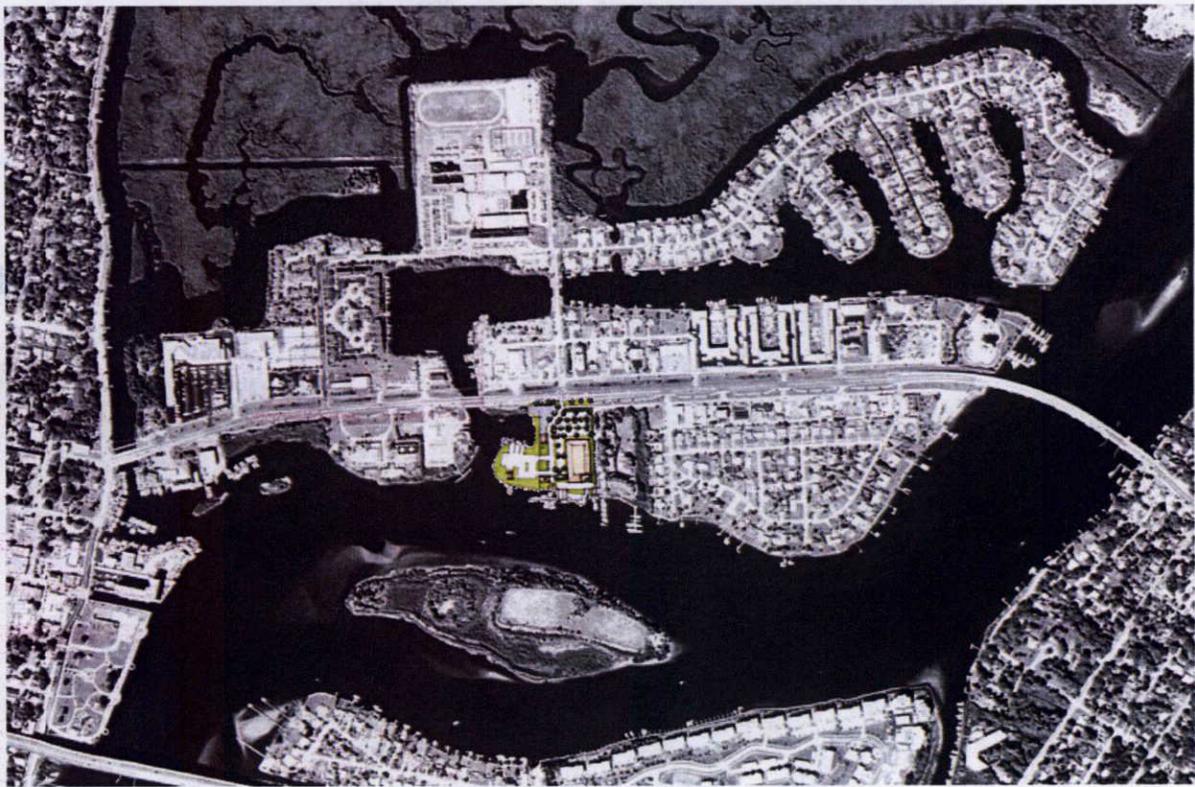
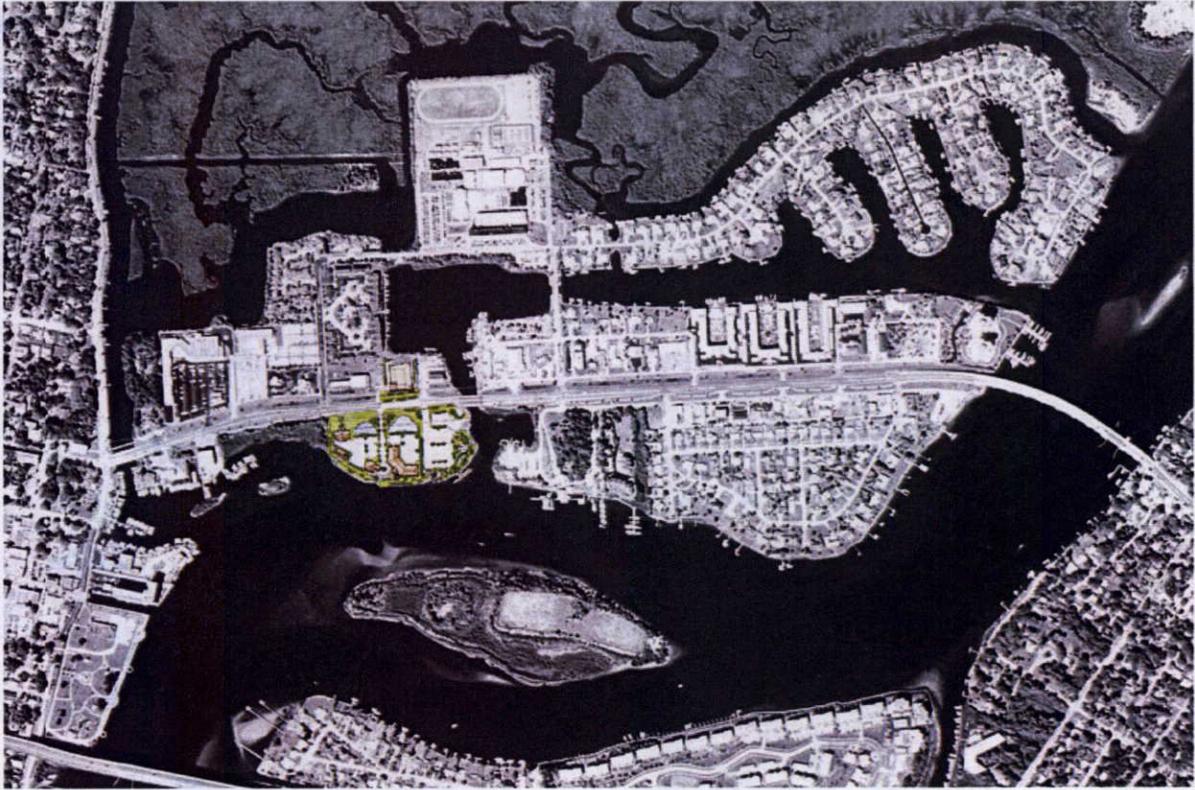
1. Amend the City's Future Land Use Map to Urban High Density
2. Require any future developer to seek development approval through PUD Zoning,
3. General development program would be for multi-family residential at a maximum density of 18 DU's/Acre; non-residential use would be ancillary and limited to 5,000 square feet of neighborhood, marine or eco-tourism oriented businesses,
4. The final allocation of density, intensity and design parameters would be subject to a development agreement that also defines the related developer contributions to the City
5. New urbanist design principles would be followed, to include: staggered building heights & roof lines, finished roofs, articulated building edges and detailing, and on-street parking where appropriate
6. Building height would be capped at 4 stories and a 55' maximum height; this height could be slightly modified subject to specific proposals that detail need and on-site building location
7. Buildings on the southern and eastern edges would be 3 stories or less to relate to the Quay Assisi neighborhood

8. Towers or other vertical, iconic design features could be allowed, such features could be freestanding or integrated into the building architecture; the maximum area of any such tower would be 400 square feet, with a maximum height of 70 feet
9. Redevelopment of the site would require a public accessible, master open space and trail system that emphasized the site's perimeter edges
10. A neighborhood oriented park, preferably with a waterfront focus, would be a desirable site element to integrate the property with surrounding residential
11. Improvements to the Barracuda Boulevard and Quay Assisi access routes, including modifications to existing bridge and culvert systems, would be highly encouraged to improve boat access, tidal flow and residential identity

## The Marina Crescent

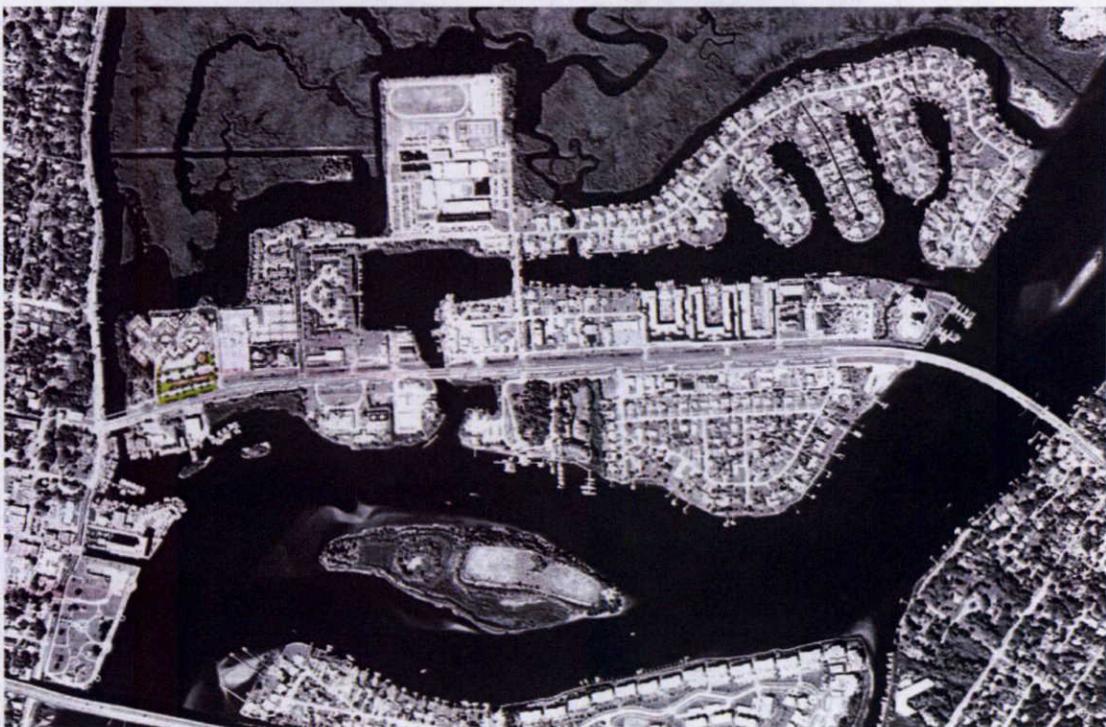
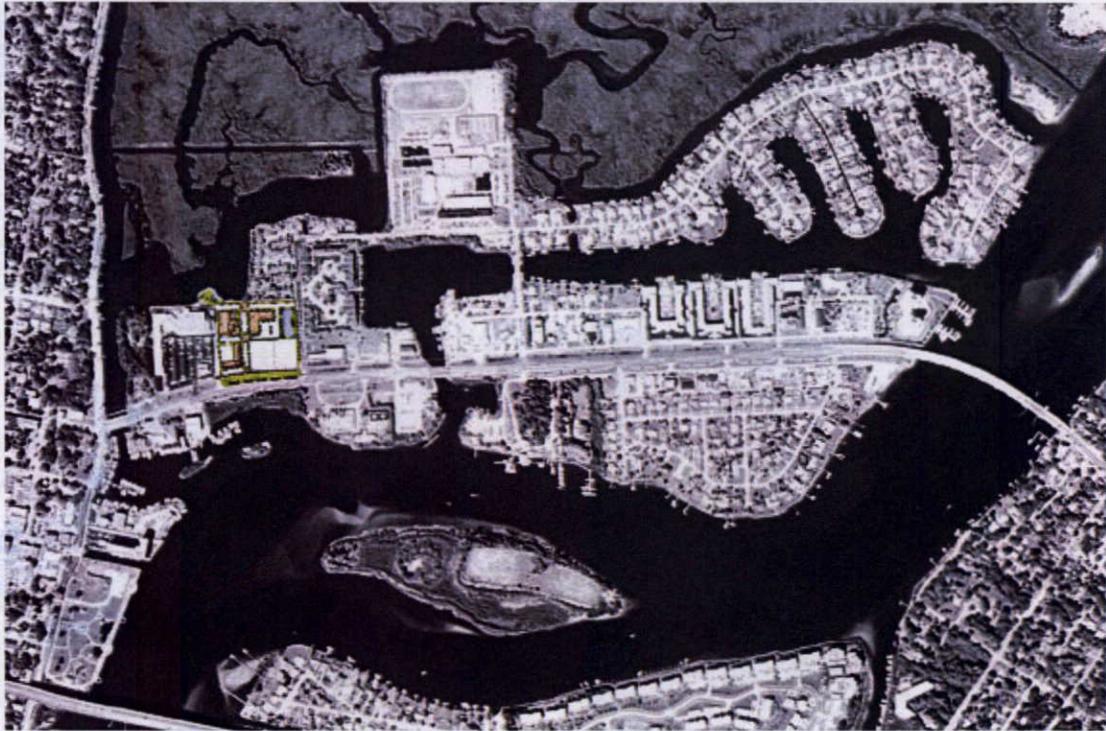
The preliminary concepts would be followed, with additional specific comments as noted:

1. Amend the City's Future Land Use Map for the WWTP site to Urban Commercial; balance of properties in focal area retain current future land use designation
2. Development approvals would occur through CM or PUD zoning mechanisms
3. General development program for the former WWTP would be for marine/tourist related public or semi-public uses such as a restaurant or hotel
4. Marine dry storage, restaurants or related ancillary commercial uses allowed on other properties not currently publicly owned
5. Uses that privatize the waterfront area, such as condominiums are very strongly discouraged
6. The sale of any publicly owned land also is strongly discouraged; lease agreement(s) are preferable
7. Development of an integrated public boardwalk system along waterfront should occur wherever possible; this upland or over-water system should be sufficiently wide to accommodate heavy pedestrian and periodic special event use
8. An active park or play area should be a part of the combined WWTP/boat ramp property; this area should be integrated with the mix of other uses on the balance of the property, and should invite the public to extended time spent enjoying the waterfront area
9. Barracuda Blvd should be more formally extended south to the ICWW and should become a key visual and pedestrian conduit to the waterfront
10. The set aside of large surface lots for boat trailer parking should be discouraged in favor of multi-use structured parking, dry-storage facilities, designated on-street parking along the Causeway frontage roads, or new facilities located elsewhere in the City
11. Trailer parking fees should be considered as a means to manage ramp demand, to offset maintenance costs and to assist in funding other public waterfront amenities in the area
12. In order to maintain existing boat trailer parking facilities, the redevelopment of the East boat launch ramp area is not recommended at this time. However, the removal of exotic vegetation, the selective pruning of emergent shoreline vegetation (subject to permitting), improved pedestrian access and general aesthetic improvements to the existing use are desirable actions. With sufficient coordination between existing and future users of the site, as well as consistency with the overall public/semi-public design concepts for this area, more ambitious future redevelopment proposals may be considered on a case-specific basis.



## The Elks Club/Cadle Property

As noted in discussion concerning the preliminary concepts, the principal land use, building height and design elements for these properties were established during the course of this study.



These elements should be followed, and attention also should be directed to these items that were well received during the open house meetings:

1. Lower story liner building(s) along the Causeway and Quay Assisi roadway frontage,
2. The use of street walls, buildings and other buffering mechanisms to shield parking areas from the street edge,
3. Creative building siting and architectural detailing to eliminate the wall effect or institutional style setting that has characterized other multi-family developments in the greater area
4. The ability to integrate the Causeway drainage system into the on-site system should be considered, particularly to the extent that it can build efficiencies into the area utilized for storm water as well as the level of facility maintenance. Ideally, the reliance of common storm water systems on this and other larger redeveloping properties elsewhere along the corridor should allow for a reduction in the right-of-way width, or the ability to utilize portions of the right-of-way for required parking and decreased building setbacks

### The Single Family Residential Neighborhoods

The single-family neighborhoods are well established and nearing build-out. Thus, the extent of redevelopment will be continued miscellaneous home improvements punctuated by more substantial “take-downs” of existing structures on key parcels. Based upon the results of Open House #2, the participants preferred to support the moderate approach set of improvements to these locales, including:

1. Generally no change to future land use map designations; however, one recommended change that appeared to be supported was the change to High Density Residential for a handful of lots east of Barracuda Boulevard and north of Middle Way. These lots are effectively divorced from the balance of the single-family areas and are otherwise surrounded by multi-family and non-residential land uses.
2. Added entry features, including signage, lighting, textured pavement and landscaping treatments
3. Pedestrian improvements on main access routes, to include sidewalks and upgraded street lighting,
4. A program to eliminate invasive exotic plants such as melaleuca, Australian pine and Brazilian pepper trees should be promoted in the neighborhoods

### The Other Frontage Uses

Since the highway frontage uses are located intermittently along the corridor, in several different land use and zoning categories, it is difficult to generalize the changes. However, the general recommendations are as follows:

1. No changes to the City's Future Land Use Map
2. Zoning modifications are necessary to several zoning categories. In order to eliminate the potential for problems elsewhere in the City, the recommended approach to these changes is to establish a special zoning overlay for the Causeway. Thus, the “B-2” zoning district would be appended to include several modifications that are specifically limited to those B-2 properties located on the island.
3. Non-residential uses may be allowed anywhere they are presented allowed along the Causeway frontage; residential uses may be allowed anywhere along the frontage, except for those frontage parcels located along the Marina Crescent (with minor deviation as noted in earlier section)
4. New urbanist design principles shall be followed, and shall include side, rear or on-street parking; three- story building height with upward adjustment in maximum height to 44 feet

5. A detailed drainage analysis of bordering properties should occur in conjunction with any evaluation of the Causeway roadway system; the known, isolated drainage problem areas should be evaluated regardless of any other study
6. An integrated pedestrian pathway system should be developed in conjunction with the redevelopment of area properties; this pathways system should allow for an unblemished connection from the street side paths, or other trunk pathways, to the main entrance of the building.
7. The character of frontage roadways should be modified for more pedestrian-oriented facilities, with the provision of on-street parking where feasible; and wider (8') sidewalks where it is reasonably anticipated that pedestrian uses may increase (lots east of Barracuda Boulevard and west of Quay Assisi). For those locations with narrow lots (less than 150 feet wide), it is probable that the most efficient on-street parking design would be to locate on-street parking on the street edge closest to the Causeway mainline. Otherwise, the preponderance of driveways will substantially limit the amount of on-street parking that can be provided.
8. Consistent with the two previous points a coordinated street furnishing and wayfinding signage system should be linked to any such system that is devised for the Causeway mainline facility.
9. To the extent that on-street parking can be developed on portions of the frontage road system, then consideration should be given to allow boat trailer parking on a periodic basis. This is a potentially complex undertaking and would require detailed evaluation of the extent to which it would harm the occupants or users of adjacent business or residential uses. Further, the mechanics of the allowing boat trailers to effectively occupy two or more spaces would have to be considered (perhaps involving a decal system, etc.)

### The Causeway Roadway

The stretch concept to overhaul the look of the Causeway was supported by the participants in Open House #2. The one item that was not supported was the idea of converting the Barracuda Boulevard intersection to a large diameter traffic circle. Open house participants were not comfortable with the loss of protected (signalized) access to the mainline, and were concerned about the operating problems that could arise with boat trailers and large platoons of traffic after bridge openings.

The key to any change to the roadway will be to first understand the potential to make any changes to the drainage system. In addition, the fact that the roadway is under the jurisdiction of the Florida Department of Transportation will require extensive coordination with the Department. In particular, it was notable that, while the participants could support the increased cost of maintaining upgrade landscaping and such, there was little support for an re-assignment of the roadway's jurisdiction from the state to the City.

## Development Program Impacts and Revenue Implications

Based on the guidance received from the Open House participants, as well as other meetings with key stakeholders, the team developed an estimate of the potential development program that could emerge in the study area. This program is based upon the development of a handful of properties that remain vacant, as well as the potential redevelopment of those larger sites or focal areas that were specifically targeted in the study. Also note that the program is additive. That is, the majority of existing developed uses would either remain or would be redeveloped in a manner (in terms of yield) that is similar to the existing. With some qualification, the following items thus represent “new” development that could both benefit and impact the future of the study area:

1. Single Family Residential (odd lot infill)	10 units
2. Multi-family Residential (Elks Club/Cadle, High School, Corridor frontage & misc.)	657 units
3. Hotel/Motel Use (WWTP, other miscellaneous sites)	120 units
4. High Quality/Destination Restaurants (Marina Crescent, other miscellaneous sites)	3 sites
5. Local/Specialty Business (odd lot infill, High School, Corridor Frontage & misc.)	30,000 SF
6. Professional Office (odd lot infill, High School, Corridor Frontage & misc.)	9,000 SF
7. Marine Related – Wet or Dry Slips (Marina Crescent, other miscellaneous sites)	120 Slips

### Traffic Considerations

For all practical purposes, the existing three lane undivided Causeway is fully developed in terms of its design and operating capacity. The bridge over the ICWW has been recently reconstructed as a two-lane facility, and the widening of the Causeway west of Riverside Drive would have significant right-of-way impacts to adjacent properties. For this reason, it is important understand the potential traffic implications of the proposed development program on average daily traffic conditions.

Based on FDOT level of service standards, the average daily roadway capacity for a roadway such as the North Causeway at level of service “D” is approximately 18,400 vehicles per day. While this figure may be adjusted somewhat due site specific circumstances, such as intersection geometry, the frontage roads and intersection operating characteristics, such adjustments are beyond the scope of this report.

Given the LOS “D” service volume of the roadway, the following data and assumptions for additional development can be summarized:

1. 2002 Average Annual Daily Volume	11,100
2. Subtract High School Site Trips @ 3,500 VPD	7,600
	a. (per June 2002 Traffic Impact Study)
3. Add Additional Development/Redevelopment	8,200
	a. (Assumes 29% Retail Capture & Internal Trips)
	b. (Assumes 70% Distribution to West)
4. Projected Average Annual Daily Volume	15,800

While the traffic analysis is relatively cursory, the assumptions to weight the traffic significantly to the west offer a conservative view of the worst-case traffic scenario under average daily conditions. It also must be noted that the existing shopping center on the Cadle property could generate substantial traffic growth merely through revamped tenant occupancy. Added to the 2002 observed volume, the theoretical “existing” volume could easily exceed 15,000 vehicles per day. Thus, in light of the proposed development

program, and in particular the redevelopment of the High School site, the anticipated net impact of the development program will be as follows:

1. A nominal increase in average daily traffic,
2. Substantially less morning peak hour traffic,
3. No short-term spike in mid-afternoon volume, and
4. A manageable increase in afternoon peak hour volume
5. The ability to accommodate other background traffic growth
6. No exceedance of the adopted level of service

### Ad-Valorum Tax Considerations

Working from the proposed development program and the existing tax structure of the various taxing entities, projections of total tax valuations and revenues were developed. These projections were based on relatively conservative assumptions with respect to potential valuations, and did not include any inflation in assessed property value or modifications to the 2003 millage rates. Thus, if all of the redevelopment were to occur immediately, the figures would present a reasonable estimate of the near term value and revenue stream that could accrue to the City and/or other taxing entities.

Since the majority of the Causeway business and frontage uses are included in the City's Community Redevelopment Area, the vast majority of additional revenues would accrue to the redevelopment trust fund of the CRA. However, the single largest new contributor to the tax roll, the converted High School site, is not located in the CRA. In this case, the City's benefit would accrue to the general revenue fund at the local millage rate (assessed at 5.1 mills for the purpose of this report); the balance of new revenues would accrue to the remaining taxing entities.

The site-specific assumptions associated with the tax analysis are included in the report Appendix. The summary of this analysis is presented as follows:

1. Total market value of redevelopment program	\$155 million
2. Total assessed Value of Redevelopment program	\$138 million
3. Total ad valorum revenue when completed (includes all taxing entities) annually	\$3.60 million
4. Net new ad valorum revenue when completed (discounts existing roll) annually	\$3.34 million
5. Net new ad valorum to City (includes only City share on HS site) annually	\$1.81 million

Note that the above figures are ad valorum revenue only, and do not include impact fees, local taxes or utility fees, or any other consumptive spending multipliers that could be associated with the overall redevelopment program. Given the potential spending power associated with an increase of almost 700 moderate- to higher-income residential units, it is safe to say that the total additional revenue stream that would accrue to the City and to City businesses would be substantial.

### Community Cost to Absorb & Service

The additional development that could occur with achievement of the development program would require the support of City services. For the most part, the primary costs that would not otherwise be covered through impact fees, developer initiated fees or other direct assessment would be for the expanded

operation of the City's public safety departments – police and fire. In this respect, previous studies of the City's annual budget and impact fees have resulted in the identification of "unit costs" that may be associated with the addition of a new residence or additional business floor area. Applied to the proposed Causeway development program, these unit costs yielded the following:

1. Public Safety Capital Costs	\$92,000
2. Operations and Maintenance	\$550,000
3. Total	\$642,000

The comparison of costs to absorb the additional service needs indicates a net/net benefit, in terms of current figures, that is approaching 1.2 million dollars annually. With the capital costs considered to be a "one-time" expenditure, the net/net benefit is almost 1.3 million dollars. Given the conservative nature of the analysis, as well as the absence of other revenues that could be associated with the proposed uses, it is clear that the proposed development program could pose a significant economic benefit to the City of New Smyrna Beach.

## Open House #3

The third and final open house was held on Wednesday, October 3, 2004. This was a lengthy intervening period since Open House #2, and was due in large part to a series of extraordinary events that had plagued Florida since mid-summer. Over a six-week period, the City and the balance of east central Florida was hit by three hurricanes – Charley, Frances and Jeanne. While the extent and variety of damage was varied from each, the City was in general fortunate to receive relatively modest amounts of structural damage. The principal impact to the City was in the beach area, due to extensive coastal erosion, and a large scale clean up of vegetative debris that was littered throughout the region. In one respect, the impact of the hurricanes resulted in a widespread recognition of the immediacy of change that can occur and perhaps provided a broader realization that redevelopment visions and efforts could produce tangible change.

This meeting availed the attendees with the design concepts that were selected for each of the focal study areas, the resulting overall development program and impact/benefit analysis, and the recommendations for



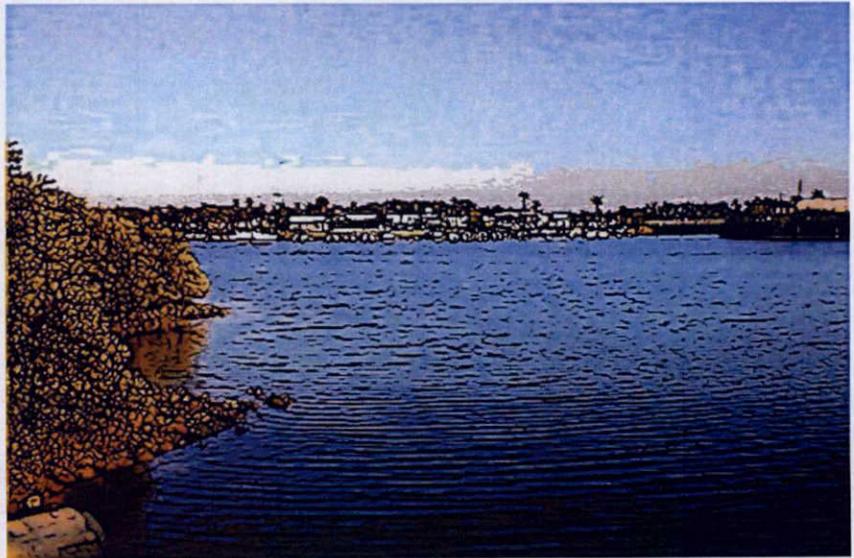
modifications to the City's adopted future land use map, zoning districts and redevelopment plan. The presentation ended with a discussion of potential capital improvement projects for the area, a discussion of the potential funding mechanisms or strategies that could support their implementation, and recognition that several additional steps and meetings would be necessary on individual implementation activities.

As noted, the previous Open House #2 provided the public with the opportunity to review the overall redevelopment premise and design vignettes that had been prepared for the various sub-areas within the study

area. While there was relatively little difference in the moderate versus stretch development scenarios for each area, the attendees of the previous Open House provided the input necessary to move towards the stretch development concepts. Given this circumstance, the main objectives of Open House #3 were to reaffirm the previous input, and to summarize the proposals in terms of overall development program, costs & benefits, and recommended changes to the City's various planning and regulatory documents. The final recommendations contained in the balance of this report are those that were presented, in summary form, at Open House #3.

Due to the now relatively lengthy period of the North Causeway Area Study, it also was interesting to note some of the changes that were continuing to occur in the study area. The City's WWTP site had now been fully demolished and had "opened up" the views to the Intracoastal Waterway that had been hidden in the early stage of the study. New property owners had emerged for the old Elks Club/Cadle shopping center property. The new owners' site evaluation was leading to a partial reconsideration of the design elements previously recognized for the property (particularly the Cadle shopping center site, since it was subject to a Commission approved developer agreement). The high school site was now subject to active solicitations by the Volusia County School Board for a pending sale. The net result of these ongoing activities, as well as the conduct of the study, was that Open House #3 was clearly a satisfactory resolution to the public input process.

## LAND USE AND DEVELOPMENT REGULATION MODIFICATIONS



The implementation of the North Causeway Study recommendations will entail a host of future actions by the City, other state and local agencies and the private sector. In general, these actions will include regulatory modifications, programming decisions, interagency coordination and negotiations with the development community. With respect to the City's current set of regulations, those that will require changes include the City's Comprehensive Plan, the Community Redevelopment Plan and the Land Development Regulations.

Comprehensive Plan Amendments – the findings of this study are generally consistent with the City's adopted Comprehensive Plan. That is, the land uses that are envisioned are recognized in the Plan, and the various planning philosophies of this study are those that are promoted in the Plan. In particular, almost all of the future land uses already designated for the area would remain as-is, and the nominal increase in residential units can be accommodated within the existing parameters of the Plan. Given this circumstance, this study recognizes at least three locations (four properties) where amendments to the Future Land Use Map would be necessary. These include:

1. *An amendment to the High School site – from community facility to High Density Residential future land use – in order to accommodate virtually any use beyond the existing school or single family residential*
2. *An amendment to WWTP site – from Community Facility to Commercial future land use – in order to accommodate a use such as a restaurant or hotel*
3. *An amendment to the Elks Club/Cadle properties – from Commercial to Mixed Use future land use – in order to accommodate mixed uses including multi-family residential*

Community Redevelopment Plan – The City's Community Redevelopment Plan covers a significant portion of the study area – generally both sides of the Causeway roadway and frontage uses, as well as almost all of the properties to the south of the Causeway. At this time, there are no changes proposed to the existing boundary of the Community Redevelopment Area in the study area. However, several changes will be necessary to the City's Redevelopment Plan to effectively respond to this study. Such changes include:

1. *Possible text, tabular and map modifications to recognize the study strategies for those CRA properties located in the CRA,*
2. *Amendments to the tax increment finance (TIF) projections to account for either the altered use or yield associated with study properties located in the CRA*
3. *Possible modifications to the CRA related capital improvements program, particularly to the extent that CRA redevelopment trust fund monies may be used as a funding source for selected projects identified through this study*
4. *Modifications to the Corridor Development Guidelines identified in the Redevelopment Plan. Such changes would more than likely extend beyond the signage and tree guidelines that are currently in the document, and could entail a comprehensive rewrite designed to effectuate the physical placement and look of properties consistent with the new urbanist design principles identified herein. In this respect, the guidelines also could be modified beyond the general standards in this document to provide a more comprehensive and definitive picture of the desired end-product.*

Land Development Code – one of the principal mechanisms to implement the recommendations of this study will be potential modifications to site specific development standards contained in the City's zoning regulations. In general, the zoning classifications found in the North Causeway Study Area also are dispersed throughout the remainder of the City. Recognizing that the existing requirements may still be valid for other areas, the choice was to either develop an entirely new series of zoning districts, or to establish slight modifications to the existing districts that would be applicable only to the North Causeway properties. This "zoning overlay district" is recommended as an element of this study. Recommended changes to the individual categories are generally oriented to building height and setback requirements and are detailed as follows:

## B-2 Zoning District

1. Allow maximum building stories to three and increase allowable building height to 44 feet; this increase promotes upstairs residential, allows for more contemporary interior room heights and for pitched, finished roof treatments
2. Reduce minimum and maximum front yard setback to 5 and 10 feet, respectively. On a case specific basis, the first 5 feet could be set aside as an easement used for expanded sidewalks and/or landscaping, while the second 5 feet also could be used for outdoor patios and/or building overhangs. In certain cases where the existing sidewalk width is considered sufficient, the entire 10 feet width could be used for outdoor patios and dining
3. Reduce minimum side yard setbacks to 7.5 feet. In selected cases where written permission is granted by both parties and is approved by the City's public safety officials, this setback could be further reduced. The purpose of the change is to increase the building presence across the forward face of the lot, and to provide flexibility in parking and circulation schemes on narrow lots.
4. Increase minimum rear yard setback to 25 feet. Taken in combination with the previous two changes, this forces building forward on the lot and encourages side or rear parking conventions
5. Require sloped and finished roofs w/o rooftop appurtenances (max 6:12 pitch)
6. Establish a minimum requirement that a building must extend minimum 50% across front face of the lot
7. All parking shall be located to the side or rear of a lot

## B-6A Zoning District

1. Allow multi-family residential uses at High Density Residential (18 DU's/ac)
2. Allow maximum building stories to three and increase allowable building height to 44 feet; this increase allows for more contemporary interior room heights and for pitched, finished roof treatments
3. Reduce minimum and maximum front yard setback to 5 and 10 feet, respectively. On a case specific basis, the first 5 feet could be set aside as an easement used for expanded sidewalks and/or landscaping, while the second 5 feet also could be used for outdoor patios and/or building overhangs. In certain cases where the existing sidewalk width is considered sufficient, the entire 10 feet width could be used for outdoor patios.
4. Reduce minimum side yard setbacks to 7.5 feet. In selected cases where written permission is granted by both parties and is approved by the City's public safety officials, this setback could be further reduced. The purpose of the change is to increase the building presence across the forward face of the lot, and to provide flexibility in parking and circulation schemes on narrow lots.
5. Increase minimum rear yard setback to 25 feet. Taken in combination with the previous two changes, this forces building forward on the lot and encourages side or rear parking conventions
6. Require sloped and finished roofs w/o rooftop appurtenances (max 6:12 pitch)
7. Establish a minimum requirement that a building must extend minimum 50% across front face of the lot
8. All parking shall be located to the side or rear of a lot
9. Increase the maximum allowable impervious area to 75% (Now 70%)

## R-4 Zoning District

1. Maintain maximum building stories to four, but increase allowable building height to 55 feet; this increase allows for more contemporary interior room heights and for pitched, finished roof treatments
2. Reduce minimum and maximum front yard setbacks to 5 and 10 feet, respectively. On a case specific basis, the first 5 feet could be set aside as an easement used for expanded sidewalks and/or landscaping, while the second 5 feet also could be used for outdoor patios and/or building overhangs.
3. Reduce minimum side yard setbacks to 7.5 feet. The purpose of the change is to increase the building presence across the forward face of the lot, and to provide flexibility in parking and circulation schemes on narrow lots.
4. Increase minimum rear yard setback to 25 feet. Taken in combination with the previous two changes, this forces buildings forward on the lot and encourages side or rear parking conventions
5. Require sloped and finished roofs w/o rooftop appurtenances (max 6:12 pitch)
6. Establish a minimum requirement that a building must extend minimum 50% across front face of the lot
7. On a case specific basis, allow for the retrofitting of existing buildings to allow for entries, additions or other liner buildings to be located in the existing front yard and forward of the previous minimum setback. This would allow for certain redevelopment options to carry forward the design principles of the study

## R-5 Zoning District

1. Reduce minimum and maximum front yard setbacks to 5 and 10 feet, respectively. On a case specific basis, the first 5 feet could be set aside as an easement used for expanded sidewalks and/or landscaping, while the second 5 feet also could be used for outdoor patios and/or building overhangs.
2. Reduce minimum side yard setbacks to 7.5 feet. The purpose of the change is to increase the building presence across the forward face of the lot, and to provide flexibility in parking and circulation schemes on narrow lots.
3. Increase minimum rear yard setback to 25 feet. Taken in combination with the previous two changes, this forces buildings forward on the lot and encourages side or rear parking conventions
4. Require sloped and finished roofs w/o rooftop appurtenances for any building four stories or less (max 6:12 pitch)
5. Establish a minimum requirement that a building must extend minimum 50% across front face of the lot
6. On a case specific basis, allow for the retrofitting of existing buildings to allow for entries, additions or other liner buildings to be located in the existing front yard and forward of the previous minimum setback. This would allow for certain redevelopment options to carry forward the design principles of the study

## CM Zoning District

1. Allow hotel as a special exception use (40 rooms/acre density for hotel rooms per Activity Center analysis)
2. Reduce minimum front yard setback to 10 feet
3. Reduce minimum side yard setbacks to 15 feet to promote flexibility in site design and parking circulation
4. Establish a minimum thirty percent (30%) minimum clear sight requirement between shoreline and nearest parallel street edge
5. Increase maximum building height to 4 stories or 55 feet, provided that any increase beyond the existing 3 story, 45 foot maximum is predicated upon appropriate architectural detailing and highly finished roof treatments. Parapet roofs are generally discouraged on any structures over 45 feet in height, but may be allowed on a case-specific basis

The recommended zoning code changes are sufficient to set in place some of the basic design parameters that are consistent with this study. However, other deliberate design approaches will have to yield to design guidelines or other regulatory mechanisms in order to be properly implemented. For the larger or high profile properties in the study area, the PUD zoning process, and associated developer agreements, are the recommended tool to best achieve the desired look and character of new development in keeping with the concepts outlined in this report.

## Capital Improvements

Along with the recommended ideas and design concepts for private properties, there are a variety of activities that should or could be undertaken to improve the overall character and function of the North Causeway study area. Such improvements would typically fall in the public domain, but in many cases can and should be funded by those properties that directly benefit from the improvement. The following Table summarizes the major elements of this study in terms of assigning a potential capital improvement program. The summary discussion of each is presented as follows:

1. Causeway intersection improvements would provide for the sense of arrival and intermittent thematic connection that is presently lacking along the corridor. These improvements could be done individually as funds permit, as a combined package, or as an element of a comprehensive overhaul of the entire roadway. The cost figures are based on the isolated approach to each location, with the expectation that prices could decrease based on economies of scale in the design and construction process. Federal enhancement or other discretionary funds could be sought from FDOT for all or a portion of these improvements.
2. The Causeway roadway improvement is the single largest capital improvement that could be undertaken in the corridor. A comprehensive retrofit of the facility to add medians, curbing and extensive landscaping could, in and of itself, dramatically alter the character of the entire study area. If the entire package of construction and enhancement modifications were designed and undertaken as a single package, it is likely that the total cost for the project would be less than that offered as a ballpark opinion. In addition, it is possible that segments or elements of the project could be undertaken as phases of a larger approach, or as related elements to one or more larger private sector projects that may occur on adjacent properties. Prior to any potential improvement of the corridor, it will very likely be necessary to clearly evaluate the ability for the facility's drainage system to be modified. Earlier sections of this report noted the periodic drainage problems that occur in intermittent locations along the corridor – particularly along the south frontage roadway in the vicinity of Desoto Drive. With no detailed engineering information currently available, it is premature to judge the possibility to alter the existing mainline or frontage road design with any strong degree of certainty.

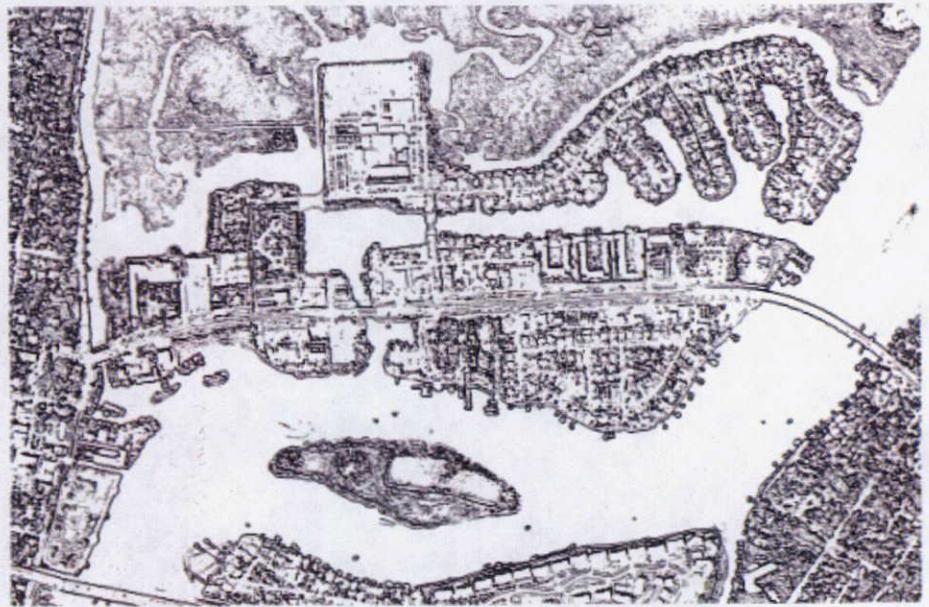
## Capital Improvements Recommendations

Location and Type of Improvements	Improvement Elements & Site Specific Comments	Prelim Opinion of Cost	Prelim Opinion of Cost
<b>Causeway Intersection Improvements @ Riverside Drive, Quay Assisi &amp; Barracuda Blvd</b>	<b>Mast Arm Signals, Textured Pavements, Entryway/Directional Signage, Landscaping</b>		<b>\$ 1,300,000</b>
Riverside Drive	Underground Selected Powerlines	\$ 750,000	
Quay Assisi	No signal	\$ 150,000	
Barracuda Boulevard	Includes Signal Modifications	\$ 400,000	
<b>Causeway Roadway Improvements</b>	<b>Along Entire Length of Corridor</b>		<b>\$ 6,225,000</b>
Drainage Study (Master Study and Engineering as a single, combined project)	Necessary to support any significant roadway changes to impervious surfaces	\$ 75,000	
Elimination/Maintenance of Exotics	May require permission/easements from adjacent property owners	\$ 100,000	
Planted Median	Includes textured pavement & curbing	\$ 1,800,000	
Miscellaneous Lighting, Signage & Furnishings	Locate @ key intervals, may be integrated @ individual development locales	\$ 750,000	
Curb & Gutter, Revamped Swale & Service Road System	Dependent Upon Drainage Study Results	\$ 2,500,000	
Edge Plantings	Including Irrigation	\$ 1,000,000	
<b>High School Site</b>	<b>Recreation &amp; Access Improvements</b>		<b>\$ 2,450,000</b>
Neighborhood Park		\$ 800,000	
Barracuda/Quay Assisi Intersection Improvement		\$ 150,000	
Barracuda Boulevard Bridge & Approaches		\$ 1,500,000	
<b>Quay Assisi Neighborhood</b>	<b>Entry &amp; Pedestrian Access Improvements</b>		<b>\$ 296,000</b>
Entry Feature		\$ 50,000	
Sidewalk		\$ 96,000	
Pedestrian Lighting & Furnishings		\$ 150,000	
<b>South Neighborhood</b>	<b>Entry &amp; Pedestrian Access Improvements</b>		<b>\$ 212,000</b>
Entry Features @ Desoto Drive		\$ 100,000	
Sidewalk		\$ 32,000	
Pedestrian Lighting & Furnishings		\$ 80,000	
<b>Marina/Discovery Center Area</b>	<b>Recreation &amp; Access Improvements</b>		<b>\$ 3,380,000</b>
Elevated Riverwalk	Intermittent on land and over water; may require permission/easements from adjacent property owners	\$ 1,380,000	
Active Park w/ interactive water feature		\$ 2,000,000	
<b>Total for all Recommended Improvements</b>			<b>\$ 13,863,000</b>

Source: Community Design Associates

## APPENDIX

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Appendices available in hard copy only.